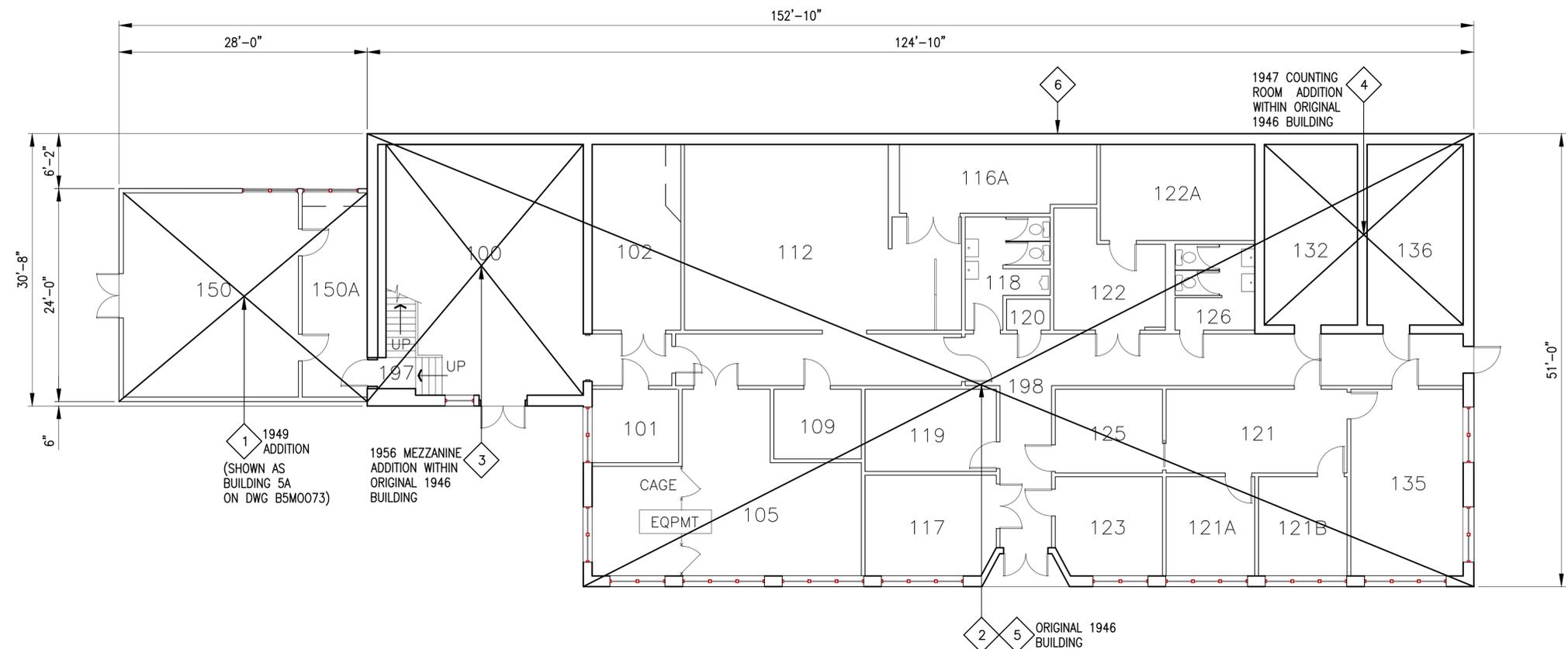


G:\2228 - YE Engineers, Inc.\2228-8410843 - YE LBNL Old Town Demo PHL\06-CAD\Sheets\32-8410843-D1.3.dwg PLOT DATE/TIME: 06-25-14 AT 15:22:34
 TITLE OF DOCUMENT: This document and the sheets and design incorporated herein, as an instrument of professional service, is the property of YE Engineers, Inc. and shall not be used for any other project without the written authorization of YE Engineers, Inc. 2014.



- DEMOLITION GENERAL NOTES:**
- THIS PROPOSED PHASING DRAWING REPRESENTS ONE METHOD FOR DEMOLISHING THE STRUCTURE. THE CONTRACTOR SHALL PROVIDE THEIR SCHEME TO THE UNIVERSITY FOR APPROVAL. CONTRACTOR MAY USE THIS METHOD BUT SHALL VERIFY AND TAKE RESPONSIBILITY FOR ANY METHOD USED.
 - BUILDING PLAN LAYOUT SHOWN MAY DIFFER FROM FIELD CONDITIONS. CONTRACTOR TO FIELD VERIFY.
 - DO NOT REMOVE EXISTING FLOOR SLAB OF ORIGINAL 1946 BUILDING UNTIL NEW RETAINING WALL RESTRAINT (TO BE DESIGNED BY CONTRACTORS ENGINEER) HAS BEEN INSTALLED TO PREVENT SLIDING OF THE RETAINING WALLS.
 - IF CRANE IS NEEDED FOR B5 OR B16 DEMOLITION, SUBMIT CRANE PLAN PRIOR TO COMMENCING WORK FOR LBNL REVIEW.

- DEMOLITION KEY NOTES**
- DEMOLITION STEP NO. 1: AFTER ABATEMENT, DEMOLISH 1949 ADDITION DOWN TO FOUNDATION SLAB ON GRADE:

 - REMOVE ALL ROOF STACKS AND CANOPY AT NORTH END. DISPOSE OF ROOF STACKS AS LLW.
 - REMOVE INTERIOR PARTITION WALLS AND EXTERIOR CORRUGATED CEMENT-ASBESTOS SIDING, LOUVERS, WINDOWS AND DOORS FROM THE NORTH, WEST AND EAST ELEVATIONS.
 - REMOVE ASPHALT SHINGLES, 1-INCH LUMBER SHEATHING AND SUPPORTING METAL TRUSS FRAMING.
 - REMOVE ALL METAL AND WOOD STUD WALL FRAMING.
 - DEMOLITION STEP NO. 2: AFTER ABATEMENT, BEGIN DEMOLITION OF ORIGINAL 1946 BUILDING:

 - REMOVE INTERIOR WOOD FRAMED GYPSUM BOARD PARTITION WALLS.
 - REMOVE ROOF STACKS FROM BOTH HIGH AND LOW ROOFS. REMOVE CANOPIES ALONG THE EAST ELEVATION.
 - REMOVE COMPOSITION ROOFING, 1-INCH DIAGONAL LUMBER SHEATHING AND 2X8 JOISTS AND BLOCKING FROM BOTH HIGH AND LOW ROOFS.
 - CAREFULLY CUT, BAG AND REMOVE HVAC DUCTS IN ATTIC IN ACCORDANCE WITH "HVAC REMOVAL EHS PLAN".
 - DISASSEMBLE STEEL TRUSSES AND REMOVE FROM BOTH HIGH AND LOW ROOFS.
 - USING CRANE LIFT OUT OVERHEAD GANTRY CRANE AND CRANE RAILS FROM THE MEZZANINE. FOLLOW LEAD ABATEMENT REQUIREMENT. THEN, CUT CRANE AND CRANE RAILS INTO SMALLER PIECES AND REMOVE FROM SITE. HOT WORK PERMIT REQUIRED.
 - REMOVE MEZZANINE AND COUNTING ROOM ADDITIONS PER THE FOLLOWING STEPS PRIOR TO REMOVING CONCRETE BEARING WALLS OF THE 1946 ADDITION.
 - DEMOLITION STEP NO. 3: AFTER ABATEMENT, DEMOLISH 1956 MEZZANINE ADDITION:

 - REMOVE 1x6 WOOD MEZZANINE FLOORING, GYPSUM FIXED CEILING, 2X10 FLOOR JOISTS AND ALL BRIDGING, BLOCKING AND WOOD STAIRS FROM THE MEZZANINE.
 - DEMOLITION STEP NO. 4: AFTER ABATEMENT, DEMOLISH 1947 COUNTING ROOM ADDITION:

 - REMOVE REINFORCED CONCRETE ROOF SLAB.
 - REMOVE MASONRY WALLS CUTTING REINFORCEMENT AT THE FLOOR LEVEL.
 - DEMOLITION STEP NO. 5: AFTER ABATEMENT, COMPLETE DEMOLITION OF ORIGINAL 1946 ADDITION:

 - REMOVE CONCRETE BEARING WALLS ALONG THE NORTH AND WEST ELEVATIONS. SEE FOLLOWING SHEETS FOR EXTENT OF DEMOLITION. SEE NON-RAD RLCR (NORTHGATE) TABLE 4G FOR ACM CONTENT.
 - CUT BACK CONCRETE BEARING WALLS ALONG THE NORTH, SOUTH AND EAST ELEVATIONS AS SHOWN ON DETAILS ON SHEET D1.4.
 - PRIOR TO REMOVING FLOOR SLAB OR SAWCUTTING FLOOR SLAB FOR ANY PURPOSE OTHER THAN TO INSTALL PIERS PER DETAIL 1 ON SHEET D5.2, PROVIDE MEANS TO SUPPORT PORTIONS OF THE NORTH, SOUTH AND EAST RETAINING WALLS THAT WILL REMAIN AFTER DEMOLITION IS COMPLETE. SEE DETAIL 1 ON SHEET D5.2.
 - COORDINATE WITH LBNL STRUCTURAL ENGINEER AND CM IF SHORING AND ROAD CLOSURE IS REQUIRED.

1 BUILDING 5 FLOOR PLAN
 1/8"=1'-0"
 0 4' 8' 16'
 N

GENERAL DEMOLITION SEQUENCE:

- PERFORM ABATEMENT
 - INSTALL ENVIRONMENTAL MONITORING EQUIPMENT.
 - SEAL ALL FLOOR DRAINS TO PREVENT DISCHARGES TO SANITARY DRAIN PIPES
 - REMOVE ALL MERCURY THERMOSTATS, MERCURY SWITCHES, MERCURY IN EMERGENCY LIGHT SYSTEMS, AND OTHER LIQUID MERCURY.
 - REMOVE ALL FLUORESCENT LIGHTING TUBES AND KNOWN OR SUSPECT PCB BALLASTS
 - REMOVE LEAD WALL COVERING/LININGS.
 - ESTABLISH SUITABLE ENVIRONMENTAL CONTROLS
 - REMOVE ALL ACCESSIBLE AND CONCEALED ACM, INCLUDING FLOORING, MASTICS, DRYWALL, GYPSUM CEILING, TAPE AND TEXTURE, INSULATION, DEBRIS, FELT, CEMENT PANELS, BASE COVE AND MASTIC, BLACK PATCH ON VALVES, FIRE DOORS, ROOF AND WINDOW MATERIALS, SEALANTS, FLASHING, AND OTHER ACM, WHETHER RACM OR NOT, EXCEPT THE TEXTURE COATING ON THE EXTERIOR WALLS.
 - COLLECT ALL LEAD FLASHING AND FASTENERS ASSOCIATED WITH THE ASBESTOS CEMENT PANELS.
 - REMOVE ALL SETTLED DUST IDENTIFIED AS CONTAMINATED USING WET WIPE OR HEPA VACUUM AS APPLICABLE.
 - PACKAGE DUST AND DEBRIS WASTE AS RACM OR RCRA WASTE AS APPLICABLE
 - REMOVE ACM FLOOR TILES AND THEN SURVEY THE FLOOR FOR RADIOACTIVE CONTAMINATION. COVER/PROTECT OR REMOVE HOT SPOTS.
 - REMOVE THE HVAC SYSTEM IN THE 1946 PORTION OF BUILDING 5 ACCORDING TO SPECIFIC LBNL INSTRUCTIONS FOR HAND DISASSEMBLY AND BAGGING. PACKAGE ALL EXHAUST HVAC EQUIPMENT, DUCTS, AND STACKS AS LLW. SEE SHEET D1.2
 - REMOVE ALL DRAIN OR PROCESSING PIPING ABOVE THE FLOOR ELEVATION AND PACKAGE AS LLW.
 - DRAIN ALL PUMPS AND COMPRESSORS, INCLUDING THE UNIT ON THE LOADING DOCK.
 - REMOVE ALL LOOSE OR FLAKING PAINT.

