Attachment E

Creek Restoration

ESA Creek Restoration Plans 2021-04-20

LEGEND

- (E) TOP OF BANK
- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) CHANNEL STRUCTURE/OUTFALL
- (N) VEGETATED ROCK SLOPE PROTECTION
- (N) BANK RECONSTRUCTION (PERMITTED PREVIOUSLY, 2018)
- (N) BOULDER TOE PROTECTION
- Z1 (N) LAYBACK AND REVEGETATE
- Z2 (N) SELECTIVE GRADING AND REVEGETATE
- Z3 (N) REMOVE DEBRIS AND REVEGETATE
- Z4 (N) REMOVE INVASIVES AND REVEGETATE
- Z5 FLOODPLAIN GRADING AND HABITAT PLANTING
- (N) MAJOR CONTOUR
- (N) MINOR CONTOUR
- (E) TREE
- (N) TREE ISLAND
- # R# DETAIL NUMBER SHEET NUMBER
- XS# R# CROSS SECTION NUMBER SHEET NUMBER

ZONE-SPECIFIC ACTION NOTES:

1. ZONE 1 - LAYBACK AND REVEGETATE: GRADING AND BANK STABILIZATION MEASURES INCLUDING SPECIFIC AREAS OF BANK RECONSTRUCTION TO ADDRESS OVERSTEEPENED AND ERODING BANKS. BANKS SHALL BE GRADED TO 2:1 TO 3:1 SLOPES TO ALLOW FOR INSTALLATION OF BIOTECHNICAL STABILIZATION STRUCTURES SUCH AS BRUSH MAT AND VEGETATED SOIL LIFTS (VSL) AS WELL AS REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING WILL CONFORM TO EXISTING GRADES TO PROTECT AND PRESERVE MATURE TREES WITHIN ZONE 1 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, EXCAVATION AND GRADING TO ESTABLISH STABLE SLOPE PROFILE, CONSTRUCTION OF BANK STABILIZATION STRUCTURES, EROSION CONTROL AND REVEGETATION.
2. ZONE 2 - SELECTIVE GRADING AND REVEGETATE: TARGETED GRADING IN SPECIFIED LOCATIONS TO REMOVE OVERBURDEN ON OVERSTEEPENED BANKS TO ALLOW FOR INSTALLATION OF TOE PROTECTION STRUCTURE AND REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 2 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, GRADING TO ESTABLISH STABLE SLOPE PROFILE, INSTALLATION OF TOE PROTECTION STRUCTURES, EROSION CONTROL AND REVEGETATION.
3. ZONE 3 - REMOVE INVASIVES AND REVEGETATE: LIMITED GRADING ON CREEK BANKS AND RIPARIAN AREAS WHERE REMOVAL OF INVASIVE PLANT SPECIES OCCURS. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 3 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING FOCUSED ON MANAGEMENT OF NON-NATIVE PLANT SPECIES, PREPARATION OF SOIL SURFACE, EROSION CONTROL AND REVEGETATION.
4. ZONE 4 - REMOVE DEBRIS AND REVEGETATE: MODERATE GRADING TO REMOVE A-HOC MATERIALS INCLUDING BUT NOT LIMITED TO CONCRETE RUBBLE, DAMAGED MASONRY WALLS, LANDSCAPING DEBRIS AND POST-FLOOD STOCKPILED SEDIMENT. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 4 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE EXCAVATION AND REMOVAL OF DEBRIS, CONFORM GRADING AND SURFACE PREPARATION IN DISTURBED AREAS, EROSION CONTROL AND REVEGETATION.
5. ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING: GRADING TO WIDEN CREEK CHANNEL, RESET CHANNEL GEOMETRY AND RECONNECT LOW FLOODPLAIN AREAS AT DISCRETE LOCATIONS WITHIN THE RIPARIAN CORRIDOR. GRADING WILL CONFORM TO EXISTING GRADES TO PROTECT AND PRESERVE MATURE TREES AS 'TREE ISLANDS' WITHIN ZONE 5 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE CLEARING AND GRUBBING, EXCAVATION AND GRADING TO ESTABLISH ANNUALLY CONNECTED FLOODPLAIN, AND TARGETED HABITAT PLANTINGS.

PRELIMINARY STRUCTURE SCHEDULE

BANK	STATION FR	STATION TO	ACTION	Zone #
LEFT	3+28	4+31	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	3+58	5+74	REMOVE INVASIVES AND REVEGETATE	3
LEFT	4+08	5+75	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	5+74	8+57	LAYBACK AND REVEGETATE	1
LEFT	5+75	8+62	LAYBACK AND REVEGETATE	1
BOTH	8+16	10+60	REMOVE DEBRIS AND REVEGETATE	4

PRELIMINARY CUT/FILL VOLUMES

LOCATION	TOTAL CUT	TOTAL FILL	NET CUT
LOWER CAMP	7,079 CY	196 CY	6,833 CY
MIDDLE CAMP	5,341 CY	37 CY	5,304 CY

GENERAL NOTES

1. GRADING AREAS, BANK AND CHANNEL STABILIZATION AND CREEK ENHANCEMENTS ARE BASED ON GEOMORPHIC ASSESSMENTS CONDUCTED BY ESA IN DECEMBER 2020. SEE THE ESA REPORT "GEOMORPHIC CONDITIONS UPDATE AND BASIS OF DESIGN FOR LITTLE SYCAMORE CREEK."
2. GRADING AREAS, BANK AND CHANNEL STABILIZATION AND CREEK ENHANCEMENTS TO BE REFINED IN SUBSEQUENT SUBMITTALS BASED ON ADDITIONAL ANALYSES AND IN COORDINATION WITH CIVIL AND SITE DESIGN ELEMENTS.
3. REMOVE ALL MASONRY, CONCRETE AND OTHER DELETERIOUS MATERIALS FROM CHANNEL AND BANKS.
4. FINAL DIMENSIONS AND EXTENTS OF CHANNEL AND BANK STABILIZATION STRUCTURES TO BE DETERMINED THROUGH SUBSEQUENT DESIGN PHASES.
5. ROCK SIZING FOR BOULDER STRUCTURES TO BE DETERMINED.
6. UTILIZE NATIVE BOULDERS AND ALLUVIUM SALVAGED FROM THE PROJECT SITE.
7. PLANT AND SEED LISTS FOR THE RIPARIAN CORRIDOR ARE PRELIMINARY. PLANTING SCHEDULES FOR SPECIFIC REVEGETATION ZONES WILL BE DEVELOPED BASED ON PROGRESSION OF GRADING AND ENHANCEMENT PLANS.
8. LIVE WILLOW AND MULEFAT STEMS TO BE HARVESTED FROM THE PROJECT SITE AND/OR LOCALLY APPROPRIATE SITES TO BE DETERMINED.
9. BANK RECONSTRUCTION AREAS (STATION 7+00 TO STATION 7+90 AND STATION 15+00 TO STATION 17+30) AND BOULDER GRADE CONTROL STRUCTURES (STATION 29+70 TO 31+70) PERMITTED PREVIOUSLY UNDER EMERGENCY RESPONSE PROJECT (2018, PL19-005); SHOWN FOR INFORMATIONAL PURPOSES ONLY.
10. CHANNEL GRADE CONTROL, BOULDER WEIR, BANK RECONSTRUCTION AND TOE PROTECTION STRUCTURES SHALL BE KEYED INTO PRE-FLOOD CHANNEL. REMOVE FLOOD-DEPOSITED SEDIMENTS TO EXPOSE PRE-FLOOD CHANNEL AND ADJUST SUBGRADE ELEVATIONS AND STRUCTURE DIMENSIONS BASED ON ACTUAL SITE CONDITIONS AND CHANNEL ELEVATIONS.
11. UNLESS DIRECTED OTHERWISE BY PROJECT BIOLOGIST, PROTECT AND PRESERVE ALL EXISTING TREES (INCLUDING EUCALYPTUS FOR MONARCH HABITAT) IN LITTLE SYCAMORE CREEK STABILIZATION AND ENHANCEMENT AREAS.
12. GRADING LIMITS FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES WILL BE REVIEWED AND ADJUSTED IN THE FIELD BY PROJECT ENGINEER PRIOR TO INITIATING GRADING AND EXCAVATION ACTIVITIES. GRADING LIMITS AT EXISTING TREES SHALL BE OFFSET A MINIMUM OF 5 FEET FROM TREE TRUNK.
13. IN ZONE 1 - LAYBACK AND REVEGETATE AND IN ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING, CONFORM GRADING TO CREATE TREE ISLANDS PER DETAIL 1 AND DETAIL 2, SHEET R13.
14. EXCAVATION FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES SHALL BE MONITORED BY A QUALIFIED ARCHAEOLOGIST. DEFER TO PROJECT APPROVALS FOR MONITORING REQUIREMENTS, E.G. CULTURAL/TRIBAL RESOURCES OR OTHER.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION GRADING PLAN – LOWER CAMP
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R1 OF R20

PLAN DATE 04/20/2021

DESIGN
CHECKED
42–END SAVE DATE: 3/3/2022 6:56:47 PM PLOT BY:Amber Ingo PLOT DATE:3/3/2022 7:10:54 PM

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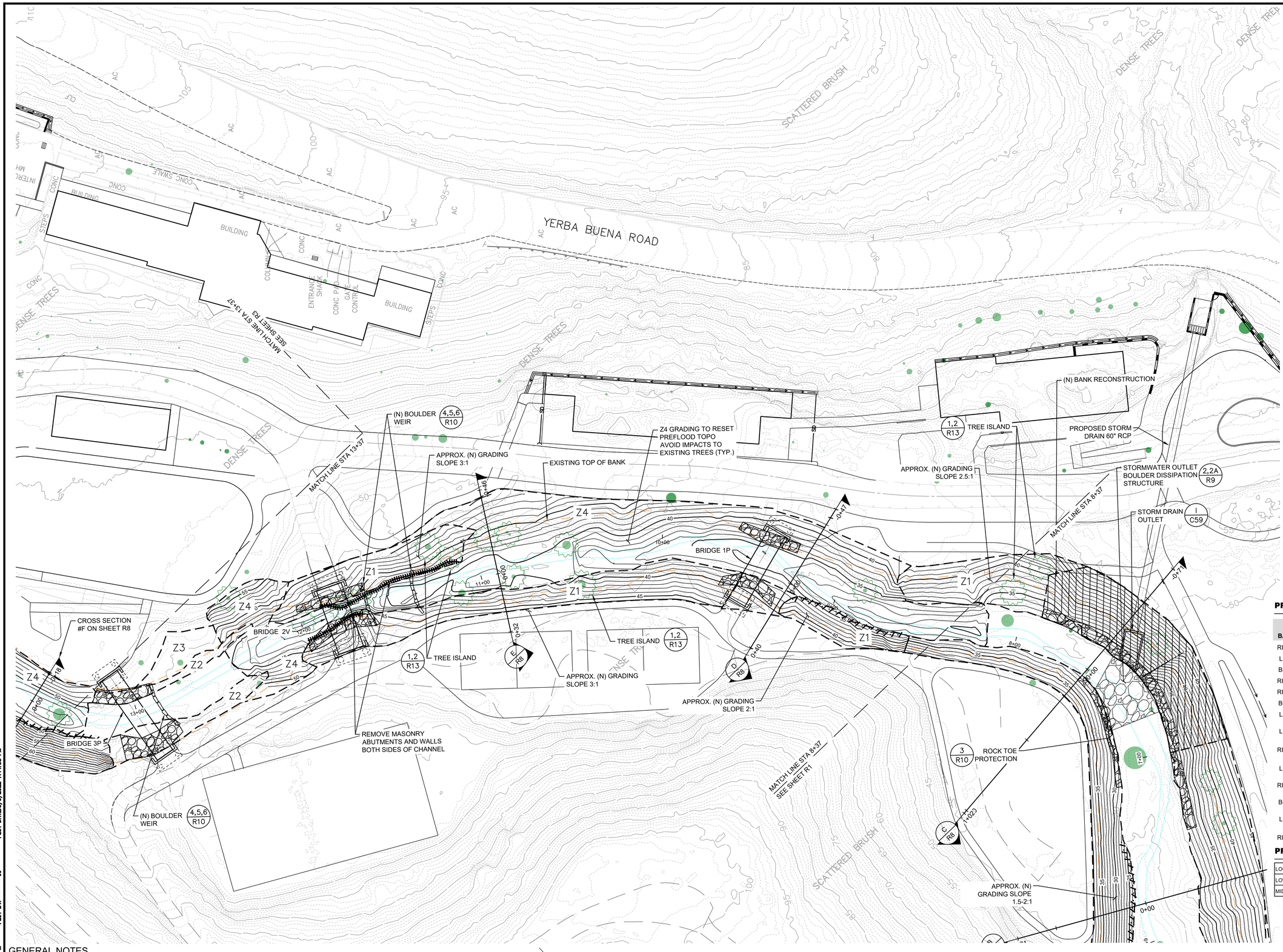

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PRELIMINARY STRUCTURE SCHEDULE

STATION				Zone
BANK	FR	TO	ACTION	#
RIGHT	5+74	8+57	LAYBACK AND REVEGETATE	1
LEFT	5+75	8+62	LAYBACK AND REVEGETATE	1
BOTH	8+16	10+60	REMOVE DEBRIS AND REVEGETATE	4
RIGHT	8+57	9+20	LAYBACK AND REVEGETATE	1
RIGHT	9+51	12+00	LAYBACK AND REVEGETATE	1
BOTH	10+60	12+43	REMOVE DEBRIS AND REVEGETATE	4
LEFT	10+97	12+15	LAYBACK AND REVEGETATE	1
LEFT	12+24	13+25	SELECTIVE GRADING AND REVEGETATE	2
RIGHT	12+27	13+20	SELECTIVE GRADING AND REVEGETATE	2
LEFT	12+43	12+98	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	13+20	13+82	LAYBACK AND REVEGETATE	1
BOTH	13+25	16+04	REMOVE DEBRIS AND REVEGETATE	4
LEFT	14+25	15+03	SELECTIVE GRADING AND REVEGETATE	2
RIGHT	13+82	15+74	FLOODPLAIN GRADING AND HABITAT PLANTING	5

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WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R2 OF R20

PLAN DATE 04/20/2021

DESIGN
CHECKED
42–ENG SAVE DATE: 3/3/2022 6:56:47 PM PLOT BY:Amber Ingpa PLOT DATE:3/3/2022 7:14:58 PM

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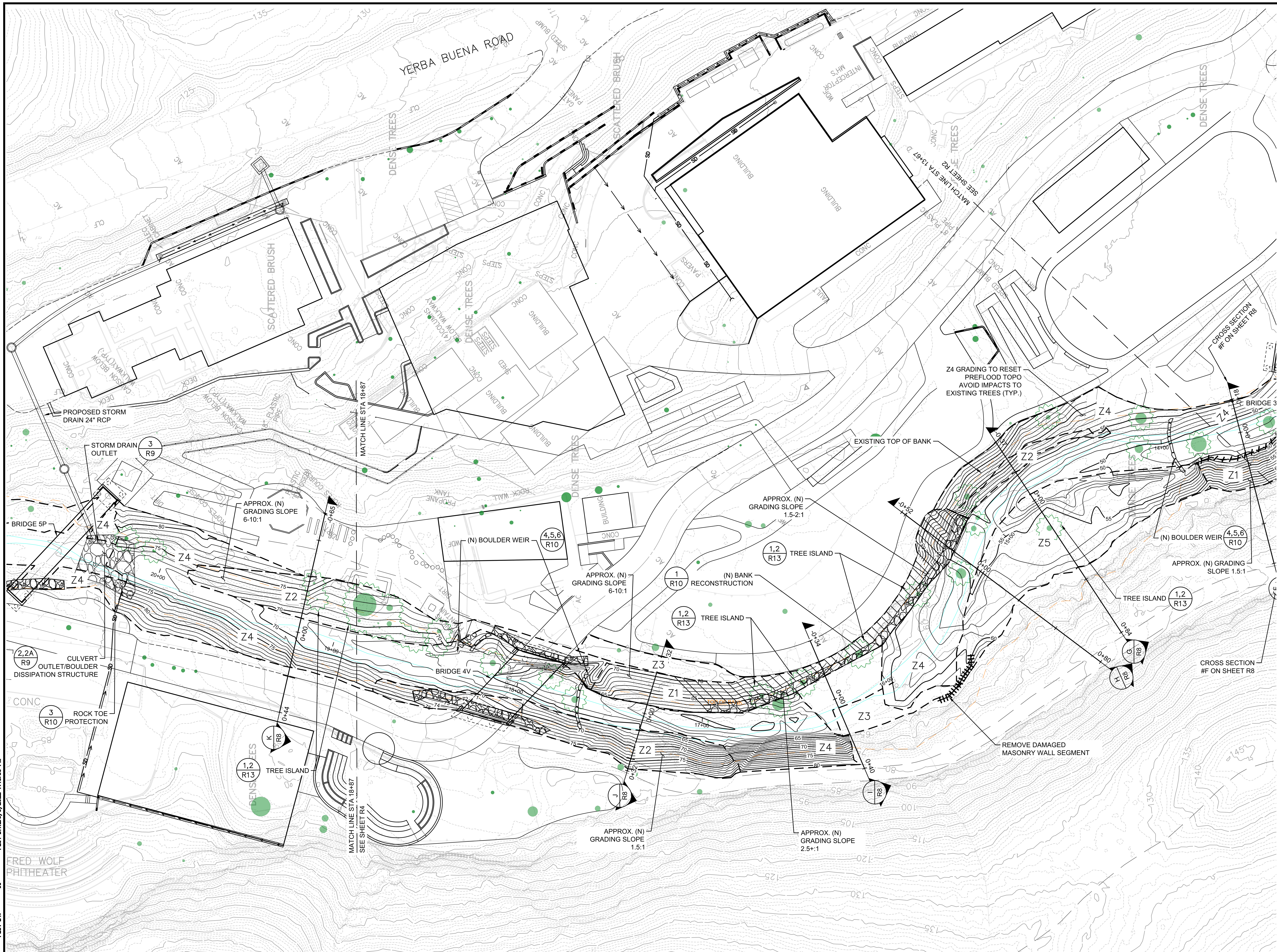

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PRELIMINARY STRUCTURE SCHEDULE

	STATION			Zone
BANK	FR	TO	ACTION	#
LEFT	14+25	15+03	SELECTIVE GRADING AND REVEGETATE	2
RIGHT	13+82	15+74	FLOODPLAIN GRADING AND HABITAT PLANTING	5
LEFT	15+03	17+62	LAYBACK AND REVEGETATE	1
RIGHT	15+74	16+30	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	16+30	20+28	REMOVE DEBRIS AND REVEGETATE	4
LEFT	16+75	17+74	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	16+81	18+66	SELECTIVE GRADING AND REVEGETATE	2
LEFT	17+62	19+81	SELECTIVE GRADING AND REVEGETATE	2
RIGHT	20+15	20+65	REMOVE DEBRIS AND REVEGETATE	4
LEFT	20+24	20+41	REMOVE DEBRIS AND REVEGETATE	4
LEFT	20+39	21+29	REMOVE DEBRIS AND REVEGETATE	4
RIGHT	20+68	21+29	REMOVE DEBRIS AND REVEGETATE	4

