

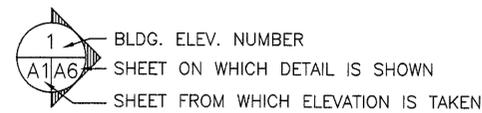


# ABBREVIATIONS

ACT	ACOUSTIC TILE
ACP	ACCESS PANEL
ACT	ASBESTOS COMPOSITION TILE
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
BD	BOARD
BLDG	BUILDING
CPT	CARPET
CEM	CEMENT
CH	CEILING HEIGHT
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CPOI	CONTRACTOR PROVIDED OWNER INSTALLED
CT	CERAMIC TILE
DWP	DRYWALL PAINTED
DR	DOOR
(E)	EXISTING
EM	ELASTOMERIC MEMBRANE
EN	ENAMEL
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EC	EXPOSED CONSTRUCTION
ECP	EXPOSED CONSTRUCTION PAINTED
EXTR	EXTRUDED
EXT	EXTERIOR
FBI	FEDERAL BUREAU OF INVESTIGATION
FC	FINISH CEILING
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FIN	FINISH(ED)
FEC	FIRE EXTINGUISHER CABINET
FL	FLOOR
FOW	FACE OF WALL
GALV	GALVANIZED
GL	GLASS
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HC	HOLLOW CORE
HDW	HARDWARE
HM	HOLLOW METAL
HR	HOUR
HT	HEIGHT
HWD	HARDWOOD
INS	INSULATION
INT	INTERIOR
LAM	LAMINATE
MFR	MANUFACTURER
MFT	MINERAL FISSURED TILE
MIN	MINIMUM
MWP	MEMBRANE WATERPROOFING
NAT	NATURAL
(N)	NEW
NIC	NOT IN CONTRACT
OH	OVERHANG
OPCI	OWNER PROVIDED, CONTRACTOR INSTALLED
OPOI	OWNER PROVIDED, OWNER INSTALLED
PERF	PERFORATED
PL	PLASTER
P-LAM	PLASTIC LAMINATE
PNL	PANEL
PT	PAINT
PTN	PARTITION
PWD	PLYWOOD
QT	QUARRY TILE
RB	RUBBER BASE
RE	REFER TO
REIN	REINFORCING
RM	ROOM
SC	SOLID CORE
SIM	SIMILAR
ST	STEEL
SS	STAINLESS STEEL
SSD	SEE STRUCTURAL DRAWINGS
STRUCT	STRUCTURAL
SUSP	SUSPENDED
TBD	TO BE DETERMINED
TEL	TELEPHONE
THLD	THRESHOLD
TOS	TOP OF SLAB
UBC	UNIFORM BUILDING CODE
UG	UNDERGROUND UTILITY
TYP	TYPICAL
UC	UNDER CUT
UON	UNLESS OTHERWISE NOTED
VCT	VINYL COMPOSITION TILE
VIF	VERIFY IN FIELD
VWC	VINYL WALL COVERING
VYN	VINYL
WCO	WALL CLEAN OUT
WD	WOOD
WP	WEATHER PROOF
WR	WATER RESISTANT
WWF	WOVEN WIRE FABRIC

# SYMBOL LEGEND

## EXTERIOR ELEVATION AND PHOTO REFERENCES



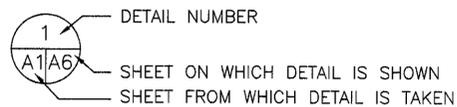
## SYMBOL LEGEND



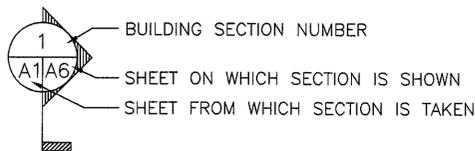
## ROOM REFERENCE



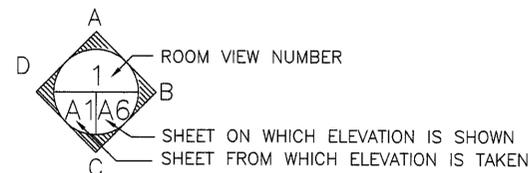
## DETAIL REFERENCE



## BUILDING SECTION



## INTERIOR ELEVATION REFERENCE



# GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES HAVING JURISDICTION.
- INSTALL ALL MANUFACTURED ITEMS, MATERIALS AND EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND CONFIRMING THAT WORK MAY BE CONSTRUCTED AS SHOWN BEFORE PROCEEDING WITH CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION QUESTIONS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE CONTRACTING OFFICER BEFORE PROCEEDING WITH WORK IN QUESTION.
- ALL WORK NOTED "N.I.C." OR "NOT IN CONTRACT" IS TO BE ACCOMPLISHED BY A CONTRACTOR OTHER THAN THE GENERAL CONTRACTOR AND IS NOT TO BE PART OF THE CONSTRUCTION AGREEMENT. THE GENERAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS AS REQUIRED.
- "TYPICAL" AS USED IN THESE DOCUMENTS SHALL MEAN THAT THE CONDITION IS THE SAME OR REPRESENTATIVE FOR ALL SIMILAR CONDITIONS THROUGHOUT, UNLESS OTHERWISE NOTED.

# GENERAL NOTES (CONT.)

- CONTRACTOR IS TO ERECT AND MAINTAIN TEMPORARY BRACING, BARRICADES, SIGNS, AND OTHER MEASURES AS NECESSARY TO PROTECT THE PUBLIC, WORKERS, OTHER PERSONS, AND ADJOINING PROPERTY FROM DAMAGE FROM DEMOLITION WORK, ALL IN ACCORDANCE WITH THE APPLICABLE CODES AND REGULATIONS. CONTRACTOR IS TO PROVIDE NOISE AND DUST ABATEMENT AS REQUIRED TO PREVENT DISTURBANCE AND NUISANCE TO ADJACENT PREMISES AND SURROUNDING AREAS. OPERATIONAL PROCEDURES SHALL BE OPTIONAL WITH THE CONTRACTOR. DEMOLITION AND REMOVAL WORK SHALL BE DONE IN A MANNER WHICH WILL MINIMIZE THE SPREAD OF DUST AND FLYING PARTICLES. REMOVED MATERIALS AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF BASE IN A LEGAL MANNER.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO BIDDING AND START OF CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND, CONTRACTING OFFICER SHALL BE NOTIFIED FOR CLARIFICATION.
- THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS SHOWN ON THE CONSTRUCTION DOCUMENTS BEFORE MANUFACTURING AND/OR FABRICATION OF ALL WORK. ANY WORK PROVIDED AND INSTALLED IN CONFLICT WITH THE CONSTRUCTION DOCUMENTS SHALL BE CORRECTED BY EACH CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACTING AGENCY.
- ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF ANY CONTRACTOR HAS A QUESTION OR NEEDS CLARIFICATION, CONTRACTING AGENCY IS TO BE CONTACTED BEFORE WORK, MANUFACTURING AND/OR FABRICATION COMMENCES.
- DO NOT SCALE DRAWINGS; WRITTEN DIMENSIONS TAKE PRECEDENCE. LARGE SCALE DETAILS GOVERN OVER SMALL SCALE DETAILS.
- CONTRACTOR IS REQUIRED TO GET PERMITS FROM NASA SAFETY OFFICE AND PROVIDE CURRENT TRAINING CERTIFICATIONS PRIOR TO ENTERING ANY CONFINED SPACE, OR PERFORMING HOT WORK (WELDING, BRAZING, CUTTING, GRINDING) OR WORK WITH ANY HAZARDOUS MATERIALS.
- WHEN NOTED "APPROVED EQUAL" IT SHALL BE UNDERSTOOD THAT A PROPRIETARY PRODUCT MAY BE SUBSTITUTED BY THE CONTRACTOR WITH AN EQUIVALENT PRODUCT ONLY AS APPROVED BY THE CONTRACTING OFFICER.
- WHEN A PROPRIETARY PRODUCT IS NOTED, CONTRACTOR MAY SUBSTITUTE AN EQUIVALENT PRODUCT ONLY AS APPROVED BY THE CONTRACTING OFFICER.
- THIS CONSTRUCTION OPTION PACKAGE IS A SUBPART OF THE NASA DFRC PROJECT "REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI" AND IS SUBJECT TO THE SPECIFICATIONS MANUAL ISSUED FOR THAT PROJECT.

