

PLUMBING SITE PLAN - NUTMEG ST.

FIXTURE CONNECTION SCHEDULE MINIMUM PIPE CONNECTION MARK DESCRIPTION MANUFACTURER / MODEL NUMBER REMARKS C.W. H.W. WASTE VENT WC-1 | WATER CLOSET 1-1/2" 'ACORN' #DURA-WARE 2100 BLOWOUT JET, WALL MOUNTED, MOUNT AT ADA HEIGHT STAINLESS STEEL, CONCEALED HYDRAULIC 'SLOAN' #ROYAL 952 1.28 GPF FLUSH VALVE IN PIPE CHASE, WITH 3" PUSH BUTTON. WC-2 WATER CLOSET 1-1/2" 'ACORN' #DURA-WARE 2100 BLOWOUT JET, WALL MOUNTED, STAINLESS STEEL, CONCEALED HYDRAULIC 'SLOAN' #ROYAL 952 1.28 GPF FLUSH VALVE IN PIPE CHASE, WITH 3" PUSH BUTTON. 2" | 1-1/2" | 'ACORN' #DURA-WARE1950, ADA. 'CHICAGO FAUCETS' #333-665, L-1 LAVATORY LAVATORY FAUCETS IN RESTROOMS SHALL BE THE **SELF-CLOSING TYPE** 1-1/2" | FIAT #TSBC 6000, 24"x24"x12", PRECAST TERRAZZO. FIAT #830-AA, MS-1 MOP SINK CHROME PLATED W/VACUUM BREAKER, PAIL HOOK, 3/4" HOSE DF-1 DRINKING FOUNTAIN 2" 1-1/2" 'HAWS' #1119, HI-LO, BARRIER FREE, STAINLESS STEEL FD-1 | FLOOR DRAIN 3" | 1-1/2" | 'ZURN' MODEL #Z415B, W/TYPE 'B' STRAINER, WITH TRAP PRIMER HB-1 HOSE BIBB ACORN MODEL #8121 WITH VACUUM BREAKER AND LOOSE KEY 3/4"

PLUMBING GENERAL NOTES

- TOILETS SHALL BE ULTRA LOW FLUSH TYPE (1.28 GPF MAX.)
- CALIFORNIA MECHANICAL CODE 2016 (CMC 2016), CALIFORNIA PLUMBING CODE 2016 (CPC 2016), AND 2016 TITLE 24 ENERGY STANDARDS ARE THE CURRENT CODES/STANDARDS THAT ARE APPLICABLE TO THIS PROJECT.

PIPE MATERIALS SCHEDULE

SANITARY WASTE & VENT:

(ABOVE GRADE)

SCHEDULE 40 PVC PIPE & FITTINGS WITH SOLVENT WELD JOINTS.

(BELOW GRADE)

SCHEDULE 40 PVC PIPE & FITTINGS WITH SOLVENT WELD JOINTS.

DOMESTIC COLD & HOT WATER:

TYPE "L' HARD DRAWN, COPPER PIPE & FITTINGS WITH LEAD FREE

SOLDER JOINTS.

(BELOW GRADE)

(ABOVE GRADE)

TYPE "K' HARD DRAWN, COPPER PIPE & FITTINGS WITH LEAD FREE SOLDER JOINTS.

PS-2

PLANS FOR THE CONSTRUCTION OF **BALBOA PARK WEST MESA COMFORT STATIONS**

PLUMBING SITE PLAN - NUTMEG ST.

CONSULTANT Mechanical

CONSULTANT	
ENGINEERS chanical Engineering Consultants	PROFESS RED SENE T. STATE OF CAL
4711 Viewridge Ave., Suite 210 San Diego, California 92123 Ph. (858) 541-0788 Fax (858) 541-0787	CONTRACTOR

PROFESSIONAL CELLS SENTE T. W. C.	CIT	PUBLIC	AN DIEGO, CA WORKS DEPARTMET, 20 OF 26 SHEE	WBS	S-15036		
	FOR GIT VENGIN	Jee		DATE 28	117	SUBMITTED BY:	MICHELLE GARCIA (
	GEORGE FR	EIHA		C-65929 RCE#		CHECKED BY:	FARHAD HOSSAN
	DESCRIPTION	BY	APPROVED	DATE	FILMED	***************************************	PROJECT ENGINEER
	100% C.D.						194-1726
							CCS27 COORDINATE
							1834-6286
							CCS83 COORDINATE
CONTRACTOR	DATE STARTED					39	9701 - 20 - D
INSPECTOR		L	DATE COMPLE	IED			

	WARNING			
CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.	0 1/2
				IF THIS BAR DOE MEASURE 1" THE
				DRAWING IS NO SCALE.

FOR BUILDING SEWER CONNECTION

FOOTPRINT. SEE CIVIL PLANS FOR

AT 5'-0" OUTSIDE OF BUILDING

CONTINUATION AND DETAILS.

The City of SAN DIEGO Public Works

A. SECTION INCLUDES:

- 1. ELECTRIC SERVICE INSTALLED IN ACCORDANCE WITH REQUIREMENTS OF LOCAL SERVING UTILITY COMPANY.
- 2. TELEPHONE SERVICE INSTALLED IN ACCORDANCE WITH REQUIREMENTS OF LOCAL TELEPHONE COMPANY.
- 3. LIGHTING SYSTEM INSTALLED IN INTERIOR AREA AND
- EXTERIOR AREAS. 4. POWER SYSTEM INSTALLED IN INTERIOR AREAS AND
- EXTERIOR AREAS.
- 5. POWER AND CONTROL CIRCUITS FOR OPERATION OF HEATING AND VENTILATING, AIR CONDITIONING AND LIGHTING
- FIXTURES AS SCHEDULED ON ELECTRICAL DRAWINGS.
- 7. FEES AND PERMITS: PROVIDE, PROCURE AND PAY FOR ALL PERMITS, LICENSES, CERTIFICATES AND INSPECTIONS REQUIRED TO CARRY OUT AND COMPLETE THE WORK.
- B. RELATED SECTIONS:
- SECTION EARTHWORK: TRENCHING AND BACKFILL.
- 1.02 SUBMITTALS:
- A. PRODUCT DATA: SUBMIT COPIES OF MATERIAL LIST.
- B. SHOP DRAWINGS: SUBMIT IN ACCORDANCE WITH GENERAL CONDITION:
- 1. SUBMIT ELECTRICAL ITEMS SUCH AS, BUT NOT LIMITED TO, LIGHTING FIXTURES, SWITCHGEAR, LOADCENTERS.
- 2. CHECK SHOP DRAWINGS FOR SPACE REQUIREMENTS AND CONFORMANCE WITH CONTRACT DOCUMENTS.
- 3. SHOP DRAWINGS SHALL INDICATE THE INTERRUPTING RATING OF TYPE OF EQUIPMENT PROPOSED.
- 1.03 QUALITY ASSURANCE:
- A. REGULATORY REQUIREMENTS:
- 1. COMPLY WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS. SHOULD ANY CHANGES BE NECESSARY IN THE DRAWINGS OR SPECIFICATIONS TO MAKE THE WORK COMPLY WITH THESE REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO BID.
- 2. COMPLY WITH STATE AND LOCAL ELECTRICAL SAFETY ORDERS.
- 3. MATERIALS SHALL BE LISTED UNDERWRITER'S
- LABORATORIES, AND SHALL BEAR THE INSPECTION LABEL 4. MATERIALS SHALL MEET WITH APPROVAL OF THE STATE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION.
- 5. ELECTRICAL POWER AND TELEPHONE SERVICES AND METERING FACILITIES SHALL CONFORM TO REQUIREMENTS OF SERVING UTILITY COMPANIES AND SHALL MEET WITH APPROVAL OF LOCAL AND STATE INSPECTING AUTHORITIES.
- 1.04 DELIVERY, STORAGE AND HANDLING:
- A. DELIVER CONDUCTORS TO JOB SITE IN ORIGINAL UNBROKEN PACKAGE, PROPERLY TAGGED WITH UL LABEL, SIZE, AND TYPE AND MANUFACTURER INDICATED.
- 1.05 WARRANTY
- A. REFER TO GENERAL CONDITIONS FOR PERIOD OF WARRANTY.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. CONDUIT:

- 1. ELECTRICAL METALLIC TUBING: UL LABEL, HOT DIP GALVANIZED. FITTINGS FOR EMT SHALL BE GLAND RING COMPRESSION TYPE.
- 2. FLEXIBLE METALLIC CONDUIT: UL LABEL, HOT DIP GALVANIZED. FITTING FOR FLEXIBLE CONDUIT SHALL BE "JAKE" OR SQUEEZE TYPE. SET SCREW CONNECTORS SHALL NOT BE USED.
- 3. LIQUID-TIGHT FLEXIBLE CONDUIT: SEAL-TITE TYPE U.A. WITH APPLETON SERIES "ST" OR PYLE-NATIONAL SERIES "CT" CONNECTORS.
- 4. NON-METALLIC CONDUIT:
- A. "PVC" SCHEDULE 40" AS MANUFACTURED BY CARLON.
- B. OUTLETS AND JUNCTION BOXES: GALVANIZED OR SHERADIZED, ONE PIECE PRESSED STEEL, KNOCK-OUT TYPE. SIZE OF EACH BOX DETERMINED IN ACCORDANCE WITH ELECTRICAL CODE FOR NUMBER OF CONDUCTORS OR NUMBER AND SIZE OF CONDUITS ENTERING BOX, BUT NOT LESS THAN 4" SQUARE AND 1-1/2" DEEP.
- 1. OUTLET BOXES: MINIMUM OF 4" SQUARE AND 2-1/8" DEEP.
- 2. EXPOSED OUTLET BOXES: CASE METAL WITH THREADED OR UNION HUB, CROUSE-HINDS TYPE "FS" OR "FD" WITH CAST METAL COVERS.
- C. PULLBOXES: IN NO CASE SHALL PULLBOXES BE OF LESS SIZE OR MATERIAL THICKNESS THAN REQUIRED BY GOVERNING ELECTRICAL CODE. FINISH SHALL BE MANUFACTURER'S STANDARD BAKED ENAMEL.
- 1. WEATHERPROOF SHEET STEEL PULLBOXES: FABRICATED OF CODE GAUGE HOT DIPPED GALVANIZED STEEL AND GASKETED
- WEATHERTIGHT COVER OF SAME MATERIALS. MANUFACTURER'S STANDARD BAKED EXTERIOR ENAMEL
- 2. CAST METAL PULLBOXES: FURNISH WITH GASKETED SCREW COVERS AND NECESSARY DRILLED AND TAPPED CONDUIT ENTRIES. SCREWS SHALL BE BRONZE OR BRASS.
- D. WIRE AND CABLE: 600 VOLT RATING, COPPER CONDUCTOR, #12 AWG MINIMUM.
- 1. CONDUCTORS #10 AWG AND SMALLER SHALL BE STRANDED. 2. CONDUCTORS #8 AWG COPPER AND LARGER SHALL BE
- STRANDED. 3. TYPE THHN, 600 VOLT INSULATION, SHALL BE USED IN DRY LOCATIONS.
- 4. TYPE THWN, 600 VOLT INSULATION, SHALL BE USED BELOW GRADE AND IN WET LOCATIONS.
- E. RECEPTACLES:
- 1. COLOR: STAINLESS.
- 2. ALL SWITCHES AND RECEPTACLES INDICATED AS WEATHERPROOF SHALL HAVE LIFT COVER PLATES, SIERRA WP-8, FOR USE WITH DUPLEX RECEPTACLES.
- 3. 20 AMPERE, 120/277V, 3 POLE, SINGLE, NEMA GROUNDING TYPE. HUBBELL "HBL 5362".
- SPECIAL OUTLETS AS INDICATED ON DRAWINGS.
- 5. ALL DEVICES ARE TO HAVE CLAMP STYLE SIDE/ BACK CONNECTIONS FOR STRANDED WIRE ONLY. ALL RECEPTACLES SHALL BE PIGTAILED OUT SO ONLY ONE COLOR WIRE, A NEUTRAL WIRE, AND A GRIOUND WIRE IS CONNECTED TO THE BACK OF THE RECEPTACLES.
- F. SWITCHES:
- TOGGLE SWITCHES: COLOR STAINLESS, TOTALLY ENCLOSED, 20 AMPERE SWITCHES BY HUBBELL "NO. HBL 1221"
- G. PLATES:
- 1. FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANK **OUTLETS: STAINLESS STEEL**
- 2. OUTLETS ON EXPOSED CONDUIT RUNS SHALL HAVE CASE METAL CONDUIT FITTING DEVICE COVERS.
- H. EXPANSION FITTINGS: O.Z. TYPE DX.

2.02 EQUIPMENT:

A. MAIN METERING AND DISTRIBUTION SWITCHBOARDS:

- 1. SWITCHBOARDS SHALL CONSIST OF ONE OR MORE VERTICAL SECTIONS BOLTED TOGETHER TO FORM ONE FREE FLOOR STANDING SHEET METAL ENCLOSURE DESIGNED IN ACCORDANCE WITH UL STANDARDS FOR DEAD-FRONT, DEAD-REAR SWITCHBOARDS, NEMA CLASS AND MINIMUM DIMENSIONS AS SHOWN ON SINGLE LINE DIAGRAM.
- 2. SWITCHBOARDS SHALL INCLUDE ALL DEVICES SHOWN ON DRAWINGS TOGETHER WITH NECESSARY INTERCONNECTIONS, INSTRUMENTATION AND CONTROL WIRING, TERMINAL BLOCKS AND PRESSURE TYPE LINE TERMINAL BLOCKS AND PRESSURE TYPE LINE TERMINALS, SUITABLE FOR EITHER COPPER OR ALUMINUM CONDUCTORS. PROVIDE GROUPS OF CONTROL WIRES LEAVING SWITCHBOARD WITH TERMINAL BLOCKS WITH SUITABLE NUMBERING STRIPS.
- 3. PROVIDE FULL LENGTH BUS BARS WITH CROSS-BUSSING. RATING OF VERTICAL BUS SHALL MATCH CROSS-BUSSING RATING.
- 4. VERIFY SHORT CIRCUIT CURRENT AVAILABLE WITH POWER COMPANY. PROVIDE CIRCUIT BREAKERS WITH PROPERLY COORDINATED AND ADEQUATE INTERRUPTING CAPACITY. SHORT CIRCUIT RATING OF SWITCHBOARD SHALL BE STAMPED ON MANUFACTURER'S NAMEPLATE.
- CIRCUIT BREAKERS:
- A. ACCEPTABLE MANUFACTURERS: GENERAL ELECTRIC, WESTINGHOUSE, I.T.E., SQUARE-D.
- B. EACH CIRCUIT BREAKER OR OTHER DEVICE SHALL BE IDENTIFIED WITH BLACK LETTERS 1" X 2-1/2" ON WHITE LAMINATED PLASTIC NAMEPLATE ENGRAVED AS DESIGNATED BY THE ARCHITECT.
- C. EACH CIRCUIT PROTECTIVE DEVICE SHALL BE PROVIDED WITH PROVISIONS FOR PADLOCKING IN "OFF" POSITION.
- 6. SWITCH AND FUSE UNITS: QUICK-BREAK TYPE WITH CURRENT LIMITING FUSES.
- 7. SWITCHBOARD SHALL BE COMPLETELY ASSEMBLED AND PREWIRED. ACCEPTABLE MANUFACTURERS: GENERAL ELECTRIC, WESTINGHOUSE, I.T.E., SQUARE-D.
- B. LIGHTING PANELBOARDS 3 PHASE, 4W: ACCEPTABLE PANELBOARD MANUFACTURERS: GENERAL ELECTRIC, WESTINGHOUSE, I.T.E., SQUARE-D.
- 1. PANELBOARDS SHALL BE FLUSH MOUNTED WITH MAIN BRANCH CIRCUIT BREAKERS OR SPACES.
- 2. BOXES SHALL BE ELECTRICAL CODE GAUGE GALVANIZED STEEL SIZED TO MEET CURRENT NEC REQUIREMENTS.
- 3. FRONT PANELS SHALL BE SHEET STEEL, PAINTED MANUFACTURER'S STANDARD. PROVIDE FRONT PANEL DOORS WITH SEMI-CONCEALED HINGES, DIRECTORY CARD HOLDER AND CARD AND CATCH. BRANCH CIRCUITS SHALL BE CLEARLY MARKED ON DEAD-FRONT SHIELD OR ON BRANCH CIRCUIT BREAKER. PROVIDE FRONT PANEL WITH BLACK LETTERS 1" X 2-1/2" ON WHITE LAMINATED PLASTIC NAME-PANEL ENGRAVED AS DESIGNED BY ARCHITECT/ENGINEER. ON FLUSH PANELS, MOUNT NAMEPLATE ON DEAD-FRONT PANEL.
- 4. SUPPORT PANELS FRAME TO WITHSTAND EFFECTS OF SHORT CIRCUIT CURRENT. ALL TERMINALS SHALL BE SOLDERLESS TYPE CONDUCTORS SUITABLE FOR COPPER OR ALUMINUM CONDUCTORS OF SIZE INDICATED. SOLID NEUTRAL BAR SHALL HAVE CONNECTORS NUMBERED TO AGREE WITH BRANCH CIRCUITS.
- 5. CIRCUIT BREAKERS SHALL BE QUICK-MAKE, QUICK-BREAK COMMON TRIP UNITS AND SHALL HAVE SUITABLE SHORT CIRCUIT INTERRUPTING RATING.
- 6. ACCEPTABLE CIRCUIT BREAKERS MANUFACTURERS: GENERAL ELECTRIC, WESTINGHOUSE, I.T.E., SQUARE-D.