PRELIMINARY CUT/FILL VOLUMES

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0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION GRADING PLAN – LOWER CAMP
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

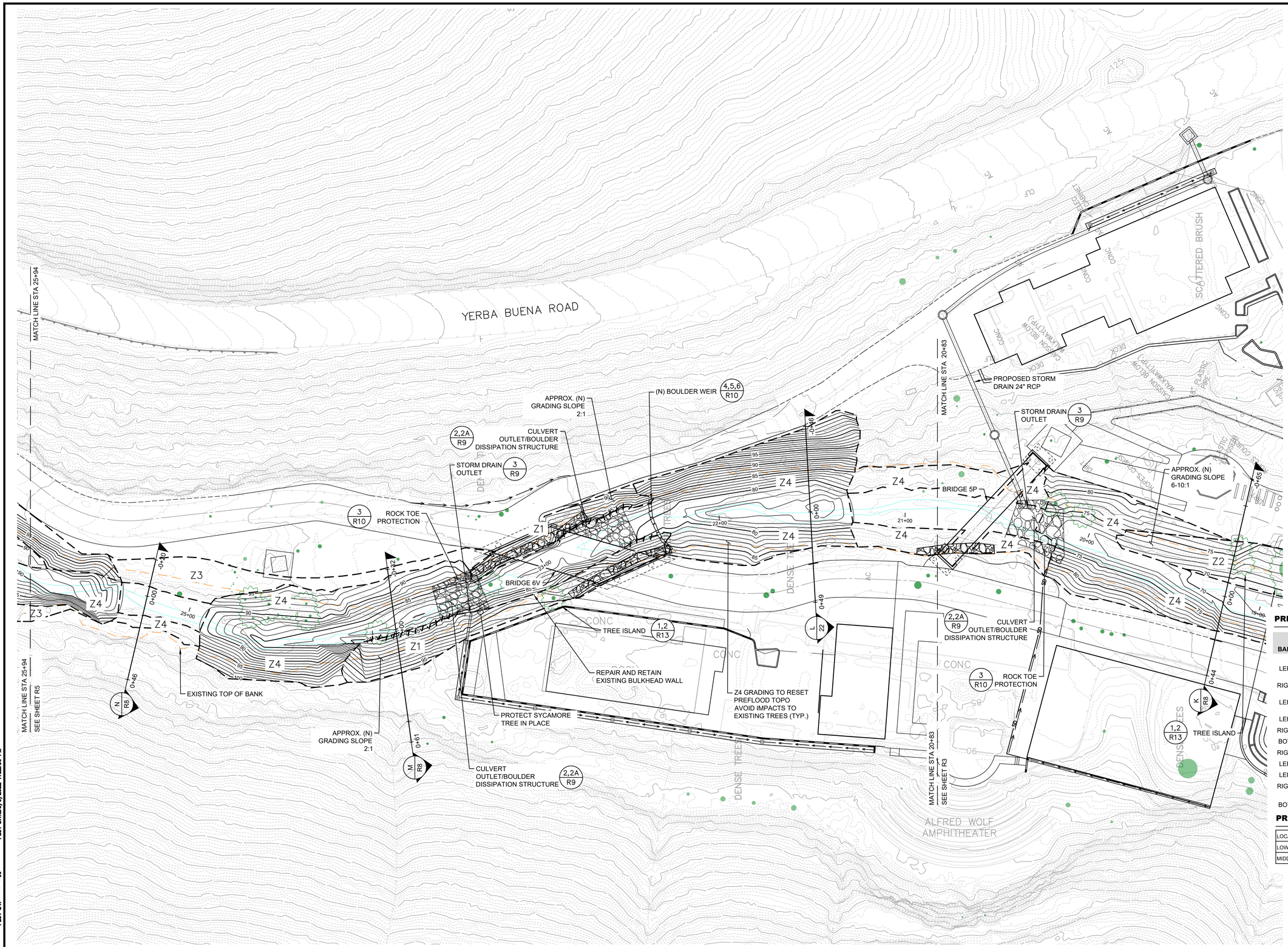
STANTEC PROJECT NO.

SHEET R3 OF R20

PLAN DATE 04/20/2021

DESIGN____ CHECKED____ 42–ENG SAVE DATE: 3/3/2022 6:56:47 PM PLOT BY: Amber Ingge PLOT DATE: 3/3/2022 7:18:53 PM

DRAWING: p:\01 cad\19xxxx\d20190176.01 – camp hess kramer preliminary design\08 cad\dwg\grading plans.dwg



LEGEND

- (E) TOP OF BANK
- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) CHANNEL STRUCTURE/OUTFALL
- (N) VEGETATED ROCK SLOPE PROTECTION
- (N) BANK RECONSTRUCTION (PERMITTED PREVIOUSLY, 2018)
- (N) BOULDER TOE PROTECTION
- Z1 (N) LAYBACK AND REVEGETATE
- Z2 (N) SELECTIVE GRADING AND REVEGETATE
- Z3 (N) REMOVE DEBRIS AND REVEGETATE
- Z4 (N) REMOVE INVASIVES AND REVEGETATE
- Z5 FLOODPLAIN GRADING AND HABITAT PLANTING
- (N) MAJOR CONTOUR
- (N) MINOR CONTOUR
- (E) TREE
- (N) TREE ISLAND
- # / R# DETAIL NUMBER / SHEET NUMBER
- XS# / R# CROSS SECTION NUMBER / SHEET NUMBER

ZONE-SPECIFIC ACTION NOTES:

1. ZONE 1 - LAYBACK AND REVEGETATE: GRADING AND BANK STABILIZATION MEASURES INCLUDING SPECIFIC AREAS OF BANK RECONSTRUCTION TO ADDRESS OVERSTEEPENED AND ERODING BANKS. BANKS SHALL BE GRADED TO 2:1 TO 3:1 SLOPES TO ALLOW FOR INSTALLATION OF BIOTECHNICAL STABILIZATION STRUCTURES SUCH AS BRUSH MAT AND VEGETATED SOIL LIFTS (VSL) AS WELL AS REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING WILL CONFORM TO EXISTING GRADES TO PROTECT AND PRESERVE MATURE TREES WITHIN ZONE 1 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, EXCAVATION AND GRADING TO ESTABLISH STABLE SLOPE PROFILE, CONSTRUCTION OF BANK STABILIZATION STRUCTURES, EROSION CONTROL AND REVEGETATION.
2. ZONE 2 - SELECTIVE GRADING AND REVEGETATE: TARGETED GRADING IN SPECIFIED LOCATIONS TO REMOVE OVERBURDEN ON OVERSTEEPENED BANKS TO ALLOW FOR INSTALLATION OF TOE PROTECTION STRUCTURE AND REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 2 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, GRADING TO ESTABLISH STABLE SLOPE PROFILE, INSTALLATION OF TOE PROTECTION STRUCTURES, EROSION CONTROL AND REVEGETATION.
3. ZONE 3 - REMOVE INVASIVES AND REVEGETATE: LIMITED GRADING ON CREEK BANKS AND RIPARIAN AREAS WHERE REMOVAL OF INVASIVE PLANT SPECIES OCCURS. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 3 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING FOCUSED ON MANAGEMENT OF NON-NATIVE PLANT SPECIES, PREPARATION OF SOIL SURFACE, EROSION CONTROL AND REVEGETATION.
4. ZONE 4 - REMOVE DEBRIS AND REVEGETATE: MODERATE GRADING TO REMOVE A-HOC MATERIALS INCLUDING BUT NOT LIMITED TO CONCRETE RUBBLE, DAMAGED MASONRY WALLS, LANDSCAPING DEBRIS AND POST-FLOOD STOCKPILED SEDIMENT. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 4 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE EXCAVATION AND REMOVAL OF DEBRIS, CONFORM GRADING AND SURFACE PREPARATION IN DISTURBED AREAS, EROSION CONTROL AND REVEGETATION.
5. ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING: GRADING TO WIDEN CREEK CHANNEL, RESET CHANNEL GEOMETRY AND RECONNECT LOW FLOODPLAIN AREAS AT DISCRETE LOCATIONS WITHIN THE RIPARIAN CORRIDOR. GRADING WILL CONFORM TO EXISTING GRADES TO PROTECT AND PRESERVE MATURE TREES AS 'TREE ISLANDS' WITHIN ZONE 5 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE CLEARING AND GRUBBING, EXCAVATION AND GRADING TO ESTABLISH ANNUALLY CONNECTED FLOODPLAIN, AND TARGETED HABITAT PLANTINGS.

PRELIMINARY STRUCTURE SCHEDULE

BANK	STATION FR	STATION TO	ACTION	Zone #
LEFT	17+62	19+81	SELECTIVE GRADING AND REVEGETATE	2
RIGHT	20+15	20+65	REMOVE DEBRIS AND REVEGETATE	4
LEFT	20+24	20+41	REMOVE DEBRIS AND REVEGETATE	4
LEFT	20+39	21+29	REMOVE DEBRIS AND REVEGETATE	4
RIGHT	20+68	21+29	REMOVE DEBRIS AND REVEGETATE	4
BOTH	21+29	24+91	REMOVE DEBRIS AND REVEGETATE	4
RIGHT	22+27	24+07	LAYBACK AND REVEGETATE	1
LEFT	22+34	23+39	LAYBACK AND REVEGETATE	1
LEFT	23+18	25+39	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	24+90	25+39	REMOVE DEBRIS AND REVEGETATE	4
BOTH	25+39	30+18	REMOVE DEBRIS AND REVEGETATE	4

PRELIMINARY CUT/FILL VOLUMES

LOCATION	TOTAL CUT	TOTAL FILL	NET CUT
LOWER CAMP	7,079 CY	196 CY	6,833 CY
MIDDLE CAMP	5,341 CY	37 CY	5,304 CY

GENERAL NOTES

1. GRADING AREAS, BANK AND CHANNEL STABILIZATION AND CREEK ENHANCEMENTS ARE BASED ON GEOMORPHIC ASSESSMENTS CONDUCTED BY ESA IN DECEMBER 2020. SEE THE ESA REPORT "GEOMORPHIC CONDITIONS UPDATE AND BASIS OF DESIGN FOR LITTLE SYCAMORE CREEK."
2. GRADING AREAS, BANK AND CHANNEL STABILIZATION AND CREEK ENHANCEMENTS TO BE REFINED IN SUBSEQUENT SUBMITTALS BASED ON ADDITIONAL ANALYSES AND IN COORDINATION WITH CIVIL AND SITE DESIGN ELEMENTS.
3. REMOVE ALL MASONRY, CONCRETE AND OTHER DELETERIOUS MATERIALS FROM CHANNEL AND BANKS.
4. FINAL DIMENSIONS AND EXTENTS OF CHANNEL AND BANK STABILIZATION STRUCTURES TO BE DETERMINED THROUGH SUBSEQUENT DESIGN PHASES.
5. ROCK SIZING FOR BOULDER STRUCTURES TO BE DETERMINED.
6. UTILIZE NATIVE BOULDERS AND ALLUVIUM SALVAGED FROM THE PROJECT SITE.
7. PLANT AND SEED LISTS FOR THE RIPARIAN CORRIDOR ARE PRELIMINARY. PLANTING SCHEDULES FOR SPECIFIC REVEGETATION ZONES WILL BE DEVELOPED BASED ON PROGRESSION OF GRADING AND ENHANCEMENT PLANS.
8. LIVE WILLOW AND MULEFAT STEMS TO BE HARVESTED FROM THE PROJECT SITE AND/OR LOCALLY APPROPRIATE SITES TO BE DETERMINED.
9. BANK RECONSTRUCTION AREAS (STATION 7+00 TO STATION 7+90 AND STATION 15+00 TO STATION 17+30) AND BOULDER GRADE CONTROL STRUCTURES (STATION 29+70 TO 31+70) PERMITTED PREVIOUSLY UNDER EMERGENCY RESPONSE PROJECT (2018, PL19-005); SHOWN FOR INFORMATIONAL PURPOSES ONLY.
10. CHANNEL GRADE CONTROL, BOULDER WEIR, BANK RECONSTRUCTION AND TOE PROTECTION STRUCTURES SHALL BE KEYED INTO PRE-FLOOD CHANNEL. REMOVE FLOOD-DEPOSITED SEDIMENTS TO EXPOSE PRE-FLOOD CHANNEL AND ADJUST SUBGRADE ELEVATIONS AND STRUCTURE DIMENSIONS BASED ON ACTUAL SITE CONDITIONS AND CHANNEL ELEVATIONS.
11. UNLESS DIRECTED OTHERWISE BY PROJECT BIOLOGIST, PROTECT AND PRESERVE ALL EXISTING TREES (INCLUDING EUCALYPTUS FOR MONARCH HABITAT) IN LITTLE SYCAMORE CREEK STABILIZATION AND ENHANCEMENT AREAS.
12. GRADING LIMITS FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES WILL BE REVIEWED AND ADJUSTED IN THE FIELD BY PROJECT ENGINEER PRIOR TO INITIATING GRADING AND EXCAVATION ACTIVITIES. GRADING LIMITS AT EXISTING TREES SHALL BE OFFSET A MINIMUM OF 5 FEET FROM TREE TRUNK.
13. IN ZONE 1 - LAYBACK AND REVEGETATE AND IN ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING, CONFORM GRADING TO CREATE TREE ISLANDS PER DETAIL 1 AND DETAIL 2, SHEET R13.
14. EXCAVATION FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES SHALL BE MONITORED BY A QUALIFIED ARCHAEOLOGIST. DEFER TO PROJECT APPROVALS FOR MONITORING REQUIREMENTS, E.G. CULTURAL/TRIBAL RESOURCES OR OTHER.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION GRADING PLAN – LOWER CAMP
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R4 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED
42–ENG SAVE DATE:3/3/2022 6:56:47 PM PLOT BY:Amber Ingga PLOT DATE:3/3/2022 7:22:56 PM
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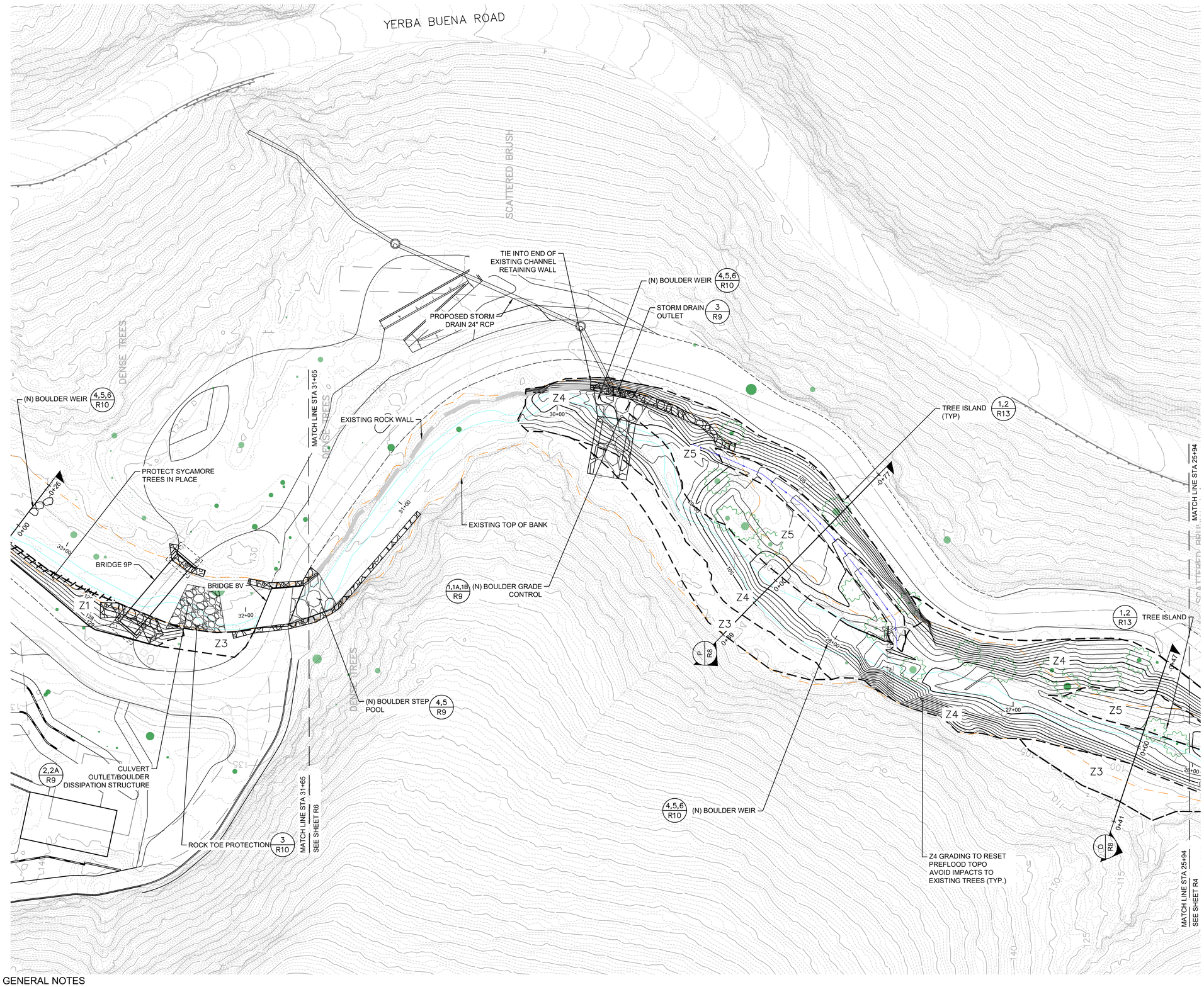

LEGEND

- (E) TOP OF BANK
- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) CHANNEL STRUCTURE/OUTFALL
- (N) VEGETATED ROCK SLOPE PROTECTION
- (N) BANK RECONSTRUCTION (PERMITTED PREVIOUSLY, 2018)
- (N) BOULDER TOE PROTECTION
- Z1 (N) LAYBACK AND REVEGETATE
- Z2 (N) SELECTIVE GRADING AND REVEGETATE
- Z3 (N) REMOVE DEBRIS AND REVEGETATE
- Z4 (N) REMOVE INVASIVES AND REVEGETATE
- Z5 FLOODPLAIN GRADING AND HABITAT PLANTING
- (N) MAJOR CONTOUR
- (N) MINOR CONTOUR
- (E) TREE
- (N) TREE ISLAND
- DETAIL NUMBER / SHEET NUMBER
- CROSS SECTION NUMBER / SHEET NUMBER

ZONE-SPECIFIC ACTION NOTES:

1. ZONE 1 - LAYBACK AND REVEGETATE: GRADING AND BANK STABILIZATION MEASURES INCLUDING SPECIFIC AREAS OF BANK RECONSTRUCTION TO ADDRESS OVERSTEEPENED AND ERODING BANKS. BANKS SHALL BE GRADED TO 2:1 TO 3:1 SLOPES TO ALLOW FOR INSTALLATION OF BIOTECHNICAL STABILIZATION STRUCTURES SUCH AS BRUSH MAT AND VEGETATED SOIL LIFTS (VSL) AS WELL AS REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING WILL CONFORM TO EXISTING GRADES TO PROTECT AND PRESERVE MATURE TREES WITHIN ZONE 1 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, EXCAVATION AND GRADING TO ESTABLISH STABLE SLOPE PROFILE, CONSTRUCTION OF BANK STABILIZATION STRUCTURES, EROSION CONTROL AND REVEGETATION.
2. ZONE 2 - SELECTIVE GRADING AND REVEGETATE: TARGETED GRADING IN SPECIFIED LOCATIONS TO REMOVE OVERBURDEN ON OVERSTEEPENED BANKS TO ALLOW FOR INSTALLATION OF TOE PROTECTION STRUCTURE AND REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 2 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, GRADING TO ESTABLISH STABLE SLOPE PROFILE, INSTALLATION OF TOE PROTECTION STRUCTURES, EROSION CONTROL AND REVEGETATION.
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4. ZONE 4 - REMOVE DEBRIS AND REVEGETATE: MODERATE GRADING TO REMOVE A-HOC MATERIALS INCLUDING BUT NOT LIMITED TO CONCRETE RUBBLE, DAMAGED MASONRY WALLS, LANDSCAPING DEBRIS AND POST-FLOOD STOCKPILED SEDIMENT. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 4 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE EXCAVATION AND REMOVAL OF DEBRIS, CONFORM GRADING AND SURFACE PREPARATION IN DISTURBED AREAS, EROSION CONTROL AND REVEGETATION.
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PRELIMINARY STRUCTURE SCHEDULE

BANK	STATION FR	STATION TO	ACTION	Zone #
RIGHT	24+90	25+39	REMOVE DEBRIS AND REVEGETATE	4
BOTH	25+39	30+18	REMOVE DEBRIS AND REVEGETATE	4
RIGHT	25+45	26+97	REMOVE INVASIVES AND REVEGETATE	3
LEFT	25+79	26+82	FLOODPLAIN GRADING AND HABITAT PLANTING	5
LEFT	27+74	29+64	FLOODPLAIN GRADING AND HABITAT PLANTING	5
RIGHT	27+74	29+17	REMOVE DEBRIS AND REVEGETATE	4
RIGHT	27+90	29+93	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	31+97	32+30	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	32+30	34+56	LAYBACK AND REVEGETATE	1

PRELIMINARY CUT/FILL VOLUMES

LOCATION	TOTAL CUT	TOTAL FILL	NET CUT
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MIDDLE CAMP	5,341 CY	37 CY	5,304 CY

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SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION GRADING PLAN – MIDDLE CAMP
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R5 OF R20

PLAN DATE 04/20/2021

PLOT DATE:3/3/2022 7:27:19 PM
PLOT BY:Amber Inggs
SAVE DATE: 3/3/2022 6:56:47 PM
42=ENG
CHECKED
DESIGN

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LEGEND

- (E) TOP OF BANK
- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) CHANNEL STRUCTURE/OUTFALL
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- (N) MAJOR CONTOUR
- (N) MINOR CONTOUR
- (E) TREE
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- DETAIL NUMBER / SHEET NUMBER
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ZONE-SPECIFIC ACTION NOTES:

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PRELIMINARY STRUCTURE SCHEDULE

BANK	STATION FR	STATION TO	ACTION	Zone #
RIGHT	31+97	32+30	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	32+30	34+56	LAYBACK AND REVEGETATE	1
RIGHT	34+56	35+12	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	35+12	37+40	LAYBACK AND REVEGETATE	1
RIGHT	37+40	38+83	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	38+83	40+39	LAYBACK AND REVEGETATE	1

PRELIMINARY CUT/FILL VOLUMES

LOCATION	TOTAL CUT	TOTAL FILL	NET CUT
LOWER CAMP	7,079 CY	196 CY	6,833 CY
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GENERAL NOTES

1. GRADING AREAS, BANK AND CHANNEL STABILIZATION AND CREEK ENHANCEMENTS ARE BASED ON GEOMORPHIC ASSESSMENTS CONDUCTED BY ESA IN DECEMBER 2020. SEE THE ESA REPORT "GEOMORPHIC CONDITIONS UPDATE AND BASIS OF DESIGN FOR LITTLE SYCAMORE CREEK."
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12. GRADING LIMITS FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES WILL BE REVIEWED AND ADJUSTED IN THE FIELD BY PROJECT ENGINEER PRIOR TO INITIATING GRADING AND EXCAVATION ACTIVITIES. GRADING LIMITS AT EXISTING TREES SHALL BE OFFSET A MINIMUM OF 5 FEET FROM TREE TRUNK.
13. IN ZONE 1 - LAYBACK AND REVEGETATE AND IN ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING, CONFORM GRADING TO CREATE TREE ISLANDS PER DETAIL 1 AND DETAIL 2, SHEET R13.
14. EXCAVATION FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES SHALL BE MONITORED BY A QUALIFIED ARCHAEOLOGIST. DEFER TO PROJECT APPROVALS FOR MONITORING REQUIREMENTS, E.G. CULTURAL/TRIBAL RESOURCES OR OTHER.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION GRADING PLAN – MIDDLE CAMP
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

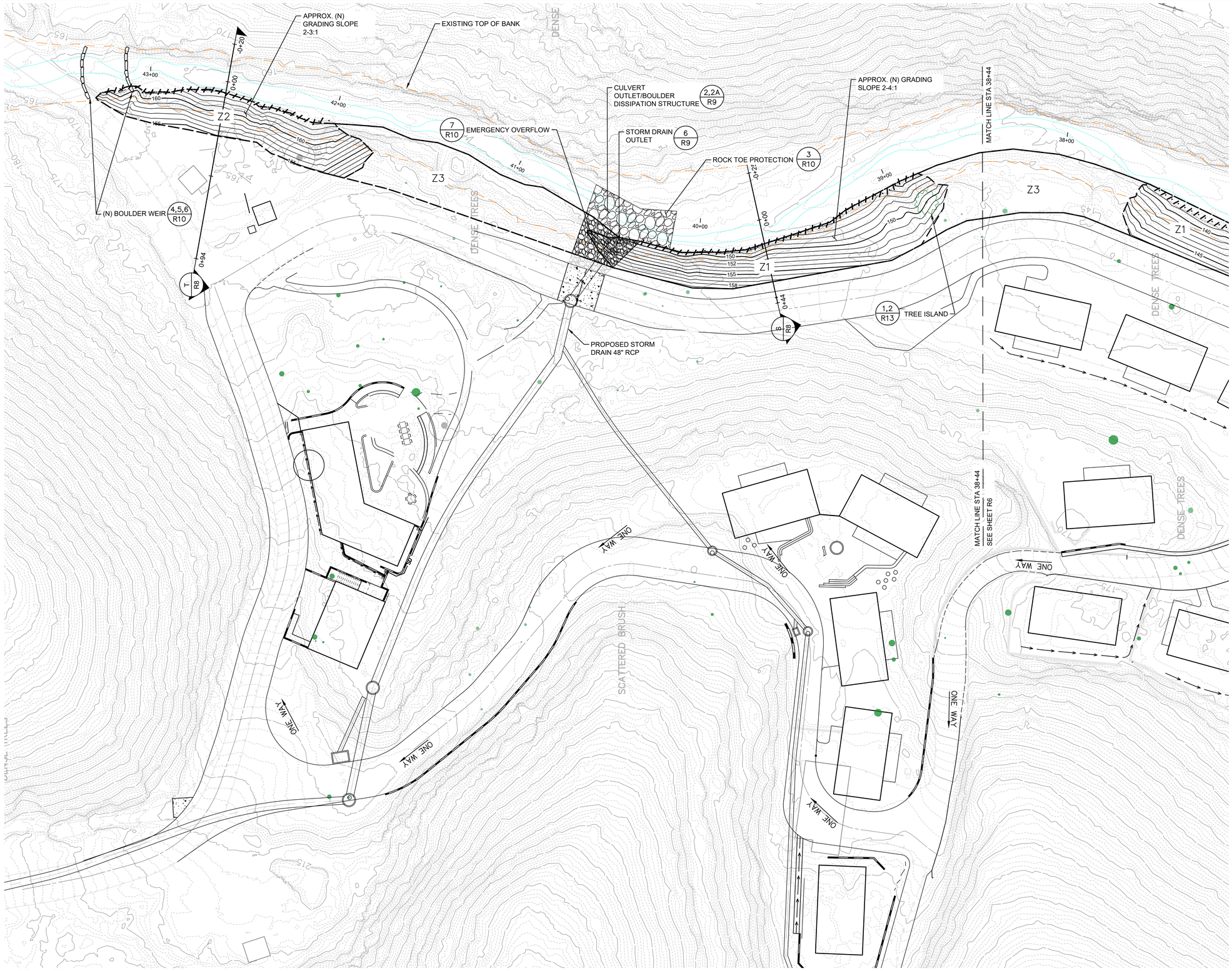
STANTEC PROJECT NO.

SHEET R6 OF R20

PLAN DATE 04/20/2021

DESIGN
CHECKED
42–END SAVE DATE: 3/3/2022 6:56:47 PM PLOT BY:Amber Ingga PLOT DATE:3/3/2022 7:31:44 PM

DRAWING p:\01 cad\193ccx\220190176.01 – camp hess kramer preliminary design\06 cad\dwg\grading plans.dwg



LEGEND

- (E) TOP OF BANK
- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) CHANNEL STRUCTURE/OUTFALL
- (N) VEGETATED ROCK SLOPE PROTECTION
- (N) BANK RECONSTRUCTION (PERMITTED PREVIOUSLY, 2018)
- (N) BOULDER TOE PROTECTION
- Z1 (N) LAYBACK AND REVEGETATE
- Z2 (N) SELECTIVE GRADING AND REVEGETATE
- Z3 (N) REMOVE DEBRIS AND REVEGETATE
- Z4 (N) REMOVE INVASIVES AND REVEGETATE
- Z5 FLOODPLAIN GRADING AND HABITAT PLANTING
- (N) MAJOR CONTOUR
- (N) MINOR CONTOUR
- (E) TREE
- (N) TREE ISLAND
- # R# DETAIL NUMBER SHEET NUMBER
- XS# R# CROSS SECTION NUMBER SHEET NUMBER

ZONE-SPECIFIC ACTION NOTES:

1. ZONE 1 - LAYBACK AND REVEGETATE: GRADING AND BANK STABILIZATION MEASURES INCLUDING SPECIFIC AREAS OF BANK RECONSTRUCTION TO ADDRESS OVERSTEEPENED AND ERODING BANKS. BANKS SHALL BE GRADED TO 2:1 TO 3:1 SLOPES TO ALLOW FOR INSTALLATION OF BIOTECHNICAL STABILIZATION STRUCTURES SUCH AS BRUSH MAT AND VEGETATED SOIL LIFTS (VSL) AS WELL AS REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING WILL CONFORM TO EXISTING GRADES TO PROTECT AND PRESERVE MATURE TREES WITHIN ZONE 1 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, EXCAVATION AND GRADING TO ESTABLISH STABLE SLOPE PROFILE, CONSTRUCTION OF BANK STABILIZATION STRUCTURES, EROSION CONTROL AND REVEGETATION.
2. ZONE 2 - SELECTIVE GRADING AND REVEGETATE: TARGETED GRADING IN SPECIFIED LOCATIONS TO REMOVE OVERBURDEN ON OVERSTEEPENED BANKS TO ALLOW FOR INSTALLATION OF TOE PROTECTION STRUCTURE AND REVEGETATION AND ESTABLISHMENT OF NATIVE RIPARIAN PLANT SPECIES. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 2 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING, GRADING TO ESTABLISH STABLE SLOPE PROFILE, INSTALLATION OF TOE PROTECTION STRUCTURES, EROSION CONTROL AND REVEGETATION.
3. ZONE 3 - REMOVE INVASIVES AND REVEGETATE: LIMITED GRADING ON CREEK BANKS AND RIPARIAN AREAS WHERE REMOVAL OF INVASIVE PLANT SPECIES OCCURS. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 3 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE TARGETED CLEARING AND GRUBBING FOCUSED ON MANAGEMENT OF NON-NATIVE PLANT SPECIES, PREPARATION OF SOIL SURFACE, EROSION CONTROL AND REVEGETATION.
4. ZONE 4 - REMOVE DEBRIS AND REVEGETATE: MODERATE GRADING TO REMOVE A-HOC MATERIALS INCLUDING BUT NOT LIMITED TO CONCRETE RUBBLE, DAMAGED MASONRY WALLS, LANDSCAPING DEBRIS AND POST-FLOOD STOCKPILED SEDIMENT. GRADING ACTIVITIES WILL AVOID MATURE TREES WITHIN ZONE 4 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE EXCAVATION AND REMOVAL OF DEBRIS, CONFORM GRADING AND SURFACE PREPARATION IN DISTURBED AREAS, EROSION CONTROL AND REVEGETATION.
5. ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING: GRADING TO WIDEN CREEK CHANNEL, RESET CHANNEL GEOMETRY AND RECONNECT LOW FLOODPLAIN AREAS AT DISCRETE LOCATIONS WITHIN THE RIPARIAN CORRIDOR. GRADING WILL CONFORM TO EXISTING GRADES TO PROTECT AND PRESERVE MATURE TREES AS 'TREE ISLANDS' WITHIN ZONE 5 GRADING AREAS. TYPICAL ACTIVITIES INCLUDE CLEARING AND GRUBBING, EXCAVATION AND GRADING TO ESTABLISH ANNUALLY CONNECTED FLOODPLAIN, AND TARGETED HABITAT PLANTINGS.

PRELIMINARY STRUCTURE SCHEDULE

STATION				Zone
BANK	FR	TO	ACTION	#
RIGHT	35+12	37+40	LAYBACK AND REVEGETATE	1
RIGHT	37+40	38+83	REMOVE INVASIVES AND REVEGETATE	3
RIGHT	38+83	40+39	LAYBACK AND REVEGETATE	1
RIGHT	40+39	42+00	REMOVE INVASIVES AND REVEGETATE	3

PRELIMINARY CUT/FILL VOLUMES

LOCATION	TOTAL CUT	TOTAL FILL	NET CUT
LOWER CAMP	7,079 CY	196 CY	6,833 CY
MIDDLE CAMP	5,341 CY	37 CY	5,304 CY

GENERAL NOTES

1. GRADING AREAS, BANK AND CHANNEL STABILIZATION AND CREEK ENHANCEMENTS ARE BASED ON GEOMORPHIC ASSESSMENTS CONDUCTED BY ESA IN DECEMBER 2020. SEE THE ESA REPORT "GEOMORPHIC CONDITIONS UPDATE AND BASIS OF DESIGN FOR LITTLE SYCAMORE CREEK."
2. GRADING AREAS, BANK AND CHANNEL STABILIZATION AND CREEK ENHANCEMENTS TO BE REFINED IN SUBSEQUENT SUBMITTALS BASED ON ADDITIONAL ANALYSES AND IN COORDINATION WITH CIVIL AND SITE DESIGN ELEMENTS.
3. REMOVE ALL MASONRY, CONCRETE AND OTHER DELETERIOUS MATERIALS FROM CHANNEL AND BANKS.
4. FINAL DIMENSIONS AND EXTENTS OF CHANNEL AND BANK STABILIZATION STRUCTURES TO BE DETERMINED THROUGH SUBSEQUENT DESIGN PHASES.
5. ROCK SIZING FOR BOULDER STRUCTURES TO BE DETERMINED.
6. UTILIZE NATIVE BOULDERS AND ALLUVIUM SALVAGED FROM THE PROJECT SITE.
7. PLANT AND SEED LISTS FOR THE RIPARIAN CORRIDOR ARE PRELIMINARY. PLANTING SCHEDULES FOR SPECIFIC REVEGETATION ZONES WILL BE DEVELOPED BASED ON PROGRESSION OF GRADING AND ENHANCEMENT PLANS.
8. LIVE WILLOW AND MULEFAT STEMS TO BE HARVESTED FROM THE PROJECT SITE AND/OR LOCALLY APPROPRIATE SITES TO BE DETERMINED.
9. BANK RECONSTRUCTION AREAS (STATION 7+00 TO STATION 7+90 AND STATION 15+00 TO STATION 17+30) AND BOULDER GRADE CONTROL STRUCTURES (STATION 29+70 TO 31+70) PERMITTED PREVIOUSLY UNDER EMERGENCY RESPONSE PROJECT (2018, PL19-005); SHOWN FOR INFORMATIONAL PURPOSES ONLY.
10. CHANNEL GRADE CONTROL, BOULDER WEIR, BANK RECONSTRUCTION AND TOE PROTECTION STRUCTURES SHALL BE KEYED INTO PRE-FLOOD CHANNEL. REMOVE FLOOD-DEPOSITED SEDIMENTS TO EXPOSE PRE-FLOOD CHANNEL AND ADJUST SUBGRADE ELEVATIONS AND STRUCTURE DIMENSIONS BASED ON ACTUAL SITE CONDITIONS AND CHANNEL ELEVATIONS.
11. UNLESS DIRECTED OTHERWISE BY PROJECT BIOLOGIST, PROTECT AND PRESERVE ALL EXISTING TREES (INCLUDING EUCALYPTUS FOR MONARCH HABITAT) IN LITTLE SYCAMORE CREEK STABILIZATION AND ENHANCEMENT AREAS.
12. GRADING LIMITS FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES WILL BE REVIEWED AND ADJUSTED IN THE FIELD BY PROJECT ENGINEER PRIOR TO INITIATING GRADING AND EXCAVATION ACTIVITIES. GRADING LIMITS AT EXISTING TREES SHALL BE OFFSET A MINIMUM OF 5 FEET FROM TREE TRUNK.
13. IN ZONE 1 - LAYBACK AND REVEGETATE AND IN ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING, CONFORM GRADING TO CREATE TREE ISLANDS PER DETAIL 1 AND DETAIL 2, SHEET R13.
14. EXCAVATION FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES SHALL BE MONITORED BY A QUALIFIED ARCHAEOLOGIST. DEFER TO PROJECT APPROVALS FOR MONITORING REQUIREMENTS, E.G. CULTURAL/TRIBAL RESOURCES OR OTHER.