# PROJECT TEAM

## ARCHITECTURAL

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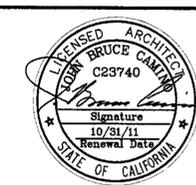
# CONSTRUCTION OPTIONS

THE CONTRACTOR SHALL ISSUE A COMPLETE BID FOR THE ENTIRE PROJECT WITH THE FOLLOWING ITEMS IDENTIFIED WITH AS CONSTRUCTION BID OPTIONS:

- 1 BID OPTION #1: PARKING LOT LIGHTING. (UNDER SEPARATE COVER)
- 2 BID OPTION #2: SUBSTATION 11 (UNDER SEPARATE COVER)
- 3 BID OPTION #3: CABLE TESTING (THIS PACKAGE)

## LEGEND

- INDICATES BID OPTION ITEM OR DRAWING REVISION ITEM
- INDICATES OPTION NUMBER
- INDICATES REVISION NUMBER



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DATE	SYM	REVISION	BY	A'PD

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA	APPROVALS Chief Facilities Engineering & Asset Mgmt. Office Project Manager Security Officer Project Coordinator Safety Officer Design	DATE 6/23/10 6/23/10 6/23/10 6/23/10 6/23/10 6/21/10
	DRAWING TITLE GENERAL NOTES	PROJECT TITLE REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI OPTION #3 - CABLE TESTING - 100%
DRAWN BY T2	DATE STRTD 7-12-08	DATE PRNTD 6-14-10
PLOT SCALE CAD FILE NAME	TRADE SH. No. EDM-1698	SHEET No. 2 of 21

**ANNOTATIONS**

- 1 - DETAIL REFERENCE NUMBER
- E2 E6 - SHEET DETAIL IS SHOWN ON SHEET ON WHICH DETAIL IS TAKEN
- 3 - LIGHTING FIXTURE CALL OUT, "3" INDICATES FIXTURE TYPE (REFER TO LIGHTING FIXTURE SCHEDULE), NUMBER ADJACENT INDICATES QUANTITIES (NUMBER IS SHOWN FOR BRANCH CIRCUIT PURPOSES ONLY, NOT FOR MATERIAL TAKE-OFF), NUMBER "93" INDICATES FIXTURE WATTS
- 93 2 - PLAN NOTE REFERENCE, REFER TO NOTES ON SHEET, OR AS DIRECTED.
- △ - REVISION REFERENCE.

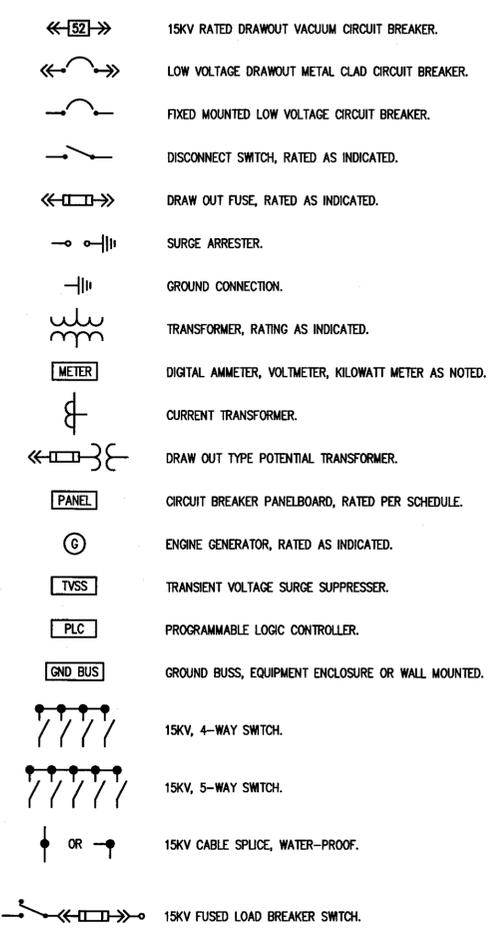
**ABBREVIATIONS**

- A/C ASPHALT CONCRETE
- ADA AMERICAN WITH DISABILITIES ACT
- A.F.F. ABOVE FINISH FLOOR
- A.F.G. ABOVE FINISH GRADE
- A.W.G. AMERICAN WIRE GAUGE
- AMP, A AMPERE
- A.I.C. AMPERES INTERRUPTING CAPACITY (SYMMETRICAL)
- AF/AT AMP FRAME, AMP TRIP
- AS/AF AMP SWITCH, AMP FUSE
- CIRC., CKT. CIRCUIT
- CB CIRCUIT BREAKER
- C CONDUIT
- CM CENTIMETER
- C.O. CONDUIT ONLY, COMPLETE WITH PULLSTRING
- CONN CONNECTED
- CPT CONTROL POWER TRANSFORMER
- CLCB CURRENT LIMITING CIRCUIT BREAKER
- CLF CURRENT LIMITING FUSE
- CT CURRENT TRANSFORMER
- DIA DIAMETER
- E.C. ELECTRICAL CONTRACTOR
- EMS ENERGY MANAGEMENT CONTROL SYSTEM
- EMT ELECTRICAL METALLIC TUBING
- ENT ELECTRICAL NON-METALLIC TUBING
- EWG ELECTRIC WATER COOLER
- E-O-L END-OF-LINE CIRCUIT TERMINATOR
- EF EXHAUST FAN
- E/G EQUIPMENT GROUND (GREEN)
- E EXISTING EQUIPMENT
- EP EXPLOSION PROOF
- FA FIRE ALARM
- FLA FULL LOAD AMPS
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- GRD GROUND
- HOA HAND-OFF-AUTO
- H.V.A.C. HEATING, VENTILATING AND AIR CONDITIONING
- H.W.D.L. HEIGHT, WIDTH, DEPTH, LENGTH
- HID HIGH INTENSITY DISCHARGE
- HP HORSEPOWER
- HPS HIGH PRESSURE SODIUM
- I/G ISOLATED GROUND
- JBOX JUNCTION BOX
- K DEGREE KELVIN
- KVA KILOVOLT AMPERES
- KW KILOWATT
- LCL LONG CONTINUOUS LOAD
- L.F. LINEAR FEET
- LITG, LTS LIGHTING
- LPS LOW PRESSURE SODIUM
- MAX. MAXIMUM
- MCB MAIN CIRCUIT BREAKER
- MIN. MINIMUM
- MLO MAIN LUGS ONLY
- MM MILLIMETER
- MV MERCURY VAPOR
- MH METAL HALIDE
- MCC MOTOR CONTROL CENTER
- MCM THOUSAND CIRCULAR MILS
- MCP MOTOR CIRCUIT PROTECTOR
- MFR. MANUFACTURER
- MTD MOUNTED
- MW MICROWAVE
- NEC NATIONAL ELECTRICAL CODE
- NC NORMALLY CLOSED
- NO NORMALLY OPENED
- NF NON-FUSED
- NIC NOT IN CONTRACT
- NL NIGHT LIGHT
- NO. or # NUMBER
- OFCI OWNER FURNISHED, CONTRACTOR INSTALLED.
- P POLE
- PC PHOTOCELL
- PRIMARY OVER 600 VOLTS
- PH. or Ⓞ PHASE
- PROVIDE FURNISH, INSTALL AND CONNECT.
- PT POTENTIAL TRANSFORMER
- PA PUBLIC ADDRESS
- REC, RECEIPT RECEIPTABLE
- REF REFRIGERATOR
- RGS RIGID GALVANIZED STEEL
- SECONDARY 600 VOLTS AND LESS
- SHT SHEET
- SQ. SQUARE
- TC TIMECLOCK
- TEL./DATA TELEPHONE AND DATA
- TV TELEVISION
- TYP TYPICAL
- U.O.N. UNLESS OTHERWISE NOTED
- V VOLTS
- VA VOLT AMPERES
- WP WEATHERPROOF
- W WIRE

