BUREAU OF LAND MANAGEMENT PERMIT
PACIFICORP MOAB SUBSTATION UTU-90681

Located In Sections 21 & 28,
Township 25 South, Range 21 East
Salt Lake Base & Meridian
Grand County, Utah

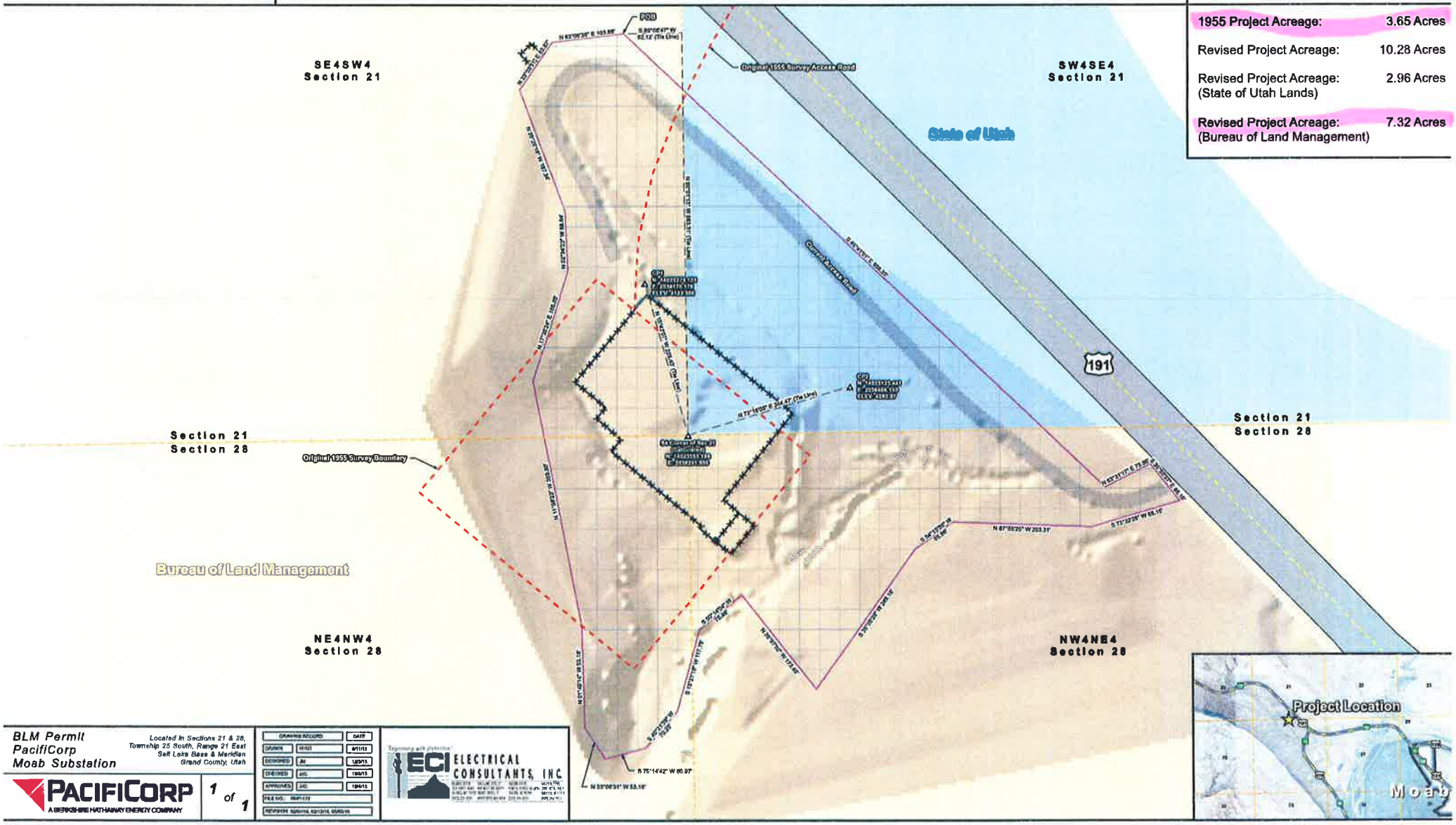
Legend

- Impact Area - 1955 Survey
- Revised Impact Area
- Revised Impact Area Tie Lines
- Substation Fence
- Substation Gate
- Current Access Road
- Calculated Section Corner / Control
- Section Lines
- Bureau of Land Managment
- State of Utah

