

Approved by the Secretary of the Treasury  
 May 27, 1937  
 (For use in connection with U. S. Standard Form  
 No. 33, Revised. See Instruction No. 1, Page 9)

## STANDARD SPECIFICATIONS FOR AERIAL PHOTOGRAPHY FOR GENERAL MAP WORK AND LAND STUDIES

### SURVEY, VERTICAL NEGATIVES, CONTACT PRINTS

<i>Paragraph</i>	<i>Title</i>	<i>Page</i>
1.	Statement of Work and Areas To Be Photographed . . . . .	2
2.	Camera To Be Used . . . . .	2
3.	Scale of Photographs and Method of Computing Same . . . . .	2
4.	Flight Lines . . . . .	2
5.	Control Strips . . . . .	3
6.	Overlap . . . . .	3
7.	Crabbing . . . . .	3
8.	Tilt . . . . .	3
9.	Film . . . . .	3
10.	Photographic Paper . . . . .	3
11.	Contact Prints . . . . .	3
12.	Processing and Drying Film and Prints . . . . .	4
13.	Quality of Photographs and Samples . . . . .	4
14.	Indexing . . . . .	4

### RATIOED PRINTS AND GENERAL ENLARGEMENTS

15.	Ratioed Prints . . . . .	5
16.	General Enlargements . . . . .	5

### OBLIQUE PHOTOGRAPHS

17.	Areas To Be Photographed . . . . .	5
18.	Camera To Be Used . . . . .	5
19.	Quality and Numbering of Photographs . . . . .	5
20.	Film . . . . .	6
21.	Prints . . . . .	6

### SPECIAL CONDITIONS

22.	Conditions of Bidding . . . . .	6
23.	Bid Guarantees . . . . .	6
24.	Performance Bond . . . . .	6
25.	Award and Notice to Proceed . . . . .	7
26.	Commencement and Prosecution of Work . . . . .	7
27.	Time Allowance . . . . .	7
28.	Specifications and Maps . . . . .	7
29.	Changes . . . . .	7
30.	Inspection and Acceptance . . . . .	7
31.	Delays—Damages . . . . .	8
32.	Liquidated Damages . . . . .	8
33.	Risk—Damages . . . . .	8
34.	Reports . . . . .	8
35.	Ownership of Negatives . . . . .	8
36.	Subcontracts . . . . .	8
37.	Patents . . . . .	8
38.	Permits and Care of Work . . . . .	8
39.	Disputes . . . . .	8
40.	Payments to Contractors . . . . .	9
41.	Covenant Against Contingent Fees . . . . .	9
42.	Definitions . . . . .	9

ADDITIONAL INSTRUCTIONS TO CONTRACTING OFFICERS . . . . .		9
---	--	---

## STANDARD SPECIFICATIONS FOR AERIAL PHOTOGRAPHY FOR GENERAL MAP WORK AND LAND STUDIES

### SURVEY, VERTICAL NEGATIVES, CONTACT PRINTS

#### 1. Statement of Work and Areas To Be Photographed.

(a) The contractor shall furnish all materials, superintendence, labor, equipment, and transportation, shall execute and finish the aerial photography of the areas hereinafter specified and shall deliver to the contracting officer, or to such official of the Government as he may designate, such sets of contact prints, index maps, ratioed prints, general enlargements, and oblique photographs as called for by the invitation and the schedule of the advertisement, together with the negatives herein required. All work shall be executed in an expeditious and workmanlike manner, to the satisfaction and acceptance of the contracting officer, in complete accord with these specifications and other conditions of bidding set forth in the invitation and in the schedule of the advertisement.

(b) Location, dimensions, and boundaries of the area to be photographed are set forth in the schedule of the advertisement and on the map or maps attached thereto. It is expressly understood and agreed that such dimensions are approximate only.

(c) The Government shall furnish the contractor at the time of the award with three copies of maps of the area to be photographed for use as flight maps.

#### 2. Camera To Be Used.

(a) The photographs shall be made with single-lens standard aerial-mapping camera of type approved by the contracting officer and with a focal length of not less than 8 inches and an effective negative image area of not less than 60 square inches, unless other focal lengths and dimensions are specified in the schedule of the advertisement. Said camera shall be so equipped that negatives are held flat in the focal plane at the instant of exposure and the location of the principal point is directly shown or may be determined from collimation marks appearing on each negative. Only filters made from stained optical A glass shall be used.

(b) If specifically authorized in the schedule of the advertisement, alternate bids will be considered for use of a multiple-lens precision mapping camera of type approved by the contracting officer and of not less than 5-inch focal length, provided the negatives of each exposure are transformed by the contractor into a single composite negative, the several sections of which join perfectly. Said transformed composite negatives shall be approximately square; shall contain not less than 81 square inches of image; and shall conform in all other respects to the requirements of these specifications pertaining to single-lens photographs. The location of the principal point of each composite negative shall be shown directly thereon or there shall appear on each composite negative collimation marks from which the location of the principal point may be determined. Said composite negatives shall give satisfactory color match, and image match discrepancies between component negatives shall not exceed 0.015 inches or show objectionable vertical displacement when viewed stereoscopically.

(c) No lens-camera combination shall be used which produces negatives with the definition of any portion, as determined by visual inspection, less than the definition of the corners or better than the definition of the center.

(d) Each bidder shall certify as to the make and model of the camera, or cameras; size of negative; the make, serial number, focal length, and aperture of the lens, or lenses; and the maximum stop opening he proposes to use; and shall also certify that the sample photographs submitted with his bid in accordance with the provisions of paragraph 13(b) hereof were taken with this type of equipment at said stop opening.

(e) Upon receipt of the award, the successful bidder shall furnish a master glass negative showing clearly the collimation marks of each camera-magazine combination to be used. Collimation marks shall be sharp in outline, so shaped as to facilitate accurate measurements, and shall not be altered. Said master negatives shall in each case be made with their emulsions in the position occupied by the emulsions of the aerial negatives at instant of exposure and shall be neatly marked with the model numbers and serial numbers of the corresponding camera-magazine combinations and with the number of the contract.

#### 3. Scale of Photographs and Method of Computing Same.

The negatives of the entire area or each fraction thereof, as indicated on the map or maps attached to the schedule of the advertisement, shall be made at the proper altitude or altitudes above sea level to yield contact prints at the scale specified in said schedule. Said scale shall be computed from the mean altitude of the entire area, from the mean altitude of each fractional area, or from a specified datum plane—all as given in said schedule or as indicated on said maps. Where so specified in the schedule of the advertisement, negatives covering large areas having a reasonably uniform and gradual gradient shall be made at proper heights above the ground to yield the required scale. In any event, photographs showing a departure from the specified scale of more than plus or minus 5 percent in excess of that caused by variations in relief within the areas covered by the individual photographs may be rejected by the contracting officer.

#### 4. Flight Lines.

(a) Unless indicated to the contrary in the schedule of the advertisement or on the maps furnished the contractor, all photographic strips shall be flown northerly and southerly within 5 degrees of the true cardinal direction. The mean bearings of adjacent strips shall be within 5 degrees of parallel. Particular care shall be exercised to keep all flight lines as straight and as nearly parallel as possible. In no case shall the lack of parallelism between adjacent photographic strips or sections thereof be such as to prevent the sidelap between photographs from conforming with the requirements of paragraph 6 hereof.

