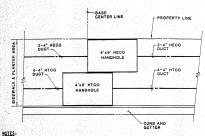


1. TYPE "A" BACKFILL - BEACH SAND, EARTH OR EARTH AND GRAVEL WITH 1-INCH MAXIMUM ROCK SIZE, AND THE MIXTURE SHALL NOT CONTAIN MORE THAN 50% ROCK PARTICLES.

2 HECO AND HTCO UNDERGROUND DUCTS SHALL BE PVC SCHEDULE 40.

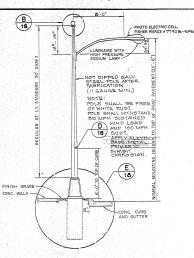
A TYPICAL DUCT SECTION 18

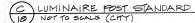


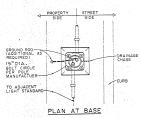
MANDHOLES AND DUCTLINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE UTILITY COMPANIES' STANDARDS.

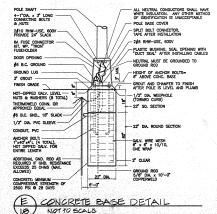
- HECO 4' x 6' HANDHOLE SHALL BE CONSTRUCTED ACCORDING TO HECO STANDARD DWG. 18842.
- K. HTCO M' x 6' HANDHOLE SHA! BE CONSTRUCTED ACCORDING TO HTCO STANDARD DWG. 34029
- CONTRACTOR SHALL CONTACT HTCO INSPECTOR AT 83F-4657'A MINIMUM OF 72 HOURS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN THE EXCAVALION AND CONSTRUCTION CROSSES OR IS CLOSE TO EXISTING UNDERGROUND TELEPHONE AND SIGNAL CABLE FACILITIES AND MAINTAIN ADEQUATE CLEARANCE FOR HIS FOULPMENT WHILE WORKING CLOSE TO AND/OR UNDER THE OVERHEAD FACILITIES. ANY DAMAGE TO THE EXISTING UNDERGROUND OR OVERHEAD FACILITIES SHALL BE REPAIRED BY HTCO AND PAID FOR BY THE CONTRACTOR.

B HANDHOLE GROUP DETAIL (TYP.) 18 NOT TO SCALE



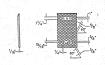








SECTION A-A



SIDE VIEW OF COVER TOP VIEW OF PLATE COVER BACK VIEW OF COVER

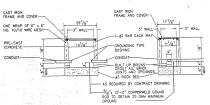




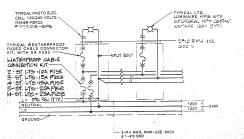
SDES OF COVER ARE SLIGHTLY BEVELED TO FACULTATE INSTALLATION. BEVEL IS INMARD FROM TOP TO BOTTOM.

2. TO BE CAST FROM GREY IRON. 3. TO COVER SLD-1 STREET LIGHT PULLBOX DRAWING NO. A-104

SECTION B-B



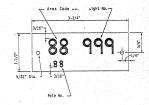
PRECAST PULLBOX NOTE: SUBMIT SHOP DRAWNCS FOR BOX, FRANE AND COVER FOR MATERIAL APPROVA 200 7/18/9 By/ Jan 2 ... HESC's research from these transfers shall in the way ridle the Customet, its Committee, its Contractor or Jayo modey on Customer's below from the responsibility



