

For the general information of all employees there is attached a brief summary and description of the jobs now in the office or which have been completed during the past year.

We now have 13 jobs under way and 10 additional jobs were completed during 1952. These 23 jobs represent quite a wide range of work and came to us from many different clients.

The work which we have underway, but not yet completed, represents an excellent backlog for 1953. In addition we have several new jobs in view, all of which portends well for the year.

December 1, 1952

Jobs Currently in the Office

1. THE DALLES BRIDGE

Location - Across the Columbia River $2\frac{1}{2}$ miles east of The Dalles, Oregon.

Contract with - Wasco County, Oregon.

Our contract - We made the original preliminary investigation as to financial feasibility. Our present contract covers design, supervision of construction and general supervision of ferry and bridge operation until all bonds are retired.

Cost -

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| Original bond issue | 3,050,000 |
| Payment from Army Engineers for relocation | 1,994,000 |
| Additional bond issue | 500,000 |
| TOTAL | 5,544,000 |

Status of work - The bridge was under construction at Covington Point and all piers completed, the north approach graded, and all structural steel in the shop. At this point (January 1952) the Army Engineers took legal action to acquire the right-of-way and facilities that had been built by the County, and offered to settle for \$893,000. Since the County could neither liquidate its debt or relocate the bridge for this amount, plus cash remaining from the original bond issue, it was necessary to seek greater relief. The matter was pressed in Washington, D.C., and the U. S. Attorney General's Office finally agreed to reimburse the County to the extent of \$1,994,000. Before this could be accepted it was necessary to complete plans and obtain bids for all new construction and secure the consent of the holders of the original bonds to relocate the bridge. It was also necessary to sell an additional \$500,000 of bonds since the Government settlement is not adequate.

These things have been completed and the contractor has started work at the new site. He hopes to have all piers completed to above high water by about May 15, 1953. He has until about March 1, 1954 to complete, but should do better by three or four months.

2. THE DALLES FOOTBRIDGE

- Location - Across the Columbia River about $3\frac{1}{2}$ miles east of The Dalles, Oregon.
- Contract with - Portland Army Engineers District
- Our contract - Design a suspended footbridge using the main piers of the original highway bridge. This is unique in that it is unstiffened but must be secured by a system of guys against excess movements during high winds.
- Cost - Approximately \$225,000.
- Status of Work - We have completed the design which is the extent of our contract. This bridge was intended as a footbridge for workmen on The Dalles Dam. However, it is now doubtful if it will be built since the Wasco County highway bridge immediately downstream will be completed almost as soon as the footbridge can be built.

3. HOOD RIVER BRIDGE

- Location - Across the Columbia River at Hood River, Oregon.
- Contract with - Port of Hood River.
- Our contract - We were originally retained by A. C. Allyn & Co. to investigate the financial feasibility of purchasing this 25 year old bridge by the Port of Hood River. We reported favorably. The Port then retained us to design and supervise construction of major repairs including replacing the timber deck with steel grid, reconstruction of both approaches, a new toll booth, and other miscellaneous work. We are also retained for general supervision of bridge operation until all bonds are retired.
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|------|----------------------------|--------------------|
| Cost | - Purchase price of bridge | \$1,000,000 |
| | Reconstruction | 600,000 |
| | TOTAL | <u>\$1,600,000</u> |
- Status of Work - Virtually all of the rehabilitation work has been completed.

4. UMATILLA BRIDGE

Location - Across the Columbia River at Umatilla, Oregon.

Contract with - Umatilla County, Oregon.

Our contract - Our current contract is to investigate and report on the financial feasibility of a highway bridge. We are associated with Coverdale & Colpitts of New York on this phase of the work.

We will undoubtedly receive an exclusive contract to design the bridge, supervise construction and give general supervision to ferry and bridge operation until all bonds are retired.

Cost - The total bond issue will be between \$5,000,000 and \$5,500,000.

Status of Work - This job has been delayed pending settlement of difficulties at The Dalles. Our report has been submitted and it is anticipated that initial financing to purchase the local ferry and provide funds for engineering will be accomplished early in 1953. We hope to complete design and award construction contracts during the summer. The bridge should be open for traffic during the latter part of 1954.

5. BIG DELTA ARMY BASE

- Location - Big Delta, Alaska (About 90 miles east of Fairbanks).
- Contract with - Alaska District, U. S. Engineers.
- Our contract - This is a joint venture with Albert Criz & Associates. The contract covers field surveys and designs of all roads, utilities, power and heating plant and some 16 buildings for a permanent training and test center.
- Cost - The estimated cost of construction of the work we are designing is \$6,725,000, Seattle prices, and \$20,000,000 in Alaska prices.
- Status of Work - Our office has designed all the roads, walkways, site grading, drainage, and the structural design of most of the buildings. This work is completed except for possible changes after final review by the District.