(b) Each flight line shall be continuous across the project or across such subdivision of the project as may be agreed upon between the contractor and the contracting officer, except in cases when it becomes necessary that the flight line be broken. The tolerances at any such breaks shall not exceed the tolerances permitted in paragraphs 3, 4, 6, and 7 hereof. The maximum overlap in line of flight at any such break will not be limited.

## 5. Control Strips.

When so indicated on the maps supplied to the bidders and/or specified in the schedule of the advertisement, the contractor shall furnish control strips of photographs following the lines shown on said maps or specified in said schedule and conforming in all respects to these specifications. Where flight control lines are made up of several sections of different bearings, each section shall extend at least two exposures beyond the points of intersection with adjoining sections. No photographs shall be taken on "banks" between successive courses, but each course shall be flown and photographed independently by turning back at the end of the preceding course and getting into position on a prolongation of the line of the new course at least one mile behind the point at which the first exposure is to be made.

## 6. Overlap.

(a) Overlap in the line of flight shall average approximately 60 percent and any overlap of less than 55 percent or more than 65 percent may be considered sufficient ground for rejecting all the photographs made on that particular flight. Except when the locations of the individual flight lines are indicated on the maps furnished the bidders or specifically described in the schedule of the advertisement, the sidelap beyond boundaries shall be not less than 25 percent, the sidelap between adjacent parallel flights shall average approximately 30 percent, and any sidelap of less than 15 percent or more than 45 percent may be considered sufficient ground for rejecting all the photographs made on any flights which, in the opinion of the contracting officer, should be reflight in order to meet these requirements. However, where flight lines are necessarily flown nonconsecutively, one strip with more than 45 percent sidelap will be permitted at each such juncture. Each flight strip shall be so photographed that the principal points of the first two and last two negatives thereof fall outside the boundaries of the specified area in order to insure three-point intersections at ground control to be located at the edges of the area.

(b) In cases of extreme variations in elevation within any area, the contracting officer may permit deviation from the requirements of paragraph (a) provided, in his opinion, topographic features within the area warrant such deviation. Under such circumstances, deviations from the specifications will be limited to the amount actually caused by the extreme variation in elevation. In no event shall overlap in line of flight be less than 55 percent, nor shall sidelap between adjacent parallel flights be less than 15 percent.

## 7. Crabbing.

Any series of two or more consecutive photographs crabbed in excess of 10° as measured from the line of flight (the flight path, or "track", of the airplane as indicated by the principal points of the consecutive photographs) may be considered unsatisfactory and cause for rejection of that particular flight line or any portion thereof.

## 8. Tilt.

Vertical negatives (taken with the camera axis in a vertical position) are required. Particular care shall be exercised to reduce tilt of the negatives to a minimum. Tilt shall in no case exceed 5°, and shall not average more than 2° in any 10-mile section of a flight line nor more than 1° for the entire job.

## 9. Film.

Only fresh, fine-grained, high-speed, panchromatic, aerial film shall be used, and no film shall be used, until there has been a determination by the contracting officer that it meets the requirements specified in the contract. Unless the schedule of the advertisement specifies standard aerial film, special low-shrinkage aerial film shall be used. For such low-shrinkage film to be approved by the contracting officer, the shrinkage in any direction on said film after developing and drying shall not exceed two and one-half parts per thousand when the film is dried in an oven for 7 days at a temperature of 120° F., the measurements before and after developing and drying being taken after the film has been conditioned in an atmosphere of 65 percent relative humidity, plus or minus 3 percent, and at a temperature of 72° F., plus or minus 2°, for at least 24 hours. The difference in shrinkage between measurements in any two directions after such developing and drying shall not exceed one-half part per thousand. For said standard aerial film to be approved by the contracting officer, the difference in shrinkage in any two directions after such developing and drying shall not average more than one part per thousand.

## 10. Photographic Paper.

No photographic paper shall be used until there has been a determination by the contracting officer that it meets the requirements specified in the contract.

## 11. Contact Prints.

(a) Unless otherwise specified in the schedule of the advertisement, contact prints from the vertical negatives shall be made without mask on double-weight, semimatte, standard commercial-grade photographic paper approved by the contracting officer and shall be trimmed with a uniform margin of one-eighth inch outside of the photographic image. For such photographic paper to be approved by the contracting officer, the average difference in shrinkage, measured in any two directions after developing and drying, shall not exceed four parts per thousand, the measurements before and after developing and drying being taken after the paper has been conditioned in an atmosphere of 65 percent relative humidity, plus or minus 3 percent, and at a temperature of 72° F., plus or minus 2°, for at least 24 hours.

(b) On the back of each print shall be stamped, or neatly lettered with waterproof ink, the name of the Department, Bureau, or Agency, State and county, and the name and address of the contractor, with space left for insertion of the scale of the photograph.

## 12. Processing and Drying Film and Prints.

(a) Special care shall be exercised to insure the proper development and the thorough fixation and washing of all film and prints and to avoid rolling film tightly on drums or in any way distorting it during processing and drying. Prints may be dried between blotters without the application of weights or by placing face down on cheesecloth-covered frames. If the contractor desires to use any mechanical process for drying prints, he shall first demonstrate to the satisfaction of the contracting officer, with contact prints of suitable grids, that the maximum differential distortion in the resulting prints is not in excess of that which would occur if the prints were dried naturally.

(b) An adequate variety of grades of contrast shall be used in making prints in order to bring out all details of the negatives. Prints shall be uniform in color and density and shall be of such a degree of contrast that all details of the negatives will show clearly, both in the shadows and the highlights as well as in the half tones between shadows and highlights.

(c) All prints shall be clean and free from chemical or other stains, blemishes, uneven spots, air bells, light fog, and finger marks, and shall be thoroughly washed to insure entire freedom from hypo or any other chemicals which would impair their permanency.

## 13. Quality of Photographs and Samples.

(a) Photographs which are not clear and sharp in detail and of average and uniform density, and are not free from clouds and cloud shadows, light streaks, snow, static marks, and other blemishes which in the opinion of the contracting officer would interfere with their intended purpose; which are taken when streams are not within their normal banks or when the sun is less than 3 hours above the horizon; or which are not equal in quality to the representative samples submitted with the bid in accordance with the following paragraph may be considered unsatisfactory and may be rejected.

(b) Each bidder shall submit a sample contact print made without mask on double-weight semimatte paper, as specified in paragraph 11 hereof, from a vertical negative taken with the type of camera and lens at the maximum stop opening he proposes to use and at the approximate scale specified in the schedule of the advertisement, and, unless otherwise specified in the schedule of the advertisement, a sample single-weight semimatte, unmasked, two-and-one-half-diameter enlargement from one-quarter of the same negative, including the center and one corner of the negative. These samples shall show terrain having an average amount of clear-cut detail and shall represent the quality of work, including over-all definition, definition in the corners and photographic quality, the bidder proposes to furnish and will be used as criteria in judging the quality of the photographs the contractor delivers under the contract. Samples showing only heavily wooded areas or other types of terrain in which it is difficult to determine whether the photographic quality and definition meet the requirements herein specified, will not be accepted. If specimen contact prints and enlargements of the quality the Government requires are attached to the schedule of the advertisement, the samples submitted by the bidder shall equal these specimens in all respects. The contracting officer reserves the right to reject the bid of any bidder who, in his opinion, fails to submit samples of the quality required by these specifications and the attached schedule.

