

ENDANGERED HABITATS CONSERVANCY HANSON PONDS RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT

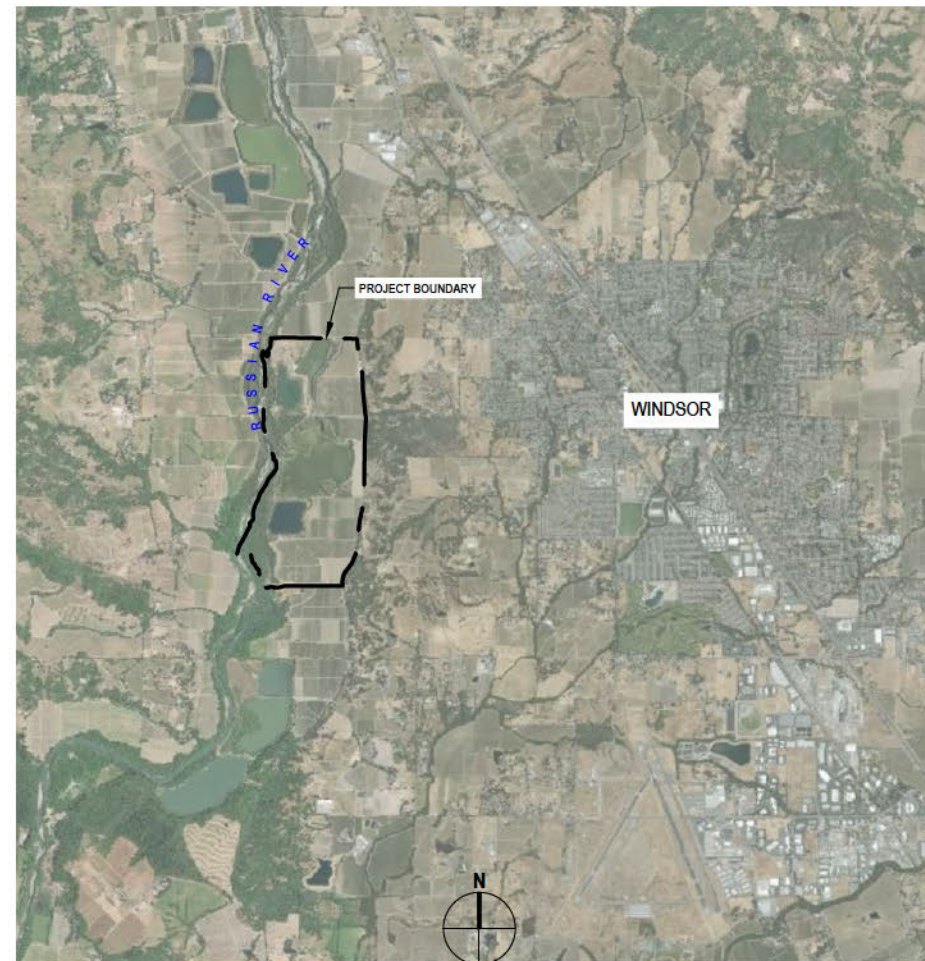
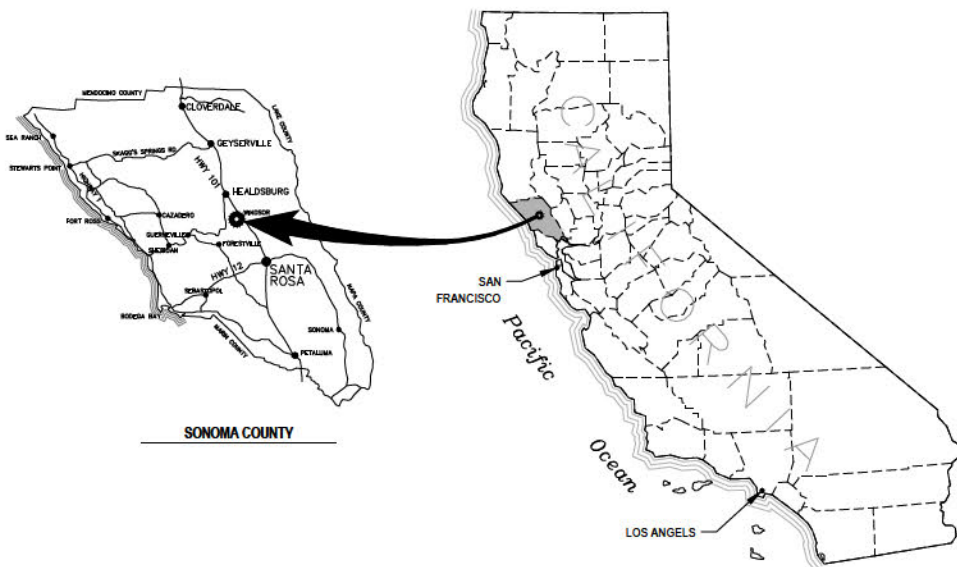


December, 2020

AREA MAP

LOCATION MAP

30% DESIGN COLLABORATING PARTNERS



NOAA'S NATIONAL MARINE FISHERIES SERVICE
CALIFORNIA STATE COASTAL CONSERVANCY
RUSSIAN RIVERKEEPER
SONOMA WATER
PERMIT SONOMA
SONOMA COUNTY REGIONAL PARKS
TOWN OF WINDSOR
US GEOLOGICAL SERVICES
H.T. HARVEY & ASSOCIATES
MILLER PACIFIC ENGINEERING GROUP
AVOCET RESEARCH ASSOCIATES
PETER BAYE



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No.	Issue	Drawn	Approved	Date

NOTE:
PLANSET CONTENT
COLOR-DEPENDENT;
PLANSET TO BE PLOTTED
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Project Manager	J. SVEHLA	Date	12/4/2020
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Client	ENDANGERED HABITATS CONSERVANCY		
Project	HANSON RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT		
Title	TITLE SHEET		
Project No.	11195953		
Original Size	ANSI D	Sheet No.	G-001

GENERAL NOTES

- PROJECT REQUIRES A CLASS A GENERAL ENGINEERING CONTRACTOR'S LICENSE IN THE STATE OF CALIFORNIA.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK AND REPORT ANY DISCREPANCIES TO THE CONSTRUCTION MANAGER. CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND BECOMING FAMILIAR WITH THE SITE CONDITIONS PRIOR TO BIDDING. SHOULD EXISTING CONDITIONS DIFFER FROM THOSE SHOWN OR INDICATED, OR IF IT APPEARS THAT THESE PLANS, AND SPECIFICATIONS DO NOT ADEQUATELY DETAIL THE WORK TO BE DONE, CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER PRIOR TO CONTINUING WITH ANY RELATED WORK. NO ALLOWANCE WILL BE MADE ON CONTRACTOR'S BEHALF FOR ANY EXTRA EXPENSE RESULTING FROM FAILURE OR NEGLIGENCE IN DETERMINING THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED.
- NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALE.
- QUANTITIES OF ITEMS, LENGTH OF PROJECT, AND SITE CONDITIONS SHOWN IN THE PLANS ARE APPROXIMATE. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY, GHD, AND THEIR REPRESENTATIVES HARMLESS FROM ANY AND ALL LIABILITY, REAL AND/OR ALLEGED, IN CONJUNCTION WITH THE PERFORMANCE OF THIS PROJECT.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING STRUCTURES, ROADS, PARKING AREAS, AND UTILITIES DURING CONSTRUCTION. ALL DAMAGE SHALL BE RESTORED TO AN "AS GOOD OR BETTER" CONDITION AT THE CONTRACTOR'S EXPENSE.
- A SET OF SIGNED CONSTRUCTION DRAWINGS AND SPECIFICATIONS WILL BE KEPT AT ALL TIMES AT THE JOB SITE ON WHICH ALL CHANGES OR VARIATIONS IN THE WORK, INCLUDING ALL EXISTING UTILITIES, ARE TO BE RECORDED AND/OR CORRECTED DAILY AND SUBMITTED TO THE CONSTRUCTION MANAGER WHEN THE WORK TO BE DONE IS COMPLETED.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS IN ADVANCE OF COMMENCEMENT OF ANY PART OF THE WORK AND SHALL COORDINATE CONSTRUCTION SCHEDULE ACCORDINGLY.
- THE DESIGN FEATURES INCLUDING HORIZONTAL AND VERTICAL ALIGNMENTS, SECTIONS, AND ALL DESIGN DETAILS SHOWN ON THESE DESIGN PLANS SHALL NOT BE ALTERED OR MODIFIED IN ANY WAY DURING CONSTRUCTION WITHOUT THE EXPRESSED, WRITTEN DIRECTION AND APPROVAL OF THE CONSTRUCTION MANAGER. DRAINAGE STRUCTURES SHALL BE INSTALLED AS SHOWN ON THE PLANS WITH ONLY MINOR CORRECTIONS IN LOCATION SKEW, AND/OR ELEVATIONS AS NEEDED TO FIT FIELD CONDITIONS AS DETERMINED BY THE CONSTRUCTION MANAGER.
- THE CONTRACTOR SHALL READ AND MAKE CAREFUL EXAMINATION OF THE PLANS, SPECIFICATIONS, QUANTITIES AND MATERIAL ESTIMATES AND VISIT THE SITE OF THE PROPOSED CONSTRUCTION TO BECOME FAMILIAR WITH THE SITE CONDITIONS AND LIMITATIONS BEFORE MAKING A BID. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ERRORS RESULTING FROM THE FAILURE TO MAKE SUCH AN EXAMINATION. ANY INFORMATION DERIVED FROM THE MAPS, PLANS, SPECIFICATIONS, PROFILES, DRAWINGS OR FROM THE ENGINEER WILL NOT RELIEVE THE CONTRACTOR FROM ANY RISK OR FROM FULFILLING THE TERMS OF THE CONTRACT.
- NO WORK SHALL BE PERFORMED OUTSIDE OF THE APPROXIMATE LIMITS OF DISTURBANCE SHOWN ON THE PLANS WITHOUT THE APPROVAL OF THE CONSTRUCTION MANAGER.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING STAGING AREAS AND EXTENTS WITH THE CONSTRUCTION MANAGER.
- UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL PROTECT EXISTING SURVEY MONUMENTS WITHIN WORK LIMITS. ANY MONUMENT DAMAGED BY THE CONTRACTOR SHALL BE RESET IN ACCORDANCE WITH THE CALIFORNIA PROFESSIONAL LAND SURVEYORS ACT AT THE CONTRACTOR'S SOLE EXPENSE.
- WHENEVER ANY MATERIAL OR EQUIPMENT IS INDICATED OR SPECIFIC BY PATENT OR PROPRIETARY NAME OR BY THE NAME OF THE MANUFACTURER, SUCH SPECIFICATION SHALL BE CONSIDERED AS USED FOR DESCRIBING THE MATERIAL OR EQUIPMENT DESIRED AND SHALL BE CONSIDERED AS FOLLOWED BY THE WORDS "OR APPROVED EQUAL". THE CONTRACTOR MAY OFFER ANY MATERIAL OR EQUIPMENT WHICH SHALL BE EQUAL IN EVERY RESPECT TO THAT SPECIFIED, PROVIDED THAT WRITTEN APPROVAL FIRST IS OBTAINED FROM THE CONSTRUCTION MANAGER.
- ANY INFORMATION DERIVED FROM THE MAPS, PLANS, SPECIFICATIONS, PROFILES, DRAWINGS OR FROM THE CONSTRUCTION MANAGER WILL NOT RELIEVE THE CONTRACTOR FROM ANY RISK OR FROM FULFILLING THE TERMS OF THE CONTRACT.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER UPON DISCOVERING DISCREPANCIES, ERRORS OR OMISSIONS IN THE PLANS OR SITE CONDITIONS. PRIOR TO PROCEEDING, THE DISCREPANCY SHALL BE RESOLVED TO THE SATISFACTION OF THE CONSTRUCTION MANAGER.
- CONTRACTOR SHALL MAINTAIN DAILY COMMUNICATIONS WITH THE CONSTRUCTION MANAGER TO DISCUSS DETAILS OF IMPLEMENTATION, ORDER OF WORK, METHODS OF MINIMIZING ENVIRONMENTAL IMPACTS AND OTHER RELEVANT COMPONENTS OF CONSTRUCTION. CONTRACTOR AND CONSTRUCTION MANAGER SHALL MEET MINIMUM WEEKLY ON-SITE TO DISCUSS PROJECT DETAILS.
- THE CONTRACTOR SHALL COMPLETELY REVIEW, BE FAMILIAR WITH, UNDERSTAND AND ADHERE TO THE TERMS OF ALL PERMITS AND AGENCY APPROVALS FOR THIS PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND UNDERSTAND THE CONDITIONS RELEVANT TO THE CONSTRUCTION ACTIVITIES. A COPY OF ALL PROJECT PERMITS SHALL REMAIN ON-SITE AT ALL TIMES.
- NO SHUTDOWN OF THE PROJECT SITE IS ANTICIPATED, HOWEVER, UNFORESEEABLE CONDITIONS INCLUDING BUT NOT LIMITED TO FIRE, GEO-HAZARD CONDITIONS, OR PRECIPITATION COULD REQUIRE THE CONSTRUCTION MANAGER TO SUSPEND CONSTRUCTION ACTIVITIES AT ALL OR PART OF THE SITE FOR SAFETY REASONS AT NO COST TO THE CITY OR THEIR REPRESENTATIVES.
- ALL EQUIPMENT AND PERSONNEL SHALL ACCESS THE CORRIDOR VIA THE CONSTRUCTION ENTRANCES AND ACCESS ROUTES SHOWN ON THE PLANS.
- CONTRACTOR SHALL BE AWARE THE PROJECT IS LOCATED ON PRIVATE LANDS AND CITY RIGHT-OF-WAY AND THEREFORE ALL ACTIVITIES SHALL REMAIN WITHIN LIMITS SHOWN ON PLANS AND ALL ADVANCEMENT WITHIN THE LIMITS SHALL BE PRE-AUTHORIZED BY THE CONSTRUCTION MANAGER.
- CONSTRUCTION ACCESS ROUTES AND EQUIPMENT STAGING AREAS SHALL BE LIMITED TO THE LIMITS OF CONSTRUCTION DISTURBANCE AS SHOWN ON THE PLANS. CONSTRUCTION ACTIVITIES SHALL BE PROHIBITED FROM UNNECESSARILY DISTURBING AQUATIC HABITAT AND WETLANDS, DISTURBANCE SUCH AS EXCAVATION, FILLING OR DEWATERING OF ANY EXISTING DITCHES, CHANNELS AND OTHER PONDED WATER AREAS SHALL OCCUR AFTER THE AREA HAS BEEN SEINED AND CLEARED BY A QUALIFIED BIOLOGIST, PROCURED BY OTHERS. THE CONTRACTOR SHALL COOPERATE WITH THE BIOLOGIST IN THE COLLECTION AND RELOCATION EFFORTS.
- THE CONTRACTOR SHALL RESTORE TEMPORARY HAUL ROADS AND STAGING AREAS AT THE CONCLUSION OF USE THROUGH BLADING, RIPPING OR OTHERWISE REMOVING RUTS, DE-COMPACTING AND NATURALIZING TO PRE-CONSTRUCTION CONDITIONS. THE CONSTRUCTION MANAGER/MONITOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REPAIR DAMAGE WHERE HAUL ROADS AND STAGING AREAS WERE CONSTRUCTED.
- BIOLOGIST PROVIDED BY OTHERS (NIC) SHALL IDENTIFY ALL AREAS OF NESTING BIRDS PRIOR TO ANY CONSTRUCTION DISTURBANCE (FEBRUARY 15 - AUGUST 15). CONTRACTOR TO MAINTAIN APPLICABLE SETBACKS.