We supervised all field surveys.

6. McCLELLAN AIR BASE

- Location - McClellan Field - approximately 10 miles north-east of Sacramento.
- Contract with - Sacramento District, U. S. Engineers.
- Our contract - This is a joint venture with Albert Criz & Associates and includes two contracts.

The initial contract covered the design of utilities, site grading, railroad tracks, a gas service station and rehabilitation of a locomotive shop building.

The second contract is for the design of a cafeteria and the site adaptation of standard plans for two large warehouses each 400 feet wide. One is 1800 feet long and the other 2000 feet long.

- Cost - The estimated cost of construction is, as follows:

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| First contract | \$4,600,000 |
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| Second contract | 12,140,000 |
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- Status of Work - We have completed the first contract except for minor modifications. The second contract is approximately 50% completed.

7. MOUNTAIN HOME HEATING PLANT

- Location - Mountain Home Air Base, Mountain Home, Idaho.
- Contract with - Walla Walla District, U. S. Engineers.
- Our contract - This is a joint venture with American Hydrotherm Corporation of New York.

Our contract includes the design of a central heating plant, a distribution system for the heat and header rooms for all of the buildings served.

The unique feature of this job is that the heating medium is to be hot water (about 380°). This is a new field for us, and came about through an invitation we received from American Hydrotherm to joint venture with them in the design of high temperature liquid heating and power plants that may be built in the western states. The process has been used in Europe for 25 or 30 years, and has met with favor in industry and with the Air Force in this country since the war. It is very new in the West.

Our joint venture contemplates that all basic designs for the heating will be made by American Hydrotherm while we will do structural, electrical and plumbing design.

- Cost - The estimated cost of the Mountain Home plant is \$1,360,000.
- Status of Work - Preliminary design of the central heating plant and distribution system have been completed and reviewed. Final designs are due on January 10, 1953.

This contract has been difficult to administer because the Walla Walla District is not well organized, and is not sympathetic to the project. They recommended another type of plant, but were directed by Air Force to use hot water. It has been our misfortune to be caught in the middle of this disagreement. However, I feel confident we will produce an excellent set of plans, specifications, etc., and on time.

8. ANTIOCH UNDERPASS

- Location - Antioch, California
- Contract with - Contra Costa County, California
- Our Contract - We are to design and furnish all contract documents for a four-lane underpass of the Southern Pacific Railroad at "L" Street in Antioch.
- Cost - About \$250,000
- Status of Work - Preliminary designs have been completed and approved by the County and the Railroad. Final designs are now being prepared.

Our work has included negotiations with the railroad for division of costs as well as satisfying them as to the structure. Other parties involved with whom we are working are the Associated Oil Co. (a pipe line must be relocated), the Standard Oil Co. (another pipe line). The County fair grounds and a school, both of which are adjacent, are also affected.

9 SPOKANE BRIDGE

- Location - Across the Spokane River at Spokane, Washington.
- Contract with - A. C. Allyn & Company, Inc.
- Our contract - This is a joint venture with Coverdale & Colpitts of New York. We are to make a study of cost of the structure and the potential earnings from traffic if tolls are charged. It is a feasibility study and is preliminary in nature.
- Cost - Approximately \$5,000,000
- Status of Work - We have generally reviewed the available data, examined the site and have now requested certain additional traffic data. The work on the present study is approximately 50% complete.

This will be a difficult bridge to finance from tolls since there are five competing free bridges not far away. However, the latter are all poorly served in so far as approaches are concerned, and by designing good connections to the new bridge and charging a low toll, it may work out.

We may ultimately have the contract for design if the project develops.

11 PORT OF SAN FRANCISCO

- Location - San Francisco, California
- Contract with - Blythe & Company
- Our Contract - We are to report on the physical condition of port facilities, present and possible future earnings, present and future estimated operation and maintenance costs, and generally advise as to the feasibility of financing approximately \$6,000,000 of revenue bonds.
- Status of Work - We have just undertaken this job and have four months to complete. We expect to complete within three months.

12 PUGET SOUND CROSSING

- Location - A bridge across Puget Sound at Seattle, Washington.
- Contract with - Washington Toll Bridge Authority.
- Cur Contract - This is a personal contract for consulting services, and I am a member of a Board of engineers. The other members of the Board are Ralph Smillie of New York and John Parcel of St. Louis, Missouri.
- Cost - The preliminary estimate of cost is \$82,000,000
- Status of Work - The Board has just released its report in which we acted, as follows:
1. Found a crossing needed.
 2. Gave an opinion that it can be financed by tolls.
 3. Recommend a crossing from south Seattle to Vashon Island (12,000 feet of floating bridge), from Vashon Island to the Olympia Peninsula (a suspension bridge with main span of 3400 feet), and a system of approach highways and structures.

