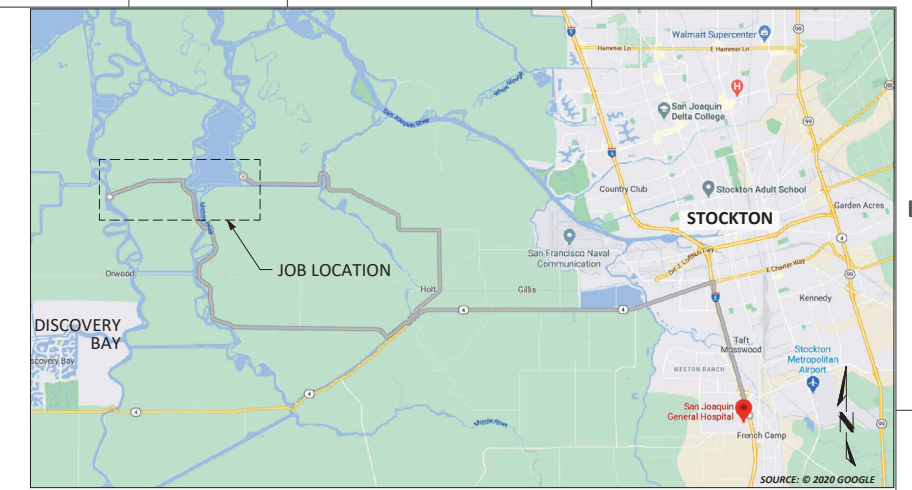
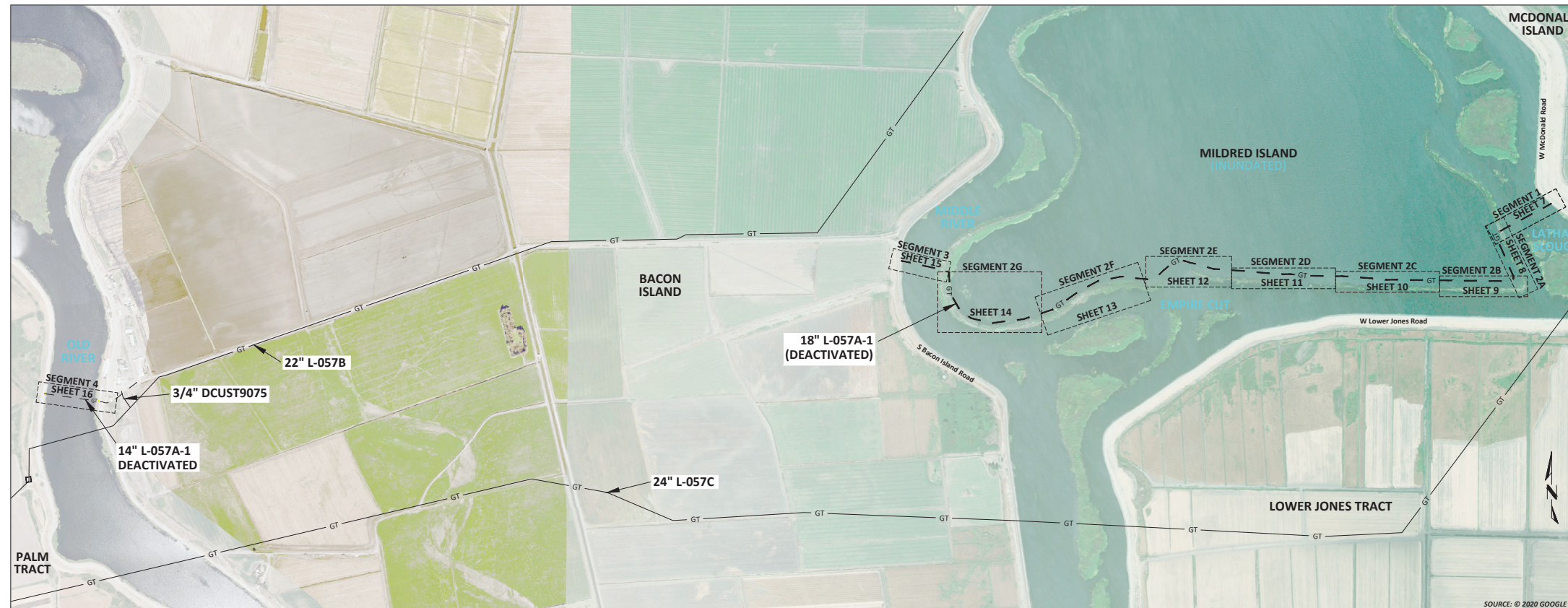


R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12 DECOMMISSION 18" & 14" PIPE MILDRED ISLAND, SAN JOAQUIN COUNTY



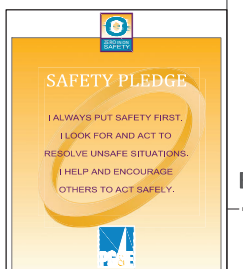
VICINITY MAP
NOT TO SCALE



KEY MAP
SCALE: 1" = 835'

SCHEDULE OF SHEETS

SHEET 1	-- TITLE & INDEX
SHEET 2	-- CONSTRUCTION NOTES
SHEET 3	-- LEGEND & STAMPS
SHEETS 4-6	-- PROJECT SITE PLAN
SHEETS 7-16	-- DECOMMISSIONING PLAN
SHEETS 17-21	-- DETAILS
SHEET 22	-- BILL OF MATERIALS



**60%
DESIGN**



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	

PIPELINE - TITLE & INDEX
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL	SHEET 22
JOB ID	R-1390B
SHEET NO.	1 OF 22 SHEETS
74032845	A

INCH

SUMMARY OF PROPOSED WORK:

- REFERENCE PROJECT EXECUTION PLAN, 19-033 R-1390B PEP**
- REMOVE 8,223'-0" OF 18" PIPE.
 - REMOVE 1,696'-0" OF 14" PIPE.
 - ABANDON 440'-0" OF 18" PIPE.
 - ABANDON 222'-0" OF 14" PIPE.

CONSTRUCTION NOTES:

GENERAL REQUIREMENTS:

- UNDERGROUND SERVICE ALERT:
CALL 811 (1-800-227-2600) A MINIMUM OF 2 BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE FOR THE MARKING OF UNDERGROUND UTILITIES, INCLUDING ALL NON-UTILITIES BEFORE YOU DIG, GRADE, OR EXCAVATE.
- UTILITY NOTES:
A. DIMENSIONS SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM SEVERAL SOURCES, AND SHALL BE VERIFIED IN THE FIELD BY CONSTRUCTION PERSONNEL PRIOR TO FABRICATION.
B. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES, PROPERTY LINES, AND OTHER SUBSTRUCTURES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE, UNLESS OTHERWISE NOTED. CONSTRUCTION PERSONNEL ARE RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AND OTHER SUBSTRUCTURES AS NECESSARY TO AVOID DAMAGE OR ENCROACHMENTS.
C. PROSPECTING IS REQUIRED AHEAD OF WORK. ALL OFFSETS OR ROPING WILL NEED TO BE APPROVED BY THE PG&E PROJECT ENGINEER (PED), AND REDLINED DETAILS SHOWN ON PROFILE AND CONSTRUCTION DETAIL SHEETS OF EACH ADDITIONAL SUBSTRUCTURE.
D. ALL EXCAVATIONS WITHIN EXISTING STATIONS SHALL BE HAND DUG OR EXCAVATED USING SOFT DIG METHODS (e.g. VACUUM EXCAVATIONS OR SIMILAR).
- ELBOWS AND FIELD BENDS:
A. ALL BENDS ARE SMOOTH FIELD BENDS, EXCEPT WHERE ELBOWS ARE SHOWN. FIELD BENDS SHALL BE MADE IN ACCORDANCE WITH A-36, SECTION 4D. FIELD BENDS MAY BE USED IN LIEU OF ELBOWS WHEN PREAPPROVED BY THE PG&E PROJECT ENGINEER (PED).
B. IN ORDER TO AVOID EXCESSIVE STRAIN ON THE PIPELINE, THERE SHALL BE A MINIMUM SEPARATION OF 5 FEET BETWEEN A ROPED SECTION OF PIPELINE AND ANY ELBOWS OR FIELD BENDS.
C. ALL ANGLES SHOWN IN THE PLAN AND PROFILE ARE APPROXIMATE AND SHALL BE CUT TO SUIT FIELD CONDITIONS.
- SEPARATION FROM OTHER STRUCTURES:
A. CROSSING UNDERGROUND FACILITIES: PG&E PIPELINE MUST BE INSTALLED WITH AT LEAST 24 INCHES OF CLEARANCE FROM ANY OTHER SUBSTRUCTURE/UTILITY NOT ASSOCIATED WITH THE PIPELINE UNLESS NOTED ON THE DRAWINGS.
B. PARALLELING UNDERGROUND FACILITIES: THIS PIPELINE MUST BE INSTALLED WITH AT LEAST 5 FEET OF CLEARANCE FROM ANY OTHER UNDERGROUND STRUCTURE/UTILITY NOT ASSOCIATED WITH THE PIPELINE UNLESS NOTED ON THE DRAWINGS.
- RESTORATION AND CLEAN UP:
A. RESTORATION OF PUBLIC STREETS, SIDEWALKS, CURBS, ETC. ABOVE PIPE BEDDING SHALL BE IN ACCORDANCE WITH THE LATEST CITY, COUNTY, OR AGENCY STANDARDS.
B. WHERE EVER THERE ARE ROW CROPS, THE TOPSOIL SHALL BE REMOVED TO A DEPTH OF 12" AND STORED ON SITE. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHALL BE RESTORED. TAKE CARE TO PREVENT MIXING OF TOPSOIL AND SUBSOIL.
- DESIGN NOTES:
THIS DRAWING HAS BEEN CREATED BY REVIEW OF THE AS-BUILT DRAWINGS & RECORDS. ACCURACY IS DEPENDENT UPON THE SOURCE DOCUMENT LISTED ON THE REFERENCE DRAWINGS.
- WELDING REQUIREMENTS:
A. ALL ARC WELDING IS TO BE PERFORMED IN ACCORDANCE WITH THE GAS WELDING CONTROL MANUAL TD-4160M. ALL CANS OR SPOOLS SHALL BE A MINIMUM LENGTH OF ONE PIPE DIAMETER, WHENEVER POSSIBLE.
B. INSTALL TEST STATIONS WITH THERMITE WELD CONNECTION IN ACCORDANCE WITH GAS T & D CORROSION CONTROL MANUAL O-10, O-10.1 AND O-10.2.
- WELDING:
WHEN INTERNAL MISALIGNMENT EXCEEDS 0.094", BACKWELD ANY GIRTH WELD WHERE THERE IS ACCESS TO THE INSIDE OF THE WELD. WHERE THERE IS NO ACCESS TO THE INSIDE OF THE WELD, MACHINE BORING OR GRINDING IS REQUIRED. BACKWELDING, GRINDING, OR BORING MUST BE DONE IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROCEDURE IN THE GAS WELDING CONTROL MANUAL TD-4160M.
- STRENGTH TEST REQUIREMENTS
A. STRENGTH TESTING SHALL MEET PRESSURE AND DURATION REQUIREMENTS OF GAS STANDARD A-34 AND SHALL BE CONDUCTED IN ACCORDANCE WITH UTILITY PROCEDURE TD-4137S.
B. ALL WELDS THAT HAVE NOT BEEN STRENGTH TESTED AND ALL FITTINGS SHALL BE SOAP TESTED AT 100 PSI AND AT OPERATING PRESSURE BEFORE COATING CAN OCCUR.
- COATING REQUIREMENTS:
A. ALL EXPOSED PIPE AND FITTINGS ARE TO BE COATED IN ACCORDANCE WITH GAS STANDARD E-30. ALL COATING ON BURIED PIPE AND FITTINGS ARE TO BE APPLIED IN ACCORDANCE WITH GAS STANDARD E-35.
B. FOR COATING SELECTIONS ON BURIED PIPE, SEE DIRECT BURIAL COATING SELECTIONS TABLE.
C. CONTACT THE PROJECT ENGINEER (PED) TO REQUEST VARIANCE FROM THE APPROVED COATING PRODUCTS.
- INSPECTION OF EXISTING PIPELINE:
A. WHENEVER EXISTING BURIED GAS FACILITIES ARE EXCAVATED DURING ENGINEERING OR DURING CONSTRUCTION, FOLLOW TD-5100P-01 TO DOCUMENT PIPE INSPECTION. THIS APPLIES TO EXISTING AND TO BE DEACTIVATED FACILITIES.
B. EXISTING GIRTH WELDS, AT TIE-IN LOCATIONS, SHALL BE IDENTIFIED AND REMOVED IF PRACTICAL.
C. PRIOR TO TIE-IN, INSPECT COATING AND PIPE FOR DEFECTS. IF DEFECTS ARE FOUND, CONTACT PROJECT ENGINEER (PED) FOR GUIDANCE.
- TIE-IN AND CLEARANCE PROCEDURE TO BE PREPARED AND PERFORMED IN ACCORDANCE WITH THE FOLLOWING WORK PROCEDURES:
A. TD-4100P-01, HOT AND COLD WORK METHODS FOR NATURAL GAS TRANSMISSION PIPELINE SHUTDOWN AND TIE-IN.
B. TD-4441S, GAS CLEARANCE PROCEDURES FOR FACILITIES OPERATING OVER 60 PSIG.

13. COATING REMOVAL:

- PERFORM THE FOLLOWING STEPS, IN ACCORDANCE WITH TD-4711P-01, BEFORE REMOVING ASPHALTIC PIPE WRAP ON PIPELINES INSTALLED PRIOR TO 1972 (BASED ON PG&E ANALYSIS, PIPE INSTALLED IN 1972 OR LATER DOES NOT HAVE PIPE WRAP THAT CONTAINS ASBESTOS):
 - WHEN A PIPE WRAP SAMPLE IS REQUIRED TO BE ANALYZED FOR ASBESTOS:
 - COLLECT SAMPLE PER TD-4711P-01 AND COMPLETE CHAIN OF CUSTODY FORM TD-4711P-01-F01.
 - FILE PINK COPY OF THE CHAIN OF CUSTODY FORM AND FINAL LABORATORY RESULTS WITH THE AS-BUILTS.
 - WHEN REMOVING PIPE WRAP THAT CONTAINS ASBESTOS, OR FOR EMERGENCY WORK, FOLLOW TD-4711P-01 "PIPE WRAP REMOVAL, HANDLING AND DISPOSAL".

CATHODIC PROTECTION NOTES:

- FOLLOW TD-5100P-01 TO DOCUMENT INTERNAL CORROSION AND EXTERNAL CORROSION INSPECTION OF THE PIPELINE.
- UPON COMPLETION OF BORINGS, CONTACT THE CORROSION SUPERVISOR FOR THE LOCAL AREA/DIVISION TO PERFORM CURRENT DRAIN TESTS ON THE PIPELINE SEGMENT THAT WAS INSTALLED IN THE BORE. THE CURRENT DRAIN TEST MUST BE PERFORMED PRIOR TO WELDING PIPE ON EITHER SIDE OF THE BORE.
- FOR THE INSTALLATION OF THE WATCHDOG RECTIFIER REMOTE MONITOR, CONTACT THE CORROSION SUPERVISOR FOR THE LOCAL AREA/DIVISION.
- BONDING CABLES TO BE INSTALLED ACROSS PIPELINE CUT-OUTS AT ALL LOCATIONS THE PIPELINE IS SEVERED PRIOR TO REMOVAL. CHAIN CLAMPS, MAGNETIC CLAMPS, OR OTHER CONSTRUCTION MANAGEMENT APPROVED CLAMPS AND #6 (MIN) STRANDED CABLE SHALL BE UTILIZED. CLAMPS TO REMAIN IN PLACE UNTIL PIPELINE IS TIED IN.

RETIREMENT PROCEDURE FOR EXISTING PIPE:

- GT&D UTILITY WORK PROCEDURE TD 9500P-16, "DEACTIVATION AND/OR RETIREMENT OF UNDERGROUND GAS FACILITIES," SHALL BE FOLLOWED.
- THE EXISTING PIPE SECTIONS SHALL HAVE FREE LIQUIDS REMOVED AND BE 100% PURGED PER GAS DESIGN STANDARD A-38, "PROCEDURES FOR PURGING GAS FACILITIES."
- THE PIPE SHALL BE SECTIONALIZED AT INTERVALS AS SPECIFIED IN THE RETIREMENT PLAN. THE LOCATIONS CALLED OUT ARE APPROXIMATE AND ARE SUBJECT TO FIELD VERIFICATION TO IDENTIFY THE MOST OPTIMUM LOCATION IN THAT VICINITY. ACCURATE SURVEY DATA MAY NOT BE AVAILABLE FOR THESE LOCATIONS SO USE CAUTION DURING EXCAVATION AND WHEN IDENTIFYING THE PIPELINE TO BE DEACTIVATED. OTHER ACTIVE PIPELINES MAY BE IN THE AREA.
- AT EACH SUCH LOCATION NOTED ABOVE, A PIECE OF PIPE AT LEAST 24" LONG SHALL BE REMOVED. INSTALL A 1" HIGH PRESSURE SAVE-A-VALVE (H-17491, M022287) TO CHECK FOR PRODUCT AND PRESSURE PRIOR TO CUTTING INTO THE PIPELINE. THE OPEN ENDS OF THE DEACTIVATED PIPE SHALL BE SEALED BY THE MOST APPROPRIATE METHOD OUTLINED IN GT&D UTILITY WORK PROCEDURE TD-9500P-16. BACKFILL MUST BE THOROUGHLY COMPACTED IN PLACE OF THE REMOVED SECTION OF PIPE.

