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WAR DEPARTMENT
U. S. ENGINEER OFFICE
ALBUQUERQUE DISTRICT
ALBUQUERQUE, NEW MEXICO

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SPECIFICATIONS
FOR
DEEP WELL TURBINE PUMPS

GRANADA RELOCATION CENTER,
COLORADO

August 6, 1942.

I N F O R M A T I O N

The information contained in these Drawings and Specifications is not to be publicized in any way. It must be clearly explained to all persons to whom this information is made available that it is to be held in strict confidence, and not, under any circumstances, to be transmitted to others for publication or release to the press, periodicals or other agencies of public contact having either general or limited distribution. Any person failing to observe these restrictions may be prosecuted under the provisions of the Espionage Act, Title 50, U.S.C., Sections 31 and 32.

I M P O R T A N T N O T I C E

The attention of all bidders is invited to the fact that all capital equipment is subject to allocation by the War Production Board. It is expected that each bidder will own, or will have arranged to rent or otherwise acquire, and have available the plant and construction equipment necessary to construct the work herein specified. Delays in procurement of plant and equipment necessary for completion of the work under this contract will not constitute justification for any extension of time to the contract period as herein specified.

No. _____ Bidder _____

(Do not write above this line)

STANDARD GOVERNMENT FORM OF INVITATION FOR BIDS

(Construction Contract)

WAR DEPARTMENT
U. S. ENGINEER OFFICE
ALBUQUERQUE DISTRICT
ALBUQUERQUE, NEW MEXICO

August 6, 1942

A contract will be negotiated, subject to the conditions contained herein, for furnishing all plant, labor and materials and performing all work in accordance with the attached specifications for furnishing and installing three (3) deep well turbine pumps at the Granada Relocation Center, Colorado.

I. SPECIFICATIONS AND PLANS. - The work shall be performed in strict accordance with the specifications, and bidding schedule, all of which are made a part hereof, and designated as follows:

Specifications for Deep Well Turbine Pumps, Granada Relocation Center, Colorado.

II. INVESTIGATION OF CONDITIONS. - It is expected that bidders will visit the site and acquaint themselves with all available information, including local conditions and the availability of labor; and to make their own estimates of the facilities required and difficulties attending the execution of the work. Failure to acquaint himself with all available information concerning these conditions will not relieve the successful bidder of assuming all responsibility for estimating the difficulties and costs of successfully performing the complete work as required. Prospective bidders should contact the Area Engineer at Lamar, Colorado, who will make the necessary arrangements for the inspection of the site.

III- COMMENCEMENT AND COMPLETION. - The work to be done shall be commenced within one day after the date of receipt of notice of award and shall be completed in accordance with provisions of paragraph 1-05 of the specifications.

IV. MISCELLANEOUS PROVISIONS. -

(a) Labor and Wage Conditions, to be maintained under the proposed contract or any subcontract thereunder, for work executed at the site of the project, shall be as stated in paragraphs 1-06, 1-10, and GC-5 of the specifications and Articles 11, 17, and 19 of the contract. The U. S. Employment Service, with offices in Lamar, Colorado, has facilities for referral of local labor. The use of this service is

optional with the contractor but the contractor shall use such labor as may be available from relief rolls which he finds satisfactory, this labor to be paid the established prevailing rate referred to in paragraph 1-10 of the specifications.

(b) Minimum Wage Rates. - Pursuant to the provisions of Article 17 of the contract, the minimum wage rates to be paid labor under this contract will be determined by the Department of Labor.

(c) Hours of Work and Overtime Pay. - Provisions regarding hours of work and overtime pay will be made a part of the contract. (See paragraph GC-32 of the specifications.)

(d) Reports. - In order to assist the Department of Labor in obtaining employment statistics and to assist the Government in obtaining cost data, bidders, unless otherwise indicated in their bids, will be considered as having voluntarily consented without cost to the Government, to the inclusion of paragraph GC-5 and GC-41 of the specifications as a part of the contract.

(e) Liquidated Damages. - Liquidated damages for delay will not be prescribed. (See paragraph 1-05 (b) of the Specifications and Article 9 of the contract.)

(f) Patents. - Articles on Patents will be made a part of the contract. (See paragraph GC-7 of the specifications.)

(g) Partial Payments. - Partial payments will be made. (See paragraph GC-36 of the specifications and Article 16 of the contract.)

(h) Claims, Protests, and Appeals. - Decisions on claims, protests and appeals will be made by the Secretary of War, Washington, D. C. (See paragraph GC-39 of the specifications and Articles 9 and 15 of the contract.)

(i) Federal, State, and Local Taxes. - Provisions for adjustment of contract price by means of change in Federal, State, and Local taxes will be made a part of the contract. (See paragraph GC-42 of the specifications.)

(j) Accident Prevention, Liability and Safety Requirements. - The attention of bidders is directed to the requirements of paragraph GC-16 of the specifications regarding accident prevention, liability, and safety requirements.

(k) Labor Discrimination. - Provision on discrimination against workers because of race, creed, color or national origin will be made a part of the contract.

(l) Assignment of Claims. - Articles on assignment of claims will be made a part of the contract. (See paragraph GC-35 of the specifications.)

(m) Priorities. - The attention of bidders is directed to paragraphs 1-07 and GC-29 of the specifications which provides for the establishment of a priority rating for the contract.

(n) Liability Resulting from Enemy Operations. - A provision to relieve the contractor from liability for damage due to enemy operations will be made a part of the contract.

(o) Termination for the Convenience of the Government. - A provision for "Termination for Convenience of the Government" will be made a part of the contract.

(p) Discounts. - No offers of discount for prompt payment or cash discounts will be tendered to or considered by the Government.

V. PREPARATION OF BID. -

(a) Form. - Bids must be submitted on the Standard Government Form of Bid to be eligible for consideration in awarding the contract.

(b) Bidding Schedule. - The bid form has an entry for each item on which estimates will be given or payments made. The quantities of each item of the bid, as finally ascertained at the close of the contract, in the unit prices of the several items stated by the bidder in the accepted bid, will determine the total payments to accrue under the contract. No other allowance of any kind will be made unless specifically provided for in the specifications or the contract or by adjustments under Article 3 of the contract. The unit price bid for each item must allow for all collateral or indirect cost connected therewith.

(c) Bid Bond. - A bid bond is not required.

VI. DATA TO BE FURNISHED WITH BIDS. -

(a) General. - All bids submitted must be accompanied by a statement establishing that the bidder maintains a permanent place of business and has a suitable financial status to meet obligations incident to the work. (See paragraph 3 of the bidding schedule.) In addition, each bidder shall submit with his bid the statement of equipment which he proposes to employ on this work, including its location, ownership, and how it is proposed to be obtained if not already owned or controlled by the bidder. These data are considered essential in enabling the contracting officer to determine whether the bidder is responsible and experienced in similar types of construction and whether the bid is based on a careful study of construction methods applicable to the work and full realization of the various factors which may affect the progress of the work.

(b) Experience. - Each bidder shall state in the space provided in the bidding schedule, a brief description of the character of the work previously executed by him and the locations of the major projects. After the bids are open, any bidder may be required by the contracting officer to state whether he is now or ever has been engaged in any construction work similar to that proposed, the year in which

it was done, and the manner of its execution, and to give such other information as will tend to show his ability to prosecute vigorously the work required by these specifications. (See paragraph 2 of the Bidding Schedule.)

VII. AWARD OF CONTRACT. - Award of contract will be made as a whole to one bidder, subject to the right reserved, as the interest of the Government may require, to reject any and all bids and to waive any informality in bids received. A bid may be rejected if the bidder fails to submit the data required with his bid or cannot show, to the satisfaction of the contracting officer, that he has the necessary capital and experience and owns or controls by firm option or can procure the necessary plant, as listed in the bidding schedule submitted, to commence work at the time prescribed in the specifications and thereafter to prosecute and complete the work at the rate of time specified; and that he is not already obligated for the performance of other work which would delay the commencement, prosecution or completion of the work contemplated. Any unbalanced bid which, in the opinion of the contracting officer jeopardizes the interest of the Government will be subject to rejection for that reason. The United States specifically reserves the right to reject any qualified bids and will normally reject those which make it impossible to determine the true amount of the bid.

VIII. CONTRACT. - Contract will be required to be executed by the successful bidder on the accompanying Standard Form No. 23, in accordance with the accompanying Government Instructions to Bidders (Standard Form No. 22)

IX. PERFORMANCE AND PAYMENT BONDS. - Performance and Payment Bonds will be required as follows:

(a) A performance bond with good and sufficient surety or sureties, for the protection of the United States, Standard Form No. 25 will be executed in approximately equal to and not less than ten per cent (10%) of the full amount of the consideration of the contract. (See Standard Government Form of Bid, paragraph 5, for time limit of submitting payment bonds.)

(b) If the consideration of the contract will exceed two thousand dollars (\$2,000.00) in amount, payment bond with good and sufficient surety or sureties, for the protection of persons furnishing material and labor for the work, Standard Form 25-A, will be executed in a penal sum approximately equal to and not less than fifty per cent (50%) of the full amount of the consideration of the contract when the latter is not more than one million dollars, (\$1,000,000.00), forty per cent (40%) where the contract exceeds one million dollars (\$1,000,000.00) but is not more than five million dollars (\$5,000,000.00) and two million five hundred thousand dollars (\$2,500,000.00) for all contracts above five million dollars (\$5,000,000.00).

X. RELEASE OF CLAIMS - ADDITIONAL FEE. - If prospective contractor now has a contract on cost-plus-a-fixed-fee basis it will be necessary that there be furnished, in quadruplicate, to the District Engineer, U. S.

Engineer Office, Albuquerque, New Mexico, an unconditional release, releasing the United States, its officers, and agents, from any and all claims or demands for additional fee by virtue of work or services prior to date of negotiation and the execution of the release in connection with the **Cost-Plus-a-Fixed-Fee Contract**.

NOTE: U. S. Standard Form No. 23, Construction Contract.
U. S. Standard Form No. 22, Instructions to Bidders, and
U. S. Standard Form Release of Claims, are attached.

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WAR DEPARTMENT
U.S. ENGINEER OFFICE
ALBUQUERQUE DISTRICT
ALBUQUERQUE, NEW MEXICO

GENERAL CONDITIONS

GC-1 GENERAL.- These conditions are a part of the Specifications and shall govern wherever applicable. (See "Special Conditions").