(c) In case the use of a multiple-lens mapping camera is authorized in the schedule of the advertisement, as provided in paragraph 2(b) hereof, and it is proposed to use such a camera, a sample stereoscopic pair of contact prints from transformed composite negatives made from exposures taken with the camera and lenses and at the maximum stop opening it is proposed to use and at the approximate scale specified, and, unless otherwise specified in the schedule of the advertisement, a sample two-and-one-half-diameter enlargement from one-quarter of one of said composite negatives, including the center and one corner of the negative, shall be submitted with the bid in lieu of the sample single-lens contact print and enlargement required by paragraph 13(b) hereof. Said contact prints shall be made without mask on double-weight semimatte paper, as specified in paragraph 11 hereof, and said enlargement shall be made without mask on single-weight semimatte paper.

## 14. Indexing.

(a) Each vertical negative shall be marked clearly with a designating symbol of not to exceed three letters followed by the serial number of the roll and the serial number of the exposure on the roll (thus: ABC-116-110) and also with a numerical abbreviation of the month, day, and year of exposure (thus: 12-8-35). The rolls of film used in the performance of each contract shall be numbered in an unbroken series beginning with number 1, and the exposures on each roll shall be numbered in an unbroken series beginning in each case with number 1. The designating symbol and serial numbers shall be placed in the northeast corner of each negative for north and south flights and in the northwest corner of each negative for east and west flights, with the exception of the control strips, in which case said symbol and numbers shall be placed in the upper right-hand corner of each negative, progressing along the line of flight. The abbreviation of the date shall in each case be placed in the adjacent corner in a counterclockwise direction, with the exception of the control strips, in which case it shall be placed in the adjacent corner in a clockwise direction. In addition, on the first and last negative of each flight line and on the first and last negative of each roll the initials of the Bureau or Agency for which the work is being performed and the approximate scale of the negatives shall be placed immediately preceding the designating symbol and the serial numbers (thus: GS-1:20,000-ABC-116-110), and the numerical abbreviation of the approximate time of day of the exposure shall be placed immediately following the date (thus: 12-8-35-12:30). The characters used in marking negatives shall be three-sixteenths inch high and may be perforated, mechanically stamped with opaque ink, or neatly drafted with celluloid ink, in such manner as to print clearly in positive form on the photographs in the positions herein specified.

(b) The metal container for each roll of film shall become the property of the Government, shall be neatly labeled with the names of the Department and Bureau or Agency for which the work is being performed, the name or number and the location of the project, the designating symbol, the number of the contract, the name and address of the contractor, the date or dates and hours of exposure, the serial number of the roll, the serial numbers of the first and last exposures, the approximate scale of the negatives, and the model numbers and serial numbers of the camera-magazine combination used in making the exposures.

(c) Photo-index maps shall be prepared by photographing, to the approximate scale specified in the schedule of the advertisement, a stapled assembly of contact prints from each vertical negative carefully laid to match corresponding images and

clearly showing the serial numbers of each negative. Said contact prints shall be made without mask and shall be trimmed to the edges of the photographic images. In case serial numbers are obscured by duplicate or overlapping exposures, they shall be neatly lettered in their proper positions on the completed assembly with white ink or with stick-up numbers and shall correspond in size and style to the unobscured numbers on the contact prints. The specified number of photographic copies of said photo-index maps shall be submitted on the type and size of paper and to the scale specified in the schedule. If specified in the schedule of the advertisement, the index maps may be prepared by drafting the outline and position of each vertical negative on drawing paper or tracing cloth, lettering the serial number of every fifth negative in each flight, and submitting the specified number of photographic copies of this index on the type and size of paper and to the scale specified in the schedule. Said index maps shall show the boundaries of the project and have neatly executed titles showing the names of the Department and Bureau or Agency for which the work is being performed, the name or number and the location of the project, the designating symbol, the number of the contract, the name and address of the contractor, the approximate scales of the photographs and of the index, and the date of completion of the work. In case any portion or portions of the project is required to be reflighted, the specified number of additional copies of the original index map or maps shall be delivered with the reflighted included thereon.

#### RATIOED PRINTS AND GENERAL ENLARGEMENTS

##### 15. Ratioed Prints.

(a) If ratioed prints from the vertical negatives to be used for radial-line plotting of planimetric maps are specified in the schedule of the advertisement, they shall be made to the scale specified in said schedule by using the ratio factors supplied by the Bureau or Agency for which the work is being performed. Such ratioed prints shall be sharp in detail, of uniform density, and equal in quality to the sample contact print submitted with the bid. They shall show no appreciable radial or other distortions of imagery or scale due to faulty optics or mechanics of the projection camera. Before making the award, the contracting officer may, at his discretion, require the successful bidder to submit ratioed prints of suitable grids or to demonstrate otherwise to the satisfaction of the contracting officer the accuracy of the projection camera the bidder proposes to use. Said ratioed prints for radial-line plotting shall be made without mask on special, double-weight, semimatte, low-shrinkage photographic paper approved by the contracting officer, and shall be trimmed with a uniform margin of one-fourth inch outside of the photographic image. For such low-shrinkage paper to be approved by the contracting officer the average difference in shrinkage measured in any two directions after developing and drying shall not exceed one part per thousand, the measurements before and after developing and drying being taken after the paper has been conditioned in an atmosphere of 65 percent relative humidity, plus or minus 3 percent, and at a temperature of 72° F., plus or minus 2°, for at least 24 hours.

(b) If ratioed prints for general use, not requiring special low-shrinkage photographic paper, are specified in the schedule of the advertisement, they shall be made on standard commercial-grade photographic paper approved by the contracting officer, and with or without mask, on the weight and finish of paper and dimensions of trimming—all as specified in the schedule of the advertisement. Such ratioed prints shall conform in all other respects to the specifications given in paragraph 15(a) hereof.

##### 16. General Enlargements.

If general enlargements from the vertical negatives are specified in the schedule of the advertisement, they shall be made to the number of diameters or to such scale as may be specified in said schedule, shall conform to the requirements of paragraph 15(a) hereof, pertaining to detail, density, and freedom from distortions of imagery and scale due to faulty optics or mechanics of the projection camera, and shall be equal in quality to the sample enlargement submitted with the bid. Said enlargements shall be made on standard commercial-grade photographic paper approved by the contracting officer. The paper shall be of weight and finish, trimmed, and printed with or without mask—all as specified in the schedule of the advertisement.

#### OBLIQUE PHOTOGRAPHS

##### 17. Areas To Be Photographed.

If oblique photographs are specified in the schedule of the advertisement, the approximate location from which each photograph is to be taken and the direction in which each is to be taken will be indicated on the flight map furnished the contractor by the Government. Unless otherwise specified in the schedule of the advertisement, said photographs shall be taken between the hours of 9 a. m. and 3 p. m. from an elevation of approximately 1,000 feet above the highest point in the area being photographed.

##### 18. Camera To Be Used.

The photographs shall be made with a standard single-lens aerial camera having a focal length of not less than 8 inches with an effective negative image area of not less than 60 square inches, and indicating on each negative the location of the principal point or the collimation marks from which the principal point may be determined. Each bidder shall specify the make and model of the camera, the size of the negative, and the focal length of the lens he proposes to use.

