

PROPERTY DESCRIPTION:

TAX LOT 200 LOCATED IN SECTION

1500, TOWNSHIP 8 NORTH, RANGE 4

WEST, COLUMBIA COUNTY, OREGON

PROJECT LOCATION:

<u>OWNER</u>

CASCADE KELLY HOLDINGS, LLC

PROJECT NAME

COLUMBIA PACIFIC BIO-REFINERY TRANSLOAD EXPANSION

PROJECT LOCATION

81200 KALLUNKI ROAD, CLATSKANIE, OREGON 97018

LATITUDE = 46.172, LONGITUDE = -123.164

INSPECTION FREQUENCY:

Site Conditions	Minimum Frequency								
1. Active Period	Daily when stormwater runoff, including runoff from snowmelt, is occurring. At least once every two weeks, regardless of whether or not runoff is occurring.								
Prior to the site becoming inactive or in anticipation of site inaccessibility.	Once to ensure that erosion and sediment control measures are in working order. Any necessary maintenance and repair must be made prior to leaving the site.								
Inactive periods greater than fourteen (14) calendar days.	Once every two (2) weeks.								
Periods during which the site is inaccessible due to inclement weather.	If practical, inspections must occur daily at a relevant and accessible discharge point or downstream location.								

- HOLD A PRE-CON MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE EC INSPECTOR.
- ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS.
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS.
- REVISIONS TO THE APPROVED ESC PLAN MUST BE SUBMITTED TO DEQ OR AGENT IN ACCORDANCE WITH CURRENT 1200-C PERMIT.

NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS

 EXISTING INDUSTRIAL FACILITY, OPERATES AS BOTH A FUEL ETHANOL PRODUCTION FACILITY (SIC CODE 2869) AND A BULK LIQUID COMMODITY TERMINAL (SIC CODE 5171). **LEGEND**

PROPERTY BOUNDARY

SOIL DISTURBANCE

STOCKPILE BARRIER

DIVERSION DIKE

DIVERSION SWALE

INLET PROTECTION

COMPOST BLANKET

SEEDING & MULCHING

CONCRETE WASHOUT

OUTLET PROTECTION

ROCK FILTER BERM

MEASURES

MEASURES

TEMPORARY SLOPE STABILIZATION

LONG TERM SLOPE STABILIZATION

NEW IMPERVIOUS SURFACE

DRAINAGE FLOW DIRECTION

EXISTING PAVEMENT

SEDIMENT MAT

DIVERSION DIKE/SWALE

TEMPORARY SLOPE DRAIN

EXISTING MINOR CONTOUR (2 FT)

EXISTING MAJOR CONTOUR (10 FT)

SEDIMENT BARRIER (PERIMETER)

SEDIMENT BARRIER (INTERIOR)

ORANGE CONSTRUCTION FENCE

TEMPORARY STORMWATER LINE

CONSTRUCTION ENTRANCE/EXIT

RAILROAD

• TOTAL SITE AREA = 43.62

RE-DEVELOPED CONDITIONS

- ADDITION OF A 5-ACRE SECONDARY CONTAINMENT TANK FARM TO HOUSE SIX STORAGE TANKS THAT WILL ADD 2.7 ACRES OF NEW IMPERVIOUS SURFACE ON NORTH SIDE OF SITE
- RELOCATION OF 14,000 SQUARE FOOT WAREHOUSE THAT WILL ADD 0.70
 ACRES OF NEW IMPERVIOUS SURFACE (ASPHALT) ON SOUTH SIDE OF SITE
- NEW PUMP CONTAINMENT VAULT IN RAIL UNLOAD AREA
- NEW PIPELINE FROM RAIL UNLOAD AREA TO TANK FARM

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

- TOTAL CONSTRUCTION SCHEDULE: MARCH 2015 JUNE 2016 (CONTINGENCY SCHEDULE THROUGH DECEMBER 2016)
- DEMOLITION & CLEARING (MAR OCT 2015)
- GRADING (OCT JUN 2015)
- CONCRETE WORK (JUL 2015 MAY 2016)
- PAVING (MAR 2015, DEC FEB 2016)
- FINAL STABILIZATION (JUN 2016)
- TOTAL SITE AREA = 43.62 ACRES

TOTAL DISTURBED AREA = 7 ACRES

SITE SOIL CLASSIFICATION:
GENERALLY FLAT PASTURE LAND

SLOPE 0-3%

TYPE A SOILS - LOAMY SAND

SOIL SURVEY OF COLUMBIA COUNTY, OREGON BY RICHARD T SMYTHE, SOIL CONSERVATION SERVICE: SOIL TYPE 61 - UDIPSAMMENTS, NEARLY LEVEL, PROTECTED. THESE VERY DEEP EXCESSIVELY DRAINED SOILS ARE ON FLOOD PLAINS ALONG THE COLUMBIA RIVER. ELEVATION 10 TO 35 FEET.

RECEIVING WATER BODY:

COLUMBIA RIVER

PERMITEE'S SITE INSPECTOR:

CONTACT: AYN GENERES, PE, CESCL

COMPANY: SOUNDEARTH STRATEGIES, INC

PHONE: <u>866-850-1900</u>

E-MAIL: AGENERES@SOUNDEARTHINC.COM

DESCRIPTION OF EXPERIENCE: 15 YEARS IN DESIGN AND IMPLEMENTATION OF STORMWATER CONTROLS.

WASHINGTON-CERTIFIED EROSION AND SEDIMENT CONTROL LEAD. OREGON-REGISTERED PROFESSIONAL ENGINEER.