N

0 60 120 240
Feet
1 inch = 60 feet

1955 Project Acreage:	**3.65 Acres**
Revised Project Acreage:	10.28 Acres
Revised Project Acreage: (State of Utah Lands)	2.96 Acres
Revised Project Acreage: (Bureau of Land Management)	**7.32 Acres**



BLM Permit
PacifiCorp
Moab Substation

Located In Sections 21 & 28, Township 25 South, Range 21 East Salt Lake Base & Meridian Grand County, Utah

PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

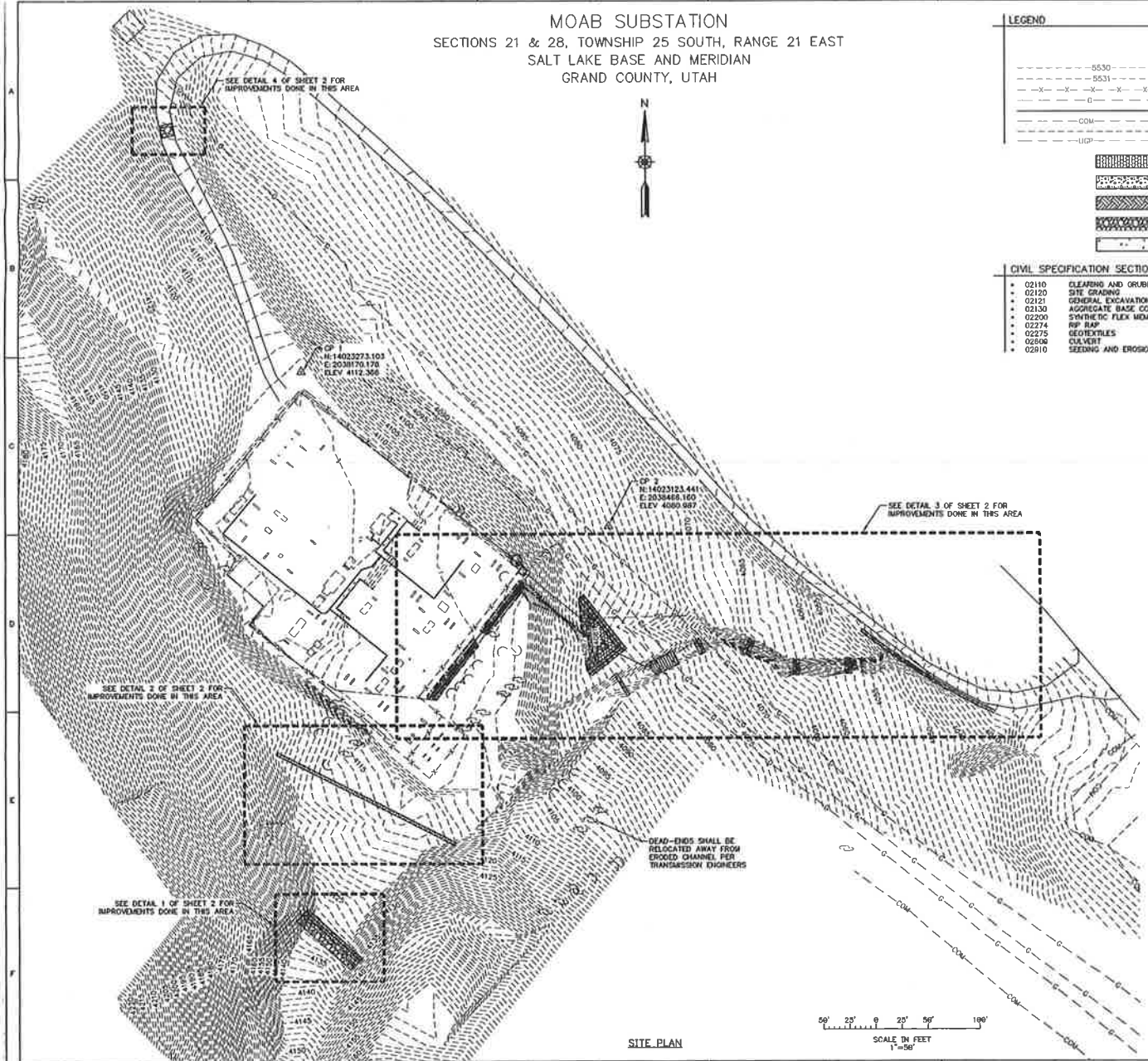
1 of 1

DRAWING RECORD	DATE
DRAWN	4/11/13
DESIGNED	12/2/13
CHECKED	12/4/13
APPROVED	12/4/13
FILE NO.	
REVISION	

ECI ELECTRICAL CONSULTANTS, INC.