DESIGN CHANGE PROCEDURE

MAINTENANCE AND CONSTRUCTION PERSONNEL MUST OBTAIN APPROVAL FROM THE PROJECT ENGINEER (PED) BEFORE MAKING ANY DESIGN CHANGE TO GAS FACILITIES PER TD-4014P-01.

CONTACT INFORMATION:

PROJECT MANAGER	----	JESSICA LAM	415-407-0533
PROJECT ENGINEER (PED)	----	ISAAC BORGIO	530-520-1521
PIPELINE ENGINEER (PLE)	----	WAYNE GILBERT	925-551-1849
ESTIMATOR / DESIGNER	----	DAN POWELL	805-407-9493
FIELD ENGINEER/CM	----	CHRIS WILLIAMS	209-272-2811
LAND PLANNER	----	CHRIS ELLIS	916-995-5848
ENVIRONMENTAL (EFS)	----	NATHAN CHRISTMAN	559-410-5011

CONTRACTOR MANAGER	----	SCOT ANDERSON	805-796-1235
CULTURAL MONITOR	----	PADRE ASSOC.	805-701-1581
ENVIRONMENTAL	----	SARAH POWELL	916-996-2994
BIOLOGIST	----	PADRE ASSOC.	805-701-1581
LOCAL MAINTENANCE SUPERVISOR	----	SAUL MARTINEZ	209-944-1439

REFERENCE DRAWINGS:

AS-BUILTS:

L-057A-1 PIPELINE ARRANGEMENT	---	384297s1-2
L-057A-1 TYPICAL RIVER CROSSING	---	483016
L-057A-1 PIPELINE LOWERING AND ANCHORING	---	489700s1-3
L-057A-1 LOCATION OF APPURTENANCES	---	181568
L-057A-1 PIPELINE SURVEY	---	MAOP30214507

SURVEY PLANS & PROFILES:

LONGITUDE 123 DRAWING	---	19-033-01 (FOR PG&E R-1390B)
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REFERENCE DOCUMENTS:

PROJECT EXECUTION PLAN FOR PG&E R-1390B, LONGITUDE 123 PEP #19-033

SEQUENCE OF OPERATIONS:

- PIPELINE CLEARANCE, THE FOLLOWING MUST BE PERFORMED:
 - PG&E GPOM TO CHECK DEACTIVATED L-057A-1 PIPELINE FOR PRESSURE.
 - SAMPLE PIPELINE COATING FOR ASBESTOS.
 - COMPLETE CLEARANCE PER APPROVED CLEARANCE PROCEDURE.
- EXCAVATE BELL HOLES TO EXPOSE L-057A-1 ENDS ON MCDONALD, MILDRED & BACON ISLAND LEVEES, AND PALM TRACT LEVEES.
- FOLLOW **GENERAL REQUIREMENT #13. COATING REMOVAL** WHEN EXPOSING STEEL PIPE END GIRTHS THAT WILL HAVE SLIP-ON FLANGES WELDED, THEN CUT AND CAPPED.
- ATTACH TEMPORARY FLANGES TO L-057A-1 EXPOSED PIPE ENDS, SEE BOM AND DETAIL 2.
- ATTACH PIG LAUNCHERS AND RECEIVERS ON EXPOSED PIPE ENDS.
 - FOLLOW **RETIREMENT PROCEDURES FOR EXISTING PIPE** STEP 2. IF MERCURY IS DETECTED ABOVE ALLOWABLE, THEN CONTINUE FLUSHING UNTIL ACCEPTABLE AND HANDLE WASTE ACCORDINGLY.
 - PIG & FLUSH DEACTIVATED L-057A-1 PIPELINE (PREVIOUSLY FLUSHED AND FILLED WITH WATER) FROM MCDONALD ISLAND LEVEE TO BACON ISLAND LEVEE.
 - PIG & FLUSH DEACTIVATED L-057A-1 PIPELINE FROM BACON ISLAND TO PALM TRACT LEVEE.
- PARTIALLY FILL DEACTIVATED L-057A-1 PIPELINE WITH CEMENT SLURRY, LOCATED DOWN LEVEE WATERSIDE SLOPES. THESE PIPE SEGMENTS WILL NOT BE REMOVED IN ORDER TO MINIMIZE UNNECESSARY DISTURBANCE TO WATERWAYS AND AVOID POTENTIAL IMPACTS TO LEVEE INTEGRITY.
- WELD CAP ENDS OF PIPE SEGMENTS TO BE ABANDONED IN PLACE, AFTER CUTTING OFF SLIP-ON FLANGE, SEE DETAIL 3.
- COLD-CUT L-057A-1 PIPE AT DESIGNATED SUBMERGED LOCATIONS OF PIPE SEGMENTS TO BE ABANDONED IN PLACE.
- UTILIZING CRANE BARGE AND DIVERS, REMOVE DESIGNATED SUBMERGED PORTIONS OF DEACTIVATED L-057A-1.
- BACKFILL EXCAVATION AREAS PER DRAWING DETAIL 1 AND ENCROACHMENT PERMIT REQUIREMENTS.
- RESTORE SITE TO ORIGINAL CONDITION.



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							

PIPELINE - CONSTRUCTION NOTES
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

570 POLI STREET, VENTURA, CA 93001
PHONE: 805-649-9384 WWW.LONGITUDE123.NET
CALIFORNIA LICENSE: CSLB # 1026719

60% DESIGN

BILL OF MATL SHEET 22

JOB ID **R-1390B**

SHEET NO. 1 OF 22 SHEETS

74032845 **A**

LEGEND:

- GT — GAS TRANSMISSION LINE (PROPOSED)
- GT — GAS TRANSMISSION LINE (EXISTING)
- GD — GAS DISTRIBUTION LINE (EXISTING)
- - GS - - GAS SERVICE LINE (EXISTING)
- - GT - - GAS TRANSMISSION LINE (DEACTIVATED)
- - GD - - GAS DISTRIBUTION LINE (DEACTIVATED)
- - GS - - GAS SERVICE LINE (DEACTIVATED)
- OWNER
- JT — JOINT TRENCH
- ET — ELECTRIC TRANSMISSION LINE
- ED — ELECTRIC DISTRIBUTION LINE
- ES — ELECTRIC SERVICE LINE
- ETOH — ELECTRIC TRANSMISSION OVERHEAD
- EDOH — ELECTRIC DISTRIBUTION OVERHEAD
- T — TELEPHONE LINE
- FO — FIBER OPTIC LINE
- TV — CABLE TV LINE
- SD — STORM DRAIN LINE
- SS — SEWER LINE
- W — WATER LINE
- UNK — UNKNOWN UTILITIES
- CASING
- PROPERTY BOUNDARY
- PG&E EASEMENT
- TEMPORARY EASEMENT
- R/W
- FOREIGN RIGHT-OF-WAY
- CALTRANS RIGHT-OF-WAY

- FENCE
- WALLTYPE
- WALL
- BARRIER
- TEMPORARY BARRIER (TYPE K)
- GUARD RAIL
- TOE OF SLOPE
- TOP OF SLOPE
- EP
- EDGE OF PAVEMENT
- FC
- FACE OF CURB
- BW
- BACK OF WALK
- DASHED PAVEMENT MARKINGS
- UNPAVED ROAD
- RAILROAD
- INGRESS/EGRESS ROAD
- LAYDOWN / STAGING / CONSTRUCTION IMPACT AREA
- EXCAVATION / BELL HOLE
- SAFETY ZONE LIMITS
- ENVIRONMENTALLY SENSITIVE AREAS

- GAS LINE MARKER (OTHER)
- INSULATION JOINT
- PRESSURE CONTROL FITTING
- GAS BOX
- GAS HIGH PRESSURE REGULATOR
- GAS METER
- GAS DISTRICT REGULATOR
- PG&E GAS MANHOLE
- GAS VAULT
- GAS VENT
- GAS VALVE
- PG&E ELECTRIC MANHOLE
- ELECTRIC VAULT
- UTILITY POLE (ELECTRIC)
- UTILITY POLE (OTHER)
- JOINT POLE
- EXISTING ELECTRIC TOWER
- STORM DRAIN INLET
- UTILITY MANHOLE
- WATER METER

- WATER VALVE
- CABLE TV BOX
- TELECOMM BOX
- TELECOMM VAULT
- STREET LIGHT BOX
- TREE
- ANODE
- DEEPWELL ANODE
- COMPUTER AUTOMATED TEST STATION
- COUPON TEST STATION
- ELECTROLYSIS TEST STATION
- POLE-MOUNTED RECTIFIER
- DCI MITIGATION CABINET
- POTHOLE
- CITY/COUNTY MONUMENT
- MONUMENT, SEE DESCRIPTION
- SURVEY CONTROL POINT
- CENTERLINE
- TERRESTRIAL SURVEY POINTS

DETAIL LEGEND:

- PROPOSED GAS TRANSMISSION LINE
- EXISTING GAS TRANSMISSION LINE
- TEMPORARY GAS TRANSMISSION LINE (OWNED BY PG&E)
- TEMPORARY GAS TRANSMISSION LINE (OWNED BY OTHERS)
- DEACTIVATED GAS TRANSMISSION LINE
- GAS TRANSMISSION LINE (TO BE REMOVED)
- CUT LINE (TO BE REMOVED)
- EXISTING GAS DISTRIBUTION LINE
- ORIGINAL GROUND
- GAS VALVE
- PIPE END CUT (SIDE)
- PIPE END CUT
- FLOW ARROW
- TIE-IN WELD
- MATERIAL OF RECORD ASSET
- BILL OF MATERIALS ASSET

Acronym	Definition	Acronym	Definition	Acronym	Definition	Acronym	Definition	Acronym	Definition
(E)	Existing	DEG	Degree	HFW	High Frequency Weld	PKWY	Parkway	TEMP	Temporary
(P)	Proposed	DET	Detail	HPR	High Pressure Regulator	PL	Plastic	TG	Top of Grade
AB	Aggregate Base	DFM	Distribution Feeder Main	HWY	Highway	PLC	Programmable Logic Controllers	TT	Top Tap
ABN	Abandon	DI	Drainage Inlet	ID	Inside Diameter	PRUPF	Procedure for the Resolution of Unknown Pipeline Features	TSP	Transmission System Planning
AC	Asphalt Concrete	DIA	Diameter	ILI	In-Line Inspection	PSI	Pounds per Square Inch	TYP	Typical
API	American Petroleum Institute	DIST	Distribution	INV	Invert	PV	Plug Valve	UG	Underground
APN	Assessor's Parcel Number	DPV	Damage Prevention Volume	IRR	Irrigation	PVMT	Pavement	USA	Underground Service Alert
APPROX	Approximate	DR	District Regulator	JN	Job Number	QTY	Quantity	UT	Ultra-Sonic Test
AVE	Avenue	DREG	District Regulator	JP	Joint Pole	R	Radius	V	Valve
ARC	Abrasion Resistant Coating	DSAW	Double Submerged Arc-Welded	JT	Joint Trench	RCP	Reinforced Concrete Pipe	VIF	Verify in Field
ASME	American Society of Mechanical Engineers	DWA	Deep Well Anode	L	Line Number	RD	Road	VOL	Volume
ASTM	American Society for Testing Materials	DWY	Driveway	LAT	Latitude	RDWY	Roadway	W	Water
BBCL	Bell Bell Chill Ring	E	East	LN	Lane	REG	Regulator	WT	Wall Thickness
BC	Begin Curve	EASE	Easement	LNG	Liquid Natural Gas	REL	Relocate	WV	Water Valve
BD	Blowdown	EC	End Curve	LOC	Location	REPL	Replace	W/	With
BEG	Begin	EL	Elbow	LONG	Longitude	REV	Revision	W/O	Without
BKF	Backfill	ELECT	Electric	LT	Left	RR	Railroad	WP	Work Procedure
BLDG	Building	ELEV	Elevation	M	Monitor	RT	Right	MLLW	Mean Low Low Water
BLVD	Boulevard	EM	Electronic Marker	MAOP	Maximum Allowable Operating Pressure	RTE	Route		
BM	Bench Mark	EMS	Engineering Material Specification	MAX	Maximum	R/W	Right of Way		
BMP	Best Management Practice	ENGR	Engineer	MIN	Minimum	S	South		
BOM	Bill of Materials	EP	Edge of Pavement	MISC	Miscellaneous	SAWH	Submerged Arc-Welded Helical		
BR	Bridge	EQ	Equation	MLV	Main Line Valve	SAWL	Submerged Arc-Welded Longitudinal		
BTU	British Thermal Units	ERW	Electric Resistance Welded	MOI	Method of Installation	SCADA	Supervisory Control and Data Acquisition		
BV	Ball Valve	ESA	Environmentally Sensitive Area	MON	Monument	SD	Storm Drain		
BW	Back of Walk	ETS	Electrolysis Test Station	MOP	Maximum Operating Pressure	SG	Subgrade		
CATS	Computer Automated Test Station	ETW	Edge of Traveled Way	MP	Mile Point	SHT	Sheet		
CCV	Corrosion Control Volume	F	Filter	MSP	Maximum Stopping Pressure	SMLS	Seamless		
CI	Cast Iron	F & C	Frame and Cover	MTR	Meter	SMYS	Specified Minimum Yield Strength		
CL	Centerline	FBE	Fusion Bonded Epoxy	MW	Working Monitor	SPEC	Specification		
CMP	Corrugated Metal Pipe	FC	Face of Curb	MWP	Maximum Working Pressure	SS	Sanitary Sewer		
CNG	Compressed Natural Gas	FDP	Future Design Pressure	N	North	SSAW	Single Submerged Arc-Welded		
CO	County	FG	Finished Grade	NDE	Non-Destructive Examination	ST	Street		
CONC	Concrete	FH	Fire Hydrant	NOP	Normal Operating Pressure	STA	Station		
COND	Conduit	FIG	Figure	NPC	Non-Protected/Native Coupon	STD	Standard		
CP	Cathodic Protection	FL	Flow Line	NTS	Not to Scale	STL	Steel		
CPT	Catch Point	FLG	Flange	OD	Outside Pipe Diameter	STPR	Strength Test Pressure Report		
CROP	Conditional Reduction of Pressure	FWY	Freeway	OG	Original Ground	T	Tied (Connected to System)		
CTS	Coupon Test Station	GS	Natural Gas Service	OH	Overhead	TCE	Temporary Construction Easement		
CU	Copper	GS&S	Gas Standards and Specifications	P	Pipeline	TCP	Traffic Control Plan		
CULV	Culvert	GV	Gate Valve	P/L	Property Line	TD	Technical Document		
D	Depth	GW	Natural Gas Well	PC	Point of Curvature	TDW	T. D. Williamson		
DE	Dead End	H	Horizontal	PCF	Pressure Control Fitting	TEL	Telephone		
DCUST	Distribution Customer	HDD	Horizontal Directional Drill						



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	

REVISIONS

PIPELINE - LEGEND & STAMPS
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY
 GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA

LONGITUDE 123, INC.
 California Marine Project Planning
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 570 POLI STREET, VENTURA, CA 93001
 PHONE: 805-649-9364 WWW.LONGITUDE123.NET
 CALIFORNIA LICENSE: CSLB # 1026719

60% DESIGN

BILL OF MATL SHEET 22

JOB ID: **R-1390B**

SHEET NO. 3 OF 22 SHEETS

74032845 A



L-057A-1 LATHAM SLOUGH CROSSING

SCALE: 1" = 100'

LEGEND

- - - L-057A-1 GAS TRANSMISSION LINE (DEACTIVATED)
- - - UNDERWATER TRENCH FOR L-057A-1 PIPELINE
- INGRESS/EGRESS ROAD
- LAYDOWN / STAGING / CONSTRUCTION IMPACT AREA
- EXCAVATION / BELL HOLE