SURVEY NOTES

- TOPOGRAPHIC DATA SHOWN HEREON IS BASED ON DATA PROVIDED BY NOAA, 2019.
- HORIZONTAL DATUM IS NAD 83, STATE PLANES, ZONE II.
- VERTICAL DATUM IS NAVD 88.
- UNDERGROUND UTILITIES SHOWN HEREON WERE LOCATED FROM ABOVE GROUND VISUAL UTILITY STRUCTURES. NO UTILITY RESEARCH WAS CONDUCTED FOR THIS PROJECT.
- PROPERTY LINE AND EASEMENT PLOTTING IS BASED ON A PRELIMINARY TITLE REPORT DATED JANUARY 13, 2014, PREPARED BY CHICAGO TITLE COMPANY, TITLE NO. 10-495107061-D-KF.
- SEE ADDITIONAL SURVEY NOTES ON SHEET G-103.

DESIGN NOTES

- FLOODPLAIN DESIGN COMPLETED BY NOAA FISHERIES & USGS PER NOVEMBER 2016 FEASIBILITY STUDY.
- SEASONAL LOW GROUNDWATER ELEVATIONS PROVIDED BY LUHDORFF & SCALMANINI CONSULTING ENGINEERS (LSC 2020).
- REVEGETATION DESIGN COMPLETED BY H.T. HARVEY & ASSOCIATES (NOVEMBER 2020).
- GEOTECHNICAL ENGINEERING RECOMMENDATIONS PROVIDED BY MILLER PACIFIC ENGINEERING GROUP (MPEG 2020).

WATER MANAGEMENT NOTES

- CONTRACTOR SHALL SUBMIT A WATER MANAGEMENT PLAN IN CONFORMANCE WITH THE PROJECT PERMITS AND IN ACCORDANCE WITH THE FINAL GRADING SEQUENCE.
- CONTRACTOR SHALL COOPERATE WITH THE AQUATIC BIOLOGIST DURING THE AQUATIC SPECIES RELOCATION.

DEFINITION OF "LIMITS" AS SHOWN ON THE PLAN

- LIMITS OF GRADING:** INDICATES APPROXIMATE LIMIT OF PERMANENT GRADING OR LAND DISTURBANCE (EXCAVATION OR FILLING).
- LIMITS OF DISTURBANCE:** INDICATES APPROXIMATE LIMITS OF TEMPORARY CONSTRUCTION DISTURBANCES AND INCLUDES POTENTIAL ACCESS ROUTES, STAGING AREAS, AND STOCKPILE AREAS THAT SHALL BE RESTORED BACK TO PRE-CONSTRUCTION CONDITIONS.

UTILITY NOTES

- UTILITIES INCLUDING UNDERGROUND GAS, SANITARY SEWER, STORM SEWER, DRINKING WATER, COMMUNICATIONS, AND ABOVE GROUND DRAINAGE AND ELECTRICAL ARE KNOWN TO EXIST WITHIN THE LIMITS OF DISTURBANCE.
- LOCATIONS OF EXISTING UTILITIES AND STRUCTURES ARE FROM THE BEST INFORMATION AVAILABLE. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICES ALERT (800) 227-2600 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION AND POT HOLE FOR EXACT LOCATION. NOTIFY THE CONSTRUCTION MANAGER IMMEDIATELY IF LOCATE INDICATES THAT EXISTING UTILITIES ARE DIFFERENT THAN SHOWN ON DRAWINGS.
- LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE PLOTTED FROM INTERPOLATION OF PHYSICAL EVIDENCE ON THE SITE SURFACE. ALL UTILITIES ARE SUBJECT TO FIELD VERIFICATION BY THE CONTRACTOR.
- ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION UNDER THIS SECTION OR ANY OTHER SECTION.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES, FEATURES, AND STRUCTURES LOCATED ON THE SITE. LOCATE, PROTECT, AND AVOID DISRUPTION OF ALL ABOVE AND BELOW GRADE UTILITIES DURING CONSTRUCTION, UNLESS STATED OTHERWISE.
- CONSTRUCTION ACTIVITY WILL TAKE PLACE IN THE VICINITY OF ABOVE GROUND AND UNDERGROUND ELECTRIC TRANSMISSION LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE AWARE OF, AND OBSERVE, THE MINIMUM CLEARANCES FOR WORKERS AND EQUIPMENT OPERATING NEAR HIGH VOLTAGE ELECTRIC LINES AS SET OUT IN THE HIGH VOLTAGE SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AS WELL AS OTHER APPLICABLE SAFETY REGULATIONS.
- CONSTRUCTION ACTIVITY WILL TAKE PLACE IN THE VICINITY OF GAS LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE AWARE OF, AND OBSERVE, THE MINIMUM CLEARANCES FOR WORKERS AND EQUIPMENT OPERATING NEAR GAS LINE AS SET OUT IN THE SAFETY ORDERS OF THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AS WELL AS OTHER APPLICABLE SAFETY REGULATIONS.
- ALL UTILITY CONSTRUCTION SHALL CONFORM TO CITY STANDARDS, UTILITY PROVIDOR REQUIREMENTS, AND CURRENT CALIFORNIA CODES.
- ALL EXISTING UTILITIES AND TIE-IN POINTS SHOULD BE CONSIDERED ACTIVE UTILITIES UNLESS OTHERWISE INDICATED.

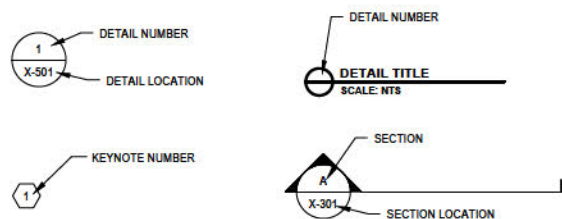
GRADING NOTES

- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING AND SHALL ARRANGE FOR STAKING. STAKING WILL BE REVIEWED BY THE CONSTRUCTION MANAGER FOR CONFORMANCE TO DESIGN PRIOR TO CONSTRUCTION.
- ALL GRADES BETWEEN SPOT AND CONTOUR ELEVATIONS SHALL HAVE UNIFORM SLOPE UNLESS OTHERWISE INDICATED. MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING WALLS AND DOORS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL CONSTRUCTION. ADEQUATE SHORING BRACING, TIES, AND SUPPORTS SHALL BE USED TO PROVIDE PROPER TEMPORARY INTEGRITY DURING ALL PHASES OF CONSTRUCTION.
- ALL EXISTING LANDSCAPED AND UNPAVED AREAS WHICH ARE DISTURBED OUTSIDE LIMITS OF GRADING BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE RETURNED TO AS GOOD OR BETTER CONDITIONS.
- ALL DITCHES, SWALES, GUTTERS, ETC. SHOULD BE CONSIDERED ACTIVE STORM CONVEYANCES UNLESS OTHERWISE INDICATED. CONTRACTOR IS RESPONSIBLE FOR ADDRESSING STORM WATER DRAINAGE AND DEWATERING OF WORK AREAS DURING CONSTRUCTION.
- PERFORM GRADING IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE AND APPLICABLE HUMBOLDT COUNTY REGULATIONS.
- THE CONTRACTOR SHALL BE AWARE OF THE SOFT AND SATURATED SOIL CONDITION THAT MAY BE ENCOUNTERED DURING THE CONSTRUCTION.
- IN THE EVENT CULTURAL RESOURCES (IE, HISTORICAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES, AND/OR HUMAN REMAINS) ARE DISCOVERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL BE HALTED. A QUALIFIED ARCHEOLOGIST SHALL BE PROVIDED BY THE CITY FOR AN ON-SITE EVALUATION. IF HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL ALSO NOTIFY THE COUNTY CORONER.
- SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IN THE AFFECTED AREA IMMEDIATELY AND CONTACT THE CONSTRUCTION MANAGER OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.
- ALL CONSTRUCTION SITES AND HAUL ROADS SHALL BE MAINTAINED, AS NECESSARY, TO MINIMIZE THE EMISSION OF DUST AND PREVENT CREATION OF NUISANCE TO ADJACENT PROPERTIES.
- ALL STAGING/STOCKPILE AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE RETURNED TO ORIGINAL EXISTING CONDITIONS OR BETTER.
- DURING WET WEATHER PERIODS, CONTRACTOR IS RESPONSIBLE FOR SEQUENCING CONSTRUCTION IN A MANNER TO MINIMIZE IMPACT ON OPEN EARTHWORK AND COMPACTION OPERATIONS.

30% DESIGN

				<p>NOTE: PLANSET CONTENT COLOR-DEPENDENT; PLANSET TO BE PLOTTED IN FULL COLOR</p>	<p>Bar is one inch on original size sheet 0 1"</p>		 <p>GHD Inc. 2235 Mercury Way Suite 150 Santa Rosa California 95407 USA T 1 707 523 1010 F 1 707 527 9679 W www.ghd.com</p>	<p>Drawn C. PENNY</p>	<p>Designer C. PENNY</p>	<p>Client ENDANGERED HABITATS CONSERVANCY Project HANSON RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT Title NOTES</p>		
		<p>Drafting Check J. SVEHLA</p>	<p>Design Check S. ALLEN</p>					<p>Project Manager J. SVEHLA</p>	<p>Date 12/3/2020</p>		<p>Project No. 11195953</p>	
No.	Issue	Drawn	Approved	Date			<p>This document shall not be used for construction unless signed and sealed for construction.</p>		<p>Scale NO SCALE</p>	<p>Original Size ANSI D</p>	<p>Sheet No. G-002</p>	<p>Sheet 2 of 20</p>

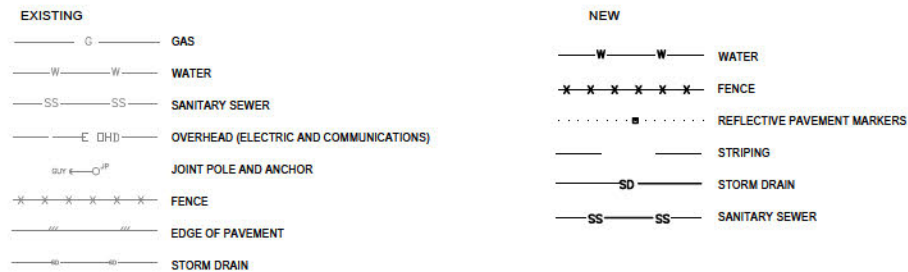
SYMBOLS



NEW	DESCRIPTION	EXISTING	DESCRIPTION
	(N) RSP		CONCRETE
	(N) CONCRETE		SUBGRADE
	(N) ASPHALTIC CONCRETE (AC)		
	(N) AGGREGATE BASE (AB)		
	(N) NATIVE BACKFILL		

NOTE: THESE ARE UNIVERSAL HATCH PATTERNS SHOWN ON MULTIPLE CIVIL SHEETS. SOME PATTERNS ARE SHEET SPECIFIC AND ARE DENOTED ON THE LEGENDS OF THEIR CORRESPONDING SHEETS.

UTILITIES



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ABBREVIATIONS

AB	AGGREGATE BASE	FG	FINISH GRADE	N	NORTH	S	SOUTH	UBC	UNIFORM BUILDING CODE
AC	ASPHALTIC CONCRETE	FIL	FLOW LINE	(N)	NEW	SCH	SCHEDULE	UG	UNDERGROUND
ACI	AMERICAN CONCRETE INSTITUTE	FT	FOOT OR FEET	NIC	NOT IN CONTRACT	SD	STORM DRAIN	UGT	UNDERGROUND TELEPHONE
ACP	ASBESTOS CEMENT PIPE	G	GAS	NO	NUMBER, NUMBERING	SECT	SECTION	UNK	UNKNOWN
ACW	ACTIVE CHANNEL WIDTH	GA	GAGE	NOM	NOMINAL	SHT	SHEET	UNO	UNLESS NOTED OTHERWISE
AGG	AGGREGATE	GAL	GALLON	NTS	NOT TO SCALE	SIM	SIMILAR		
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	GALV	GALVANIZED	OC	ON CENTER	SL	SLOPE	V	VENT, VOLT, VALVE
APN	ASSESSOR'S PARCEL NUMBER	GB	GRADE BREAK	OD	OUTSIDE DIAMETER	SPEC	SPECIFICATIONS	VC	VERTICAL CURVE
APPROX	APPROXIMATE	GPM	GALLONS PER MINUTE	OF	OUTSIDE FACE, OVERFLOW	SQ	SQUARE	VERT	VERTICAL
BC	BEGIN CURVE	GUY	GUY WIRE	OHE	OVER HEAD ELECTRIC	SQ FT	SQUARE FOOT	W	WATER
BF	BANK FULL	GVL	GRAVEL	OPNG	OPENING	SQ IN	SQUARE INCH	W/	WITH
BM	BENCH MARK	HCR	HUMBOLDT COUNTY RECORDS	OR	OFFICIAL RECORDS	SS	SANITARY SEWER	WM	WATER METER
BP	BEGIN POINT	HDPE	HIGH DENSITY POLYETHYLENE	P	PROPOSED	SST	STAINLESS STEEL	WP	WATERPROOF
BVC	BEGIN VERTICAL CURVE	HGT	HEIGHT	PE	PERMANENT EASEMENT	SSCO	SANITARY SEWER CLEANOUT	WS	WATER SURFACE
BVCE	BEGIN VERTICAL CURVE ELEVATION	HMA	HOT MIX ASPHALT	PG&E	PACIFIC GAS & ELECTRIC	STA	STATION	WSE	WATER SURFACE ELEVATION
		HOR	HORIZONTAL	PL	PLATE, PROPERTY LINE	STD	STANDARD	WSP	WELDED STEEL PIPE
CFS	CUBIC FEET PER SECOND	ID	INSIDE DIAMETER	PP	POWER POLE	STL	STEEL, STEEL PIPE	WTR	WATER
CJ	CONSTRUCTION JOINT	IN	INCH	PRCST	PRECAST	STR	STRAIGHT	WWF	WELDED WIRE FABRIC
CLR	CLEAR	INV	INVERT	PREFAB	PREFABRICATED	STRUCT	STRUCTURE		
CM	CONSTRUCTION MANAGER	JP	JOINT UTILITY POLE	PRESS	PRESSURE	T	TANGENT	XFMR	TRANSFORMER
CMU	CONCRETE MASONRY UNIT	JT	JOINT	PROP	PROPERTY	TC	TOP OF CURB	XING	CROSSING
CONC	CONCRETE	KIP	THOUSAND POUNDS	PSF	POUNDS PER SQUARE FOOT	TCE	TEMPORARY CONSTRUCTION EASEMENT	YD	YARD
CONN	CONNECTION	L	LEFT, LENGTH	PSI	POUNDS PER SQUARE INCH	TECH	TECHNICAL	YR	YEAR
CONT	CONTINUOUS, CONTINUATION	LB	POUNDS	PSIG	POUNDS PER SQUARE INCH, GAUGE	TEL	TELEPHONE	&	AND
COORD	COORDINATE	LF	LINEAR FEET	PVC	POLYVINYL CHLORIDE PLASTIC	TEMP	TEMPORARY	@	AT
CTD	CENTERED	LG	LONG	PVI	POINT OF VERTICAL INTERSECTION	THK	THICK	Ø	DIAMETER
CTR	CENTER	LONG	LONGITUDINAL	PVMT	PAVEMENT	TW	TOP OF WALL	℄	CENTER LINE
CF	CUBIC FOOT	MAX	MAXIMUM	R, RAD	RADIUS	TYP	TYPICAL	℄	PROPERTY LINE, PLATE
CY	CUBIC YARD	MFR	MANUFACTURER	RC	REINFORCED CONCRETE			(E)	EXISTING
DR	DRAIN	MH	MANHOLE	RCB	REINFORCED CONCRETE BOX			(P)	PROPOSED
DI	DROP INLET	MIN	MINIMUM, MINUTE	REF	REFER, REFERENCE			(N)	NEW
DIA	DIAMETER	MISC	MISCELLANEOUS	REINF	REINFORCED, REINFORCING, REINFORCE				
DW	DRIVEWAY	MON	MONUMENT	REQD	REQUIRED				
DWG	DRAWING	MSNRY	MASONRY	ROW	RIGHT OF WAY				
(E)	EXISTING	MTL	MATERIAL	RSP	ROCK SLOPE PROTECTION				
EA	EACH	MWS	MAXIMUM WATER SURFACE						
EC	END CURVE								
EG	EXISTING GROUND								
EL ELEV	ELEVATION								
ELEC	ELECTRIC, ELECTRICAL								
ENGR	ENGINEER								
EP	END POINT								
EQ	EQUAL								
EQ SP	EQUALLY SPACED								
EQPT	EQUIPMENT								
ESM	ENGINEERED STREAMBED MATERIAL								
EXC	EXCAVATE								
EXP	EXPOSED, EXPANSION								