MOAB SUBSTATION

SECTIONS 21 & 28, TOWNSHIP 25 SOUTH, RANGE 21 EAST
SALT LAKE BASE AND MERIDIAN
GRAND COUNTY, UTAH



SITE PLAN

LEGEND

- CONTROL POINT
- EXISTING POWER POLE
- EXISTING GUY ANCHOR
- 5530 — EXISTING MAJOR CONTOUR
- 5531 — EXISTING MINOR CONTOUR
- X — EXISTING FENCE
- G — EXISTING NATURAL GAS
- EDGE OF ROAD
- COM — EXISTING FIBER OPTIC
- EXISTING FOUNDATION
- UGP — EXISTING BURIED POWER
- GABION
- AGGREGATE BASE COURSE
- EARTH
- RIPRAP
- CONCRETE

CIVIL SPECIFICATION SECTIONS

- 02110 CLEARING AND GRUBBING
- 02120 SITE GRADING
- 02121 GENERAL EXCAVATION AND BACKFILL
- 02130 AGGREGATE BASE COURSE
- 02200 SYNTHETIC FLEX MEMBRANE LINER
- 02274 RIP RAP
- 02275 GEOTEXTILES
- 02808 CULVERT
- 02910 SEEDING AND EROSION CONTROL

GENERAL CONTRACTOR NOTES

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REQUIREMENTS.

THESE DESIGN DRAWINGS PRESENT THE CIVIL CONCEPTS OF THIS PROJECT AND ARE NOT INTENDED TO SERVE AS THE CONTRACTOR'S SHOP DRAWINGS. CERTAIN ITEMS MAY NOT BE COMPLETELY DETAILED ON THESE DRAWINGS. SUCH ITEMS SHALL BE CONSTRUCTED TO THE CODES AND STANDARDS AS NOTED. THE STANDARDS AND REQUIREMENTS OF LOCAL GOVERNING AGENCIES SHALL TAKE PRECEDENCE.

GRADING SHALL BE PERFORMED TO THE PLANS, ELEVATIONS, PROFILES, SECTIONS, DETAILS AND SPECIFICATIONS UNLESS APPROVED IN ADVANCE TO DO OTHERWISE.

THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE OPERATION OF ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA THROUGHOUT THE CONSTRUCTION PROCESS AND SHALL BE RESPONSIBLE FOR REPLACEMENT OF ALL EXISTING UTILITIES WHICH ARE DISTURBED "IN KIND" AS PART OF THE CONTRACT.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE PROJECT OBJECTIVES WITH ALL RESPECTIVE UTILITY COMPANIES, AND SHALL REQUEST LOCATES OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.

THE CONTRACTOR SHALL VERIFY THE LOCATION, HEIGHT AND DEPTH OF ALL UTILITIES AND STRUCTURES WITHIN THE PROJECT AREA IF THEY EXIST.

THE PIPE LENGTHS SHOWN ON THESE PLANS ARE ESTIMATED. THE FINAL LENGTHS SHALL BE DETERMINED BY FIELD CONDITIONS.

FOR THE EXACT LOCATION OF EXISTING AND PROPOSED ELECTRICAL EQUIPMENT, FOUNDATIONS, CABLE TRENCHES, CABLES, STRUCTURES, GROUNDING WIRES AND CONDUITS SEE THE ELECTRICAL PLANS. FIELD VERIFY THE LOCATION OF ALL EXISTING ITEMS.

NOTIFY THE PROJECT ENGINEER IF ANY EXISTING UTILITIES (SUCH AS PIPES, CONDUITS, VAULTS, BOXES, RIMS, CLEANOUTS, ETC.) ARE IN CONFLICT WITH THE PROPOSED GRADING OR UTILITY PLAN.

IF UTILITY SHUTDOWNS, INSPECTIONS, AND ACCEPTANCE TESTS ARE REQUIRED THEY SHALL BE COORDINATED IN ADVANCE WITH THE APPROPRIATE PARTIES.

DOWNTIME FOR UTILITIES SHALL BE HELD TO A MINIMUM AND TEMPORARY BYPASSES SHALL BE PROVIDED WHERE NECESSARY TO MAINTAIN PROPER SERVICE. DO NOT INTERRUPT UTILITIES THAT ARE SERVING FACILITIES OCCUPIED BY THE OWNER OR BY OTHERS UNLESS GRANTED IN WRITING BY THE PROJECT MANAGER OR PROJECT ENGINEER, AND ONLY AFTER ARRANGING TO PROVIDE TEMPORARY SERVICES ACCORDING TO THE REQUIREMENTS AS INDICATED.