2.03 COMPONENTS

A. CIRCUIT BREAKERS (MOLDED CASE):

- 1. OPERATING MECHANISM WITH CONTACTS, ARC INTERRUPTER, AND TRIP ELEMENTS FOR EACH POLE, ENCLOSED IN MOLDED-PHENOLIC CASE.
- 2. OPERATING MECHANISM SHALL BE OF QUICK-MAKE, QUICK-BREAK TYPE AND SHALL BE ENTIRELY TRIP FREE SO THAT CONTACTS CANNOT BE HELD CLOSED AGAINST SHORT CIRCUIT OR OVERLOAD.
- 3. OPERATING HANDLE OR CIRCUIT BREAKER SHALL OPEN AND CLOSE ALL POLES OF MULTI-POLE BREAKER SIMULTANEOUSLY.
- 4. CIRCUIT BREAKER SHALL BE CONSTRUCTED WITH DURABLE SILVER-ALLOY CONTACTS AND DEIONIZING ARC QUENCHERS.
- 5. CIRCUIT BREAKERS SHALL BE FRAME SIZE SHOWN ON DRAWINGS AND SHALL MEET NEMA OR UL SPECIFICATIONS.
- 6. EACH CIRCUIT BREAKER SHALL HAVE THERMAL BI-METALLIC **ELEMENT FOR SHORT CIRCUIT PROTECTION**
- 7. CIRCUIT BREAKERS IN LIGHTING TYPE PANELBOARDS UP TO 50 AMPERE RATINGS SHALL CARRY THEIR RATED CURRENT AT AMBIENT TEMPERATURE OF 40 DEGREES CENTIGRADE.
- 8. OTHER CIRCUIT BREAKERS SHALL BE AMBIENT TEMPERATURE COMPENSATED TO CARRY RATED CURRENT AT 50 DEGREES CENTIGRADE.
- 9. ELEMENTS SHALL OPERATE COMMON TRIP BAR WHICH WILL OPEN ALL POLES IN CASE OF OVERLOAD OR SHORT CIRCUIT THROUGH ANY ONE POLE.
- 10. CIRCUIT BREAKER SHALL BE TRIP INDICATING, WITH TRIPPED POSITION OF BREAKER HANDLE MIDWAY BETWEEN "ON" AND "OFF" POSITION.
- 11. CIRCUIT BREAKERS SHALL HAVE AIC RATING IN EXCESS OF AVAILABLE FAULT CURRENT.
- B. DISCONNECT SWITCHES: NON-FUSIBLE OR FUSIBLE, EXTERNALLY OPERATED HORSE-POWER-RATED 250 VOLT OR 600 VOLT AC, AS REQUIRED. USE NEMA TYPE I ENCLOSURE TYPICAL, EXCEPT WHERE NOTED. WHERE WP IS INDICATED, USE NEMA TYPE 3R ENCLOSURES.

C. LIGHTING CONTACTORS AND CONTROL RELAYS:

- CONTACTORS SHALL BE ELECTRICALLY OPERATED, MECHANICALLY OR MAGNETICALLY HELD AS REQUIRED, WITH HEAVY-DUTY CONTROL COIL AND CONTACTS. PROVIDE 250 VOLT OR 600 VOLT AC, WITH AMPERE RATING AS REQUIRED AND NUMBER OF POLES AS INDICATED. MOUNT CONTACTORS ON SOUND ABSORBING RUBBER MOUNTS.
- D. LIGHTING FIXTURES:
- UNDERWRITER'S LISTED.
- 2. FLUORESCENT FIXTURES FURNISHED WITH HIGH POWER FACTOR BALLASTS, CBM LISTED, 'A' SOUND RATED ENERGY SAVING, CLASS P, ADVANCE OR EQUIVALENT BY GENERAL ELECTRIC, JEFFERSON OR SOLA.
- 3. FIXTURES OF SIMILAR TYPE SHALL BE OF SAME MANUFACTURER. SEE FIXTURE SCHEDULE FOR LIGHTING FIXTURE TYPES.
- 4. PROVIDE LAMPS AS REQUIRED FOR ALL FIXTURES
- E. LAMPS:
- 1. ACCEPTABLE MANUFACTURERS: GENERAL ELECTRIC, WESTINGHOUSE OR SYLVANIA.
- 2. TYPE OF LAMP AND WATTAGE AS SHOWN ON FIXTURE SCHEDULE.

E0.1

PLANS FOR THE CONSTRUCTION OF BALBOA PARK WEST MESA COMFORT STATIONS **ELECTRICAL SCHEDULES PART 1**

NEDC NEDC, INC. ELECTRICAL DESIGN CONSULTANTS AN ENGINEERING CORPORATION

3103 FALCON STREET. SUITE J

SAN DIEGO, CALIFORNIA 92103

(619) 278-0076 FAX (619) 278-0078

CONSULTANT

CITY OF SAN DIEGO, CALIFORNIA S-15036 PUBLIC WORKS DEPARTMENT MICHELLE GARCIA QUILICO FORCEPPENGINE PROJECT MANAGER **GEORGE FREIHA** C-65929 PRINT NAME FARHAD HOSSAN DESCRIPTION **APPROVED** DATE FILMED PROJECT ENGINEER 100% C.D. 194-1726 CCS27 COORDINATE 1834-6286 CCS83 COORDINATE CONTRACTOR DATE STARTED INSPECTOR DATE COMPLETED

CONSTRUCTION CHANGE / ADDENDUM WARNING APPROVAL NO. DATE AFFECTED OR ADDED SHEET NUMBERS CHANGE

0 1/2 IF THIS BAR DOES NOT DRAWING IS NOT TO SCALE.

SAN DIEGO Public Works

PART 3 - EXECUTION

3.01 EXAMINATION:

A. LOCATION AND VERIFICATION OF DIMENSIONS. SCALED AND FIGURED DIMENSIONS ARE APPROXIMATE AND ARE GIVEN FOR ESTIMATING PURPOSES ONLY. BEFORE PROCEEDING WITH WORK, CHECK AND VERIFY DIMENSIONS AND SIZES AND ASSUME RESPONSIBILITY FOR FITTING ALL MATERIALS AND EQUIPMENT TO OTHER PARTS OF EQUIPMENT AND TO THE STRUCTURE. WHERE CLASS INDICATED. CHECK THE DRAWINGS TO SEE THAT EQUIPMENT TO BE INSTALLED WILL FIT INTO THE SPACES PROVIDED.