##### 19. Quality and Numbering of Photographs.

(a) The oblique photographs shall be equal in quality to the vertical photographs hereinbefore specified. Clouds above the horizon will not be objectionable providing they do not cast shadows on the terrain shown in the photographs, which, in the opinion of the contracting officer, would impair the value of the photographs for their intended purpose. The transverse axis of the camera shall be level at the instant of exposure and approximately one-fourth of the area of each negative shall show above the horizon.

(b) The negatives shall be numbered in consecutive order with three-sixteenths-inch figures placed in the lower right-hand corner thereof, with the numbers progressing around the area in the manner indicated on the flight map.

**20. Film.**

Unless otherwise specified in the schedule of the advertisement, oblique photographs shall be made with standard fine-grained high-speed panchromatic aerial film, approved by the contracting officer. Only fresh film shall be used.

**21. Prints.**

The oblique photographs shall be masked and ferrotyped, using single-weight standard commercial-grade photographic paper approved by the contracting officer. Said photographs shall be trimmed with a uniform margin of one-half inch outside of the photographic image.

**SPECIAL CONDITIONS****22. Conditions of Bidding.**

(a) Each bid shall be accompanied by a certificate showing that the bidder has available and will use in the execution of the proposed contract the required number of airplanes, specified in the schedule of the advertisement, that will perform satisfactorily at the necessary altitude to yield the negative scale specified in said schedule and that are equipped with the necessary instruments and photographic apparatus to carry out the photography covered by the specifications; and that he has available and will use, for each of said airplanes, the services of a qualified pilot with at least 50 hours of map-flying experience, and a competent aerial photographer with at least 50 flying hours of mapping experience. Said certificate shall also show the make and model of camera or cameras; size of negative; the make, serial number, focal length, and aperture of the lens or lenses; and the maximum stop opening proposed to be used; and shall certify that the sample photographs submitted with the bid in accordance with the provisions of paragraph 13(b) hereof were taken with this type of equipment at said stop opening.

(b) No bid will be considered unless it complies with the requirements set forth in the invitation and the schedule of the advertisement.

(c) Each bid shall be accompanied by a showing of the facts as to the business and technical organization of the bidder available for the contemplated work, including financial resources and experience on similar projects. The right is reserved to reject any bid where investigation of the business and technical organization of the bidder available for the contemplated work, including financial resources and experience on similar projects, does not satisfy the contracting officer that such bidder is qualified to perform the work.

(d) Bidders are expected to examine the specifications and maps, to visit the locality of the work if necessary, and to make their own estimates of the facilities needed and the difficulties attending the execution of the proposed contract, including local conditions, uncertainty of weather, availability of landing fields, and all other contingencies. Any request for clarification or interpretation of any portion of the specifications or advertisement shall be submitted in writing or by telegraph to the officer issuing the invitation at least 1 week prior to the time fixed for the opening of the bids in order that he may notify all prospective bidders of such interpretation or clarification without the necessity of postponing said time of opening.

(e) Each bidder shall state where he proposes to base his flying operations and where he proposes to perform the work other than the flying.

(f) Each proposal (on U. S. Standard Form No. 33) will be received with the understanding that these specifications and special conditions form a part thereof, and that when accepted in writing within the time specified such accepted proposal shall constitute the contract between the bidder and the Government.

**23. Bid Guarantees.**

(a) Unless otherwise specified in the schedule of the advertisement, bids of \$1,000 or less need not be accompanied by a bid guarantee.

(b) Each bid in excess of \$1,000 shall be accompanied by a bid guarantee of not less than ten percent (10%) of the amount of the bid, which guarantee may be a money order, certified check, or cashier's check, made payable to the Treasurer of the United States; or, where the bid is in excess of \$2,000, a bid bond on U. S. Standard Form No. 24 will be acceptable. Each such money order and check shall be submitted with the understanding that it shall guarantee that the bidder will not withdraw his bid within the period specified after the opening of the bids; that (if bid exceeds \$2,000) he will, if his bid is accepted, give performance bond as may be required; and that in the event of the withdrawal of his bid within said period, or (where bid exceeds \$2,000) the failure to give said bond within the time specified, the bidder shall be liable to the Government for the difference between the amount specified in his bid and the amount for which the Government may otherwise procure the required work, if the latter amount be in excess of the former, and the Government shall have the right to retain the proceeds of such money order or check to apply on account of such excess cost. Money orders, checks, and bid bonds of unsuccessful bidders will be returned when award is made.

(c) Where the bid is not in excess of \$2,000, the guarantee of the successful bidder will be returned on acceptance of completed work, except that the Government shall have the right to retain the proceeds of said guarantee to such extent as may be required to reimburse the Government for any loss or damage resulting from default in the performance of the contract.

(d) Where bid exceeds \$2,000, the money order or check of the successful bidder will be returned when performance bond is approved.

**24. Performance Bond.**

If the bid of the successful bidder is \$2,000 or less, a performance bond will not be required; otherwise the bidder to whom the award is made shall furnish, within 10 days after receipt of notice of award, a performance bond on U. S. Standard Form No. 25, for the faithful performance of the contract. Such performance bond shall be in an amount representing such percentage of the contract price as may be specified in the schedule of the advertisement.

## 25. Award and Notice to Proceed.

(a) If the accepted bid is not in excess of \$2,000, the notice of award by registered mail, or telegram, will be the notice to proceed.

(b) If the accepted bid is in excess of \$2,000, the notice to proceed will be given, by registered mail or telegram, promptly after approval of the performance bond.

## 26. Commencement and Prosecution of Work.

(a) The contractor shall undertake the photography of the areas to be photographed within 10 days after the receipt of notice to proceed, or within such other period of time as may be specified in the schedule of the advertisement unless no substantial areas are free from snow or high water at that time, in which case the time for starting the work will be postponed until such areas are free from snow or high water. The contractor shall notify the contracting officer in writing the day his flying equipment and personnel arrive on the project and, unless otherwise authorized in writing by the contracting officer, shall keep said flying equipment and personnel continuously on the project until all the flying covered by the contract is completed and the contracting officer or his representative notifies the contractor by letter or by telegram that the photography is approved.

(b) If the area required to be photographed is made up of several separate areas of subprojects, the contractor shall photograph said subprojects in the order indicated in the schedule of the advertisement, and shall notify the contracting officer by letter or by telegram immediately upon completion of the photography of each such subproject. If any such subprojects or portions thereof are required to be rephotographed, the contracting officer shall indicate the order in which such work is to be performed and the contractor shall notify the contracting officer in each case immediately upon completion of said work.

## 27. Time Allowance.

(a) The maximum time allowance for delivery of contact prints, together with index maps, and oblique photographs will be the number of calendar days specified in the schedule of the advertisement, after the contractor has received the written notice of the acceptance of the flying.

(b) The maximum time allowance for delivery of ratioed prints and general enlargements will be the number of calendar days specified in the schedule of the advertisement after the contractor has received written notice of the acceptance of the flying, and has received the ratio and/or enlargement factors: *Provided, however,* That if the ratio and/or enlargement factors are to be determined by the contractor, the said time allowance shall be the number of calendar days specified in such schedule after receipt by the contractor of written notice of acceptance of the flying.

(c) The maximum area for which the contractor may be required to deliver contact prints, ratioed prints, and enlargements during any 30-day period shall in no case exceed the maximum 30-day delivery area specified in the schedule of the advertisement.