REV.	DATE	DESCRIPTION	ORDER	DWN	HL	IXBI	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI		
REVISIONS								

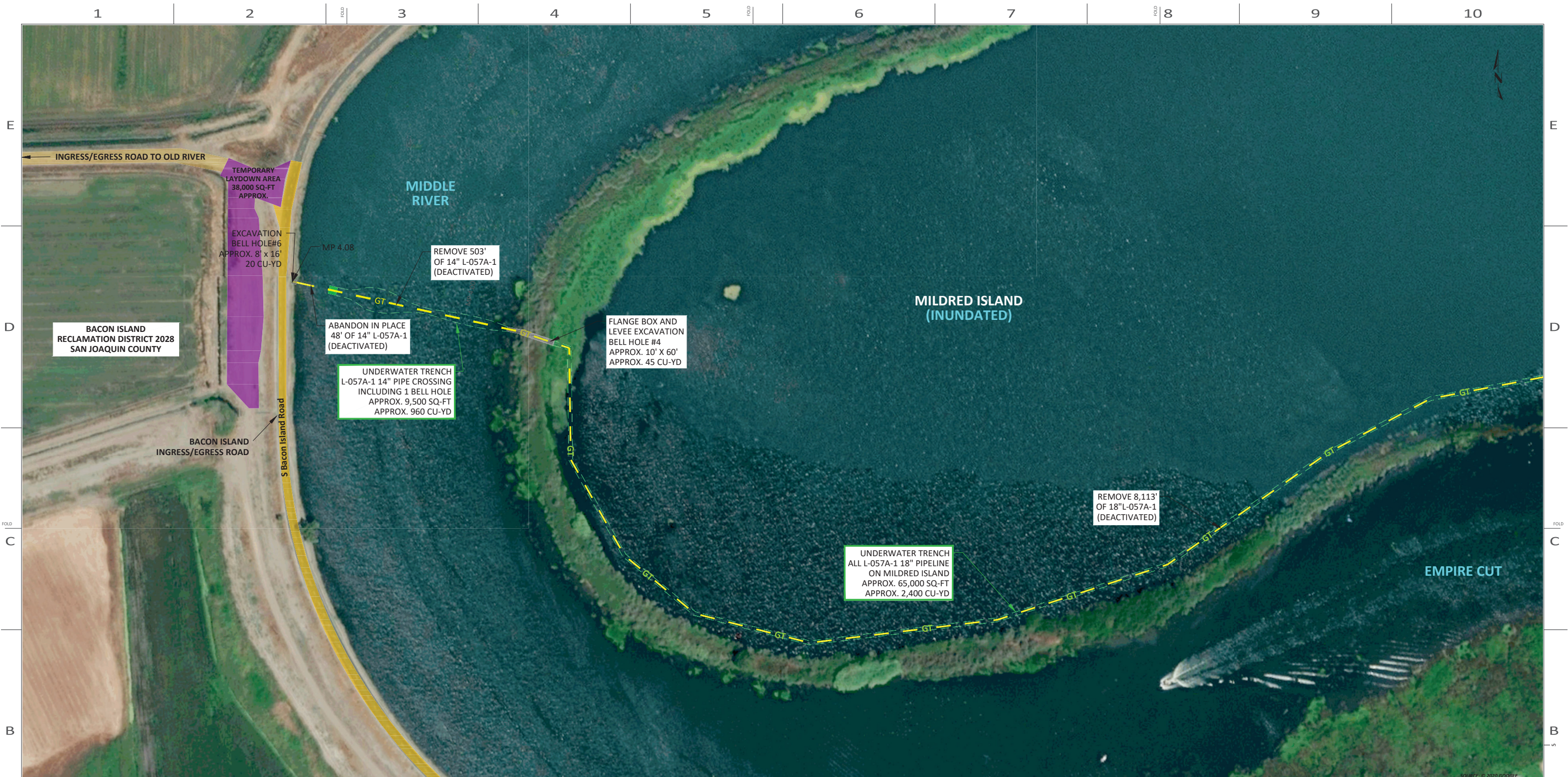
SEGMENT 1 - LATHAM SLOUGH

PIPELINE - PROJECT SITE PLAN
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY
 GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA



60%
DESIGN

BILL OF MATL	SHEET 22
JOB ID	R-1390B
SHEET NO.	4 OF 22 SHEETS
74032845	A



L-057A-1 MIDDLE RIVER CROSSING

SCALE: 1" = 100'

LEGEND

- GT — L-057A-1 GAS TRANSMISSION LINE (DEACTIVATED)
- UNDERWATER TRENCH FOR L-057A-1 PIPELINE
- INGRESS/EGRESS ROAD
- LAYDOWN / STAGING / CONSTRUCTION IMPACT AREA
- EXCAVATION / BELL HOLE



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							

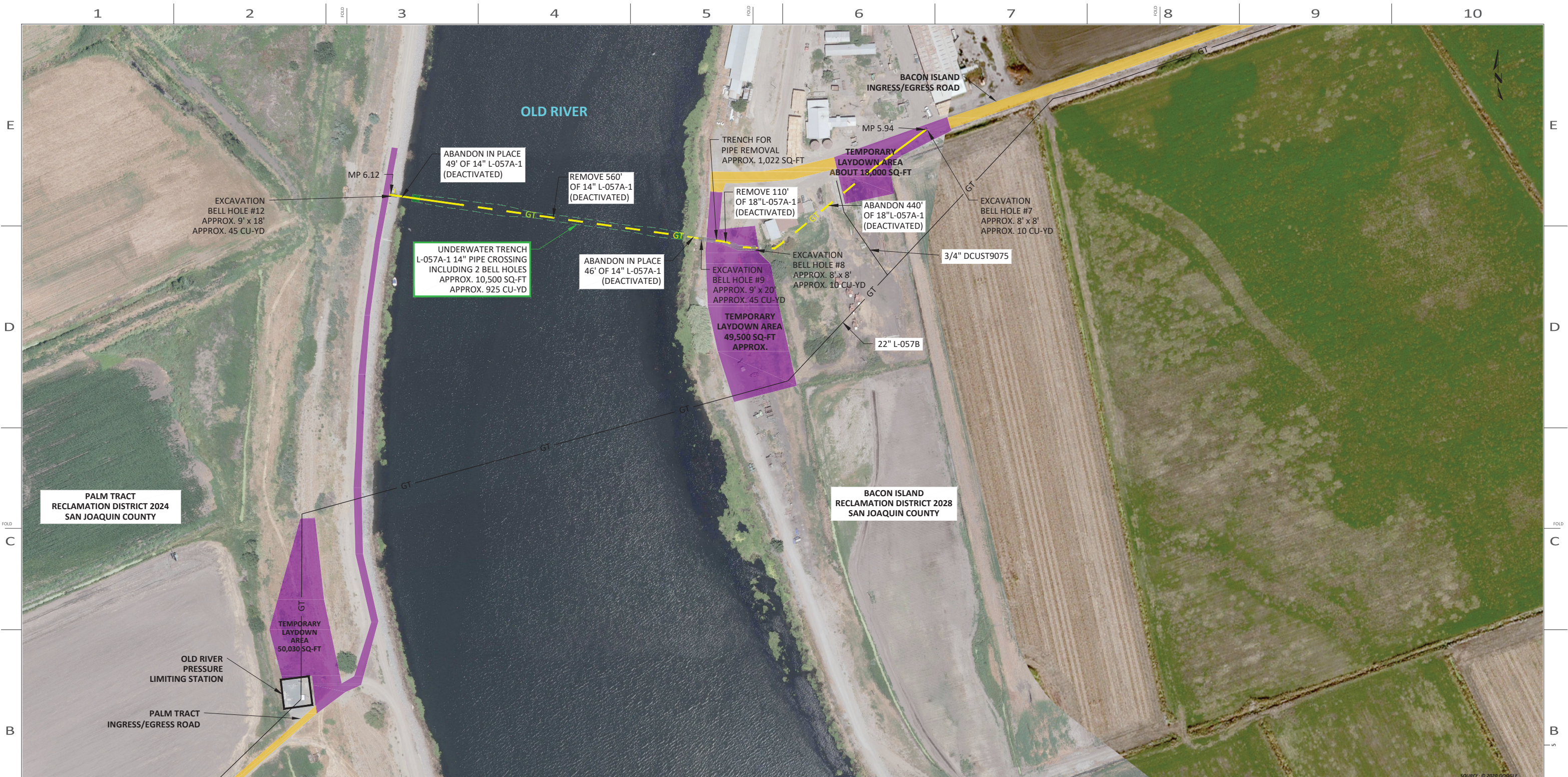
SEGMENT 3 - MIDDLE RIVER

PIPELINE - PROJECT SITE PLAN
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY
 GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA

LONGITUDE 123, INC.
 California Marine Project Planning
 Permitting and Performance
 570 POLI STREET, VENTURA, CA 93001
 PHONE: 805-649-9364 WWW.LONGITUDE123.NET
 CALIFORNIA LICENSE: CSLB # 1026719

60%
DESIGN

BILL OF MATL SHEET 22
JOB ID R-1390B
SHEET NO. 5 OF 22 SHEETS
74032845 A



L-057A-1 OLD RIVER CROSSING

SCALE: 1" = 100'

- LEGEND**
- GT — L-057A-1 GAS TRANSMISSION LINE (DEACTIVATED)
 - UNDERWATER TRENCH FOR L-057A-1 PIPELINE
 - INGRESS/EGRESS ROAD
 - LAYDOWN / STAGING / CONSTRUCTION IMPACT AREA
 - EXCAVATION / BELL HOLE



REV.	DATE	DESCRIPTION	ORDER	DWN	HL	IXBI	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI		
REVISIONS								

SEGMENT 4 - OLD RIVER

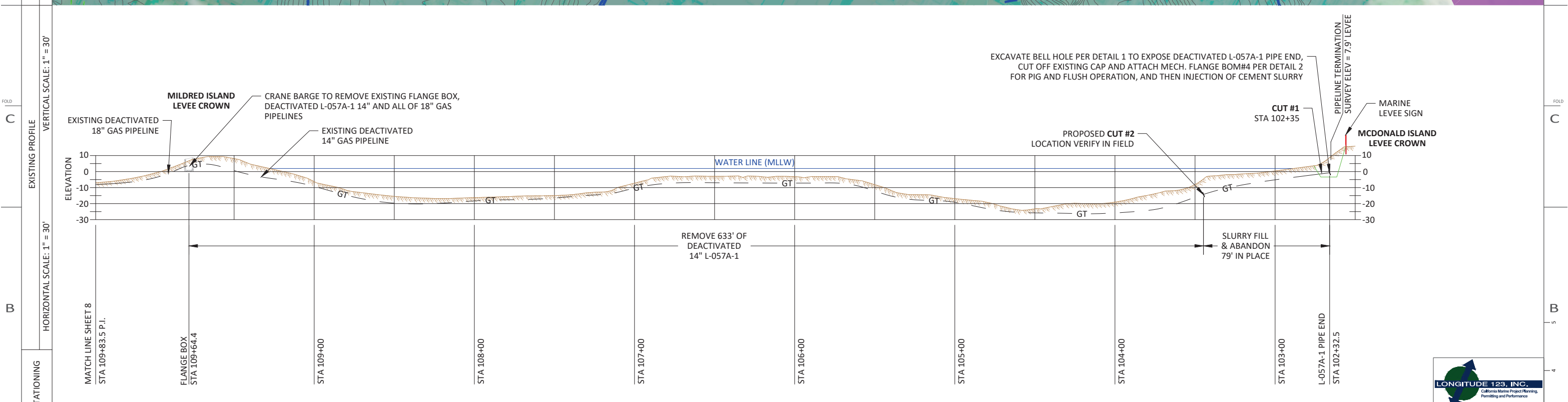
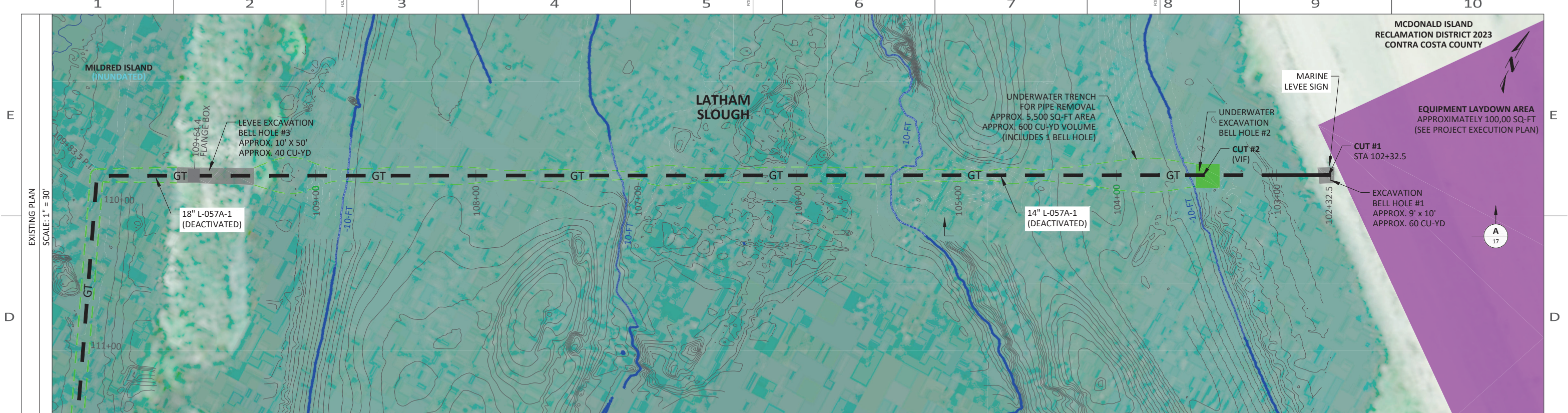
PIPELINE - PROJECT SITE PLAN
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY

GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA



60% DESIGN

BILL OF MATL SHEET 22
 JOB ID **R-1390B**
 SHEET NO. 6 OF 22 SHEETS
74032845 A



EXCAVATE BELL HOLE PER DETAIL 1 TO EXPOSE DEACTIVATED L-057A-1 PIPE END, CUT OFF EXISTING CAP AND ATTACH MECH. FLANGE BOM#4 PER DETAIL 2 FOR PIG AND FLUSH OPERATION, AND THEN INJECTION OF CEMENT SLURRY

DEACTIVATION PROCEDURE FOR EXISTING PIPE:

- GT&D UTILITY WORK PROCEDURE TD 9500P-16, "DEACTIVATION AND/OR RETIREMENT OF UNDERGROUND GAS FACILITIES," SHALL BE FOLLOWED.
- THE PIPE SHALL BE SECTIONALIZED AT INTERVALS AS SPECIFIED IN THE DECOMMISSIONING PLAN. THE LOCATIONS CALLED OUT ARE APPROXIMATE AND ARE SUBJECT TO FIELD VERIFICATION TO IDENTIFY THE MOST OPTIMAL LOCATION IN THAT VICINITY. ACCURATE SURVEY DATA MAY NOT BE AVAILABLE FOR THESE LOCATIONS SO USE CAUTION DURING EXCAVATION AND WHEN IDENTIFYING THE PIPELINE TO BE DEACTIVATED. OTHER ACTIVE PIPELINES MAY BE IN THE AREA.
- OPEN ENDS OF THE DECOMMISSIONED PIPE SHALL BE SEALED BY BOTH CEMENT SLURRY AND WELD CAP PER DETAIL 3, WITH EXCEPTION OF PIPE ENDS BELOW MLLW THAT ARE COLD-CUT BY DIVER.
- BACKFILL MUST BE THOROUGHLY COMPACTED IN PLACE OF THE REMOVED SECTION OF PIPE PER DETAIL 1 AND ENCROACHMENT REQUIREMENTS.