A. TRENCH AND BACKFILL: PROVIDE TRENCHING, , BACKFILLING AND COMPACTION FOR UNDERGROUND ELECTRICAL SYSTEM.

 PROVIDE MOUNTING FACILITIES REQUIRED FOR PROPERLY SECURING OF FIXTURES, EQUIPMENT, AND OUTLETS. PROVIDE SLEEVES, INSERTS, EXPANSION JOINTS, AND ALL COMPONENTS AS REQUIRED.

3.03 INSTALLATION:

A. GENERAL: INSTALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS, AND INDUSTRY STANDARDS

B. CONDUIT:

CONSTRUCTION CHANGE / ADDENDUM

AFFECTED OR ADDED SHEET NUMBERS

A. USE ONLY FOR CONCEALED INTERIOR RUNS OR EXPOSED INTERIOR RUNS OR EXPOSED INTERIOR RUNS 4'- 0" ABOVE FLOOR.

B. EMT MAY BE USED ON ROOFS UNDER ROOFING AND WHERE PROTECTED BY ADJACENT RIGID ROOF INSULATION.

2. FLEXIBLE CONDUIT: USE IN MOVABLE PARTITIONS, WHERE INDICATED ON DRAWINGS, AND IN OTHER LOCATIONS DUE TO STRUCTURAL CONDITIONS AS PERMITTED BY CODE.

3. SEAL-TITE FLEXIBLE CONDUIT SHALL BE USED FOR ALL FINAL CONNECTIONS TO MOTORS AND IN WET DAMP OR OUTDOOR AREAS WHERE DRAWINGS INDICATE USE OF FLEXIBLE CONDUIT.

4. TERMINATE CONDUIT RUNS TO ROTATING, ADJUSTABLE, OR MOVABLE EQUIPMENT WITH FLEXIBLE CONNECTION.

5. INSTALL FLEXIBLE ISOLATING CONNECTIONS IN CONDUIT RUNS BETWEEN BUILDING STRUCTURE AND AIR CONDITIONING EQUIPMENT, TRANSFORMERS OR OTHER EQUIPMENT TRANSMITTING VIBRATION.

6. CONDUIT SHALL NOT BE EMBEDDED IN CONCRETE SLAB LESS THAN 4" THICK AND CONDUIT 1-1/4" AND LARGER SHALL NOT BE INSTALLED IN SLAB. INSTALL CONDUIT EMBEDDED IN CONCRETE SLABS NOT ON GRADE BETWEEN REINFORCING BARS AND BOTTOM OF SLAB.

7. NON-METALLIC CONDUIT: SHALL BE INSTALLED UNDERGROUND AND IN DUCT BANKS. ALL RISER POINTS SHALL TERMINATE IN FACTORY-MADE COUPLING/ADAPTER FITTINGS SUITABLE FOR RIGID METALLIC CONDUIT EXTENSION TO PANELS AND PULLBOXES WITH DOUBLE LOCKNUTS AND INSULATED GROUNDING BUSHING. BARE COPPER GROUND WIRE SHALL BE INSTALLED IN CONDUIT RUNS BETWEEN PANELS AND PULLBOXES AND CONNECTED TO GROUND BUSHINGS AT EACH END. GROUND WIRE SHALL BE CODE SIZED OR AS INDICATED ON DRAWINGS.

APPROVAL NO.

WARNING

0 1/2

IF THIS BAR DOES NOT MEASURE 1" THEN THE

DRAWING IS NOT TO

SCALE.

8. PROVIDE SECURE MOUNTING FACILITIES FOR CONDUITS. WIRE OR TAPE SHALL NOT BE USED FOR HANGING OF SUSPENDED CONDUIT. CONDUITS SHALL NOT BE SECURED TO SUSPENDED CEILING HANGER WIRES OR TO SUSPENDED CEILING STRUCTURE.

9. PROVIDE JUNCTION OR PULLBOXES WHERE REQUIRED FOR PULLING CONDUCTORS DUE TO EXCESSIVE NUMBERS OF BENDS OR LENGTHS OF CONDUIT RUNS.

10. PROVIDE EXPANSION COUPLINGS WHEREVER CONDUITS CROSS EXPANSION OR SEISMIC JOINTS OR FOR CONTINUOUS STRAIGHT RUNS IN EXCESS OF 100' EXCEPT WHEN EMBEDDED IN CONCRETE. EXPANSION FITTINGS SHALL HAVE BONDING JUMPER OR BE OF GROUNDING TYPE.

11. RE-ROUTE CONDUIT WHERE NECESSARY TO CLEAR STRUCTURAL AND MECHANICAL OBSTRUCTIONS.

12. BURY UNDERGROUND DUCT BANKS TO A DEPTH OF NOT LESS THAN 24" BELOW FINISHED GRADE.

13. INSTALL LONG RADIUS BENDS IN UNDERGROUND SERVICE CONDUITS AND IN OTHER LONG UNDERGROUND RUNS IN

EXCESS OF 100'. DO NOT FLATTEN OR KINK BENDS.

14. RUN EXPOSED CONDUITS AT RIGHT ANGLES OR PARALLEL TO STRUCTURAL MEMBERS, FLOOR AND CEILING. SECURE CONDUITS 1" AND SMALLER WITH ONE HOLE MALLEABLE IRON STRAPS. SECURE CONDUITS 1-1/2" AND LARGER WITH ONE HOLE MALLEABLE IRON STRAPS. SECURE CONDUITS 1-1/2" AND LARGER WITH CONDUIT HANGERS OR TWO HOLE GALVANIZED STRAPS. SUPPORT SUSPENDED CONDUIT HANGERS WITH CONDUIT HANGERS AND 1/4" HANGER-ROD. RACK MOUNT OR SUSPEND MULTIPLE CONDUIT RUNS ON TRAPEZE HANGERS WITH 3/8" RODS.

15. RUN CONDUITS IN SPACES ABOVE SUSPENDED CEILINGS PARALLEL TO WALLS AND FLOORS.

16. COORDINATE CONDUIT RUNS IN ROOF INSULATION AND FOR SECURING OF CONDUIT RUNS ABOVE FINISHED ROOF.

17. UNDERGROUND CONDUIT RUNS SHALL BE ROUTED TO AVOID TREE ROOTS.

C. INSTALLATION OF 600 VOLT CONDUCTORS:

1. CONDUCTORS SHALL BE CONTINUOUS BETWEEN OUTLETS OR JUNCTION BOXES AND NO SPLICES SHALL BE MADE EXCEPT IN OUTLET BOXES, PULLBOXES, PANELBOARD GUTTERS OR HANDHOLES. FEEDERS SHALL NOT BE SPLICED IN PULLBOXES.

2. ALL JOINTS, SPLICES AND TAPS #10 AND SMALLER (INCLUDING FIXTURE PIGTAILS) CONNECTED WITH "IDEAL" WING NUTS OR "SCOTCHLOK" CONNECTORS. NO. 8 AND LARGER CONNECTED WITH SOLDERLESS COMPRESSION-TYPE CONNECTORS OF 100% ELECTROLYTIC COPPER.

3. OIL OR GREASE SHALL NOT BE USED WHEN PULLING CONDUCTORS. USE ACCEPTABLE CABLE LUBRICANTS ONLY CONDUCTORS SHALL NOT COME IN CONTACT WITH EARTH OR LAID OUT ON CONCRETE SLABS WHILE BEING INSTALLED.

4. TRAIN AND LACE CONDUCTORS NEATLY IN PANELS, CABINETS, AND EQUIPMENT.

5. TIGHTEN PRESSURE TYPE LUGS ON PANELS AND EQUIPMENT,

AND RETIGHTEN 24 HOURS LATER.

6. TAGGING OF CONDUCTORS:

A. TAG BRANCH CIRCUITS IN PANELBOARDS, IN GUTTERS, AND IN JUNCTION BOXES WHERE UNUSED CIRCUITS. B. TAG FEEDERS AND MAINS IN SWITCHBOARDS.