SCALE: 1"=20'
0 20 40 60

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

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CAMP HESS KRAMER/GINDLING HILLTOP CAMP
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11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R7 OF R20

PLAN DATE 04/20/2021

DESIGN
CHECKED
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PLOT BY:Amber Ingga PLOT DATE:3/3/2022 7:36:11 PM
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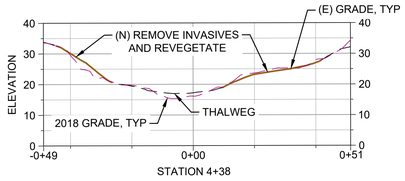
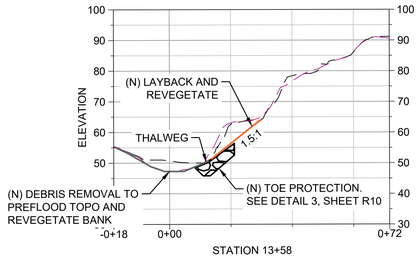
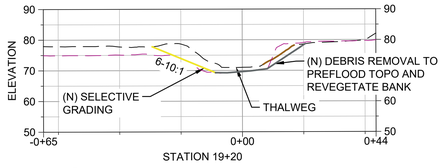


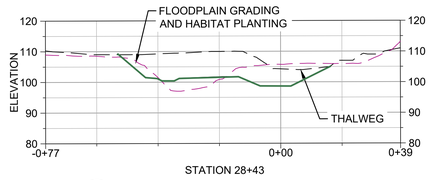
A CROSS-SECTION
C-01 STA 4+38 SCALE: 1" = 20'



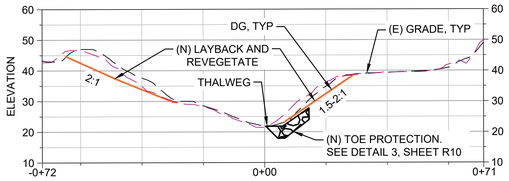
F CROSS-SECTION
C-03 STA 13+58 SCALE: 1" = 20'



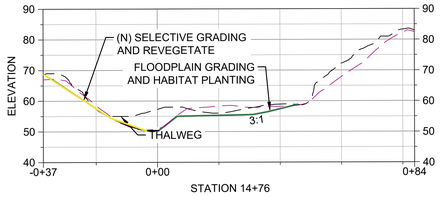
K CROSS-SECTION
C-03 C-04 STA 19+20 SCALE: 1" = 20'



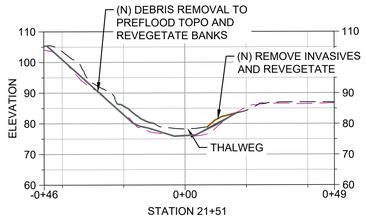
P CROSS-SECTION
C-05 STA 28+43 SCALE: 1" = 20'



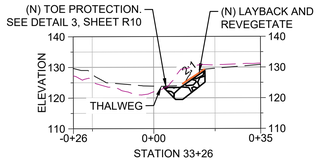
B CROSS-SECTION
C-01 C-02 STA 6+21 SCALE: 1" = 20'



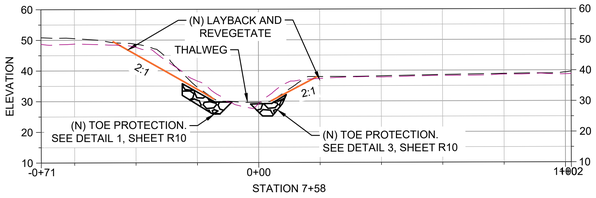
G CROSS-SECTION
C-03 STA 14+76 SCALE: 1" = 20'



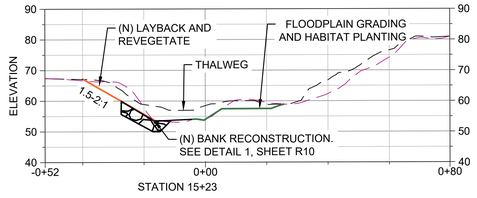
L CROSS-SECTION
C-04 STA 21+51 SCALE: 1" = 20'



Q CROSS-SECTION
C-06 STA 33+28 SCALE: 1" = 20'



C CROSS-SECTION
C-01 C-02 STA 7+58 SCALE: 1" = 20'



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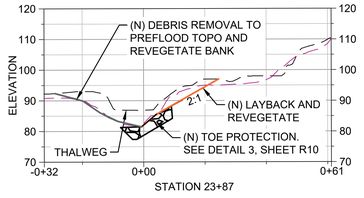
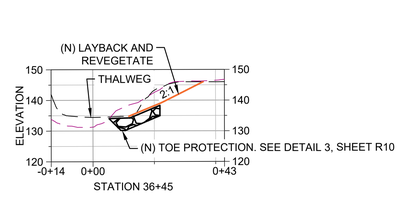
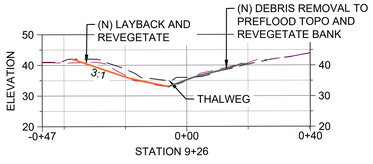
C-03 STA 15+23 SCALE: 1" = 20'



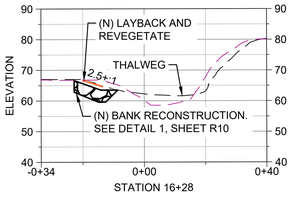
M CROSS-SECTION
C-04 STA 23+87 SCALE: 1" = 20'



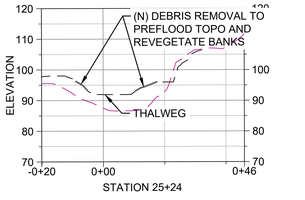
R CROSS-SECTION
C-06 STA 36+45 SCALE: 1" = 20'



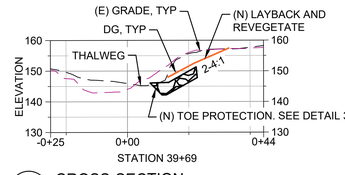
D CROSS-SECTION
C-02 STA 9+26 SCALE: 1" = 20'



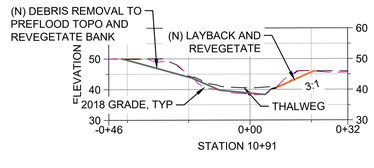
I CROSS-SECTION
C-03 STA 16+28 SCALE: 1" = 20'



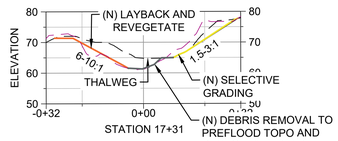
N CROSS-SECTION
C-04 STA 25+24 SCALE: 1" = 20'



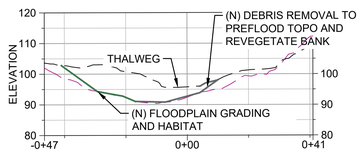
S CROSS-SECTION
C-07 STA 39+69 SCALE: 1" = 20'



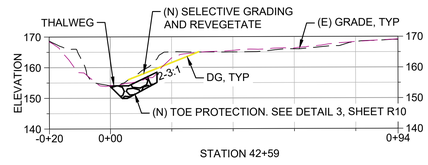
E CROSS-SECTION
C-02 STA 10+91 SCALE: 1" = 20'



J CROSS-SECTION
C-03 STA 17+31 SCALE: 1" = 20'



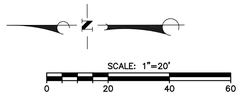
O CROSS-SECTION
C-05 STA 26+30 SCALE: 1" = 20'



T CROSS-SECTION
C-07 STA 42+59 SCALE: 1" = 20'

NOTES

1. TOE PROTECTION SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SCALE OF ACTUAL BANK STABILIZATION STRUCTURES WILL VARY AND WILL BE REFINED IN SUBSEQUENT SUBMITTALS BASED ON FURTHER ANALYSES AND ACTUAL SITE CONDITIONS.
2. 2018 GRADE SURFACE IS PRE-FIRE AND PRE-FLOOD CONDITION. LIDAR DEM TOPOGRAPHY GATHERED FROM NOAA.



NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APP'D.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION CROSS SECTIONS
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R8 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED
42-ENG SAVE DATE: 4/23/2021 4:30:17 PM PLOT BY:Amber Inge PLOT DATE:4/23/2021 8:35:25 PM
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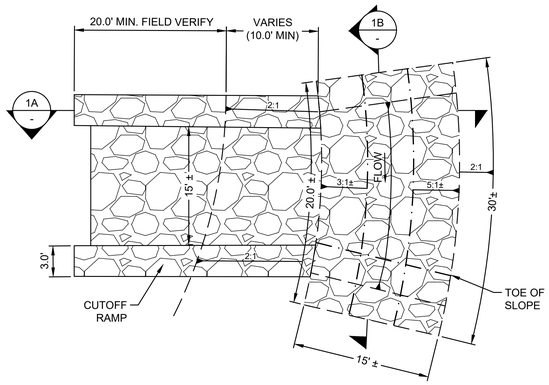
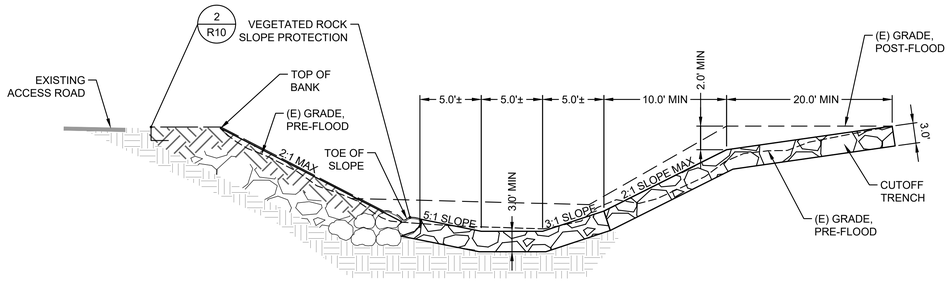


NOTES

1. DIMENSIONS AND EXTENTS ARE APPROXIMATE. ADJUST STRUCTURE PER ACTUAL CONDITIONS IN THE FIELD.
2. ELEVATIONS ARE ESTIMATED. VERIFY IN THE FIELD.
3. FILL VOIDS WITH NATIVE SOIL, GRAVEL, COBBLE (TYP).
4. LOCATION OF GRADE CONTROL STRUCTURE TO BE CONFIRMED IN THE FIELD.
5. ASSUME MIX OF ROCK: ½ TON (40%), 200 LB (20%), 75 LB (20%), 25 LB (20%) WITH NATIVE ALLUVIUM (VOID FILL).
6. CUTOFF TRENCH SHALL BE 3' WIDE BY 3' DEEP MINIMUM.
7. LATERAL EXTENTS OF CUTOFF TRENCH TO BE ADJUSTED IN FIELD, 30; MINIMUM.

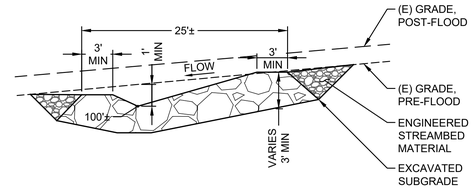
1 GRADE CONTROL STRUCTURE #1 (STA 29+60±)
PLAN VIEW — NOT TO SCALE



NOTES

1. DIMENSIONS AND GEOMETRIES OF GRADE CONTROL STRUCTURE WILL VARY OVER STRUCTURE FOOTPRINT.
2. GRADE CONTROL STRUCTURE SHALL SPAN VALLEY WIDTH.
3. KEY/TIE GRADE CONTROL STRUCTURE INTO PRE-DAMAGE CONDITIONS.
4. EXISTING GRADE TO BE DETERMINED. CONDITIONS VARY.
5. FILL VOIDS WITH NATIVE SOIL, GRAVE, COBBLE (TYP).
6. BACKFILL AND BURY BANK STABILIZATION AND CUTOFF TRENCH STRUCTURES WITH NATIVE MATERIAL, 2' MINIMUM DEPTH.

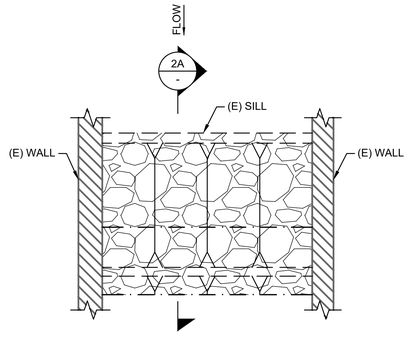
1A GRADE CONTROL STRUCTURE #1 (STA 29+60±)
SECTION VIEW — NOT TO SCALE



NOTES

1. INTEGRATE GRADE CONTROL STRUCTURE WITH PRE-DAMAGE CHANNEL MATERIALS.
2. ADJUST STRUCTURE DIMENSIONS AND GEOMETRIES IN THE FIELD.
3. ADJUST ROCK SECTION TO ACCOUNT FOR PRESENCE OF STABLE CHANNEL MATERIALS (I.E. BOULDERS).

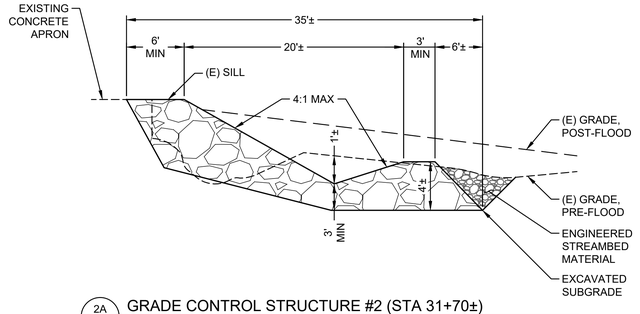
1B GRADE CONTROL STRUCTURE #1 (STA 25+00±)
SECTION VIEW — NOT TO SCALE



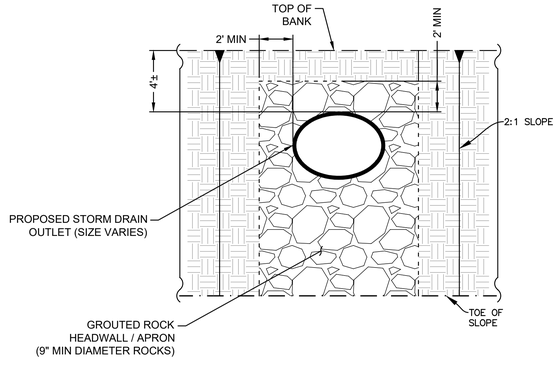
NOTES

1. GRADE CONTROL STRUCTURE SHALL BE MODIFIED FOR STORM DRAIN OUTLET. SIZING AND MATERIALS TO BE DETERMINED BASED ON FUTURE ANALYSIS.
2. GRADE CONTROL STRUCTURE TO BE INTEGRATED WITH STORM DRAIN OUTLET. SEE DETAIL 3. SEE LOCATIONS ON PLANS.

2 GRADE CONTROL STRUCTURE #2 (STA 31+70±)
PLAN VIEW — NOT TO SCALE



2A GRADE CONTROL STRUCTURE #2 (STA 31+70±)
SECTION VIEW — NOT TO SCALE



3 STORM DRAIN OUTLET
ELEVATION — NOT TO SCALE

NOTES

1. FOR ALL CHANNEL AND BANK STABILIZATION STRUCTURES REMOVE FLOOD DEPOSITED SEDIMENTS TO EXPOSE PRE-FLOOD CHANNEL. KEY STRUCTURES INTO PRE-FLOOD CHANNEL SUBSTRATES PER DETAILS.
2. ROCK SIZING AND GRADATIONS ARE PRELIMINARY TO BE DETERMINED AND REVISED IN SUBSEQUENT DESIGN SUBMITTALS.
3. USE OF SALVAGED NATIVE BOULDERS IS ACCEPTABLE UPON APPROVAL BY RESTORATION ENGINEER.
4. GRADE CONTROL STRUCTURES AT STA. 29+60± AND STA. 31+70± ARE PERMITTED UNDER THE EMERGENCY RESPONSE PROJECT AND ARE SHOWN FOR INFORMATION PURPOSES ONLY.
5. SHEET R10 NUMBER OF VEGETATED SOIL LIFTS (VSL) TO BE ADJUSTED ACCORDING TO BANK HEIGHT, SITE SPECIFIC.
6. PRE-FLOOD AND POST-FLOOD ELEVATIONS ARE ESTIMATED BASED ON FIELD RECONNAISSANCE AND OBSERVATIONS AND ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL GRADES AND ELEVATIONS WILL VARY BASED ON LOCATION.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

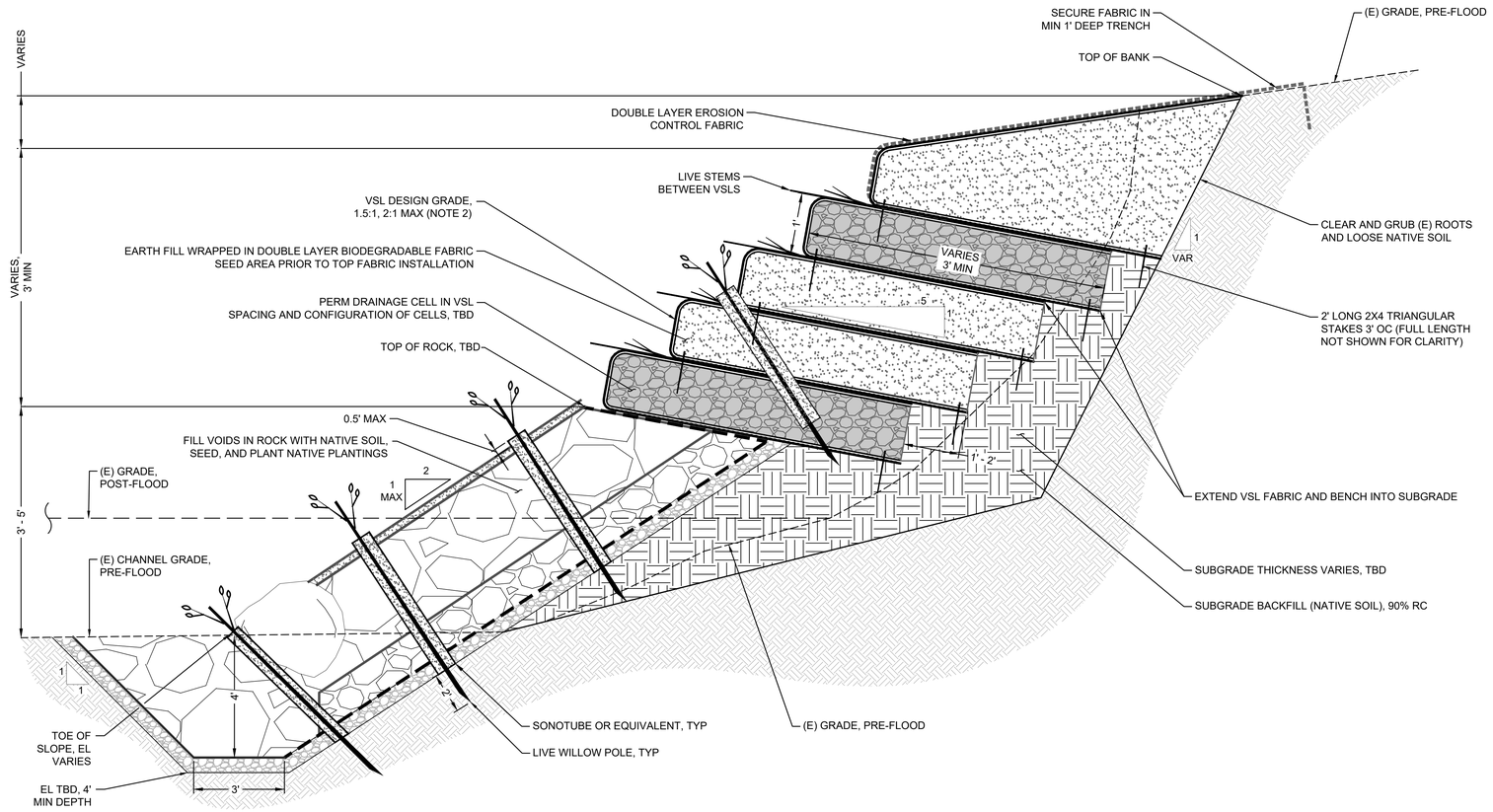
PREPARED BY: ESA
PROJECT ENGINEER R.C.E. DATE