- APPLY A FIXATIVE OR ENCAPSULANT APPROVED BY LBNL TO RETARD EMISSION OF FUGITIVE DUST DURING BUILDING DEMOLITION, INCLUDING EXTERIOR ACM COATING.
 - REMOVE ENVIRONMENTAL CONTROLS FOR ABATEMENT.
- PERFORM DEMOLITION OF 1949 ADDITION.
 - INSTALL STORM WATER AND DEMOLITION WATER CONTROLS SYSTEMS.
 - POSITION ULTRASONIC DUST MISTER, HAND SPRAYERS AND WIND SPEED MONITOR(S).
 - REMOVE ROOF STACKS, HVAC UNIT AND CANOPY AT NORTH END. PACKAGE AS LLW.
 - DEMOLISH ABOVE-GRADE STRUCTURE AND DISPOSE AS LLW.
 - PERFORM DEMOLITION OF 1946 PORTION OF THE BUILDING.
 - INSTALL STORM WATER AND DEMOLITION WATER CONTROLS SYSTEMS.
 - POSITION ULTRASONIC DUST MISTER, HAND SPRAYERS AND WIND SPEED MONITOR(S).
 - REMOVE ROOF DECK AND TRUSSES OVER THE MEZZANINE.
 - REMOVE OVERHEAD GANTRY CRANE AND CRANE RAILS FROM THE MEZZANINE.
 - ~~SURVEY THE OVERHEAD CRANE AND RAILS FOR REGULATED RADIOACTIVE MATERIAL. DECONTAMINATE AS REQUIRED.~~
 - FOLLOW LEAD ABATEMENT PROGRAM AND USE TORCH TO CUT CRANE AND RAILS.
 - DEMOLISH REMAINING ABOVE-GRADE STRUCTURE (EXCEPT THE LOADING DOCK AND FORMER LOADING DOCK).
 - REMOVE THE REMNANT HOT CELL WALL AS LLW
 - DISPOSE OF OTHER BUILDING DEBRIS AS LLW.
 - REMOVE THE DRAIN PIPES AND ANY BELOW GRADE PROCESS PIPE UNDER THE 1946 BUILDING.
 - INSTALL KEY OR SOIL ANCHORS PRIOR TO CUTTING OUT THE FLOOR SLAB (SEE GENERAL NOTE 3). SAW CUT THE FLOOR SLAB AND REMOVE CONCRETE.
 - DISPOSE OF CONCRETE DEBRIS AS LLW.
 - EXCAVATE AND REMOVE THE DRAIN PIPE ACCORDING TO SPECIFIC LBNL PLANS
 - ~~PERFORM MARSSIM SCOPING SURVEY AND SURVEY FOR NON-RAD CONTAMINATION IN THE PIPE TRENCHES AS APPLICABLE.~~

- EXCAVATE CONTAMINATED RAD OR NON-RAD SOIL AS APPLICABLE.
- LEAVE THE EXCAVATIONS OPEN PENDING MARSSIM SURVEY.
- PERFORM A MARSSIM SURVEY TO RELEASE THE SOIL UNDER THE BUILDING 5 FOOTPRINT.
 - (NOTE: THE PEDESTAL OF THE LOADING DOCK AND THE FORMER LOADING DOCK, WHICH IS NOW ROOM 150 AND ROOM 150A, IS STILL INTACT.)
 - (NOTE THE MARSSIM SURVEY INCLUDES SOIL EAST OF THE RETAINING WALL BUT NOT SOIL UNDER THE FOUNDATIONS, UNLESS FOUNDATIONS ARE REMOVED.)
- PERFORM ADDITIONAL REMEDIATION AND MARSSIM SURVEY DATA COLLECTION AS APPROPRIATE.
- EXCAVATE AND REMEDIATE THE BUILDING 5 YARD AND LOADING DOCK
 - REMOVE THE CONCRETE AND ASPHALT PAVING OVER THE FORMER LLW PROCESSING AREA AND THE BUILDING 5 YARD WHERE SR-90 SEPARATION, LLW PROCESSING, AND PACKAGING WERE CONDUCTED. DISPOSE OF CONCRETE AND ASPHALT PAVING AS LLW.
 - REMOVE THE LOADING DOCK, RAMP, FORMER LOADING DOCK AND FOUNDATIONS.
 - NOTE THE FORMER DECON PIT MAY LIE UNDER ROOM 150.
 - PERFORM MARSSIM SCOPING SURVEYS AND SOIL EXCAVATION UNDER THE LOADING DOCK AND ROOM 150 AS APPLICABLE.
 - PERFORM NON-RAD SURVEYS AND EXCAVATION AS APPLICABLE.
 - PROTECT ACTIVE UTILITIES AS REQUIRED.
 - EXCAVATE YARD TO A DEPTH OF 2-4 FEET OR AS SHOWN IN SOIL CLEAN UP PLAN (ADDENDUM).
 - REMOVE THE BELOW GRADE PROCESS PIPING, EQUIPMENT AND DRAINS
 - PERFORM MARSSIM SCOPING SURVEYS AND SURVEY FOR NON-RAD CONTAMINATION IN THE EXCAVATIONS.
 - EXCAVATE SOIL AS REQUIRED.
 - PERFORM A MARSSIM SURVEY OF THE BUILDING 5 YARD.
 - PERFORM ADDITIONAL REMEDIATION AND MARSSIM SURVEY DATA COLLECTION AS APPROPRIATE.
- REMOVE REMAINING FOUNDATIONS AND WALLS AND PERFORM RESTORATION WORK.

TO ACHIEVE SOIL CLEANUP CRITERIA DESCRIBED IN SOIL MANAGEMENT PLAN AND WASTE MANAGEMENT PLAN

CONSULTING FIRM

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 Exp. 6/30/16
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 STATE OF CALIFORNIA