GC-2 VISITING SITE.- The Bidder should visit the site and acquaint himself as to local conditions, availability of labor, water, electric power, roads, soil conditions, the relation of finished grade of the building to existing grades and difficulties which may attend execution of the work. The submission of a proposal will be construed as evidence that such a visit and investigation has been made and **later** claims for labor, equipment, or materials required, or difficulties encountered will not be considered.

GC-3. SITE OF WORK.- The term "Site of Work" as used in these specifications and in Articles 17 and 19 of the contract, will embrace all areas wherein field operations are conducted by the contractor in connection with this contract, including work areas, shops, camps, yards, etc., irrespective of whether such operating areas lie within the limits of right-of-way shown on the drawings.

GC-4. CONTRACT REQUIREMENTS. - The contractor shall acquaint himself and require subcontractors to be thoroughly acquainted with all the provisions and requirements of the basic contract and exact strict compliance with all terms thereof affecting such subcontractors, particularly as to wages, reports and affidavits.

GC-5. CONTRACTOR'S REPORTS.- The contractor will report monthly, and will cause all subcontractors to report in like manner, within five days after the close of each calendar month, on forms to be furnished by the Department of Labor, the number of persons on their respective pay rolls, the aggregate amount of such pay rolls, the man hours worked, and the total expenditures for materials. He shall furnish the Department of Labor the names and addresses of all subcontractors on the work at the earliest date practicable provided that the foregoing shall be applicable only to work at the site of the construction project.

GC-6. LIABILITY FOR DAMAGES.- The contractor will be held responsible for all damage to the work under construction, whether from fire, water, high wind, or other causes, during performance and until final completion and acceptance, even though partial payments may have been made under the contract. He will be held answerable for all damages that may occur to persons, property, animals or vehicles from want of proper shoring, bracing, lighting, watching, boarding or enclosing, and for any accident arising from defective

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scaffolding or apparatus, or any negligence on the part of himself or his employees.

GC-7. PATENTS. - The contractor shall hold and save the Government, its officers, agents, servants and employees, harmless from liability of any nature or kind including costs and expenses for or on account of any patented or unpatented invention, article or appliance manufactured or used in the performance of this contract, including its use by the Government. These specifications are furnished with the explicit understanding that when drawings, specifications and other data prepared by the War Department are furnished manufacturers and others for use in the manufacture or purchase of supplies, or for any other purpose, the Government assumes no responsibility nor obligation whatever, and the furnishing of said data by the War Department is not to be regarded by implication or otherwise as in any manner licensing the holder or conveying the rights or permission to manufacture, use, or sell any patented invention that may in any way be thereto related.

GC-8. STANDARD STOCK PRODUCTS. - All materials, supplies and articles furnished shall, wherever so specified, and otherwise wherever practicable, be the standard stock products of recognized reputable manufacturers. The standard stock products of manufacturers other than those specified will be accepted, if in the opinion of the contracting officer, they are equal in strength, durability, usefulness and convenience for the purpose intended. (See article 7 of the contract.) Any changes required in the details and dimensions shown on the drawings for the substitution of standard stock products, other than those provided for, shall be properly made as approved by the contracting officer, and at the expense of the contractor.

GC-9. CONTROL AND ACCESS TO WORK. - The work shall be entirely under the control of the contracting officer and he or his authorized representatives shall have access to same at all times. The contracting officer may require the contractor to dismiss such employees as he deems to be incompetent or careless.

GC-10. CHARACTER OF WORK AND MECHANICS. - The work shall be executed in the best and most workmanlike manner by qualified, careful and efficient mechanics, in strict accordance with the drawings and specifications.

GC-11. SUBCONTRACTORS. - Subcontractors and their employees shall be considered to be employees of the contractor as the term "employee" is used in these specifications.

GC-12. INTERPRETATION OF CONTRACT. - Unless otherwise specifically set forth, the contractor shall furnish all materials,

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labor, etc., necessary to complete the work according to the true intent and meaning of the drawings and specifications of which intent and meaning the contracting officer shall be the interpreter. Except when otherwise indicated, no local terms or classifications will be considered in the interpretation of the contract or the specifications forming a part thereof.

GC-13. LINES, GRADES, AND STAKES.

(a) The contractor shall, at his own expense, furnish all stakes, material for batter boards, templates, patterns, platforms, and special labor that may be required in setting and cutting or laying out any part of the work. After lines and grades for any part of the work have been given by the Government inspectors, the contractor will be required to check their accuracy and will be held responsible for the proper execution of the work to the correct lines and grades. All stakes or other marks given shall be preserved by him until authorized by the inspector to remove them. The contracting officer may require that work be suspended at any time when for any reason such marks cannot be properly followed.

(b) The contracting officer will furnish to the contractor all location and limit marks reasonable necessary for the primary layout of the work, including grades for utility systems, to five feet outside the building lines. After primary layout of each unit has been furnished, the contractor shall make all further layout necessary for the prosecution of the work including the setting of batter boards. He shall be responsible for the preservation of the primary layout and, in case any portion is destroyed, he shall replace it as directed by the contracting officer.

GC-14. ROADS AND GROUNDS. - All building operations, and the grounds used in connection therewith, shall be confined to the limits designated by the contracting officer. Only such established and temporary roadways as the contracting officer may authorize shall be used by the contractor. Damaged roadways shall be repaired as directed by the contracting officer, at no expense to the United States. The contractor shall keep the buildings and grounds in use by him at the site of the work in an orderly and sanitary condition.

GC-15. UTILITIES. - Where water and electrical current are available from existing systems belonging to the United States, the contractor on application to the contracting officer will be furnished same through metered connections as required for his work, provided, however, that in case of emergency and/or in the opinion of the contracting officer the water supply becomes only sufficient to meet military needs, the contractor shall furnish the water necessary for his use from other approved sources.

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Connection to water mains or services shall be made by the contractor under the supervision of the contracting officer at the contractor's expense. The contractor shall provide all piping, corporation cocks, fittings, etc., required to make the connection and from it the contractor shall run such piping as he requires. Temporary piping shall be run underground in such locations as are approved by the contracting officer.

The contractor shall house connection to main or service in an accessible and approved manner and properly protect all piping against freezing. Connections, pipe, fixtures and fittings shall be maintained by the contractor. Failure to stop any leakage or other waste will be cause for use of the water to be discontinued. After temporary lines have served their purpose, the contractor shall remove all or part and restore the surface of the ground, as required by the contracting officer.

The closing of corporation cocks at mains shall be done by the contractor in a manner satisfactory to the contracting officer. Where water and/or electrical current are not available from the United States, the contractor will make his own arrangements for securing the same.

The United States will not be liable for delays or for any damage or expenses occasioned by the contractor due to any water and/or power shortage

GC-16. ACCIDENT PREVENTION, LIABILITY AND SAFETY REQUIREMENTS.

(a) The contractor will not be allowed to block or obstruct any public highway without having secured prior permission from the contracting officer, and having provided safe, temporary detours. During the time the highways are so blocked, the contractor shall replace danger lights, barricades and warning signs in accordance with all local and State laws or as directed by the contracting officer.

(b) The contractor shall be responsible that his employees strictly observe the laws of the United States at the site under the contract.

(c) Accident Prevention. - In order to protect the life and health of employees in the performance of this contract, the contractor will comply with all pertinent provisions of the "Safety Requirements in Excavation - Building - Construction" approved by the Chief of Engineers, December 16, 1941, (a copy of which is on file in the office of the contracting officer) and as may be amended, and will take or cause to be taken such additional measures as the contracting officer may determine to be reasonably necessary for

GENERAL CONDITIONS

this purpose. The contractor will maintain an accurate record of and will report to the contracting officer in the manner and on the forms prescribed by the contracting officer, all cases of death, occupational disease and traumatic injury arising out of or in the course of employment on work under this contract. The contracting officer will notify the contractor of any non-compliance with the foregoing provisions and the action to be taken. The contractor shall, after receipt of such notice, immediately correct the conditions to which attention has been directed. Such notice, when served on the contractor or his representative and at the site of the work, shall be deemed sufficient for the purpose aforesaid. If the contractor fails or refuses to comply promptly, the contracting officer may issue an order stopping all or any part of the work. When satisfactory corrective action is taken, a start order will be issued. No part of the time lost due to any such stop order shall be made the subject of claim for extension of time or for excess costs or damages by the contractor.

(d) Particular attention is invited to Section 8302.03 of the "Safety Requirements in Excavation - Building - Construction" referred to in paragraph (c) above providing for First Aid Stations, infirmaries, medical and First Aid personnel, and ambulance services.

(e) The Infirmary and all First Aid Stations shall remain open and be completely manned as directed by the contracting officer during all hours that work is being performed.

(f) On projects employing 500 or more persons, a competent Safety Engineer shall be provided by the contractor for full-time supervision of the contractor's Safety Program. This Safety Engineer shall be an employee of the contractor and not a representative of the contractor's insurance company. The Safety Engineer shall have full authority to plan and direct an efficient Safety Program for the contractor and to correct deficiencies found by him or reported to him by representative of the contracting officer.

(g) It will be permissible for the contractor to make arrangements to combine his facilities with the facilities of other contractors prosecuting work at the site, who have established the facilities and services specified in subparagraph (c) and (f) above, so that the combined facilities and services meet the requirements of these specifications. Such arrangements shall be subject to the prior approval of the contracting officer.

(h) Nothing in this paragraph shall be construed as modifying the responsibility of the contractor as set forth in Article 10 of the contract.

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GC-17. SUBSTITUTES FOR CRITICAL MATERIALS. - The plans and specifications for the various divisions of work have been prepared with a view toward reducing the use of critical materials to a minimum.

Where further changes in materials are deemed necessary in compliance with the lists of prohibited items as issued by the Army and Navy Munitions Board on priorities instructions, such changes will be ordered by the contracting officer. Any increase or decrease in cost occasioned by such changes to be adjusted according to article 3 of the contract.

GC-18. PROTECTION OF STORED MATERIAL. - All materials, supplies, and articles delivered at the site, shall be adequately housed or otherwise protected against deterioration and damage to the satisfaction of the contracting officer. In case material or equipment furnished and stored by the contractor, on which payments have been made, becomes damaged or destroyed due to improper protection, the contractor shall replace such material at his own expense and to the satisfaction of the contracting officer.

GC-19. MISPLACED MATERIAL. - Any material that is deposited elsewhere than the place designated or approved by the contracting officer will not be paid for, the contractor may be required to remove such material and waste it or redeposit it as directed.

GC-20. STANDARD TESTS, QUALITY AND GUARANTEES.