D-01 RESTORATION TYPICAL DETAILS
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

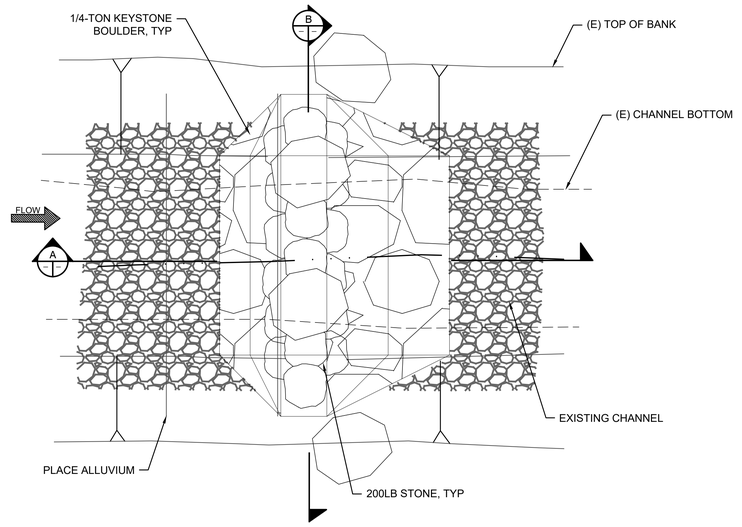
PRELIMINARY

STANTEC PROJECT NO.
SHEET R9 OF R20
PLAN DATE 04/20/2021

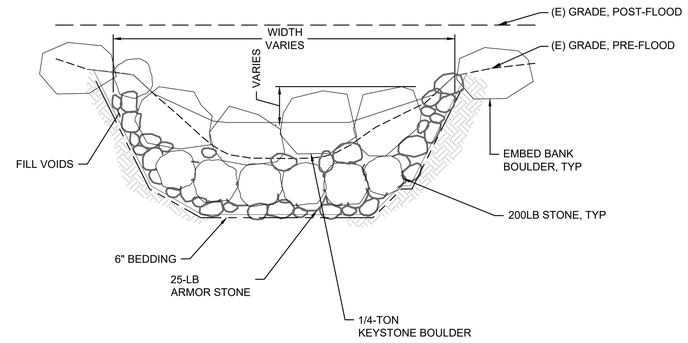
DESIGN: 42-ENG SAVE DATE: 3/3/2022 10:35:10 AM
CHECKED:
PLOT BY: Amber Inggs PLOT DATE: 3/3/2022 10:35:28 AM
DRAWING: p:\01 ca01\10xxxx\220160178.01 - camp hess kramer preliminary design\06 cad\dwg\typical details-stantec.dwg



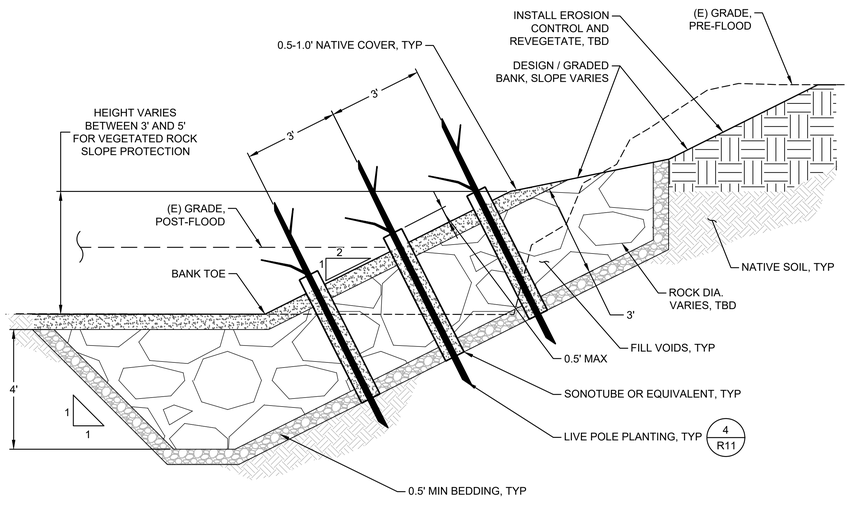
1 BANK RECONSTRUCTION - VEGETATED SOIL LIFT WITH VEGETATED ROCK SLOPE
SECTION VIEW — SCALE: 1" = 2'



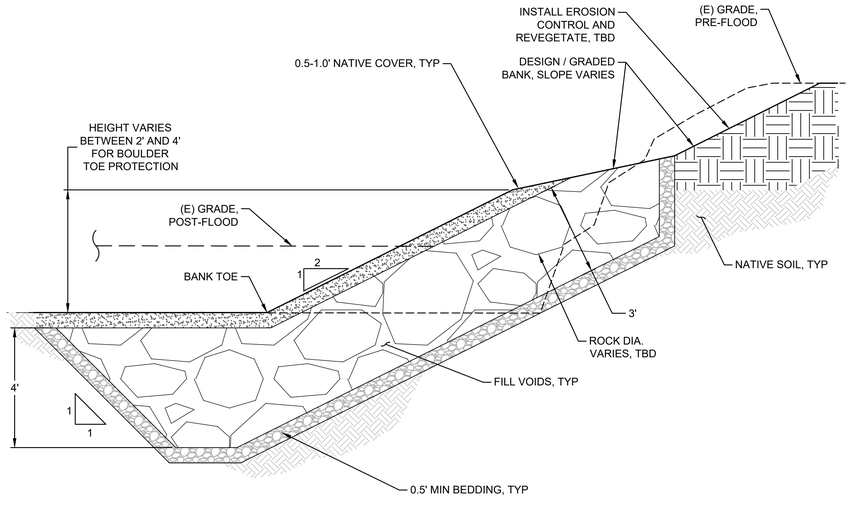
4 BOULDER WEIR
PLAN VIEW — SCALE: 1" = 2'



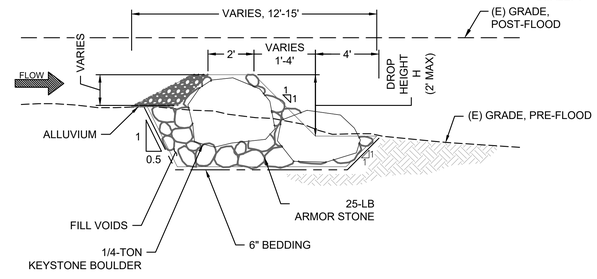
5 BOULDER WEIR
SECTION VIEW — SCALE: 1" = 2'



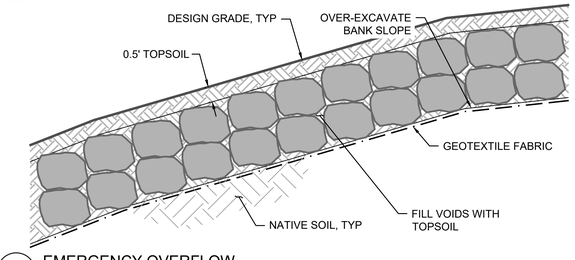
2 VEGETATED ROCK SLOPE PROTECTION
SECTION VIEW — SCALE: 1" = 2'



3 BOULDER TOE PROTECTION
SECTION VIEW — SCALE: 1" = 2'



6 ROCK SILL
SECTION VIEW — SCALE: 1" = 2'



7 EMERGENCY OVERFLOW
SECTION VIEW — SCALE: 1" = 2'

NOTES

1. FOR ALL CHANNEL AND BANK STABILIZATION STRUCTURES REMOVE FLOOD DEPOSITED SEDIMENTS TO EXPOSE PRE-FLOOD CHANNEL. KEY STRUCTURES INTO PRE-FLOOD CHANNEL SUBSTRATES PER DETAILS.
2. ROCK SIZING AND GRADATIONS ARE PRELIMINARY TO BE DETERMINED AND REVISED IN SUBSEQUENT DESIGN SUBMITTALS.
3. USE OF SALVAGED NATIVE BOULDERS IS ACCEPTABLE UPON APPROVAL BY RESTORATION ENGINEER.
4. GRADE CONTROL STRUCTURES AT STA. 29+60± AND STA. 31+70± ARE PERMITTED UNDER THE EMERGENCY RESPONSE PROJECT AND ARE SHOWN FOR INFORMATION PURPOSES ONLY.
5. SHEET R10 NUMBER OF VEGETATED SOIL LIFTS (VSL) TO BE ADJUSTED ACCORDING TO BANK HEIGHT, SITE SPECIFIC.
6. PRE-FLOOD AND POST-FLOOD ELEVATIONS ARE ESTIMATED BASED ON FIELD RECONNAISSANCE AND OBSERVATIONS AND ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL GRADES AND ELEVATIONS WILL VARY BASED ON LOCATION.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

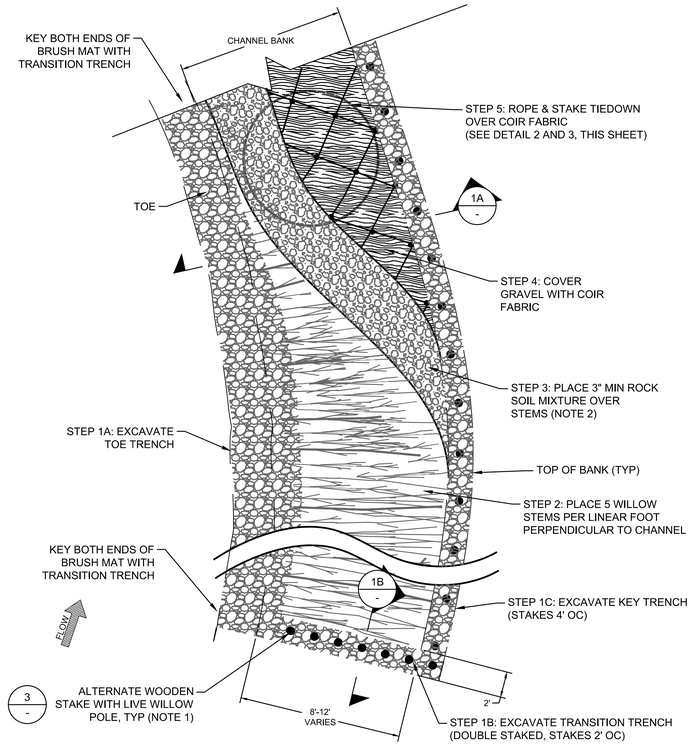
PREPARED BY: ESA
PROJECT ENGINEER R.C.E. DATE

D-02 RESTORATION TYPICAL DETAILS
CAMP HESS KRAMER/GINDLING HILLTOP CAMP WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

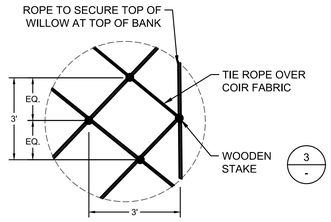
PRELIMINARY

STANTEC PROJECT NO.
SHEET R10 OF R20
PLAN DATE 04/20/2021

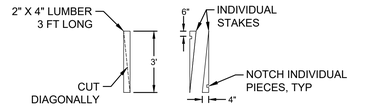
DESIGN CHECKED
42-ENG SAVE DATE: 4/16/2021 1:06:07 PM PLOT BY: Amber Inggs PLOT DATE: 4/23/2021 8:35:38 PM
DRAWING: \\ytc-fls01\ves\projects\vfo\185xxxx\dt190176.01 - camp hess kramer preliminary design\06 cad\dwg\typical details.dwg



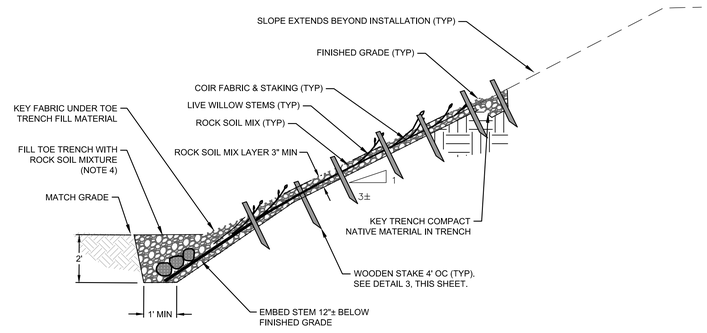
1 BRUSH MAT
PLAN VIEW — SCALE: 1" = 5'



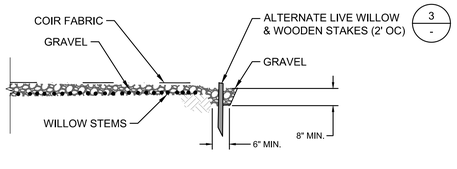
2 BRUSH MAT ROPE AND STAKE TIEDOWN
PLAN VIEW — NOT TO SCALE



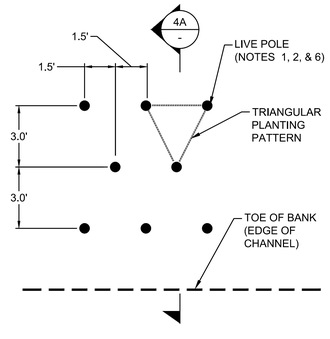
3 WOODEN STAKE
FABRICATION DETAIL — SCALE: 1" = 2'



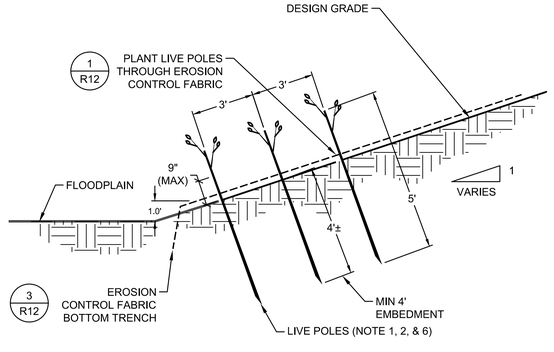
1A BRUSH MAT
SECTION VIEW — SCALE: 1" = 5'



1B BRUSH MAT TRANSITION
SECTION VIEW — SCALE: 1" = 5'



4 LIVE POLE PLANTING
PLAN VIEW — SCALE: 1" = 3'



4A LIVE POLE PLANTING
SECTION VIEW — SCALE: 1" = 3'

NOTES

1. BRANCHES SHALL BE A MINIMUM OF 50% LIVE WILLOWS. REMAINING 50% MAY BE OTHER NATIVE SPECIES AND NON-LIVING.
2. NATIVE WOOD PIECES SHALL BE HARVESTED DURING CLEAR AND GRUBBING AND STOCKPILED FOR PLACEMENT AFTER EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED.
3. WOOD PIECES LARGER THAN 2 INCHES IN DIAMETER WILL NOT EXCEED 15 FEET IN LENGTH.
4. ROCK-SOIL MIX TO CONSIST OF 50% 75 LB ROCK, 25% BEDDING, AND 25% NATIVE MATERIAL.
5. LIVE POLE PLANTING TO CONSIST OF A MIX OF ALDER, WILLOW, AND COTTONWOOD. SEE SPECIFICATIONS.
6. CONTRACTOR SHALL STRIP ALL LEAVES FROM LIVE POLES PRIOR TO INSTALLATION.
7. CONTRACTOR TO STAKE APPROXIMATE EXTENT OF BIOTECHNICAL STRUCTURES AND ALLOW 72 HOURS FOR RESTORATION ENGINEER TO CONFIRM OR ADJUST.
8. WATER ALL LIVE POLES TWICE WEEKLY THROUGH OCTOBER 31, OR FIRST RAINS, WHICHEVER COMES LATER.

NOT FOR CONSTRUCTION

SCALE: 1"=20'
0 20 40 60

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA
PROJECT ENGINEER R.C.E. DATE

D-03 RESTORATION TYPICAL DETAILS
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.
SHEET R11 OF R20
PLAN DATE 04/20/2021

DESIGN CHECKED
42-ENG SAVE DATE: 4/16/2021 1:08:07 PM PLOT BY:Amber Inggs PLOT DATE:4/23/2021 8:35:40 PM
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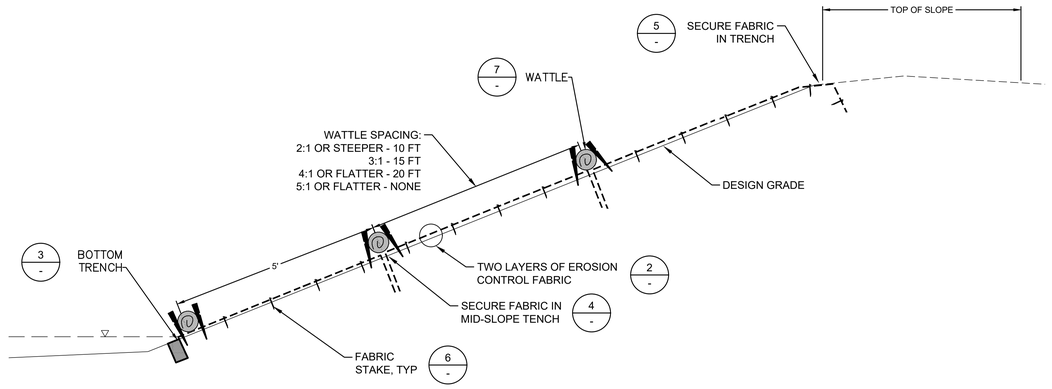
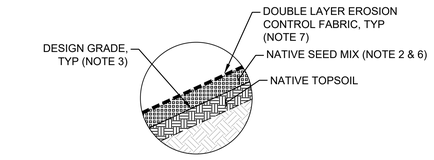


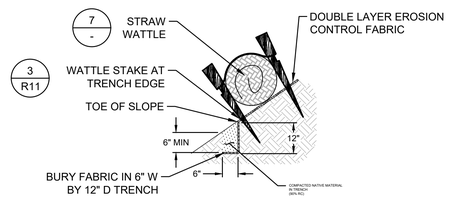
1 EROSION CONTROL FABRIC
SECTION VIEW — NOT TO SCALE

NOTES

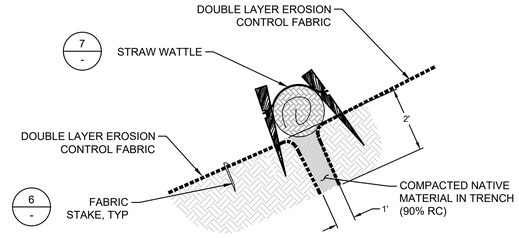
1. THIS SHEET SHOWS MINIMUM REQUIRED EROSION CONTROL MEASURES. INSTALL ADDITIONAL MEASURES AS NEEDED FOR EROSION CONTROL AND SWPPP COMPLIANCE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
2. SEEDING REFERRED TO ON THIS SHEET IS PER THE REVEGETATION PLANS. FOR MATERIALS AND METHODS, INCLUDING PREPARATION BEFORE SEEDING, REFER TO THE WRITTEN TECHNICAL SPECIFICATIONS.
3. FINISH GRADE SURFACE SHALL BE CLEARED OF LOOSE ROCKS, CLODS, STICKS AND GRASS BEFORE FABRIC INSTALLATION.
4. LIMITS OF FLOODPLAIN SLOPE VARY. PRIOR TO SEEDING AND INSTALLATION OF EROSION CONTROL FABRIC, CONTRACTOR SHALL STAKE LIMIT FLOODPLAIN BENCHES AND SLOPES AND VERIFY WITH OWNER'S REPRESENTATIVE. EROSION CONTROL FABRIC SHALL BE INSTALLED ON ALL DISTURBED OR CUT-FLOODPLAIN SLOPES EXCEPT IN THE LOCATIONS SPECIFIED FOR BRUSH MAT.
5. TRACK WALK SLOPE PRIOR TO EROSION CONTROL PER SPECIFICATIONS.
6. FOR ALL BANK/RIPARIAN AREAS RECEIVING EROSION CONTROL BLANKET, THE CONTRACTOR SHALL HARROW ALL SURFACES FOLLOWING SEEDING TO ENSURE PROPER SEED TO SOIL CONTACT. FOLLOWING HARROWING OF SEEDING SURFACE, THE CONTRACTOR SHALL INSTALL THE REQUIRED EROSION CONTROL BLANKETS.
7. PLACE TWO (2) LAYERS OF C125BN (OR APPROVED EQUIVALENT) EROSION CONTROL FABRIC PER SPECIFICATIONS.
8. LAY FABRIC LOOSELY AND STAKE 2' OC (VERTICAL) AND 2' OC (HORIZONTAL) TO MAINTAIN DIRECT CONTACT WITH THE FINISH GRADE SURFACE. DO NOT STRETCH.
9. FABRIC SHALL BE EXTENDED MIN 2' LATERALLY FROM THE TOP OF BANK, SECURED PER DETAILS 1 AND 5, THIS SHEET.
10. INSTALL BOTTOM TRENCH AT TOE OF SLOPE.
11. INSTALL AND MAINTAIN SILT FENCE ALONG THE PROJECT LIMIT LINE AT TOP OF THE ACTIVE CHANNEL DURING BENCH GRADING. SILT FENCE LOCATIONS SHALL BE VERIFIED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
12. ALL EROSION CONTROL WORK AND SEEDING SHALL BE COMPLETED BY OCTOBER 15TH.