SHEET INDEX:

SHEET 1 - COVER SHEET

SHEET 2 - EXISTING CONDITIONS

SHEET 3 - PRE-CONSTRUCTION NORTH SITE PLAN

SHEET 4 - PRE-CONSTRUCTION SOUTH SITE PLAN

SHEET 5 - DURING-CONSTRUCTION NORTH SITE PLAN

SHEET 6 - DURING-CONSTRUCTION SOUTH SITE PLAN

SHEET 7 - POST-CONSTRUCTION SITE PLAN

SHEET 8 - CONSTRUCTION BMP DETAILS

BMP MATRIX FOR CONSTRUCTION PHASES

	YEAR 2015	2015									2016					
BMPS M	ONTH MAR		МАУ	JUN	.1111	ALIG	SEP	OCT	NOV	DEC			MAR	APR	MAY	JUN
Pipe Slope Drains		7					~	-			4.01					
Energy Dissipaters																
Temporary Diversion Dikes	•		_	-		-	-		-				_		_	
Check Dams	Х		_		,		-								-	
Temporary Seeding and Planting	-			-												
Permanent Seeding and Planting			X	Х		-	-							-	х	Х
Mulches (Specify Type)	-								-							-
Construction Entrance	-								•							•
Compost Blankets	-			-		-			-						-	-
Compost Socks	X	X	X	Х	X	X	X	X	Х	X	Х	X	X	X		
Compost Berm	-					-										
Soil Tackifiers	-		-	-					-				-			-
Sodding Vegetative Buffer Strips										1						
Plastic Sheeting																-
Sediment Fencing	Х	X	X	X	Х	X	Х	Х	Х	Х	Х	X	X	Х	Х	Х
Erosion Control Blankets & Mats (Specify type)	-															
Earth Dikes (Stabilized)	-		-													_
Drainage Swales	-															
Rock Outlet Protection																
Sediment Trap															-	
Straw Wattles (Loose compaction rice straw)	-															
Storm Drain Inlet Protection	Х	X	X	X	X	X	X	X	X	Х	X	X	X	X	Х	X
Temporary or Permanent Sedimentation Basins	Х	X	X	X	X	X	X	X	Х	X	X	X	X	X	Х	X
Unpayed roads graveled or other BMP on the road																-
Dewatering (treatment location, schematic, & sampling plan rec	uired)		_	-			-		-						-	_
Paving Operations Controls		X										X	X	X		
Concrete Truck Washout	-			Х	X	Х	Х	Х	х	X	X	X	X			

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES

- 1. HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS. (SCHEDULE A.8.C.I.(3))
- ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS.
 INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS.
- 4. RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. DURING INACTIVE PERIODS OF GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS, RETAIN THE ESCP AT THE CONSTRUCTION SITE OR AT ANOTHER LOCATION. (SCHEDULE B.2.A)
- 5. ALL PERMIT REGISTRANTS MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL
- MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SCHEDULE A 8.A)

 6. THE ESCP MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS.
 DURING THE CONSTRUCTION PERIOD, UPGRADE THESE MEASURES AS NEEDED TO COMPLY WITH ALL APPLICABLE
 LOCAL, STATE, AND FEDERAL EROSION AND SEDIMENT CONTROL REGULATIONS. (SCHEDULE A.8.C.II.(1)(C))
- 7. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT. (SCHEDULE A.12.C.III)
- 8. PHASE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SCHEDULE A 8.C.II.(1)(D))
- 9. IDENTIFY, MARK, AND PROTECT (BY FENCING OFF OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SCHEDULE A.8.C.I.(1) & (2))
- 10. PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SCHEDULE A.7.B.III(1) AND A.7.B.III(3))
- 11.EROSION AND SEDIMENT CONTROL MEASURES INCLUDING PERIMETER SEDIMENT CONTROL MUST BE IN PLACE BEFORE VEGETATION IS DISTURBED AND MUST REMAIN IN PLACE AND BE MAINTAINED, REPAIRED, AND PROMPTLY IMPLEMENTED FOLLOWING PROCEDURES ESTABLISHED FOR THE DURATION OF CONSTRUCTION, INCLUDING PROTECTION FOR ACTIVE STORM DRAIN INLETS AND CATCH BASINS AND APPROPRIATE NON-STORMWATER POLLUTION CONTROLS. (SCHEDULE A.7.D.I AND A.8.C)
- 12.ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SCHEDULE A.8.C.I.(6))
- 13. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES AND FOR ALL ROADWAYS INCLUDING GRAVEL ROADWAYS. (SCHEDULE A.8.C.II.(2))
 14. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SCHEDULE A.8.C.I.(7))
- 15. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND-DISTURBING ACTIVITIES. (SCHEDULE A 7.D.II.(1) AND A.8.C.I(4))
- 16. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SCHEDULE A.7.D.II.(3))
- 17.USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, LEFTOVER PAINTS, SOLVENTS, AND GLUES FROM CONSTRUCTION OPERATIONS. (SCHEDULE A.7.E.I.(2))
- 18.IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SCH A 7.E.III.)
- 19. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SCHEDULE A 7.B.II)
- 20.THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SCHEDULE A.9.B.III)
- 21.IF A STORMWATER TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN PLAN APPROVAL BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SCHEDULE A.9.D)
- 22.TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SCHEDULE A 7.B)
- 23.AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO
- SURFACE WATERS. (SCHEDULE A 7.E.II.(2))

 24.CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND DURING WET WEATHER. (SCHEDULE A.7.A.I)
- 25.SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SCHEDULE A.9.C.I)
- 26.OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT. AND BEFORE BMP REMOVAL. (SCHEDULE A.9.C.II)
- 27.CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT. (SCHEDULE A.9.C.III & IV)

28. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED.

- INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIMEFRAME. (SCHEDULE A.9.B.I)
 29.THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR.
- VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SCHEDULE A.9.B.II)

 30.THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VEGETATION OR A HEAVY MULCH LAYER,
- MORE. (SCHEDULE A.7.F.I)
 31.PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE

TEMPORARY SEEDING, OR OTHER METHOD SHOULD ALL CONSTRUCTION ACTIVITIES CEASE FOR 30 DAYS OR

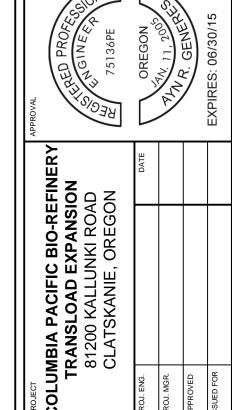
COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SCHEDULE A.7.F.II)

32.PROVIDE PERMANENT EROSION CONTROL MEASURES ON ALL EXPOSED AREAS. DO NOT REMOVE TEMPORARY
SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS
ESTABLISHED. HOWEVER, DO REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AS EXPOSED AREAS
BECOME STABILIZED, UNLESS DOING SO CONFLICTS WITH LOCAL REQUIREMENTS. PROPERLY DISPOSE OF
CONSTRUCTION MATERIALS AND WASTE, INCLUDING SEDIMENT RETAINED BY TEMPORARY BMPS. (SCHEDULE

RATIONALE STATEMENT

A.7.B.III(2) AND A.8.C.III)

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMPS) OPTIONS BASED ON DEQ'S 1200-C PERMIT APPLICATION AND ESCP GUIDANCE DOCUMENT HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMPS WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVISION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS, TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS. AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESCP, AN ACTION PLAN WILL BE SUBMITTED.