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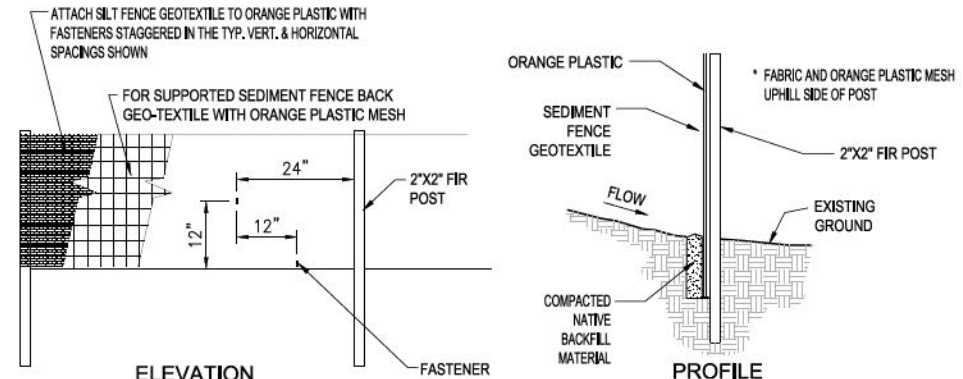
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EROSION, SEDIMENT, POLLUTION, & WASTE CONTROL NOTES

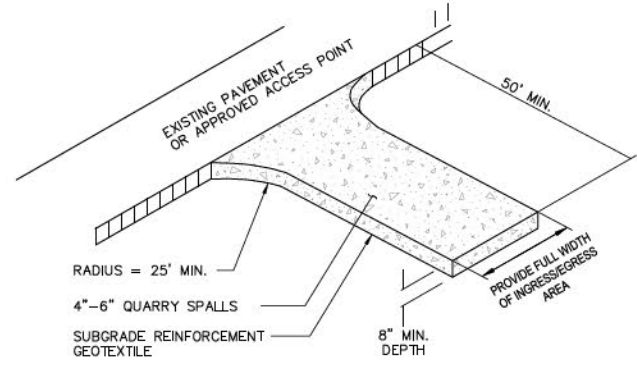
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MINIMIZE EROSION AND PREVENT THE TRANSPORT OF SEDIMENT TO THE ADJACENT RIVER AND SENSITIVE AREAS.
- PERFORM EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE LATEST EDITION OF CHAPTER 33 OF THE CALIFORNIA BUILDING CODE, APPLICABLE SONOMA COUNTY REGULATIONS, AND SECTION 20 OF THE CALTRANS STANDARD SPECIFICATIONS.
- AT A MINIMUM, THE CONTRACTOR SHALL EMPLOY THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPs) AS DESCRIBED IN THE CURRENT CALTRANS STORM WATER QUALITY HANDBOOK AS NEEDED:

SS-2 PRESERVATION OF EXISTING VEGETATION SS-8 REDWOOD MULCH SS-10 OUTLET PROTECTION/VELOCITY DISSIPATION DEVICES SC-1 SILT FENCE NS-2 DEWATERING OPERATIONS NS-3 PAVING AND GRINDING OPERATIONS NS-6 CLEAR WATER DIVERSION	NS-9 VEHICLE EQUIPMENT AND FUELING WM-1 MATERIALS DELIVERY AND STORAGE WM-2 MATERIAL USE WM-4 SPILL PREVENTION AND CONTROL WM-8 CONCRETE WASTE MANAGEMENT WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
--	--
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIX ANY EROSION, SEDIMENT, POLLUTION, & WASTE CONTROL DEFICIENCIES IDENTIFIED BY THE OWNER OR THE OWNERS REPRESENTATIVE.
- PRIOR TO FINAL ACCEPTANCE ALL AREAS OF THE SITE WILL BE VEGETATED OR PERMANENTLY STABILIZED AND ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED.
- IF DISCREPANCIES OCCUR BETWEEN THESE NOTES, MATERIAL REFERENCED HEREIN OR MANUFACTURERS RECOMMENDATIONS, THEN THE MOST PROTECTIVE SHALL APPLY.
- THE OWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY. THE SITE DISTURBANCE IS GREATER THAN 1 ACRE, THEREFORE THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT.
- PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE.
- DISCHARGES OF POTENTIAL POLLUTANTS FROM CONSTRUCTION SITES SHALL BE PREVENTED USING SOURCE CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT, TRASH, NUTRIENTS, PATHOGENS, PETROLEUM HYDROCARBONS, METALS, CONCRETE, CEMENT, ASPHALT, LIME, PAINT, STAINS, GLUES, WOOD PRODUCTS, PESTICIDES, HERBICIDES, CHEMICALS, HAZARDOUS WASTE, SANITARY WASTE, VEHICLE OR EQUIPMENT WASH WATER AND CHLORINATED WATER.
- WHENEVER IT IS NOT POSSIBLE TO UTILIZE EROSION PREVENTION MEASURES, EXPOSED SLOPES SHALL EMPLOY SEDIMENT CONTROL DEVICES, SUCH AS FIBER ROLLS AND SILT FENCES. FIBER ROLLS AND SILT FENCES SHALL BE TRENCHED AND KEYED INTO THE SOIL AND INSTALLED ON CONTOUR. SILT FENCES SHALL BE INSTALLED APPROXIMATELY 2 TO 5 FEET FROM TOE OF SLOPE.
- THE CONTRACTOR SHALL PROTECT STORM DRAIN INLETS FROM POTENTIAL POLLUTANTS UNTIL DRAINAGE CONVEYANCE SYSTEMS ARE FUNCTIONAL, THE SITE IS STABILIZED, AND CONSTRUCTION HAS BEEN COMPLETED.
- ENERGY DISSIPATORS SHALL BE INSTALLED AT STORM DRAIN OUTLETS WHICH MAY CONVEY STORM WATER FLOW LEADING TO SOIL EROSION.
- SOIL AND MATERIAL STOCKPILES SHALL BE PROPERLY PROTECTED TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.
- SOLID WASTE, SUCH AS TRASH AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS OR CONTAINERS. THE CONSTRUCTION SITE SHALL BE CLEARED OF SOLID WASTE DAILY, OR AS NECESSARY, AND REGULAR REMOVAL AND PROPER DISPOSAL SHALL BE ARRANGED.
- PROPER APPLICATION, CLEANING AND STORAGE OF POTENTIALLY HAZARDOUS MATERIALS, SUCH AS PAINTS AND CHEMICALS, SHALL BE CONDUCTED TO PREVENT THE DISCHARGE OF POLLUTANTS.
- WHEN UTILIZED, TEMPORARY RESTROOMS AND SANITARY FACILITIES SHALL BE LOCATED AND MAINTAINED TO PREVENT THE DISCHARGE OF POLLUTANTS.
- APPROPRIATE VEHICLE STORAGE, FUELING, MAINTENANCE AND CLEANING AREAS SHALL BE DESIGNATED AND MAINTAINED TO PREVENT DISCHARGE OF POLLUTANTS.
- ENTRANCE(S) TO THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF POTENTIAL POLLUTANTS OFFSITE. POTENTIAL POLLUTANTS DEPOSITED ON PAVED AREAS WITHIN THE COUNTY RIGHT-OF-WAY, SUCH AS ROADWAYS AND SIDEWALKS, SHALL BE PROPERLY DISPOSED OF EACH WORKING DAY OR MORE FREQUENTLY AS NECESSARY.
- CHANGES TO THE STORM WATER POLLUTION PREVENTION PLAN MAY BE MADE TO RESPOND TO FIELD CONDITIONS. CHANGES SHALL BE NOTED ON THE PLAN WHEN MADE.



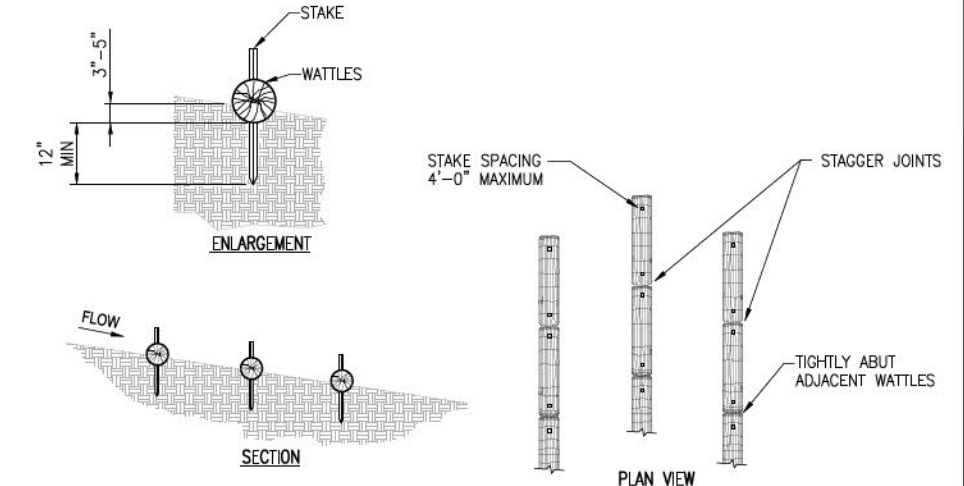
- NOTES:**
- FILTER FABRIC SHALL BE INSTALLED IN A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS, WHERE JOINTS ARE NECESSARY SPLICE FABRIC TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6" OVERLAP. SECURELY FASTEN BOTH ENDS TO THE POST.
 - POSTS SHALL BE SPACED A MAXIMUM OF 6' APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12".
 - A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4" WIDE AND 6" DEEP ALONG THE LINE OF POSTS UPHILL FROM THE BARRIER, TRENCH SHALL FOLLOW THE CONTOUR.
 - TRENCH SHALL BE BACKFILLED WITH NATIVE MATERIAL.
 - INSPECT AND REPAIR AFTER EACH RAINFALL. INSPECT DAILY DURING PROLONGED RAINFALL.
 - REMOVE SEDIMENT WHEN IT REACHES APPROXIMATELY ONE THIRD THE HEIGHT ABOVE GROUND PORTION OF THE FENCE.
 - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FILTER FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE AND SEEDED.

1 SILT FENCE DETAIL
NTS



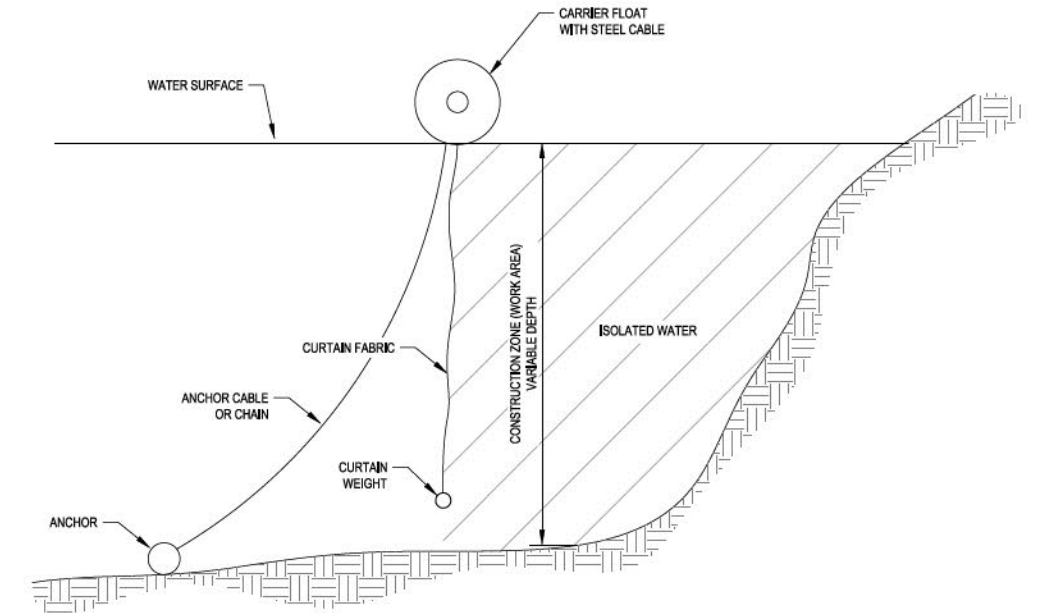
- NOTES:**
- ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC ROADWAY.
 - ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS MUST BE REMOVED IMMEDIATELY.
 - ACCESSES SHALL BE INSPECTED MONTHLY AND AFTER EACH RAINFALL WITH MAINTENANCE PROVIDED AS NECESSARY.

3 GRAVEL CONSTRUCTION ENTRANCE
NTS



- NOTES:**
- CONTRACTOR SHALL INSPECT WATTLES WEEKLY AND AFTER EACH RAINFALL. REPLACE WATTLES WHEN THEY HAVE DECOMPOSED, COLLAPSED, OR BEEN DAMAGED. REMOVE SEDIMENT FROM BEHIND THE WATTLE WHEN IT REACHES ONE INCH OF DEPTH.
 - WATTLES SHOULD BE PLACED ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT WATTLE.
 - THE DIRECTION OF RUNOFF FLOW TO THE WATTLES SHOULD BE PERPENDICULAR TO THE STAKED WATTLE LOCATION.
 - REMOVE UPON COMPLETION OF CONSTRUCTION SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