- LEGEND**
- GT- DEACTIVATED L-057A-1 GAS TRANSMISSION
 - EXISTING GROUND ELEVATION
 - TERRESTRIAL SURVEY POINTS
 - UNDERWATER TRENCH
 - LAYDOWN / STAGING / CONSTRUCTION IMPACT AREA
 - EXCAVATION / BELL HOLE

PIPELINE MARKERS TO BE REMOVED			
LOCATION	MARKER TYPE	REMOVED YES/NO?	NOTES
MCDONALD ISLAND LEVEE	MARINE LEVEE SIGN		LAT: 37.975089° LONG: -121.511903°



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	

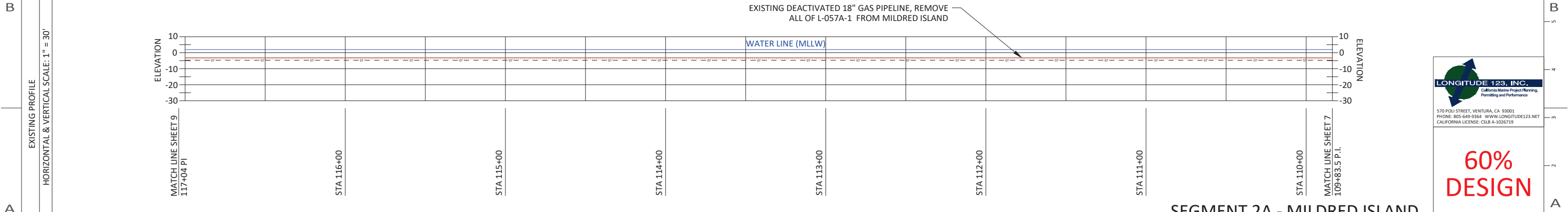
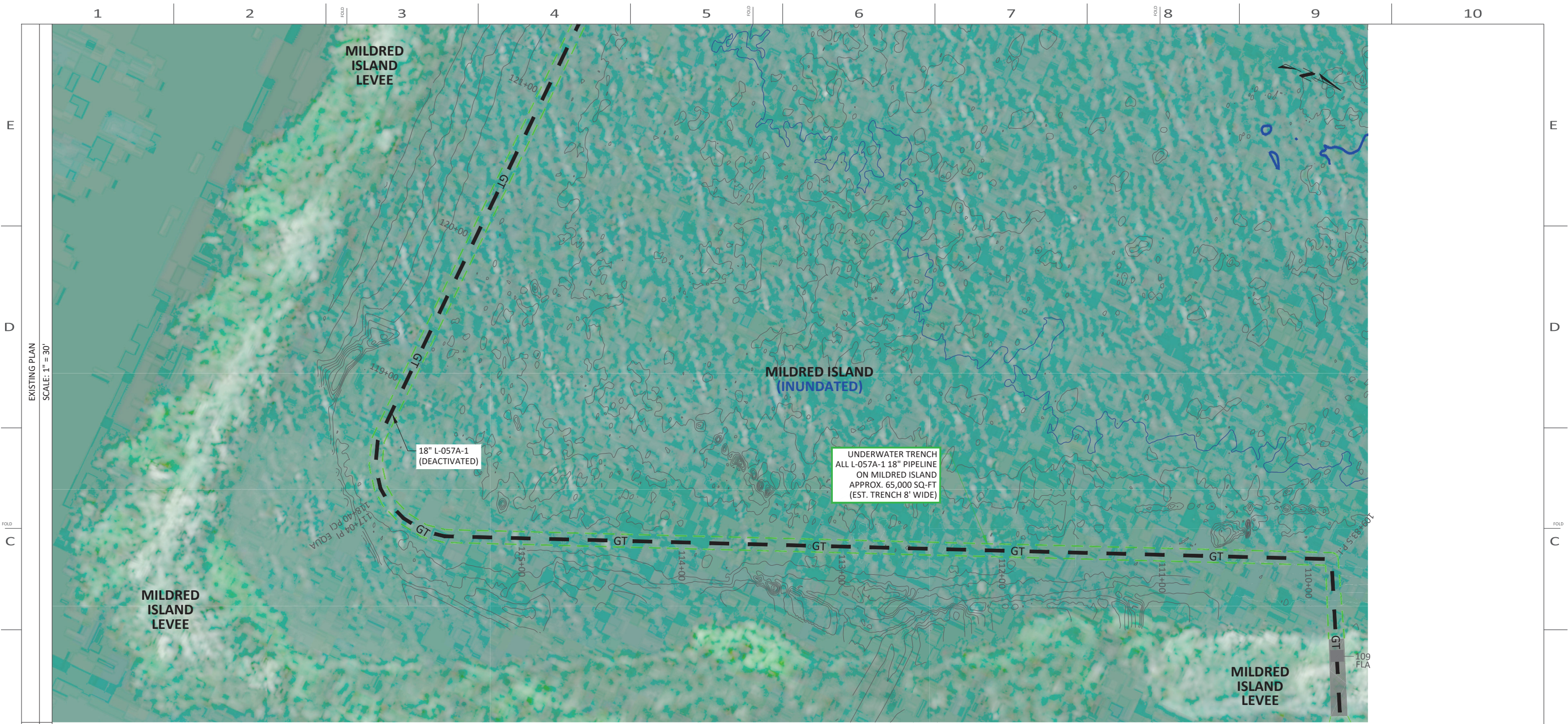
SEGMENT 1 - LATHAM SLOUGH

PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

LONGITUDE 123, INC.
California Marine Project Planning
Permitting and Performance
570 POLI STREET, VENTURA, CA 93001
PHONE: 805-649-9364 WWW.LONGITUDE123.NET
CALIFORNIA LICENSE: CSLB # 1026719

60% DESIGN

BILL OF MATL SHEET 22
JOB ID **R-1390B**
SHEET NO. 7 OF 22 SHEETS
74032845 A



LEGEND

- GT- L-057A-1 GAS TRANSMISSION
- EXISTING GROUND ELEVATION
- UNDERWATER TRENCH
- EXCAVATION / BELL HOLE

NOTE: THE L-057A-1 18" PIPELINE ON MILDRED ISLAND CANNOT BE SURVEYED FOR DEPTH OF BURIAL DUE TO FLOODED CONDITION AND PROXIMITY TO LEVEE VEGETATION PREVENTING SURVEY BOAT ACCESS. ASSUME 1' COVER AND LOCATIONS OF HELICAL ANCHORS FROM ORIGINAL DESIGN DRAWING.

REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	

REVISIONS

SEGMENT 2A - MILDRED ISLAND

PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSIONING DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

570 POLI STREET, VENTURA, CA 93001
PHONE: 805-649-9364 WWW.LONGITUDE123.NET
CALIFORNIA LICENSE: CSLB A-1026719

60%
DESIGN

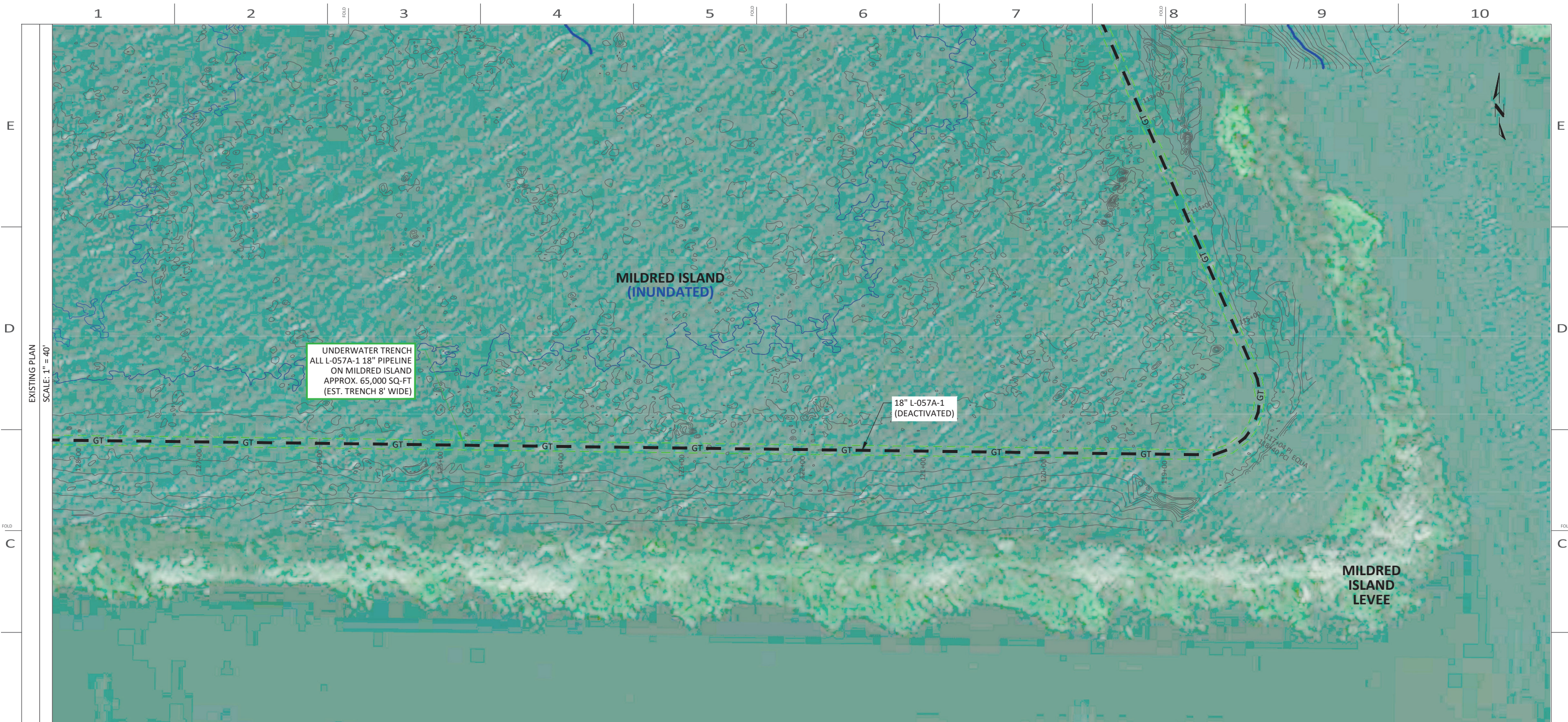
BILL OF MATL SHEET 22

JOB ID **R-1390B**

SHEET NO. 8 OF 22 SHEETS

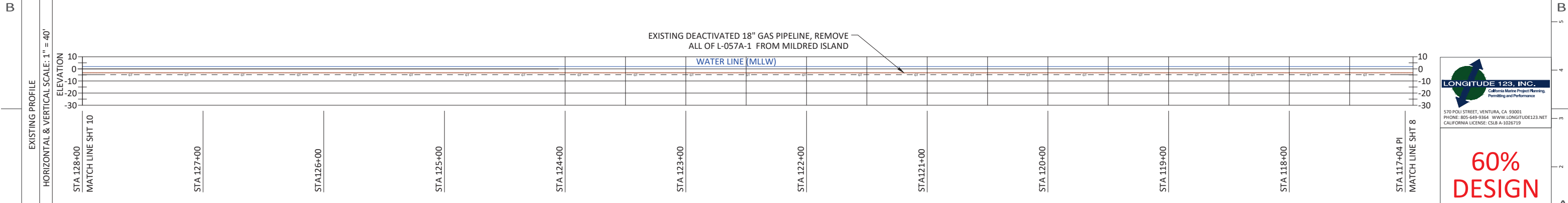
74032845

A



UNDERWATER TRENCH
ALL L-057A-1 18" PIPELINE
ON MILDRED ISLAND
APPROX. 65,000 SQ-FT
(EST. TRENCH 8' WIDE)

18" L-057A-1
(DEACTIVATED)



EXISTING DEACTIVATED 18" GAS PIPELINE, REMOVE
ALL OF L-057A-1 FROM MILDRED ISLAND

WATER LINE (MLLW)

- LEGEND**
- GT- L-057A-1 GAS TRANSMISSION
 - EXISTING GROUND ELEVATION
 - UNDERWATER TRENCH

NOTE: THE L-057A-1 18" PIPELINE ON MILDRED ISLAND CANNOT BE SURVEYED FOR DEPTH OF BURIAL DUE TO FLOODED CONDITION AND PROXIMITY TO LEVEE VEGETATION PREVENTING SURVEY BOAT ACCESS. ASSUME 1' COVER AND LOCATIONS OF HELICAL ANCHORS FROM ORIGINAL DESIGN DRAWING.



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	

SEGMENT 2B - MILDRED ISLAND

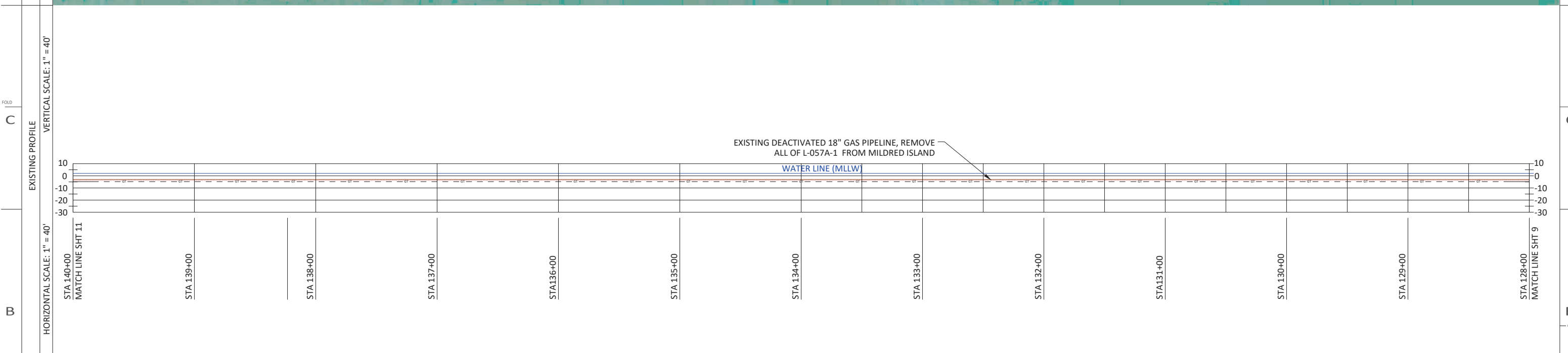
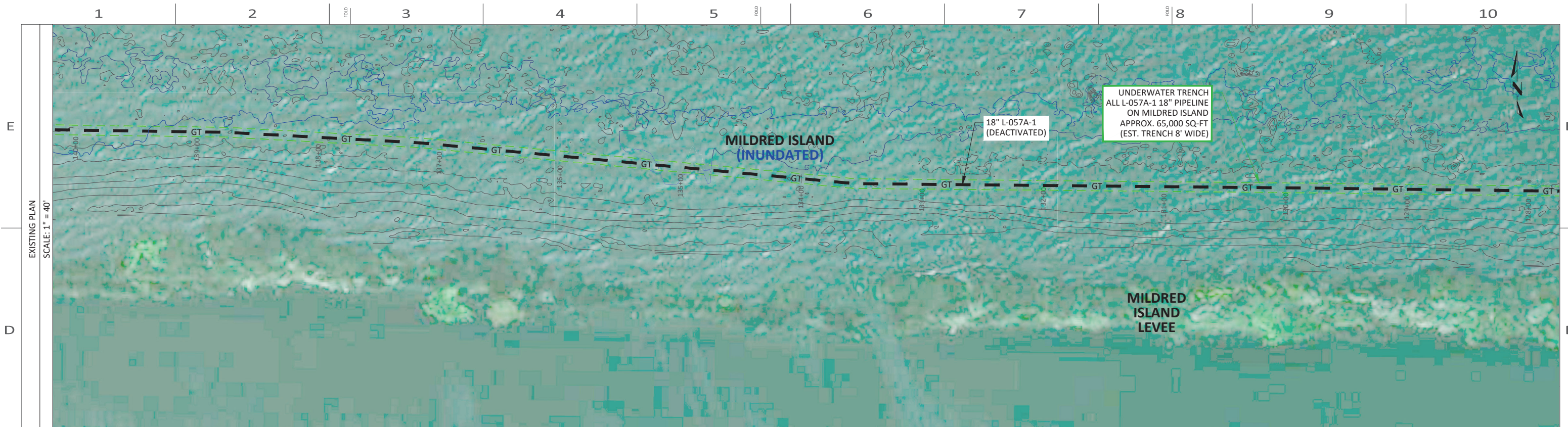
PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSIONING DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA



**60%
DESIGN**

BILL OF MATL	SHEET 22
JOB ID	R-1390B
SHEET NO.	9 OF 22 SHEETS
74032845	A

INCH



LEGEND

- GT- L-057A-1 GAS TRANSMISSION
- EXISTING GROUND ELEVATION
- UNDERWATER TRENCH

NOTE: THE L-057A-1 18" PIPELINE ON MILDRED ISLAND CANNOT BE SURVEYED FOR DEPTH OF BURIAL DUE TO FLOODED CONDITION AND PROXIMITY TO LEVEE VEGETATION PREVENTING SURVEY BOAT ACCESS. ASSUME 1' COVER AND LOCATIONS OF HELICAL ANCHORS FROM ORIGINAL DESIGN DRAWING.

REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							

SEGMENT 2C - MILDRED ISLAND

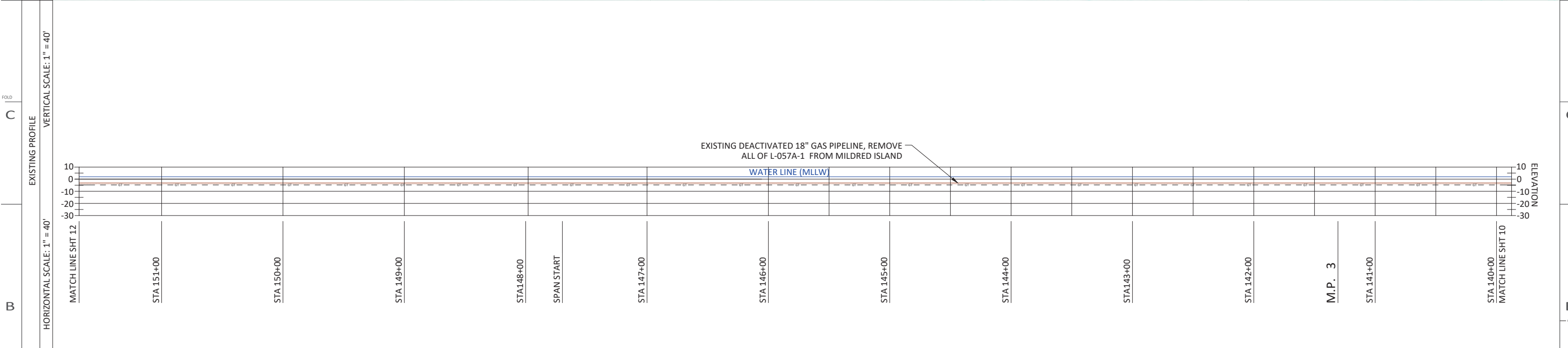
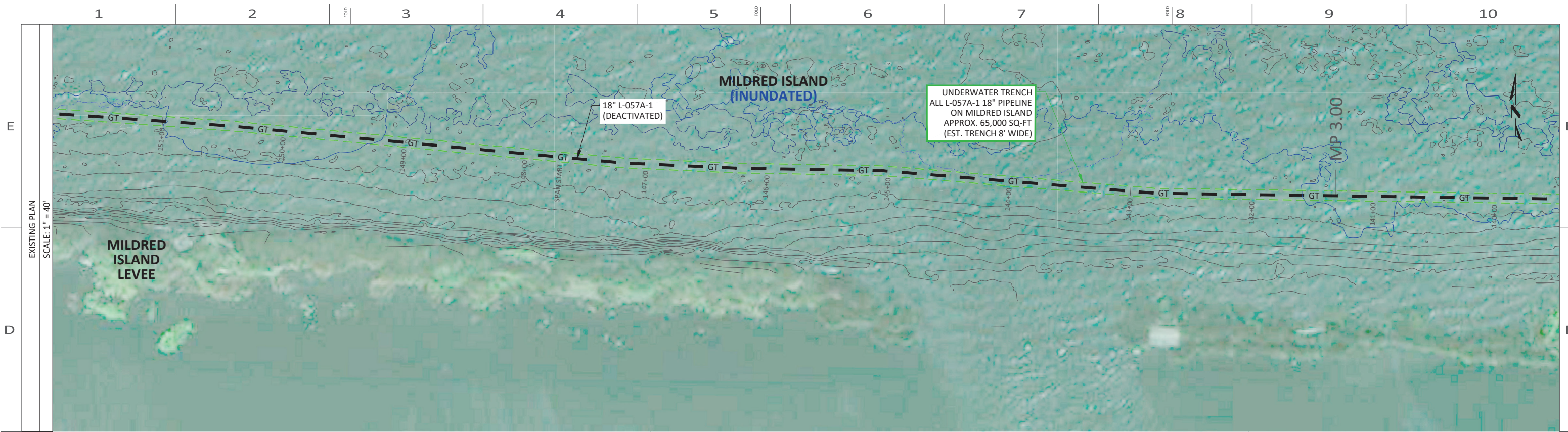
PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

570 POLI STREET, VENTURA, CA 93001
PHONE: 805-649-9364 WWW.LONGITUDE123.NET
CALIFORNIA LICENSE: CSLB A-1026719

60%
DESIGN

BILL OF MATL SHEET 22
JOB ID **R-1390B**
SHEET NO. 10 OF 22 SHEETS
74032845 A



LEGEND

- GT- L-057A-1 GAS TRANSMISSION
- EXISTING GROUND ELEVATION
- - - UNDERWATER TRENCH

NOTE: THE L-057A-1 18" PIPELINE ON MILDRED ISLAND CANNOT BE SURVEYED FOR DEPTH OF BURIAL DUE TO FLOODED CONDITION AND PROXIMITY TO LEVEE VEGETATION PREVENTING SURVEY BOAT ACCESS. ASSUME 1' COVER AND LOCATIONS OF HELICAL ANCHORS FROM ORIGINAL DESIGN DRAWING.

REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							

SEGMENT 2D - MILDRED ISLAND

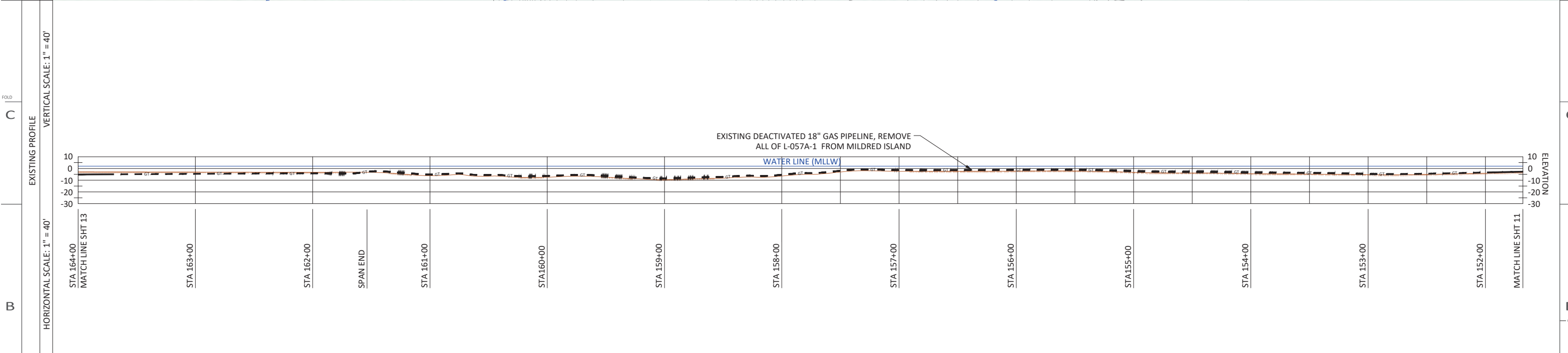
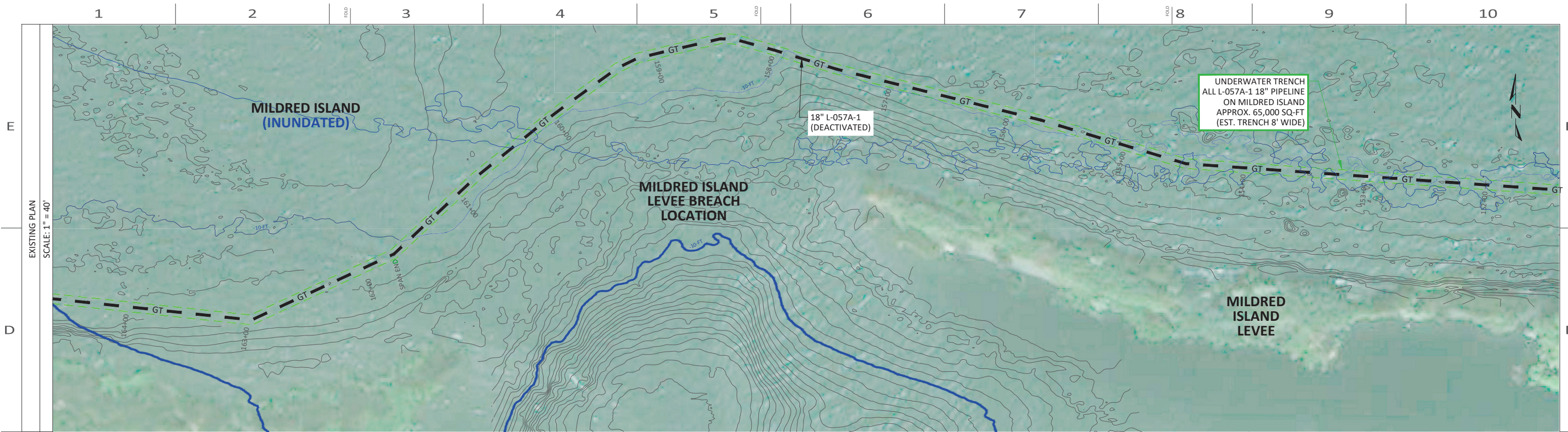
PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

570 POLI STREET, VENTURA, CA 93001
PHONE: 805-649-9364 WWW.LONGITUDE123.NET
CALIFORNIA LICENSE: CSLB A-1026719

60%
DESIGN

BILL OF MATL SHEET 22
JOB ID **R-1390B**
SHEET NO. 11 OF 22 SHEETS
74032845 A



LEGEND

- GT- L-057A-1 GAS TRANSMISSION
- EXISTING GROUND ELEVATION
- UNDERWATER TRENCH

NOTE: THE L-057A-1 18" PIPELINE ON MILDRED ISLAND CANNOT BE SURVEYED FOR DEPTH OF BURIAL DUE TO FLOODED CONDITION AND PROXIMITY TO LEVEE VEGETATION PREVENTING SURVEY BOAT ACCESS. ASSUME 1' COVER AND LOCATIONS OF HELICAL ANCHORS FROM ORIGINAL DESIGN DRAWING.

REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
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REVISIONS							

SEGMENT 2E - MILDRED ISLAND

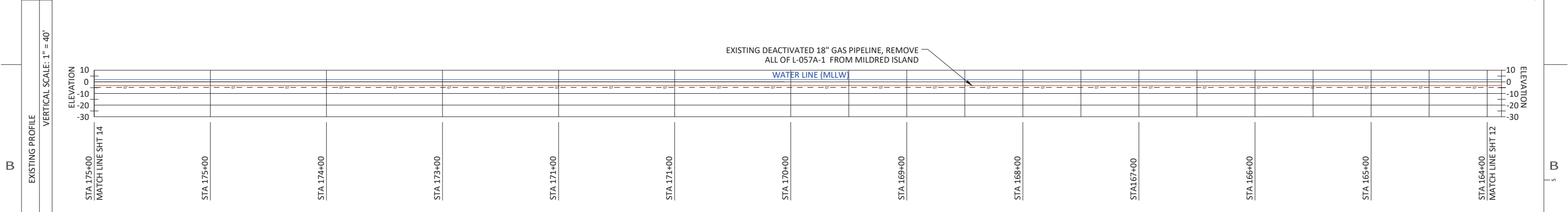
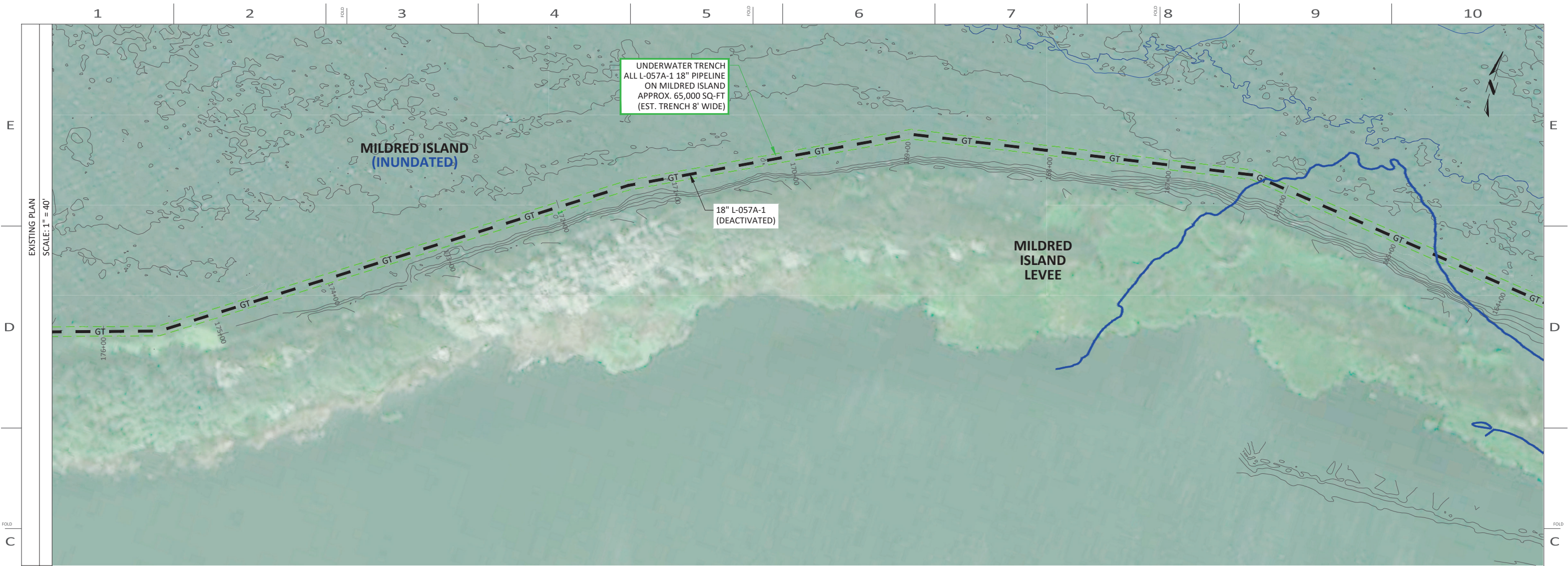
PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

570 POLI STREET, VENTURA, CA 93001
PHONE: 805-649-9364 WWW.LONGITUDE123.NET
CALIFORNIA LICENSE: CSLB A-1026719

60%
DESIGN

BILL OF MATL SHEET 22
JOB ID: **R-1390B**
SHEET NO. 12 OF 22 SHEETS
74032845 A



LEGEND

- GT- L-057A-1 GAS TRANSMISSION
- EXISTING GROUND ELEVATION
- UNDERWATER TRENCH

NOTE: THE L-057A-1 18" PIPELINE ON MILDRED ISLAND CANNOT BE SURVEYED FOR DEPTH OF BURIAL DUE TO FLOODED CONDITION AND PROXIMITY TO LEVEE VEGETATION PREVENTING SURVEY BOAT ACCESS. ASSUME 1' COVER AND LOCATIONS OF HELICAL ANCHORS FROM ORIGINAL DESIGN DRAWING.