(d) The contractor shall not be liable for liquidated damages specified in paragraph 32, between the dates of delivery and dates of acceptance or rejection of contact prints with index maps, oblique photographs, ratioed prints, or general enlargements on original flight or any reflight under the foregoing specifications.

## 28. Specifications and Maps.

The contractor shall keep on the work a copy of the maps and specifications and shall at all times give the contracting officer access thereto. Anything mentioned in the specifications and not shown on the maps, or shown on the maps and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between maps and specifications, the specifications shall govern. In any case of discrepancy in the figures, maps, or specifications, 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 own risk and expense.

## 29. Changes.

The contracting officer may at any time, by a written order, and without notice to the sureties, if any, make changes in the maps and/or specifications of the contract and within the general scope thereof. If such changes cause an increase or decrease in the amount due under the contract, or in the time required for its performance, an equitable adjustment shall be made and the contract shall be modified in writing accordingly. No change involving an estimated increase or decrease of more than \$500 if the contract price be in excess of \$2,000, or of more than 25 percent of the contract price if the latter be \$2,000 or less, shall be ordered unless approved in writing by the head of the department or his duly authorized representative. Any claim for adjustment under this paragraph must be asserted within 10 days from the date the change is ordered: *Provided, however,* That the contracting officer, if he determines that the facts justify such action, may receive and consider, and with the approval of the head of the department or his duly authorized representative, adjust any such claim asserted at any time prior to the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made the dispute shall be determined as provided in paragraph 39 hereof. But nothing provided in this paragraph shall excuse the contractor from proceeding with the prosecution of the work so changed.

## 30. Inspection and Acceptance.

Immediately after the contact prints, index maps, and oblique photographs are received by the Government at the point designated in the schedule of the advertisement, they will be inspected, after which the contracting officer or his representative will notify the contractor in writing whether they are satisfactory and what areas, if any, shall be rephotographed because of nonconformity with the contract requirements. Ratioed prints and general enlargements will be inspected promptly upon receipt thereof by the Government, and any found by the contracting officer to be unsatisfactory shall be reprinted immediately.

**31. Delays—Damages.**

If the contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified, or any extension thereof, or fails to complete said work within such time, the Government may, by written notice to the contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event the Government may take over the work and prosecute the same to completion, by contract or otherwise, and the contractor and his sureties (if any) shall be liable to the Government for any excess cost occasioned the Government thereby. If the Government does not terminate the right of the contractor to proceed, the contractor shall continue the work, in which event the actual damages for the delay will be impossible to determine and in lieu thereof the contractor shall pay to the Government as fixed, agreed, and liquidated damages for each calendar day of delay until the work is completed or accepted the amounts as set forth in paragraph 32 hereof, or in the schedule of the advertisement, and the contractor and his sureties (if any) shall be liable for the amount thereof: *Provided*, That the right of the contractor to proceed shall not be terminated or the contractor charged with liquidated damages because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Government, acts of another contractor in the performance of a contract with the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes, if the contractor shall within 10 days from the beginning of any such delay (unless the contracting officer, with the approval of the head of the department or his duly authorized representative, shall grant a further period of time prior to the date of final settlement of the contract) notify the contracting officer in writing of the causes of delay, who shall ascertain the facts and the extent of the delay and extend the time for completing the work when in his judgment the findings of fact justify such an extension, and his findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal, within 30 days, by the contractor to the head of the department concerned, whose decision on such appeal as to the facts of delay and the extension of time for completing the work shall be final and conclusive on the parties hereto.

**32. Liquidated Damages.**

Unless otherwise specified in the schedule of the advertisement the fixed, agreed, and liquidated damages to be paid the Government by the contractor in accordance with paragraph 31 hereof, for each calendar day of delay in undertaking the work and in delivery after expiration of the time allowances specified in paragraphs 26(a) and 27 hereof, and in the schedule of the advertisement, shall be as follows:

Undertaking the work.....	\$10
Contact prints with index maps.....	10
Oblique photographs.....	10
Ratioed prints.....	10
General enlargements.....	10

**33. Risk—Damages.**

The contractor shall assume all risks in connection with the performance of the contract; and shall be liable for and save the Government harmless on account of any damages to persons or property in connection with the prosecution of the work.

**34. Reports.**

The contractor shall submit to the contracting officer regular weekly reports showing progress of the work. Forms for said reports will be supplied the contractor with the flight maps.

**35. Ownership of Negatives.**

Unless otherwise specified in the schedule of the advertisement, all negatives shall become the property of the Government and shall be delivered in accordance with instructions from the contracting officer to the Bureau or Agency for which the work has been performed. During the period the negatives are in the possession of the contractor, he may make for commercial use such prints, enlargements, mosaics, and reproductions as he may desire from any such negatives which do not show fortifications, military or naval defenses, or other restricted areas, the photographing of which is prohibited by the Government.

**36. Subcontracts.**

The contractor shall not, without prior written approval of the contracting officer, enter into any subcontract covering any part of the work contemplated by his contract.

**37. 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 the contract, including their use by the Government.

**38. Permits and Care of Work.**

The contractor shall, without additional expense to the Government, obtain all required licenses and permits, and shall be responsible for the proper care and protection of all materials until delivery thereof in accordance with instructions from the contracting officer.

**39. Disputes.**

Except as otherwise specifically provided in the contract, all disputes concerning questions of fact arising under the contract shall be decided by the contracting officer subject to written appeal by the contractor within 30 days to the head of the department concerned or his duly authorized representative, whose decision shall be final and conclusive upon the parties thereto. In the meantime the contractor shall diligently proceed with the work as directed.



**40. Payments to Contractors.**

- (a) If the contract price be \$1,000 or less, payment in full will be made upon completion and acceptance of the work.
- (b) If the contract price be in excess of \$1,000, partial payments will be made as the work progresses at the end of each calendar month, or as soon thereafter as practicable, on estimates, made by the contractor and approved by the contracting officer, of the value of work delivered and accepted.
- (c) In making partial payments there shall be retained 10 percent of the estimated amount until completion and final acceptance of all work covered by the contract.
- (d) If subprojects are involved, and if so specified in the schedule of the advertisement, payment in full with respect to each subproject (in lieu of partial payments hereinbefore provided and without deduction of any retained percentage) will be made upon completion and final acceptance of all work in connection with any such subproject.
- (e) All material and work covered by partial payments made shall thereupon become the sole property of the Government, but this provision shall not be construed as relieving the contractor from the sole responsibility (prior to delivery to the Government) for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Government to require the fulfillment of all of the terms of the contract.
- (f) Upon completion and acceptance of all work required under the contract, the amount due the contractor under the contract will be paid upon the presentation of a properly executed and duly certified voucher therefor, after the contractor shall have furnished the Government with a release, if required, of all claims against the Government arising under and by virtue of the contract, other than such claims, if any, as may be specifically excepted by the contractor from the operation of the release in stated amounts to be set forth therein.
- (g) Payment will be made for additional prints ordered under the contract upon delivery thereof.

**41. Covenant Against Contingent Fees.**

The contractor warrants that he has not employed any person to solicit or secure the contract upon any agreement for a commission, percentage, brokerage, or contingent fee. Breach of this warranty shall give the Government the right to terminate the contract, or, in its discretion, to deduct from the contract price or consideration the amount of such commission, percentage, brokerage, or contingent fees. This warranty shall not apply to commissions payable by contractors upon contracts or sales secured or made through bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business.