2 STRAW WATTLE/FIBER ROLL SEDIMENT BARRIER
NTS



4 FLOATING SILT CURTAIN DETAIL
NTS

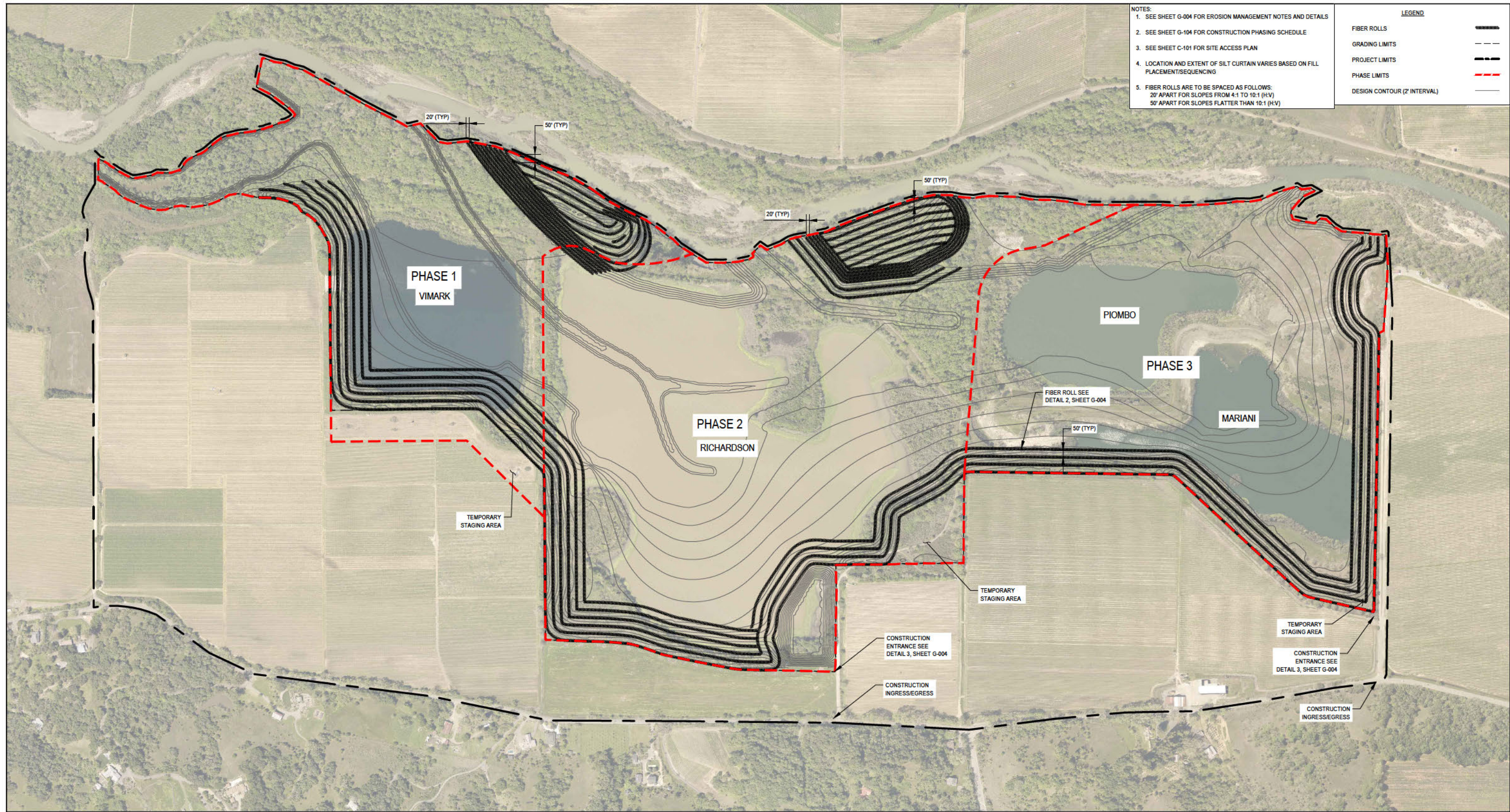
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- NOTES:
- SEE SHEET G-004 FOR EROSION MANAGEMENT NOTES AND DETAILS
 - SEE SHEET G-104 FOR CONSTRUCTION PHASING SCHEDULE
 - SEE SHEET C-101 FOR SITE ACCESS PLAN
 - LOCATION AND EXTENT OF SILT CURTAIN VARIES BASED ON FILL PLACEMENT/SEQUENCING
 - FIBER ROLLS ARE TO BE SPACED AS FOLLOWS:
20' APART FOR SLOPES FROM 4:1 TO 10:1 (H:V)
50' APART FOR SLOPES FLATTER THAN 10:1 (H:V)

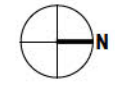
LEGEND

FIBER ROLLS	
GRADING LIMITS	
PROJECT LIMITS	
PHASE LIMITS	
DESIGN CONTOUR (2' INTERVAL)	



EROSION MANAGEMENT PLAN

SCALE



30% DESIGN

No.	Issue	Drawn	Approved	Date

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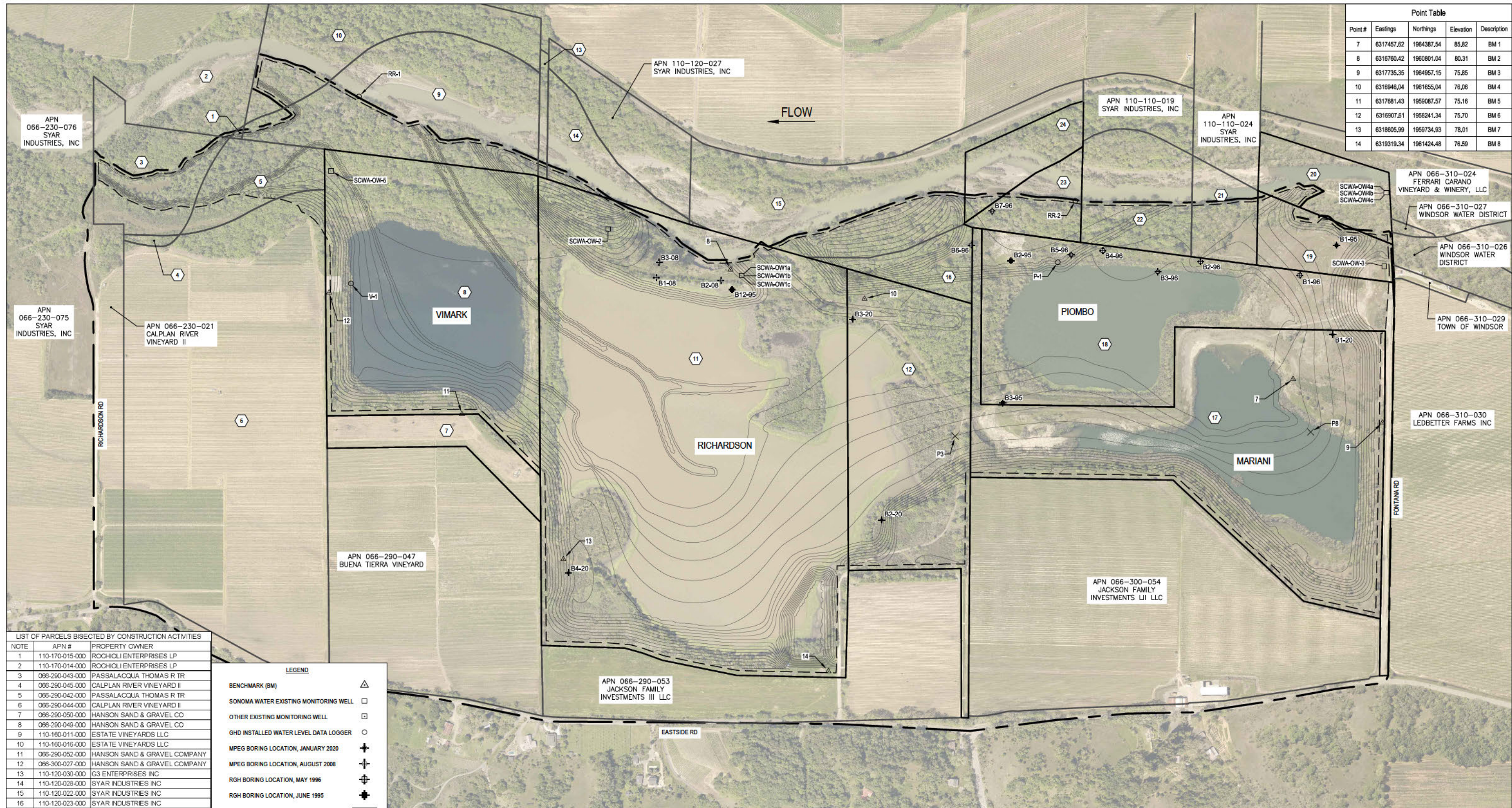


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Project Manager	J. SVEHLA	Date	12/4/2020
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Project	HANSON RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT		
Title	EROSION MANAGEMENT PLAN		
Project No.	11195953		
ANSI D	Sheet No.	G-005	
Sheet		5 of 20	

Point Table				
Point #	Eastings	Northings	Elevation	Description
7	6317457.82	1964387.54	85.82	BM 1
8	6316760.42	1960801.04	80.31	BM 2
9	6317735.35	1964957.15	75.85	BM 3
10	6316948.04	1961655.04	76.06	BM 4
11	6317881.43	1959087.57	75.16	BM 5
12	6316907.61	1958241.34	75.70	BM 6
13	6318605.99	1959734.93	78.01	BM 7
14	6319319.34	1961424.48	76.59	BM 8

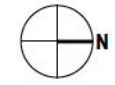


NOTE	APN #	PROPERTY OWNER
1	110-170-015-000	ROCHIOLI ENTERPRISES LP
2	110-170-014-000	ROCHIOLI ENTERPRISES LP
3	066-290-043-000	PASSALACQUA THOMAS R TR
4	066-290-045-000	CALPLAN RIVER VINEYARD II
5	066-290-042-000	PASSALACQUA THOMAS R TR
6	066-290-044-000	CALPLAN RIVER VINEYARD II
7	066-290-050-000	HANSON SAND & GRAVEL CO
8	066-290-049-000	HANSON SAND & GRAVEL CO
9	110-160-011-000	ESTATE VINEYARDS LLC
10	110-160-016-000	ESTATE VINEYARDS LLC
11	066-290-052-000	HANSON SAND & GRAVEL COMPANY
12	066-300-027-000	HANSON SAND & GRAVEL COMPANY
13	110-120-030-000	G3 ENTERPRISES INC
14	110-120-028-000	SYAR INDUSTRIES INC
15	110-120-022-000	SYAR INDUSTRIES INC
16	110-120-023-000	SYAR INDUSTRIES INC
17	066-300-049-000	HANSON SAND & GRAVEL CO
18	066-300-011-000	HANSON SAND & GRAVEL CO
19	110-110-016-000	HANSON SAND & GRAVEL CO
20	110-110-015-000	HANSON SAND & GRAVEL CO
21	110-110-018-000	SYAR INDUSTRIES INC
22	110-110-020-000	SYAR INDUSTRIES INC
23	110-120-021-000	HANSON SAND & GRAVEL CO
24	110-120-020-000	HANSON SAND & GRAVEL CO

LEGEND	
BENCHMARK (BM)	△
SONOMA WATER EXISTING MONITORING WELL	□
OTHER EXISTING MONITORING WELL	□
GHD INSTALLED WATER LEVEL DATA LOGGER	○
MPEG BORING LOCATION, JANUARY 2020	+
MPEG BORING LOCATION, AUGUST 2008	+
RGH BORING LOCATION, MAY 1996	+
RGH BORING LOCATION, JUNE 1995	+
HANSON SAND & GRAVEL COMPANY	▬
PARCEL BOUNDARIES	▬
PROJECT BOUNDARY	▬
GRADING LIMITS	▬
DESIGN CONTOUR (2' INTERVAL)	▬

SITE MONITORING PLAN AND SURVEY CONTROL

SCALE 0 300' 600'



30% DESIGN

No.	Issue	Drawn	Approved	Date

NOTE:
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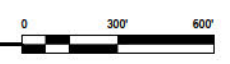
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Title	MONITORING WELL AND SURVEY CONTROL		
Project No.	11195953		
ANSI D	Original Size	Sheet No.	G-101
		Sheet	6 of 20



LEGEND	
RESOURCES AND RURAL DEVELOPMENT (RRD)	
LAND INTENSIVE AGRICULTURE (LIA)	
WILLIAMSON ACT TYPE 1	
HANSON SAND & GRAVEL COMPANY	
PARCEL BOUNDARIES	
PROJECT BOUNDARY	
GRADING LIMITS	

ZONING AND LAND USE PLAN



30% DESIGN

No.	Issue	Drawn	Approved	Date

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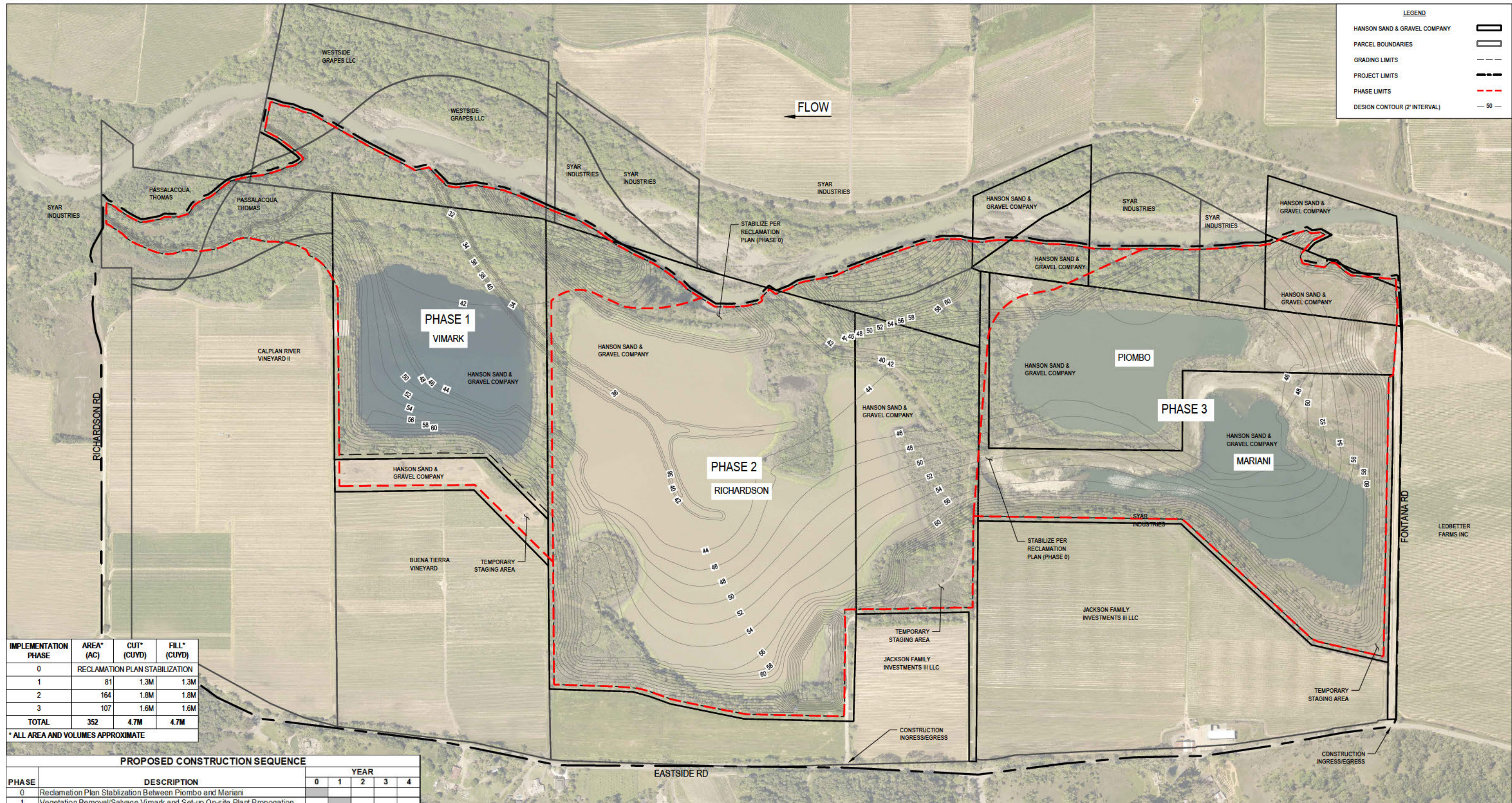
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Project	HANSON RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT		
Title	ZONING AND LAND USE PLAN		
Project No.	11195953		
Original Size	ANSI D	Sheet No.	G-102
		Sheet	7 of 20

LEGEND

HANSON SAND & GRAVEL COMPANY	
PARCEL BOUNDARIES	
GRADING LIMITS	
PROJECT LIMITS	
PHASE LIMITS	
DESIGN CONTOUR (2' INTERVAL)	

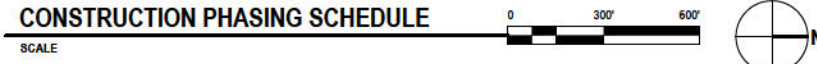


IMPLEMENTATION PHASE	AREA* (AC)	CUT* (CUYD)	FILL* (CUYD)
0		RECLAMATION PLAN STABILIZATION	
1	81	1.3M	1.3M
2	164	1.8M	1.8M
3	107	1.6M	1.6M
TOTAL	352	4.7M	4.7M