SEGMENT 2F - MILDRED ISLAND

PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

**60%
DESIGN**

BILL OF MATL SHEET 22
JOB ID **R-1390B**
SHEET NO. 13 OF 22 SHEETS
74032845 A

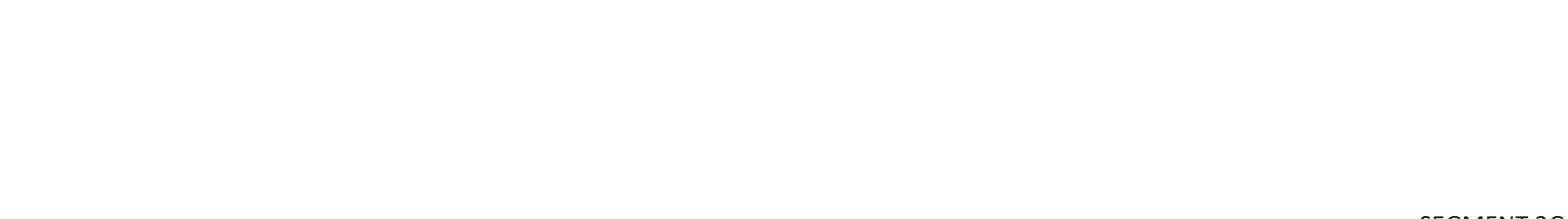
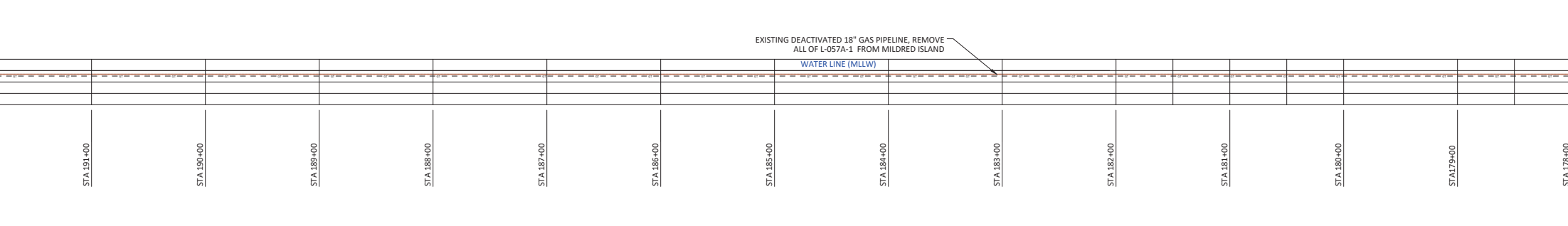
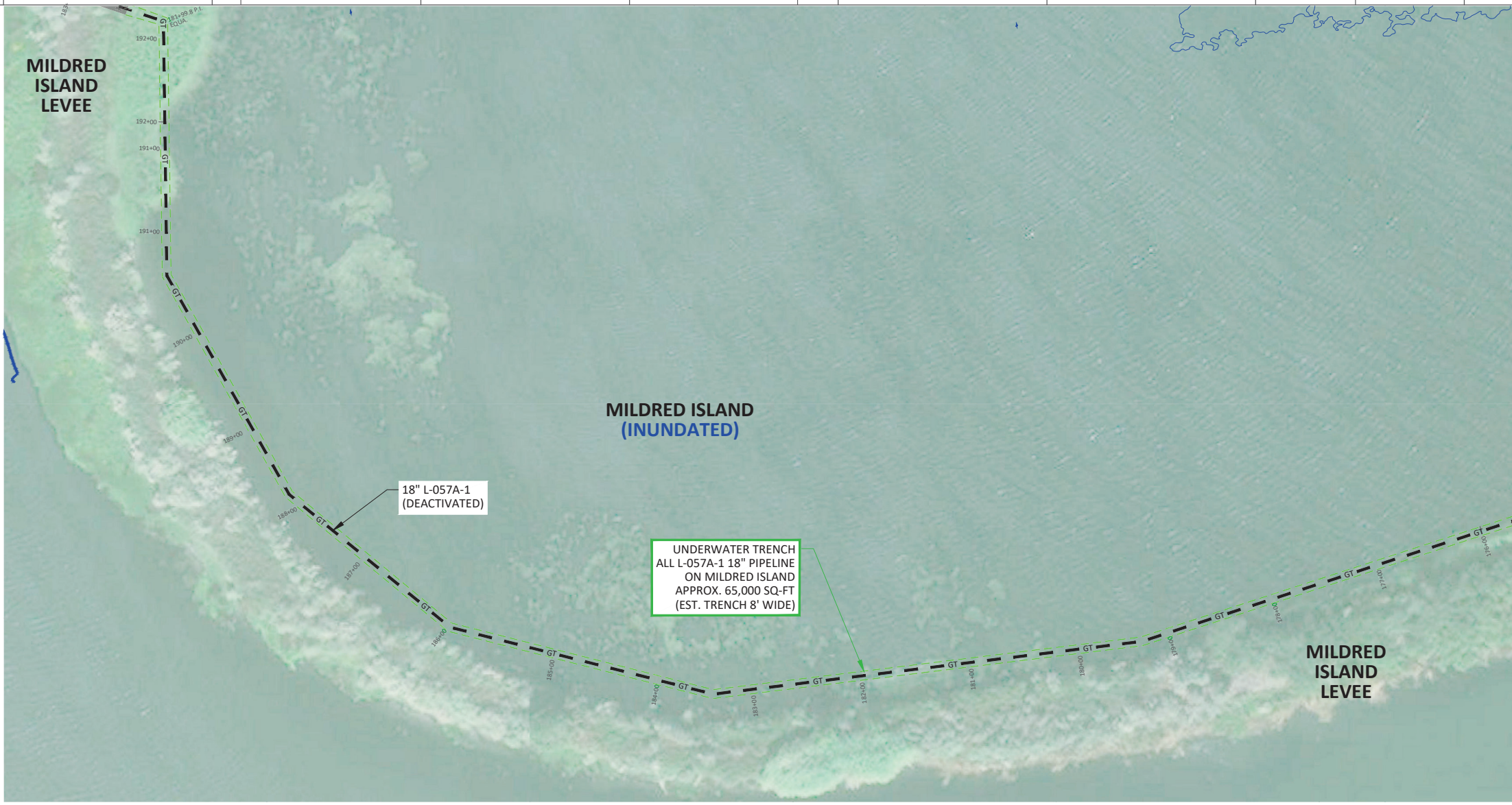
REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							



LONGITUDE 123, INC.
California Marine Project Planning
Permitting and Performance

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CALIFORNIA LICENSE: CSLB A-1026719





LEGEND
 -GT- L-057A-1 GAS TRANSMISSION
 --- EXISTING GROUND ELEVATION
 --- UNDERWATER TRENCH

NOTE: THE L-057A-1 18" PIPELINE ON MILDRED ISLAND CANNOT BE SURVEYED FOR DEPTH OF BURIAL DUE TO FLOODED CONDITION AND PROXIMITY TO LEVEE VEGETATION PREVENTING SURVEY BOAT ACCESS. ASSUME 1' COVER AND LOCATIONS OF HELICAL ANCHORS FROM ORIGINAL DESIGN DRAWING.



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							

SEGMENT 2G - MILDRED ISLAND

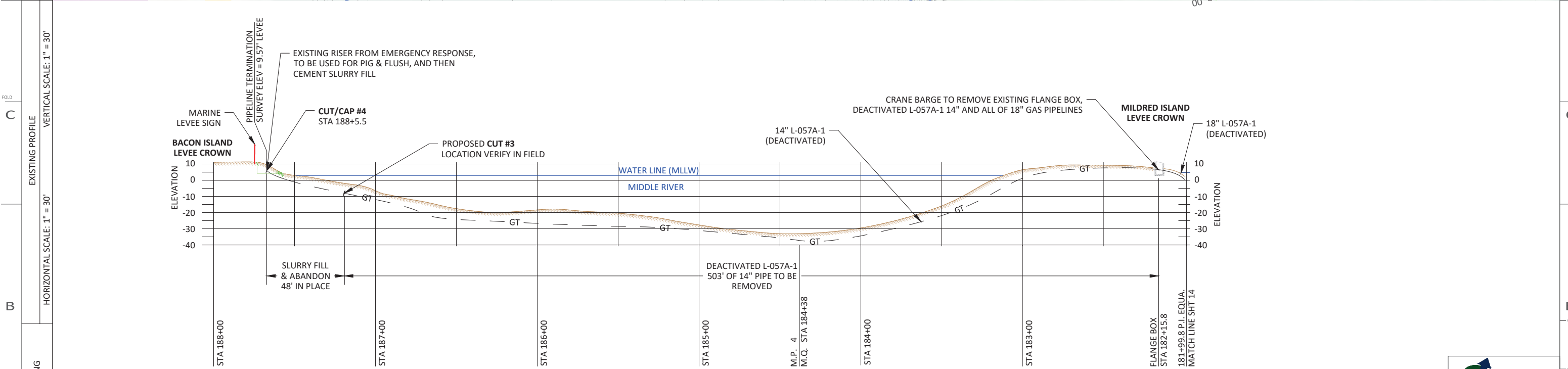
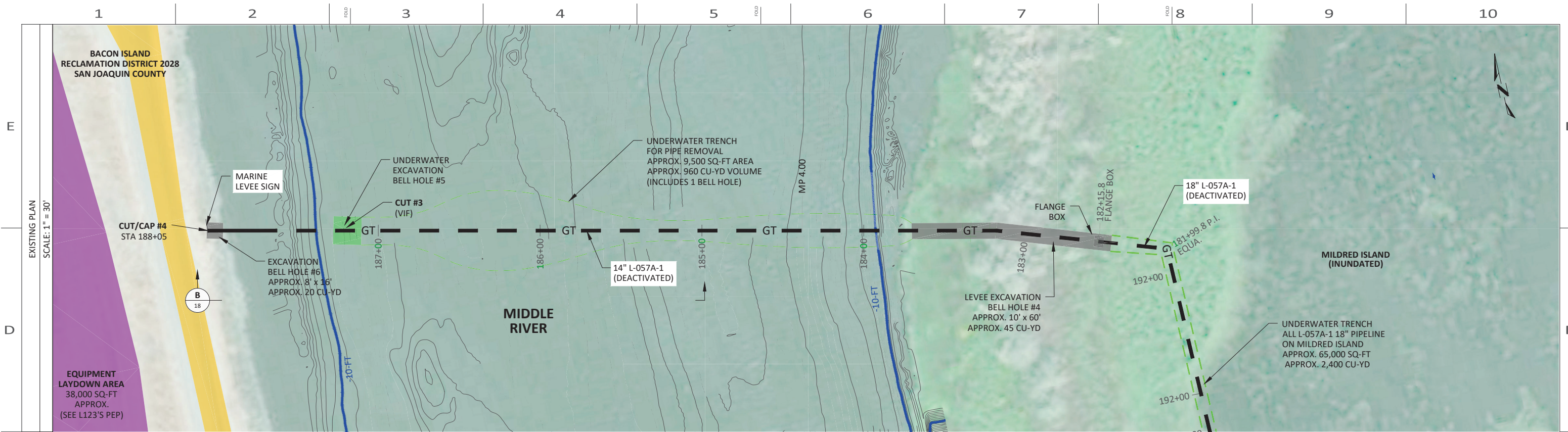
PIPELINE - DECOMMISSIONING PLAN
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY
 GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA

LONGITUDE 123, INC.
 California Marine Project Reviews
 Permitting and Performance
 570 POLI STREET, VENTURA, CA 93001
 PHONE: 805-649-9364 WWW.LONGITUDE123.NET
 CALIFORNIA LICENSE: CSLB A-1026719

**60%
DESIGN**

BILL OF MATL SHEET 22
 JOB ID **R-1390B**
 SHEET NO. 14 OF 22 SHEETS
74032845 A

INCH



- LEGEND**
- GT- DEACTIVATED L-057A-1 GAS TRANSMISSION
 - EXISTING GROUND ELEVATION
 - TERRESTRIAL SURVEY POINTS
 - UNDERWATER TRENCH
 - LAYDOWN / STAGING / CONSTRUCTION IMPACT AREA
 - EXCAVATION / BELL HOLE

DEACTIVATION PROCEDURE FOR EXISTING PIPE:

1. GT&D UTILITY WORK PROCEDURE TD 9500P-16, "DEACTIVATION AND/OR RETIREMENT OF UNDERGROUND GAS FACILITIES," SHALL BE FOLLOWED.
2. THE PIPE SHALL BE SECTIONALIZED AT INTERVALS AS SPECIFIED IN THE DECOMMISSIONING PLAN. THE LOCATIONS CALLED OUT ARE APPROXIMATE AND ARE SUBJECT TO FIELD VERIFICATION TO IDENTIFY THE MOST OPTIMAL LOCATION IN THAT VICINITY. ACCURATE SURVEY DATA MAY NOT BE AVAILABLE FOR THESE LOCATIONS SO USE CAUTION DURING EXCAVATION AND WHEN IDENTIFYING THE PIPELINE TO BE DEACTIVATED. OTHER ACTIVE PIPELINES MAY BE IN THE AREA.
3. OPEN ENDS OF THE DECOMMISSIONED PIPE SHALL BE SEALED BY BOTH CEMENT SLURRY AND WELD CAP PER DETAIL 3, WITH EXCEPTION OF PIPE ENDS BELOW MLLW THAT ARE COLD-CUT BY DIVER.
4. BACKFILL MUST BE THOROUGHLY COMPACTED IN PLACE OF THE REMOVED SECTION OF PIPE PER DETAIL 1 AND ENCROACHMENT REQUIREMENTS.

PIPELINE MARKERS TO BE REMOVED			
LOCATION	MARKER TYPE	REMOVED YES/NO?	NOTES
BACON ISLAND EAST LEVEE	MARINE LEVEE SIGN		LAT: 37.972734° LONG: -121.538864°



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	

SEGMENT 3 - MIDDLE RIVER

PIPELINE - DECOMMISSIONING PLAN
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY

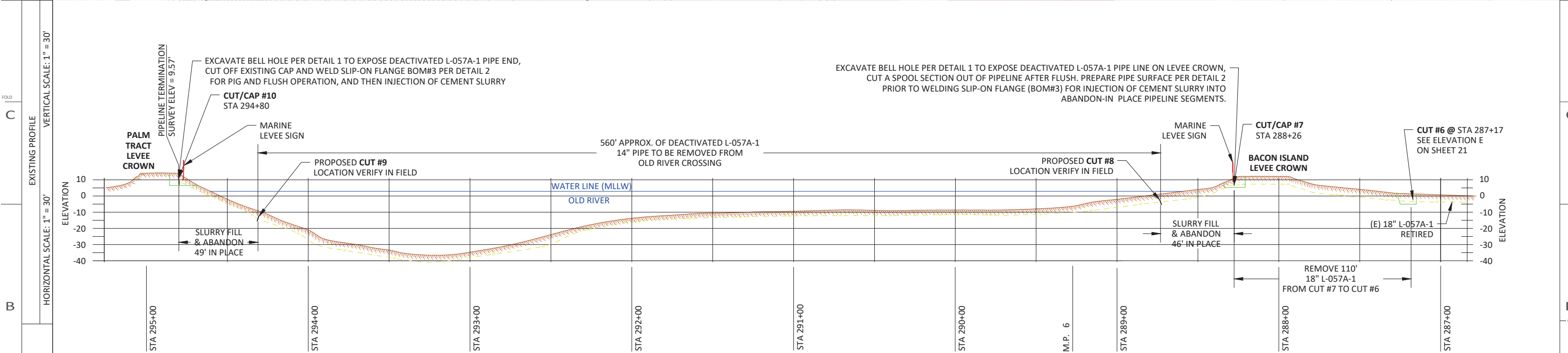
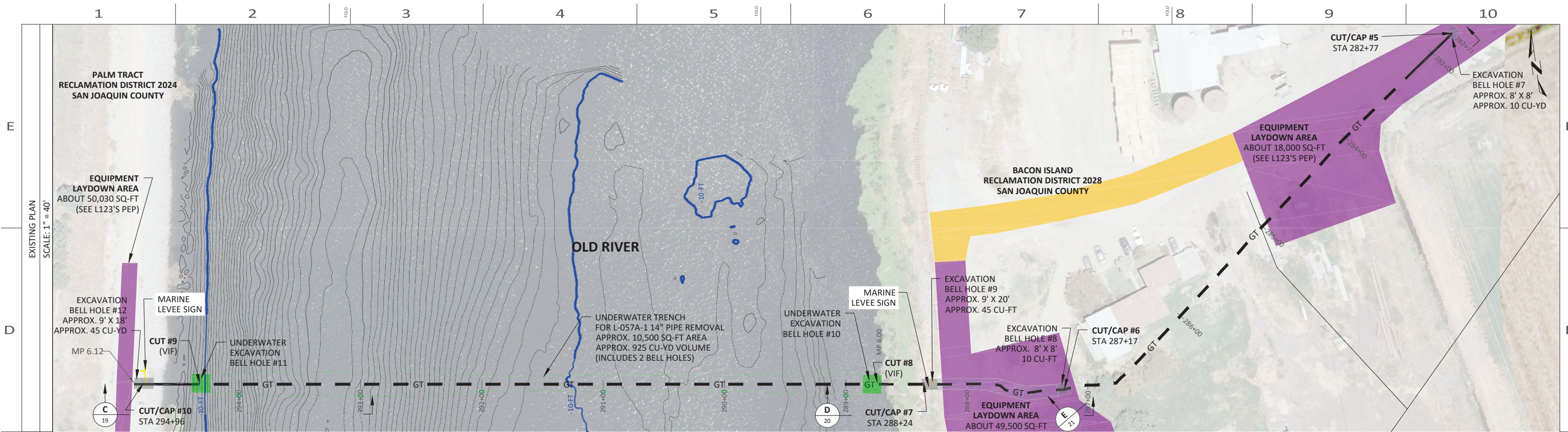
GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA



60% DESIGN

BILL OF MATL SHEET 22
JOB ID R-1390B
SHEET NO. 15 OF 22 SHEETS
74032845 A

INCH



DEACTIVATION PROCEDURE FOR EXISTING PIPE:

- GT&D UTILITY WORK PROCEDURE TD 9500P-16, "DEACTIVATION AND/OR RETIREMENT OF UNDERGROUND GAS FACILITIES," SHALL BE FOLLOWED.
- THE PIPE SHALL BE SECTIONALIZED AT INTERVALS AS SPECIFIED IN THE DECOMMISSIONING PLAN. THE LOCATIONS CALLED OUT ARE APPROXIMATE AND ARE SUBJECT TO FIELD VERIFICATION TO IDENTIFY THE MOST OPTIMAL LOCATION IN THAT VICINITY. ACCURATE SURVEY DATA MAY NOT BE AVAILABLE FOR THESE LOCATIONS SO USE CAUTION DURING EXCAVATION AND WHEN IDENTIFYING THE PIPELINE TO BE DEACTIVATED. OTHER ACTIVE PIPELINES MAY BE IN THE AREA.
- OPEN ENDS OF THE DECOMMISSIONED PIPE SHALL BE SEALED BY BOTH CEMENT SLURRY AND WELD CAP PER DETAIL 3, WITH EXCEPTION OF PIPE ENDS BELOW MLLW THAT ARE COLD-CUT BY DIVER.
- BACKFILL MUST BE THOROUGHLY COMPACTED IN PLACE OF THE REMOVED SECTION OF PIPE PER DETAIL 1 AND ENCROACHMENT REQUIREMENTS.