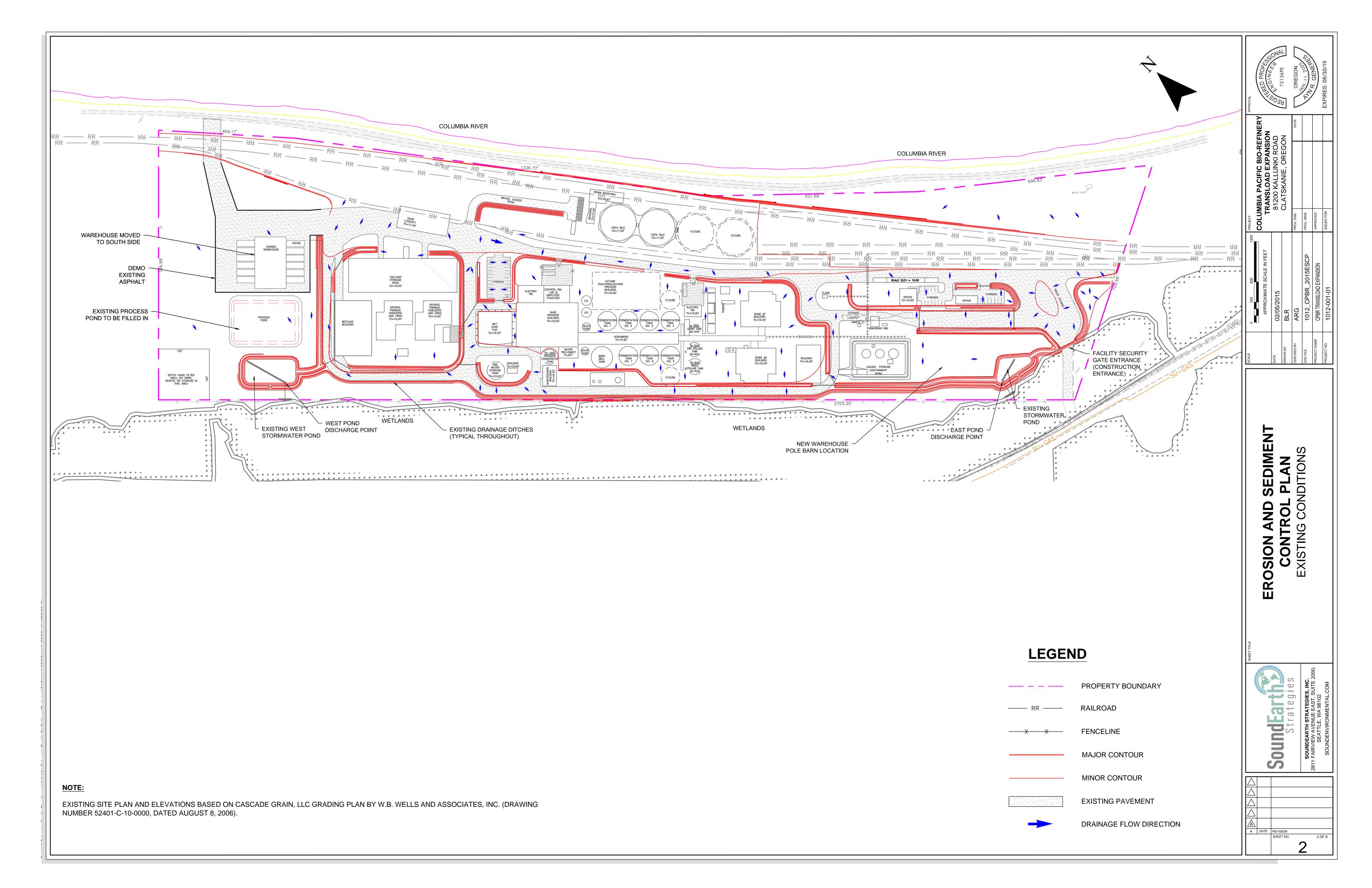
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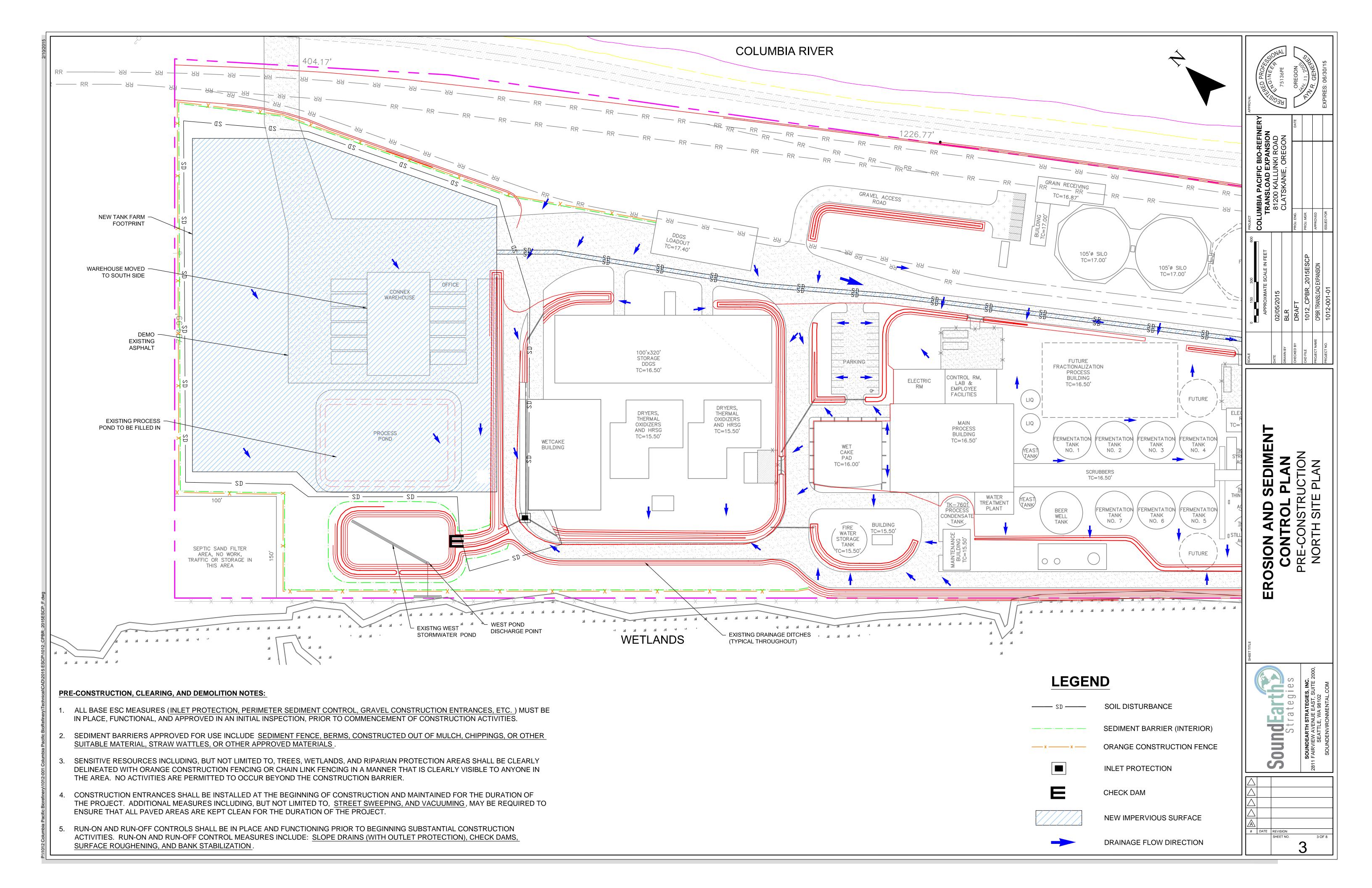
ROSION AND SEDIMEN CONTROL PLAN COVER SHEET AND NOTES