(a) All materials, supplies and parts and assemblies thereof entering into the work to be done under these specifications shall be tested as specified herein, or, if not specified, in conformity with Article 6 of the contract and according to the best modern approved method for the particular type and class of work.

(b) Unless otherwise authorized or directed, where standard published specifications of recognized authorities or organizations are specified, the latest revisions of such specifications current at the time the work is executed shall govern.

(c) Unless waived in writing by the contracting officer, all tests and trials shall be made in the presence of a duly authorized representative of the contracting officer. When the presence of the inspector is so waived, sworn statements, in triplicate, of the tests made and the results thereof shall be furnished the contracting officer by the contractor as soon as possible after the tests are made.

(d) All costs of all tests and trials, excepting the

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expenses of the Government inspector and the testing of concrete aggregate and concrete cylinder tests shall be borne by the contractor and shall be included in the contract unit price for the items to which the inspections apply.

(e) In accordance with Article 7 of the contract, all materials, supplies and articles furnished and incorporated in the permanent structure shall be of the highest grade, free from defects and imperfections, of recent manufacture, and unused. Workmanship shall be of the highest grade and in accordance with the best modern standard practice.

(f) All articles, supplies, equipment parts and assemblies thereof, of standard manufacture, or for which detail designs or requirements are not prescribed in these specifications shall be guaranteed by the contractor against any failure in proper use or operation, caused by defective material, workmanship or design, for a period of one year from the date of final acceptance of the complete work under this contract. Failure in any part due to such causes within that time shall be promptly and satisfactorily remedied by the contractor without cost to the Government.

GC-21. FEDERAL SPECIFICATIONS. - All Federal Specifications hereinafter referred to shall include the latest revisions and amendments and may be seen in this office. Federal Specifications may be obtained from the Superintendent of Documents, Washington, D.C., or they may be seen at the U. S. Engineer Office, Albuquerque, New Mexico.

GC-22. MATERIAL, EQUIPMENT AND SAMPLES TO BE SUBMITTED. - As soon as practicable and within fifteen (15) days or any additional time as determined necessary by the contracting officer after the date of receipt of notice of award of the contract and before any materials, fixtures or equipment are purchased, the contractor shall submit for approval a complete list of all materials, fixtures and equipment which he intends to incorporate in the work in triplicate, together with the names and addresses of the manufacturers, servicing agencies and their catalog numbers and trade names. The contractor shall also furnish samples or detailed information in accordance with requirements specified in the detailed specifications. Approval of materials will be based on manufacturer's published ratings. The equipment of any manufacturer who does not have an established distributing warehouse or servicing shop, conducted under responsible management and having qualified and experienced mechanics available, within a reasonable distance from the airfield, will not be considered. Failure to furnish the names of servicing agencies, or any other data called for in these specifications, will be considered sufficient reason for rejection of the equipment. Such servicing facilities shall have been established prior to the submittal of

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bids and not merely set up for the purpose of complying with this requirement of the specifications. In the event the contractor submits for approval materials, fixtures, and equipment that are not in conformity with the specifications, or not of the best quality and grade, the contracting officer reserves the right to reject such materials, fixtures, and equipment and to select a complete line; or the contractor shall submit for approval other equipment which is in conformity with the specifications. If the contractor fails to submit for approval within the specified time after the date of receipt of notice of award of the contract, the list of materials as above specified, then the contracting officer reserves the right to select a complete line of materials, fixtures and equipment. The selection made by the contracting officer shall be final and binding upon the contractor and shall be furnished and installed by the contractor without change in the contract price.

GC-23. DRAWINGS AND SPECIFICATIONS, COOPERATIVE. - The drawings and specifications shall be considered as cooperative and work and material called for by one and not shown or mentioned in the other shall be done or furnished in as faithful and thorough a manner as though fully covered by both.

GC-24. DISCREPANCIES. - Where no figures or memoranda are given, the drawings shall be accurately followed according to scale. In any case of discrepancy in the figures on drawings, the matter shall be immediately submitted to the contracting officer without whose decision said discrepancy shall not be adjusted by the contractor, save only at his risk; and in the settlement of any complications arising from such adjustment the contractor shall bear all extra expense involved.

In case of differences between drawings and specifications, the specifications shall govern.

GC-25. DRAWINGS. - The work shall conform to drawings listed in "Special Provisions."

(a) The work shall also conform to such drawings in explanation of details or modifications as may be furnished by the contracting officer from time to time during construction, including such changes as the contracting officer may consider necessary on account of special conditions encountered during prosecution of the work. (See Articles 2 and 3 of the contract.)

(b) During the prosecution of the work the contractor shall check all drawings and shall immediately report all errors and omissions found therein to the contracting officer. Parts and details not fully shown on the drawings shall be detailed by the contractor in accordance with standard architectural and engineering

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practice. The contractor shall submit three sets of prints of each of such detailed drawings and accompanying specifications to the contracting officer who will return one set with his approval or with notations of such changes as he deems necessary. Approval of drawings by the contracting officer shall not relieve the contractor of responsibility for the correct fitting together and exact position of all parts of the work and complete conformity with the specifications. After approval, the contractor shall furnish the contracting officer with five sets of prints of each approved drawing and accompanying specifications. Each print submitted for approval shall have a three-inch by four-inch white space in the lower right hand corner, just above the title, in which the contracting officer may indicate the action taken. All such approved drawings and specifications shall form a part of these specifications. Payment for the contractor's drawings, revisions thereof, and for copies furnished, shall be included in the contract prices of the various items of work.

(c) Shop and Erection Drawings. - The contractor shall submit to the contracting officer for approval five copies of all shop drawings called for under the various sections. These drawings shall be complete, giving all the required information. If approved, each copy will be identified as having received such approval by being stamped or marked thus: "THIS SHOP DRAWING APPROVED IN ACCORDANCE WITH PROVISIONS OF SPECIFICATIONS," signed and dated. Four sets will be retained by the contracting officer and one returned to the contractor. If not approved, each copy will be so identified by being stamped or marked thus: "THIS SHOP DRAWING TO BE CORRECTED AS NOTED," and dated. After being stamped and marked for correction, with the necessary changes having been indicated thereon, one copy of each drawing will be returned to the contractor for the necessary corrections. After the corrections have been made and approved, the contractor shall submit five copies of the revised drawings to the contracting officer for approval and distribution as above provided. All approved shop drawings will form a part of the specifications. The approval shall not be construed as a complete check, but will only indicate that the general method of construction and detailing is satisfactory. Approval of the drawings will not relieve the contractor of the responsibility for any error which may exist, as the contractor shall be responsible for the dimensions and design of adequate connections, details and satisfactory construction of all work.

GC-26. COMPLETE WORK REQUIRED. - It is intended that the drawings and specifications include everything requisite and necessary to finish the entire work properly notwithstanding every item necessarily involved is not particularly mentioned. All work when finished shall be delivered in a complete and undamaged state and in proper working order.

GENERAL CONDITIONS

GC-27. MINOR MODIFICATIONS. - The right is reserved to make such minor changes in the execution of the work to be done under these specifications as, in the judgment of the contracting officer, may be necessary or expedient to carry out the intent of the contract; provided that the unit cost to the contractor of doing the work shall not be increased thereby, and no increase in unit price over the contract rate will be paid to the contractor on account of such changes. (See Articles 3, 4 and 5 of the contract.)

GC-28. INTERFERENCE WITH OTHER CONTRACTORS. - The contractor shall not interfere with materials, appliances, or workmen of the United States or any other contractor who may have work at this site. As far as practicable all contractors shall have equal rights in the use of all assigned roads and grounds. In case of disagreement regarding such use the decision of the contracting officer shall govern.

GC-29. PRIORITIES. - Attention of the contractor is called to the fact that a priority rating will be established for this contract. (See "Special Provisions"). In case the contractor is unable to obtain the required delivery on materials and/or equipment which are to become a permanent part of the construction, the contractor shall notify the contracting officer, submitting with his notification supporting data to his claim that the required delivery of such materials or equipment cannot be obtained.

If the completion of the undertaking to be performed under the terms of this contract be delayed by reason of delay in the delivery of materials or supplies essential to such performance because of national defense priorities and without the fault or negligence of the contractor, the time of performance will be extended for a period equal to such delay, as determined by the contracting officer, and subject to appeal, as provided in Article 9 of the contract.

GC-30. ORDER OF WORK. - Construction shall be carried on in such order and sequence as found necessary and approved by the contracting officer.

GC-31. WORK COVERED BY CONTRACT PRICE. - The contractor shall, under his contract prices, furnish and pay for all materials, labor and all permanent, temporary, preparatory and incidental work, furnish all accessories and do everything which may be necessary to carry out the contract in good faith, which contemplates the completion of everything in good working order, of good material, and with accurate workmanship, skillfully fitted and properly connected and put together.

GC-32. HOURS OF WORK AND OVERTIME PAY. - The contractor will prosecute the work in accordance with the following conditions and will include the same provisions in **all** subcontracts entered into by him.

GENERAL CONDITIONS

(a) Overtime Rates. - Where a single shift is worked eight hours of continuous employment except for lunch periods shall constitute a day's work beginning on Monday and through Friday of each week. When work is required in excess of eight hours on any one day or during the interval from five p.m. Friday to seven a.m. Monday or on holidays such work shall be paid for at one and one-half times the basic rate of wages.

(b) Shifts. - Where two or more shifts are worked, five days of seven and one-half hour shifts from Sunday midnight to Friday midnight, shall constitute a regular weeks work. The pay for a full shift period shall be a sum equivalent to eight times the basic hourly rate and for a period less than the full shift shall be the corresponding proportional amount which the time worked bears to the time allocated to the full shift period. Any time worked from **Friday** midnight to Sunday midnight or in excess of regular shift hours shall be paid for at one and one-half times the basic rate of wages. Wherever found to be practicable shifts should be rotated.

GC-33. WORKMEN'S COMPENSATION LAWS. - The act approved June 25, 1936, (49 Stat. 1938, 1939) provides that the several states have authority to make their workmen's compensation laws applicable to contracts for the construction, alteration or repair of a public building, or public work of the United States, and the several states are vested with the power and authority to enforce such state laws on lands of the United States.