- LEGEND**
- GT- DEACTIVATED L-057A-1 GAS TRANSMISSION
 - EXISTING GROUND ELEVATION
 - TERRESTRIAL SURVEY POINTS
 - UNDERWATER TRENCH
 - LAYDOWN / STAGING / CONSTRUCTION IMPACT AREA
 - EXCAVATION / BELL HOLE

PIPELINE MARKERS TO BE REMOVED			
LOCATION	MARKER TYPE	REMOVED YES/NO?	NOTES
BACON ISLAND WEST LEVEE	MARINE LEVEE SIGN		LAT: 37.967934° LONG: -121.572350°
PALM TRACT EAST LEVEE	MARINE LEVEE SIGN		LAT: 37.968150° LONG: -121.574561°

REVISIONS						
REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI

SEGMENT 4 - OLD RIVER

PIPELINE - DECOMMISSIONING PLAN
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

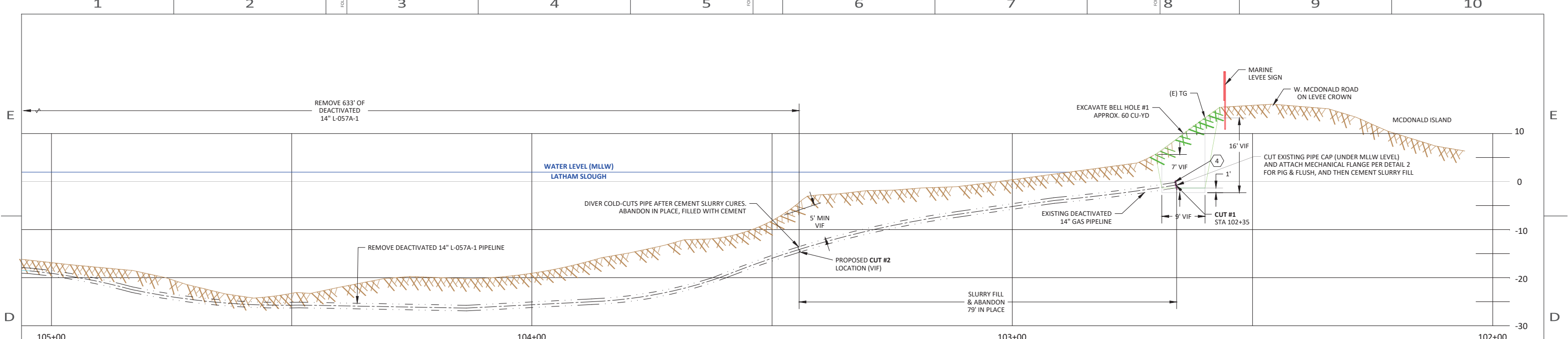


60% DESIGN

BILL OF MATL SHEET 22
JOB ID: R-1390B
SHEET NO. 16 OF 22 SHEETS
74032845 A



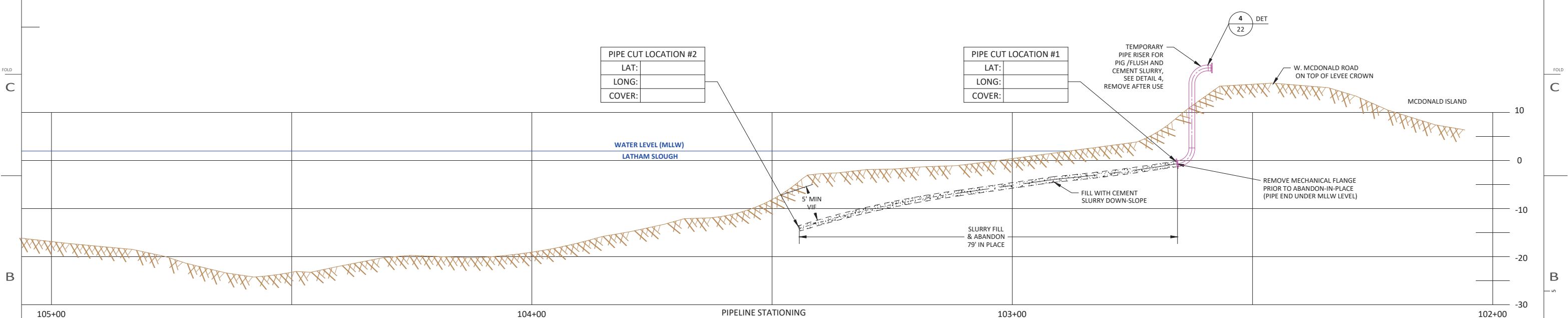
INCH



ELEVATION
 L-057A-1 LATHAM SLOUGH CROSSING, EAST
 SCALE: 1" = 10'

A
7

PIPELINE DECOMMISSIONING,
 CONSTRUCTION SPECIFICATIONS



ELEVATION
 L-057A-1 LATHAM SLOUGH CROSSING, EAST
 SCALE: 1" = 10'

A
7

PIPELINE DECOMMISSIONING,
 FINAL DISPOSITION

LEGEND
 - - - - - DEACTIVATED GAS TRANSMISSION LINE
 - - - - - GAS TRANSMISSION LINE (TO BE ABANDONED)
 ▨▨▨▨▨ EXISTING GROUND ELEVATION

LONGITUDE 123, INC.
 California Marine Project Reviewing
 Permitting and Performance
 570 POLI STREET, VENTURA, CA 93001
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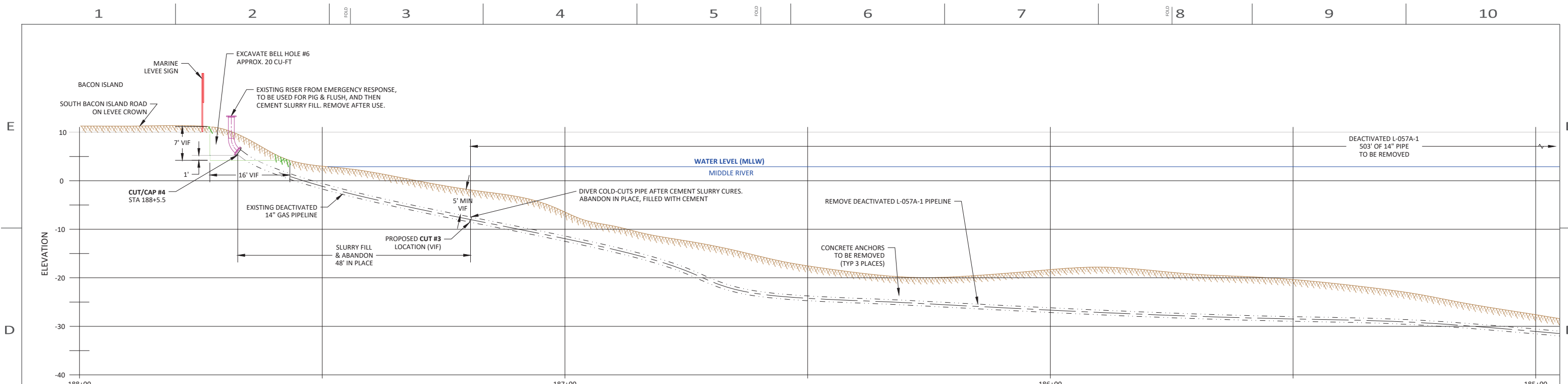
SEGMENT 1 - LATHAM SLOUGH

PIPELINE - DETAILS
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY
 GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA

BILL OF MATL	SHEET 22
JOB ID	R-1390B
SHEET NO.	17 OF 22 SHEETS
74032845	A



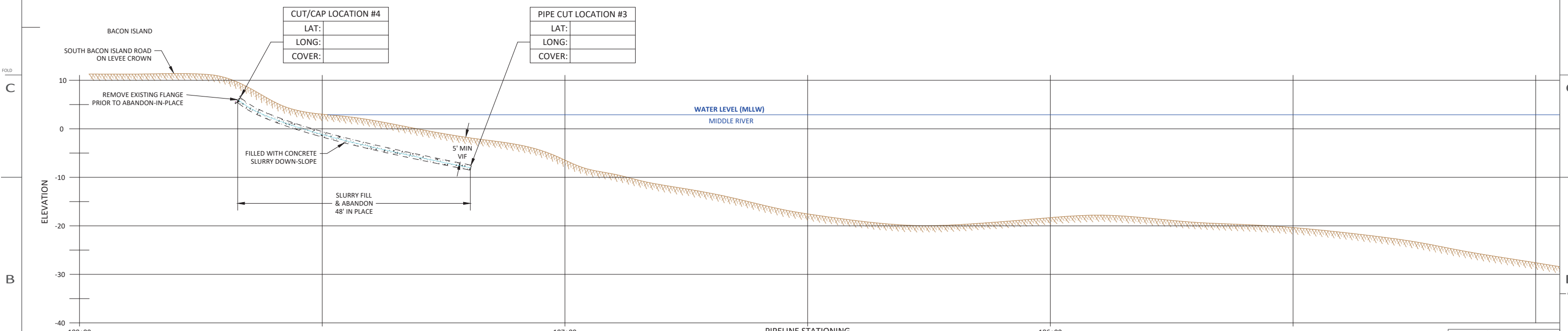
REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							



ELEVATION
 L-057A-1 MIDDLE RIVER CROSSING, WEST
 SCALE: 1" = 10'

B
15

PIPELINE DECOMMISSIONING,
 CONSTRUCTION SPECIFICATIONS



ELEVATION
 L-057A-1 MIDDLE RIVER CROSSING, WEST
 SCALE: 1" = 10'

B
15

PIPELINE DECOMMISSIONING,
 FINAL DISPOSITION

- LEGEND**
- DEACTIVATED GAS TRANSMISSION LINE
 - GAS TRANSMISSION LINE (TO BE ABANDONED)
 - EXISTING GROUND ELEVATION



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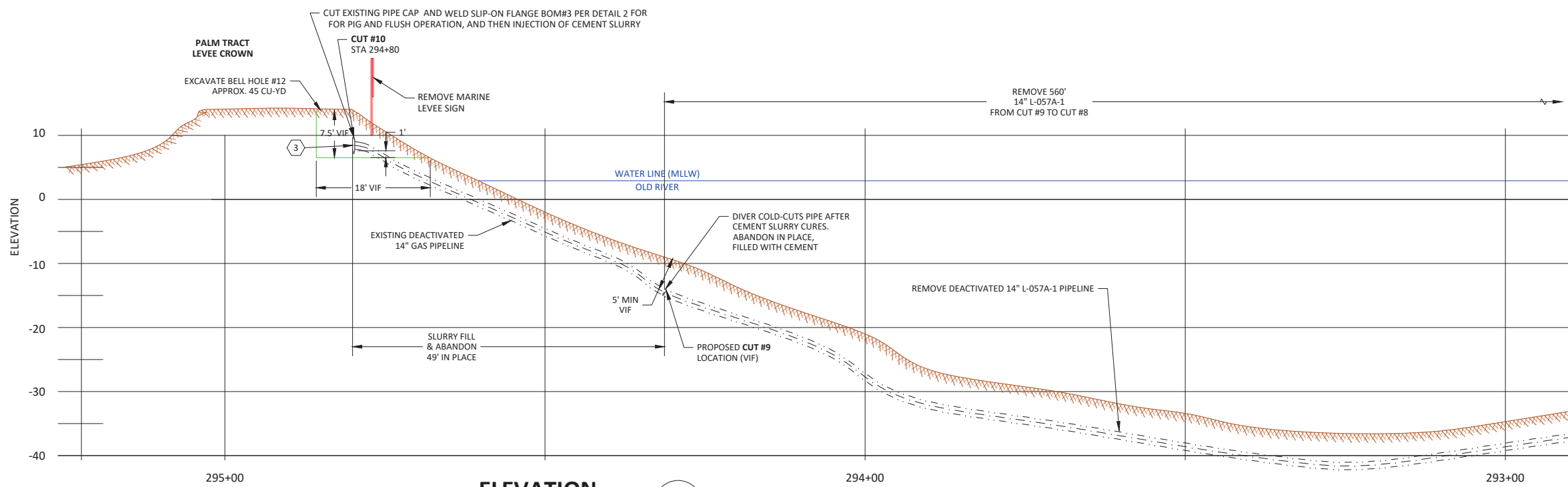
SEGMENT 3 - MIDDLE RIVER

PIPELINE - DETAILS
 R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
 DECOMMISSION DEACTIVATED PIPELINE
 MILDRED ISLAND, SAN JOAQUIN COUNTY
 GAS TRANSMISSION & DISTRIBUTION
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 SAN FRANCISCO, CALIFORNIA

BILL OF MATL SHEET 22
 JOB ID **R-1390B**
 SHEET NO. 18 OF 22 SHEETS
74032845 A

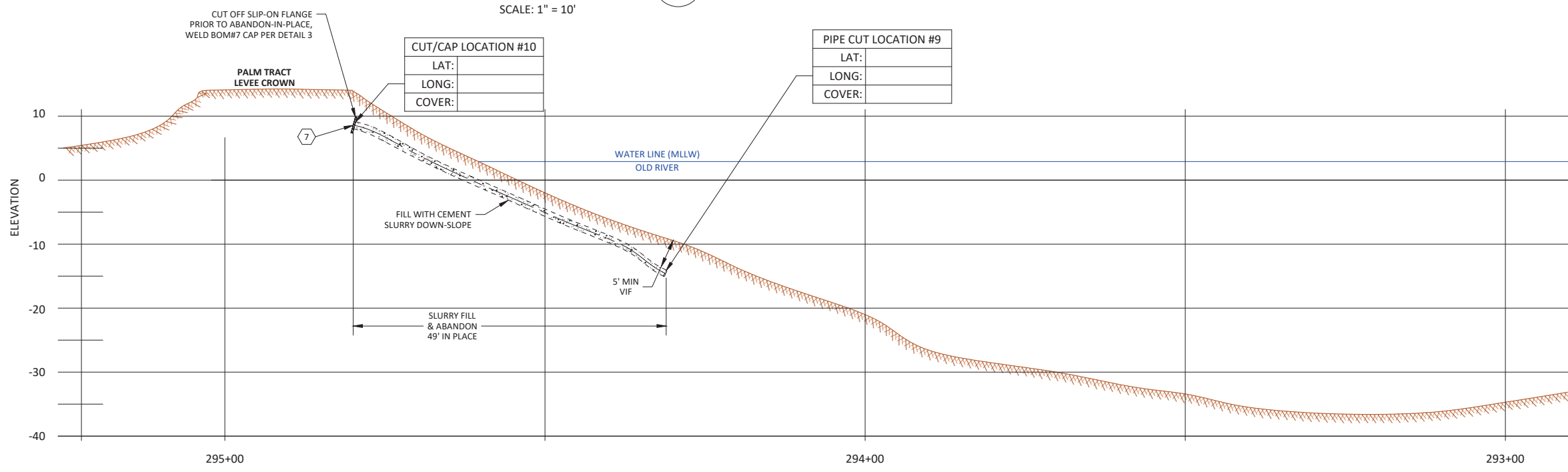


REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
REVISIONS							



ELEVATION
L-057A-1 OLD RIVER CROSSING, WEST
SCALE: 1" = 10'

C PIPELINE DECOMMISSIONING,
CONSTRUCTION SPECIFICATIONS
16



ELEVATION
L-057A-1 OLD RIVER CROSSING, WEST
SCALE: 1" = 10'

C PIPELINE DECOMMISSIONING,
FINAL DISPOSITION
16

- LEGEND**
- DEACTIVATED GAS TRANSMISSION LINE
 - GAS TRANSMISSION LINE (TO BE ABANDONED)
 - EXISTING GROUND ELEVATION

SEGMENT 4 - OLD RIVER

PIPELINE - DETAILS
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
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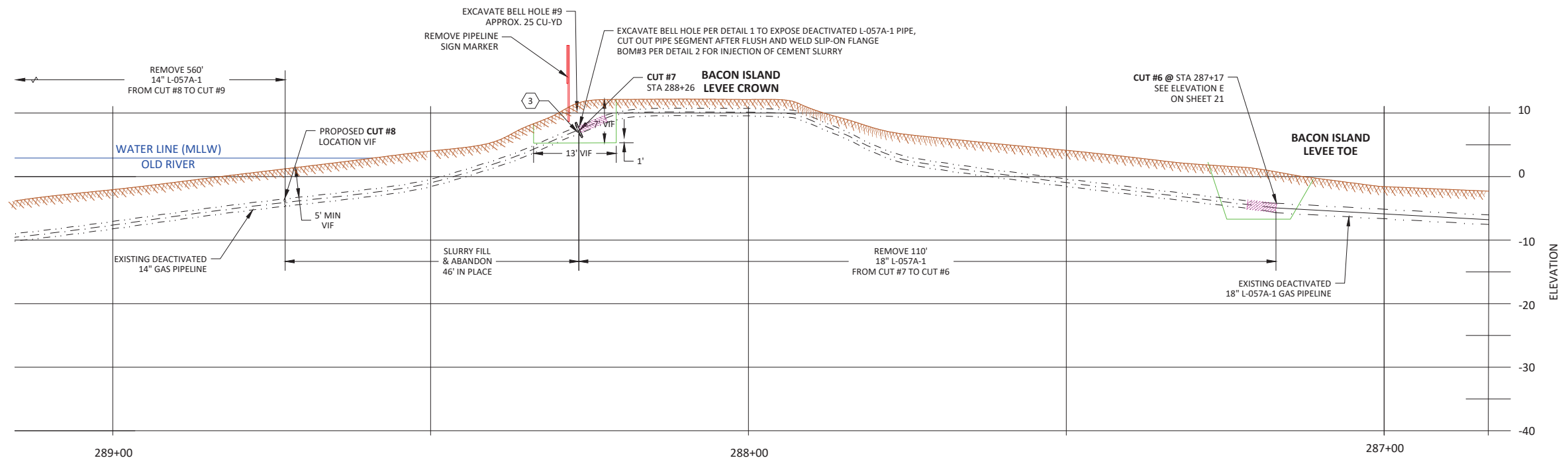
REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	
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DESIGN**