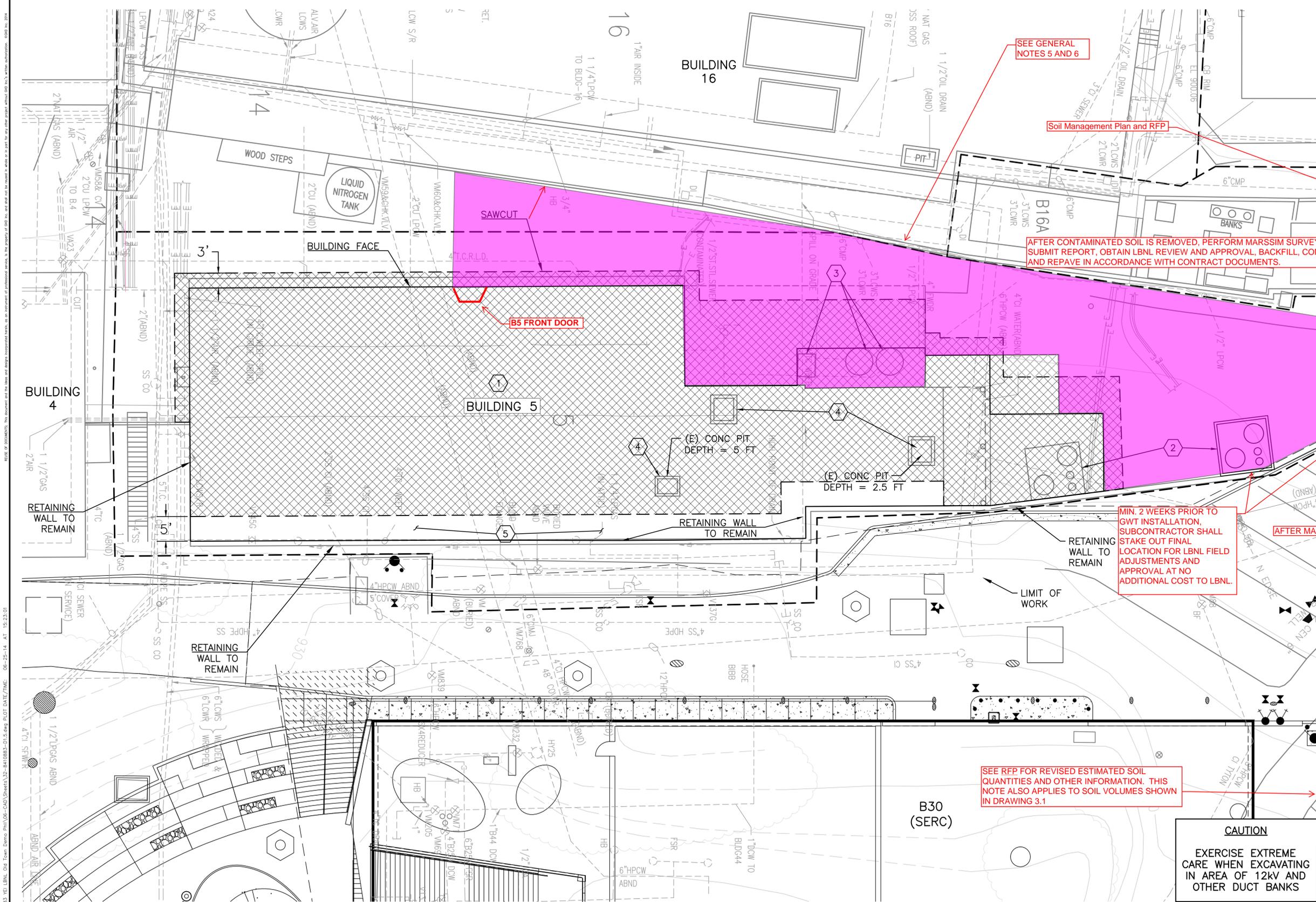
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REVISION NUMBER	DRAWN BY	CHECKED BY	APPR'D BY	DATE	REMARKS
1	TM	SFE	RCJ	6/25/2014	ADDENDUM #1

PHASE 1 DEMOLITION PROJECT FOR BUILDINGS 5 AND 16-16A STRUCTURAL DEMOLITION OF BUILDING 5 BLDG 5 FLOOR PLAN & DEMOLITION SEQUENCE

UNIVERSITY OF CALIFORNIA
 LAWRENCE BERKELEY NATIONAL LABORATORY
FACILITIES DIVISION

DRAWN BY	S. BRADY	DATE	6/25/2014
CHECKED BY	S. BURNS	DATE	6/25/2014
APPROVED BY	M. KENNEDY	DATE	6/25/2014
CAD FILE PATH			
SCALE	1/8"=1'-0"		
DRAWING NO.	SHEET		
PROJECT NO.	D1.3		



- NOTES:**
- SOIL EXCAVATED, OFFHAULED, STOCKPILED, ETC. TO BE IN ACCORDANCE WITH THE PROJECT'S SOIL MANAGEMENT PLAN.
 - PLACE K-RAIL AROUND PERIMETER OF EXCAVATED AREA AS REQUIRED FOR SAFETY AND/OR AT THE DIRECTION OF LBNL (ITEM WILL BE PAID FOR AS EXTRA WORK IF REQUESTED BY LBNL).
 - SUBCONTRACTOR TO FOLLOW PROJECT SWPPP PROCEDURES DURING EXECUTION OF WORK.
 - PRIOR TO DEMOLITION OF BUILDING FLOOR SLAB, ENSURE EXISTING RETAINING WALL TO REMAIN IS STRUCTURALLY REINFORCED AND SUPPORTED. SEE SOIL CLEAN-UP PLAN FOR ESTIMATED EXTENT AND VOLUME OF SOIL TO BE REMOVED.
 - PAVEMENT NORTH AND WEST OF BUILDING 5 CONSISTS OF 6" THICK PCC WITH UP TO 1.5" THICK HMA OVERLAY. ALL PAVING TO BE DISPOSED OF AS LLW.
 - AREA OF B5 WASTE PROCESSING YARD IS APPROX 5,200 SF. SUBCONTRACTOR SHALL VERIFY EXACT AREA.
- DEMOLITION AND EXCAVATION KEYNOTES:**
- DEMOLISH AND REMOVE (E) REINFORCED CONCRETE BUILDING FLOOR SLAB AND ALL REMAINING UNDERGROUND UTILITIES WITHIN EXCAVATION AREA.
 - PRIOR TO BUILDING FLOOR SLAB DEMOLITION AND SOIL EXCAVATION, RELOCATE GROUNDWATER REMEDIATION SYSTEM. SEE SHEET D4.0 FOR LOCATION AND UTILITY CONNECTIONS. COORDINATE INSTALLATION WITH REMOVAL OF ANY CONTAMINATED PAVEMENT AND SOIL REMOVAL. TANKS MAY REQUIRE TEMPORARY RELOCATION AND CONNECTION WITH HOSES TO ACCOMMODATE SOIL WORK.
 - REMOVE UTILITY BOX AND STEEL SECONDARY CONTAINMENT TANKS AND ASSOCIATED PIPING. ~~LBNL TO CONDUCT CHARACTERIZATION SAMPLING OF TANKS AND SOIL PRIOR TO REMOVAL AND BACKFILL WITH CDF.~~
 - DEMOLISH AND REMOVE (E) REINFORCED CONCRETE PITS INSIDE BUILDING. AFTER MARSSIM SURVEY, BACKFILL WITH CDF.
 - PORTION OF BUILDING FLOOR SLAB OVER RETAINING WALL FOOTING TO REMAIN.

SEE GENERAL NOTES 5 AND 6

Soil Management Plan and RFP

AFTER CONTAMINATED SOIL IS REMOVED, PERFORM MARSSIM SURVEY AND SUBMIT REPORT, OBTAIN LBNL REVIEW AND APPROVAL, BACKFILL, COMPACT AND REPAVE IN ACCORDANCE WITH CONTRACT DOCUMENTS.

MIN. 2 WEEKS PRIOR TO GWT INSTALLATION, SUBCONTRACTOR SHALL STAKE OUT FINAL LOCATION FOR LBNL FIELD ADJUSTMENTS AND APPROVAL AT NO ADDITIONAL COST TO LBNL.