C. TAG WITH ADHESIVE TYPE OF MARKER.

D. INSTALL #12 GALVANIZED STEEL PULL WIRE IN ALL EMPTY CONDUITS.

D. GROUNDING:

1. GROUND ALL EQUIPMENT AND SERVICES IN ACCORDANCE WITH

APPLICABLE CODES AND AS INDICATED. 2. ALL MOTORS AND ELECTRICAL EQUIPMENT SHALL HAVE BONDED GROUND JUMPERS FROM FEEDER CONDUIT TO MOTOR

OR EQUIPMENT FRAME. 3. GROUNDING BUSHINGS SHALL BE USED WHEREVER CONDUITS ARE GROUNDED.

4. GROUNDING ELECTRODE SHALL BE INSTALLED PER NEC, ARTICLE 250; AND SHALL BE ACCESSIBLE FOR INSPECTION, AND MADE WITHIN 6" OF THE MAIN WATER SUPPLY PIPE AHEAD OF THE METER.

5. ALL RACEWAYS TO INCLUDE A FULL SIZE GREEN INSULATED GROUND WIRE TERMINATED AT EACH OUTLET BOX, DEVICE ENCLOSURE, ETC. AND CONNECTED BACK AT THE PANEL BOARDS.

E. FIXTURES:

1. FIXTURES INSTALLED IN EQUIPMENT ROOMS SHALL BE LOCATED, AND HEIGHT ADJUSTED, ON JOB TO CLEAR ALL OBSTRUCTIONS SUCH AS DUCTS, PIPING, BRACING AND SUPPORTS. LOCATE FIXTURES SO THAT PROPER ILLUMINATION WILL BE OBTAINED. WHERE LOCATION OF FIXTURES SHOWN ON THE PLANS MUST BE RADICALLY CHANGED, NOTIFY ARCHITECT.

2. FIXTURES WHICH ARE NOT APPROVED FOR MOUNTING ON LOW DENSITY CEILINGS SHALL HAVE SPACERS TO CONFORM TO CODE REQUIREMENTS.

3. FIXTURES SHALL BE SHIPPED TO JOB COMPLETELY ASSEMBLED AS UNIT EXCEPT STEMS, CANOPIES, JOINERS AND OTHER REQUIRED FITTINGS.

4. REFER TO DRAWINGS FOR FIXTURE LOCATIONS.

F. FLASHINGS: FASTEN TO ROOF AND FLASHING CONDUITS PASSING THROUGH ROOF AND EXTERIOR WALLS IN A MANNER ACCEPTABLE TO ARCHITECT.

G. PULLBOXES:

1. CARE SHALL BE EXERCISED IN LOCATING UNDERGROUND PULLBOXES TO AVOID INSTALLATION IN DRAIN WATER FLOW

2. GENERAL PURPOSE SHEET PULLBOXES SHALL BE INSTALLED ONLY IN DRY PROTECTED LOCATIONS AND SHALL HAVE REMOVABLE SCREW COVERS.

H. JUNCTION BOXES:

1. OUTLET BOXES SHALL BE SECURELY FASTENED TO STRUCTURE.

I. HEATING AND VENTILATING, AIR CONDITIONING AND LIGHTING **ELECTRICAL WORK:**

1. PROVIDE ELECTRICAL WORK, BOTH POWER AND CONTROL VOLTAGE, ELECTRICAL MATERIALS AND CONTROL COMPONENTS REQUIRED FOR PROPER OPERATION OF HEATING AND VENTILATING, AIR CONDITIONING AND LIGHTING SYSTEMS.

2. COORDINATE WORK TO DETERMINE REQUIRED CONTROL FUNCTIONS, EXACT LOCATION AND CONNECTION REQUIREMENTS OF CONTROL COMPONENTS.

3.04 APPLICATION

A. MARKERS: USE AT EACH END OF ALL CONDUCTORS.

3.05 FIELD QUALITY CONTROL:

A. TESTS:

1. FURNISH NECESSARY INSTRUMENTS AND EQUIPMENT REQUIRED FOR MAKING TESTS. TEST ALL WIRING FOR SHORTS, OPEN CIRCUITS OR GROUNDING. 2. IMMEDIATELY CORRECT ANY DEFECTIVE WORK.

3. WHEN ENTIRE INSTALLATION HAS BEEN COMPLETED AND LIGHTING FIXTURES INSTALLED, TEST OUT CIRCUITS AND SWITCHING, AND DEMONSTRATE THAT OPERATION OF SYSTEM IS IN ACCORDANCE WITH CONTRACT DOCUMENTS.

3.06 ADJUSTING:

A. LIGHTING ADJUSTMENT: AT FINAL NIGHT-TIME INSPECTION. ADJUST LIGHTING AS REQUIRED BY ARCHITECT

3.07 CLEANING:

A. CLEAN EXPOSED PARTS OF ELECTRICAL EQUIPMENT AND INTERIOR OF PANELS, CABINETS AND SWITCHBOARDS OF DIRT, CEMENT, PLASTER AND OTHER MATERIALS.

B. REPLACE OR REFINISH SCRATCHED OR DAMAGED MATERIALS.

3.08 WARRANTY:

A. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE, BY HIS ACCEPTANCE OF THE CONTRACT, THAT ALL WORK INSTALLED WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR, OR AS OTHERWISE SPECIFIED, FROM DATE OF CERTIFICATE OF COMPLETION.

END OF SECTION 16000

E0.2

PLANS FOR THE CONSTRUCTION OF **BALBOA PARK WEST MESA COMFORT STATIONS ELECTRICAL SCHEDULES PART 2**

CONSULTANT NEDC ELECTRICAL DESIGN CONSULTANTS AN ENGINEERING CORPORATION 3103 FALCON STREET, SUITE J SAN DIEGO, CALIFORNIA 92103 (619) 278-0076 FAX (619) 278-0078



INSPECTOR

CITY OF SAN DIEGO, CALIFORNIA S-15036 PUBLIC WORKS DEPARTMENT MICHELLE GARCIA QUILICO PROJECT MANAGER GEORGE FREIHA C-65929 PRINT NAME FARHAD HOSSAN DESCRIPTION APPROVED DATE FILMED PROJECT ENGINEER 100% C.D. 194-1726 CCS27 COORDINATE 1834-6286 CCS83 COORDINATE CONTRACTOR DATE STARTED