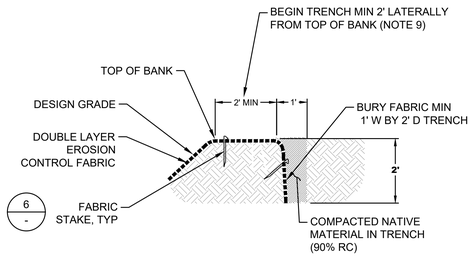
2 FABRIC
SECTION VIEW — SCALE: 1" = 2'



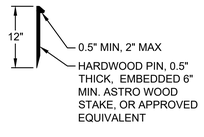
3 BOTTOM TRENCH DETAIL
SECTION VIEW — SCALE: 1" = 2'



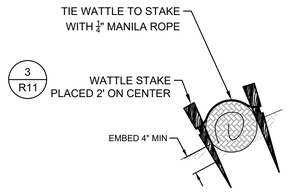
4 MID-SLOPE TRENCH DETAIL
SECTION VIEW — SCALE: 1" = 2'



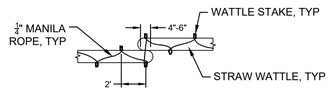
5 TOP TRENCH DETAIL
SECTION VIEW — SCALE: 1" = 2'



6 FABRIC STAKE DETAIL
SECTION VIEW — SCALE: 1" = 1'



7A WATTLE DETAIL
SECTION VIEW — SCALE: 1" = 2'



7B WATTLE DETAIL
PLAN VIEW — NOT TO SCALE

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

D-04 RESTORATION TYPICAL DETAILS
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R12 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED

42-ENG SAVE DATE: 4/19/2021 1:08:07 PM PLOT BY: Amber Inggs PLOT DATE: 4/23/2021 8:35:47 PM

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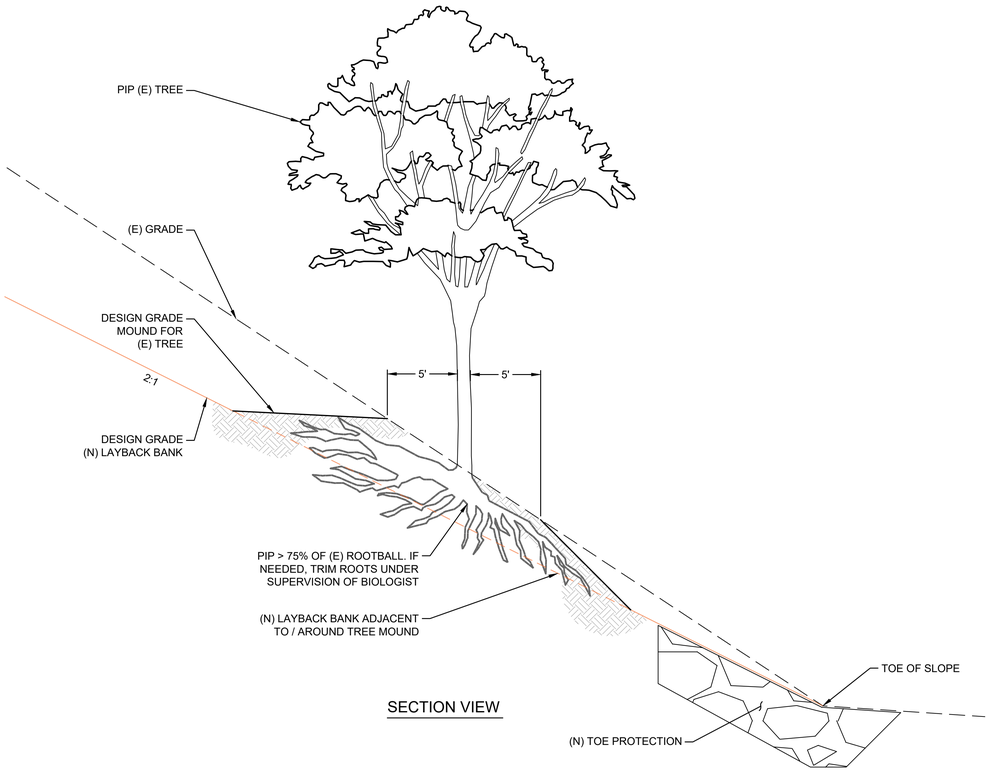
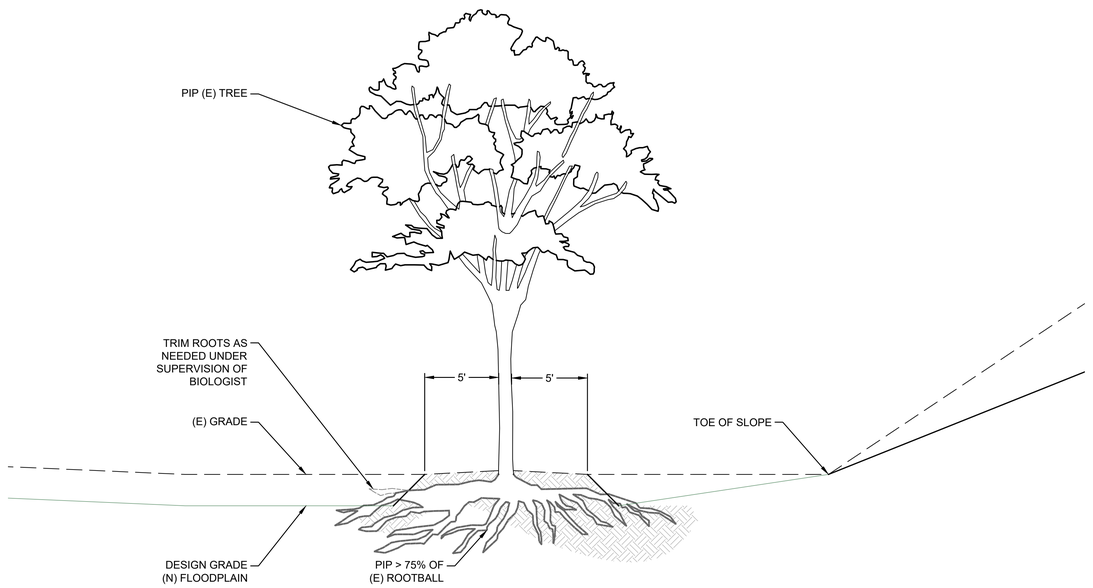
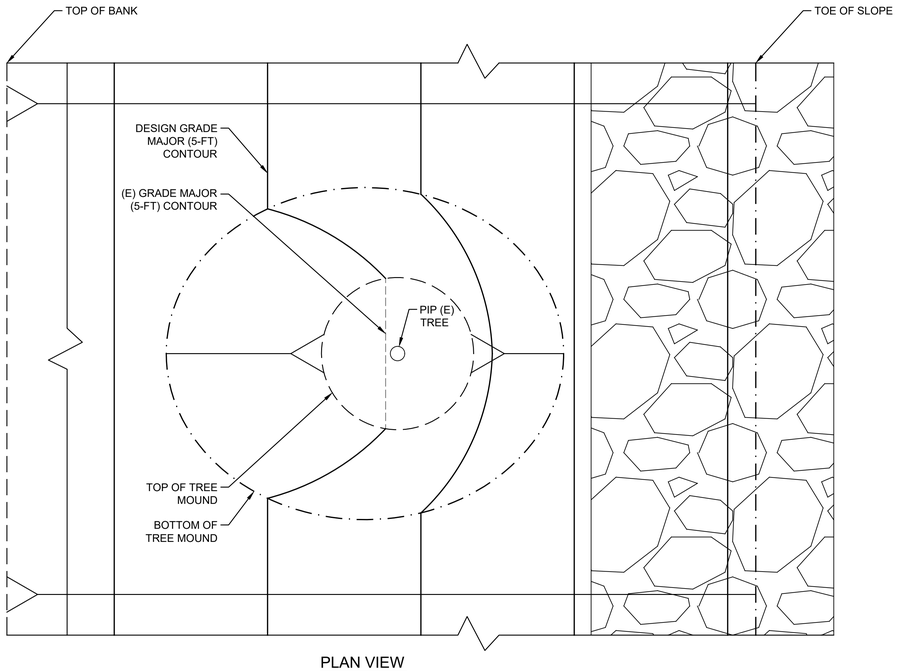
DRAWING: \\sfo-file01\esa\projects\sfo\19xxxx\d190176.01 - camp hess kramer preliminary design\08 cad\dwg\typical details.dwg



SECTION VIEW



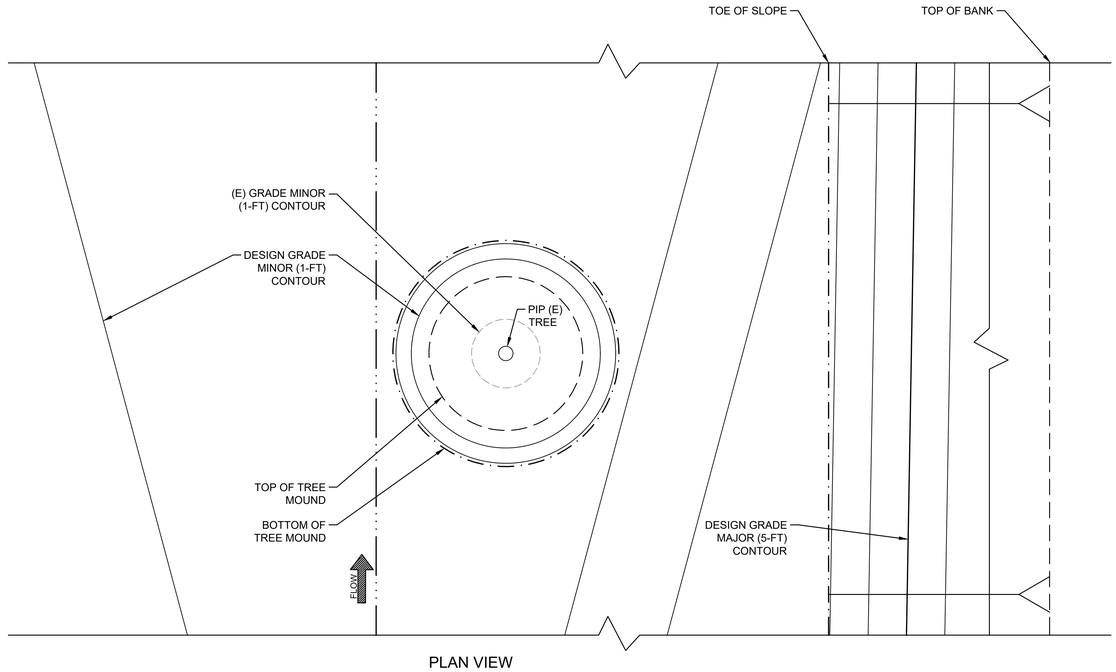
SECTION VIEW



PLAN VIEW

1 TREE PROTECTION ON BANK
DETAIL

NOT TO SCALE



PLAN VIEW

2 TREE PROTECTION IN CHANNEL
DETAIL

NOT TO SCALE

NOTES

1. UNLESS DIRECTED OTHERWISE BY PROJECT BIOLOGIST, PROTECT AND PRESERVE ALL EXISTING TREES (INCLUDING EUCALYPTUS FOR MONARCH HABITAT) IN LITTLE SYCAMORE CREEK STABILIZATION AND ENHANCEMENT AREAS.
2. GRADING LIMITS FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES WILL BE REVIEWED AND ADJUSTED IN THE FIELD BY PROJECT ENGINEER PRIOR TO INITIATING GRADING AND EXCAVATION ACTIVITIES. GRADING LIMITS AT EXISTING TREES SHALL BE OFFSET A MINIMUM OF 5 FEET FROM TREE TRUNK.
3. IN ZONE 1 - LAYBACK AND REVEGETATE AND IN ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING, CONFORM GRADING TO CREATE TREE ISLANDS PER DETAIL 1 AND DETAIL 2, THIS SHEET.
4. EXCAVATION FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES SHALL BE MONITORED BY A QUALIFIED ARCHAEOLOGIST FOLLOWING THE PROTOCOLS ESTABLISHED IN THE CULTURAL RESOURCES MONITORING PLAN AS UPDATED FOR THE REBUILDING PROJECT.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

D-05 RESTORATION TYPICAL DETAILS
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R13 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED
42-ENG SAVE DATE: 4/16/2021 11:04:56 AM PLOT BY: Amber Inggs PLOT DATE: 4/23/2021 8:35:50 PM
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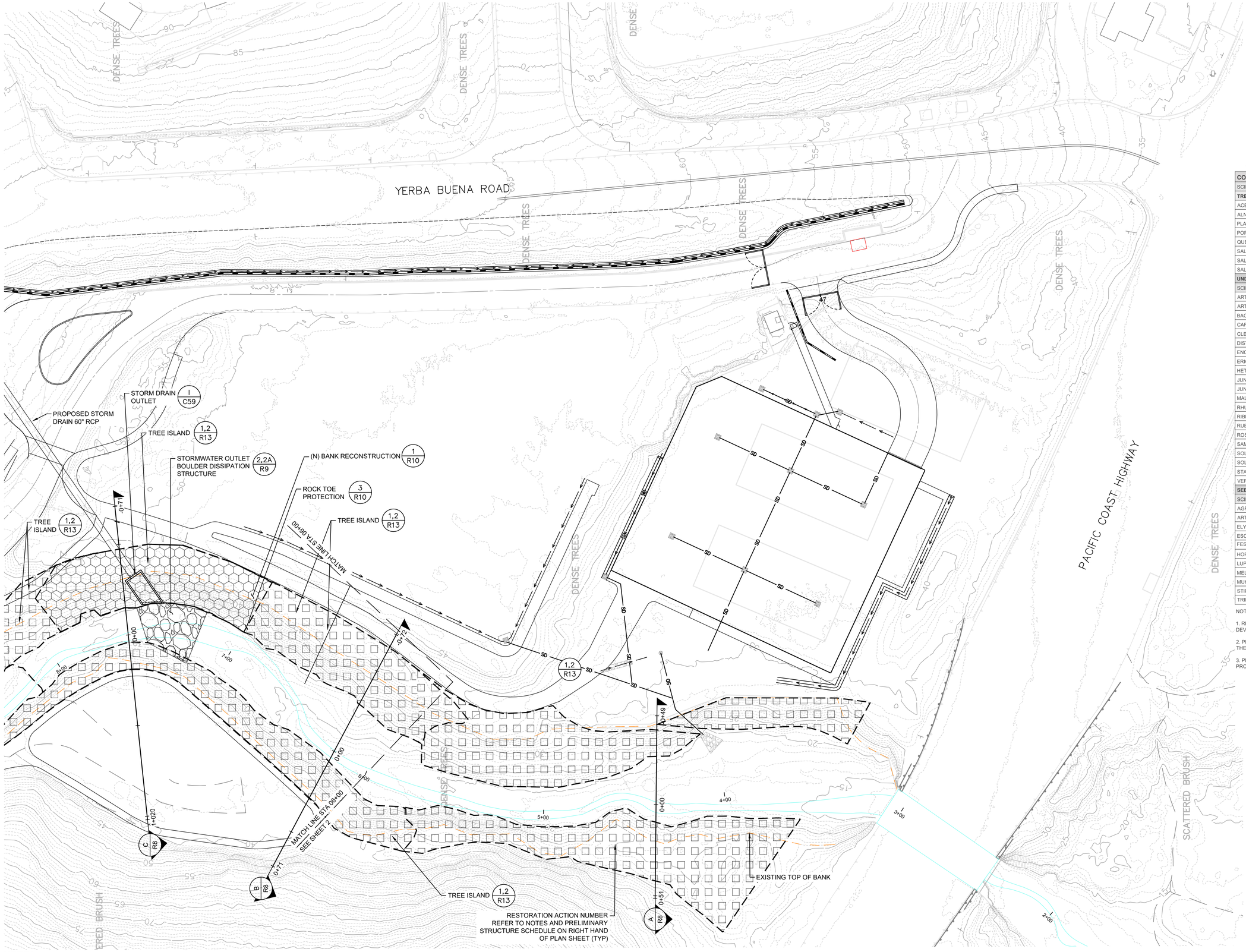

LEGEND

- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) REVEGETATION - BANK LAYBACK, INVASIVE SPECIES, AND FUEL MGMT ZONES
- (N) REVEGETATION - FLOODPLAIN
- (N) REVEGETATION - STREAM CHANNEL
- (N) REVEGETATION - MIXED RIPARIAN