BILL OF MATL SHEET 22
JOB ID **R-1390B**
SHEET NO. 19 OF 22 SHEETS
74032845 **A**



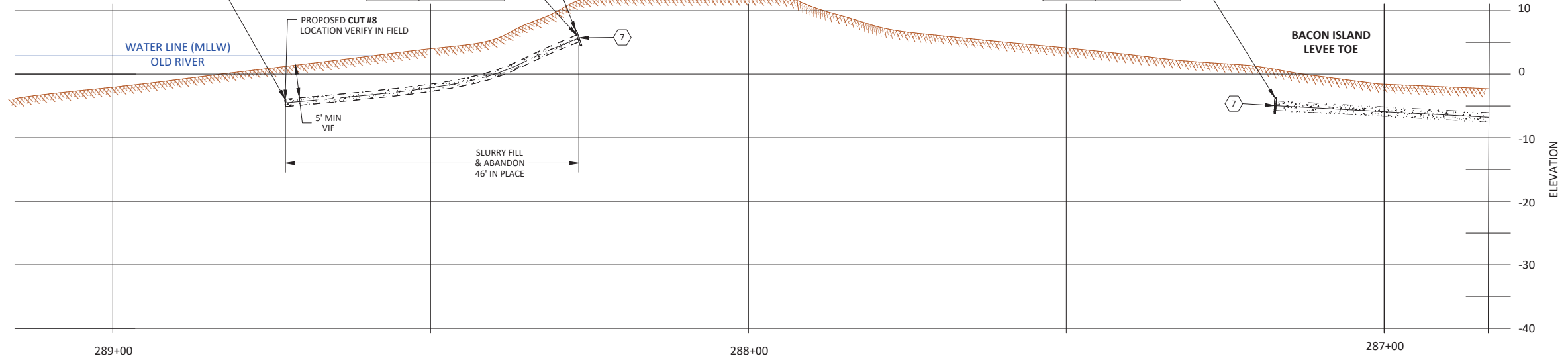
ELEVATION
L-057A-1 OLD RIVER CROSSING, EAST
SCALE: 1" = 10'

D PIPELINE DECOMMISSIONING,
CONSTRUCTION SPECIFICATIONS

PIPE CUT LOCATION #8	
LAT:	
LONG:	
COVER:	

C/CAPUT LOCATION #7	
LAT:	
LONG:	
COVER:	

CUT/CAP LOCATION #6	
LAT:	
LONG:	
COVER:	



ELEVATION
L-057A-1 OLD RIVER CROSSING, EAST
SCALE: 1" = 10'

D PIPELINE DECOMMISSIONING,
FINAL DISPOSITION

LEGEND

- DEACTIVATED GAS TRANSMISSION LINE
- GAS TRANSMISSION LINE (TO BE ABANDONED)
- EXISTING GROUND ELEVATION

SEGMENT 4 - OLD RIVER

PIPELINE - DETAILS
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA



REV.	DATE	DESCRIPTION	ORDER	DWN	ADE	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI	

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BILL OF MATL SHEET 22

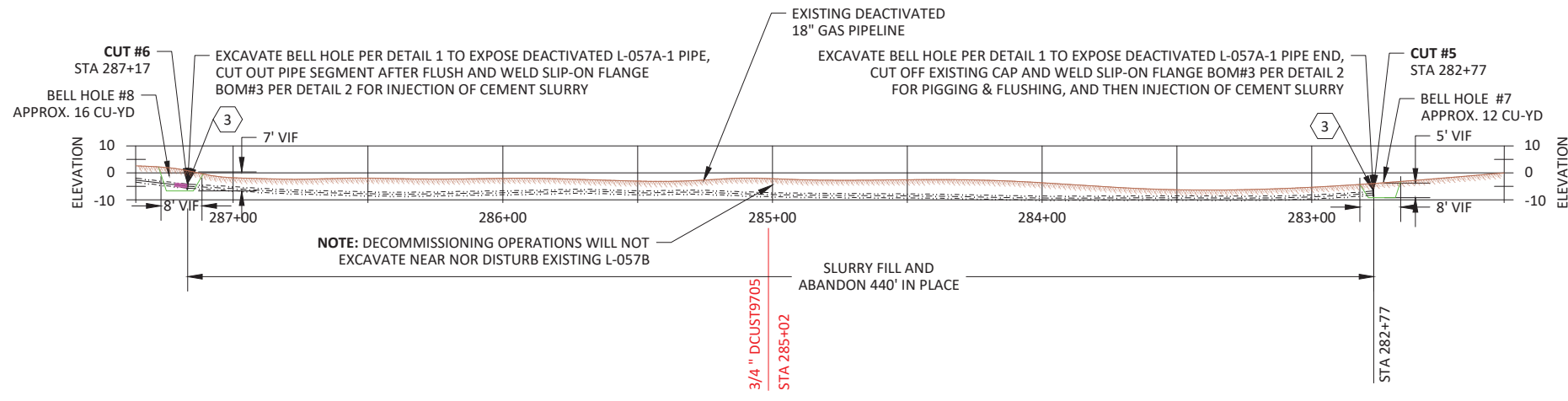
JOB ID **R-1390B**

SHEET NO. 20 OF 22 SHEETS

74032845 A

E

E



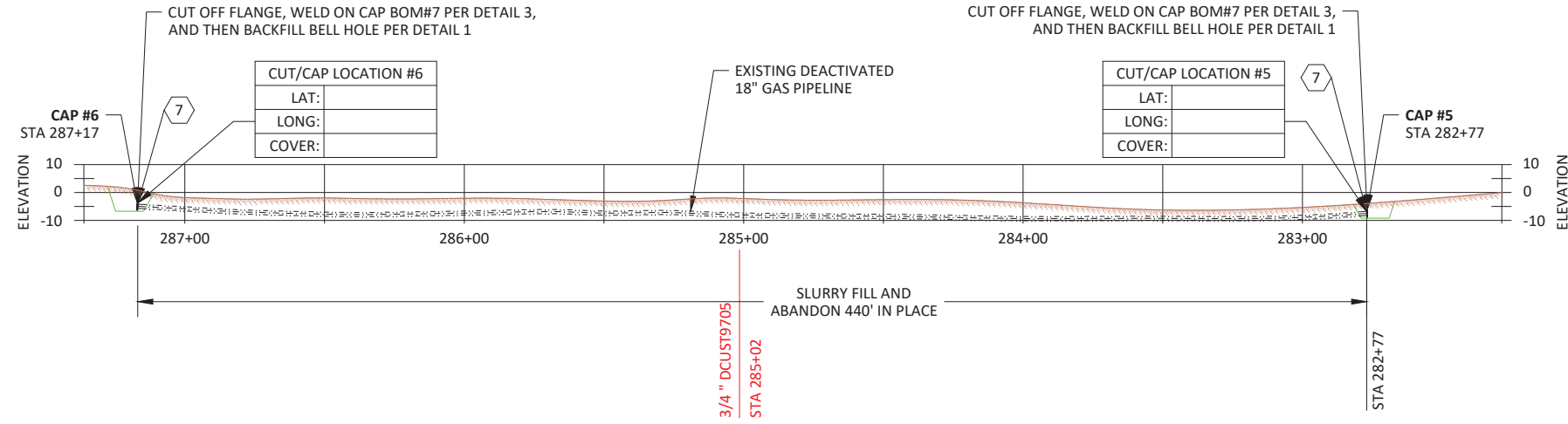
D

D

ELEVATION
L-057A-1 BACON ISLAND REMNANT
SCALE: 1" = 10'
E 16 PIPELINE DECOMMISSIONING,
CONSTRUCTION SPECIFICATIONS

C

C



B

B

ELEVATION
L-057A-1 BACON ISLAND REMNANT
SCALE: 1" = 30'
E 16 PIPELINE DECOMMISSIONING,
FINAL DISPOSITION

A

A

- LEGEND**
- DEACTIVATED GAS TRANSMISSION LINE
 - GAS TRANSMISSION LINE (TO BE ABANDONED)
 - EXISTING GROUND ELEVATION

SEGMENT 4 - OLD RIVER

PIPELINE - DETAILS
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY
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DESIGN**

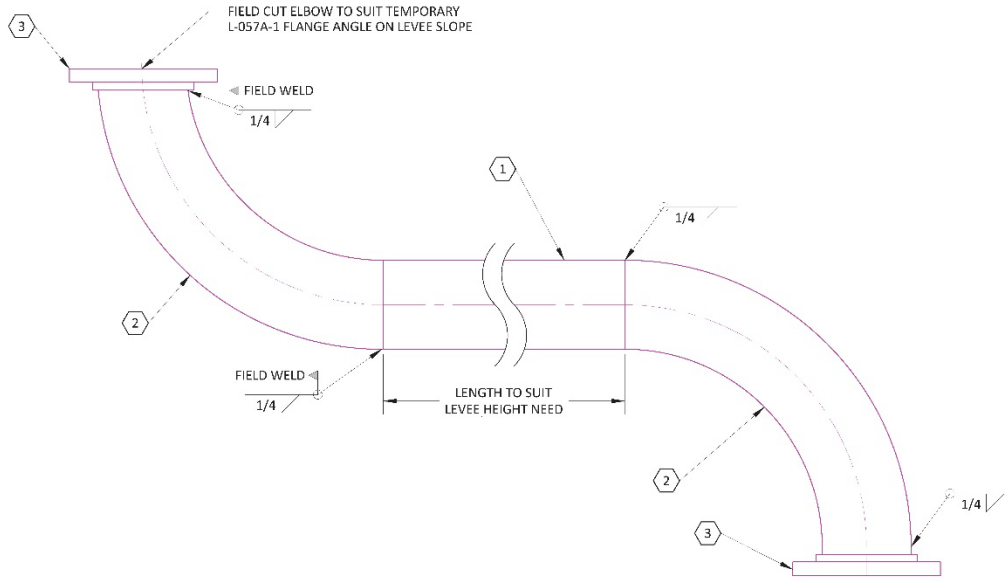
BILL OF MATL	SHEET 22
JOB ID	R-1390B
SHEET NO.	21 OF 22 SHEETS
74032845	A



REV.	DATE	DESCRIPTION	ORDER	DWN	HL	IXBI	ENG	ENG APVD
A	12-4-20	PRELIMINARY - 60% DESIGN	74032845	DLP	HL	IXBI		
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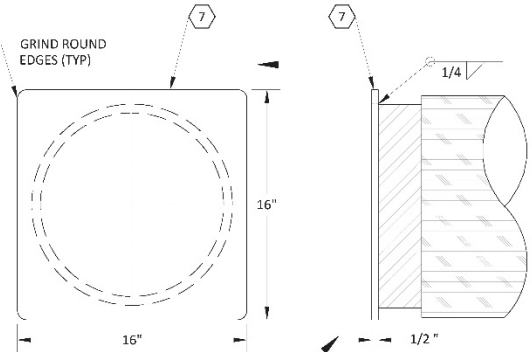
BILL OF MATERIALS

BOM #	MATERIAL DESCRIPTION	MATERIAL CODE #	QTY	UNIT	STANDARD	NOTES
1	PIPE, STEEL, 14", SCHEDULE 10 - 0.25" WALL (PIG & FLUSH RISER)	N/A	40	FT	A53 GRADE B	PROVIDED BY CONTRACTOR
2	ELBOW, 3R, 14" OD, SCHEDULE 10, GR-B, 90 DEGREE (PIG & FLUSH RISER)	N/A	6	EA	GS&S B-20	PROVIDED BY CONTRACTOR
3	FLANGE, SLIP-ON, RF, 14" PIPE, ANSI 150#	N/A	4	EA	ASTM A105	PROVIDED BY CONTRACTOR
4	FLANGE, MECHANICAL, RF, 14" PIPE, ANSI 150#	N/A	1	EA	ASTM A105	PROVIDED BY CONTRACTOR
5	FLANGE, BLIND, 14" PIPE, ANSI 150# (MODIFY TO SUIT FOR FLUSH AND SLURRY FILL)	N/A	6	EA	ASTM A105	PROVIDED BY CONTRACTOR
6	SLURRY FILL CEMENT (ESTIMATED)	N/A	36	CU-YD	-	PROVIDED BY CONTRACTOR
7	STEEL PLATE, 16" X 16", 1/2" THICK (14" PIPE CAP)	N/A	5	EA	ASTM A36	PROVIDED BY CONTRACTOR



DETAIL 4

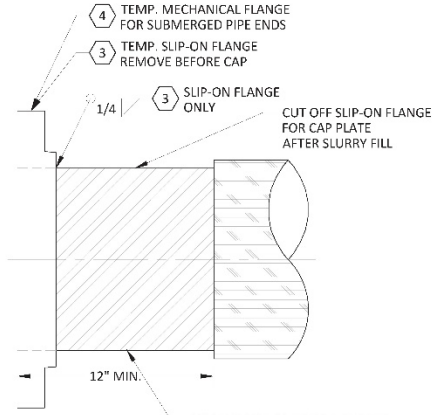
TEMPORARY PIPE RISER FOR PIG & FLUSH
SCALE: NTS



- PIPE CAP NOTES:**
- STEEL PLATE, 1/2" THICK, ASTM A-36, TO BE WELDED TO EACH PIPE END ABANDONED-IN-PLACE, WITH EXCEPTION OF ENDS BELOW WATERLINE (NO DIVER WELDING).
 - USE BOM# 7 PLATE SIZE 16" x 16" SQUARE
 - REMOVE ALL ROUGH EDGES AND CORNERS ON ALL STEEL FABRICATION PRODUCTS.
 - WELDING FOR SHALL CONFORM TO THE STRUCTURAL WELDING CODE AWS D1.1.
 - USE AN E60 STRENGTH FILLER METAL THAT CONFORMS TO ONE OF THE FOLLOWING AWS FILLER METAL SPECIFICATIONS: AWS A5.1 OR A5.5.

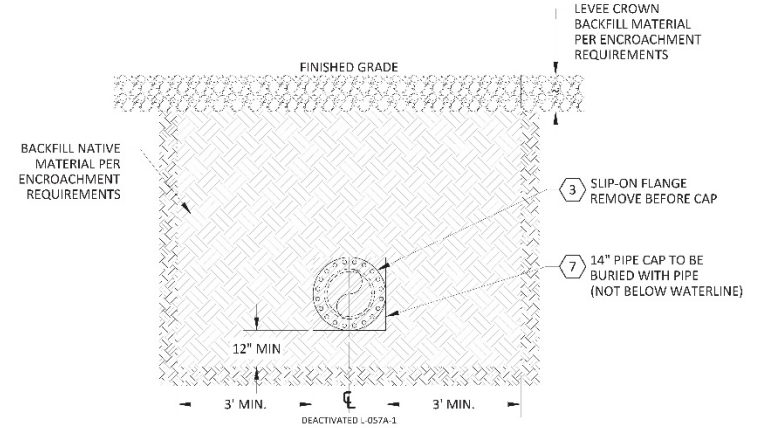
DETAIL 3

PIPELINE TERMINATION CAP
SCALE: NTS



DETAIL 2

SLIP-ON FLANGE WELD DETAIL (TYP)
SCALE: NTS



- EXCAVATION NOTES:**
- ASSUME TYPE 3 SOIL, PREVIOUS EXCAVATION OR FILL
 - SEE TD-4621M FOR SHORING REQUIREMENTS
- BACKFILL NOTES:**
- BACKFILL ALL EXCAVATIONS WITH NATIVE BACKFILL (SPOILS AND IMPORT AS NEEDED) EXCEPT LEVEE CROWN
 - BACKFILL LEVEE CROWN WITH CLASS II ROAD BASE
 - ALL BACKFILL PLACED IN MAXIMUM 6" LIFTS
 - ALL BACKFILL TO BE COMPACTED TO NOT LESS THAN 90%

DETAIL 1

EXCAVATION AND BACKFILL (TYP)
SCALE: NTS



60% DESIGN



A 12-4-20
REV. DATE

PRELIMINARY - 60% DESIGN
DESCRIPTION
REVISIONS

74032845 DLP HL IXBI
ORDER DWN ADE ENG ENG APVD

PIPELINE - BILL OF MATERIALS
R-1390B, L-057A-1, MP 2.25-4.08 & 5.94-6.12
DECOMMISSION DEACTIVATED PIPELINE
MILDRED ISLAND, SAN JOAQUIN COUNTY

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BILL OF MATL SHEET 22
JOB ID **R-1390B**
SHEET NO. 22 OF 22 SHEETS
74032845 A