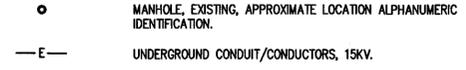
**GENERAL NOTES:**

1. CONDUIT SIZES CALLED OUT ON DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND MAY BE PURPOSELY OVERSIZED FOR EASE OF CONDUIT PULLING OR TO AVOID EXCESS CONDUIT HEATING. IN NO CASE SHALL CONDUIT SIZE BE SMALLER THAN IS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZE OF THESE BOXES SHALL BE PER THE NATIONAL ELECTRICAL CODE.
3. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT FOR TEMPORARY CONSTRUCTION POWER AS REQUIRED.
4. ALL PENETRATIONS THROUGH FIRE BARRIERS SHALL BE FIRE STOPPED TO MAINTAIN THE INTEGRITY OF THE FIRE BARRIER. FIRE STOPPING MATERIAL SHALL BE U.L. LISTED.
5. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CONTRACTING OFFICER BEFORE DRILLING ANY PENETRATION THROUGH STRUCTURAL MEMBERS OR FIRE RATED WALLS AND SLABS.
6. SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, THE CONTRACTOR SHALL MARK SUCH CHANGES ON THE AS-BUILT DRAWINGS. IF THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE PROPOSED ALTERNATE METHODS TO THE CONTRACTING OFFICER. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION SHALL NOT BE CONSIDERED AN ITEM FOR EXTRA COST.
7. THE CONTRACTOR SHALL COMPLY WITH NFPA 70E, 2009 EDITION GUIDELINES FOR ALL WORK IN AND AROUND ELECTRICAL MANHOLES AND EQUIPMENT. TESTING SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
8. PROVIDE TESTING BY OPERATING THE INSTALLATION AND RUNNING TESTS TO DEMONSTRATE ITS OPERATIONS AND COMPLIANCE WITH THE EQUIPMENT SPECIFICATIONS TEST ALL WIRING AND EQUIPMENT TO INSURE PROPER OPERATION ACCORDING TO FUNCTIONS SPECIFIED HEREIN AND ON THE DRAWINGS.
9. WARRANTY: ALL WORK IN THIS SECTION SHALL BE UNDER WARRANTY FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK AS A WHOLE BY THE CONTRACTING OFFICER. SHOULD ANY EQUIPMENT OR MATERIAL FAIL WITHIN THIS PERIOD, THE CONTRACTOR SHALL REPLACE OR REPAIR THAT ITEM AT NO COST FOR MATERIAL AND/OR SERVICES IF SUCH IS DUE TO FAULTY WORKMANSHIP OR QUALITY OF MATERIAL FURNISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO ANY PART OF THE PREMISES CAUSED BY FAILURE IN THE EQUIPMENT FURNISHED AS PART OF THE CONTRACT DRAWINGS FOR A PERIOD OF ONE YEAR AFTER THE FINAL ACCEPTANCE OF THE WORK AS A WHOLE.
10. ALL EQUIPMENT SHALL BE DESIGNED AND INSTALLED FOR USE IN A SEISMIC ZONE 4 AREA. ALL SEISMIC DESIGN SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA.
11. TONE AND LOCATE ALL UTILITY LINES WITHIN THE PROJECT AREA PRIOR TO START OF EXCAVATION IN ORDER TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES. REPAIR ALL DAMAGES TO EXISTING UTILITIES AT NO COST TO OWNER.
12. PATCH AND PAINT ALL EXPOSED ELECTRICAL MATERIAL, INCLUDING CONDUIT, SURFACE METAL RACEWAYS, JUNCTION BOXES, PANELS, AND DEVICES TO MATCH THE ADJACENT SURFACES IN TEXTURE AND COLOR.
13. REPAIR ANY DAMAGE TO EXISTING CONSTRUCTION RESULTING FROM THE INSTALLATION OF ELECTRICAL ITEMS. THE AREAS REPAIRED SHALL MATCH THE ADJACENT SURFACES IN TEXTURE AND COLOR.
14. PROVIDE DEWATERING EFFORT FOR NEW BELOW GRADE EXCAVATION/TRENCHING IF GROUND WATER IS ENCOUNTERED. THE CONTRACTOR SHALL OBTAIN A DIGGING PERMIT BEFORE ANY EXCAVATION OR TRENCHING.
15. ALL ELECTRICAL SPLICES SHALL BE WATERPROOF.
16. ALL MOUNTING HARDWARE, CHANNELS AND FASTENING DEVICES IN EXTERIOR LOCATIONS SHALL BE 316 STAINLESS STEEL UNLESS NOTED.
17. PROVIDE A COMPLETE AND OPERATING ELECTRICAL SYSTEM. PROVIDE SHALL MEAN "FURNISH AND INSTALL". WORK INCLUDES INSTALLATION OF ALL ELECTRICAL EQUIPMENT AND SYSTEMS, INCLUDING ANY FURNISHED BY OWNER OR OTHER TRADES, COMPLETE AND OPERATIONAL TO THE SATISFACTION OF THE CONTRACTING OFFICER, AS LIMITED BY THE INTENT OF THE CONTRACT DOCUMENTS.
18. THE CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION PRACTICES AND REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70), NATIONAL ELECTRICAL SAFETY CODE, AMERICAN ELECTRICIANS HANDBOOK BY CROFT EDISON ELECTRIC INSTITUTE, AMERICANS WITH DISABILITIES ACT, APPLICABLE INSTRUCTIONS OF MANUFACTURERS OF EQUIPMENT AND MATERIALS SUPPLIED FOR THE PROJECT, AND ALL ORDINANCES, RULES AND POLICIES OF THE STATE AND COUNTY IN WHICH THE WORK IS TO BE PERFORMED.
19. THE CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS AND THE EXTENT OF REMOVAL, RELOCATION, RECONNECTION AND/OR NEW WORK PRIOR TO BIDDING. BID SUBMISSION SHALL BE REVISED ALL DISCREPANCIES AND QUESTIONS AND NO EXTRA PAYMENT WILL BE AUTHORIZED FOR WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO DO SO.
20. AT COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE A COPY OF AS-BUILT DRAWINGS IN CD-ROM TO THE CONTRACTING OFFICER.
- SAWCUT EXISTING AC PAVEMENT/SIDEWALK FOR NEW UNDERGROUND DUCTLINE INSTALLATIONS. PATCH AND REPAIR AC PAVEMENT/SIDEWALK TO MATCH EXISTING ADJACENT SURFACES. AT NON-PAVED AREAS, RESTORE SURFACES TO MATCH EXISTING ADJACENT SURFACES.
21. ALL OUTAGES SHALL BE COORDINATED AND SCHEDULED WITH THE CONTRACTOR OFFICE AT LEAST (3) WEEKS IN ADVANCE OF REQUESTED OUTAGE IN WRITING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING GENERATOR SUPPORT FOR SCHEDULED ELECTRICAL OUTAGE DUE TO CONSTRUCTION CONTRACT WORK.
22. ALL SITE 15KV DISTRIBUTION CONDUITS SHALL INCLUDE #4/0 AWG BARE COPPER GROUND CONDUCTOR.
23. OBTAIN CONFINED SPACE PERMIT FROM NASA PRIOR TO ENTRY OF UNDER GROUND MANHOLES AND VAULTS.
24. GOVERNMENT RESERVES THE RIGHT TO WITNESS FACTORY TESTING. NOTIFY GOVERNMENT 30 CALENDAR DAYS PRIOR TO EQUIPMENT FACTORY TESTS FOR GOVERNMENT REPRESENTATIVE ATTENDANCE.