PRELIMINARY PLANTING TABLE

CONTAINER PLANTINGS	
SCIENTIFIC NAME	COMMON NAME
TREES / CANOPY	
ACER MACRPHYLLUM	BIG LEAF MAPLE
ALNUS RHOMBIFOLIA	WHITE ALDER
PLATANUS RACEMOSA	CALIFORNIA SYCAMORE
POPULUS TRICHOCARPA	BLACK COTTONWOOD
QUERCUS AGRIFOLIA	COAST LIVE OAK
SALIX LAEVIGATA	RED WILLOW / POLISHED WILLOW
SALIX LASIOLEPIS	ARROYO WILLOW
SALIX EXIGUA	NARROWLEAF WILLOW
UNDERSTORY	
SCIENTIFIC NAME	COMMON NAME
ARTEMISIA CALIFORNICA	CALIFORNIA SAGEBRUCH
ARTEMISIA DOUGLASIANA	CALIFORNIA MUGWORT
BACCHARIS SALICIFOLIA	MULE FAT
CAREX PRAEGRACILIS	FIELD SEDGE
CLEMATIS LIGUSTIFOLIA	CREEK CLEMATIS
DISTICHLIS SPICATA	SALT GRASS
ENCELIA CALIFORNIA	CALIFORNIA BUSH SUNFLOWER
ERIOGONUM CINEREUM	ASHYLEAF BUCKWHEAT
HETEROMELES ARBUTIFOLIA	TOYON
JUNCUS PATENS	COMMON RUSH
JUNCUS XIPHIOIDES	IRIS LEAVED RUSH
MALOSMA LAURINA	LAUREL SUMAC
RHUS INTEGRIFOLIA	LEMONADE BERRY
RIBES AUREUM	GOLDEN CURRANT
RUBUS URSINUS	CALIFORNIA BLACKBERRY
ROSA CALIFORNICA	CALIFORNIA WILD ROSE
SAMBUCUS NIGRA SSP. CAERULEA	BLUE ELDERBERRY
SOLANUM DOUGLASII	DOUGLAS' NIGHTSHADE
SOLIDAGO VELUTINA SSP. CALIFORNICA	CALIFORNIA GOLDENROD
STACHYS AJUGOIDES	HEDGE NETTLE
VERBENA LASIOSTACHYS	WESTERN VERVAIN
SEED	
SCIENTIFIC NAME	COMMON NAME
AGROSTIS EXARATA	SPIKE BENTGRASS
ARTEMISIA DOUGLASIANA	CALIFORNIA MUGWORT
ELYMUS TRITICOIDES	CREEPING WILDRYE
ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY
FESTUCA (VULPIA) MICROSTACHYS	THREE WEEKS FESCUE
HORDEUM BRACHYANTHERUM	MEADOW BARLEY
LUPINUS BICOLOR	MINIATURE LUPINE
MELICA IMPERFECTA	COAST RANGE MELIC
MUHLENBERGIA RIGENS	DEER GRASS
STIPA PULCHRA	PURPLE NEEDLE GRASS
TRIFOLIUM WILDENOVII	TOMCAT CLOVER

NOTES:

1. REVEGETATION FOR RIPARIAN CORRIDOR ENHANCEMENTS TO BE DEVELOPED IN COORDINATION WITH OVERALL SITE REVETATION PLANS.
2. PLANT LISTS FOR SPECIFIC PLANTING ZONES WILL BE DEVELOPED BASED ON THE PRELIMINARY PLANT AND SEED LISTS.
3. PLANTING DETAILS, QUANTITIES AND SPACING TO BE DETERMINED AND PROVIDED IN SUBSEQUENT SUBMITTALS.

NOTES

1. CHANNEL GRADE CONTROL, BOULDER WEIR, BANK RECONSTRUCTION AND TOE PROTECTION STRUCTURES SHALL BE KEYED INTO PRE-FLOOD CHANNEL. REMOVE FLOOD-DEPOSITED SEDIMENTS TO EXPOSE PRE-FLOOD CHANNEL AND ADJUST SUBGRADE ELEVATIONS AND STRUCTURE DIMENSIONS BASED ON ACTUAL SITE CONDITIONS AND CHANNEL ELEVATIONS.
2. UNLESS DIRECTED OTHERWISE BY PROJECT BIOLOGIST, PROTECT AND PRESERVE ALL EXISTING TREES (INCLUDING EUCALYPTUS FOR MONARCH HABITAT) IN LITTLE SYCAMORE CREEK STABILIZATION AND ENHANCEMENT AREAS.
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4. IN ZONE 1 - LAYBACK AND REVEGETATE AND IN ZONE 5 - FLOODPLAIN GRADING AND HABITAT PLANTING, CONFORM GRADING TO CREATE TREE ISLANDS PER DETAIL 1 AND DETAIL 2, SHEET R13.
5. EXCAVATION FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES SHALL BE MONITORED BY A QUALIFIED ARCHAEOLOGIST FOLLOWING THE PROTOCOLS ESTABLISHED IN THE CULTURAL RESOURCES MONITORING PLAN AS UPDATED FOR THE REBUILDING PROJECT.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION REVEGETATION PLAN
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R14 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED

42-ENG SAVE DATE:3/3/2022 8:58:21 PM PLOT BY:Amber Ingo PLOT DATE:3/3/2022 9:05:33 PM

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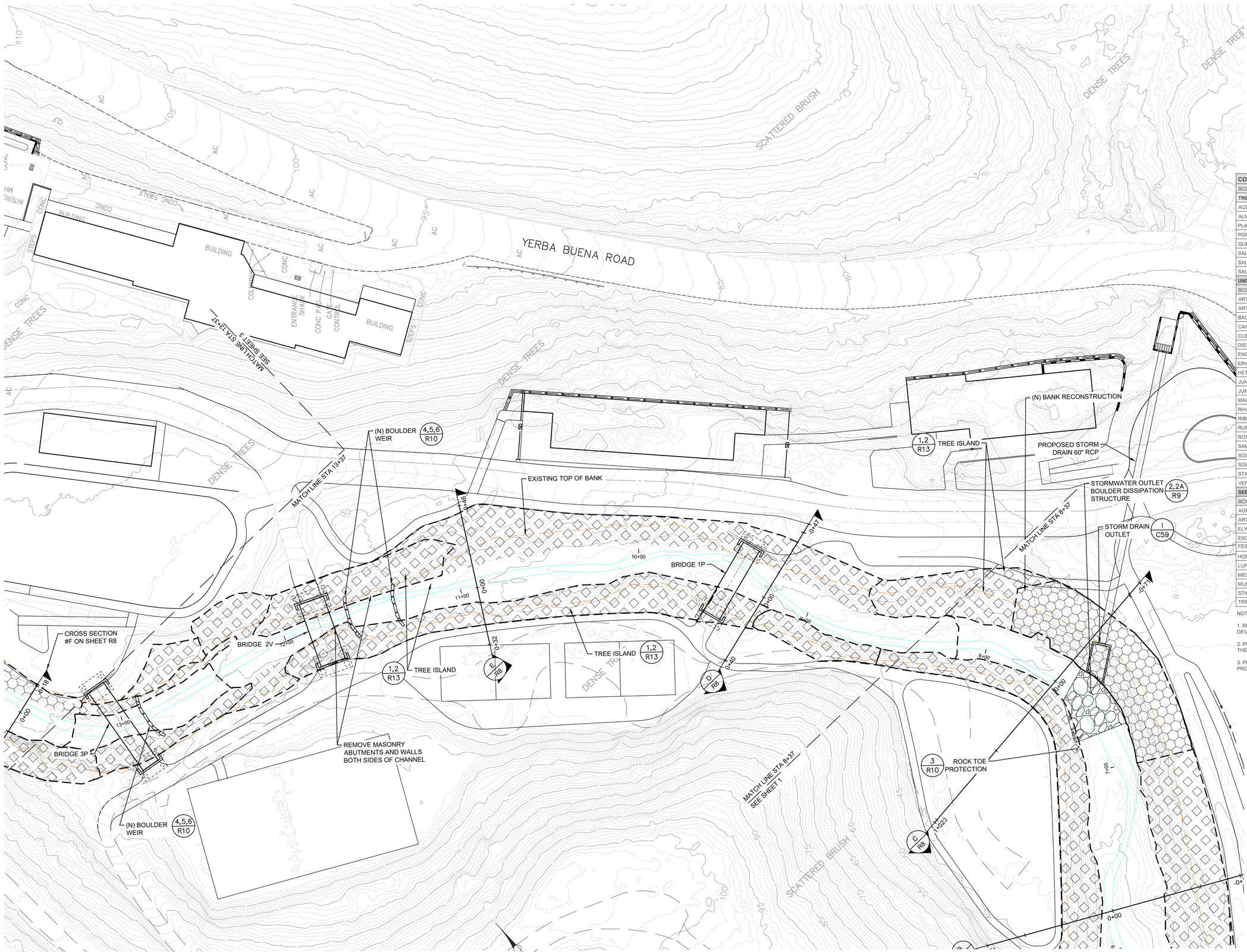

LEGEND

- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) REVEGETATION - BANK LAYBACK, INVASIVE SPECIES, AND FUEL MGMT ZONES
- (N) REVEGETATION - FLOODPLAIN
- (N) REVEGETATION - STREAM CHANNEL
- (N) REVEGETATION - MIXED RIPARIAN

PRELIMINARY PLANTING TABLE

CONTAINER PLANTINGS	
SCIENTIFIC NAME	COMMON NAME
TREES / CANOPY	
ACER MACRPHYLLUM	BIG LEAF MAPLE
ALNUS RHOMBIFOLIA	WHITE ALDER
PLATANUS RACEMOSA	CALIFORNIA SYCAMORE
POPULUS TRICHOCARPA	BLACK COTTONWOOD
QUERCUS AGRIFOLIA	COAST LIVE OAK
SALIX LAEVIGATA	RED WILLOW / POLISHED WILLOW
SALIX LASIOLEPIS	ARROYO WILLOW
SALIX EXIGUA	NARROWLEAF WILLOW
UNDERSTORY	
SCIENTIFIC NAME	COMMON NAME
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ARTEMISIA DOUGLASIANA	CALIFORNIA MUGWORT
BACCHARIS SALICIFOLIA	MULE FAT
CAREX PRAEGRACILIS	FIELD SEDGE
CLEMATIS LIGUSTIFOLIA	CREEK CLEMATIS
DISTICHLIS SPICATA	SALT GRASS
ENCELIA CALIFORNIA	CALIFORNIA BUSH SUNFLOWER
ERIOGONUM CINEREUM	ASHYLEAF BUCKWHEAT
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SCIENTIFIC NAME	COMMON NAME
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MELICA IMPERFECTA	COAST RANGE MELIC
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NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION REVEGETATION PLAN
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R15 OF R20

PLAN DATE 04/20/2021

DESIGN 42-ENG SAVE DATE:3/3/2022 8:58:21 PM PLOT BY:Amber Ingga PLOT DATE:3/3/2022 8:08:06 PM CHECKED

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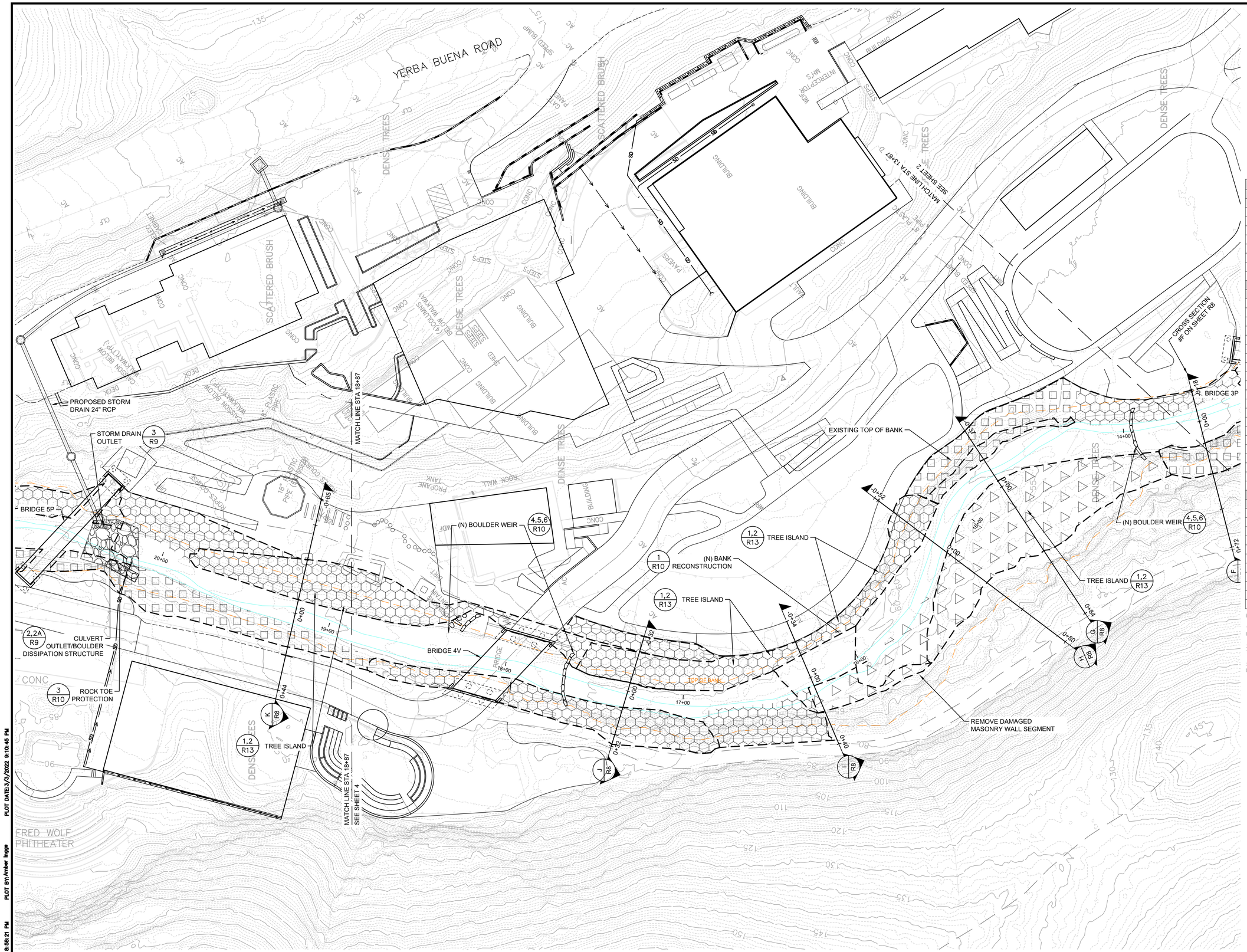

LEGEND

- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) REVEGETATION - BANK LAYBACK, INVASIVE SPECIES, AND FUEL MGMT ZONES
- (N) REVEGETATION - FLOODPLAIN
- (N) REVEGETATION - STREAM CHANNEL
- (N) REVEGETATION - MIXED RIPARIAN

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SCIENTIFIC NAME	COMMON NAME
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ALNUS RHOMBIFOLIA	WHITE ALDER
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SCIENTIFIC NAME	COMMON NAME
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MELICA IMPERFECTA	COAST RANGE MELIC
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SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION REVEGETATION PLAN
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R16 OF R20

PLAN DATE 04/20/2021

PLOT DATE:3/3/2022 9:10:45 PM
PLOT BY:Amber Ingo
42--ENG SAVE DATE: 3/3/2022 8:58:21 PM
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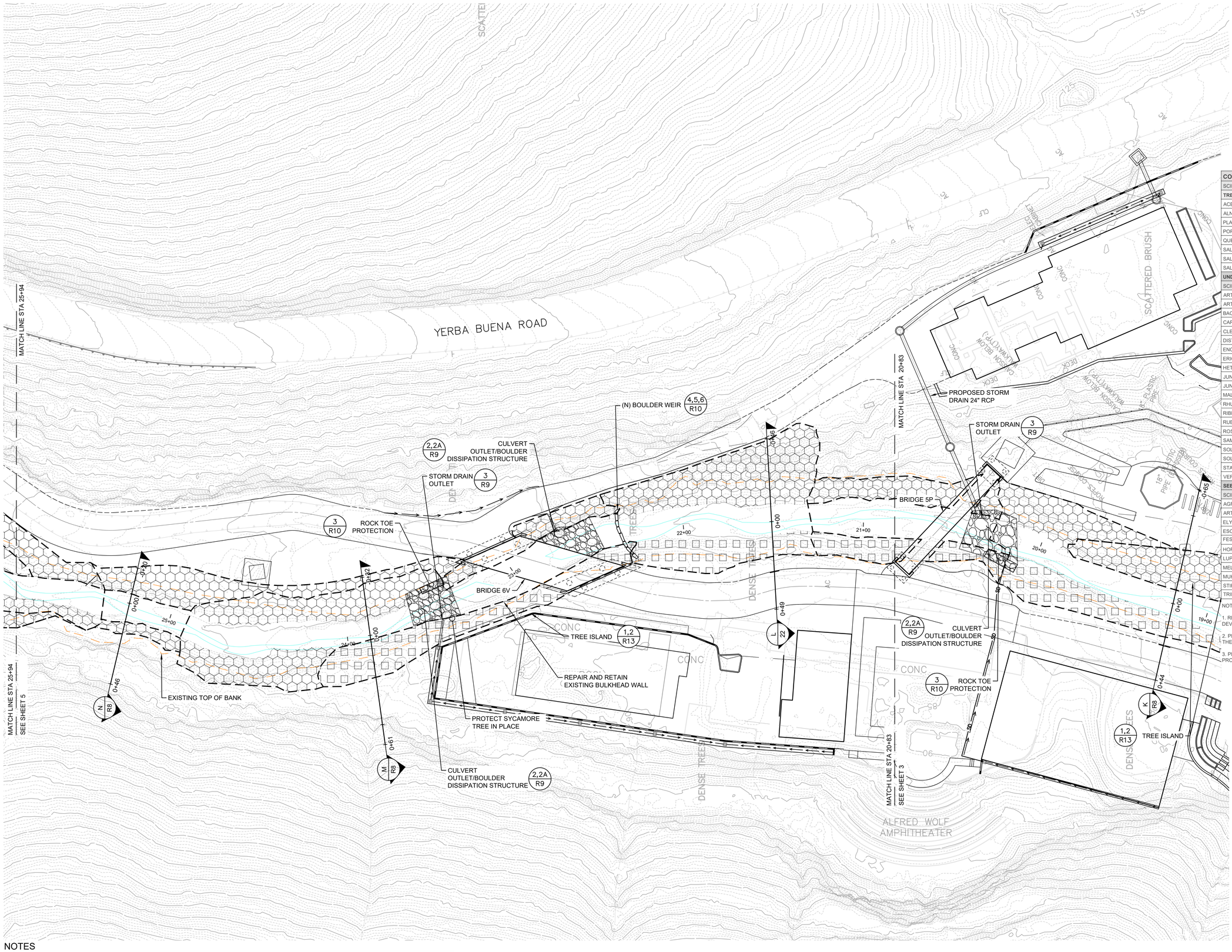

LEGEND

- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) REVEGETATION - BANK LAYBACK, INVASIVE SPECIES, AND FUEL MGMT ZONES
- (N) REVEGETATION - FLOODPLAIN
- (N) REVEGETATION - STREAM CHANNEL
- (N) REVEGETATION - MIXED RIPARIAN