F TYPICAL ST. LTG. WIRING DIAGRAM (MULTIPLE) TO SCALE 18

STREET LIGHTING NOTES

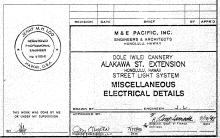
- STREET LIGHT SYSTEM FOR THIS PROJECT SHALL BE UNDER EXISTING HAWAIIAN ELECTRIC COMPANY, INC. 240/120 VOLT SERVICE AREA CODE 39.
- 2. STREET LIGHT NUMBERS FOR THIS PROJECT SHALL BE 310 TO 316 INCLUSIVE.
- ALL SECONDARY CIRCUIT EXTENSIONS TO CITY AND COUNTY TRANSFORMER SHALL BE PROVIDED BY CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND INFORMING THE CITY AND COUNTY OF STREET LIGHT LOCATIONS ON PROJECT SITE.
- 6. ALL LUMINAIRES SHALL BE HIGH PRESSURE SODIUM VAPOR TYPE WITH LAMP VOLTAGE, WATTAGE AND IES TYPE LIGHT DISTRIBUTION AS INDICATED ON PLAN
- FOR TYPICAL CONSTRUCTION DETAILS SEE THIS SHE ALSO REFER TO APPLICABLE STANDARD DETAILS OF ELECTRICAL AND
 MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES.
- 8. CONTRACTOR SHALL STENCIL DATE OF INSTALLATION ON BOTTOM OF PHOTOCELL.
- POLES: 30' (WITH TRANSFORMER BASE) 7 EA. LUMINAIRE: 150W HPS 7 EA. 9. LUMINAIRE AND POLE COUNT.
- CONTRACTOR SHALL MAINTAIN ONE SET OF APPROVED PLANS AT PROJECT SITE AT ALL TIMES DURING CONSTRUCTION WORK
- CONTRACTOR SHALL ARRANGE WITH H.E.C.O. TO ENERGIZE STREET LIGHTS A MINIMUM OF 6 HOURS FOR FINAL INSPECTION AND ACCEPTANCE. CONTRACTOR SHALL PAY FOR ALL COSTS OF TESTING.
- FINAL ACCEPTANCE INSPECTION WILL BE UNDERTAKEN ONLY AFTER ALL WORK HAS BEEN COMPLETED AND THE "AS-BUILT" TRACINGS
 HAVE BEEN SUBMITTED TO THE CITY AND COUNTY DEPARTMENT OF TRANSPORTATION SERVICES.
- AFTER COMPLETION OF FINAL INSPECTION WITH ENGINEER AND CITY AND COUNTY, CONTRACTOR SHALL OBTAIN WRITTER ACCEPTANCE OF STREET LIGHT SYSTEM FROM ELECTRICAL AND MAINTENANCE SERVICES DIVISION DEPARTMENT OF TRAI
- CONTRACTOR SHALL MEASURE GROUND RESISTANCE OF EACH LIGHT STANDARD, RECORD SAME AND SUBMIT TO ELECTRICAL AND
 MAINTENANCE SERVICES, CITY AND COUNTY OF HONOLULU.
- 15. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST RULES AND STANDARDS OF THE NEC AND SHALL COMPLY WITH THE LIGHTING ORDINANCES OF THE STATE OF HAWAII.
- 16. ALL WORK SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS UNLESS OTHERWISE ALTERED OR REV.



NOTES:

- 1. USE 2-PLY LAMINATED FLEXIBLE PLASTIC, BLACK-WHITE THICKNESS: BLACK CAP SHEET - 0.010", WHITE BASE SHEET - 0.052".
- 2. AREA CODE NUMBER AND LIGHT NUMBER SIZE SHALL BE 5/8" HIGH. 1/8" STROKE, WHITE IN COLOR (NUMBER AS REQUIRED).
- 3. POLE NUMBER SIZE SHALL BE 1/4" HIGH, 3/32", STROKE, WHITE IN COLOR (NUMBER AS REQUIRED),
- ATTACH TO ALUMINUM AND STEEL POLES MITH NO. 8 STAINLESS STEEL, 1/2" LONG DRIVE SCREWS IN 1/8" DRILL HOLE, ATTACH TO HOOD POLES WITH 4D ALUMINUM NAILS.
- 5. NUMBERS ARE INSCRIBED BY CUTTING THROUGH "BLACK CAP SHEET" TO EXPOSE

"WHITE" LETTERS. D STREET LIGHT I.D. TAG DETAIL 1/8/ NOT TO SCALE



RECORD DRAWINGS SHEET 18 OF 30 SHEETS