**ONE LINE DIAGRAM**



**POWER SYMBOLS**

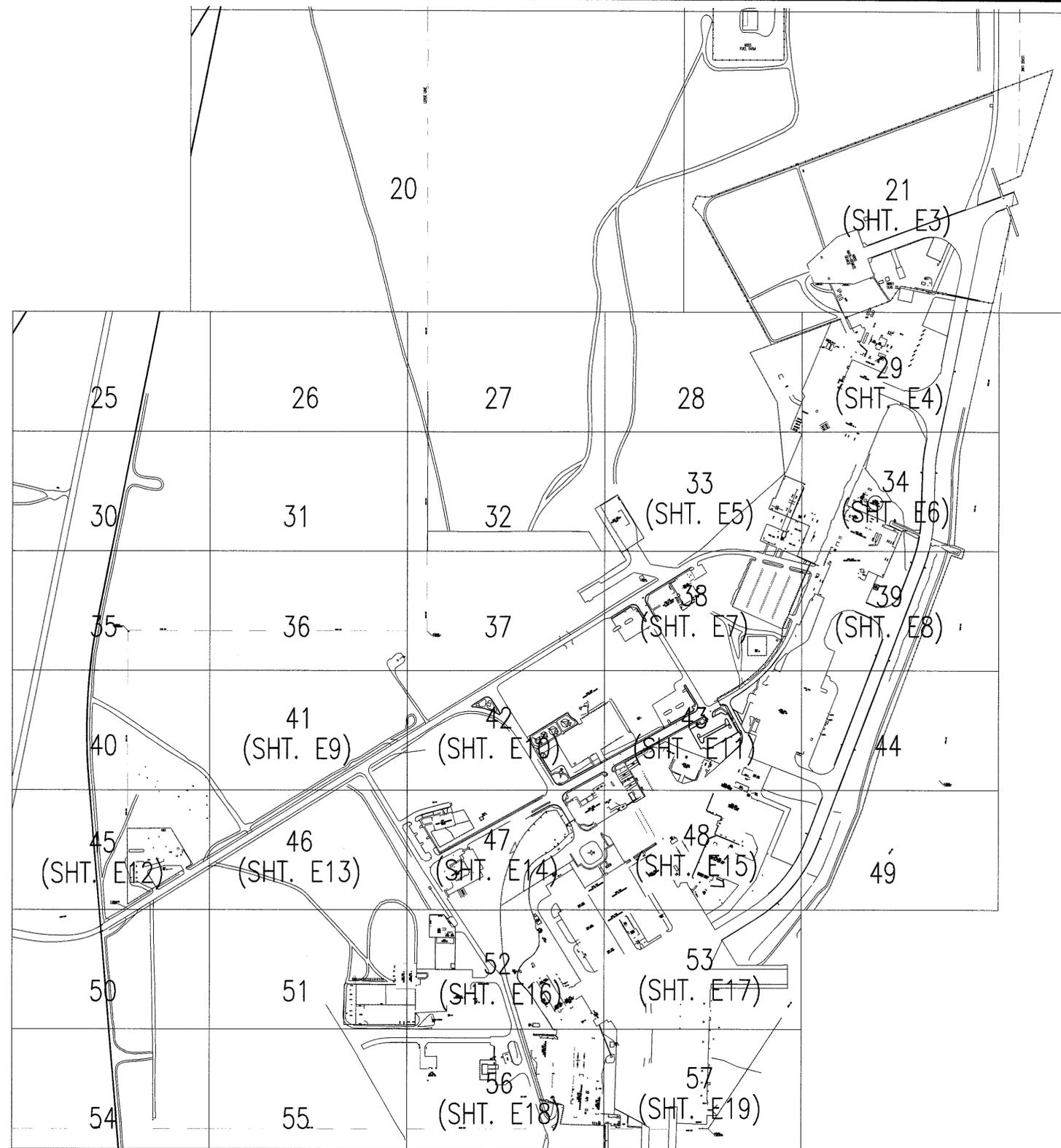


**PROJECT SCOPE OF WORK**

1. PROVIDE ELECTRICAL INSPECTION AND SURVEY OF EXISTING 15KV POWER DISTRIBUTION CABLES AT THE NASA DRYDEN FLIGHT RESEARCH CENTER. THE UNDERGROUND LOOP-FEED SYSTEM IS INSTALLED THROUGH A SERIES OF DUCT BANKS AND MANHOLES, GENERALLY WITH 350MM OR 4/0 AWG, 15KV CABLE. DETRIORATED CABLE INSULATION SPOTS AND POINTS GIVE RISE TO DISRUPTIVE ELECTRICAL DISCHARGES. PARTIAL DISCHARGE TESTING OF THE CABLE WILL BE CONDUCTED TO DETERMINE WHICH ONES ARE A HIGH PRIORITY FOR REPLACEMENT, BEFORE ANY IRREVOCAABLE DAMAGE OCCURS DUE TO SHORT CIRCUIT FAULTS. PARTIAL DISCHARGE TESTING IS NON-DESTRUCTIVE, NON-INVSIVE, AND WILL BE CONDUCTED WITH THE CABLE SYSTEMS ON-LINE. THE NASA DRYDEN FACILITIES WILL NOT EXPERIENCE ANY POWER INTERRUPTIONS OR DOWN-TIME AS A RESULT OF THE TESTS BEING PERFORMED. THE ELECTRICAL MEASUREMENTS AND GENERAL CABLE CONDITION DATA, FROM ON-SITE TESTING, WILL BE ANALYZED AND PRESENTED IN A FINAL REPORT WITH RECOMMENDATIONS FOR CABLE AND EQUIPMENT TERMINATION REPLACEMENT.
2. PERFORM SITE INVESTIGATION OF EXISTING 15KV CABLE SYSTEMS AND EQUIPMENT TERMINATIONS. INSPECT EACH 15KV FEEDER CONDUCTOR THROUGHOUT THE SITE UNDERGROUND MANHOLE AND DUCT BANK SYSTEM, REPORTING ON CONDUCTOR INSULATION TYPE, SHIELDING TYPE, CORE MATERIAL, APPROXIMATE LENGTH, AND KV RATING. AMOUNT OF INFORMATION SUPPLIED WILL DEPEND ON VISIBLE CABLE TAG DATA.
3. DETERMINE THE TYPES OF TERMINATIONS USED AT EACH SUBSTATION SWITCH FOR POSSIBLE REPLACEMENT ALONG WITH CABLES THAT ARE DEEMED POTENTIAL PROBLEMS. TYPE OF TERMINATION WILL INCLUDE MANUFACTURE AND PART NUMBER, AS MAY BE INDICATED BY VISIBLE NAMEPLATE INFORMATION.
4. PERFORM NONDESTRUCTIVE PARTIAL DISCHARGE TESTING OF THE ON-LINE 15KV CONDUCTORS TO DETERMINE INSULATION INTEGRITY AND PRIORITY LEVEL FOR REPLACEMENT. REPORT ANALYSIS RESULTS ON EACH CONDUCTOR, PRIORITIZING FOR IMMEDIATE REPLACEMENT, RE-TEST IN 12 MONTHS (TREND) OR NO ACTION REQUIRED (RE-TEST IN 3 YEARS)
5. INSPECT EACH 15KV MANHOLE AND PROVIDE LAYOUT OR "BUTTERFLY" DRAWINGS SHOWING CABLE IN/OUT ROUTING, SPLICES, AND SPARE CONDUITS.

DWG: P110048 NASA Cable Testing/Drawings/El.dwg USER: bahtov  
 DATE: Jan 12, 2017 7:28am APPRS: NASA Title Block IMAGES

<p>DONN C. GILMORE &amp; ASSOCIATES, INC. Consulting Mechanical and Electrical Engineers</p> <p>4051 E. La Palma Ave., Ste. A Anaheim, CA 92807 Ph: 714.630.4291 Fax: 714.630.4805</p>	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA		APPROVALS DATE 6/23/10 6/23/10 6/23/10 6/21/10 6/21/10
	DRAWING TITLE <b>ELECTRICAL SYMBOLS, NOTES AND ABBREVIATIONS</b>		DRAWN BY: DRM DATE START: 7-12-08 DATE PRINT: 6-14-10
PROJECT TITLE REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI OPTION #3 - CABLE TESTING - 100%		PLOT SCALE: NONE SHEET NO.: EDM-1698 10048 E1 E1 SHEET No. 3 of 21	



ELECTRICAL KEY PLAN - GRID  
SCALE: NTS



DUCT BANK SCHEDULE

- 100 (4) 5" DUCTS ENCASED IN CONCRETE, 3/W 3-#500 KCMIL 15 KV CABLES AND 1/W PULL LINE ONLY.
- 101 (1) 4" DUCT ENCASED IN CONCRETE WITH 3-#350 KCMIL 15 KV CABLE.
- 102 (4) 4" DUCT ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLE AND 3/W PULL LINE ONLY.
- 103 (4) 4" DUCT ENCASED IN CONCRETE WITH PULL LINE ONLY.
- 104 (4) 4" DUCT ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES AND 3/W PULL LINE ONLY.
- 105 (1) 4" DUCT ENCASED IN CONCRETE WITH 6-#2 15 KV CABLES.
- 106 (1) 4" DUCT ENCASED IN CONCRETE WITH 3-#4/0 15 KV CABLES.
- 107 (2) 4" DUCT ENCASED IN CONCRETE WITH PULL LINE ONLY.
- 108 (1) 4" DUCT ENCASED IN CONCRETE WITH 3-#350 KCMIL 15 KV CABLES.
- 109 (1) 4" DUCT ENCASED IN CONCRETE WITH 3-#350 KCMIL 15 KV CABLES.
- 110 (3) 5" DUCTS ENCASED IN CONCRETE 1/W 3-#1/0 35 KV CABLES 2/W PULL LINES ONLY.
- 111 (6) 5" DUCTS ENCASED IN CONCRETE 3/W 3-#500 KCMIL 15 KV CABLES, 1/W 3-#350 KCMIL 15 KV CABLES, 1/W 6-#2 15 KV CABLES AND 1/W 1-#4/0 B.C. GND.
- 112 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES, 1/W 3-#4/0 15 KV CABLES AND 2/W PULL LINES ONLY.
- 113 (6) 5" DUCTS IN CASED IN CONCRETE WITH PULL LINES ONLY.
- 114 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES, 1/W 3-#4/0 15 KV CABLES AND 2/W PULL LINES ONLY.
- 115 (6) 5" DUCTS ENCASED IN CONCRETE 1/W 6-#500 KCMIL 600V CONDUCTORS, 1/W 6-#250 KCMIL 600V CONDUCTORS, 1/W 3-#4/0 15 KV CABLES, AND 3/W PULL LINES ONLY.
- 116 (4) 4" DUCTS IN CASED IN CONCRETE 1/W 3-#2 15 KV CABLES AND 3/W PULL LINES ONLY.
- 117 (4) 4" DUCTS IN CASED IN CONCRETE 1/W 3-#2 15 KV CABLES AND 1/W PULL LINES ONLY.
- 118 (6) 5" DUCTS ENCASED IN CONCRETE 3/W 3-#500 KCMIL 15 KV CABLES, 1/W 3-#350 KCMIL 15 KV CABLES, 1/W 3-#2 15 KV CABLES AND 1/W 1-#4/0 B.C. GND.
- 119 (4) 4" DUCTS ENCASED IN CONCRETE 2/W 3-#350 KCMIL 15 KV CABLES EACH AND 2/W PULL LINES ONLY.
- 120 (1) 4" DUCT ENCASED IN CONCRETE WITH 3-#350 KCMIL 15 KV CABLES.
- 121 (3) 4" DUCTS ENCASED IN CONCRETE 2/W 3-#350 KCMIL 15 KV CABLES AND (1) EMPTY.
- 122 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES AND 3/W PULL LINES ONLY.
- 123 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES AND 3/W PULL LINES ONLY.
- 124 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES AND 3/W PULL LINES ONLY.
- 125 (2) 4" DUCTS 1/W 3-#350 KCMIL 15 KV CABLES, 1/W X
- 126 (2) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#2 15 KV CABLES AND 1/W PULL LINE ONLY.
- 127 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#2 15 KV CABLES AND 3/W PULL LINE ONLY.
- 128 (2) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#2 15 KV CABLES AND 1/W PULL LINE ONLY.
- 129 (4) 4" DUCTS ENCASED IN CONCRETE WITH PULL LINES ONLY.
- 130 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES AND 3/W PULL LINES ONLY.
- 131 (6) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#350 KCMIL 15 KV CABLES, 2/W 6-#350 KCMIL 600V CONDUCTORS AND 3/W PULL LINES ONLY.
- 132 (2) 4" DUCTS ENCASED IN CONCRETE AND OVERHEAD IN HANGAR 1/W 3-#350 KCMIL 15 KV CABLES 1/W PULL LINE ONLY.
- 133 (6) 5" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 5/W PULL LINE ONLY.
- 134 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 3/W PULL LINE ONLY.
- 135 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 3/W PULL LINE ONLY.
- 136 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4 5 KV CABLES 1/W 3-#4/0 15 KV CABLES AND 2/W PULL LINE ONLY.
- 137 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4 5 KV CABLES 1/W 3-#350 15 KV CABLES 1/W 3-#4/0 15 KV CABLES AND 1/W PULL LINES ONLY.
- 138 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 3/W PULL LINES ONLY.
- 139 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 3/W PULL LINES ONLY.
- 140 (2) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 1/W PULL LINE ONLY.
- 141 (2) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 1/W PULL LINE ONLY.
- 142 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4 5 KV CABLES 3/W PULL LINES ONLY.
- 143 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4 5 KV CABLES 3/W PULL LINES ONLY.
- 144 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#2/0 15 KV CABLES, 2/W 3-#350 KCMIL 600V CONDUCTORS EACH AND 1/W PULL LINE ONLY.
- 145 (1) 4" DUCT ENCASED IN CONCRETE WITH 3-#2/0 15 KV CABLES.