PRELIMINARY PLANTING TABLE

CONTAINER PLANTINGS	
SCIENTIFIC NAME	COMMON NAME
TREES / CANOPY	
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QUERCUS AGRIFOLIA	COAST LIVE OAK
SALIX LAEVIGATA	RED WILLOW / POLISHED WILLOW
SALIX LASIOLEPIS	ARROYO WILLOW
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UNDERSTORY	
SCIENTIFIC NAME	COMMON NAME
ARTEMISIA CALIFORNICA	CALIFORNIA SAGEBRUCH
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CLEMATIS LIGUSTIFOLIA	CREEK CLEMATIS
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ENCELIA CALIFORNIA	CALIFORNIA BUSH SUNFLOWER
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SCALE: 1"=20'
0 20 40 60

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NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION REVEGETATION PLAN
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R17 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED

42-ENG SAVE DATE: 3/3/2022 8:58:21 PM PLOT BY: Amber Higgs PLOT DATE: 3/3/2022 9:13:22 PM

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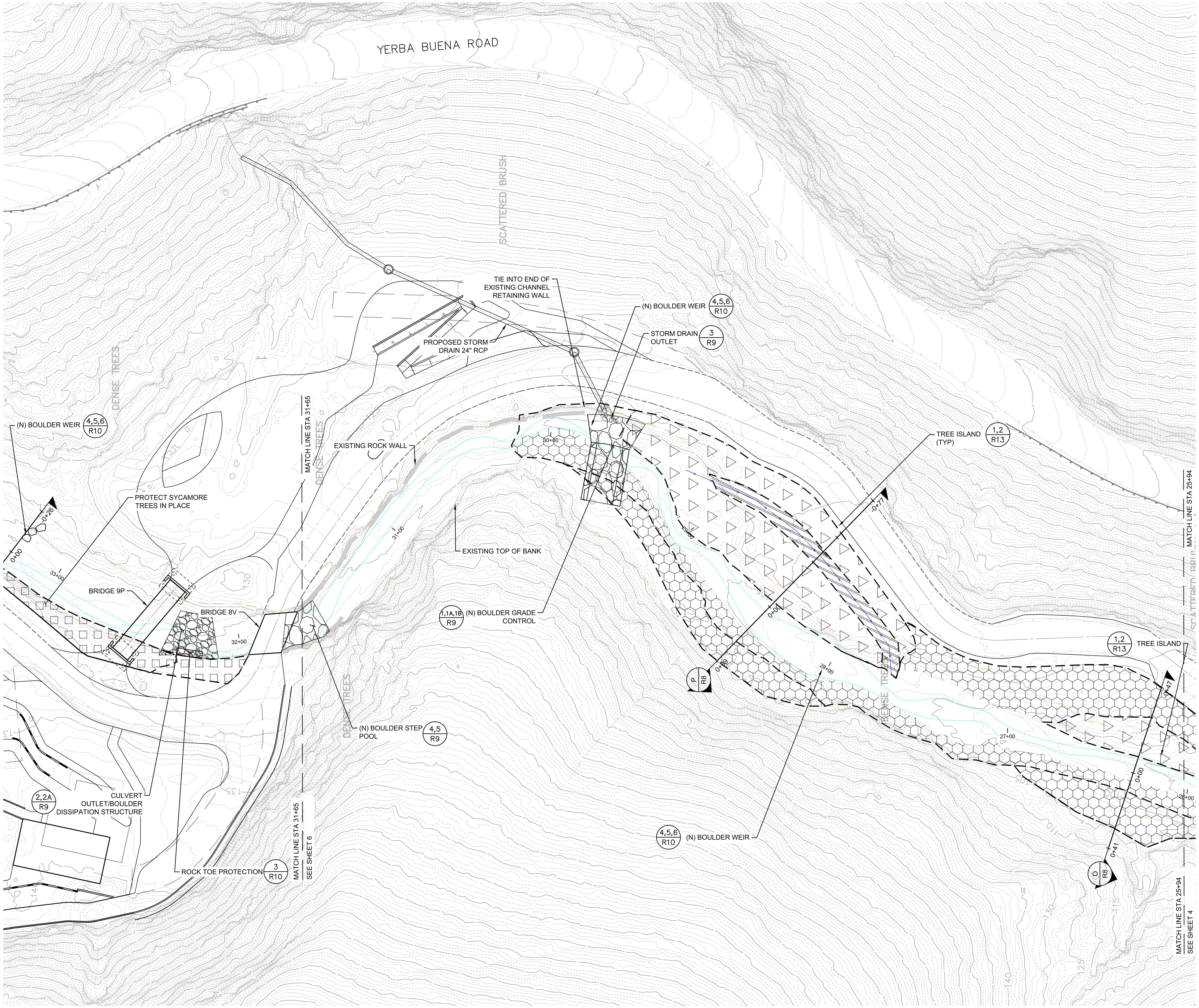

LEGEND

- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) REVEGETATION - BANK LAYBACK, INVASIVE SPECIES, AND FUEL MGMT ZONES
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5. EXCAVATION FOR CREEK CHANNEL AND BANK STABILIZATION MEASURES SHALL BE MONITORED BY A QUALIFIED ARCHAEOLOGIST FOLLOWING THE PROTOCOLS ESTABLISHED IN THE CULTURAL RESOURCES MONITORING PLAN AS UPDATED FOR THE REBUILDING PROJECT.

SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

PRELIMINARY

CREEK RESTORATION REVEGETATION PLAN
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

STANTEC PROJECT NO.

SHEET R18 OF R20

PLAN DATE 04/20/2021

DESIGN_____ CHECKED_____ 42-ENG SAVE DATE: 3/3/2022 8:58:21 PM PLOT BY: Amber Inggs PLOT DATE: 3/3/2022 9:15:57 PM

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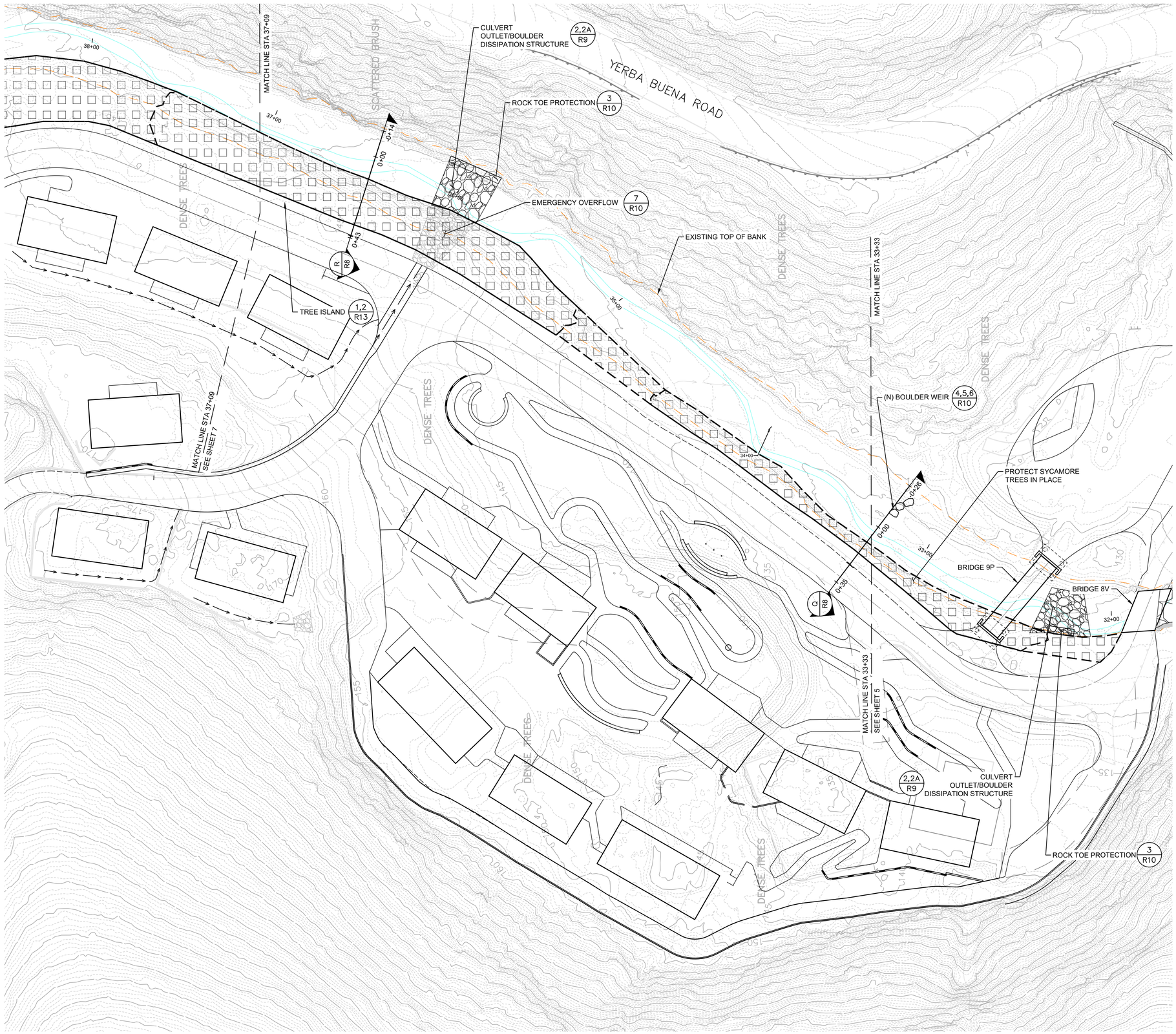

LEGEND

- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) REVEGETATION - BANK LAYBACK, INVASIVE SPECIES, AND FUEL MGMT ZONES
- (N) REVEGETATION - FLOODPLAIN
- (N) REVEGETATION - STREAM CHANNEL
- (N) REVEGETATION - MIXED RIPARIAN

PRELIMINARY PLANTING TABLE

CONTAINER PLANTINGS	
SCIENTIFIC NAME	COMMON NAME
TREES / CANOPY	
ACER MACRPHYLLUM	BIG LEAF MAPLE
ALNUS RHOMBIFOLIA	WHITE ALDER
PLATANUS RACEMOSA	CALIFORNIA SYCAMORE
POPULUS TRICHOCARPA	BLACK COTTONWOOD
QUERCUS AGRIFOLIA	COAST LIVE OAK
SALIX LAEVIGATA	RED WILLOW / POLISHED WILLOW
SALIX LASIOLEPIS	ARROYO WILLOW
SALIX EXIGUA	NARROWLEAF WILLOW
UNDERSTORY	
SCIENTIFIC NAME	COMMON NAME
ARTEMISIA CALIFORNICA	CALIFORNIA SAGEBRUCH
ARTEMISIA DOUGLASIANA	CALIFORNIA MUGWORT
BACCHARIS SALICIFOLIA	MULE FAT
CAREX PRAEGRACILIS	FIELD SEDGE
CLEMATIS LIGUSTIFOLIA	CREEK CLEMATIS
DISTICHLIS SPICATA	SALT GRASS
ENCELIA CALIFORNIA	CALIFORNIA BUSH SUNFLOWER
ERIOGONUM CINEREUM	ASHYLEAF BUCKWHEAT
HETEROMELES ARBUTIFOLIA	TOYON
JUNCUS PATENS	COMMON RUSH
JUNCUS XIPHIOIDES	IRIS LEAVED RUSH
MALOSMA LAURINA	LAUREL SUMAC
RHUS INTEGRIFOLIA	LEMONADE BERRY
RIBES AUREUM	GOLDEN CURRANT
RUBUS URSINUS	CALIFORNIA BLACKBERRY
ROSA CALIFORNICA	CALIFORNIA WILD ROSE
SAMBUCUS NIGRA SSP. CAERULEA	BLUE ELDERBERRY
SOLANUM DOUGLASII	DOUGLAS' NIGHTSHADE
SOLIDAGO VELUTINA SSP. CALIFORNICA	CALIFORNIA GOLDENROD
STACHYS AJUGOIDES	HEDGE NETTLE
VERBENA LASIOSTACHYS	WESTERN VERVAIN
SEED	
SCIENTIFIC NAME	COMMON NAME
AGROSTIS EXARATA	SPIKE BENTGRASS
ARTEMISIA DOUGLASIANA	CALIFORNIA MUGWORT
ELYMUS TRITICOIDES	CREEPING WILDRYE
ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY
FESTUCA (VULPIA) MICROSTACHYS	THREE WEEKS FESCUE
HORDEUM BRACHYANTHERUM	MEADOW BARLEY
LUPINUS BICOLOR	MINIATURE LUPINE
MELICA IMPERFECTA	COAST RANGE MELIC
MUHLENBERGIA RIGENS	DEER GRASS
STIPA PULCHRA	PURPLE NEEDLE GRASS
TRIFOLIUM WILDENOVII	TOMCAT CLOVER

NOTES:

1. REVEGETATION FOR RIPARIAN CORRIDOR ENHANCEMENTS TO BE DEVELOPED IN COORDINATION WITH OVERALL SITE REVETATION PLANS.

2. PLANT LISTS FOR SPECIFIC PLANTING ZONES WILL BE DEVELOPED BASED ON THE PRELIMINARY PLANT AND SEED LISTS.

3. PLANTING DETAILS, QUANTITIES AND SPACING TO BE DETERMINED AND PROVIDED IN SUBSEQUENT SUBMITTALS.

NOTES

1. CHANNEL GRADE CONTROL, BOULDER WEIR, BANK RECONSTRUCTION AND TOE PROTECTION STRUCTURES SHALL BE KEYED INTO PRE-FLOOD CHANNEL. REMOVE FLOOD-DEPOSITED SEDIMENTS TO EXPOSE PRE-FLOOD CHANNEL AND ADJUST SUBGRADE ELEVATIONS AND STRUCTURE DIMENSIONS BASED ON ACTUAL SITE CONDITIONS AND CHANNEL ELEVATIONS.
2. UNLESS DIRECTED OTHERWISE BY PROJECT BIOLOGIST, PROTECT AND PRESERVE ALL EXISTING TREES (INCLUDING EUCALYPTUS FOR MONARCH HABITAT) IN LITTLE SYCAMORE CREEK STABILIZATION AND ENHANCEMENT AREAS.
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SCALE: 1"=20'
0 20 40 60

NOT FOR CONSTRUCTION

NO.	DATE	REVISION BLOCK	APPD.

PREPARED FOR:

PREPARED BY: ESA

PROJECT ENGINEER R.C.E. DATE

CREEK RESTORATION REVEGETATION PLAN
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R19 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED

42-ENG SAVE DATE:3/3/2022 8:58:21 PM PLOT BY:Amber Ingge PLOT DATE:3/3/2022 9:18:32 PM

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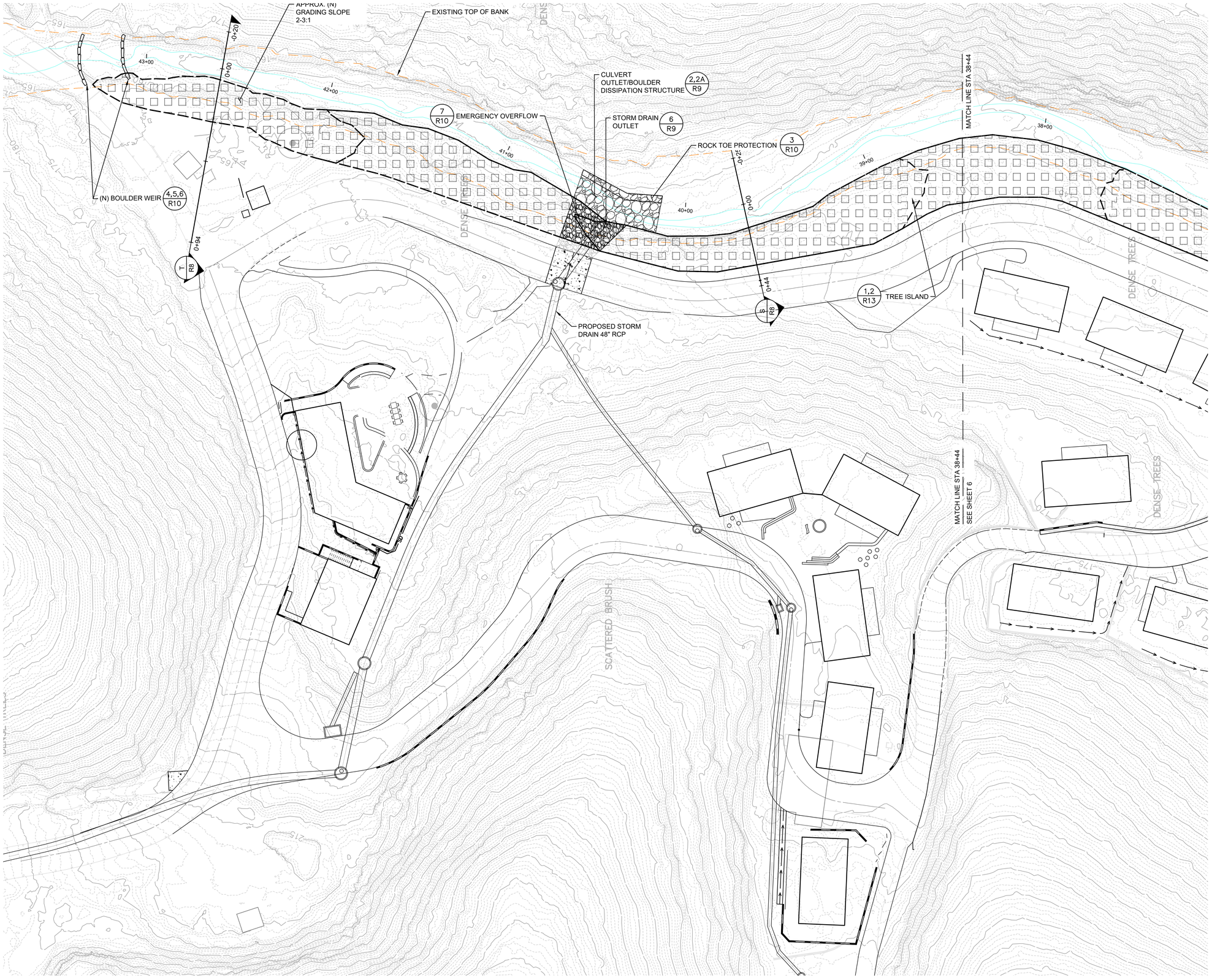

LEGEND

- (N) ENHANCEMENT/STABILIZATION MEASURE
- (N) REVEGETATION - BANK LAYBACK, INVASIVE SPECIES, AND FUEL MGMT ZONES
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SCALE: 1"=20'
0 20 40 60

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CREEK RESTORATION REVEGETATION PLAN
CAMP HESS KRAMER/GINDLING HILLTOP CAMP
WOOLSEY FIRE REBUILD
11495 & 11677 PACIFIC COAST HWY
VENTURA COUNTY, CA

PRELIMINARY

STANTEC PROJECT NO.

SHEET R20 OF R20

PLAN DATE 04/20/2021

DESIGN CHECKED

42-ENG SAVE DATE: 3/3/2022 8:58:21 PM PLOT BY:Amber Hoge PLOT DATE:3/3/2022 9:21:05 PM

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