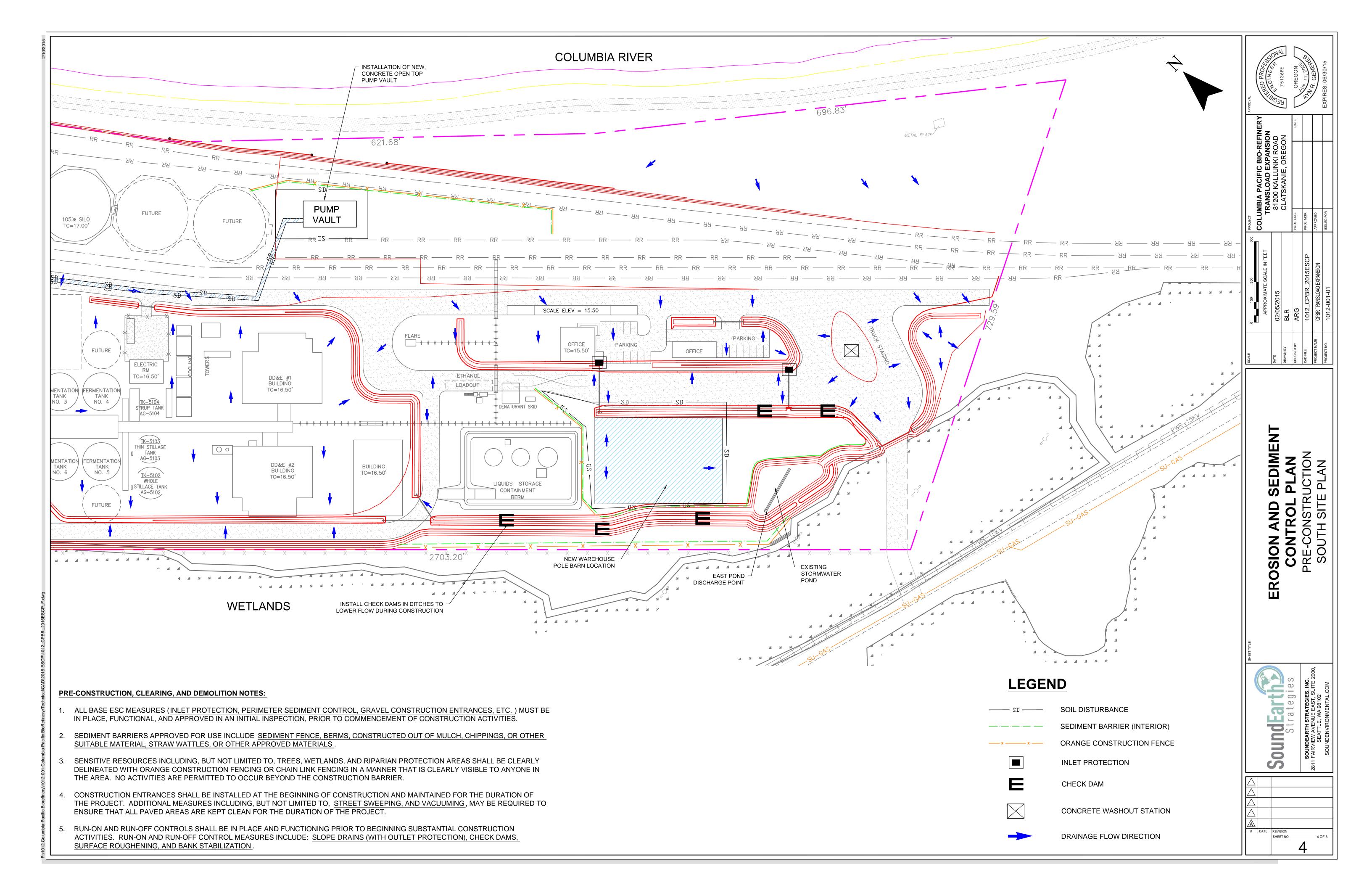
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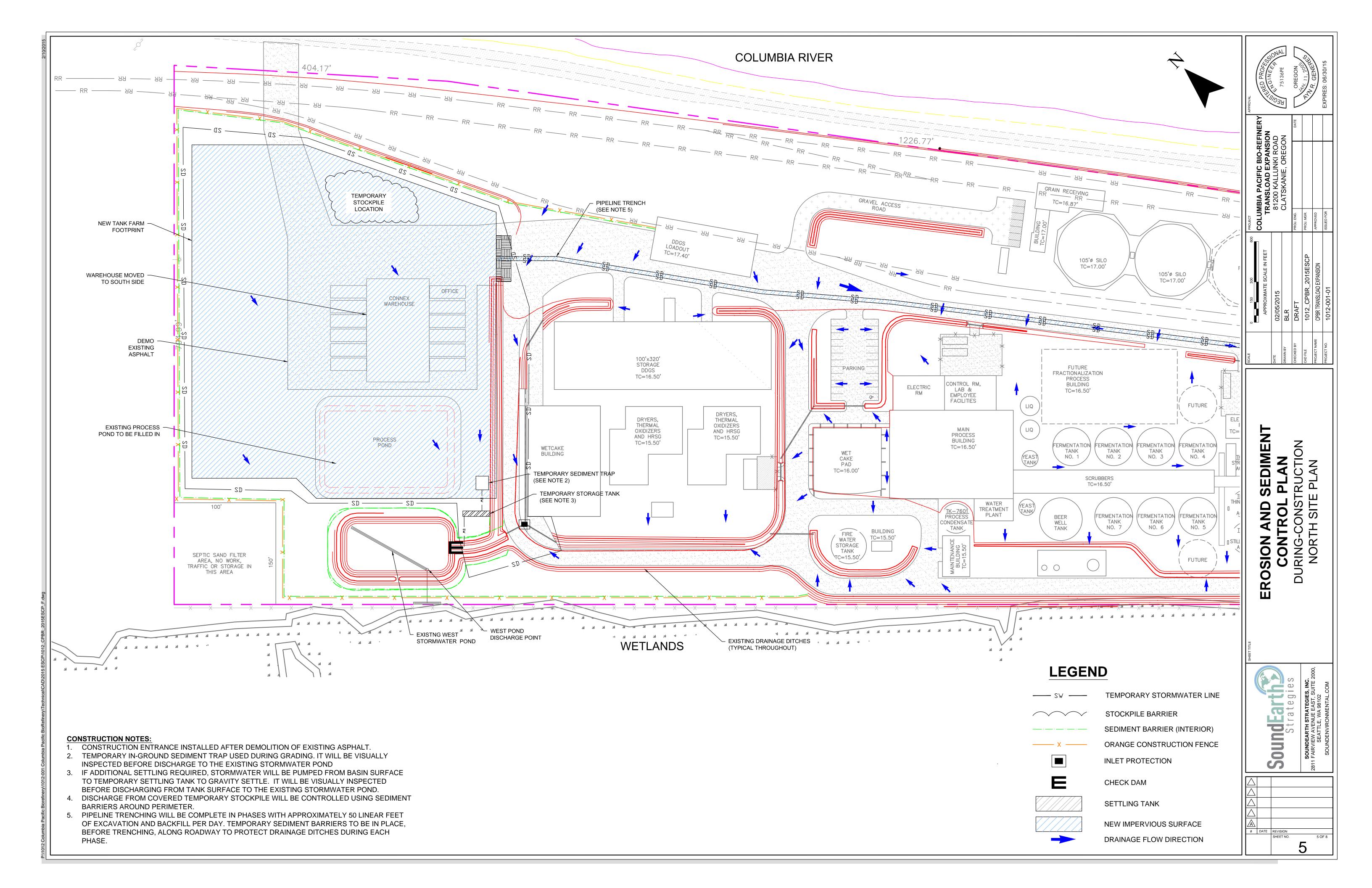