The Board will probably continue to serve as this project progresses. It is one of the largest and most interesting bridge projects current in the United States.

13 RICHMOND-SAN RAFAEL BRIDGE

- Location - A bridge across San Francisco Bay between Richmond and San Rafael, California.
- Contract with - California Toll Bridge Authority.
- Our Contract - This is a personal contract for consulting services, and I am a member of a Board of engineers. The other member is George Freeman of New York.
- Cost - \$62,000,000
- Status of Work - Bids for substructure and superstructure will be received during December. Bids for the purchase of revenue bonds will be received about the same time.

There is some threat of a law suit to hold this project up, but attorneys advise that this will probably not be effective.

Construction should start in early 1953.

Jobs Completed During the Past Year

1. Wasco County People's Utility District - We made a report on the cost of replacing, operating and maintaining approximately \$2,000,000 of electrical distribution properties of the Pacific Power and Light Company in and adjacent to The Dalles, Oregon. These facilities are competitive with the Wasco P.U.D. properties, and the Utility District had in mind purchasing them. To date the Utility District has not acted, and it is doubtful if it will for the present.
2. Crescent City Dock - We prepared designs for the rehabilitation of a timber dock at Crescent City. The estimated cost of the work was \$35,000.
3. Snohomish Public Utility District - We made a brief study and report on the reasonableness of the proposed purchase price and plan of operation, if purchased, of the generating, transmission and distribution properties of the Puget Sound Power and Light Company located in northwestern Washington. The estimated sale price is in excess of \$100,000,000. Our report as to price was favorable, but we were somewhat critical of the operating procedures proposed.

Seven public utility districts were originally included as combined purchasers of which Snohomish was one. Two of the districts have since withdrawn, and the privately-owned Washington Water Power Company has now made an offer to purchase. The final outcome is still in doubt.

4. Contra Costa County - We made a study and report on the need for improvements in the County road system of Contra Costa County, and estimated the costs of a recommended program. This report was used successfully by the County to gain approval of a \$10,250,000 general obligation bond issue in the June election.

As a part of this improvement program we have received a contract to design an underpass in Antioch, and we anticipate one or more additional design contracts for other parts of the system.

5. Everett Harbor - As a joint venture with Earl and Wright of San Francisco we made a report on the development of the harbor at Everett, Washington. Although the plan we proposed was not adopted (because of cost) the Port was successful in winning voters' approval of a \$300,000 bond issue, and have now asked us to confer with them on plans for improvements of one pier.
6. Haines, Alaska - This is a joint venture with Earl and Wright involving the design of a dry cargo wharf and a connecting link of highway at Haines, Alaska for the Alaska District, U. S. Engineers. It was originally part of a "crash program", but

has since lost its urgency. The wharf was directed, by the Army, to be made up of steel sheet pile cells. The contractor obtained approval of a welded detail (used at the juncture of the cells) but this detail was not referred to Earl and Wright or ourselves. The detail proved to be seriously at fault, and several of the cells failed. Corrective steps are now being taken.

7. Martinez - Benica Highway Bridge - We made a report on the cost and financial feasibility of a toll bridge across the strait between Martinez and Benica for Contra Costa and Solano Counties. We reported unfavorably on the financing of this project solely by revenue bonds.
8. San Diego - Coronado Highway Tube - We made a report on the cost and financial feasibility of a toll highway tube between San Diego and Coronado for those two cities. We reported favorably. San Diego favored it but, in a special election, Coronado rejected it by a small majority. It may come up again in the future.
9. Combustion Engineering Lawsuit - We were retained as expert witnesses in a lawsuit between Combustion Engineering Company and certain of its employees regarding the distance between the City Hall in Oakland and a construction job east of Antioch via the most direct usually travelled route. The traffic study which we made in conjunction with the Contra Costa highway report was the basis for our testimony. The Combustion Engineering Company, who retained us, won the suit.
10. Bridge of The Gods - We were retained by A. C. Allyn & Co., Inc. to report on the condition and the feasibility of financing the purchase of the existing privately-owned Bridge of The Gods which crosses the Columbia River at Cascade Locks, Oregon. Our report was highly favorable. The Port of Cascade Locks was the potential purchaser, but local interests disagreed. A. C. Allyn & Company have now purchased the bridge for themselves, and probably hold it for a later sale.