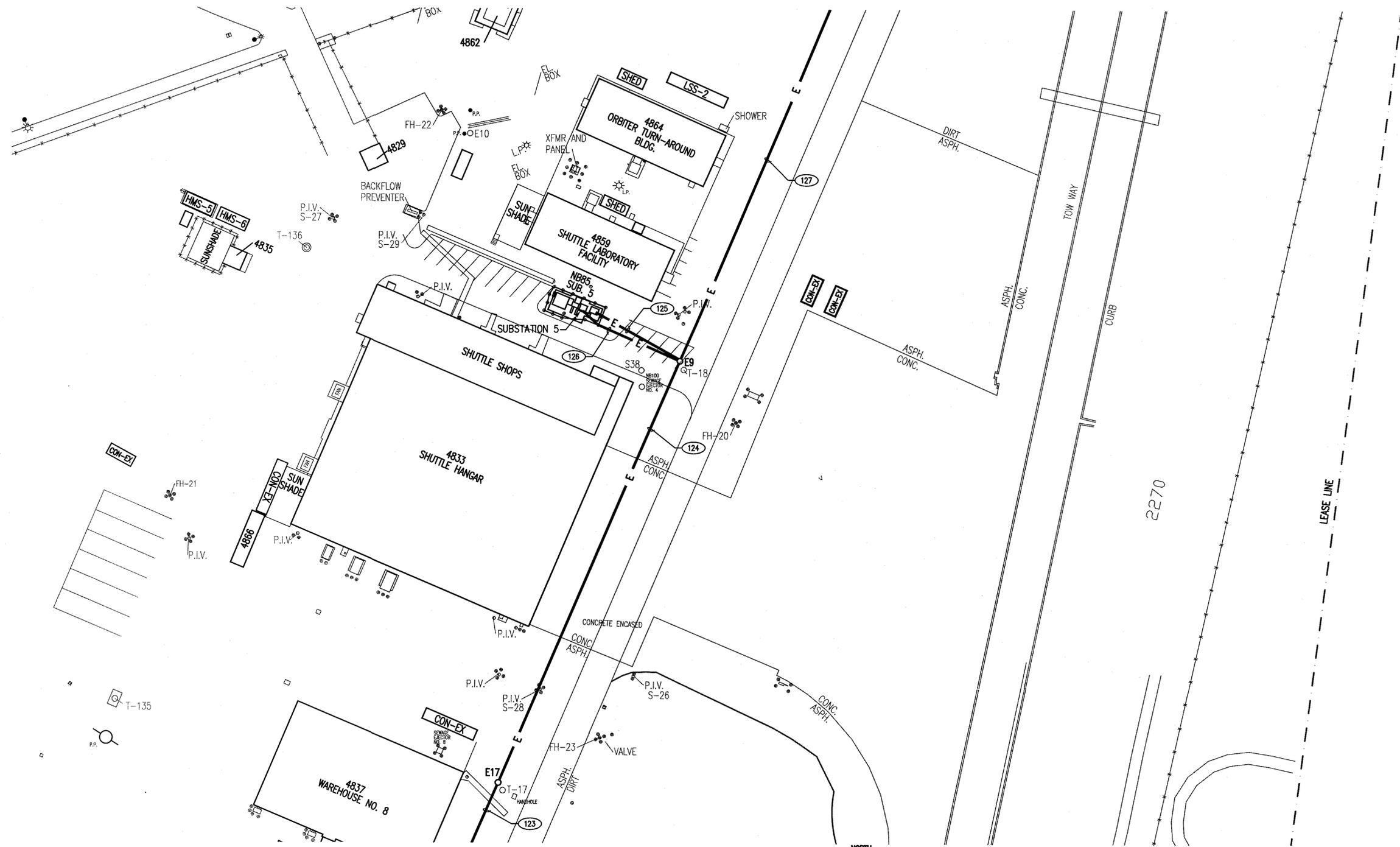
DUCT BANK SCHEDULE

- 146 (2) 5" DUCTS ENCASED IN CONCRETE, 1/W 3-#1/0 35 KV CABLES 1/W PULL LINE ONLY.
- 147 (2) 5" DUCTS ENCASED IN CONCRETE, 1/W 3-#1/0 35 KV CABLES 1/W PULL LINE ONLY.
- 148 (2) 5" DUCTS ENCASED IN CONCRETE, 1/W 3-#1/0 35 KV CABLES 1/W PULL LINE ONLY.
- 149 (2) 4" DUCTS ENCASED IN CONCRETE, 1/W 3-#350 KCMIL 15 KV CABLES 1/W PULL LINE ONLY.
- 150 (2) 4" DUCTS ENCASED IN CONCRETE, 1/W 3-#350 15 KV CABLES (1) EMPTY.
- 151 (1) 4" DUCT ENCASED IN CONCRETE WITH 3-#350 15 KV CABLES.
- 152 (2) 4" DUCTS ENCASED IN CONCRETE, 1/W 3-#500 KCMIL 15 KV CABLES, 1/W 3-#2 15 KV CABLES.
- 153 (2) 5" DUCTS ENCASED IN CONCRETE, WITH 3-#500 15 KV CABLES EACH.
- 154 (4) 4" DUCTS ENCASED IN CONCRETE 1/W 3-#4/0 15 KV CABLES 3/W PULL LINE ONLY.
- 155 (1) 5" DUCT ENCASED IN CONCRETE, WITH 3-#350 KCMIL, (2) 5" DUCT SPARES.

DWG: 0110048 NASA Cash Transmittal 0110048 E2.dwg USER: baibury  
 DATE: Jun 22, 2010 2:58pm XREFS: NASA Title Block

 DONN C. GILMORE & ASSOCIATES, INC. Consulting Mechanical and Electrical Engineers 					
	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA	APPROVALS <small>Chief Engineer</small> <small>Project Manager</small> <small>Security Officer</small> <small>Project Inspector</small> <small>Quality Control</small> <small>Tester</small>	DATE 6/23/10 6/23/10 6/23/10 6-23-10 23Jun10	DRAWING TITLE ELECTRICAL KEY PLAN - GRID	PROJECT TITLE REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI OPTION #3 - CABLE TESTING - 100%
DATE SYM REVISION BY A/PD					
					W.O. # DATE PRINTD 10048 E2 TRADE SH. NO. EDM-1698 SHEET No. 4 of 21