**42. Definitions.**

- (a) The term "head of the department" as used herein shall mean the head or any assistant head of the executive department or independent establishment involved, and the term "his duly authorized representative" shall mean any person authorized to act for him other than the contracting officer.
- (b) The term "contracting officer" as used herein shall include his duly appointed successor or his authorized representative.

**ADDITIONAL INSTRUCTIONS TO CONTRACTING OFFICERS**  
(Supplementing those printed on the back of U. S. Standard Form No. 33)

1. Invitations for bids for aerial photography shall be issued on U. S. Standard Form 33 (Revised), Invitation, Bid and Acceptance (short-form contract), using Standard Form No. 36 for continuation schedule—and care should be taken to attach to Form 33 the representations and stipulations required by the Walsh-Healey Act, inserting in Form 33 a provision that such representations and stipulations are by reference made a part of the bid.

2. These general specifications for aerial photography are based upon a thorough canvass of the technical requirements of the mapping and economic agencies of the Government as pertaining to aerial photography, and have been developed to meet these two sets of requirements in a satisfactory manner. It is anticipated that they will be revised from time to time as changing conditions may dictate, in order to keep abreast of new developments. These specifications necessarily include material that may not be applicable to every project. Hence, in preparing specifications for any particular project, the contracting officer should indicate in the schedule of the advertisement those portions of the standard specifications which apply to the work desired, making any authorized modifications therein, or additions thereto, that may be necessary to meet the requirements of the work. In this connection, consideration should be given to the needs of other agencies of the Government, and the schedule of the advertisement should call for bids for such additional prints of photographs as other agencies of the Government may need to purchase, even though the contracting officer may not plan to purchase such extra copies for the specific project for which the invitation is issued, to the end that maximum returns may be obtained from the aerial surveys and that duplication may be avoided. In some cases, the season of the year in which the photographs are taken has a marked bearing on their general utility; for example, the value of photographs of wooded areas may be greatly enhanced, from the standpoint of soil and geological studies, if taken when the leaves are off the trees.

3. As indicated in the paragraphs of the specifications hereinafter noted, the schedule of the advertisement should designate specifically:

Location, dimensions, and boundaries of area or areas to be photographed.....	Par. 1 (b)
Type of camera to be used, including other focal lengths and dimensions, if any.....	Par. 2
Scale of the contact prints desired and the method of computing same.....	Par. 3
Flight lines in other directions, if any.....	Par. 4
Control strips, if any, required.....	Par. 5
Type of film to be used.....	Par. 9
Type of paper to be used.....	Par. 11
Different enlargement scale of sample, if desired.....	Par. 13 (b) and (c)

Type, size, and number of copies of index maps required.....	Par. 14(c)
Type and scale of ratioed prints, if any, required.....	Par. 15
Type and scale of general enlargements, if any, required.....	Par. 16
Oblique photographs, if any, required.....	Par. 17-21
Number of airplanes required to be used.....	Par. 22(a)
Amount of bid guarantee or bid bond required.....	Par. 23
Amount of performance bond required.....	Par. 24
Commencement of work.....	Par. 26(a)
Order of photographing subprojects, if any.....	Par. 26(b)
Time allowance, including time allowances on different subprojects, if any, and maximum delivery area.....	Par. 27
Rate of liquidated damages, including rates on separate subprojects, if any.....	Par. 32
Ownership of negatives.....	Par. 35
Payments to contractors for separate subprojects, if any.....	Par. 40(d)

4. Where any patent or patents are to be excepted from the operation of paragraph 37 of the specifications, such exceptions will be specifically stated, by reference to the patent number, date of issue, and name of patentee in a proviso to be added to the said paragraph 37.

5. The contracting officer should give careful consideration to the type and scale of photographs to be specified and should examine representative prints made at the contemplated contact scale showing terrain of the type to be photographed in order to determine their suitability for the intended purposes. In cases where vertical photographs are to be used by agencies desiring clear, sharp, cultural detail and freedom from excessive obliquity, as in studies of built-up areas, geological studies, timberland studies, and land-use projects, it is recommended that single-lens cameras be used, with reasonably narrow-angle and long-focal-length lenses (see specification par. 2(a)). In cases where wide-angle photographs would not cause objectionable loss of pictorial detail due to obliquity in the outer portions, they afford advantages from the standpoint of economy and accuracy of radial-line plotting. In cases where use of wide-angle lenses of shorter focal length than 8 inches is desired, or where multiple-lens photographs transformed into single composite negatives are desired, the contracting officer should so specify in the schedule of the advertisement. Use of wide-angle, short-focal-length lenses may require some revision of the requirements as to quality of photographs which will be accepted, so far as definition in the corners is concerned (see specification par. 13(b)), in which event the contracting officer should so specify in the schedule of the advertisement.

6. It is recommended that the single-lens vertical negatives for use in connection with the proposed National Mapping Plan be made at a contact scale of 1:30,000 (1 in.=2,500 ft.), that the ratioed prints for the radial-line plotting of the planimetric maps be made at a scale of 1:20,000 (1 in.=1,667 ft.), and that general enlargements for the use of the land-planning and other similar economic agencies be made to two and one-half diameters (1 in.=1,000 ft.), or to a scale of 4 inches per mile (1 in.=1,320 ft.), as may be desired. Aerial surveys made at scales smaller than 1:30,000 are of very little value for specialized land studies because of insufficient detail. In agricultural and other special areas where considerable detail is desired, aerial photographs made with single-lens cameras of not less than 8-inch focal length at scales of either 1:20,000 or 1:15,840, with prints and enlargements for land studies made to scales of 1:15,840 and 1:7,920, respectively, are very satisfactory for the work of the land-use agencies and at the same time are well adapted to map compilation.

7. Items of definite-quantity materials which the Bureau or Agency, for which the work is to be performed, proposes to purchase should be listed separately in the schedule of the advertisement. These items may be entered in such combinations of separate bids or lump-sum bids as may be desired. As stated in paragraph 2 hereof, the schedule of the advertisement should include such additional prints of photographs, made from the definite-quantity negatives, as any agency of the Federal Government may need to purchase within 1 year after the date of contract. These indefinite-quantity items should be numbered consecutively after the item numbers of the definite-quantity materials and should be preceded by a statement similar to the following: "Bids are required on one set each of the following items of additional prints of the photographs specified in the preceding items, it being understood that orders for such quantities as may be necessary are to be placed if and when such items are required by any Federal agency during the period of 1 year after the date of the contract." There should be no time allowance or liquidated damage provision inserted in the schedule of the advertisement for such indefinite-quantity items as are not covered in the purchase order issued on acceptance of the bid, but delivery of such indefinite-quantity items, if and when ordered, should be made as soon as possible.

8. A copy of Standard Government Instructions to Bidders (No. 22) should be attached to each invitation for bids.

9. The schedule of the advertisement should be accompanied by a sufficient number of copies of a map or maps on which the location, dimensions, and boundaries of the area or areas to be photographed are outlined, to permit the purchasing officer to send one copy to each prospective bidder (see specification par. 1(b)). The notice of award to the successful bidder should be accompanied by three copies each (or more if required) of the best available map or maps of the area or areas to be photographed, for use by the contractor as flight maps. State maps published by the Geological Survey, the Post Office Department, or the General Land Office will be suitable for submission with the schedule of the advertisement, and Geological Survey topographic maps (if available) will be suitable for flight maps.