GC-34. INSURANCE. - No partial payment will be made until the contractor has submitted satisfactory proof that the property to be paid for is covered by a fire and comprehensive coverage insurance policy with extended coverage endorsement. Such insurance shall be in a sum at least equal to the amount of the payment to be made, plus any other partial payments previously made thereon. The contractor shall keep all such property fully insured, without cost to the Government, until final inspection and acceptance of all work under the contract. The insurance policy or policies shall be written by a company or companies satisfactory to the contracting officer, and shall provide that any loss be payable to the contractor and the Government as their respective interests may appear. All insurance policies shall be filed with the contracting officer and shall be subject to his approval.

GC-35. ASSIGNMENT OF CLAIMS.

(a) In accordance with the provisions of the Assignment of Claims Act (Public No. 811, 76th Congress, 3d Session) approved October 9, 1940, payments due under this contract may be assigned to a bank, trust company, or other financing institution, including

GENERAL CONDITIONS

any Federal lending agency.

(b) Any assignment shall cover all amounts payable under this contract and not already paid and shall not be made to more than one party, except that any such assignment may be made to one party as agent or trustee for two or more parties participating in such financing.

(c) Any claim under this contract may be subject to further assignment to a bank, trust company, or other financing institution including any Federal lending agency, and to similar further assignment; provided that any such assignee shall file written notice of further assignment, together with a true copy of the instrument of further assignment with the contractor and also as provided in proviso 4 of Section 1 of the Assignment of Claims of 1940 (Public No. 811, 76th Congress) in respect to original assignment.

(d) No assignee shall divulge any information concerning the contract, or contained therein, except to those persons necessarily concerned with the transaction.

(e) Payments to an assignee of any claim arising under this contract shall not be subject to reduction or set-off for any indebtedness of the assignor to the United States arising independently of this contract.

(f) Further information concerning procedure for assignment may be obtained from the contracting officer.

GC-36. PAYMENTS. - Payments to the contractor will be made semi-monthly in accordance with Article 16 of the contract and in accordance with a well-balanced schedule to be prepared by the contractor and approved by the contracting officer apportioning the total amount of the contract among the main items that go to form the completed work. The total amount shown by said schedule shall equal the amount to be paid under the contract. Ten per cent (10%) of the amount of each estimate will be retained until the contract work is fifty per cent (50%) completed, after which the total amount retained will never be less than 5 per cent (5%) of the total contract amount until the full completion and acceptance of all work covered by the contract, when final payment will be made thereon, including the retained percentage.

GC-37. ORGANIZATION, PLANT AND PROGRESS.

(a) The contractor shall within seven days after issuance of the notice of award, prepare and submit to the contracting officer, for approval a practicable and feasible schedule showing the order in which the contractor proposes to carry on the work,

GENERAL CONDITIONS

the dates on which he will start the several salient features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same. The schedule shall be in the form of a progress chart of suitable scale so as to indicate appropriately the percentage of work scheduled for completion at any time. The contractor shall enter the actual progress at the end of each week and shall immediately deliver to the contracting officer three blue print copies of the same.

(b) The contractor shall furnish sufficient forces, construction plant and equipment, and shall work such hours, including night shifts and Sunday and holiday work as may be necessary to insure the prosecution of the work in accordance with the approved progress schedule. If, in the opinion of the contracting officer, the contractor falls behind the progress schedule, the contractor shall take such steps as may be necessary to improve his progress and the contracting officer may require him to increase the number of shifts, days of work and/or the amount of construction plants, all without additional cost to the Government.

(c) Failure of the contractor to comply with the requirements by the contracting officer or his authorized representative under this provision shall be grounds for the determination by the contracting officer that the contractor is not prosecuting the work with such diligence as will insure completion within the time specified; and when such determination has been made, the contracting officer may provide the necessary additional personnel and/or material and/or plant at the contractor's expense to insure completion within the required time. If the work is not already being prosecuted on a multiple shift basis, the contracting officer may require work to be carried on during additional shifts at the contractor's expense.

GC-38. INSPECTION.

(a) The work will be conducted under the general direction of the contracting officer and will be inspected in accordance with Article 6 of the contract by inspectors appointed by him. The inspectors will keep a record of the work done and see that the location and limit marks are kept in proper order, but the presence of the inspector shall not relieve the contractor or his responsible agent (See Article 8 of the contract) of the responsibility for the proper execution of the work.

(b) Except as specified in this paragraph, in Article 6 of the contract, or otherwise provided for in these specifications, all expenses of inspection will be borne by the Government.

(c) It is understood that any instructions or decisions given by a superior officer through the contracting officer are to

GENERAL CONDITIONS

be considered instructions or decisions of the contracting officer in all cases where, under the terms of the contract, decisions rest with the contracting officer.

GC-39. CLAIMS, PROTEST AND APPEALS. - If the Contractor considers any work demanded of him to be outside the requirements of the contract, or if he considers any action or ruling of the contracting officer or of the inspectors to be unfair, the contractor shall, without undue delay, upon such demand, action or ruling, submit his protest thereto in writing to the contracting officer, stating clearly and in detail the basis of his objections. The contracting officer shall thereupon promptly investigate the complaint and furnish the contractor his decision, in writing, thereon. If the contractor is not satisfied with the decision of the contracting officer, he may, within thirty (30) days appeal in writing to the Secretary of War, whose decision, or that of his duly authorized representative, shall be final and binding upon the parties to the contract. Except for such protests or objections as are made of record in the manner herein specified and within the time limit stated, the records, rulings, instructions or decisions of the contracting officer shall be final and conclusive. All appeals from decisions of the contracting officer authorized under the contract shall be addressed to the Secretary of War, Washington, D. C. The appeal shall contain all the facts or circumstances upon which the contractor bases his claim for relief and should be presented to the contracting officer for transmittal within the time provided for in the contract.

GC-40. PURCHASE ORDERS. - Two copies of all purchase orders, showing firm names and addresses, shall be submitted to the contracting officer prior to the placement of orders for materials which are to be incorporated in the work. Two copies of shipping bills or invoices covering shipment of all materials received, whether they are to be incorporated in the permanent work or consumed in the course of construction, shall be furnished in each case within ten days after receipt of shipment. Such invoices or shipping bills shall clearly indicate, in the case of each shipment, the firm names and addresses, the car initials and numbers when shipped by railroad, and the weights or other units of measure. In the case of material which is to be incorporated in the permanent work, the invoices or shipping bills will be so worded or marked that each item, piece or member can be definitely identified on the drawings.

GC-41. COST DATA. - The Government will keep a record of the costs of the work performed under these specifications and the contractor shall permit the contracting officer to have access to his timekeeping invoices and plant records for this purpose. The contractor shall also furnish the contracting officer with a statement of the initial cost and date of purchase of all plant used in connection with the work.

GENERAL CONDITIONS

(See paragraph IV (d), Invitation for Bids.)

GC-42. ADJUSTMENT OF CONTRACT PRICE BY REASON OF CHANGE IN FEDERAL, STATE OR LOCAL TAXES. - Unless otherwise indicated, the prices herein include any Federal, state and local tax or charge heretofore imposed which is applicable to the supplies or work covered hereby. If after the date of award, the Federal Government or any state or local government shall impose, remove or change any duty, sales, use or excise tax or any other tax or charge directly applicable to the supplies or work covered hereby or the materials used in the manufacture thereof or directly upon the importation, production, processing, manufacture, construction or sale of such supplies, work, or materials, which tax or charge must be borne by the contractor because of a specific contractual obligation or by operation of law, or in case of a decrease or elimination of a tax, where the contractor is relieved to that extent, and if in case of an increase in an existing tax or the imposition of a new tax the contractor has paid such tax or charge to the Federal Government or a state or local government, or any person, then the prices named herein will be increased or decreased accordingly and any amount due to the contractor as a result of such change will be charged to the Government and entered on vouchers (or invoices) as a separate item; provided, however, that the Government reserves the right to issue to the contractor in lieu of such payment a tax exemption certificate or certificates acceptable to the Federal Government or state or local government, as the case may be, and the contractor agrees, in the case of any such state or local tax or charge, to take such steps as may be requested by the Government to cause such tax or charge to be paid under protest, to preserve and to cause to be assigned to the Government any and all rights to the refund of such tax or charge, and to furnish to the Government all reasonable assistance and cooperation requested by the Government in any litigation or proceeding for the recovery of such tax or charge; and Provided further, That nothing contained herein shall be construed as requiring the Government to reimburse the contractor for any Federal, state or local income taxes, income surtaxes or excess profits taxes.

GC-43. RESTORATION OF SITE. - Before final payment is made, the contractor shall remove from the site, without expense to the Government, all rubbish, unused materials provided by him, temporary buildings and other structures erected by him, shall fill all holes or cavities made for his convenience, except as otherwise provided, and shall leave the entire site in good order and condition, all as required by the contracting officer.

GC-44. FINAL EXAMINATION AND ACCEPTANCE. - When all work called for under this contract has been completed, the contracting officer will make a thorough examination of the same and, if it is found to fully comply with the requirements of the contract, it will be accepted and final payment will be made in accordance with the provisions of Article 16 (d) of the contract.

WAR DEPARTMENT
U. S. ENGINEER OFFICE
ALBUQUERQUE DISTRICT
ALBUQUERQUE, NEW MEXICO

APPROPRIATION: 212/30905 ENGINEER SERVICE, ARMY, 1942 AND 1943 (A 0905-23)

SPECIFICATIONS: DEEP WELL TURBINE PUMPS, GRANADA RELOCATION CENTER, COLORADO.

SECTION I

SPECIAL PROVISIONS

1-01. LOCATION. - The site of the work is at the Granada Relocation Center, near Granada, Colorado.

1-02. WORK TO BE DONE. - The work to be done under this contract in accordance with these specifications is authorized under the Fifth Supplemental National Defense Appropriation Act, 1942, approved March 5, 1942, (Public Law 474, 77th Congress, Second Session) and consists of furnishing all plant, labor, and materials necessary for the furnishing and installation of three deep well turbine pumps in strict accordance with these specifications.

1-03. DRAWINGS. - The attached drawings numbered GC-TP-1/1 and GC-TP-1/2 show the pump settings in the well houses. Bidders shall submit complete descriptive literature and installation drawings covering the products that they propose to furnish and install.

1-04. QUANTITY OF WORK. - The following are the quantities of work to be done under these specifications and upon completion of the work, each item shall be complete and ready for operation.

<u>Item No.</u>	<u>Designation</u>	<u>Unit</u>	<u>Quantity</u>
1	Deep Well Turbine Pump - 350 g.p.m., 420 foot head, combination electric motor and gasoline engine-gear drive (Well No.3)	Each	1
2	Deep Well Turbine Pump - 350 g.p.m., 420 foot head, electric motor drive (Well No. 2)	Each	1
3	Deep Well Turbine Pump - 350 g.p.m., 420 foot head, electric motor drive (Well No. 1)	Each	1

Specifications: Deep Well Turbine Pumps, Granada Relocation Center, Colorado.