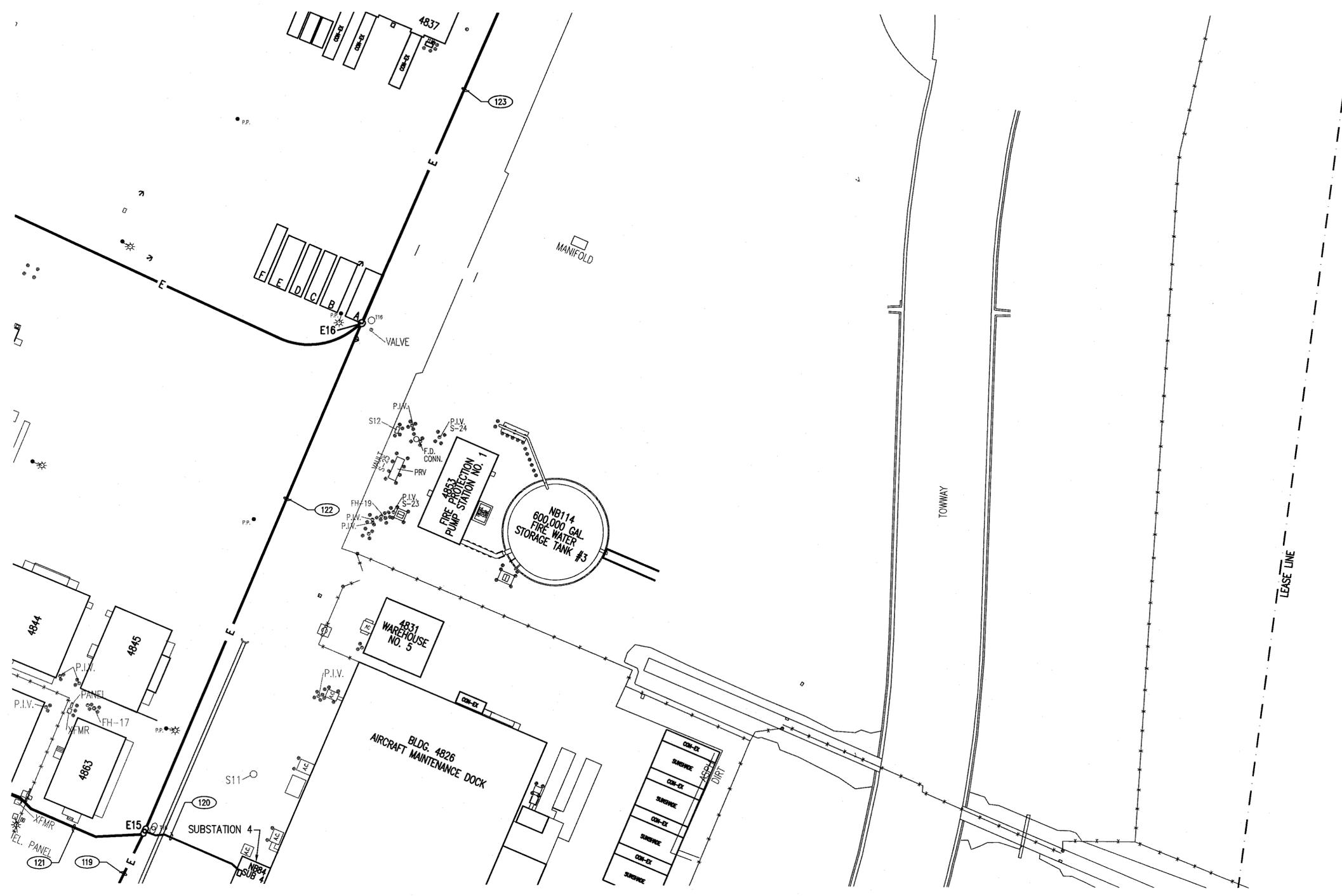
**UTILITES LEDEND**  
 — E — ELECTRICAL LINE

**PARTIAL ELECTRICAL SITE PLAN - GRID 29**  
 SCALE: 1"=40'-0"

DWG: 014048 NASA Code: 10048 E4.dwg USER: baubrey  
 DATE: Jun 15, 2010 8:27am XREFS: NASA 10048.dwg

<p><b>DONN C. GILMORE &amp; ASSOCIATES, INC.</b>          Consulting Mechanical and Electrical Engineers          4051 E. La Palma Ave., Ste. A          Anaheim, CA 92807          Ph: 714.630.4291          Fax: 714.630.4805</p> <p><b>DCGA</b></p>	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA		<b>APPROVALS</b> DATE [Signature] 6/23/10 [Signature] 6/23/10 [Signature] 6/23/10 [Signature] 6/23/10 [Signature] 6/23/10
	<b>DRAWING TITLE</b> PARTIAL ELECTRICAL SITE PLAN - GRID 29		[Signature] 6/23/10 [Signature] 6/23/10
	<b>PROJECT TITLE</b> REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI OPTION #3 - CABLE TESTING - 100%		[Signature] 6/23/10 [Signature] 6/23/10
	DATE SYM REVISION BY A'PD		[Signature] 6/23/10 [Signature] 6/23/10
PLOT SCALE: NONE CAD FILE NAME: 10048 E4 E4			DATE SHD: 7-12-08 DATE PRD: 6-14-10 SHEET No. 6 of 21





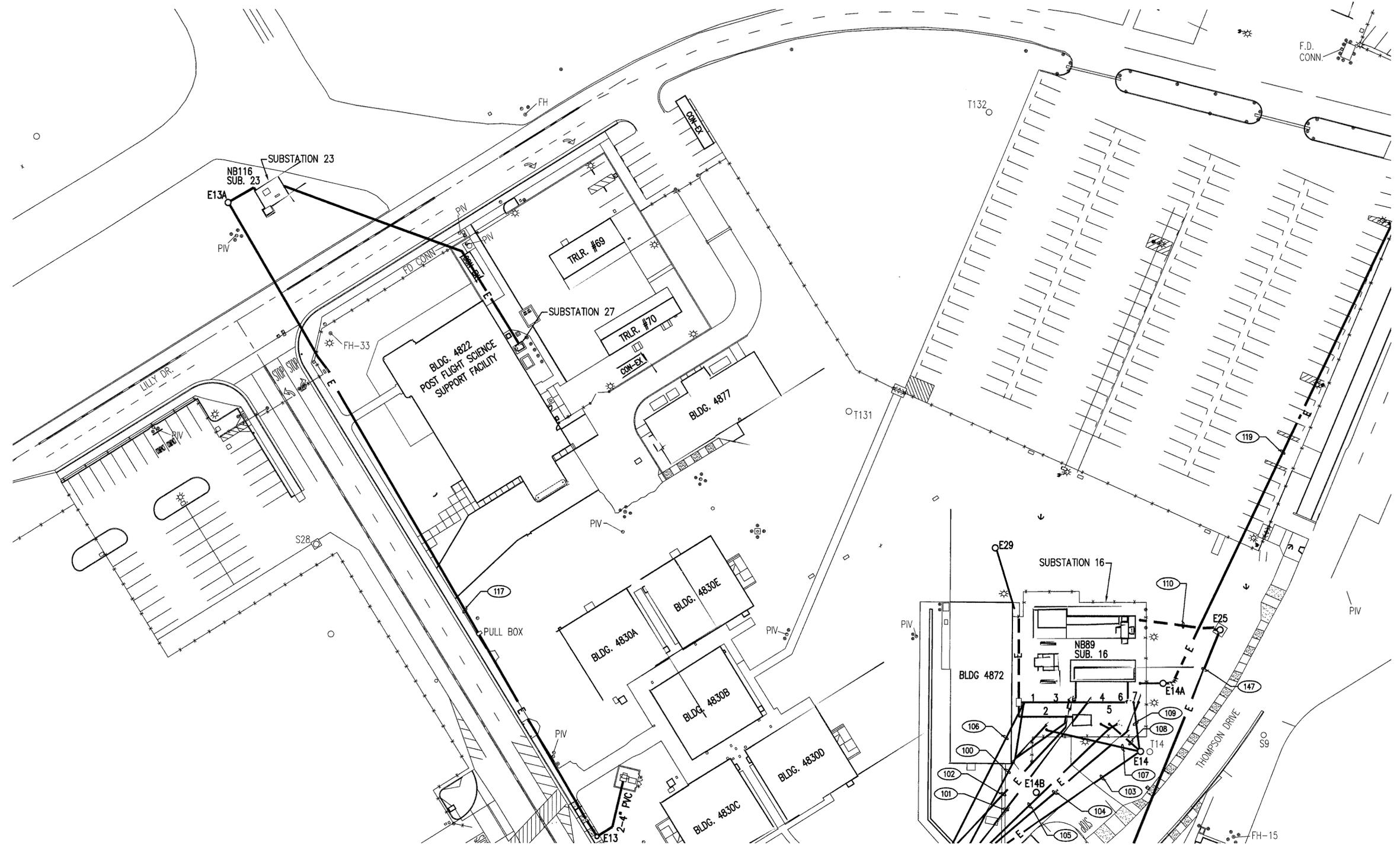
**UTILITES LEDEND**  
 — E — ELECTRICAL LINE

**PARTIAL ELECTRICAL SITE PLAN - GRID 34**  
 SCALE: 1"=40'-0"



DWG: P:\10045\10045.dwg USER: baubrey DATE: Jun 18 2010 8:53am AREFS: NASH, THE DACK, MCH, IMAGES

<p><b>DONN C. GILMORE &amp; ASSOCIATES, INC.</b>          Consulting Mechanical and Electrical Engineers  <b>DCGA</b>          4051 E. La Palma Ave., Ste. A          Anaheim, CA 92807          Ph: 714.630.4291          Fax: 714.630.4805</p>	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA		APPROVALS <small>Chief, Facilities Engineering &amp; Support Dept. Office</small> <i>[Signature]</i> 6/23/10 <small>Project Manager</small> <i>[Signature]</i> 6/23/10 <small>Security Officer</small> <i>[Signature]</i> 6/23/10 <small>Project Engineer</small> <i>[Signature]</i> 6/23/10 <small>Supervisor</small> <i>[Signature]</i> 6/23/10 <small>Designer</small> <i>[Signature]</i> 6/23/10	DATE 7-12-08 6-14-10
	DRAWING TITLE <b>PARTIAL ELECTRICAL SITE PLAN - GRID 34</b>			DATE STRTD 7-12-08
	PROJECT TITLE <b>REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI</b> <b>OPTION #3 - CABLE TESTING - 100%</b>			DATE PRINTD 6-14-10
	DATE SYM REVISION BY A'PD		W.O. # 10048 E6	TRADE E6