10. The notice of award to the successful bidder should be accompanied by notification of the designating symbols and initials of Bureau or Agency required by specification paragraph 14(a) to be placed on the negatives, and also by a supply of the forms required for weekly reports showing progress of work (see specification par. 34).

11. Any deviation from the specifications not authorized by these instructions shall be submitted to the Director of Procurement for prior approval.

Invitation No. \_\_\_\_\_

Contract No. \_\_\_\_\_

U. S. Standard Form 33 (Revised)  
Approved by the Secretary  
of the Treasury  
March 30, 1936

**INVITATION, BID, AND ACCEPTANCE**  
(SHORT FORM CONTRACT)

\_\_\_\_\_  
(Department or establishment) (Office or station)  
\_\_\_\_\_  
(Address) (Date)

**INVITATION**

Sealed bids, in \_\_\_\_\_ subject to the conditions on the reverse hereof, will be received at this office until \_\_\_\_\_ o'clock \_\_\_\_\_ m., \_\_\_\_\_, and then publicly opened, for furnishing the following supplies, and/or services, for delivery at \_\_\_\_\_

\_\_\_\_\_  
(Name) (Title)

ITEM NO.	ARTICLES OR SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
					Dollars	Cents

**BID**

In compliance with the above invitation for bids, and subject to all the conditions thereof, the undersigned offers, and agrees, if this bid be accepted within \_\_\_\_\_ days from the date of the opening, to furnish any or all of the items upon which prices are quoted, at the price set opposite each item, f. o. b., \_\_\_\_\_ and, unless otherwise specified within \_\_\_\_\_ days after receipt of order.

Discounts will be allowed for payment as follows: 10 calendar days, \_\_\_\_\_ percent; 20 calendar days, \_\_\_\_\_ percent; 30 calendar days, \_\_\_\_\_ percent.

Bidder \_\_\_\_\_ Address \_\_\_\_\_

By \_\_\_\_\_ Title \_\_\_\_\_  
(Signature of person authorized to sign this bid)

**ACCEPTANCE BY THE GOVERNMENT**

\_\_\_\_\_  
(Date)

Accepted as to items numbered \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_

### CONDITIONS

1. The Government reserves the right to reject any or all bids, to waive any informality in bids and, unless otherwise specified by the Government or by the bidder, to accept any item in the bid. In case of error in the extension of prices in the bid, the unit prices will govern.

2. Time, in connection with discount offered, will be computed from date of the delivery of the supplies to carrier when final inspection and acceptance are at point of origin, or from date of delivery at destination or port of embarkation when final inspection and acceptance are at those points, or from date correct bill or voucher properly certified by the contractor is received if the latter date is later than the date of delivery.

3. In case of default of the contractor, the Government may procure the articles or services from other sources and hold the contractor responsible for any excess cost occasioned thereby: *Provided*, That if public necessity requires the use of materials or supplies not conforming to the specifications they may be accepted and payment therefor shall be made at a proper reduction in price.

4. No Member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract or to any benefit that may arise therefrom unless it be made with a corporation for its general benefit.

5. Prices bid herein include any Federal tax heretofore imposed by the Congress which is applicable to the material on this bid. If any sales tax, processing tax, adjustment charge, or other taxes or charges are imposed or changed by the Congress after the date set for the opening of this bid, and made applicable directly upon the production, manufacture, or sale of the supplies covered by this bid, and are paid by the contractor on the articles or supplies herein contracted for, then the prices named in this bid will be increased or decreased accordingly, and any amount due the contractor as a result of such change will be charged to the Government and entered on vouchers (or invoices) as separate items.

6. Unless otherwise specified by the bidder, it is understood and agreed that only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States, and only such manufactured articles, materials, and supplies as have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured, as the case may be, in the United States shall be delivered pursuant to a contract awarded as a result of this bid.

### INSTRUCTIONS TO BIDDERS

1. Samples of items, when required, must be furnished, free of expense, prior to the opening of bids, and, if not destroyed, will, upon request, be returned at the bidder's expense.
2. Prices should be stated in units of quantity specified, with packing included.
3. Time of proposed delivery must be stated in definite terms. If time varies for different items the bidder shall so state.
4. Envelops containing bids must be sealed and marked on the upper left-hand corner with the name and address of the bidder and the date and hour of opening, and addressed as instructed.
5. To insure prompt payment, the original bill only should be certified as follows: "I certify that the above bill is correct and just, and that payment therefor has not been received."
6. For further instructions read U.S. Standard Form 22 (Instructions to Bidders).

### INSTRUCTIONS TO CONTRACTING OFFICERS

1. If shipment is made by Government bill of lading, observe consolidated classification requirements so as to secure the lowest rate applicable.
2. Although this form meets the requirements of a formal contract (R.S. 3744), if the execution of a formal contract with bond is contemplated U.S. Standard Forms 31 and 32 should be used.
3. If there is not sufficient space on the schedule to list all of the items, insert at the bottom of the schedule "Continued on ..... sheets of U.S. Standard Form 36", and use that form also.
4. If it is definitely known that final acceptance cannot be accomplished within 10 or 20 days from date of delivery due to necessity for tests or analyses which cannot be accomplished within that time, delete, before issuance, the discount provision relating to 10 calendar days or to both 10 and 20 calendar days. The provision relating to discounts may also be deleted when funds do not become available so that payment may be made within such time limits.
5. If the contract is likely to involve patent liability, the article on patents as contained in U.S. Standard Form 32 should be used.

Standard Form No. 33  
 Approved by the President  
 June 10, 1927

STANDARD GOVERNMENT FORM OF CONTINUATION SCHEDULE FOR STANDARD FORM 31 OR 33  
 (SUPPLIES)

ITEM No.	ARTICLES OR SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
					Dollars	Cents

-----  
 (Bidder)

ITEM No.	ARTICLES OR SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
					Dollars	Cents

## STANDARD GOVERNMENT INSTRUCTIONS TO BIDDERS

(CONSTRUCTION AND SUPPLIES)

1. **Preparation of bids.**—Unless otherwise directed in the invitation, bids shall be submitted in triplicate. Forms furnished, or copies thereof, shall be used, and strict compliance is necessary with the requirements of the invitation, these instructions, and the instructions printed on the forms. Special care should be exercised in the preparation of bids. Bidders must make their own estimates of the facilities and difficulties attending the execution of the proposed contract, including local conditions, uncertainty of weather, and all other contingencies. All designations and prices shall be fully and clearly set forth. Copies of the bids shall be identical. The proper blank spaces in the bid and guaranty forms shall be suitably filled in.

2. **Labor and material not to be furnished by the Government.**—The Government will not furnish any labor, material, or supplies unless specifically provided for in the contract.

3. **Signature to bids.**—Each bid must give the full business address of the bidder and be signed by him with his usual signature. Bids by partnerships must be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing. Bids by corporations must be signed with the name of the corporation, followed by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. The names of all persons signing shall also be typed or printed below the signature. A bid by a person who affixes to his signature the word "president," "secretary," "agent," or other designation, without disclosing his principal, may be held to be the bid of the individual signing. When requested by the Government, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.

4. **Bids for all or part.**—Where bids are not qualified by specific limitations, the Government reserves the right of awarding all or any of the items according to its best interests. Unless otherwise required in the specifications, bids for supplies shall be submitted in accordance with the numbered item or items given in the schedule.