1-05. COMMENCEMENT, PROSECUTION AND COMPLETION.

(a) The contractor will be required to commence work to be done within one (1) calendar day after the date of receipt by him of notice of award, to prosecute the said work with faithfulness and energy, and to complete the entire work within the time stated by him on the bid form and made a part of this contract, plus any extension of time duly granted under the provisions of the contract and specifications. If any bid is accepted a letter contract will be issued within three days after opening of bids, pending execution of the formal contract on the prescribed form. Work shall be prosecuted vigorously during all seasons of the year.

(b) Liquidated damages are not prescribed but in case of failure on the part of the contractor to complete the work to be done within the time thus determined and agreed upon for its completion as set forth in the bid form and in subparagraph (a) above, the Government may take such action as is provided in Article IX of the U. S. Standard Form No. 23, of which these specifications are a part.

1-06. SUNDAYS, HOLIDAYS AND NIGHTS. - Work shall be prosecuted on Sundays and holidays on the same basis as other week days. Work at night shall be at the option of the contractor, subject to the requirements of paragraphs 1-05 and GC-37.

1-07. PRIORITIES. - A priority rating of A-1-A will be established for this contract. (See General Conditions).

1-08. EQUIPMENT FURNISHED BY THE GOVERNMENT. - None.

1-09. MATERIAL, PROCUREMENT OF WHICH IS ARRANGED BY THE GOVERNMENT. - None.

1-10. MINIMUM WAGE RATES.

(a) The minimum wages to be paid laborers and mechanics on this project, as determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the pertinent locality, are as follows:

CLASSIFICATION OF LABORERS AND MECHANICS : MINIMUM RATES OF WAGES PER HOUR

Air tool operators (Jackhammermen, vibrator)	\$.75
Asbestos workers	1.40
Asbestos workers' improvers: 1st year	.85
2nd year	.95
3rd year	1.00
4th year	1.05

Specifications: Deep Well Turbine Pumps, Granada Relocation Center, Colorado.

CLASSIFICATION OF LABORERS AND MECHANICS: MINIMUM RATES OF WAGES PER HOUR

Asphalt rakers					\$.625
Asphalt shovelers					.625
Blacksmiths					1.25
Blaster-powderman					1.25
Blaster's helper					.80
Boilermakers					1.50
Boilermakers' helpers					1.375
Bricklayers					1.65
Bricklayers' apprentices:	1st 6 months	20%	journeyman's rate		
	2nd 6 "	20%	" "		
	3rd 6 "	30%	" "		
	4th 6 "	35%	" "		
	5th 6 "	50%	" "		
	6th 6 "	60%	" "		
	7th 6 "	65%	" "		
	8th 6 "	75%	" "		
Carpenters, journeymen					1.25
Carpenters' apprentices:	1st 6 months				.50
	2nd 6 "				.50
	3rd 6 "				.65
	4th 6 "				.65
	5th 6 "				.80
	6th 6 "				.80
	7th 6 "				.95
	8th 6 "				.95
Cement finishers					1.25
Electricians					1.50
Electricians' apprentices:	1st year	\$10.00	per week		
	2nd "				.55
	3rd "				.70
	4th "				.80
Elevator constructors					1.50
Elevator constructors' helpers					1.05
Firemen and oilers					1.00
Glaziers					1.30
Iron workers, structural					1.50
Iron workers, ornamental					1.50
Iron workers, reinforcing					1.50
Iron workers' apprentices:	1st 6 months	50%	of journeymen's rate		
	2nd 6 "	60%	of " "		
	2nd year	66-2/3%	of " "		
Laborers, unskilled					.625
Lathers, metal					1.50
Lathers, wood					1.25
Marble setters					1.50
Marble setters' helpers					1.00
Mason tenders					.90
Mortar mixers					.90

Specifications: Deep Well Turbine Pumps, Granada Relocation Center, Colorado.

CLASSIFICATION OF LABORERS & MECHANICS : MINIMUM RATES OF WAGES PER HOUR

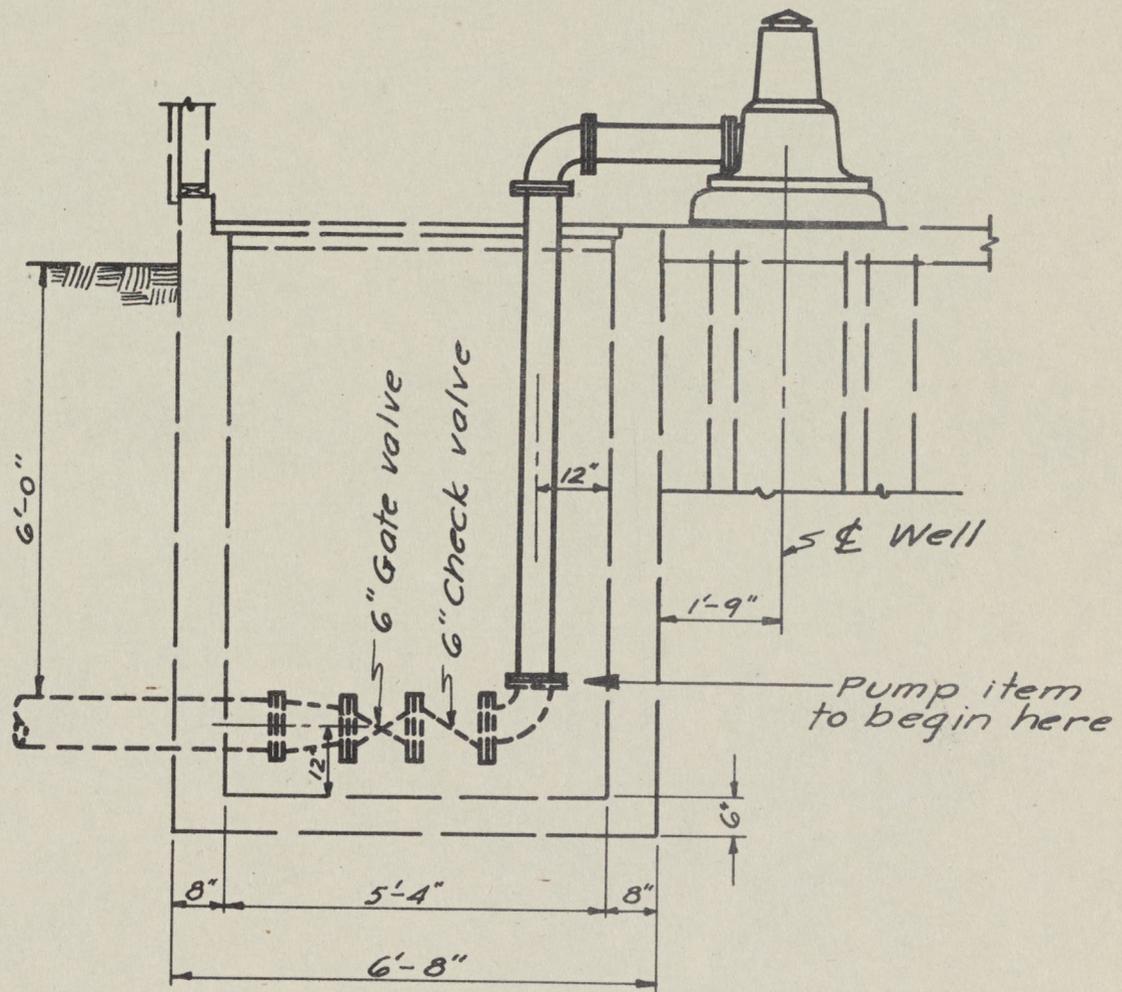
Millwrights		\$ 1.25
Painters, brush		1.25
Painters, spray		1.50
Painters, structural steel		1.50
Painters' apprentices:	1st year 25% of journeymen's rate	
	2nd year 33% " "	
	3rd year 50% " "	
	4th year 75% " "	
Painters, sign		1.50
Piledrivermen		1.25
Pipe layers (concrete and clay)		.75
Plasterers		1.50
Plasterers' tenders		.90
Plumbers		1.50
Plumbers' apprentices:	1st year \$13.71 per week	
	2nd year 16.00 per week	
	3rd year 20.57 per week	
	4th year 22.86 per week	
	5th year 28.57 per week	
Power equipment operators:		
Air compressors, 750 cu.ft. or under		.80
Air compressors, over 750 cu.ft.		1.25
Asphalt Plant		1.43
Backfiller		1.43
Bulldozer		1.43
Cranes, derricks, draglines		1.50
Finishing mach. (cem.conc.pave.)		1.10
Hoists, 1 drum		1.25
Hoists, 2 or more drums		1.43
Loader or conveyor		1.25
Mixers, 1 cu.yd. or less		1.25
Mixers, over 1 cu.yd.		1.43
Motor graders		1.43
Piledrivers		1.50
Pumps, under 100 h.p.		.80
Pumps, 100 h.p. or over		1.10
Rollers		1.43
Scrapers		1.43
Scrapers (Le Tourneau)		1.43
Shovels		1.50
Tractors, over 35 h.p.		1.43
Tractors, 35 h.p. or under		1.00
Trenching machines		1.43
Roofers, composition		1.25
Roofers, slate and tile		1.25
Roofers, helpers		.80
Sheet metal workers		1.25

Specifications: Deep Well Turbine Pumps, Granada Relocation Center, Colorado.

