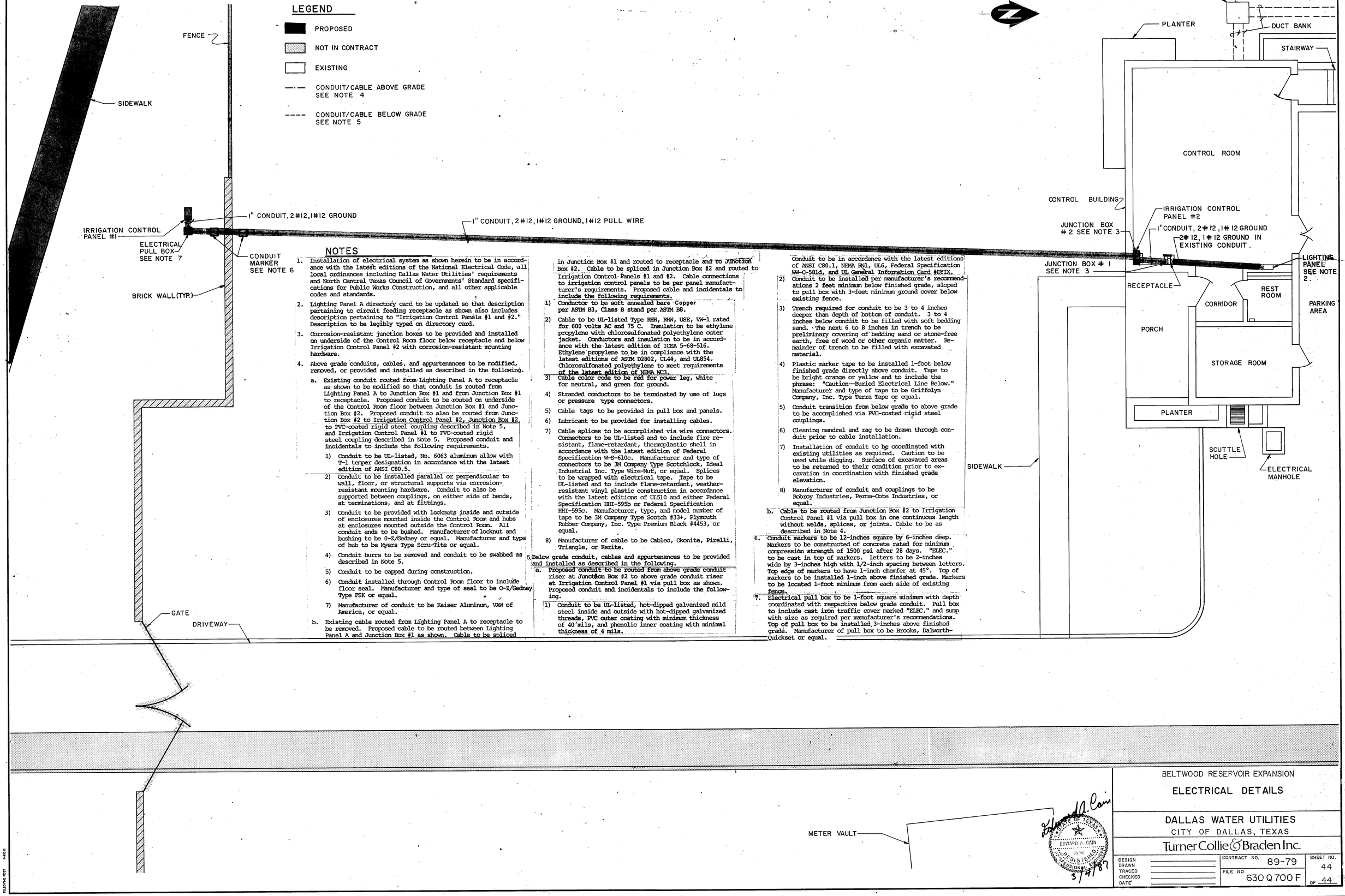

NOTES

1. Installation of electrical system as shown herein to be in accordance with the latest editions of the National Electrical Code, all local ordinances including Dallas Water Utilities' requirements and North Central Texas Council of Governments' Standard specifications for Public Works Construction, and all other applicable codes and standards.
2. Lighting Panel A directory card to be updated so that description pertaining to circuit feeding receptacle as shown also includes description pertaining to "Irrigation Control Panels #1 and #2." Description to be legibly typed on directory card.
3. Corrosion-resistant junction boxes to be provided and installed on underside of the Control Room floor below receptacle and below Irrigation Control Panel #2 with corrosion-resistant mounting hardware.
4. Above grade conduits, cables, and appurtenances to be modified, removed, or provided and installed as described in the following.
   a. Existing conduit routed from Lighting Panel A to receptacle as shown to be modified so that conduit is routed from Lighting Panel A to Junction Box #1 and from Junction Box #1 to receptacle. Proposed conduit to be routed on underside of the Control Room floor between Junction Box #1 and Junction Box #2. Proposed conduit to also be routed from Junction Box #2 to Irrigation Control Panel #2, Junction Box #2 to PVC-coated rigid steel coupling described in Note 5, and Irrigation Control Panel #1 to PVC-coated rigid steel coupling described in Note 5. Proposed conduit and incidentals to include the following requirements.
      1) Conduit to be UL-listed, No. 6063 aluminum allow with T-1 temper designation in accordance with the latest edition of ANSI C80.5.
      2) Conduit to be installed parallel or perpendicular to wall, floor, or structural supports via corrosion-resistant mounting hardware. Conduit to also be supported between couplings, on either side of bends, at terminations, and at fittings.
      3) Conduit to be provided with locknuts inside and outside of enclosures mounted inside the Control Room and hubs at enclosures mounted outside the Control Room. All conduit ends to be bushed. Manufacturer of locknut and bushing to be O-Z/Gedney or equal. Manufacturer and type of hub to be Myers Type Scru-Tite or equal.
      4) Conduit burrs to be removed and conduit to be swabbed as described in Note 5.
      5) Conduit to be capped during construction.
      6) Conduit installed through Control Room floor to include floor seal. Manufacturer and type of seal to be O-Z/Gedney Type FSK or equal.
      7) Manufacturer of conduit to be Kaiser Aluminum, VAW of America, or equal.