* ALL AREA AND VOLUMES APPROXIMATE

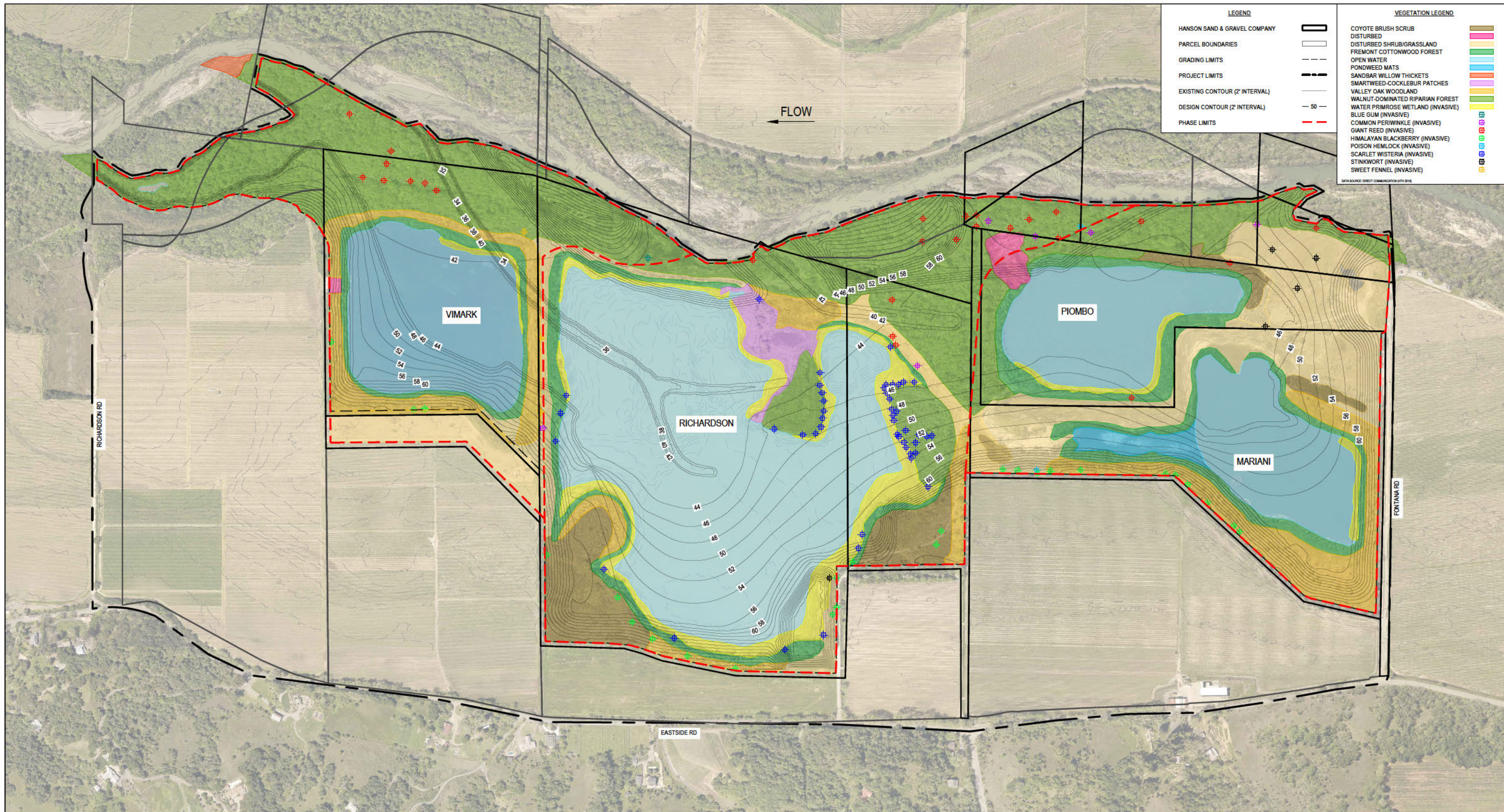
PROPOSED CONSTRUCTION SEQUENCE

PHASE	DESCRIPTION	YEAR				
		0	1	2	3	4
0	Reclamation Plan Stabilization Between Piombo and Mariani					
1	Vegetation Removal/Salvage Vimark and Set-up On-site Plant Propagation					
1	Backfill Vimark Pond					
1	Finished Grading and Re-vegetation Vimark					
2	Vegetation Removal/Salvage Richardson					
2	Backfill Richardson Pond					
2	Finished Grading and Re-vegetation Richardson					
3	Vegetation Removal/Salvage Piombo/Mariani					
3	Backfill Piombo/Mariani Ponds					
3	Finished Grading and Re-vegetation Piombo/Mariani					



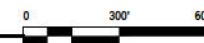
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				Drafting J. SVEHLA	Design Check S. ALLEN	Title CONSTRUCTION PHASING SCHEDULE
				Project Manager J. SVEHLA	Date 12/3/2020	Project No. 11195953
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EXISTING HABITATS

SCALE



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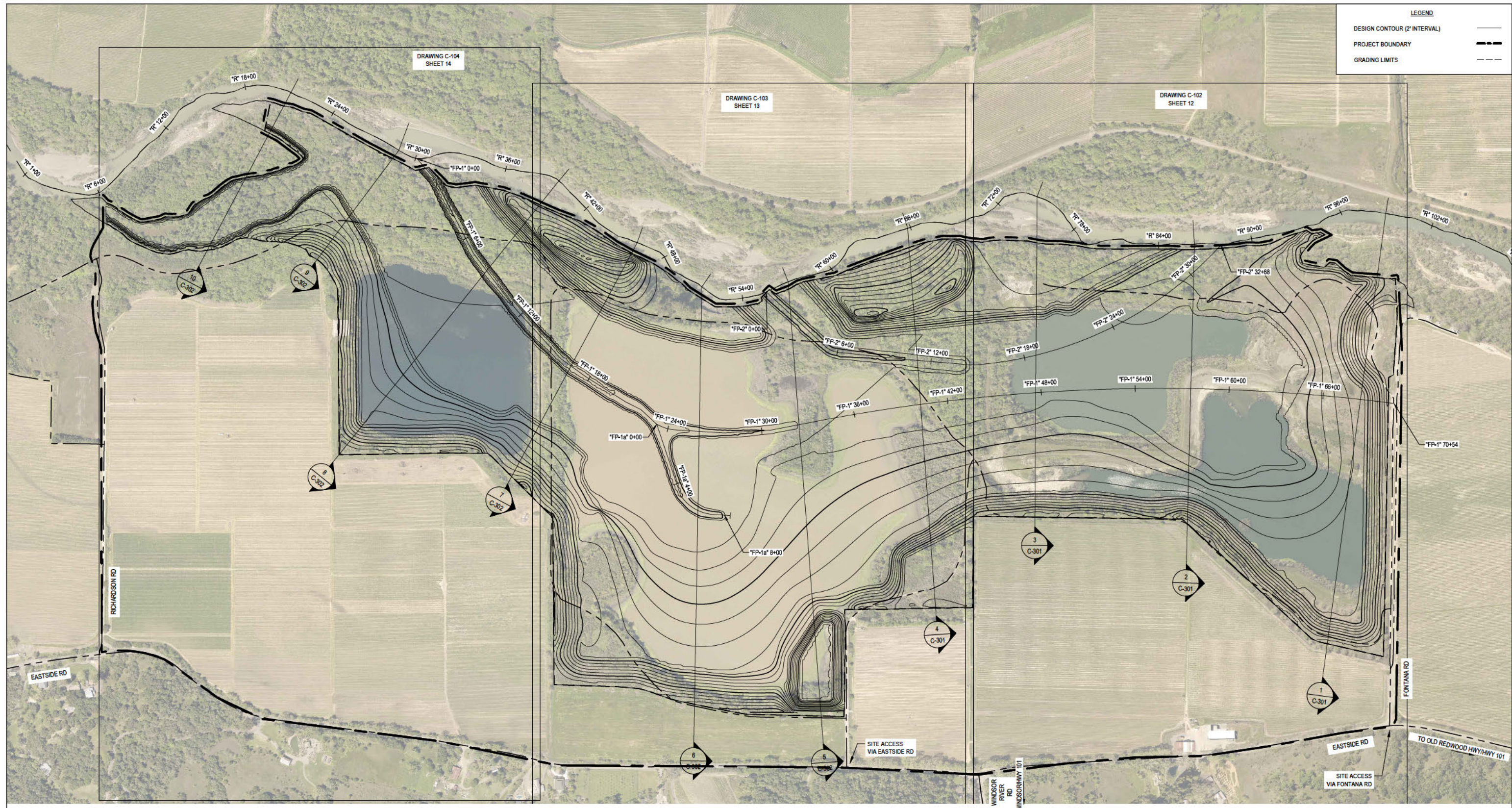


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Title	EXISTING HABITATS		
Project No.	11195953		
ANSI D	Sheet No.	G-105	
		Sheet	10 of 20

LEGEND	
DESIGN CONTOUR (2' INTERVAL)	———
PROJECT BOUNDARY	———
GRADING LIMITS	———



SITE ACCESS PLAN AND SHEET INDEX
 SCALE 0 300' 600'

30% DESIGN

No.	Issue	Drawn	Approved	Date

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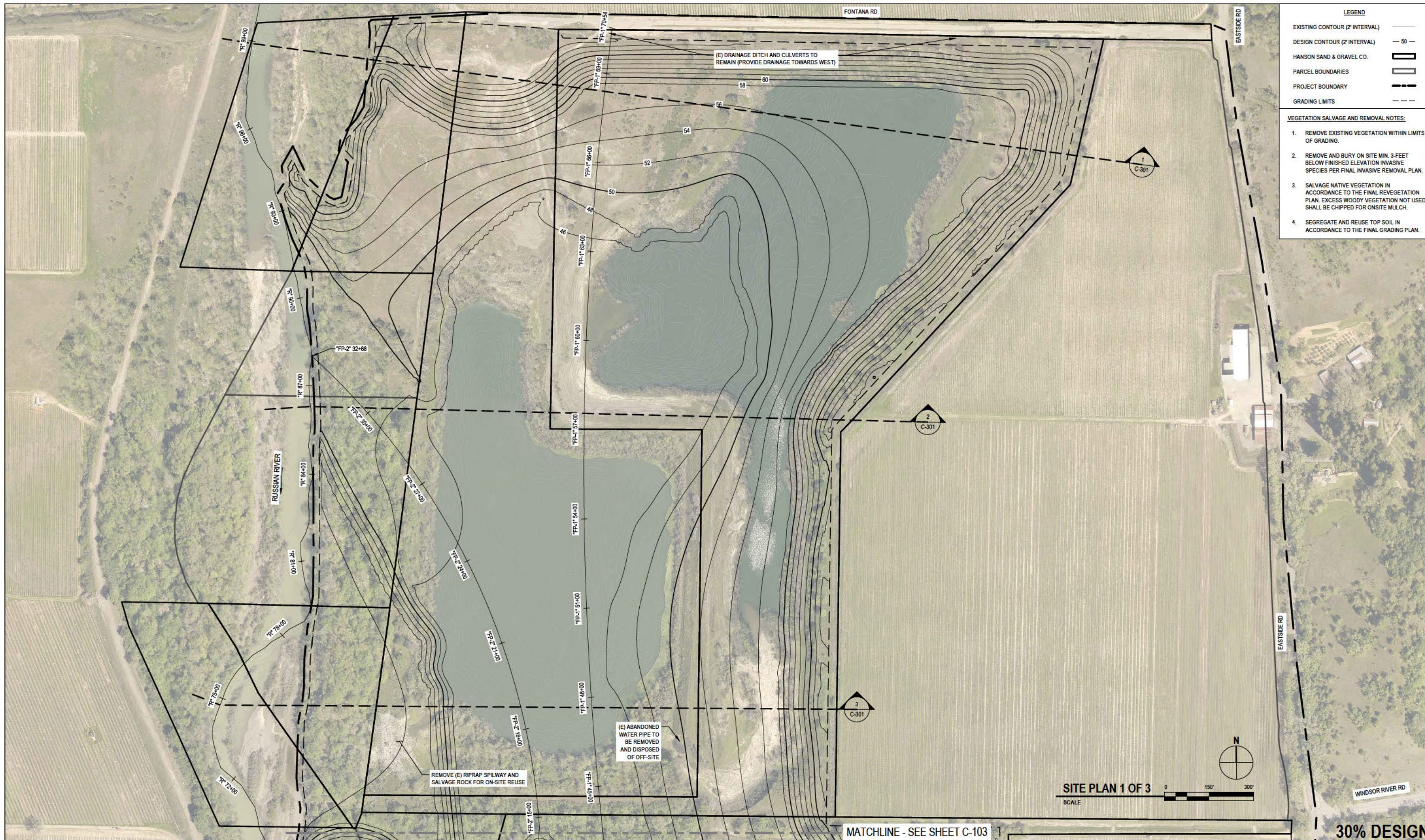
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Client	ENDANGERED HABITATS CONSERVANCY		
Project	HANSON RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT		
Title	SITE PLAN, ACCESS, AND SHEET INDEX		
Project No.	11195953		
ANSI D	Sheet No.	C-101	
		Sheet	11 of 20



- LEGEND**
- EXISTING CONTOUR (2' INTERVAL) ———
 - DESIGN CONTOUR (2' INTERVAL) - - - - -
 - HANSON SAND & GRAVEL CO. [Symbol]
 - PARCEL BOUNDARIES [Symbol]
 - PROJECT BOUNDARY [Symbol]
 - GRADING LIMITS [Symbol]
- VEGETATION SALVAGE AND REMOVAL NOTES:**
1. REMOVE EXISTING VEGETATION WITHIN LIMITS OF GRADING.
 2. REMOVE AND BURY ON SITE MIN. 3-FEET BELOW FINISHED ELEVATION INVASIVE SPECIES PER FINAL INVASIVE REMOVAL PLAN.
 3. SALVAGE NATIVE VEGETATION IN ACCORDANCE TO THE FINAL REVEGETATION PLAN. EXCESS WOODY VEGETATION NOT USED SHALL BE CHIPPED FOR ONSITE MULCH.
 4. SEGREGATE AND REUSE TOP SOIL IN ACCORDANCE TO THE FINAL GRADING PLAN.