DATE COMPLETED

SAN DIEGO Public Works **NEDINCOPACBELLNET**

39701-22- D

APPARATUS AND EQUIPMENT HAVE BEEN INDICATED ON DRAWINGS, DIMENSIONS HAVE BEEN TAKEN FROM TYPICAL EQUIPMENT OF THE

3.02 PREPARATION:

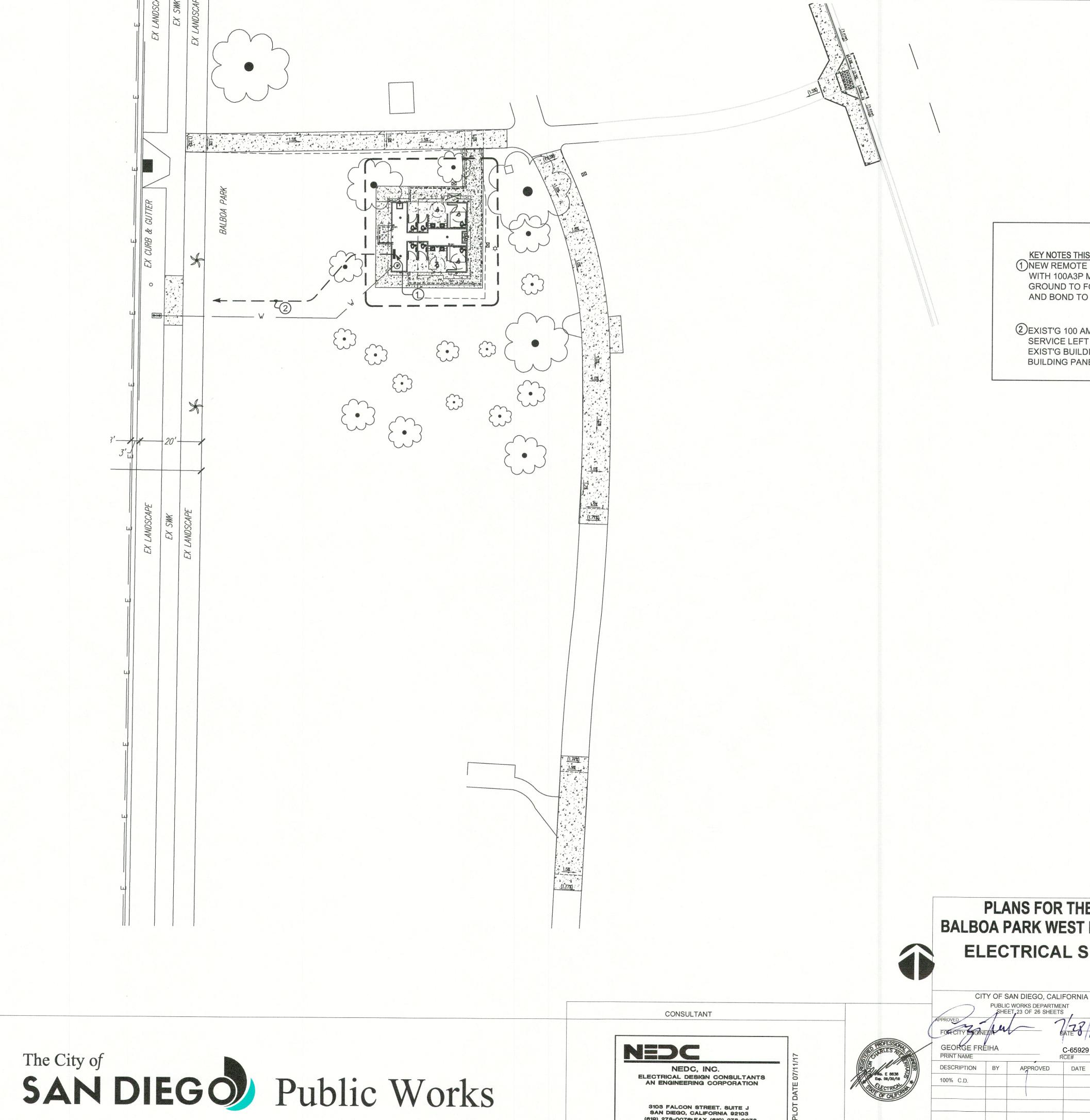
B. MOUNTING FACILITIES:

CHANGE

DATE

S

0



CONSTRUCTION CHANGE / ADDENDUM

AFFECTED OR ADDED SHEET NUMBERS

DATE

WARNING

IF THIS BAR DOES NOT MEASURE 1" THEN THE DRAWING IS NOT TO SCALE.

APPROVAL NO.

1 NEW REMOTE PANEL "CSS" PROVIDE WITH 100A3P MAIN DISC. AND #6 CU GROUND TO FOUNDATION STEEL ②EXIST'G 100 AMP ELECTRICAL SERVICE LEFT AFTER DEMO OF EXIST'G BUILDING. EXTEND TO NEW

KEY NOTES THIS SHEET

BUILDING PANEL.

AND BOND TO C.W. PIPE

E1.0

S-15036

PLANS FOR THE CONSTRUCTION OF BALBOA PARK WEST MESA COMFORT STATIONS **ELECTRICAL SITE PLAN - THORN ST.**

CONTRACTOR

INSPECTOR_

3103 FALCON STREET. SUITE J SAN DIEGO, CALIFORNIA 92103

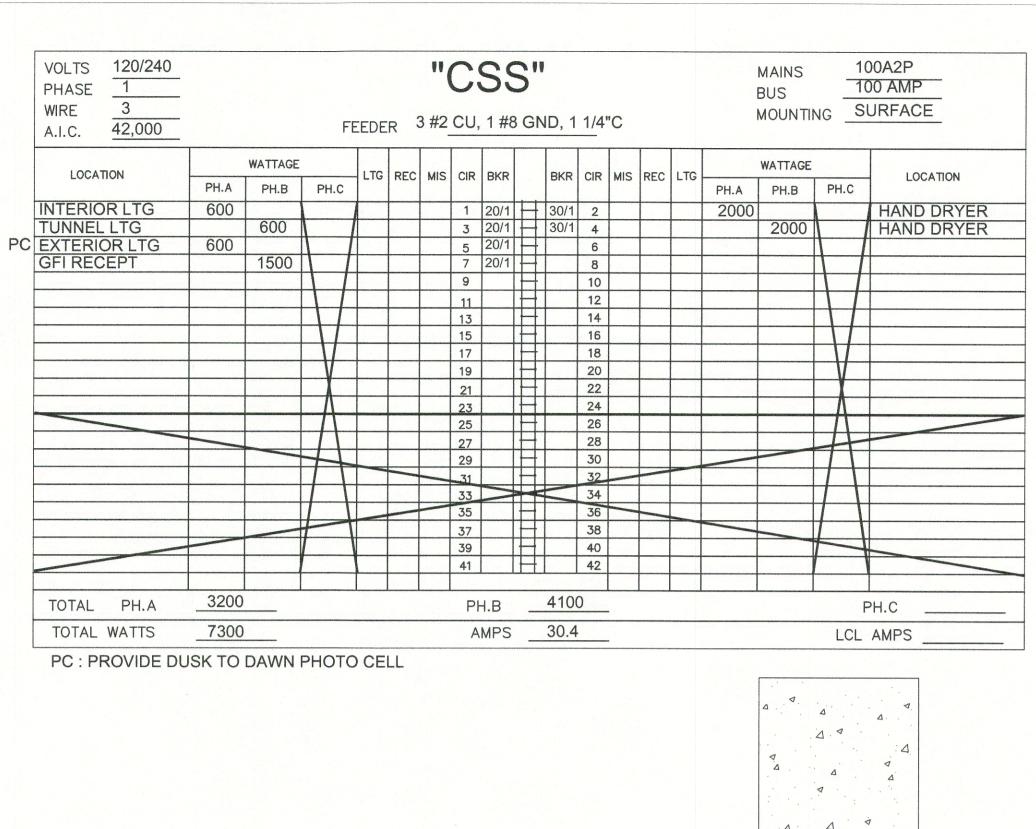
(619) 278-0076 FAX (619) 278-0078 NEDINCOPACBELLNET