AFTER MARSSIM SURVEY,

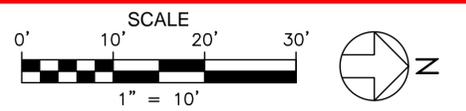
SEE RFP FOR REVISED ESTIMATED SOIL QUANTITIES AND OTHER INFORMATION. THIS NOTE ALSO APPLIES TO SOIL VOLUMES SHOWN IN DRAWING 3.1

CAUTION
EXERCISE EXTREME CARE WHEN EXCAVATING IN AREA OF 12KV AND OTHER DUCT BANKS

- DEMOLITION AND EXCAVATION LEGEND**
- BUILDING SLAB AREA
 - LIMITS OF SLAB/PAVEMENT DEMOLITION AND EXCAVATION
 - DEMOLISH FLOOR SLAB AND PAVING 3 FEET BEYOND BUILDING WALLS AND TO LIMITS SHOWN, EXCEPT AT RETAINING WALLS TO REMAIN

BUILDING 5 AND YARD AREA SOIL EXCAVATION

B5	- BASE EXCAVATION = 407 CY (NON-RAD)
B5	- BASE EXCAVATION = 181 CY (RAD)
B5 YARD	- BASE EXCAVATION = 674 CY (NON-RAD)
B5 YARD	- BASE EXCAVATION = 719 CY (RAD) 775 cy



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 Y/EI ENGINEERS, INC. \12228-8410883-YE LBNL Old Town Demo P10105-CAD\Sheets\32-8410883-D1.5.dwg PLOT DATE/TIME: 06-25-14 AT 15:23:01
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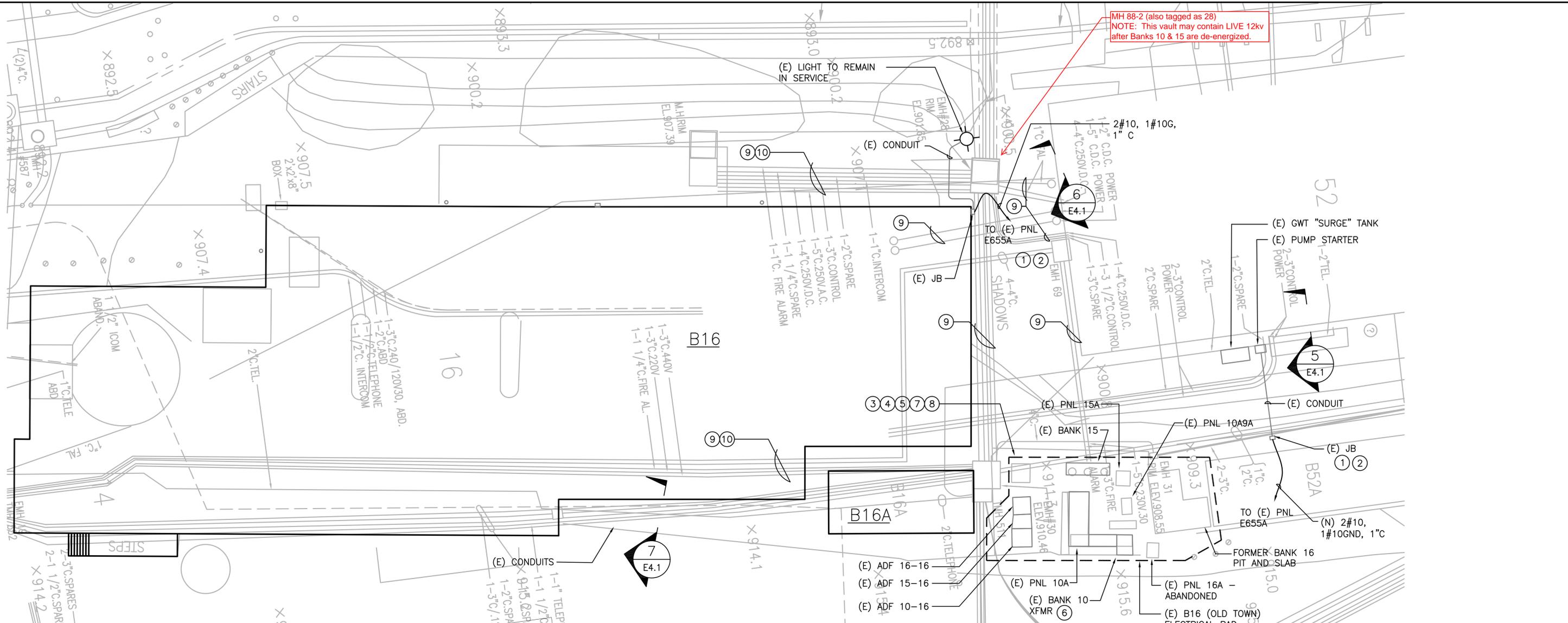
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REVISION NUMBER	DATE	REVISION
1	TM	ISSUE
	SFE	RC
	ADDENDUM #1	

PHASE 1 DEMOLITION PROJECT FOR BUILDING 5 AND 16/16A BUILDING 5 SITE EXCAVATION PLAN

UNIVERSITY OF CALIFORNIA
LAWRENCE BERKELEY NATIONAL LABORATORY
FACILITIES DIVISION

DRAWN BY	C.BACH	DATE	6/25/2014
CHECKED BY	S.GRUPICO	DATE	6/25/2014
APPROVED BY	M.KENNEDY	DATE	6/25/2014
CAD FILE PATH			
SCALE	1" = 10'		
DRAWING NO.			
PROJECT NO.			
SHEET	D1.5		



MH 88-2 (also tagged as 28)
 NOTE: This vault may contain LIVE 12kv after Banks 10 & 15 are de-energized.