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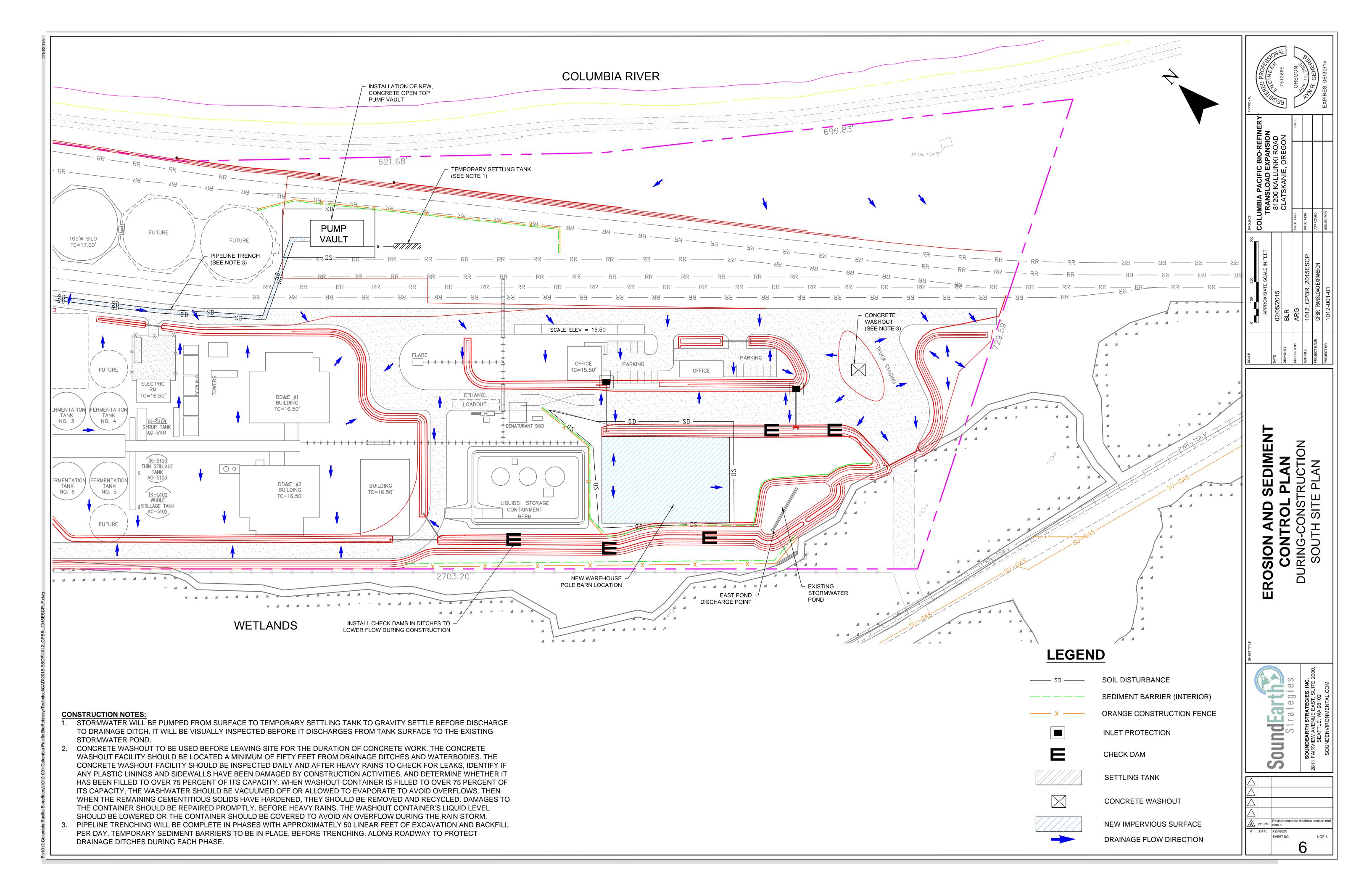