THE CONTRACTOR SHALL DETERMINE FROM THE GRADING PLANS, SCOPE DOCUMENTS, PRE-CONSTRUCTION MEETINGS, AND THE PROJECT MANAGER IF PIPELINES SHALL BE REMOVED OR ABANDONED. IF THE PIPELINES ARE TO BE ABANDONED, ALL OPEN ENDS, HOLES, OR OTHER OPENINGS SHALL BE PLUGGED WITH CONCRETE, OR AS SPECIFIED BY THE LOCAL GOVERNING AGENCIES, WHICH SHALL TAKE PRECEDENCE. ALL COSTS INVOLVED WITH THIS WORK SHALL BE INCLUDED IN THE CONTRACT PRICES FOR GRADING WORK.

THE CONTRACTOR SHALL GIVE THE APPROPRIATE INSPECTION AGENCY TWO (2) WORKING DAYS ADVANCE NOTICE WHEN REQUESTING INSPECTIONS.

THE LOCATION OF PROPERTY LINES, EXISTING STRUCTURES, FIXTURES AND UNDERGROUND UTILITIES ARE DRAWN FROM THE BEST AVAILABLE AS-BUILT AND SURVEYED INFORMATION. THIS DOES NOT GUARANTEE THAT THE LOCATION OF EXISTING ITEMS ARE EXACT OR COMPLETE.

SITE CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. THE CONTRACTOR SHALL MAINTAIN ON-SITE, LEGIBLE MATERIAL SAFETY DATA SHEETS FOR ALL HAZARDOUS MATERIALS USED ON-SITE.

ANY OFF-SITE PROPERTY FOUND DAMAGED SHALL BE REPLACED TO THE SATISFACTION OF THE INSPECTOR, DIRECTOR OF THE AFFECTED AGENCY OR THE OWNER OF THE PROPERTY.

THE WORK SCHEDULE SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND WITH ANY LOCAL ORDINANCES.

THE CONTRACTOR SHALL SECURE THE JOB AT THE END OF EACH DAY. ON-DUTY AND OFF-DUTY CONTACTS AND PHONE NUMBERS FOR THE CONTRACTOR SHALL BE FURNISHED TO THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR SHALL COORDINATE WITH THE FACILITY MANAGER TO MANAGE THE PROJECT'S IMPACT TO SECURITY AND SAFETY MATTERS.

ANY REVISIONS MADE TO THE APPROVED PLANS REQUIRE SUBSEQUENT APPROVAL BY THE APPROPRIATE AUTHORITY. PROVIDE A MINIMUM OF ONE (1) SET OF FULL SIZE, REDLINED RECORD DRAWINGS TO THE COMPANY AT THE COMPLETION OF THE PROJECT.

REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOILS, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS, INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF SITE AT AN APPROVED LOCATION.

NO OPEN BURNING OF WASTE MATERIALS SHALL BE PERMITTED ON THE SITE WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE AND APPROPRIATE REGULATORY AGENCIES.

DUST SHALL BE CONTROLLED AT ALL TIMES BY WATERING OR OTHER APPROVED METHODS. DIRT DEBRIS, TRASH OR OTHER CONSTRUCTION MATERIALS SHALL BE CONTAINED WITHIN CONSTRUCTION BOUNDARIES AT ALL TIMES AND SHALL BE CLEANED AND REMOVED DAILY AS NECESSARY. EXGESS EXCAVATED MATERIALS SHALL BE PROMPTLY DISPOSED OF TO AN APPROVED LOCATION AT THE CONTRACTOR'S EXPENSE. EXCAVATED MATERIAL TO BE REUSED AS BACKFILL MAY BE TEMPORARILY STOCKPILED AS INDICATED ON THE GRADING PLAN, BUT MUST BE WATERED AND/OR COVERED TO PREVENT BLOWING ONTO ADJACENT PROPERTIES. THE CONTRACTOR SHALL ALSO PREVENT CONSTRUCTION DEBRIS FROM ENTERING ANY EXISTING STORM DRAINAGE SYSTEMS BY IMPLEMENTING PREVENTATIVE MEASURES SUCH AS DAMMING OR TEMPORARY CLOSURES (ALSO SEE THE EROSION CONTROL PLAN).

