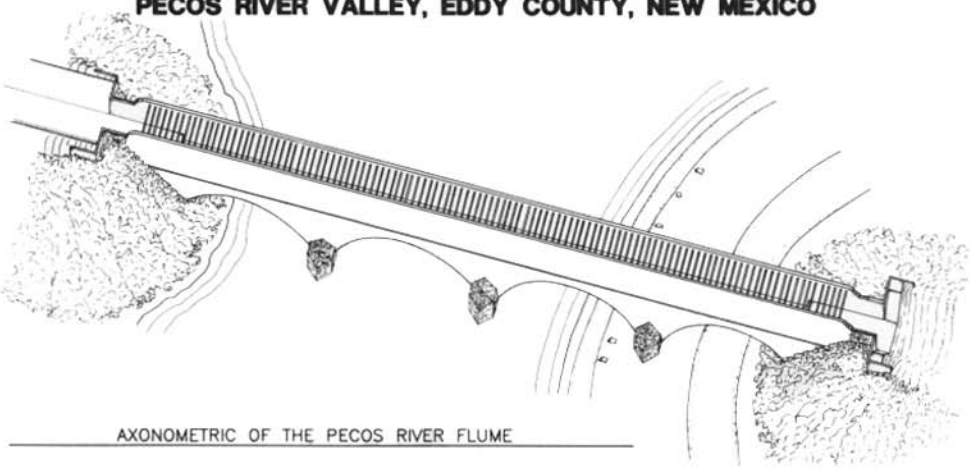
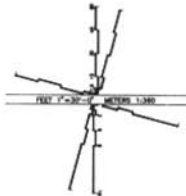


CARLSBAD IRRIGATION DISTRICT

PECOS RIVER VALLEY, EDDY COUNTY, NEW MEXICO



AXONOMETRIC OF THE PECOS RIVER FLUME



THE CARLSBAD IRRIGATION DISTRICT IS A FEDERALLY-OWNED RECLAMATION SYSTEM LOCATED IN THE PECOS RIVER VALLEY OF SOUTHEASTERN NEW MEXICO, NEAR THE COMMUNITY OF CARLSBAD. THE SYSTEM WAS FIRST CONSTRUCTED BY PRIVATE DEVELOPERS BEGINNING IN 1889, WHO COMPLETED AN EXTENSIVE NETWORK OF VINTAGE IRRIGATION DEVELOPMENTS. THE ORIGINAL CORPORATE EFFORT FAILED IN 1904, AND MANAGEMENT OF THE PROJECT WAS ASSUMED BY THE UNITED STATES RECLAMATION SERVICE. SUBSEQUENT EXPANSION AND REBUILDING SAW A SERIES OF FEDERALLY-CONSTRUCTED FEATURES SUPERIMPOSED ON THE PRIVATE IRRIGATION WORKS. SOME OF THESE IMPROVEMENTS ARE REPRESENTATIVE OF THE EARLY TECHNICAL EXPERIMENTATION OF THE UNITED STATES RECLAMATION SERVICE. AVALON DAM, THE MOST SIGNIFICANT OF THESE FEATURES, INCLUDES A PAIR OF "CYLINDER GATES," WHICH SAW IMPORTANT USE IN LATER RECLAMATION SERVICE PROJECTS.

THIS COMBINATION OF PRIVATE AND PUBLIC DESIGN MAKES THE CARLSBAD IRRIGATION DISTRICT A SIGNIFICANT REPRESENTATION OF THE HISTORICAL EVOLUTION OF WESTERN RECLAMATION PRACTICE. IT IS PERHAPS

THE WEST'S FINEST ILLUSTRATION OF THE PROGRESSION FROM PIONEERING NINETEENTH-CENTURY IRRIGATION EFFORTS TO THE RELATIVELY EXPANSIVE AND SOPHISTICATED PROJECTS OF THE EARLY U.S. RECLAMATION SERVICE.

THE DISTRICT'S PECOS RIVER IMPOUNDMENTS INCLUDE McMILLAN DAM (1893), A ROCKFILL STRUCTURE, WHICH PROVIDED THE SYSTEM'S MAIN STORAGE CAPACITY, AND THE DOWNSTREAM AVALON DAM (1906-07), WHICH SERVES AS THE SYSTEM'S DIVERSION FACILITY. AVALON IS A ROCKFILL DAM WITH AN IMPERVIOUS CORE WALL OF CONCRETE AND STEEL. IT FEATURES A PRIMARY SPILLWAY WITH AN INNOVATIVE VERTICAL "CYLINDER GATE" DESIGN. THE UPSTREAM BANKS OF BOTH STRUCTURES FEATURE IMPERVIOUS EARTH/FILL FACING.

TWO MAIN CANALS AND OVER 100 MILES OF LATERALS AND SUB-LATERALS BRANCH SOUTHWARD FROM AVALON DAM, PROVIDING IRRIGATION WATER TO SOME 25,000 ACRES OF FARMLAND. THE MOST SIGNIFICANT FEATURE ON THE CANAL NETWORK IS THE PECOS RIVER FLUME (1903), A MASSIVE CONCRETE ARCH STRUCTURE MEASURING SOME 500' FEET. THE SYSTEM ALSO

INCLUDES A LARGE INVERTED CONCRETE SIPHON (1907) ACROSS DARK CANYON. A VARIETY OF SMALLER, ANCILLARY FEATURES ARE ALSO A PART OF THE DISTRICT, INCLUDING CANAL WASTEWAYS AND HEADGATES, AND GROUPS OF MAINTENANCE AND RESIDENTIAL BUILDINGS AT EACH OF THE DAMS.

THE CARLSBAD IRRIGATION DISTRICT WAS DESIGNATED A NATIONAL HISTORIC LANDMARK IN 1975.

RECORDATION OF THE CARLSBAD IRRIGATION DISTRICT FOR THE HISTORIC AMERICAN ENGINEERING RECORD WAS PERFORMED DURING 1990 BY RENEWABLE TECHNOLOGIES, INC., BUTTE, MONTANA, AND JAMES R. McDONALD, ARCHITECT, MISSOULA, MONTANA, UNDER CONTRACT TO THE ROCKY MOUNTAIN REGIONAL OFFICE OF THE NATIONAL PARK SERVICE FOR THE BUREAU OF RECLAMATION.