SITE PLAN 1 OF 3
SCALE 0 150' 300'

MATCHLINE - SEE SHEET C-103

30% DESIGN

No.	Issue	Drawn	Approved	Date

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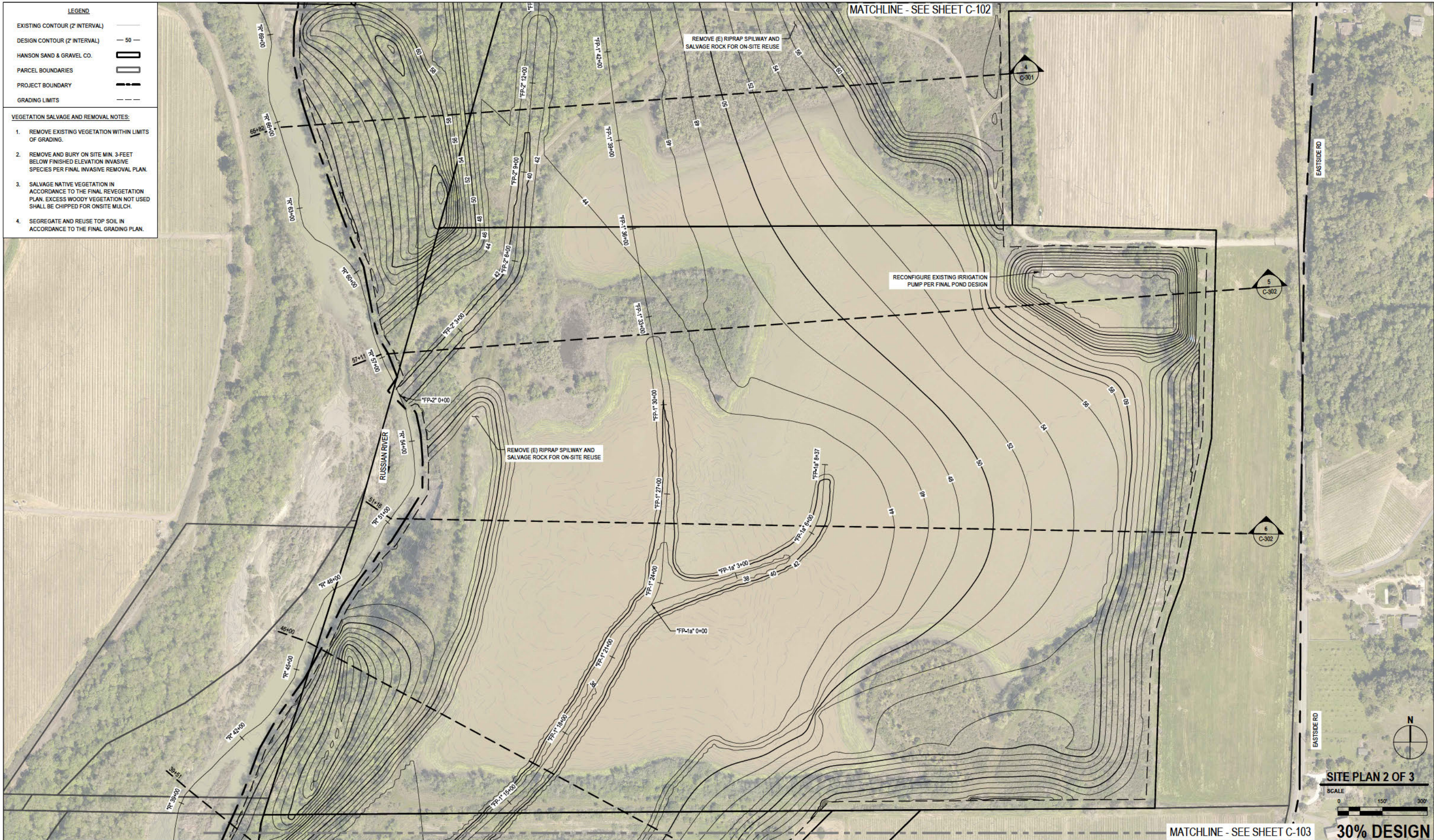
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Project	HANSON RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT		
Title	PLAN VIEW 1 OF 3		
Project No.	11195953		
Original Size	ANSI D	Sheet No.	C-102
			Sheet 12 of 20

LEGEND

EXISTING CONTOUR (2' INTERVAL)	
DESIGN CONTOUR (2' INTERVAL)	
HANSON SAND & GRAVEL CO.	
PARCEL BOUNDARIES	
PROJECT BOUNDARY	
GRADING LIMITS	

- VEGETATION SALVAGE AND REMOVAL NOTES:**
1. REMOVE EXISTING VEGETATION WITHIN LIMITS OF GRADING.
 2. REMOVE AND BURY ON SITE MIN. 3-FEET BELOW FINISHED ELEVATION INVASIVE SPECIES PER FINAL INVASIVE REMOVAL PLAN.
 3. SALVAGE NATIVE VEGETATION IN ACCORDANCE TO THE FINAL REVEGETATION PLAN. EXCESS WOODY VEGETATION NOT USED SHALL BE CHIPPED FOR ONSITE MULCH.
 4. SEGREGATE AND REUSE TOP SOIL IN ACCORDANCE TO THE FINAL GRADING PLAN.



SITE PLAN 2 OF 3

SCALE
0 150 300'

30% DESIGN

No.	Issue	Drawn	Approved	Date

NOTE:
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COLOR-DEPENDENT;
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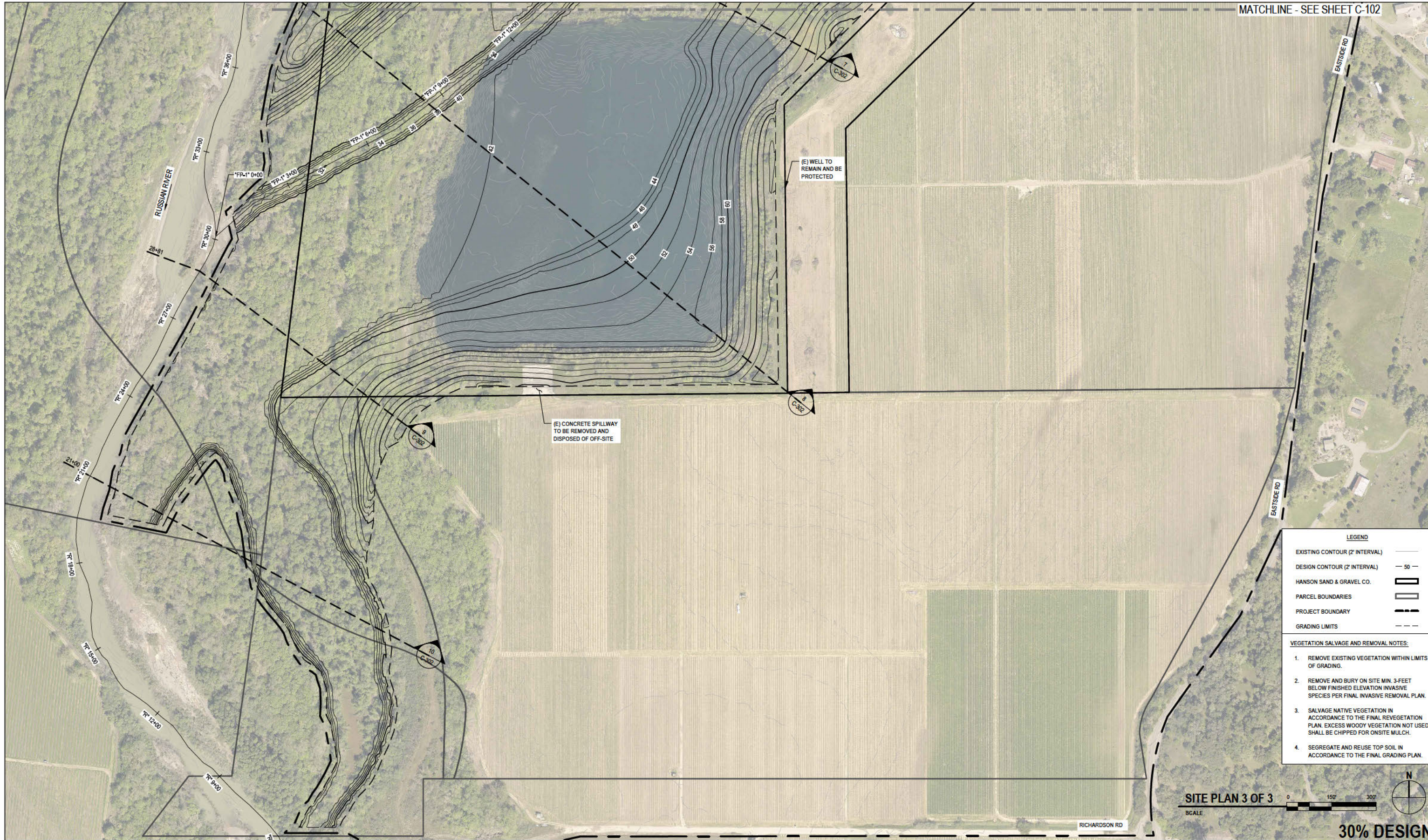
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Project No.	11195953		
Original Size	ANSI D	Sheet No.	C-103
Sheet 13 of 20		MATCHLINE - SEE SHEET C-102	



LEGEND

- EXISTING CONTOUR (2' INTERVAL) ———
- DESIGN CONTOUR (2' INTERVAL) - - - -
- HANSON SAND & GRAVEL CO. [Symbol]
- PARCEL BOUNDARIES [Symbol]
- PROJECT BOUNDARY [Symbol]
- GRADING LIMITS [Symbol]

VEGETATION SALVAGE AND REMOVAL NOTES:

- REMOVE EXISTING VEGETATION WITHIN LIMITS OF GRADING.
- REMOVE AND BURY ON SITE MIN. 3-FEET BELOW FINISHED ELEVATION INVASIVE SPECIES PER FINAL INVASIVE REMOVAL PLAN.
- SALVAGE NATIVE VEGETATION IN ACCORDANCE TO THE FINAL REVEGETATION PLAN. EXCESS WOODY VEGETATION NOT USED SHALL BE CHIPPED FOR ONSITE MULCH.
- SEGREGATE AND REUSE TOP SOIL IN ACCORDANCE TO THE FINAL GRADING PLAN.

SITE PLAN 3 OF 3

SCALE 0 150' 300'

30% DESIGN

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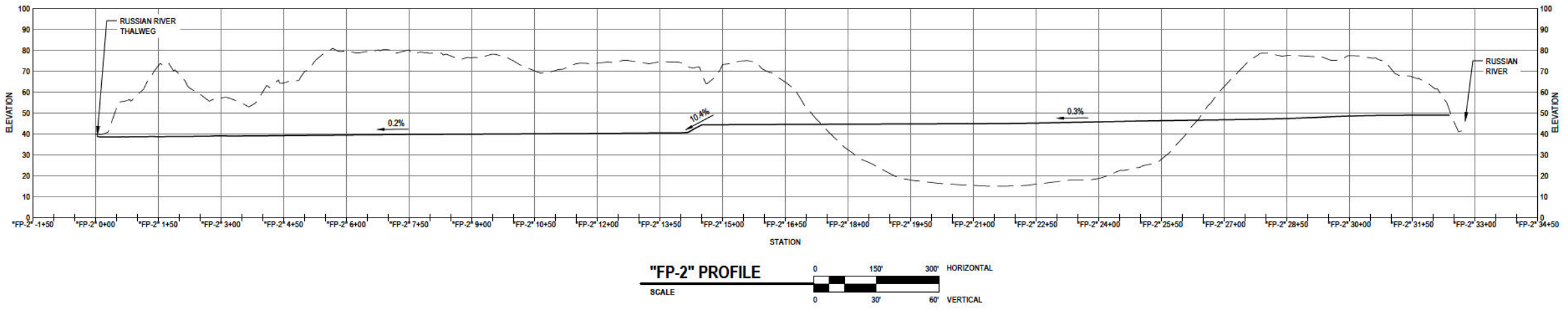
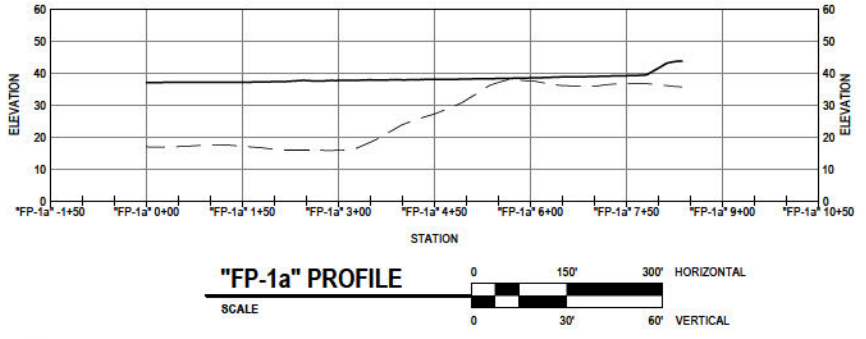
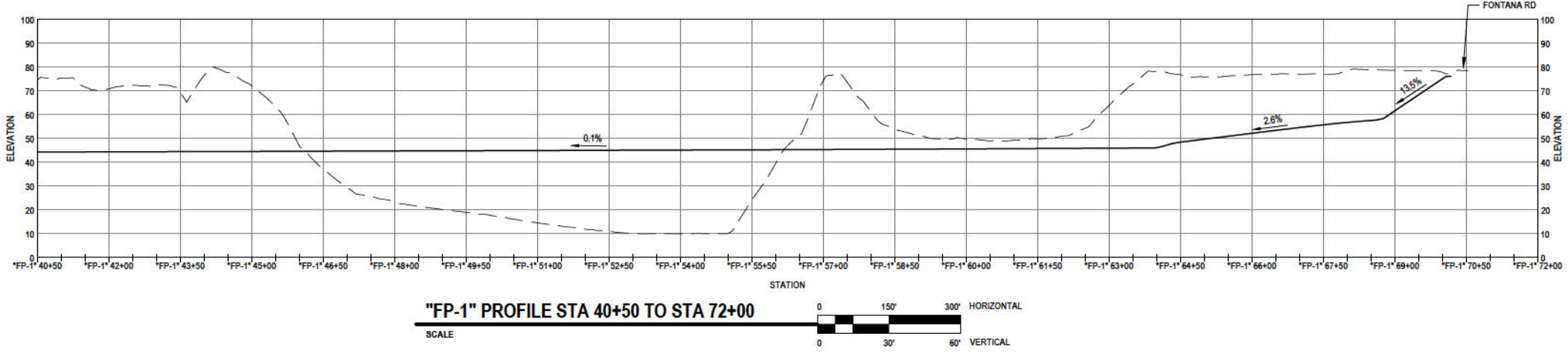
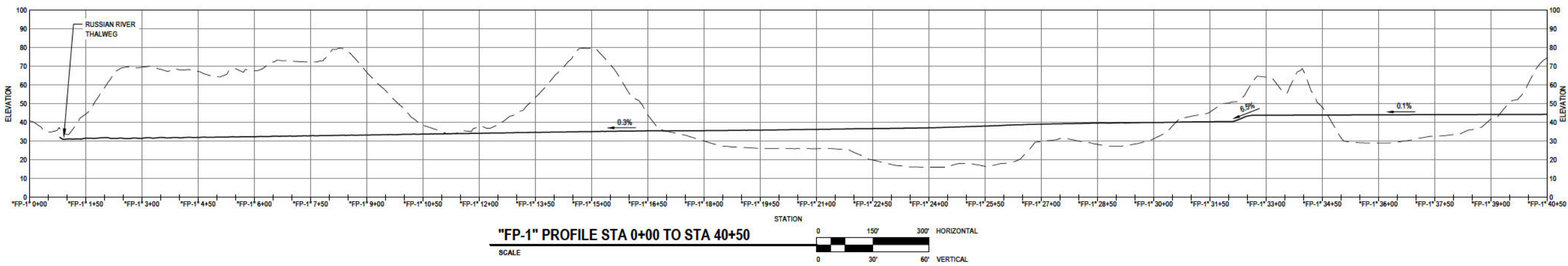


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Sheet 14 of 20			

LEGEND	
EXISTING GROUND	---
FINISH GROUND	—



30% DESIGN

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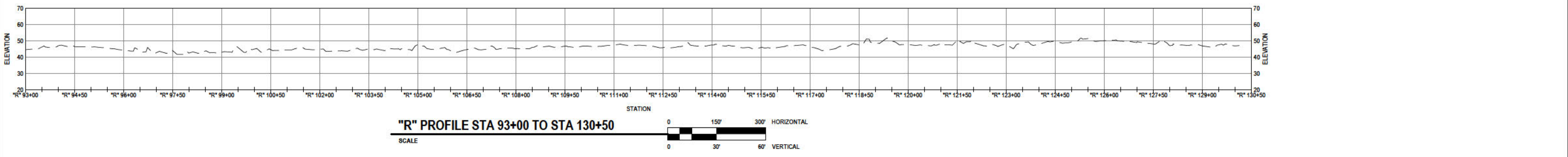
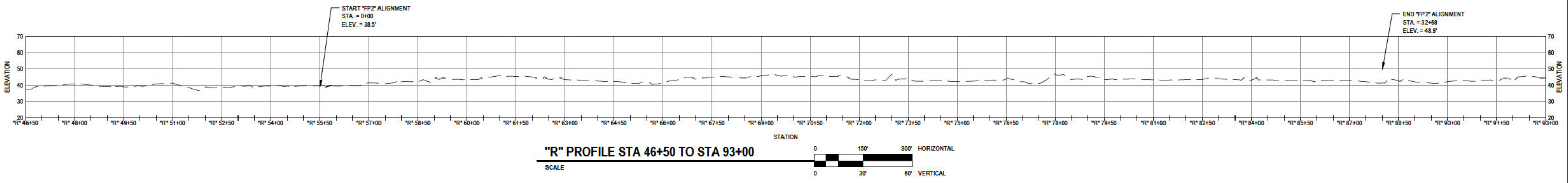
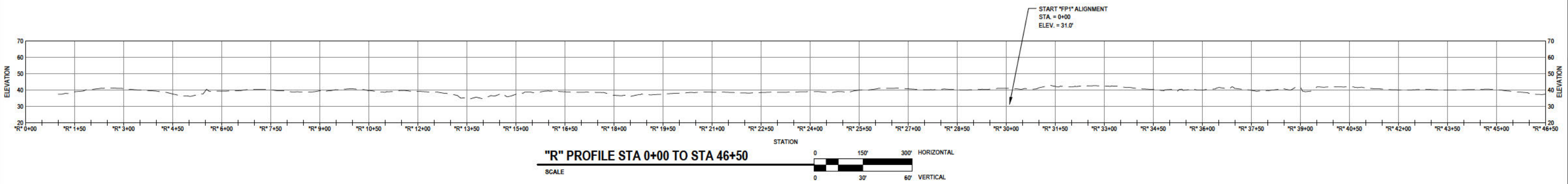