CODES AND STANDARDS:

AMERICAN CONCRETE INSTITUTE ACI 318, CURRENT EDITION
THE ASPHALT INSTITUTE MANUAL SERIES, CURRENT EDITION
AMERICAN WATER WORKS ASSOC. STD. SPECS, CURRENT EDITION
STATE OF XXXX PLUMBING SPECIALTY CODE, CURRENT EDITION
NFPA NATIONAL ELECTRICAL CODE, CURRENT EDITION
LOCAL EROSION AND SEDIMENT CONTROL STANDARDS
I.B.C. WITH ALL AMENDMENTS, CURRENT EDITION
LOCAL D.O.T. STANDARD SPECIFICATIONS, CURRENT EDITION
SPECIFICATIONS FOR HWY. CONSTRUCTION, CURRENT EDITION
FIRE DEPARTMENT REGULATIONS
NATIONAL FIRE PROTECTION ASSOCIATION, CURRENT EDITION

NO.	DATE	REVISIONS	ENGINEER	DES. / DR.	CHECKED	APPROVED

PACIFICORP
A SUBSIDIARY OF BERKSHIRE HATHAWAY ENERGY COMPANY

CIVIL

PROJECT 1905S163
FILE 1905S163
DATE 02/04/2016
ENG. E. MARTINEZ
DES. E. MARTINEZ
DR. E. MARTINEZ
CK. E. STAUFFER
DESIGN ENG.
PROJECT ENG.
APPROVAL ENG.

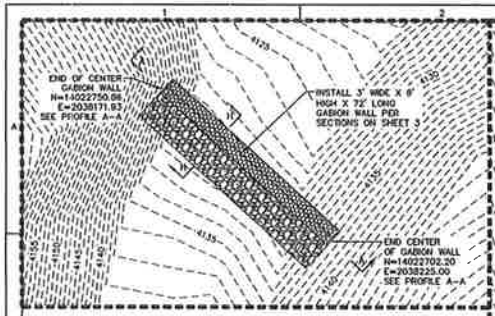
MOAB SUBSTATION
GRAND COUNTY, UTAH
GRADING PLAN
OVERALL DRAINAGE PLAN

SHEET 1 OF 3
SCALE: 1"=50'

172905.001

REVISION 0

FILE LOCATION J:\Shared Data\Work In Progress\Substation_Active Projects\Moab – 1905S163\Design\Civil\172905.000 SAVED BY:(P26346) 2/8/2016 8:22 AM PLOTTED ON:ENGINEERING, RICK) 2/8/2016 11:48 AM



DETAIL 1
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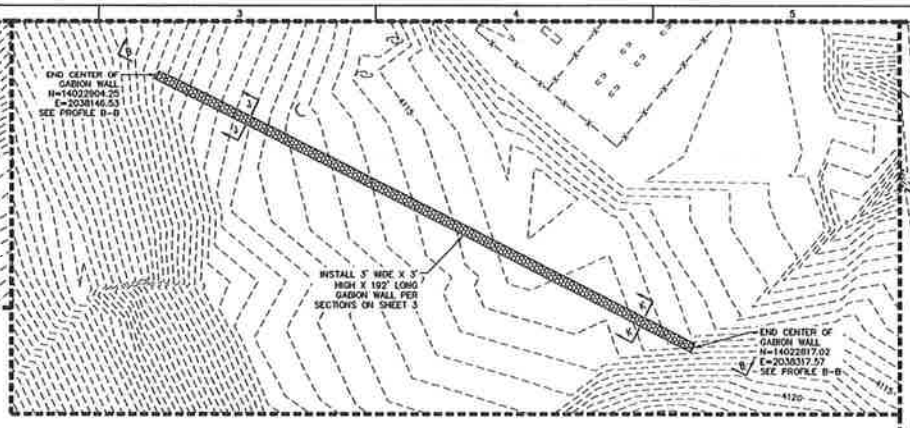

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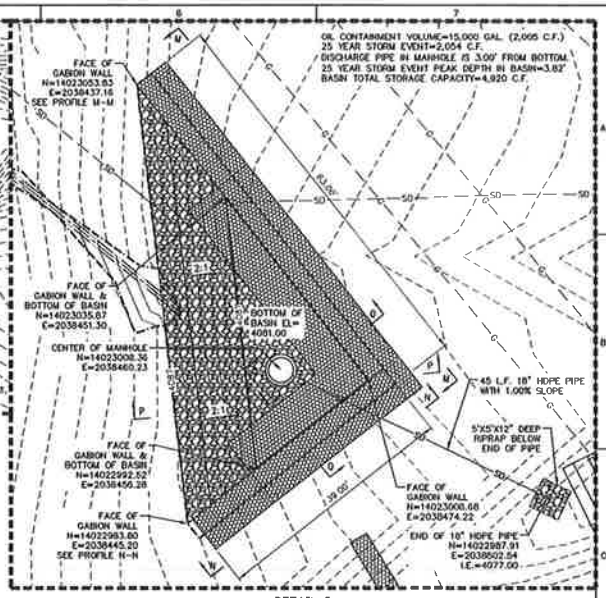