CLASSIFICATION OF LABORERS AND MECHANICS : MINIMUM RATES OF WAGES PER HOUR

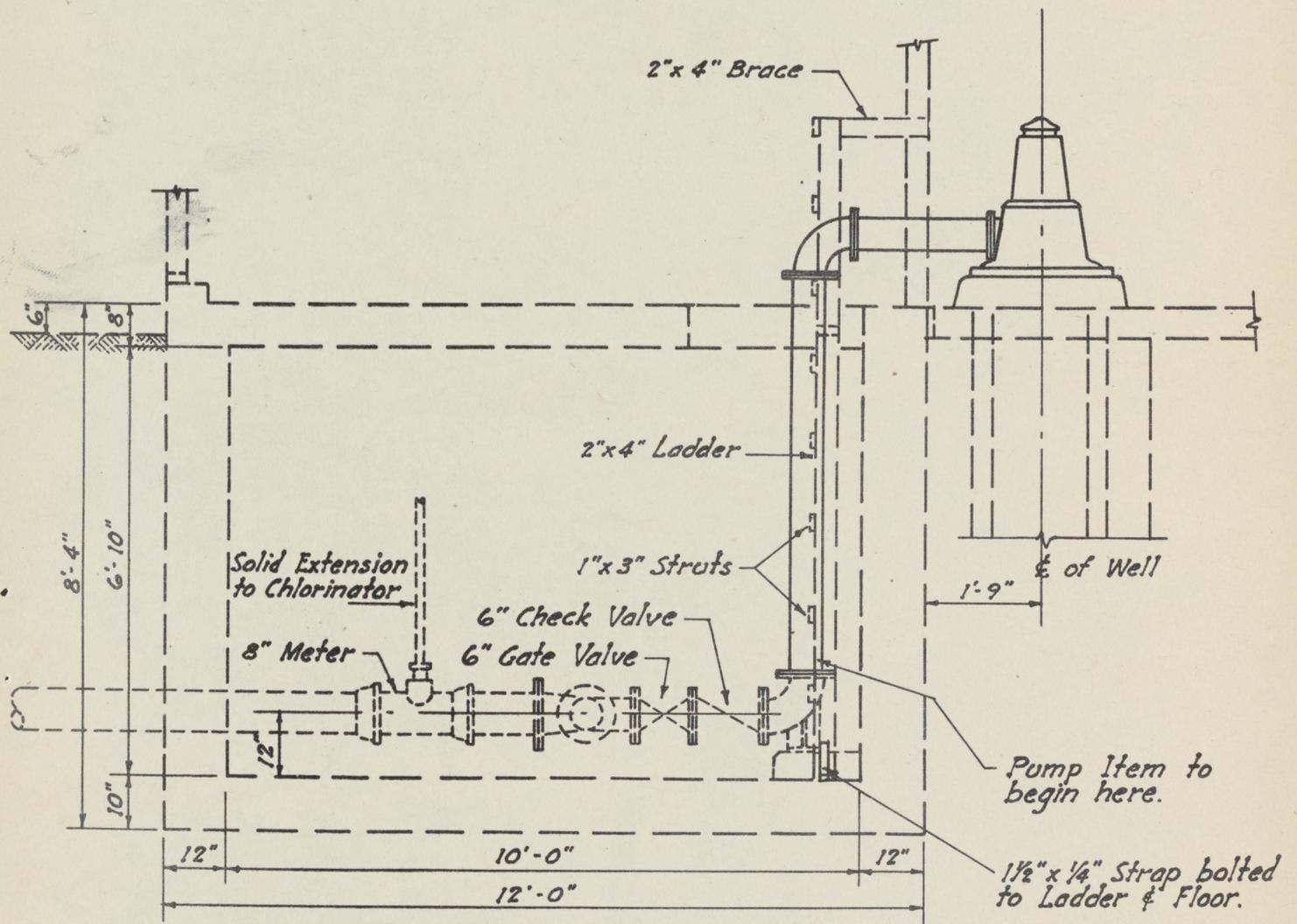
Sheet metal workers' apprentices:	\$
1st 6 months 35% of journeymen's rate	
2nd 6 months 40% of journeymen's rate	
3rd 6 months 45% of journeymen's rate	
4th 6 months 50% of journeymen's rate	
5th 6 months 55% of journeymen's rate	
6th 6 months 60% of journeymen's rate	
7th 6 months 70% of journeymen's rate	
8th 6 months 80% of journeymen's rate	
Soft floor layers (linoleum)	1.15
Steam fitters	1.50
Steam fitters' apprentices:	
1st year \$3.43 per day	
2nd year 4.00 per day	
3rd year 4.57 per day	
4th year 5.49 per day	
Stone masons or cutters	1.50
Tank builders	1.60
Tank builders' helpers	1.40
Terrazzo workers	1.50
Terrazzo workers' helpers	.90
Tile setters	1.50
Tile setters' helpers	.90
Truck drivers, 1-1/2 tons or less	.75
Truck drivers, over 1-1/2 tons	1.00
Welders - receive rate prescribed for craft performing operation to which welding is incidental.	
Well drillers	1.25
Well drillers' helpers	.90
Wreckers	.625
Glaziers' apprentices:	
1st year, 2nd 6 months	.46
2nd year, 1st 6 months	.49
2nd year, 2nd 6 months	.57
3rd year, 1st 6 months	.65
3rd year, 2nd 6 months	.72
4th year, 1st 6 months	.86
4th year, 2nd 6 months	.97

(b) Any class of laborers and mechanics not listed in the preceding paragraph, which will be employed on this contract, shall be classified or reclassified conformably to the foregoing schedule. In the event the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question, accompanied by the recommendation of the contracting officer, shall be referred to the Secretary of Labor for final determination.



SETTING WELL HOUSES NOS. 1 & 3

SCALE: 3/8"=1'-0"



SETTING WELL HOUSE NO. 2

SCALE: 3/8" = 1'-0"

WAR DEPARTMENT
U. S. ENGINEER OFFICE
ALBUQUERQUE DISTRICT
ALBUQUERQUE, NEW MEXICO

Specifications: Deep Well Turbine Pumps, Granada Relocation Center, Colorado.

SECTION II

TECHNICAL PROVISIONS

2-01. SCOPE. - This specification covers the furnishing and installing of three Deep Well Turbine Pumps powered as follows:

- (a) Pump for Well No. 3 to be a combination electric and gasoline engine gear drive.
- (b) Pump for Well No. 2 to be driven by an electric motor.
- (c) Pump for Well No. 1 to be driven by an electric motor.

Appurtenances to be furnished with this installation, include electric motors, motor controls, electrical equipment, gasoline engine, 250 gallon gasoline tank, and appurtenances, depth gages, pressure gages, and all other items herein specified, or reasonably implied, necessary for a complete, workable installation.

2-02. TYPE OF PUMP. - This specification covers turbine pumps requiring oil lubrication of pump shaft bearings and with line shaft housing. However, consideration will be given to either submerged type turbine pumps or to pumps equipped with water lubricated pump shaft bearings, and which do not require line shaft housing, provided the bid is accompanied by manufacturer's plans and specifications, full description and complete engineering data setting forth reasons for type of design offered.

All specification requirements, where applicable, shall govern for any pump offered as an alternate type from that described in the specifications.

2-03. GENERAL PUMP DESCRIPTION.

- (a) The three wells have an inside diameter of ten (10) inches and the pumps shall be designed accordingly.
- (b) Each pump shall be designed for flange discharge above the pump base and slightly above the pump house floor level to discharge into a 6" line.
- (c) Each pump shall be furnished with ten (10) feet of suction pipe of the same size and material as the column pipe. Each shall have a separate, galvanized cone type strainer having a water passage area of not less than four (4) times the cross section area of the suction pipe.

Specifications: Deep Well Turbine Pumps, Granada Relocation Center, Colorado.

2-04. OPERATING CONDITIONS. -

(a) The pump for Well No. 3 (combination electric motor and gasoline engine driven) shall be designed to deliver 350 gallons from a total depth below ground of four hundred (400) feet and against a line head of 20 feet, making a total head of 420 feet. The pump setting shall consist of four hundred (400) feet of column pipe, bowls, ten (10) feet of suction pipe and a strainer as herein specified, or a total over-all setting of approximately four hundred twenty (420) feet.

(b) The pumps for Wells Nos 1 and 2 (electric motor driven) shall be designed to deliver 350 gallons per minute from a total depth below ground of four hundred (400) feet and against a line head of 20 feet, making a total head of 420 feet. The pump setting shall consist of four hundred (400) feet of column pipe bowls, ten (10) feet of suction pipe and a strainer as herein specified, or a total setting of approximately four hundred twenty (420) feet.

(c) The total pump heads as stated above does not include losses in the pumps, which loss must be allowed for by the contractor.

2-05. INFORMATION WITH BID. - A characteristic curve shall be furnished for each pump, showing the capacity, head, efficiency, and brake horse power throughout the range of the pump. The bidder shall fill in the data sheet attached hereto, and furnish full and complete description of all the equipment offered under these specifications, accompanied by catalogs, cuts, and engineering data. If catalogs or cuts are for general descriptive purposes only, bidder shall state where the equipment actually differs from the general description. If no difference is stated, it will be assumed that the equipment is in accordance with the general catalog description. Failure to fill in the data sheet or to furnish complete data with the bid in order that it may be determined whether equipment complies with specifications requirements may be held ground for rejection of bid.

2-06. OVER-ALL EFFICIENCY. - Bidder shall state with bid submitted, the over-all efficiency and the KWH consumption per 1000 gallons pumped against the required head for each pump

2-07. GUARANTEE AND TESTS. - Before each pump is shipped from the factory the bidder shall submit a certified report of factory tests showing over-all efficiency, capacity, head, and KWH consumption per 1000 gallons pumped at the guarantee point. If factory tests show that any pump fails to meet the guaranteed over-all efficiency and/or KWH consumption as stated by the bidder, the equipment will be rejected with no claim against the Government by the contractor. After the pumps are installed, the Government reserves the right to run field tests to determine compliance with the

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guaranteed over-all efficiency and/or K^{WH} consumption, capacity, and general cooperation. Tests shall be conducted in accordance with the requirements of the standards of the HYDRAULIC INSTITUTE. If field tests show that any pump fails to meet the guaranteed over-all efficiency and/or the K^{WH} consumption, the contractor will be required to remove the pump so failing and replace same by another pump which will meet the guarantee requirements. The removal and replacement of the equipment shall be performed at a time convenient to the Government so that no unnecessary interruption of service will result.

2-08. PUMP HEAD.

(a) Electric Power Drive. - The pump head shall be of rigid construction, arranged for bolting to concrete foundations. Suitable means shall be provided for connecting the motor to the drive shaft of the pump to prevent misalignment and vibration and facilitate removal and inspection of complete equipment. The pump head or motor shall be provided with a ball or roller thrust bearing of adequate strength and design to carry the hydraulic thrust load of the impellers and the weight of all rotation parts.

(b) Combination Drive. - The combination gasoline engine and electric motor drive shall be a satisfactory combination of the electric drive described in subparagraph (a) above and a gasoline engine drive described below. The gasoline engine drive head to be furnished and installed shall consist of a geared, right angle, turbine pump drive, having a gear ratio of 1:1, mounted on the pump base and securely bolted thereto. The vertical drive shaft shall be hollow, extending through the drive case and shall be adjustable at the top. A heavy ball or roller type thrust bearing shall be mounted at the top of the gear case, designed to support the hydraulic thrust load of the impellers and the weight of all rotating parts. Ample means of lubrication shall be provided for all moving parts. The drive head shall be equipped with a non-reverse ratchet, which will effectively prevent back spin, when the pump stops.