   b. Existing cable routed from Lighting Panel A to receptacle to be removed. Proposed cable to be routed between Lighting Panel A and Junction Box #1 as shown. Cable to be spliced in Junction Box #1 and routed to receptacle and to Junction Box #2. Cable to be spliced in Junction Box #2 and routed to Irrigation Control Panels #1 and #2. Cable connections to irrigation control panels to be per panel manufacturer's requirements. Proposed cable and incidentals to include the following requirements.
      1) Conductor to be soft annealed bare Copper per ASTM B3, Class B stand per ASTM B8.
      2) Cable to be UL-listed Type RHH, RHW, USE, VW-1 rated for 600 volts AC and 75 C. Insulation to be ethylene propylene with chlorosulfonated polyethylene outer jacket. Conductors and insulation to be in accordance with the latest edition of ICEA 5-68-516. Ethylene propylene to be in compliance with the latest editions of ASTM D2802, UL44, and UL854. Chlorosulfonated polyethylene to meet requirements of the latest edition of NEMA WC3.
      3) Cable color code to be red for power leg, white for neutral, and green for ground.
      4) Stranded conductors to be terminated by use of lugs or pressure type connectors.
      5) Cable tags to be provided in pull box and panels.
      6) Lubricant to be provided for installing cables.
      7) Cable splices to be accomplished via wire connectors. Connectors to be UL-listed and to include fire resistant, flame-retardant, thermoplastic shell in accordance with the latest edition of Federal Specification W-S-610c. Manufacturer and type of connectors to be 3M Company Type Scotchlock, Ideal Industrial Inc. Type Wire-Nut, or equal. Splices to be wrapped with electrical tape. Tape to be UL-listed and to include flame-retardant, weather-resistant vinyl plastic construction in accordance with the latest editions of UL510 and either Federal Specification HHI-595b or Federal Specification HHI-595c. Manufacturer, type, and model number of tape to be 3M Company Type Scotch #33+, Plymouth Rubber Company, Inc. Type Premium Black #4453, or equal.
      8) Manufacturer of cable to be Cablec, Okonite, Pirelli, Triangle, or Kerite.
5. Below grade conduit, cables and appurtenances to be provided and installed as described in the following.
   a. Proposed conduit to be routed from above grade conduit riser at Junction Box #2 to above grade conduit riser at Irrigation Control Panel #1 via pull box as shown. Proposed conduit and incidentals to include the following.
      1) Conduit to be UL-listed, hot-dipped galvanized mild steel inside and outside with hot-dipped galvanized threads, PVC outer coating with minimum thickness of 40 mils, and phenolic inner coating with minimal thickness of 4 mils.