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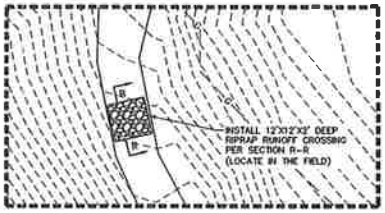

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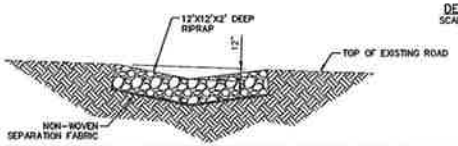
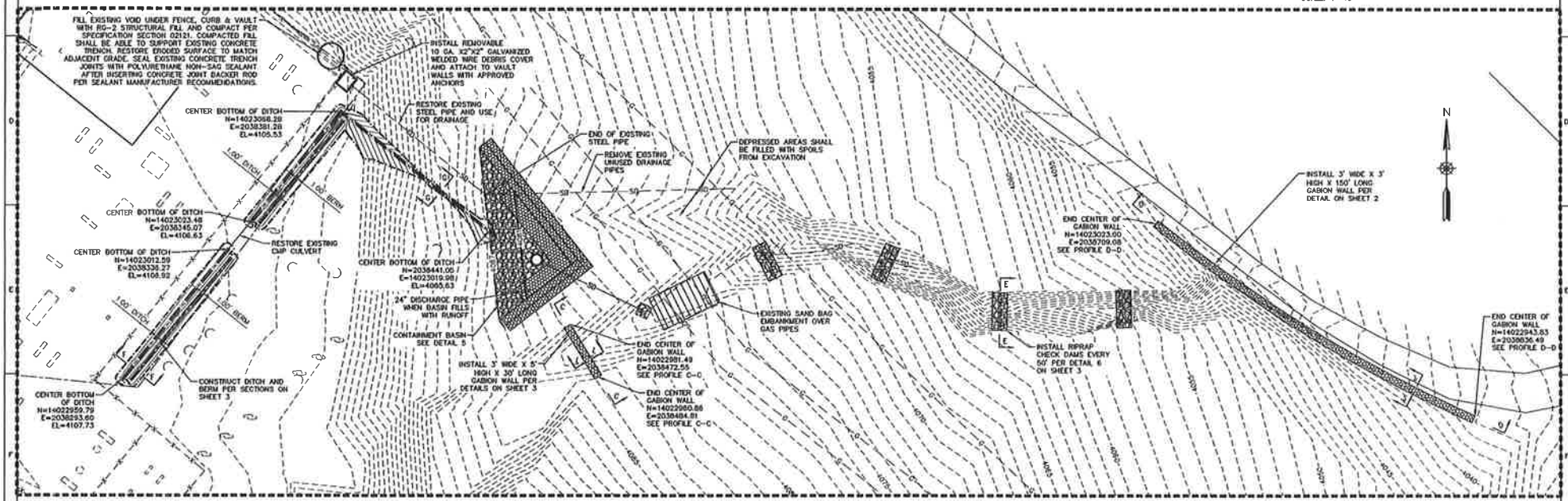


DRAINAGE CROSSING SECTION R-R
SCALE: 1"=20'

NOTE TO CONTRACTOR:

THE LOCATION OF EACH GABION WALL WAS DERIVED FROM THE TOPOGRAPHIC SURVEY. THE CONTRACTOR SHALL DETERMINE IN THE FIELD IF THE SHOWN LOCATIONS WILL BEST ACCOMMODATE THE SECTIONS AND DETAILS SHOWN ON SHEET 3. IF AN ALTERNATE LOCATION WILL BEST FIT THE RESECTIVE SECTIONS AND DETAILS THE CONTRACTOR SHALL NOTIFY WITH THE CIVIL ENGINEER TO DETERMINE IF THE ALTERNATE LOCATION WILL BEST SATISFY THE INTENT OF THE DESIGN.