The horizontal drive shaft, connecting the drive unit to the gasoline engine, shall be equipped with two flexible universal joints, and shall be designed to furnish the required power. The drive head and engine drive shaft shall be furnished by the pump manufacturer to fit the installation required. The electric motor drive shall be equipped with a clutch that will permit the disconnection of the motor while the pump is being driven by the gasoline engine.

2-09. DISCHARGE COLUMN AND DRIVE SHAFT. - The discharge column shall consist of shafting oil tubing, and supporting pipe. The discharge pipe shall have a wall thickness at least equal to or greater than similar size pipe as covered by Federal Specification WF-P-403.

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Joints shall be flanged, or screw threaded, true and straight so that when the various units are assembled they will be in perfect alignment. Sections shall not exceed 10 feet in length. The drive shall be of a design and construction which has proved to be suitable for the service intended. The shaft shall be of high grade steel, of high torsional strength, true to gauge, carefully tested for straightness and threaded to insure perfect alignment, and of adequate size and strength to do the work required.

The shaft shall be protected and lubrication facilitated by a protective housing fully inclosing the shaft. Housing shall consist of extra heavy pipe and shall be so constructed that the water will not come in contact with the oil or oil will not leak out into the water. The couplings of the shaft housing shall be of the type that will not retard the flow of water through the discharge column. Shaft guide bearings may be used as couplings if desired. Shaft housing shall be held concentric with the discharge column by means of spacers or spiders.

If a water lubricated pump is offered, the drive shaft shall be turned, ground, and polished alloy steel. At every point where the shaft touches a bearing, it shall be chrome plated (minimum of 0.02 inches thick with a Brinnell hardness of 800) or shall have a special bearing sleeve. The shaft couplings shall be solid steel, accurately machined, balanced, and threaded without set screws, bolts, or nuts. The threads on shaft and couplings shall be cut to insure perfect alignment and have a tendency to tighten during normal operation. The shaft bearings shall be constructed of special bearing bronze, or rubber spaced throughout the length of the shaft to prevent vibration and whipping.

2-10. PUMP BOWLS. - Pump bowls shall be of best quality, close grained cast iron with smooth interior surfaces. Bowls, shall be fastened together in such a manner that accurate alignment is assured and maintained. Guide passages for water shall be designed and finished so as to reduce friction to a minimum.

2-11. IMPELLERS. - The impellers shall be one piece bronze castings machined accurately to dimension, with blades carefully scraped to insure smooth passageways. The impellers shall be balanced both hydraulically and dynamically, shall have non-overloading characteristics, and shall have head characteristic as steep as possible so that an increase or decrease in the operating head from the design point will not cause an excessive decrease or increase in pump capacity. Impellers shall be attached and locked to pump shaft in such a manner that they may be easily removed, and that they will not work loose for any reason.

2-12. SHAFT AND BEARINGS. - Pump shaft shall be stainless steel, or other approved metal and of adequate strength to do the work required. Pump bearings shall be of a design to prevent

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entrance of dirt, to give long life, and to provide adequate lubrication. A guide bearing shall be provided in each stage to keep the impellers accurately centered. Provisions shall be made to prevent leakage of water from pump bowls to drive shaft housing.

2-13. OIL LUBRICATION. - For all electric motor driven units, and automatic electric-solenoid-operated oiler or similar device, with sufficient capacity for at least 100 hours continuous operation without attention, with sight glass and feed adjustment, shall be furnished and mounted on a suitable pad or bracket on pump head or motor frame. Oil pipes shall be of sufficient size to insure oiling of all bearings. Automatic operation of lubrication system will be required on all of the units. The lubricating systems shall be designed to absolutely prevent leakage of oil tube or passageway.

2-14. WATER LUBRICATION. - If a water lubricated pump is offered, an electric operated valve shall be provided to deliver water to bearings before the pump starts operation. To prevent operation of pumps with dry drive shaft bearings, a positive time delay mechanism shall be provided to prevent pump from starting, after the starting circuit is closed, until all of the drive shaft bearings have been supplied with lubricating water. A pump which will permit operation with dry bearings will not be acceptable.

2-15. DATA SHEET. - The following information shall be furnished with the bid for each pump offered:

- (1) Name of manufacturer.
- (2) Type of pumps
- (3) Number of stages
- (4) Diameter and material of impeller
- (5) Type of bearings
- (6) Size of suction and discharge
- (7) Capacity and head
- (8) Shut-off pressure
- (9) Pump Shaft material and diameter
- (10) Type of thrust bearings
- (11) Make and type of motor
- (12) Horsepower of motor at 50° C rise

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- (13) Motor bearings; type
- (14) Make and Catalog No. of starter
- (15) Guarantee KWH required to pump 1,000 gallons against the designed total head (carry out to 4 decimal places)
- (16) Discharge Column
 - Material
 - Weight per foot
 - Type and spacing of joints
 - Inside diameter
- (17) Shaft Housing
 - Material
 - Weight per foot
 - Type of joint
 - Inside diameter
 - Spacing couplings and spiders
- (18) Line shaft
 - Material
 - Diameter
 - Length of sections
- (19) Line shaft bearings
 - Length
 - Spacing
 - Type
 - Material
- (20) Thrust bearing
 - Weight on bearing
 - Maximum weight designed for
 - Manufactured by
 - Method of lubrication
 - Method of cooling type
- (21) Total weight of pump and motor
- (22) Combined over-all efficiency of pump and motor when pumping 350 g.p.m. against the total designed head.
- (23) Does equipment offered differ from specification requirements? If so, give details.
- (24) Do catalogs, descriptive literature, etc., covering all equipment offered accompany bid? *

* Complete descriptive literature shall be furnished.

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2-16. DEPTH GAUGE. - A water level depth gauge shall be installed in each well consisting of 1/4" galvanized steel pipe, inserted between the well casing and the pump discharge column, and extending to the top of the pump bowl. Pipe or tubing shall be provided with a brass tag at the surface on which is given the exact length of pipe. There shall be furnished the necessary fittings, altitude gauge calibrated in feet of water from 0' to 150', check valve, hand air pump and connections, so as to permit measuring the water level in the well under all conditions.

2-17. PRESSURE GAUGE. - The contractor shall burnish and install a direct reading pressure gauge, with shut-off cock, for the discharge main. Gauge shall be iron body, nickel-plated ring and calibrated in pounds per square inch from 0 to 100 at intervals not exceeding 1 pound. The 1/4-inch pipe from the discharge pipe to the pressure gauge shall be galvanized steel. A damping device, similar to a Ram Pressure Snubber or approved equal, shall be installed in the pipe connection between the gauge and the discharge pipe.

2-18. ELECTRIC MOTORS AND MOTOR STARTERS.

(a) Electric Motors. - Electric motors shall be the vertical type with hollow shaft to fit pump connections. The current characteristics of the motor shall be 440-volt, 3-phase, 60-cycle operation. The motor shall be squirrel cage, splash-proof, normal starting torque type, with horse power rating such that when operating under full load continuously the temperature rise of the motor shall not exceed 50 degrees c. The no-load speed of the motor shall not exceed 1,800 R.P.M.

All motors shall conform to design, construction and performance of latest "Motor Standard of the N.E.M.A. The Government reserves the right to conduct the necessary tests to determine compliance with the above requirements, prior to final acceptance.

(b) Motor Control. - Each motor shall be provided with a suitable inclosed controller and shall be provided with thermal overload protection as a part of the controller or built in as a part of the motor. The rating of the thermal protection for each motor shall be especially selected for its full load rated current and shall not exceed the limits prescribed by the National Electrical Code. A magnetic starter shall be provided for each motor with a three position "Automatic", "Manual", and "Off" selector switch. Each motor shall be provided with a "TYPE C" inclosed safety type disconnect switch having quick make and quick break contacts. The disconnect switch shall open all undergrounded conductors and shall be provided with branch circuit overload protection when required by the National Electrical Code. Power leads and pilot control circuit shall be connected to the service drops installed by another contractor.

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2-19. GASOLINE ENGINE.

(a) General. - The gasoline engine standby unit shall be of the 4-cycle type. The gasoline engine shall be a standard product of reputable manufacture and shall be subject to the approval of the contracting officer. It shall have not less than four cylinders and shall be radiator water cooled. It shall be capable of driving the pump continuously at full load under the specified conditions, and shall be capable of operating at 15 percent overload for two hours. The operating speed shall be not greater than 85 percent of the speed to which the absolute B.H.P. of the engine is developed the maximum torque shall be developed at a speed as near as possible to the operating speed. The engine shall be equipped with an efficient governor, hereinafter specified. The power required shall be developed with gasoline having an octane rating of 50 to 60, and which fulfills the requirements of Federal Specification VV-G-101a. The speed of the engine shall not exceed 1,800 R.P.M., when driving the pump at full load.

(b) Crank Shaft, Fly Wheel, and Main Bearings. - The crank shaft shall be one-piece, heat treated alloy steel forging. It shall be statically and dynamically balanced, and all journals shall be ground and polished. Counter-balance weights shall be furnished integral with the shaft. The fly wheel shall be of cast iron or steel and shall be securely fastened to the crank shaft ahead of the clutch housing. The main bearings shall be of cast bronze, or cast steel backed and babbitt lined. They shall be accurately fitted and anchored against side thrust and shall be easily removed. The shaft extending from the clutch housing shall be provided with a flexible coupling connected to the pump shaft. Oil under pressure shall be suitably admitted to the inside of each main bearing shell.

(c) Cylinders and Cylinder Heads. - The cylinders shall be cast in pairs, singly or en-block, and the inner wall shall provide for approximately full-length of piston travel so that the travel of the piston skirt may extend slightly below the cylinder for adequate lubrication. Individual liners may be provided for cylinders cast en-block. The cylinders cast singly or in pairs, or cylinder liners if cast en-block, shall be of special cylinder cast iron having a tensile strength of not less than 55,000 pounds per square inch. The cylinder heads shall be of the same material as the cylinders and shall be easily removed for repairs.

(d) Crank Case. - The engine shall be equipped with a crank case having large removable side plates to facilitate inspection and adjustment of all bearings and integral working parts of the engine.