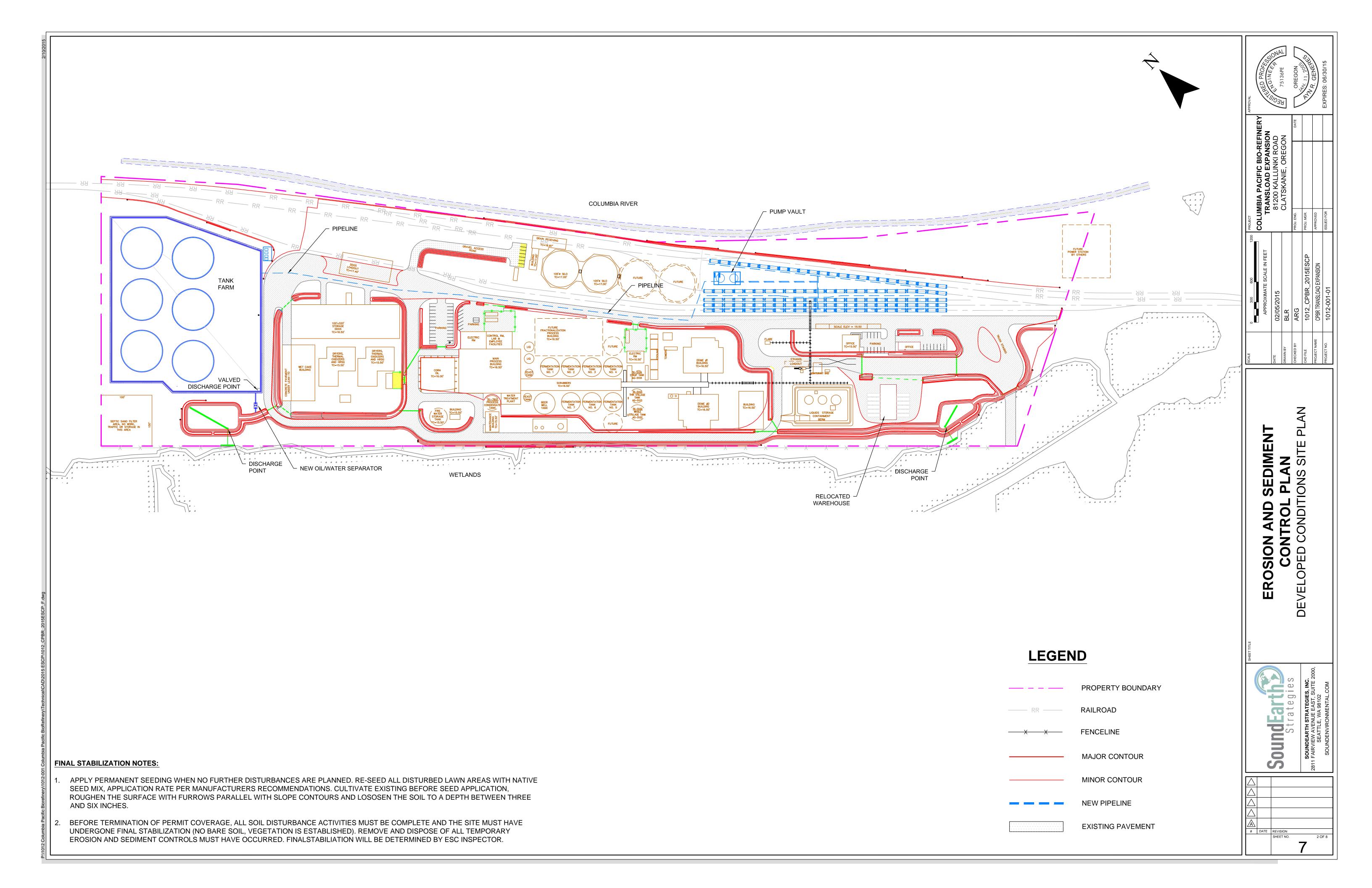


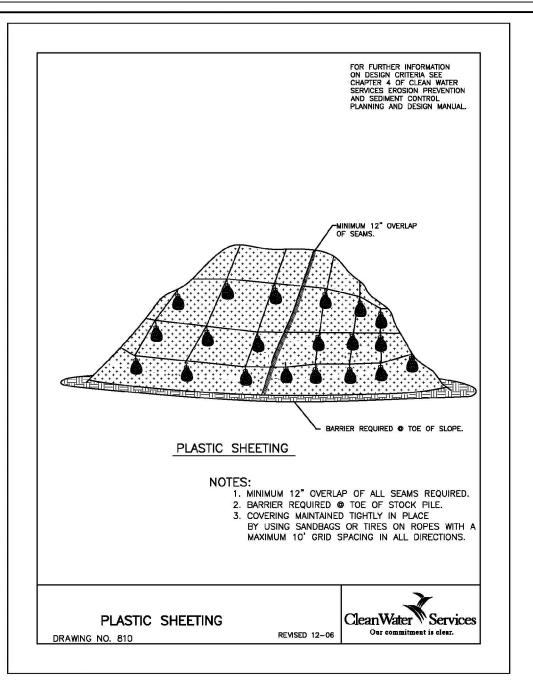


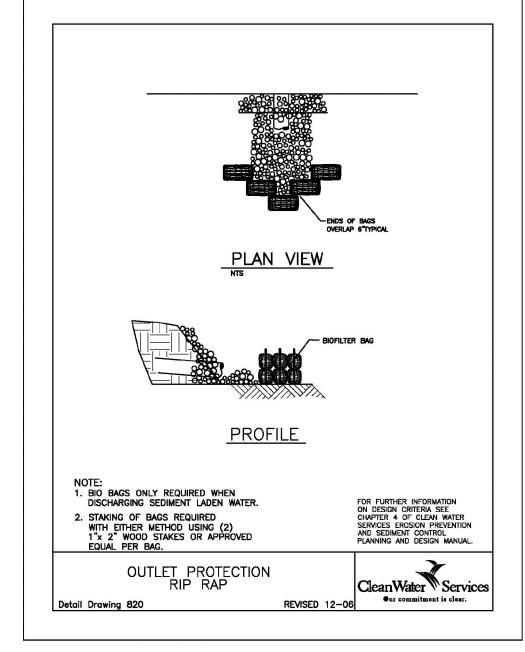


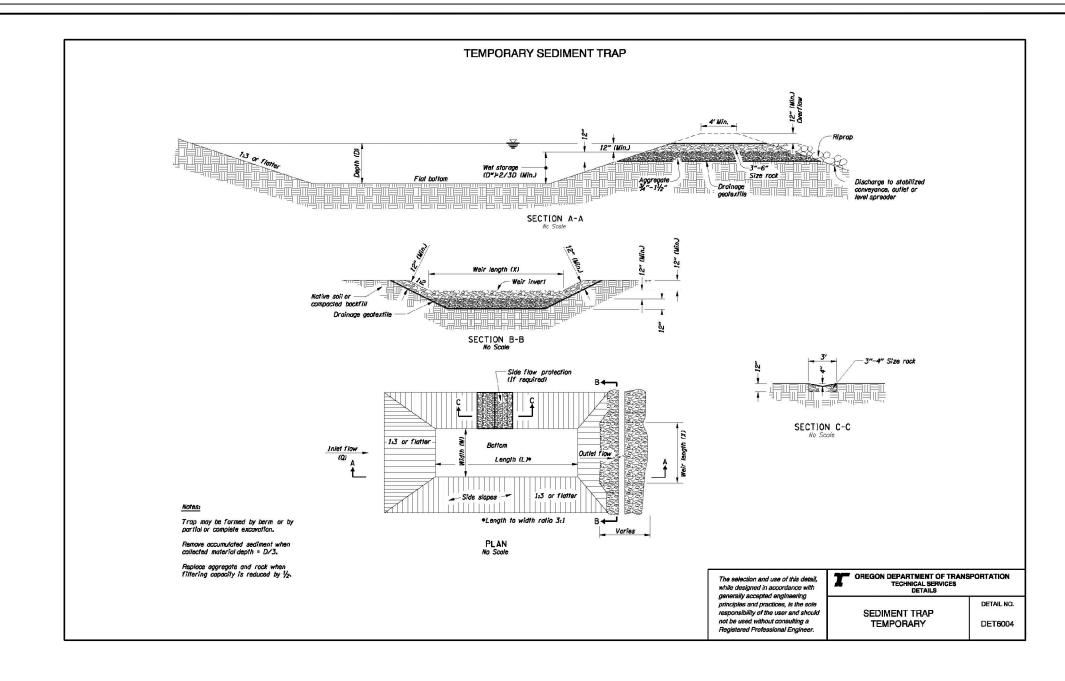


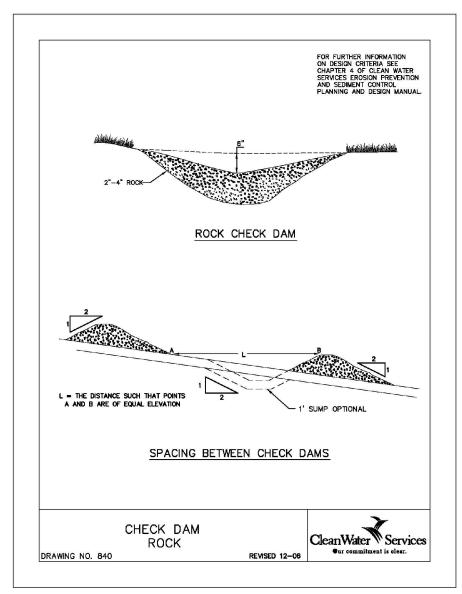