**UTILITES LEDEND**  
 — E — ELECTRICAL LINE

**PARTIAL ELECTRICAL SITE PLAN - GRID 38**  
 SCALE: 1"=40'-0"



DWG: P:\10048 NASA-Cable-Testing\DWG\10048\_E7.dwg USER: bshahoy  
 DATE: Jun 22, 2010 3:10 pm XREFS: WASH THE BACK, MS3 IMAGES

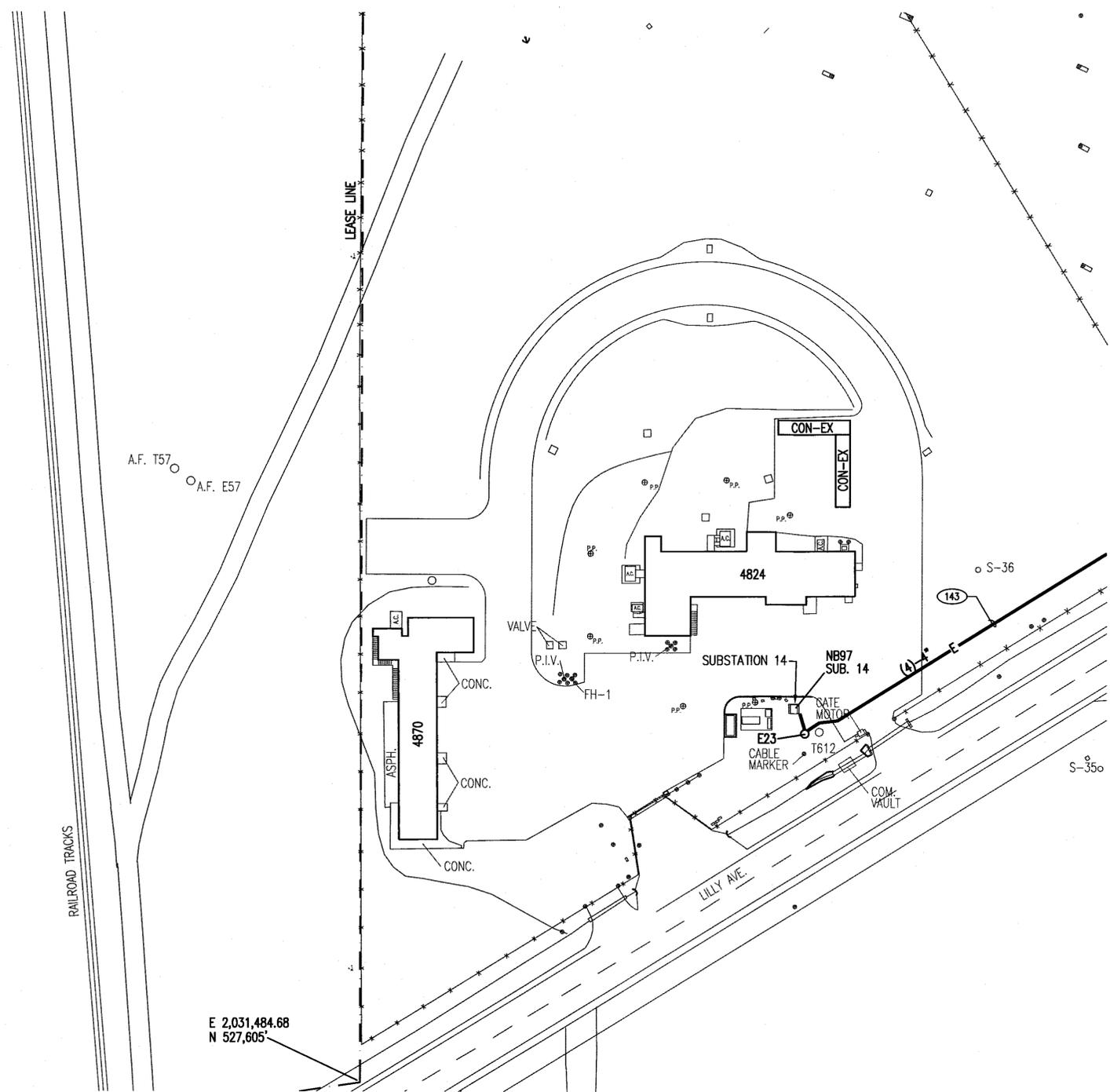
 <b>DON C. GILMORE &amp; ASSOCIATES, INC.</b> Consulting Mechanical and Electrical Engineers <b>DCGA</b> 4051 E. La Palma Ave., Ste. A Anaheim, CA 92807 Ph.: 714.830.4291 Fax: 714.830.4905	<b>NATIONAL AERONAUTICS AND SPACE ADMINISTRATION</b> DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA		<b>APPROVALS</b> DATE Project Manager: <i>Don Cowley</i> 6/23/10 Security Officer: <i>Don Healy</i> 6/23/10 Project Engineer: <i>Don Cowley</i> 6/23/10 Designer: <i>Patrick Hallegren</i> 6-23-10 Checker: <i>Patrick Hallegren</i> 23 Jun 10	
	<b>DRAWING TITLE</b> PARTIAL ELECTRICAL SITE PLAN - GRID 38		DRAWN BY: DRM DATE STRTD: 7-12-08 W.O. # DATE PRNTD: 6-14-10 PLOT SCALE: NONE TRADE: E7 CAD FILE NAME: EDM-1698	
<b>PROJECT TITLE</b> REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI OPTION #3 - CABLE TESTING - 100%		SHEET No. <b>9</b> of <b>21</b>		
DATE	SYM	REVISION	BY	A'PD











**UTILITES LEDEND**  
 — E — ELECTRICAL LINE

**PARTIAL ELECTRICAL SITE PLAN - GRID 45**  
 SCALE: 1"=40'-0"



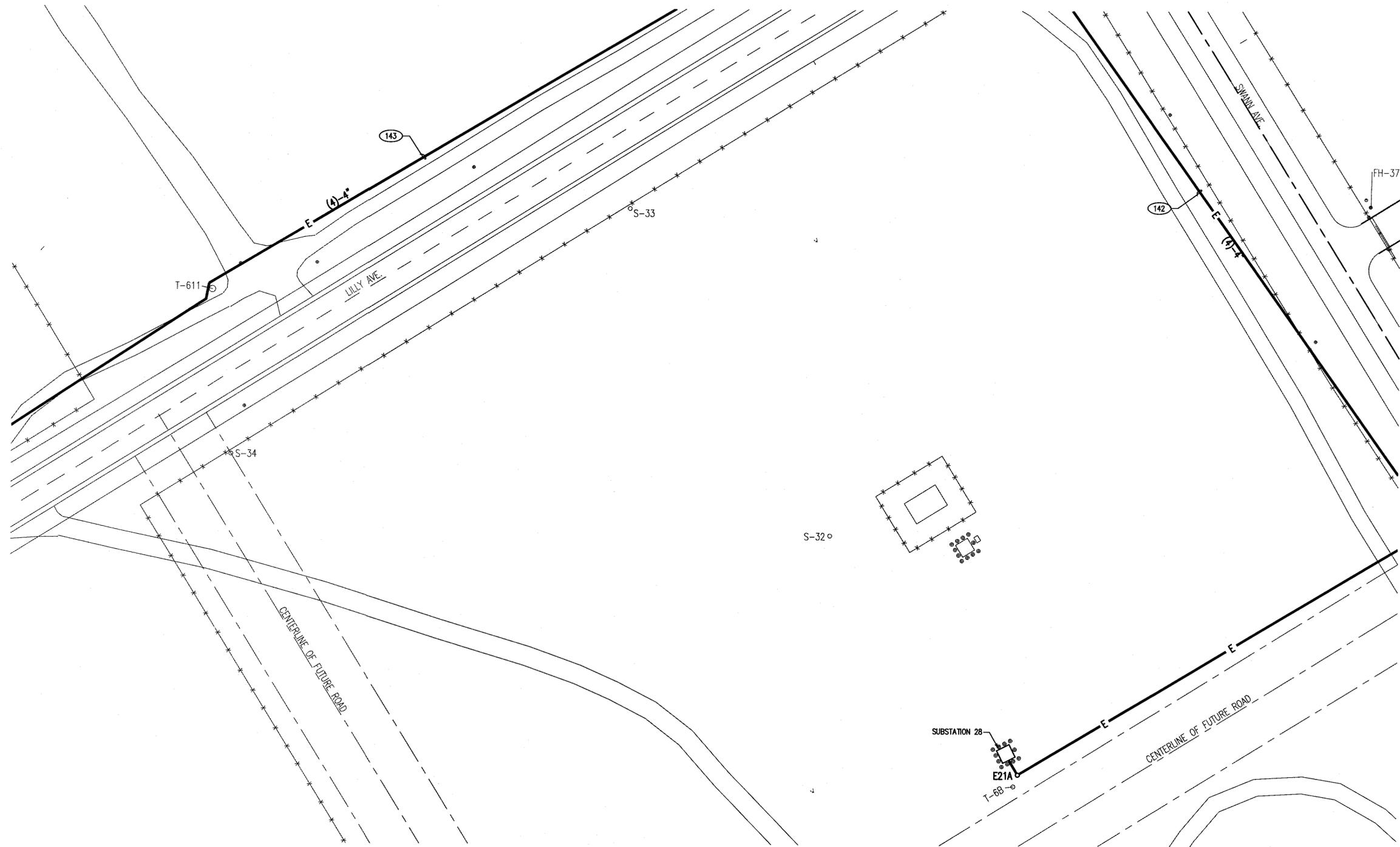
DWG: P:\10048 NASA Cable Testing\DWG\10048 E12.dwg USER: baubow  
 DATE: Jun 15, 2010 8:53am XREFS: NASA Title Block MGS IMAGES