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(e) Pistons, Rings, and Pins. - The pistons shall be of cast iron or a suitable light weight alloy and shall be fitted with large piston pin bearings and four grooves for the installation of the piston rings. Three of these grooves shall be above the piston pin and one below. Four piston rings, made of special hammered cast iron, shall be provided for each piston. Piston pins shall be of hollow steel, hardened and accurately ground and securely locked in place.

(f) Connecting Rods. - The connecting rods shall be of high grade heat treated forged steel. The lower end of each rod shall be fitted with bronze babbitt-lined bearings.

(g) Cam-shaft and Push-rod Guides. - The cam-shaft shall be of heat treated, forged steel accurately ground on all journal bearings and cam profiles. The push-rod guides shall be of bronze or other suitable material and shall be of the removable type.

(h) Valves. - The valves shall be of special heat resisting steel and shall be accurately ground to fit the valve seats.

(i) Exhaust Manifold, Muffler, and Pipe. - The exhaust manifold shall be a close-grained, gray-iron casting, fully waterjacketed and provided with suitable flange connections. Each exhaust muffler shall be of cast iron, Armco iron, or equal. The exhaust pipe shall be fully insulated with sectional covering and approved plastic cement and shall exhaust into the open air. All sections shall be securely fastened in place after covering with lacquered steel bands. Parts of the exhaust pipe not suitable for sectional covering shall be covered with approved plastic cement served up to the adjacent covering so as to equal the total thickness of the sectional covering.

(j) Clutch. - The engine shall be equipped with an approved disengaging clutch in order that the engine may be started and operated before engaging the water pump.

(k) Cooling System. - The engine shall be radiator water cooled. The system shall be of sufficient capacity to cool the engine properly when it is operating under 115 percent load at an ambient temperature of at least 100 degrees F.

(l) Lubrication System. - The engine shall be equipped with forcefeed lubrication to the main bearings, connecting rod bearings, valve operating mechanism, camshaft, and timing gears. An oil pressure gage shall be installed on the main control panel. Oil shall be supplied under pressure by means of a positive gear driven pump. The pump shall be readily removable

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from the engine without dismantling the engine or breaking the connections. An oil filter (clarifier) and cooler shall be provided.

(m) Fuel. - The engine shall be equipped with one or two carburetors, fuel pump, fuel tank, and piping, valves and fittings from the underground fuel tank to the carburetor. The carburetors shall be of standard grade and shall be equipped with an automatic choke, and a heavy duty oil bath air filter, and a flame arrester. The fuel pump shall be of the diaphragm type and shall be capable of lifting the gasoline through a vertical height of twelve feet. The fuel pump shall be readily removable from the engine without dismantling the engine or breaking connections. The fuel system with all appurtenances shall be installed in such a manner that the engine can be started immediately and operated continuously without any manual operation of any devices in this system.

(n) Ignition System. - A standard ignition system shall be provided. Automatic spark advance shall be included. A storage battery of 6-volt capacity shall be provided and shall conform to the requirements of Federal Specification W-B-131b. It shall be inclosed and an integral part of the engine. Two hydrometers and four spare bulbs shall be provided with each battery. A battery charger with a charging rate of approximately 3 amperes shall be provided and installed for operation on 120-volt, 60-cycle alternating current. It shall be provided with an adjustment for reducing the charging rate for trickle charging. An ammeter to indicate the direct current charging rate shall be provided. The charger shall be so designed that the battery will not discharge in case the alternating current voltage is interrupted and shall operate in a circuit having one side of the supply and one terminal of the battery grounded. The charger shall be totally enclosed in a steel cabinet with hinged doors provided to make all parts easily accessible, and shall be protected against overloads and short circuits. The unit shall be wall mounted.

(o) Governor. - The governor shall be of the mechanical gear driven flyball type. The governor mechanism shall be fully enclosed and all bearings shall be of the anti-friction type. In combination with a throttle valve the governor shall provide a speed regulation within three percent of the normal operating speed from one-fourth load to full load. The speed variation at any one continuous load shall be not more than 1-1/2 percent from normal. On test, the speed variation from no load to 115 percent load shall not exceed 5 percent from normal.

(p) Engine Accessories. - The following accessories for the gasoline engine shall be provided:

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- (1) One electric starter
 - (2) One electric generator
 - (3) One 6-volt battery in black Japan steel case
 - (4) One trickle charger, 110 volt, automatic
 - (5) One oil cooler and filter.
 - (6) One or two (as required) carburetor equipped with an automatic choke, a heavy duty air filter, and a flame arrester.
 - (7) One tachometer
 - (8) One illuminated instrument board mounted on the engine and containing the oil pressure gage, ammeter, ignition switch, gasoline gage, tachometer, and throttle control.
 - (9) One crank handle.
 - (10) One set of all necessary adjusting tools and wrenches, complete for all bolts, nuts, screws and other items required for the equipment furnished.
- (q) Base. - The base or bed plate for mounting the engine and pump assembly shall be of welded structural steel of approved design. It shall be accurately machined and shall have an oil drip edge around its perimeter.

2-20. GASOLINE STORAGE TANK.

(a) General. - The contractor shall furnish and install an underground steel gasoline storage tank, 250-gallon capacity for the gasoline engine driven pumps, including the necessary piping and appurtenant parts. The tanks shall be of a standard make manufactured by a reputable manufacturer of this type of equipment and shall be approved by the contracting officer.

(b) Protective Coating. - The storage tanks before being placed in the ground shall be thoroughly cleaned of all rust, blister, scale, oil, paint, etc. A primer coat shall then be applied consisting of processed coal-tar, pitch, and refined coal-tar oils suitably blended so as to be applied by brush or spray. The primer shall contain no highly volatile solvents or added pigments and shall dry hard within six hours. Primer shall not be heated by primer temperature when applied shall be 60 to 80 degrees F.

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After the primer coat has become hard to the touch an enamel coat composed of a specially processed coal-tar pitch combined with an inert mineral filler shall be applied hot, in a layer not less than 1/16 inch thick and in accordance with manufacturer's recommendation. The enamel shall be free of all asphalt. The use of fluxing oils or thinners to reduce cracking susceptibility in cold weather will not be permitted. Primers and enamels herein mentioned shall not sag or flow from a vertical surface when exposed to an atmosphere temperature of 160 degrees F., and shall not become brittle or crack, check or peel when exposed to an atmospheric temperature of minus 20 degrees F.

One coat of primer and one coat of enamel shall be applied to the tanks unless ground conditions require additional protection, which case special instructions will be given to the contractor by the contracting officer.

2-21. PIPING. - The pump contractor shall furnish sufficient six inch (6") cast iron or steel pipe and fittings to connect the pumps to the incoming lines in the valve pits of each pump house and shall make the connection thereto as shown on drawings attached to these specifications.

2-22. CONCRETE BASES. - The pump contractor shall install concrete bases for the pumps and gasoline engine in the areas left vacant in the various pump houses by the building contractor. The engine base shall be of adequate size for the gasoline engine that is to be furnished. Pump bases shall have a minimum depth of 4 feet, 0 inches, in order to act as a cut-off collar around the top of the well casing. Well casing shall be cut off flush with the top of the pump base. All anchor bolts shall be furnished by the pump contractor. Concrete shall be composed of cement, sand, crushed rock or gravel, and water. Aggregate shall be uniformly graded in size, clean, hard, and free from vegetation, clay or other impurities. Coarse aggregate shall contain no particles larger than 1-1/2" for the bases. Cement shall be a standard brand of Portland cement conforming to Federal Specification SS-C-191b, and shall be from fresh stock. Water shall be clean and free from oil, acids, sewage, or other objectionable impurities. The total volume of aggregates per sack of cement, measured damp and loose before sand and rock or gravel are combined, shall not exceed 6.5 cu. ft. The exact proportions selected shall meet the approval of the contracting officer. Not more than 6-1/2 gallons of water shall be used per sack of cement, and in all cases the amount of water used shall be the least that will produce a workable mix.

2-23. PAYMENT. - Payment for the pumps will be made at the contract unit price for each pump for Wells Nos. 1, 2, and 3, and shall include the furnishing and installation of the pumps, piping, fittings and concrete bases complete and ready for operation.

STANDARD GOVERNMENT FORM OF BID

(Construction Contract)

(Place) _____

(Date) _____

To: The District Engineer,
U. S. Engineer Office
Post Office Box 1538
Albuquerque, New Mexico

1. In compliance with your Invitation for Bids, dated August 6, 1942,
and subject to all the conditions thereof, the undersigned _____

a corporation organized and existing under the laws of the State of

a partnership consisting of _____

or an individual trading as _____

of the city of _____

hereby proposes to furnish all plant, labor and materials, and to perform
all work required for furnishing and installing three Deep Well Turbine
Pumps, Granada Relocation Center, Colorado; in strict accordance with the
specifications and schedules for the following consideration for the
corresponding items of work.

SCHEDULE OF BID ITEMS

Item No.	Quantity	Unit	Designation	Unit Price	Amount
1	1	Each	Deep Well Turbine Pump-350 g.p.m., 420 foot head, combination elec- tric motor and gasoline engine gear drive (Well No. 3)	\$ _____	\$ _____
2	1	Each	Deep Well Turbine Pump-350 g.p.m., 420 foot head, electric motor drive (Well No. 2)	\$ _____	\$ _____
3	1	Each	Deep Well Turbine Pump-350 g.p.m., 420 foot head, electric motor drive (Well No. 1)	\$ _____	\$ _____
TOTAL BID PRICE				\$ _____	

- NOTE: (1) All amounts and totals given above will be subject to verification by the United States. In case of variation between unit bid price and total shown by bidder the unit price will govern.
- (2) Bids must be for the entire work and must have each blank space filled in to be acceptable.

2. Experience Data: (See Invitation for Bids)

A series of horizontal dashed lines for writing.

5. The undersigned agrees, upon receipt of written notice of the acceptance of this bid for work within 10 days after the date of opening of the bids, to execute the standard form of Government contract, in accordance with the bid as accepted, and to give performance and payment bonds, with good and sufficient surety or sureties, for the faithful performance of the contract, and for the protection of all persons furnishing material and labor in the prosecution of the work, within 10 days after the prescribed forms are presented for signature.

6. Performance will begin within one (1) calendar day after the date of receipt of notice of award and will be completed on or before * _____ 1942 in accordance with paragraph 1-05 of the specifications.

BY _____

(Business Address)

Witness:

NOTE: Read Standard Government Instructions to Bidders before preparing this bid.

*To be filled in by bidder.