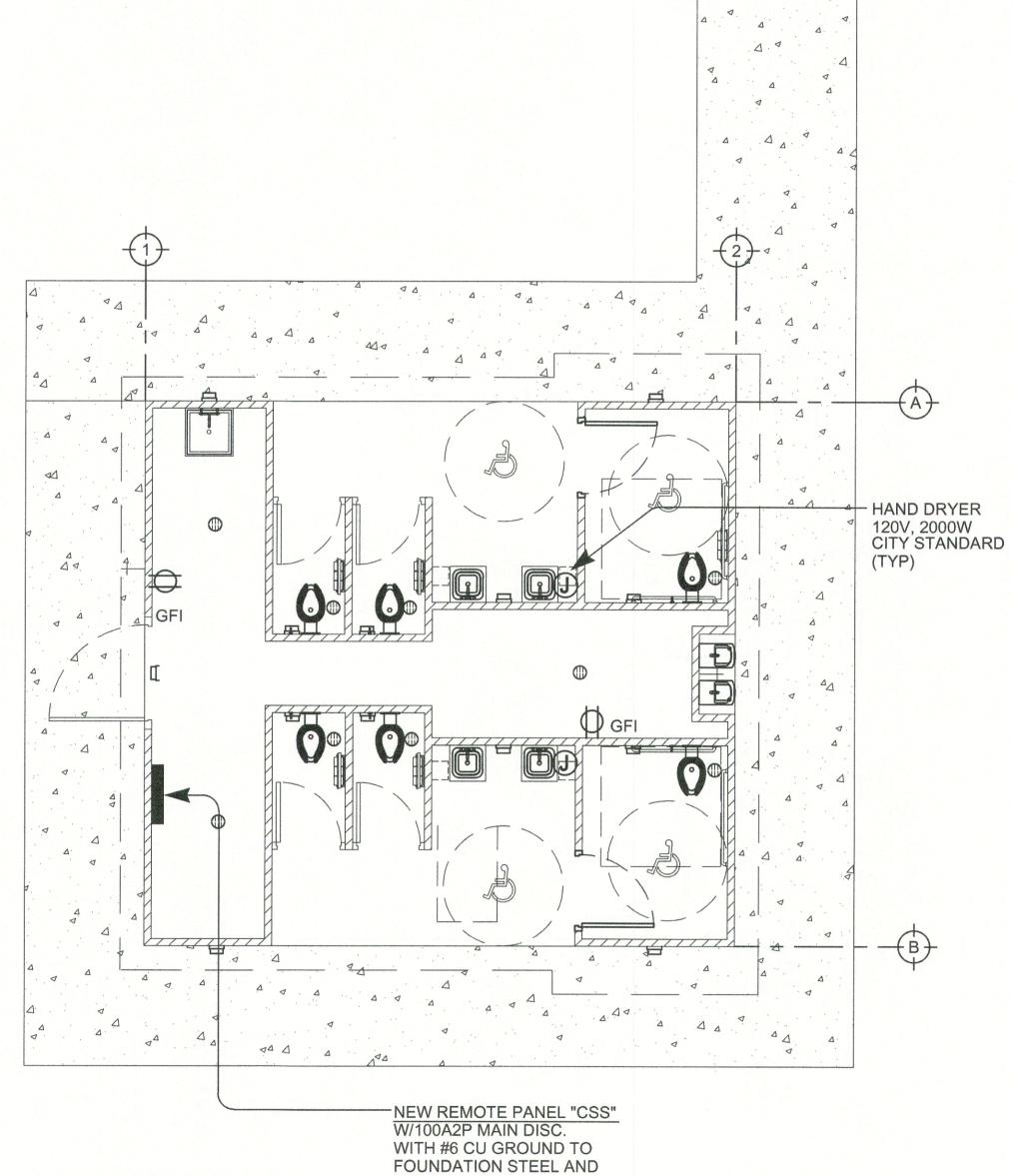
PUBLIC WORKS DEPARTMENT SHEET, 23 OF 26 SHEETS

DATE COMPLETED

MICHELLE GARCIA QUILICO PROJECT MANAGER FARHAD HOSSAN PROJECT ENGINEER 194-1726 CCS27 COORDINATE 1834-6286 CCS83 COORDINATE DATE STARTED 39701-23- D







ELECTRICAL POWER PLAN
SCALE: 1/4" = 1' - 0"

CONSTRUCTION CHANGE / ADDENDUM

AFFECTED OR ADDED SHEET NUMBERS

APPROVAL NO.

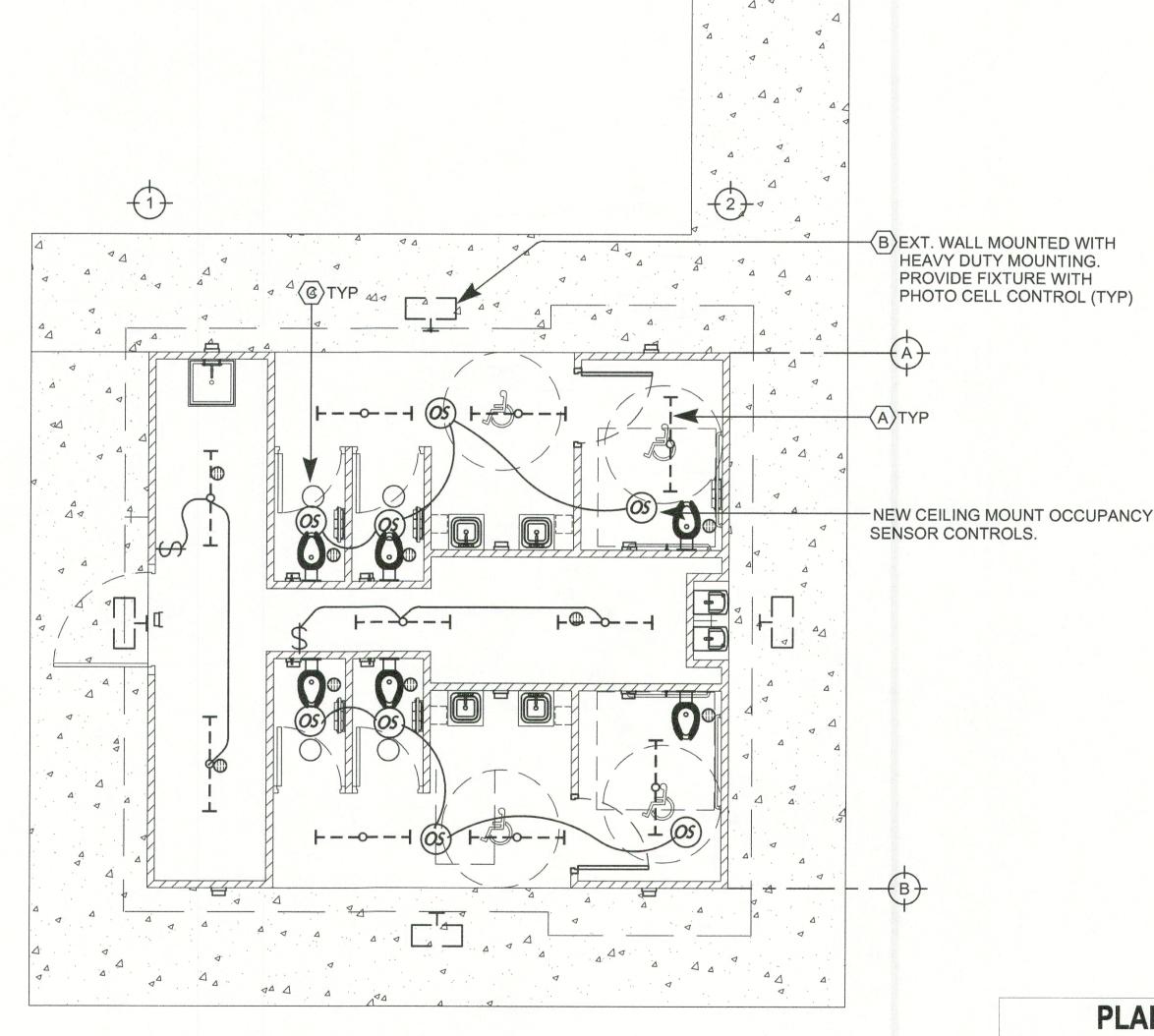
0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN THE DRAWING IS NOT TO SCALE.

BOND TO C.W. PIPE

The City of SAN DIEGO Public Works

LUMINAIRE SCHEDULE LAMP MANUFACTURER & CODE REF. LUMINAIRE DESCRIPTION WATTS, TYPE | MTG. | CATALOG NUMBER SYMBOLS WATT/LUMENS **VOLTS** COLOR 4' LED STRIP LIGHT CLG 21W KENNAL LED **VAPOR TIGHT** ____ SURF 120V CITY STANDARD 3500K VANDAL RESISTANT EXTERIOR LED WALL LIGHT $\langle B \rangle$ KENNAL 30W W/POLYCARBONATE LENS WALL LED #S-T11 LED 120V AND VANDAL RESISTANT 4000K SCREWS KENNAL CLG **CEILING LED** LED CITY STANDARD 120V SURF DRUM FIXTURE 3500K



DEVELOPMENT SERVICES

\$ 43 69 1
WALTER CAMP DATE 7-13-17

TOTAL COMPANY

STANSON

ST

PLANS FOR THE CONSTRUCTION OF BALBOA PARK WEST MESA COMFORT STATIONS

PROPOSED THORN STREET FLOOR PLAN

CONSULTANT

NEDC, INC.