      2) Conduit to be installed per manufacturer's recommendations 2 feet minimum below finished grade, sloped to pull box with 3-feet minimum ground cover below existing fence.
      3) Trench required for conduit to be 3 to 4 inches deeper than depth of bottom of conduit. 3 to 4 inches below conduit to be filled with soft bedding sand. The next 6 to 8 inches in trench to be preliminary covering of bedding sand or stone-free earth, free of wood or other organic matter. Remainder of trench to be filled with excavated material.
      4) Plastic marker tape to be installed 1-foot below finished grade directly above conduit. Tape to be bright orange or yellow and to include the phrase: "Caution—Buried Electrical Line Below." Manufacturer and type of tape to be Griffolyn Company, Inc. Type Terra Tape or equal.
      5) Conduit transition from below grade to above grade to be accomplished via PVC-coated rigid steel couplings.
      6) Cleaning mandrel and rag to be drawn through conduit prior to cable installation.
      7) Installation of conduit to be coordinated with existing utilities as required. Caution to be used while digging. Surface of excavated areas to be returned to their condition prior to excavation in coordination with finished grade elevation.
      8) Manufacturer of conduit and couplings to be Robroy Industries, Perma-Cote Industries, or equal.
   b. Cable to be routed from Junction Box #2 to Irrigation Control Panel #1 via pull box in one continuous length without welds, splices, or joints. Cable to be as described in Note 4.
6. Conduit markers to be 12-inches square by 6-inches deep. Markers to be constructed of concrete rated for minimum compression strength of 1500 psi after 28 days. "ELEC." to be cast in top of markers. Letters to be 2-inches wide by 3-inches high with 1/2-inch spacing between letters. Top edge of markers to have 1-inch chamfer at 45°. Top of markers to be installed 1-inch above finished grade. Markers to be located 1-foot minimum from each side of existing fence.
7. Electrical pull box to be 1-foot square minimum with depth coordinated with respective below grade conduit. Pull box to include cast iron traffic cover marked "ELEC." and sump with size as required per manufacturer's recommendations. Top of pull box to be installed 3-inches above finished grade. Manufacturer of pull box to be Brooks, Dalworth-Quickset or equal.

STATE OF TEXAS — EDWARD A. CAIN — 35796 — REGISTERED PROFESSIONAL ENGINEER — 5/14/87

BELTWOOD RESERVOIR EXPANSION

ELECTRICAL DETAILS

DALLAS WATER UTILITIES
CITY OF DALLAS, TEXAS

Turner Collie & Braden Inc.

DESIGN		CONTRACT NO. 89-79	SHEET NO. 44
DRAWN		FILE NO 630 Q 700 F	OF 44
TRACED			
CHECKED			
DATE			

TELEPHONE POST