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Sheet	15 of 20		

LEGEND	
EXISTING GROUND	---
FINISH GROUND	—



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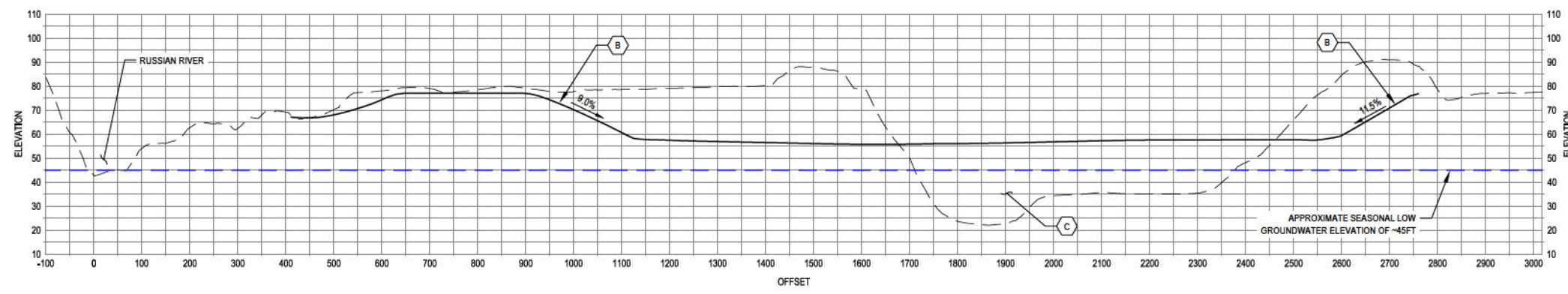


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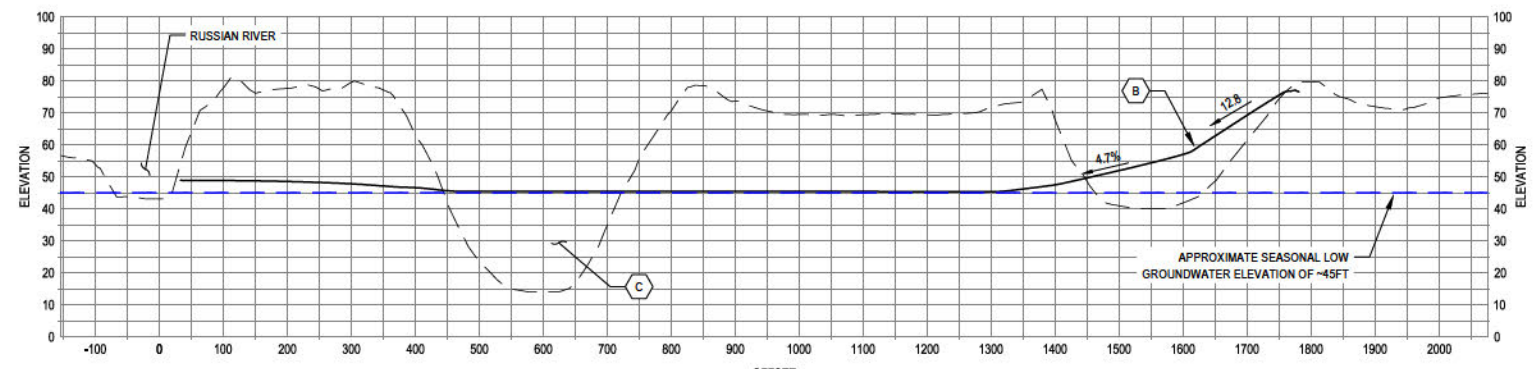
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		Sheet	16 of 20

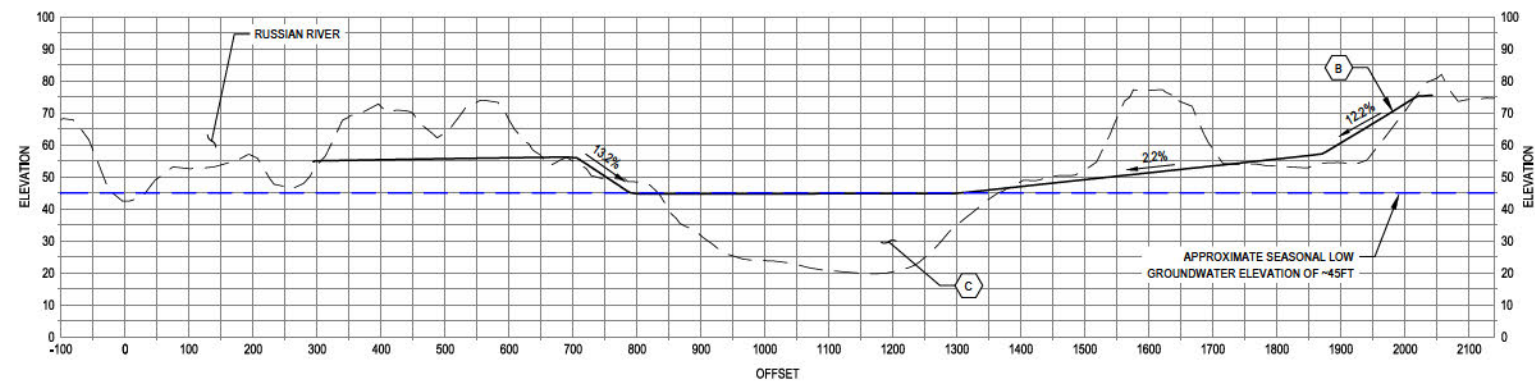
LEGEND	
EXISTING GROUND	---
FINISH GROUND	—



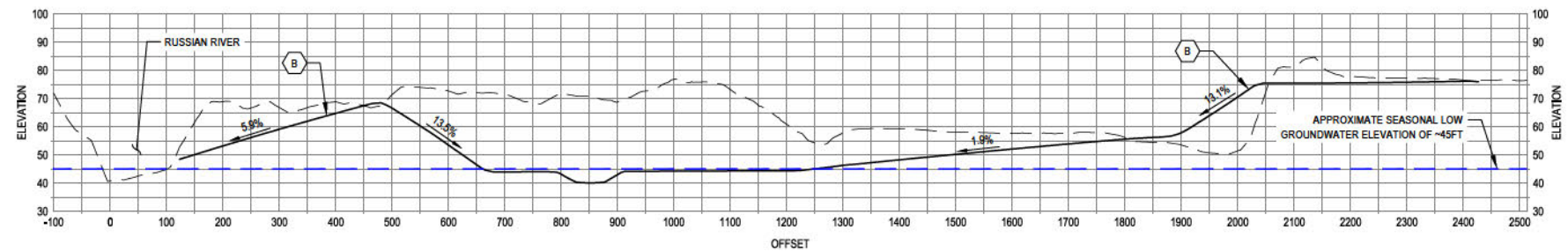
CROSS-SECTION 1



CROSS-SECTION 2



CROSS-SECTION 3



CROSS-SECTION 4

- KEYNOTES:**
- A DURING FUTURE DESIGN, ELEVATE FINISHED FLOODPLAIN GRADING ~1FT ABOVE SEASONAL LOW GROUNDWATER ELEV. OR ALLOW FOR LONG-TERM SEDIMENTATION. APPROXIMATE SEASONAL LOW GROUNDWATER ELEVATIONS PROVIDED BY LSCE 2020.
 - B DURING FUTURE DESIGN, ADJUST SIDE SLOPE GRADING AS NEEDED TO CREATE ADDITIONAL FLOODPLAIN FILL AND BALANCE CUT/FILLS. COMPACT NATIVE FILL TO ~85% RELATIVE COMPACTION.
 - C NATIVE BACKFILL - SURCHARGE (OVERFILL) PONDS ABOVE FINISHED ELEVATION WITH SEVERAL FEET OF FILL FOR MINIMUM 6 MONTHS PRIOR TO FINISHED GRADING PER MPEG 2020.

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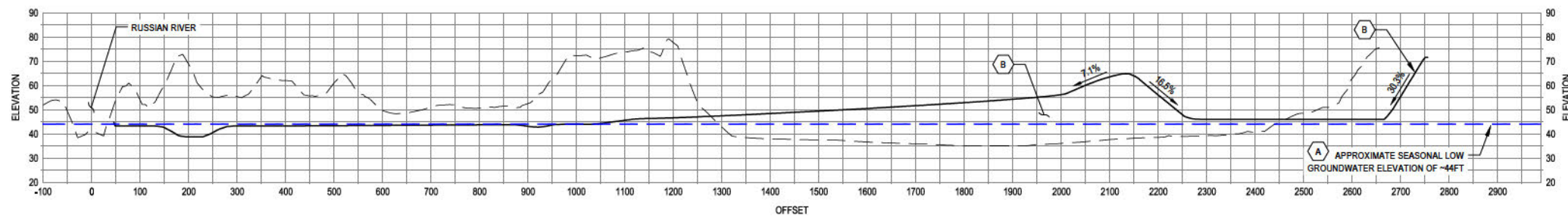
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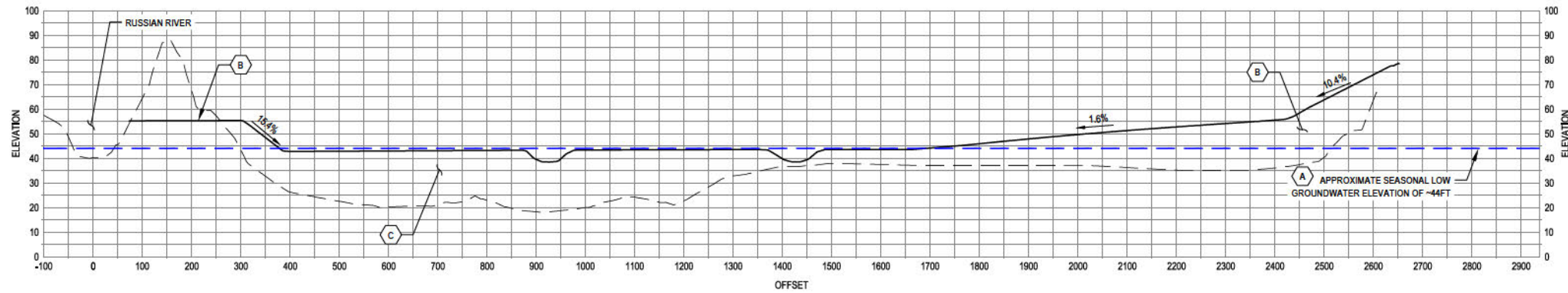
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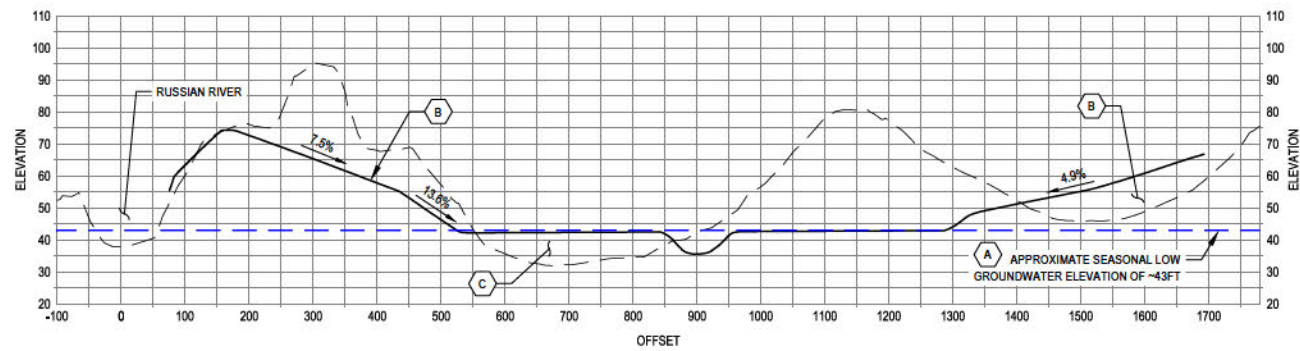
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		Sheet	17 of 20



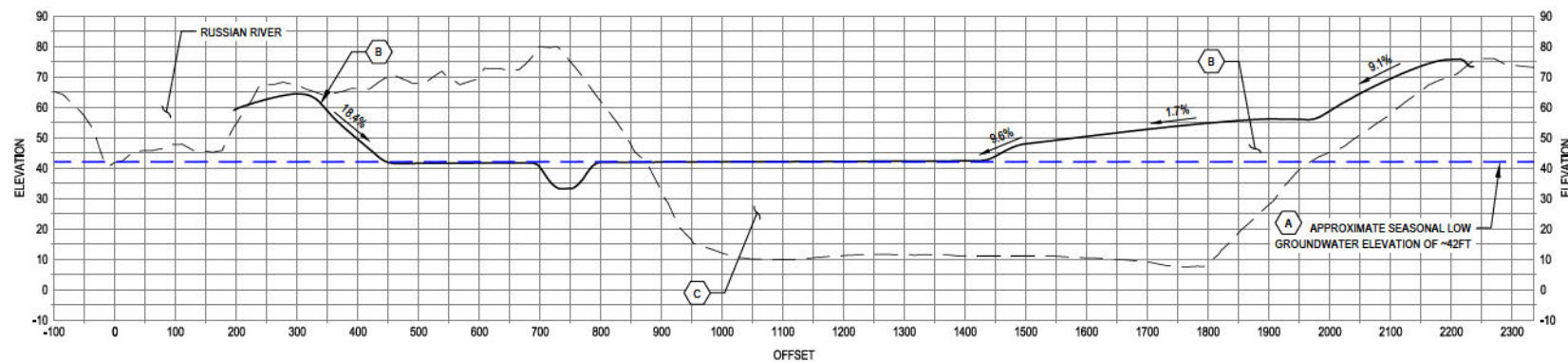
CROSS-SECTION 5
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 0 30' 60' VERTICAL



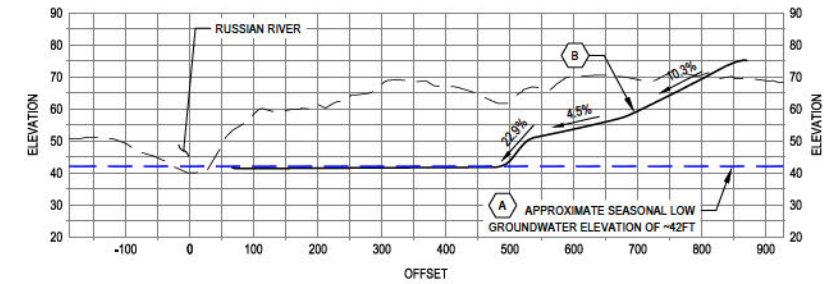
CROSS-SECTION 6
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 0 30' 60' VERTICAL



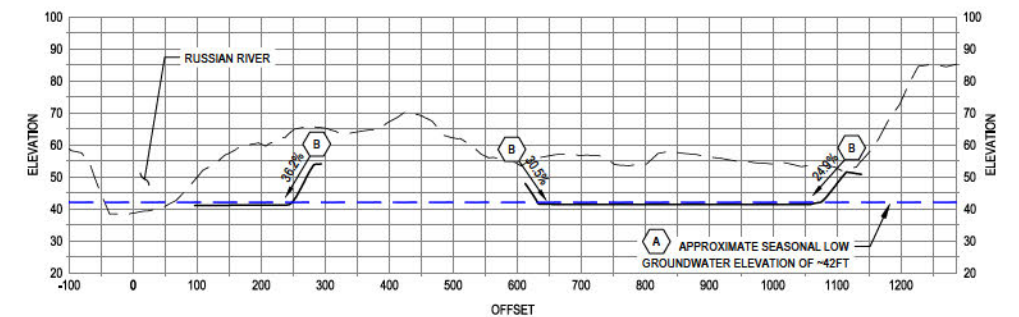
CROSS-SECTION 7
 0 150' 300' HORIZONTAL
 0 30' 60' VERTICAL



CROSS-SECTION 8



CROSS-SECTION 9
 0 150' 300' HORIZONTAL
 0 30' 60' VERTICAL



CROSS-SECTION 10
 0 150' 300' HORIZONTAL
 0 30' 60' VERTICAL

- KEYNOTES:**
- (A) DURING FUTURE DESIGN, ELEVATE FINISHED FLOODPLAIN GRADING ~1FT ABOVE SEASONAL LOW GROUNDWATER ELEV. OR ALLOW FOR LONG-TERM SEDIMENTATION. APPROXIMATE SEASONAL LOW GROUNDWATER ELEVATIONS PROVIDED BY LSCE 2020.
 - (B) DURING FUTURE DESIGN, ADJUST SIDE SLOPE GRADING AS NEEDED TO CREATE ADDITIONAL FLOODPLAIN FILL AND BALANCE CUT/FILLS. COMPACT NATIVE FILL TO ~85% RELATIVE COMPACTION.
 - (C) NATIVE BACKFILL - SURCHARGE (OVERFILL) PONDS ABOVE FINISHED ELEVATION WITH SEVERAL FEET OF FILL FOR MINIMUM 6 MONTHS PRIOR TO FINISHED GRADING PER MPEP 2020.