ELECTRICAL DESIGN CONSULTANTS
AN ENGINEERING CORPORATION

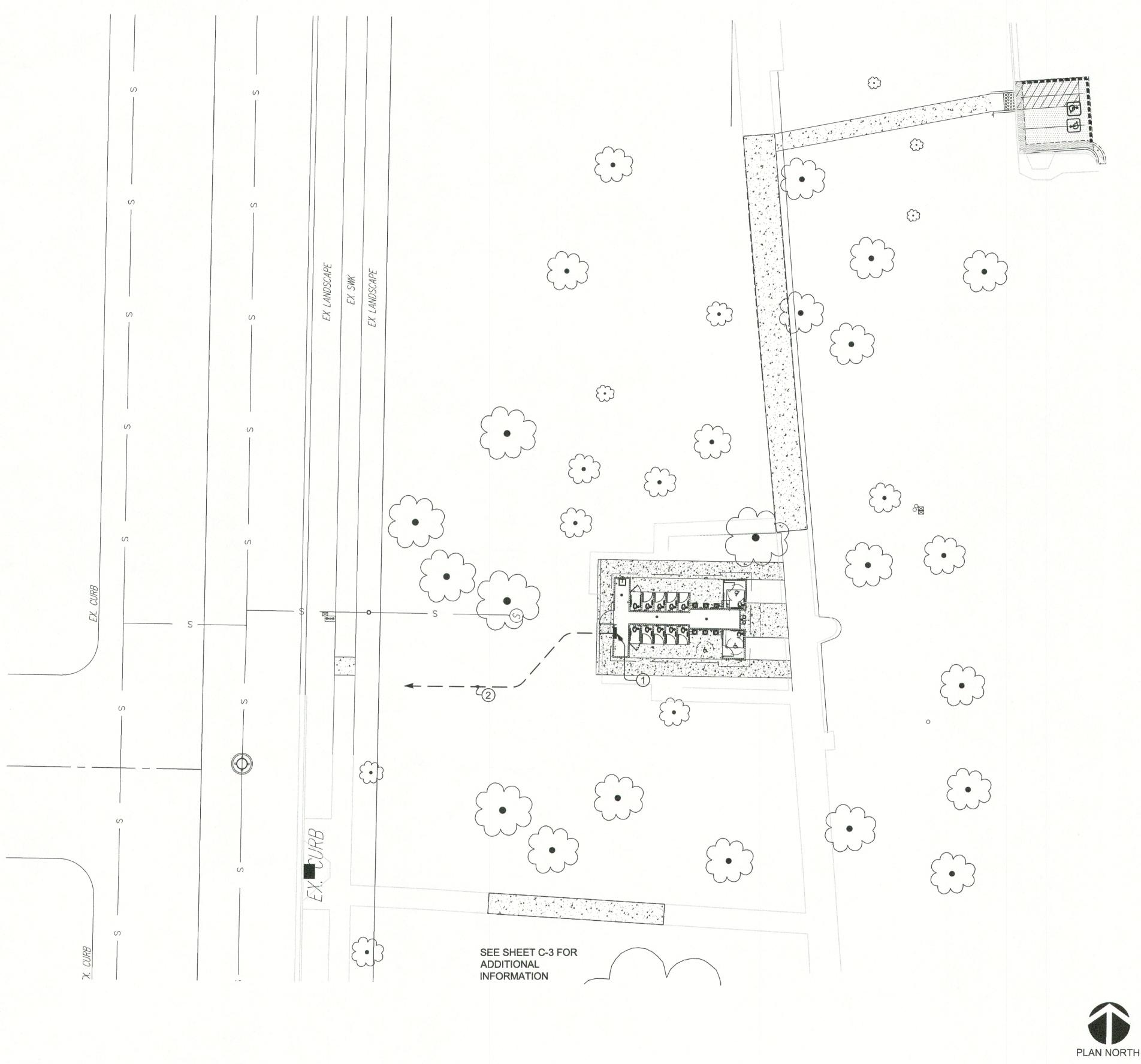
3103 FALCON STREET. SUITE J
SAN DIEGO, CALIFORNIA 92103
(619) 278-0076 FAX (619) 278-0078
NEDINC@PACBELLNET

CONTR

CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 24 OF 26 SHEETS					WBS	S-15036
FOR CITY ENGIN	hal		7/28	17	SUBMITTED BY:	MICHELLE GARCIA QUILIC
			C-65929 RCE#		CHECKED BY:	PROJECT MANAGER FARHAD HOSSAN
DESCRIPTION	BY	APPROVED	DATE	FILMED		PROJECT ENGINEER
100% C.D.						194-1726
						CCS27 COORDINATE
						1834-6286
						CCS83 COORDINATE
DATE STARTED DATE COMPLETED					3	9701-24- D
	FOR CITY PAGIN GEORGE FRI PRINT NAME DESCRIPTION	FOR CIPY ENGINEER GEORGE FREIHA PRINT NAME DESCRIPTION BY 100% C.D.	PUBLIC WORKS DEPARTM SHEET 24 OF 26 SHEET APPROVED FOR CHY PAGINFER GEORGE FREIHA PRINT NAME DESCRIPTION BY APPROVED 100% C.D. DATE STAR	PUBLIC WORKS DEPARTMENT SHEET 24 OF 26 SHEETS APPROVED FOR CIPY ENGINEER DATE C-65929 PRINT NAME DESCRIPTION BY APPROVED DATE 100% C.D. DATE STARTED	PUBLIC WORKS DEPARTMENT SHEET 24 OF 26 SHEETS APPROVED FOR CIPY ENGINEER DATE C-65929 PRINT NAME DESCRIPTION BY APPROVED DATE FILMED DATE DA	PUBLIC WORKS DEPARTMENT CHEET 24 OF 26 SHEETS SUBMITTED BY: FOR CIPY PAGINFER DATE GEORGE FREIHA C-65929 PRINT NAME RCE# DESCRIPTION BY APPROVED DATE FILMED DATE DATE APPROVED DATE TO APPROVED DATE APPROVED DATE TO APPROVED DATE TO APPROVED DATE TO APPROVED DATE APPROVED DATE TO APPROVED DATE DATE TO APPROVED TO APPROVED

ELECTRICAL LIGHTING PLAN SCALE: 1/4" = 1' - 0"

AFTER DEMO OF EXIST'G BUILDING. EXTEND TO NEW BUILDING PANEL.





CONSTRUCTION CHANGE / ADDENDUM WARNING AFFECTED OR ADDED SHEET NUMBERS APPROVAL NO. IF THIS BAR DOES NOT MEASURE 1" THEN THE DRAWING IS NOT TO SCALE.

SAN DIEGO Public Works

CONSULTANT NEDC NEDC, INC.
ELECTRICAL DESIGN CONSULTANTS
AN ENGINEERING CORPORATION 3103 FALCON STREET. SUITE J SAN DIEGO, CALIFORNIA 92103
(619) 278-0076 FAX (619) 278-0078
NEDINCOPACBELLNET

E2.0 PLANS FOR THE CONSTRUCTION OF **BALBOA PARK WEST MESA COMFORT STATIONS ELECTRICAL SITE PLAN - NUTMEG ST.**

KEY NOTES THIS SHEET

C.W. PIPE

1 NEW REMOTE PANEL "CSL" PROVIDE WITH 100A3P MAIN DISC. AND #6 CU GROUND TO FOUNDATION STEEL AND BOND TO

②EXIST'G 100 AMP ELECTRICAL SERVICE LEFT

		PUBLI	SAN DIEGO, CAL C WORKS DEPARTMI FT 25 OF 26 SHEET	WBS	S-15036		
	Ou	FOR CITY ANGINEER			3/17	SUBMITTED BY:	MICHELLE GARCIA QUILI
PROFESSION	GEORGE ED	GEORGE FREIHA C 65020				CHECKED BY:	PROJECT MANAGER
Mo. E 8636 Exp. 09/30/18	PRINT NAME		C-65929 RCE#	A Name	CHECKED BY:	FARHAD HOSSAN	
	DESCRIPTION	BY	APPROVED	DATE	FILMED		PROJECT ENGINEER
	100% C.D.						194-1726
OF CALIFOR							CCS27 COORDINATE
							1834-6286
							CCS83 COORDINATE
ONTRACTOR			DATE START DATE COMPLET				39701-25- D
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