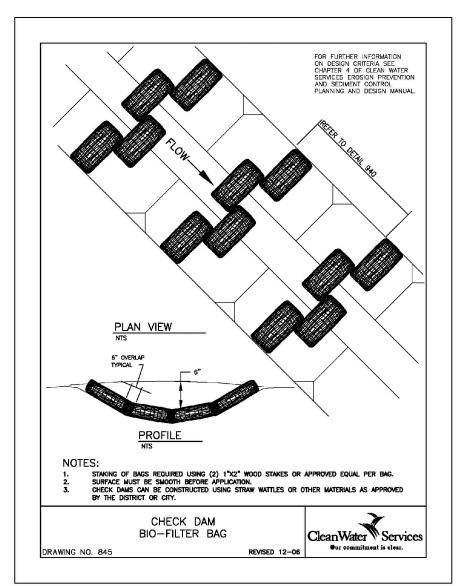


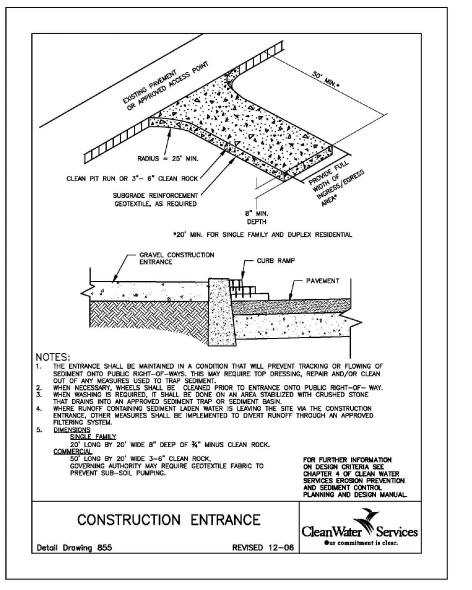


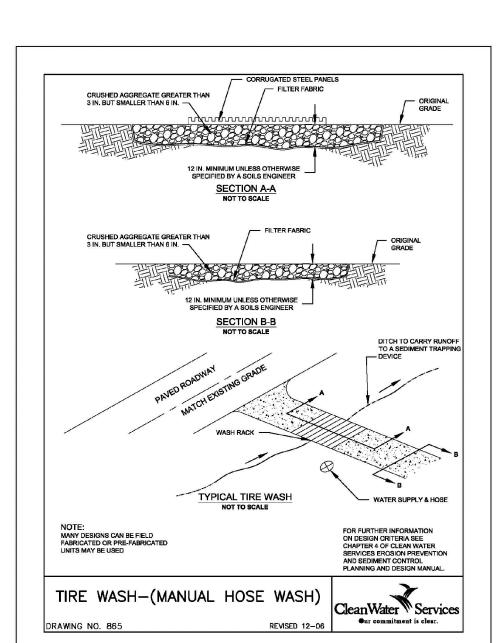


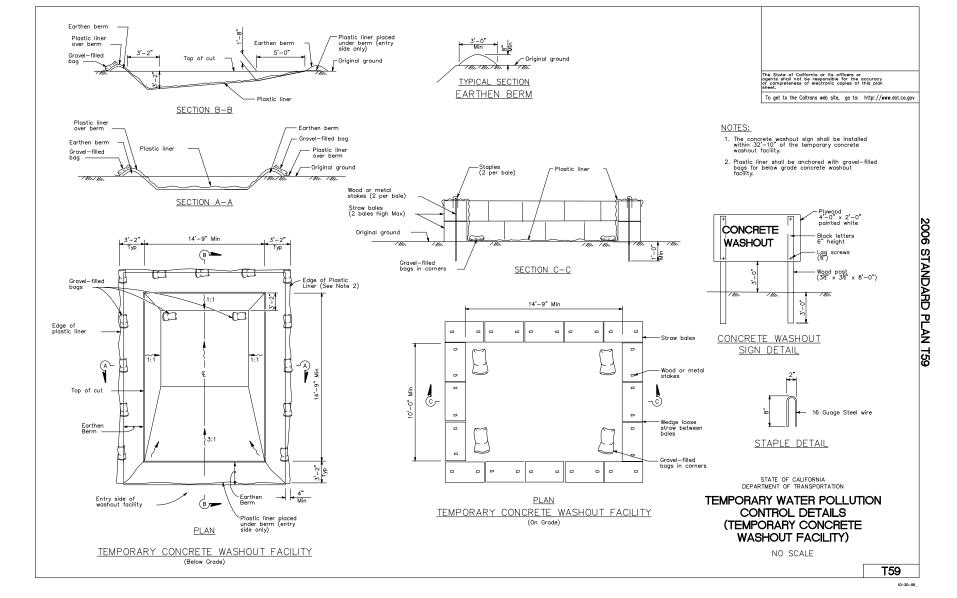