LEGEND

EXISTING GROUND	---
FINISH GROUND	—

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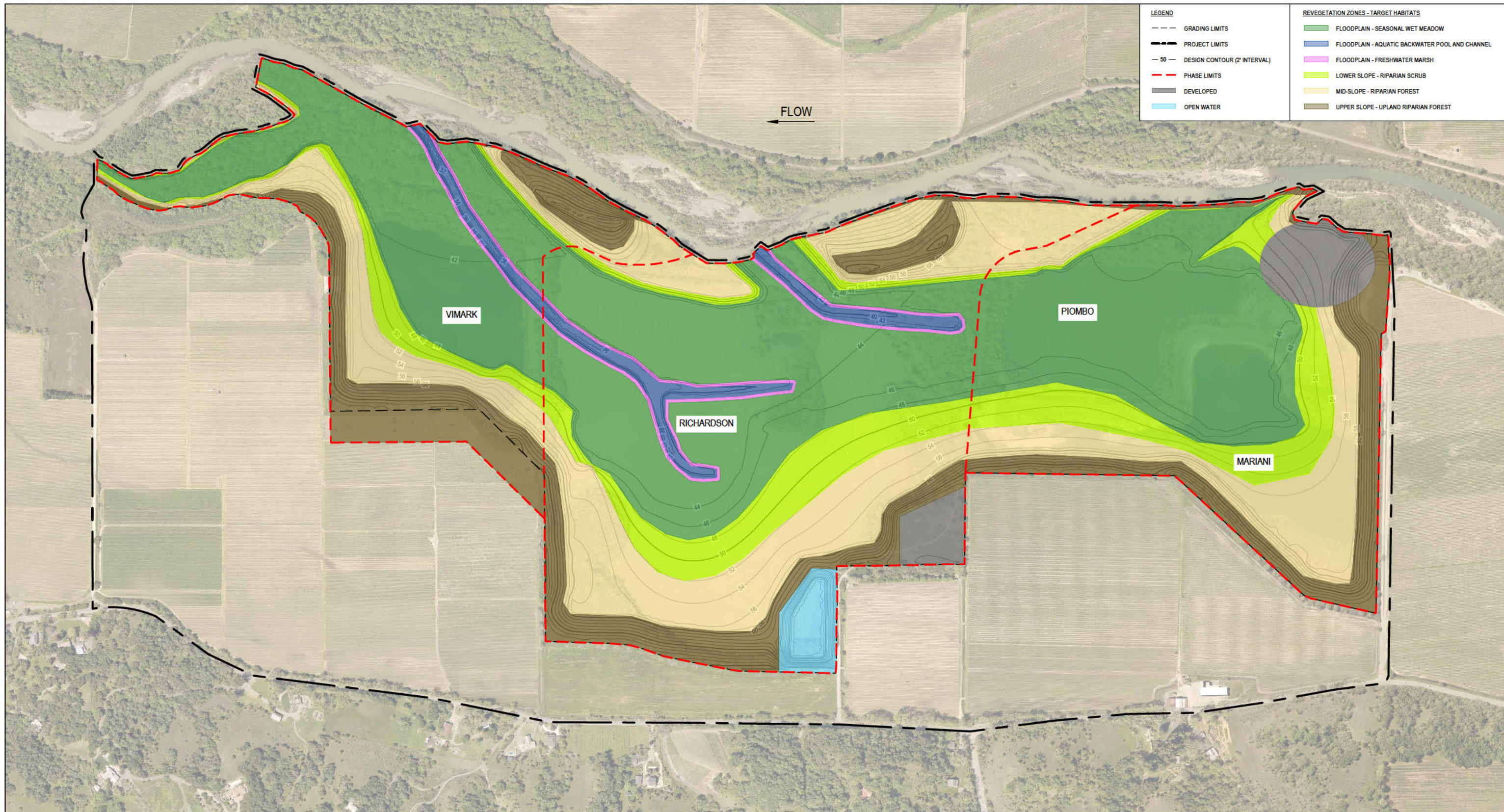
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Title	CROSS SECTIONS 2 OF 2		
Project No.	11195953		
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Sheet No.	C-302		
Sheet	18 of 20		



LEGEND		REVEGETATION ZONES - TARGET HABITATS	
---	GRADING LIMITS	[Green]	FLOODPLAIN - SEASONAL WET MEADOW
---	PROJECT LIMITS	[Blue]	FLOODPLAIN - AQUATIC BACKWATER POOL AND CHANNEL
- 50 -	DESIGN CONTOUR (2' INTERVAL)	[Purple]	FLOODPLAIN - FRESHWATER MARSH
---	PHASE LIMITS	[Light Green]	LOWER SLOPE - RIPARIAN SCRUB
[Grey]	DEVELOPED	[Yellow]	MID-SLOPE - RIPARIAN FOREST
[Light Blue]	OPEN WATER	[Brown]	UPPER SLOPE - UPLAND RIPARIAN FOREST

REVEGETATION PLAN
SCALE



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Title	REVEGETATION PLAN		
Project No.	11195953		
ANSI D	Original Size	Sheet No.	C-401
		Sheet	19 of 20

Revegetation Method	Revegetation Zone—Target Habitats					
	Floodplain Seasonal Wet Meadow	Floodplain Aquatic Backwater Pool and Channel	Floodplain Freshwater Marsh	Lower Slope Riparian Scrub	Mid-Slope Riparian Forest	Upper Slope Upland Riparian Forest
Seeding of herbaceous wetland species	X	X	X	X		
Seeding of herbaceous upland species					X	X
Seeding of acorns and California buckeye					X	X
Sod (rootmat) translocation ¹	X		X			
Vegetative sprigging ¹	X		X			
Cuttings				X		
Livewood transplants ¹				X	X	X
Container plants				X	X	X

REVEGETATION METHODS BY ZONE AND TARGET HABITATS

TABLE 1

Scientific Name	Common Name
Floodplain and Lower Slope Wetland Herbaceous Species Seed Mix	
<i>Artemisia douglasiana</i>	California mugwort
<i>Bidens frondosa</i>	Sticktight
<i>Carex barbarae</i>	Valley sedge
<i>Cyperus eragrostis</i>	Tall cyperus
<i>Eleocharis macrostachya</i>	Spike rush
<i>Elymus triticoides</i>	Beardless wild rye
<i>Epilobium ciliatum</i>	Slender willow herb
<i>Hordeum brachyantherum</i>	Meadow barley
<i>Juncus balticus</i>	Baltic rush
<i>Persicaria punctata</i>	Dotted smartweed
Mid- and Upper Slope Upland Herbaceous Species Seed Mix	
<i>Amsinckia intermedia</i>	Common fiddleneck
<i>Amsinckia menziesii</i>	Fiddleneck
<i>Clarkia gracilis ssp. sonomensis</i>	Sonoma clarkia
<i>Elymus glaucus</i>	Blue wildrye
<i>Epilobium brachycarpum</i>	Willow herb
<i>Hemizonia congesta ssp. leucocephala</i>	Hayfield tarweed
<i>Hemizonia congesta ssp. lutescens</i>	Hayfield tarweed
<i>Lupinus bicolor</i>	Bicolored lupine
<i>Madia elegans</i>	Common madia
<i>Madia sativa</i>	Coastal tarweed
<i>Melica californica</i>	California melic
<i>Stipa pulchra</i>	Purple needle grass

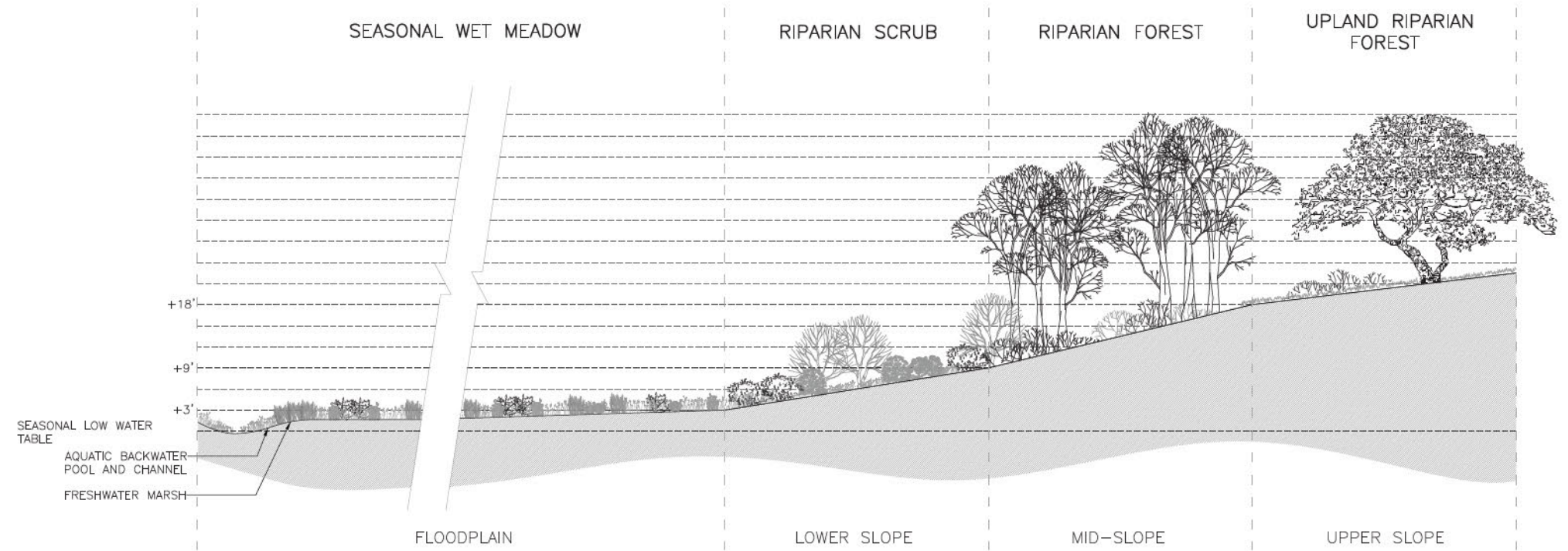
PLANT SPECIES PALETTES FOR SEEDING WETLAND AND RIPARIAN HABITATS

TABLE 2

Scientific Name	Common Name
<i>Artemisia douglasiana</i>	California mugwort
<i>Bolboschoenus fluviatilis</i>	River bulrush
<i>Carex barbarae</i>	Valley sedge
<i>Eleocharis macrostachya</i>	Spike rush
<i>Elymus triticoides</i>	Beardless wild rye
<i>Euthamia occidentalis</i>	Western goldenrod
<i>Juncus balticus</i>	Wire rush
<i>Schoenoplectus acutus</i>	Hardstem bulrush
<i>Schoenoplectus californicus</i>	California bulrush
<i>Scirpus microcarpus</i>	Small fruited bulrush

PLANT SPECIES PALETTE FOR SOD TRANSLOCATION AND VEGETATIVE SPRIGGING TO RESTORE SEASONAL WET MEADOW AND FRESHWATER MARSH HABITATS

TABLE 3



FLOODPLAIN RESTORATION CONCEPTUAL SECTION

NTS

Scientific Name	Common Name	Revegetation Zone—Target Habitats		
		Lower Slope Riparian Scrub	Mid-Slope Riparian Forest	Upper Slope Upland Riparian Forest
<i>Acer negundo</i>	Box elder		X	
<i>Aesculus californicus</i>	California buckeye		X	X
<i>Alnus rhombifolia</i>	White alder	X		
<i>Arbutus menziesii</i>	Pacific madrone		X	X
<i>Calycanthus occidentalis</i>	Spicebush		X	
<i>Cornus sericea</i>	American dogwood		X	
<i>Populus fremontii</i>	Fremont cottonwood	X	X	
<i>Quercus agrifolia</i>	Coast live oak			X
<i>Rhododendron occidentale</i>	Western azalea		X	
<i>Salix exigua</i>	Narrowleaf willow	X		
<i>Salix laevigata</i>	Red willow	X	X	
<i>Salix lasiolepis</i>	Arroyo willow	X	X	
<i>Umbellularia californica</i>	California bay		X	X
<i>Vitis californica</i>	California grape		X	

LIVEWOOD TRANSPLANT SPECIES PALETTE FOR RIPARIAN SCRUB, RIPARIAN FOREST, AND UPLAND RIPARIAN FOREST

TABLE 4

Scientific Name	Common Name
<i>Acer negundo</i>	Box elder
<i>Aesculus californica</i>	California buckeye
<i>Baccharis pilularis</i>	Coyote brush
<i>Fraxinus latifolia</i>	Oregon ash
<i>Juglans hindsii</i>	Northern California black walnut
<i>Populus fremontii</i>	Fremont cottonwood
<i>Quercus agrifolia</i>	Coast live oak
<i>Quercus kelloggii</i>	Black oak
<i>Quercus lobata</i>	Valley oak
<i>Rosa californica</i>	California wild rose
<i>Rubus ursinus</i>	California blackberry
<i>Salix laevigata</i>	Red willow
<i>Salix lasiolepis</i>	Arroyo willow
<i>Sambucus nigra</i>	Blue elderberry
<i>Umbellularia californica</i>	California bay laurel

CONTAINER PLANT SPECIES PALETTE FOR RIPARIAN FOREST AND UPLAND RIPARIAN FOREST

TABLE 5

30% DESIGN

<p>NOTE: PLANSET CONTENT COLOR-DEPENDENT; PLANSET TO BE PLOTTED IN FULL COLOR</p>				<p>Bar is one inch on original size sheet 0 1"</p>								<p>Drawn C. PENNY Designer C. PENNY</p>		<p>Client ENDANGERED HABITATS CONSERVANCY Project HANSON RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT</p>	
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