**DCGA**  
 DONN C. GILMORE & ASSOCIATES, INC.  
 Consulting Mechanical and Electrical Engineers  
 4051 E. La Palma Ave., Ste. A  
 Anaheim, CA 92807  
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 Fax: 714.630.4805

DATE	SYM	REVISION	BY	A'PD

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**  
 DRYDEN FLIGHT RESEARCH CENTER  
 EDWARDS, CA  
 DRAWING TITLE  
**PARTIAL ELECTRICAL SITE PLAN - GRID 45**  
 PROJECT TITLE  
**REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI**  
**OPTION #3 - CABLE TESTING - 100%**

APPROVALS		DATE
<i>Don C. Gilmore</i>	Chief Professional Engineer & Sign. Agent, Office	6/23/10
<i>Dev. Hark</i>	Project Manager	6/23/10
<i>Don C. Gilmore</i>	Security Officer	6/23/10
<i>Don C. Gilmore</i>	Project Engineer	6/23/10
<i>Don C. Gilmore</i>	Check Engineer	6/23/10
<i>Don C. Gilmore</i>	Drawn By	6/23/10
<i>Don C. Gilmore</i>	DATE STRTD	7-12-08
<i>Don C. Gilmore</i>	DATE PRINTD	6-14-10
NO. #	TRAC	SHEET No.
10048 E12	E12	EDM-1698
SHEET No. 14 of 21		



**UTILITES LEDEND**

— E — ELECTRICAL LINE

**PARTIAL ELECTRICAL SITE PLAN - GRID 46**  
SCALE: 1"=40'-0"

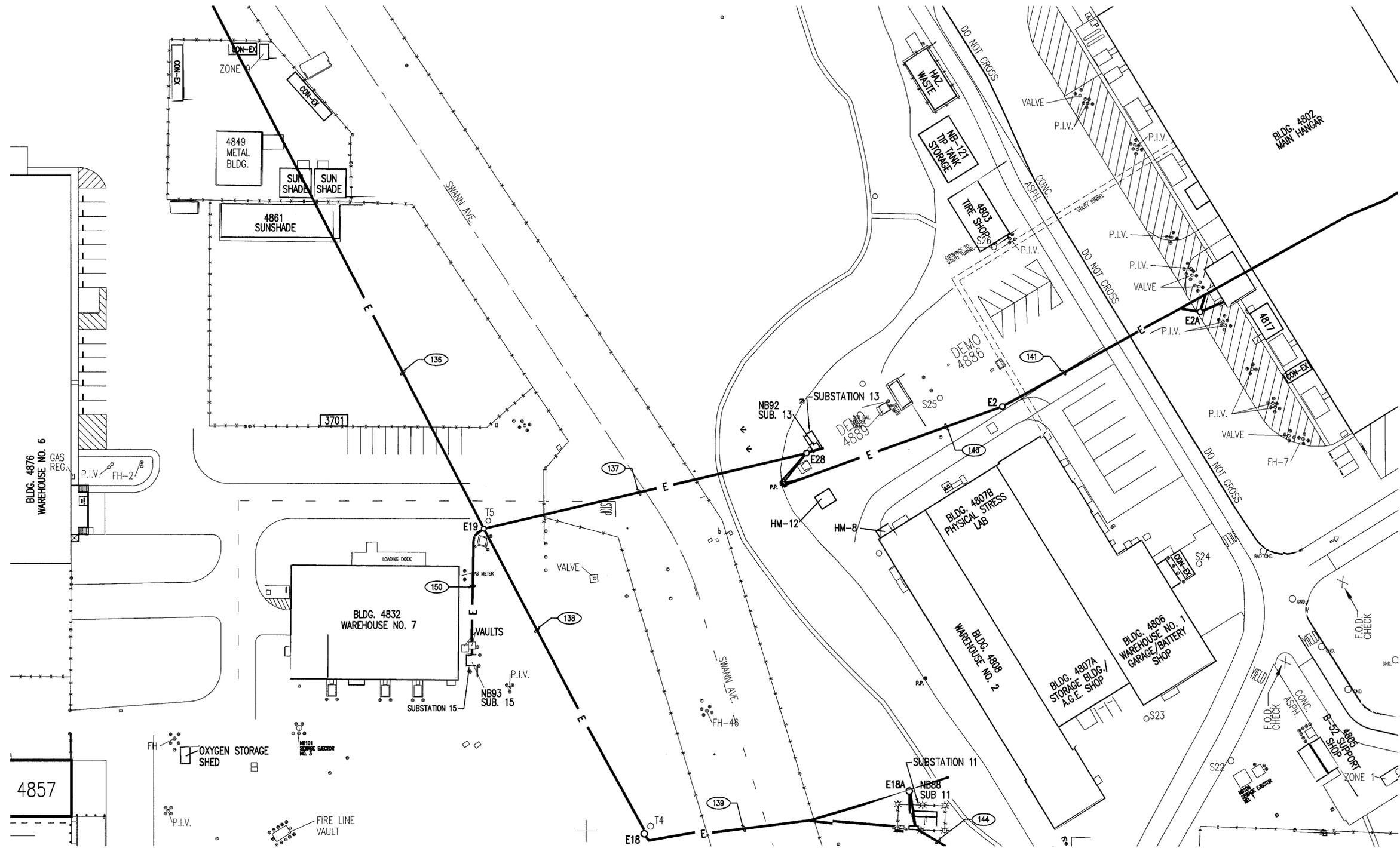


DWG: P:\10048 NASA Cable Testing\Drawings\10048 E13.dwg USER: jshahov  
 DATE: Jun 15, 2010 8:58am XREFS: NASA Title Block Map IMAGES

 <b>DCGA</b> DONN C. GILMORE & ASSOCIATES, INC. Consulting Mechanical and Electrical Engineers 4051 E. La Palma Ave., Ste. A Anaheim, CA 92807 Ph: 714.630.4291 Fax: 714.630.4805	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA		<b>APPROVALS</b> DATE Chief, Facilities Engineering & Asset Mgmt. Office <i>[Signature]</i> 6/23/10 Project Manager Dev. Hach 6/23/10 Security Office <i>[Signature]</i> 6/23/10 Flight Operations Don Lowly 6/23/10 Safety Office David F. Miller 6/23/10 Date: 6/23/10	
	DRAWING TITLE <b>PARTIAL ELECTRICAL SITE PLAN          - GRID 46</b>		DATE PLOT: 7-12-08 DATE PRINT: 6-14-10	
	PROJECT TITLE <b>REPAIR PRIMARY ELECTRICAL          DISTRIBUTION SYSTEM, PHASE VI</b>		SHEET No. 15 of 21	
	REVISION: <b>3</b> OPTION #3 - CABLE TESTING - 100%		PLOT SCALE: NONE CAD FILE NAME: 10048 E13 E13	
DATE	SYM	REVISION	BY	A'PD







**UTILITES LEDEND**  
 — E — ELECTRICAL LINE

**PARTIAL ELECTRICAL SITE PLAN - GRID 52**  
 SCALE: 1"=40'-0"



DWG: P10038 NASA Cable Testing/Edw/EL10038 E16.dwg USER: beshov  
 DATE: Jun 22, 2010 3:53pm AECT'S: Black, Blue, Red, Magenta

 <b>DONN C. GILMORE &amp; ASSOCIATES, INC.</b> Consulting Mechanical and Electrical Engineers <b>DCGA</b> 4051 E. La Palma Ave., Ste. A Anaheim, CA 92807 Ph: 714.630.4291 Fax: 714.630.4805	DATE	SYM	REVISION	BY	A'PD	<b>NATIONAL AERONAUTICS AND SPACE ADMINISTRATION</b> DRYDEN FLIGHT RESEARCH CENTER EDWARDS, CA	<b>APPROVALS</b> DATE [Signature] 6/23/10 [Signature] 6/23/10 [Signature] 6/23/10 [Signature] 6-23-10 [Signature] 6-23-10		
	<b>DRAWING TITLE</b> PARTIAL ELECTRICAL SITE PLAN - GRID 52						[Signature] 6-23-10		
<b>PROJECT TITLE</b> REPAIR PRIMARY ELECTRICAL DISTRIBUTION SYSTEM, PHASE VI OPTION #3 - CABLE TESTING - 100%						<b>DATE SYTD</b> 7-12-08 <b>DATE PRVD</b> 6-14-10		<b>TRADE</b> E16 <b>SHEET No.</b> 18 of 21	