5. **Alternative bids.**—Alternative bids will not be considered unless called for.

6. **Specifications and schedules.**—The specifications, schedules, and drawings which form the basis of any bid will be considered as a part thereof and will form a part of the contract. Copies of these papers, together with a copy of the standard contract form, including authorized additions or deletions, if any, will be furnished to or made available for the inspection of bidders by the office indicated in the advertisement or invitation.

7. **Corrections.**—Erasures or other changes in the bids must be explained or noted over the signature of the bidder.

8. **Guaranty.**—Where security is required to insure the execution of contract and bond for performance of the service, no bid will be considered unless it is so guaranteed. The bidder, at his option, may furnish a guaranty bond, a certified check, or deposit, in accordance with Treasury Department regulations, United States bonds (at par value) as security in the amount required: *Provided*, That where not in conflict with the law, the bidder may be limited to the option of furnishing a certified check or United States bonds when the amount of the security does not exceed \$1,000, notice of such requirement to be given in the invitation to bidders.

In case security is in the form of a certified check or United States bond, the Government may make such disposition of the same as will accomplish the purpose for which submitted. Certified checks may be held uncollected at the bidder's risk. Certified checks, or the amount thereof, and United States bonds of unsuccessful bidders will be returned as soon as practicable after the opening. 10-1772

**9. Sufficiency of guarantors and sureties.**—The bond of any surety company authorized by the Secretary of the Treasury to do business, or of two responsible individual sureties, will be accepted as security for any bid or contract. Individual guarantors or sureties must make the affidavit appearing on the bond as to their sufficiency and furnish the certificate of a judge or clerk of a court of record, a United States district attorney or commissioner, or the president or cashier of a bank or trust company. Individual sureties shall justify in sums aggregating not less than double the penalty of the bond.

**10. Restrictions as to guarantors and sureties.**—A firm, as such, will not be accepted as a guarantor or surety, nor a partner for copartners or for a firm of which he is a member. Stockholders of a corporation may be accepted as guarantors or sureties provided their qualifications as such are not dependent upon their stock holdings therein. Guarantors and sureties, if individuals, must be citizens of the United States, except that sureties on bonds executed in any foreign country, the Canal Zone, the Philippine Islands, Puerto Rico, Hawaii, Alaska, or any possession of the United States, for the performance of contracts entered into in these places, need not be citizens of the United States, but if not citizens of the United States must be domiciled in the place where the contract is to be performed.

**11. Seals on bonds.**—When the principal, a guarantor, or a surety is an individual, his signature to a guaranty or bond shall have affixed to it an adhesive or scroll seal. If executed in Maine, Massachusetts, or New Hampshire, an adhesive seal is required. Corporate seals shall be affixed by corporations, whether principals or sureties.

**12. Marking and mailing bids.**—Bids, with their guaranties, must be securely sealed in suitable envelopes, addressed and marked on the outside as required by the invitation.

**13. Time for receiving bids.**—Bids received prior to the time of opening will be securely kept, unopened. The officer whose duty it is to open them will decide when the specified time has arrived, and no bid received thereafter will be considered, except that when a bid arrives by mail after the time fixed for opening, but before award is made, and it is shown to the satisfaction of the officer authorized to make the award that the nonarrival on time was due solely to delay in the mails for which the bidder was not responsible, such bid will be received and considered. No responsibility will attach to an officer for the premature opening of a bid not properly addressed and identified. Unless specifically authorized, telegraphic bids will not be considered, but modifications by telegraph of bids already submitted will be considered if received prior to the hour set for opening.

**14. Withdrawal of bids.**—Bids may be withdrawn on written or telegraphic request received from bidders prior to the time fixed for opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

**15. Bidders present.**—At the time fixed for the opening of bids, their contents will be made public for the information of bidders and others properly interested, who may be present either in person or by representative.

**16. Award or rejection of bids.**—The contract will be awarded to the lowest responsible bidder complying with conditions of the invitation for bids, provided his bid is reasonable and it is to the interest of the United States to accept it. The bidder to whom the award is made will be notified at the earliest possible date. The United States, however, reserves the right to reject any and all bids and to waive any informality in bids received whenever such rejection or waiver is in the interest of the United States. It also reserves the right to reject the bid of a bidder who has previously failed to perform properly or complete on time contracts of a similar nature, or a bid of a bidder who is not in a position to perform the contract.

**17. Time of performance.**—When not otherwise specified in the invitation, the bidder must state the least number of calendar days (counting Sundays and holidays) after date of receipt of notice to proceed, in which he will commence performance, and the number of calendar days (counting Sundays and holidays) thereafter in which he will complete. In stating time the bidder should make due allowance for probable difficulties which may be encountered. 10-1772



18. **Bidders interested in more than one bid.**—If more than one bid be offered by any one party, by or in the name of his or their clerk, partner, or other person, all such bids may be rejected. (Sec. 3722, R. S.) This shall not prevent a bidder from proceeding under paragraph 5 hereof, nor from quoting different prices on different qualities of material or different conditions of delivery. A party who has quoted prices on materials to a bidder is not thereby disqualified from quoting prices to other bidders or from submitting a bid directly for the materials or work.

19. **Errors in bid.**—Bidders or their authorized agents are expected to examine the maps, drawings, specifications, circulars, schedule, and all other instructions pertaining to the work, which will be open to their inspection. Failure to do so will be at the bidder's own risk, and he can not secure relief on the plea of error in the bid. In case of error in the extension of prices the unit price will govern.

20. **Preference for domestic articles.**—Preference will be given to articles or materials of domestic production, conditions of quality and price, including duty, being equal.

21. **Dealer or manufacturer.**—In bids for supplies or manufactured articles, bidders will state whether they are manufacturers of or regular dealers in the articles. If practicable to do so, bidders who are not manufacturers will give the name of the manufacturer from whom the articles are to be obtained, including catalogue references.

22. **Samples.**—When samples are required, they must be submitted by the bidder so as to reach the office designated prior to the hour set for opening the bids. Samples shall be furnished free of expense to the Government, properly marked for identification, and accompanied by a list when there is more than one sample. The Government reserves the right to mutilate or destroy any sample submitted whenever it may be considered necessary to do so for the purpose of testing. Samples not required in connection with the award or delivery of supplies will, upon request, if promptly made, be returned at the bidder's expense.

23. **Contract and bond.**—The bidder to whom award is made must, when required, enter into written contract on the standard Government form, with satisfactory security in the amount required, within the period specified or, if no period be specified, within ten days after the prescribed forms are presented to him for signature.

24. **Eight-hour law.**—The eight-hour labor statute cited in Article 11 of the construction contract does not apply to the procurement of supplies, materials, or articles which may usually be bought in the open market, whether made to conform to particular specifications or not, or to the construction or repair of levees or revetments necessary for protection against floods or overflows on the navigable waters of the United States, or to any emergency caused by fire, famine, or flood, by danger to life or to property, or by other extraordinary event or condition on account of which the President shall subsequently declare the violation to have been excusable.

25. **Patents.**—Unless specified by the Government, patented articles shall not knowingly be used in connection with the performance of the contract by the contractor, unless he is the owner or licensee thereof or procures the same in open market, or unless full information relative thereto shall have been furnished in his proposal. The contractor must notify the Government immediately of any claim or infringement of any patent in connection with the performance of the contract.

(These instructions are not to be incorporated in the contract)