DETAIL 3
SCALE: 1"=20'

NO.	DATE	REVISIONS	DRAWN BY	DES./DR.	CHECKED	APPROVED

PACIFICORP
A GREENBERG HOFFMANN QUINNEY COMPANY

CIVIL

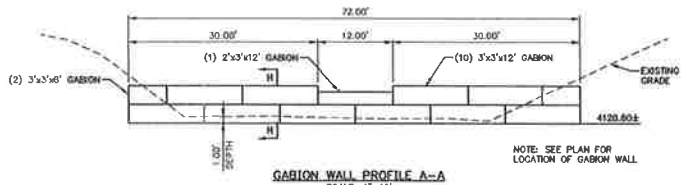
PROJECT NO. 172905.002
PM/DRW PM 0000037
DATE 02/02/2016
DWG. E. MARTINEZ
CHK. E. MARTINEZ
PROJECT ENG.
DESIGN ENG.

MOAB SUBSTATION
GRAND COUNTY, UTAH
GRADING PLAN
DRAINAGE PLAN

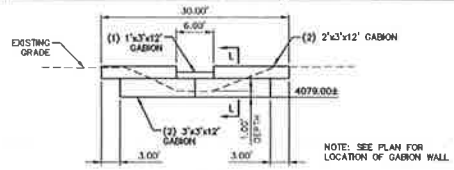
172905.002

SHEET 2

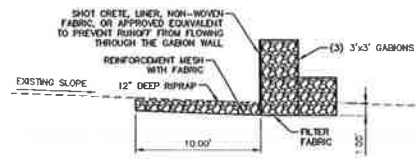
REVISION 0



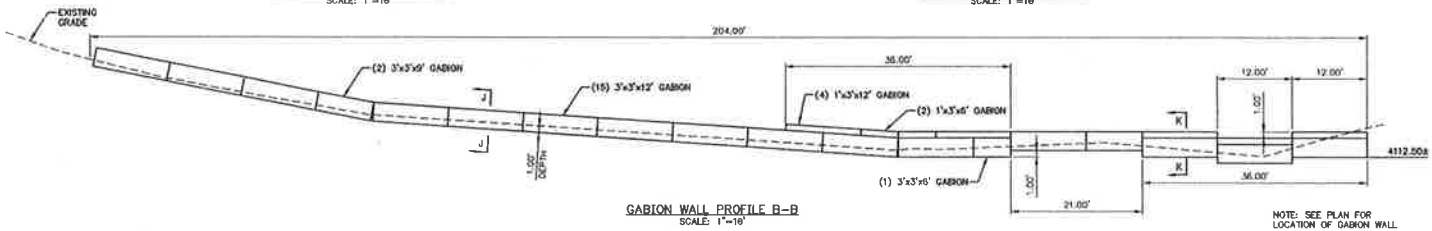
GABION WALL PROFILE A-A
SCALE: 1"=10'



GABION WALL PROFILE C-C
SCALE: 1"=10'



SECTION H-H
SCALE: 1"=5'



GABION WALL PROFILE B-B
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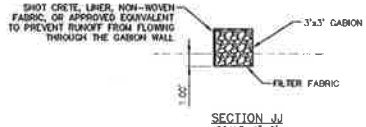
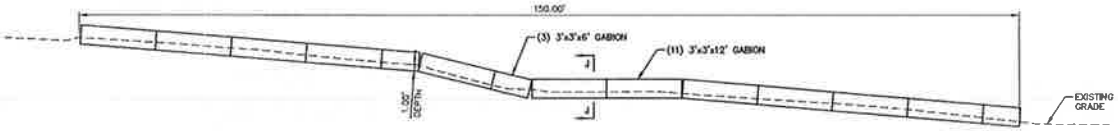


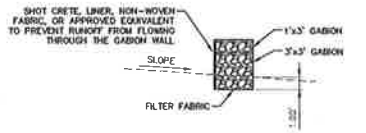
SECTION JJ
SCALE: 1"=5'



GABION WALL PROFILE D-D
SCALE: 1"=10'

NOTE TO CONTRACTOR:

THE SIDE OF EACH GABION WALL THAT WILL RETAIN WATER SHALL HAVE A MATERIAL ATTACHED OR APPLIED TO THE GABION THAT IS CAPABLE OF PREVENTING THE WATER FROM FLOWING THROUGH THE GABION WALL. THE METHOD USED TO ATTACH THE MATERIAL SHALL BE CAPABLE OF ADHERING TO THE GABIONS FOR A MINIMUM OF 20 YEARS AND THE MATERIAL SHALL HAVE A LONG SERVICE LIFE AGAINST WEATHER AND ULTRAVIOLET RADIATION.