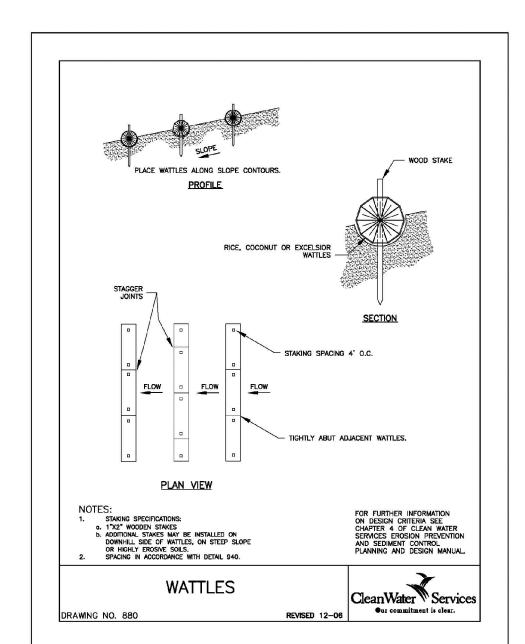


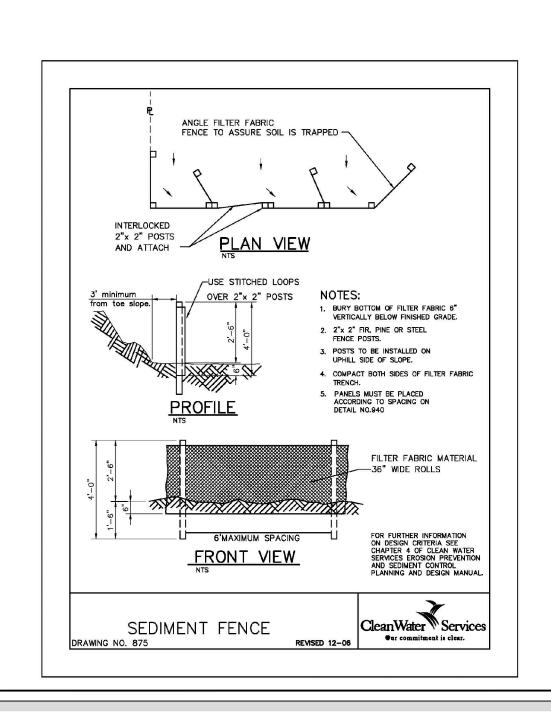


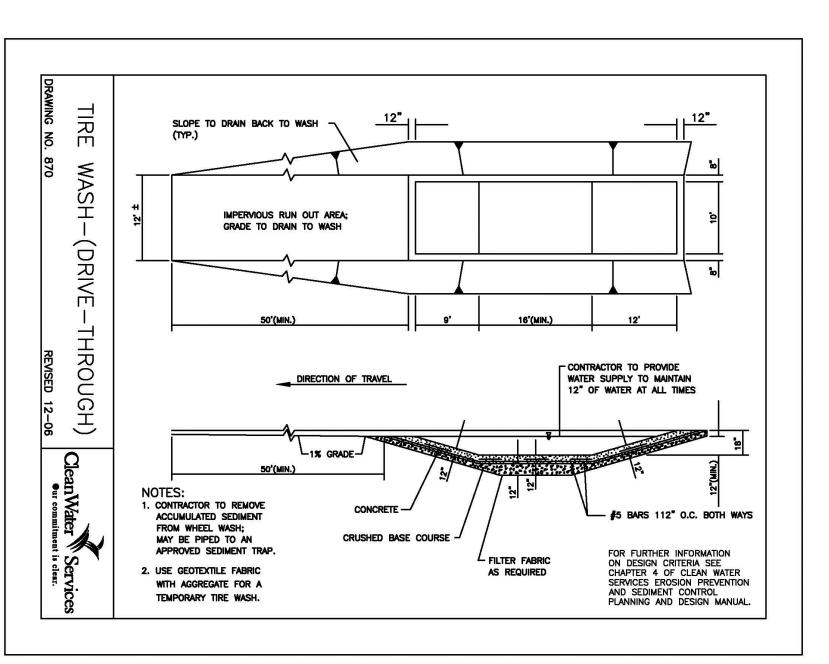














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