NOTES:

- REFER TO B16 ELECTRICAL AIR-GAPPING PLAN DATED 5/06/2014 FOR ADDITIONAL AS-BUILT INFORMATION.
- LOCATION OF ACTUAL UTILITIES MAY NOT AGREE WITH THOSE SHOWN ON THE AREA UTILITIES DRAWING. SUBCONTRACTOR SHALL VERIFY THE ACTUAL LOCATION OF ALL BURIED UTILITIES AND ISOLATION POINTS BEFORE BEGINNING WORK.
- ALL ABOVE-GRADE ELECTRICAL ISOLATION POINTS HAVE ALREADY BEEN AIR-GAPPED BY LBNL. INTERIOR AIR-GAPPING HAS ALSO BEEN COMPLETED EXCEPT FOR CRITICAL SYSTEMS INCLUDING FIRE ALARM CONTROL PANEL (FACP) PULL STATIONS AND FIRE VALVE SUPERVISION. SUBCONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL ABOVE-GRADE AIR-GAPPING HAS BEEN COMPLETED AND IS RESPONSIBLE FOR ANY REMAINING CUTTING AND CAPPING BELOW GRADE WITHIN 5 FEET OF THE BUILDING PERIMETER. SUBCONTRACTOR IS RESPONSIBLE TO INSURE ZERO ENERGY STATE BEFORE COMMENCING ABATEMENT OR OTHER PRE-DEMOLITION ACTIVITIES.
- ~~PRIOR TO ANY ELECTRICAL DEACTIVATION WORK WITHIN THE B16 (OLD TOWN) ELECTRICAL PAD, SUBCONTRACTOR SHALL HAVE A CALIFORNIA - REGISTERED ELECTRICAL ENGINEER PREPARE A DEACTIVATION PLAN, DE-ENERGIZATION PLAN AND METHOD OF PROCEDURE (MOP) WHICH SHALL INCLUDE A STEP-BY-STEP DE-ENERGIZATION PROCEDURE. THE DE-ENERGIZATION PLAN AND MOP SHALL BE SUBMITTED TO LBNL FOR REVIEW AND APPROVAL AT LEAST 8 WEEKS PRIOR TO STARTING WORK.~~

KEY NOTES:

- PROVIDE WIRE AS NOTED ON HOMERUN FROM (E) PANEL E655A IN SERC BLDG. INTERCEPT (E) JUNCTION BOX NEAR (R) GWT EQUIPMENT AND USE SPARE CONDUITS. SEE DWG E3.1 FOR SITE PLAN.
- CONDUIT SHALL BE BURIED AT ROADWAYS. PROVIDE PVC COATED RGS, AND INSTALL AT A MINIMUM DEPTH OF 36". SAW CUT AND RE-PATCH TO MATCH EXISTING CONDITIONS.
- SUBCONTRACTOR SHALL ASSUME THAT THE B16 ELECTRICAL PAD HAS BEEN DE-ENERGIZED BY LOTO OF UPSTREAM BREAKERS. HOWEVER, SUBCONTRACTOR SHALL STILL BE RESPONSIBLE FOR ~~DEACTIVATING BANKS 10 AND 15 BY VERIFYING ZERO VOLTAGE, PULLING CONDUCTORS AND SUBSEQUENT AIR-GAPPING OF ALL ABOVE AND BELOW GROUND CONDUITS IN THE VICINITY OF THE ELECTRICAL PAD. NO CONDUITS MAY BE CUT WITH CONDUCTORS STILL IN THE CONDUIT WITHOUT SPECIAL PRE-APPROVAL UNDER LBNL SAF-001 PERMIT.~~
- ~~PRIOR TO DEMOLITION OF BANKS 10 AND 15, AND RELATED EQUIPMENT, ALL HIGHLIGHTED EQUIPMENT SHALL BE DEACTIVATED PER LBNL AIR-GAPPING PROCEDURES. COORDINATE WITH LBNL.~~
- LOTO/ISOLATE ALL ELECTRICAL EQUIPMENT, THEN VERIFY ZERO VOLTAGE.
- TEST BANK 10 XFRM OIL FOR PCB. REFER TO DEMOLITION PLANS - HAZMAT FOR HAZARDOUS MATERIALS HANDLING PROCEDURES.
- DEMOLISH ALL FEEDER WIRES TO AND FROM BANKS 10 AND 15 AFTER VERIFYING ZERO VOLTAGE.
- DEMO ALL EQUIPMENT ON B16 ELECTRICAL PAD AFTER IT HAS BEEN DEACTIVATED
- DEMO WIRES BACK TO NEAREST HANDHOLE AFTER VERIFYING CONDUCTORS ARE DE-ENERGIZED PER B16 AIR-GAPPING PLANS.
- FIRE ALARM RELATED WIRES SHALL REMAIN LIVE UNTIL DIRECTED BY LBNL FIRE MARSHALL.

HAS BEEN TESTED, (SEE TEST REPORTS ATTACHED TO ADDENDUM #1)

REMAINING

EXCEPT THOSE 12KV FEEDERS CONNECTED TO SWITCH GEAR "A4" LOCATED NEAR THE ALS.

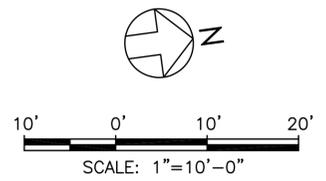
CONFIRMED ZERO VOLTAGE, AND IF NECESSARY, AIR-GAPPED AND

CUT AND CAP CONDUITS ABOVE/BELOW GRADE PER NOTE 3.

IF NECESSARY

NOTE:

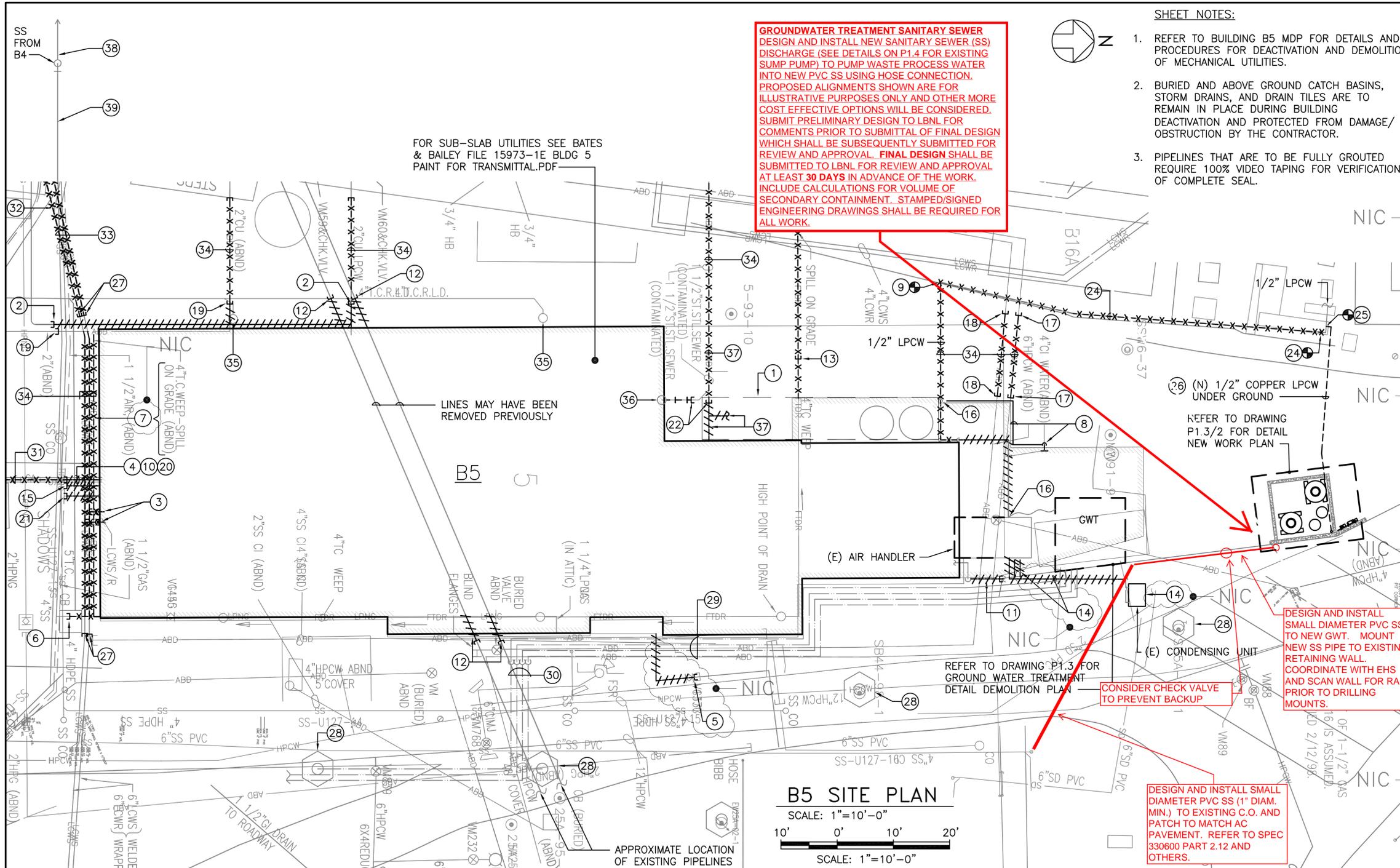
- OLD TOWN ELECTRICAL PAD TO BE ELECTRICALLY ISOLATED AND DEACTIVATED BY OTHERS. ASSUME ISOLATION/DEACTIVATION TO BE COMPLETE BY SEPT 30, 2014.
- BANK 10 DIELECTRIC TRANSFORMER OIL TO BE REMOVED BY OTHERS. ASSUME REMNANT OIL MAY NEED TO BE REMOVED AND DISPOSED.
- REFER TO OTHER PROJECT DRAWINGS FOR SLAB REMOVAL, SOIL TESTING, SOIL CLEANUP, BACKFILLING, PAVING ETC.



FOR ADDITIONAL UNDERGROUND UTILITIES IN THIS AREA REFER TO LATEST LBNL DWG 4B00U127

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<p>YEI ENGINEERS, INC. 7700 Edgewater Drive, Suite 128, Oakland, CA 94621 Phone: (510) 383-1050 Fax: (510) 383-1057</p>		ISSUED FOR BID	REVISION		PHASE 1 DEMOLITION PROJECT FOR BUILDINGS 5 AND 16/16A B16 - ELECTRICAL SITE PLAN DEMOLITION	DRAWN BY: S. HO CHECKED BY: D. CASTRO APPROVED BY: G. CHEUNG CAD FILE PATH: SCALE: 1"=10'-0" DRAWING NO.: PROJECT NO.:
		06/25/2014	1	TM		DD*



GROUNDWATER TREATMENT SANITARY SEWER DESIGN AND INSTALL NEW SANITARY SEWER (SS) DISCHARGE (SEE DETAILS ON P1.4 FOR EXISTING SUMP PUMP) TO PUMP WASTE PROCESS WATER INTO NEW PVC SS USING HOSE CONNECTION. PROPOSED ALIGNMENTS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND OTHER MORE COST EFFECTIVE OPTIONS WILL BE CONSIDERED. SUBMIT PRELIMINARY DESIGN TO LBNL FOR REVIEW AND APPROVAL. FINAL DESIGN SHALL BE SUBMITTED TO LBNL FOR REVIEW AND APPROVAL AT LEAST 30 DAYS IN ADVANCE OF THE WORK. INCLUDE CALCULATIONS FOR VOLUME OF SECONDARY CONTAINMENT. STAMPED/SIGNED ENGINEERING DRAWINGS SHALL BE REQUIRED FOR ALL WORK.

SHEET NOTES:

- REFER TO BUILDING B5 MDP FOR DETAILS AND PROCEDURES FOR DEACTIVATION AND DEMOLITION OF MECHANICAL UTILITIES.
- BURIED AND ABOVE GROUND CATCH BASINS, STORM DRAINS, AND DRAIN TILES ARE TO REMAIN IN PLACE DURING BUILDING DEACTIVATION AND PROTECTED FROM DAMAGE/OBSTRUCTION BY THE CONTRACTOR.
- PIPELINES THAT ARE TO BE FULLY GROUTED REQUIRE 100% VIDEO TAPING FOR VERIFICATION OF COMPLETE SEAL.

KEY NOTES:

- C & C AND REMOVE CONTAMINATED 1 1/2" INDUSTRIAL SS DRAIN PIPING AS DESCRIBED ON DWG P1.2 FOLLOWING LBNL RAD PROTOCOLS.
- C & C 2" CU LPCW AT B5 BELOW GRADE FOLLOWING MECHANICAL MDP FOR B5. REMOVE ALL ABOVE GROUND LPCW PIPING FROM BELOW GRADE TO WITHIN 5' OF BLDG FOOTING TO B5 WALL EXTERIOR.
- C & C 3" LCWS/R LINES AT THEIR MAIN LINE BRANCH CONNECTION BELOW GRADE.
- C & C 1 1/2" HPNG LINE BELOW GRADE AT B5 FOLLOWING MECHANICAL MDP FOR B5. REMOVE ALL HPNG BELOW GROUND PIPING TO AND FROM CAP POINT.
- C & C ABOVE GROUND AND EXPOSED 1 1/4" LPNG PIPING FOLLOWING MECHANICAL MDP FOR B5. REMOVE ALL LPNG FROM V137G TO THE B5 EAST SIDE WALL PENETRATION, AND REMOVE V137G.
- C & C 1 1/4" LPNG PIPING AT EXTERIOR OF B5 WALL PENETRATION. REMOVE 1 1/4" LPNG PIPING BELOW GROUND TO AND FROM CAP POINT.
- REMOVE 4" FOUNDATION WEEP DRAIN PIPING BELOW GRADE, WITH PM APPROVAL PRIOR TO REMOVAL IF DRAIN INTERFERES WITH FOUNDATION REMOVAL, SEE MDP FOR DETAILS.
- DEMOLISH 1/2" CU LPCW W/ (N) 1/2" HOSE OUTLET AT TOP OF CONCRETE PLATFORM FOR HOSE CONNECTION TO GWT SYSTEM.
- C & C 1/2" CU LPCW RISER 3-INCHES ABOVE FLOOR.
- C & C 2" CA AT EXTERIOR OF B5 WALL PENETRATION. REMOVE 2" CA UP TO B4 WALL EXTERIOR, AND CAP.
- C & C 3/4" LPCW FROM EXTERIOR OF B5 WALL PIPE PENETRATION TO BELOW GRADE 5' WITHIN B5 FOOTING, FOLLOWING MECHANICAL MDP FOR B5.
- C & C BELOW GRADE PIPELINES TO WITHIN 5' OF B5 AND B16 FOOTING.
- 4" FOUNDATION WEEP DRAIN PIPE TO REMAIN, FOLLOWING MECHANICAL MDP FOR B5.
- C & C ABOVE GROUND REFRIGERANT PIPE BETWEEN CONDENSING UNIT AND AIR HANDLER, FOLLOWING MECHANICAL MDP FOR B5. EVACUATE AND DISPOSE OF REFRIGERANT IN ACCORDANCE WITH LBNL STANDARDS. DEMOLISH CONDENSING UNIT.
- C & C BELOW GRADE 4" SS PIPE TO WITHIN 5' OF BLDG FOOTING, FOLLOWING MECHANICAL MDP FOR B5, AND SS REMOVAL REQUIREMENTS FOLLOWING LBNL RAD PROTOCOLS.
- C & C 1/2" LPCW FROM CONCRETE PLATFORM TO THE CONNECTION OUTLET AT OVERHANG FOLLOWING B5 MDP. DISCONNECT 1/2" HOSE.
- C & C 4" CI HPCW BELOW GRADE. CONFIRMS WHAT IT FEEDS BEFORE CUTTING.
- C & C 6" HPCW BELOW GRADE. CONFIRMS WHAT IT FEEDS BEFORE CUTTING.
- C & C 2" CU BELOW GRADE.
- C & C OXY PIPING AT EXTERIOR OF B5 WALL PENETRATION. REMOVE OXY PIPING UP TO B4 WALL EXTERIOR AND CAP.
- C & C 1/2" CA AT EXTERIOR OF B5 WALL PENETRATION. REMOVE 2" CA PIPING UP TO B4 WALL EXTERIOR AND CAP.
- C & C AND REMOVE CONTAMINATED 1 1/2" STAINLESS STEEL DRAIN PIPING BELOW GRADE FOLLOWING LBNL RAD PROTOCOLS.
- ABANDON IN-PLACE 1/2" LPCW BELOW ROADWAY.
- REMOVE 1/2" LPCW ON PIPING RACK AND RISERS.
- CONNECT (N) 1/2" CU LPCW TO (E) 1/2" LPCW AND PENETRATE (E) RETAINING WALL COMPLETE WITH PIPE SLEEVE AND WATERTIGHT SEAL OPENING.
- SAW CUT ROADWAY FOR THE INSTALLATION OF UNDERGROUND (N) 1/2" LPCW. COVER INSTALLED PIPE FOLLOWING MECHANICAL MDP FOR B5, AND DWG P0.1 NOTES.
- C & C 6" LCWS/R LINES BELOW GRADE TO WITHIN 5' OF B5 FOOTING, AND REMOVE CUT 6" LCWS/R, FOLLOWING MECHANICAL MDP FOR B5.

B5 SITE PLAN

SCALE: 1"=10'-0"
 10' 0' 10' 20'
 SCALE: 1"=10'-0"

FOR ADDITIONAL UNDERGROUND UTILITIES IN THIS AREA REFER TO LATEST LBNL DRAWING 4B00U127 AND NOTE 2 ON DWG P0.1

KEY NOTES CONTINUED:

- (E) GROUNDWATER EXTRACTION WELL TO REMAIN.
- (E) GROUNDWATER INFILTRATION/EXTRACTION LINE HOSES ABOVE GRADE, TO REMAIN.
- (E) GROUNDWATER INFILTRATION/EXTRACTION LINES UNDERGROUND TO REMAIN.
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR REMOVAL OF OUTDOOR OVERHEAD CHANNEL STRUT SUPPORTS AND CLAMPS. SEE DWG E1-1.
- REFER TO DWG P2.1 FOR LCWS/R REMOVAL BY B16.
- REMOVE 6" LCWS/R LINES BELOW GRADE AFTER C & C BY B5 AND B16, FOLLOWING TRENCH AND COVER PROCEDURES OF MDP FOR B5 AND DWG P0.1 NOTES.
- REMOVE BELOW GRADE CUT PIPE, FOLLOWING TRENCHING AND COVER PROCEDURES OF MECHANICAL MDP FOR B5.
- RAIN LEADERS SPILL TO GRADE, TO BE REMOVED DURING BLDG DEMO.
- CONTAMINATED 4" VENT PIPE CONNECTED TO CONTAMINATED SS BELOW GRADE.
- POTENTIAL FOR RADIATION AND MERCURY IN DRAIN LINES AND TRAPS. REFER TO SPECIFICATION 024116 'STRUCTURE DEMOLITION' FOR REMOVAL PROCEDURES OF CONTAMINATED PIPING.
- C & C 4" SS IN ROADWAY JUST BEFORE THE POINT WHERE IT INTERSECTS WITH THE B4 SS. HANDLE LINE IN ACCORDANCE WITH PIPE REMOVAL AND RAD PROTOCOLS, AND INSTALL CLEANOUT.
- SUBCONTRACTOR TO REMOVE THIS SECTION OF PIPE.

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ISSUED FOR BID
 06/25/2014

PHASE 1 DEMOLITION PROJECT		DRAWN BY: R. HEYER	DATE: 06/25/2014
FOR BUILDINGS 5 AND 16/16A		CHECKED BY: B. HAYES	06/25/2014
B5 - MECHANICAL SITE PLAN DEMOLITION		APPROVED BY: P. MALLILLIN	06/25/2014
UNIVERSITY OF CALIFORNIA LAWRENCE BERKELEY NATIONAL LABORATORY FACILITIES DIVISION		CAD FILE PATH	SCALE: 1"=10'-0"
PROJECT NO.		DRAWING NO.	SHEET P1.1

1	TM	SFE	RC	ADDENDUM #1
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