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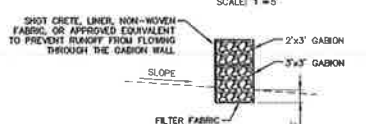

SECTION L-L
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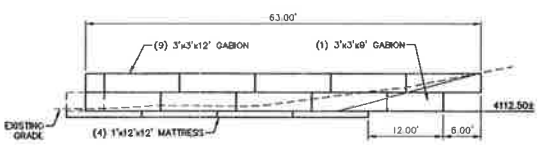

GABION WALL PROFILE M-M
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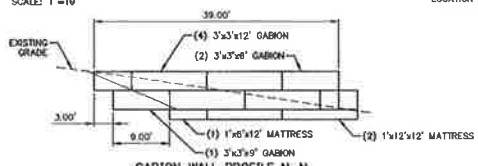

GABION WALL PROFILE N-N
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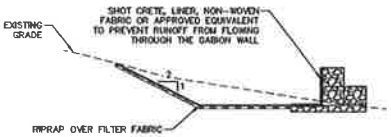

GABION WALL PROFILE P-P
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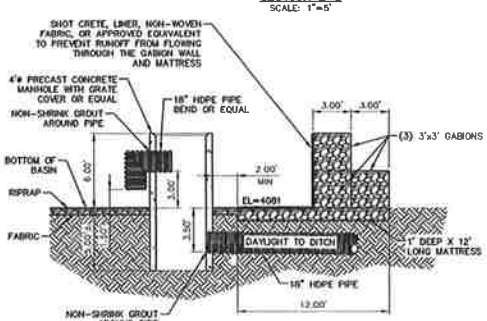

SECTION Q-Q
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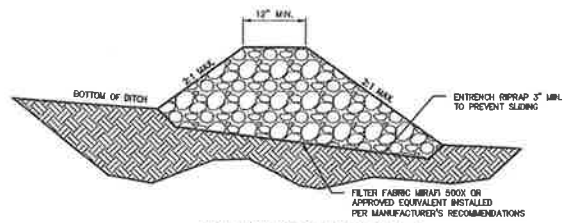
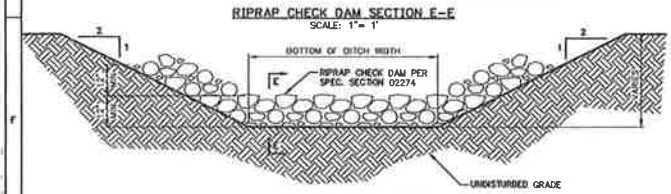


RIPRAP CHECK DAM SECTION E-E
SCALE: 1"= 1'



RIPRAP CHECK DAM DETAIL 1
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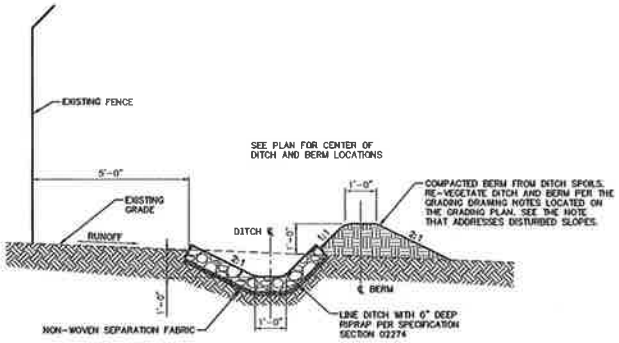

DITCH & BERM SECTION F-F
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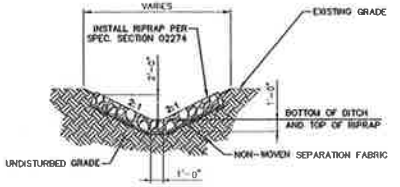

DITCH CROSS-SECTION G-G
SCALE: N.T.S.

NO.	DATE	REVISIONS	ENGINEER	DES./ DR.	CHECKED	APPROVED

PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

CIVIL

PROJECT	100551153	RESPONSIBLE ENG.	
PWR ORDER	02/04/2016	PROJECT ENG.	
DWG.			
DWN. S. MARTINEZ	DES. S. MARTINEZ		
CHK. S. MARTINEZ	CHK. S. SHIGLAND	APPROVAL ENG.	
SCALE:			

MOAB SUBSTATION
GRAND COUNTY, UTAH
GRADING PLAN
DRAINAGE DETAILS

172905.003

SHEET 3

REVISION 0

FILE LOCATION: J:\Shared Data\Work In Progress\Substation_Active Projects\Moab - 100551153\Design\CADD\172905.000 SAVED BY:(PS2340) 2/5/2016 8:22 AM PLOTTED BY:(MARTINS, KIRK) 2/5/2016 11:48 AM