

ARIZONA STATE LAND DEPARTMENT  
CADASTRAL AND SURVEY REVIEW UNIT

MANUAL OF SURVEY  
FOR  
BOUNDARY SURVEYS, LAND TITLE SURVEYS  
STATE PLATS  
AND  
AMENDED STATE PLATS

OCTOBER 1988

AMENDED: AUGUST 1991  
2ND AMENDED: APRIL 1995  
3RD AMENDED: SEPTEMBER 2003

## NOTE

The enclosed "Manual of Survey" for the Arizona State Land Department applies only if you are contracted by the Arizona State Land Department to survey State Land property, or if you are producing a State Plat

If you are surveying a parcel of land that your client is applying to the State Land department for a lease or sale, a normal Boundary Survey (on a legible scale) and a legal description is all that is necessary.

However the Arizona State Land Department is now requiring an ALTA Survey in many cases. Please contact the Sales Department (602- 542-1704) to inquire if an ALTA Survey is necessary

If there are any questions please contact John P. Nebrich (602) 542 2601

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ACCEPTANCE

This is to certify that this manual of  
Minimum Requirements for Boundary  
Surveys, Land Title Surveys, State  
Plats and Amended State Plats  
has been approved and accepted.

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STATE LAND COMMISSIONER

SURVEYOR GENERAL

## INTRODUCTION

This manual will provide the minimum requirements for the conduct of boundary and land title surveys and the associated survey plats of State Trust managed land. It will also provide the minimum requirements for the preparation of State Plats which delineate the subdivision of State managed land. Compliance with these minimum requirements is necessary for acceptance of any and all boundary surveys, land title surveys or State Plats submitted to the Cadastral and Survey Review Unit of the State Land Department.

Any questions concerning these requirements will be directed to the Cadastral and Survey Review Unit of the State Land Department at the following address:

Arizona State Land Department  
Cadastral and Survey Review Unit  
1616 West Adams  
Phoenix, Arizona 85007

or telephone at; 602-542-2601

## BOUNDARY SURVEYS

Although all State managed land was originally surveyed by the U. S. government (General Land Office/Bureau of Land Management), natural and cultural alterations to the survey monuments and the advances in survey technology require a diligent application of survey principles and practices to accurately describe and monument parcels of land. Therefore, this section of the manual will provide the information necessary to properly conduct a boundary survey of State managed land and to prepare the survey plat. The following citations will be considered minimum for acceptance of all boundary surveys of such land.

### A Filed Survey

1. The field survey will be performed in accordance with the "Manual of Surveying Instructions" as published by the Bureau of Land Management, this manual and any other widely recognized authority on the principles and practices of surveying as relates to boundary surveying.
2. The field survey will include the entire section boundary locating all eight (8) standard section corners.
3. All found monuments purporting to be at the true position for a section corner and not being one set by U. S. Government survey, will require substantial evidence to prove correct location at said true position for the corner.
4. All other monuments found will be described and their function determined as relates to the section boundary or parcel boundary.
5. All property corners of State Trust managed land will be monumented with an appropriate type monument in compliance with Arizona Board of Technical Registration Regulations and local Governmental Regulations where required.
6. A legible copy of the field notebook, an ASCII file of field data, or hard copy of field data will be submitted to the State Land Department upon acceptance of the survey plat.

Survey Plat

1. The Survey plat will bear the title:

BOUNDARY SURVEY  
of State Trust managed land in  
Section, Township, Range  
Gila and Salt River Meridian  
County, Arizona

2. The survey plat will bear the following;

STATEMENT OF CERTIFICATION

To the Arizona State Land Department;  
This is to certify that this plat and the and the Survey  
upon which it is based were made in accordance with  
the State Land Department's "Manual of Survey" in  
force at the time of this survey.

Signed \_\_\_\_\_ R.L.S.

Note; Official seal must be affixed to plat

3. The survey plat will be drawn at a scale of 1" = 400 ' on a sheet size of 18" X 24" as to conform with A.R.S. § 1-481.B 2. The material is to be three (3) mil polyester based film or Vellum. When required for clarity, supplementary diagrams will be accurately delineated on the plat
4. A basis of bearing will refer to a well fixed line of record and clearly delineated on the plat
5. The section boundary will be delineated with all data necessary to show the mathematical dimensions and relationships of the boundary lines.
6. Where U.S. Government lots exist, the boundary lines of said lots will be delineated and properly dimensioned.
7. Where partial State Trust managed land ownership of the section occurs, the boundary lines will be delineated and properly delineated

8 The mathematical closure of all parcels delineated on the survey plat will have a precision of error of 1 in 15,000 or better. A copy of the traverse closure calculation must be submitted showing error of closure and precision.

9. The gross area, based on current survey, of all parcels delineated will be clearly shown on the plat.

Upon completion of the field survey and subsequent mathematical calculations, three (3) copies of the preliminary survey plat will, be prepared for submission to the Cadastral and Survey Review Unit of the State Land Department for technical review and comment. A coordinate map and listing of coordinate value will be submitted with the Preliminary Survey Plat. Any required additions, deletions and/or corrections will be forwarded to the surveyor for revision of the preliminary survey plat. Upon revision, the above forwarded material will be returned and, a second review and comment will be performed to verify proper revision has been completed.

After surveyor has been notified of the acceptance of the preliminary survey plat, surveyor will, if required by the provisions of A.R.S. Title 33, Sections 105 and 106, record said survey plat with the appropriate county recorder's office. Surveyor will then supply to the State Land Department a reproducible vellum copy of the survey plat.

## ALTA/ACSM LAND TITLE SURVEYS

American Land Title Association and American Congress on Surveying & Mapping  
Land title surveys are basically the same as boundary surveys with the difference being the location of and the delineation of encumbrances upon the State Trust managed land under survey. These encumbrances are in the form of State leases of various types, State rights-of-way for varying purposes and encroachments upon the land. ALTA Land Title Surveys require the procurement of a standard title report which will include the research of State Land Department records and those of the Bureau of Land Management. This portion of the manual will, therefore, highlight those requirements specific to ALTA Land Title Surveys with general references to the Boundary Surveys section where they are the same.

### A. Field Survey.

1. The field survey will be performed in accordance with the Accuracy Standards for ALTA/ACSM Land Title Surveys dated 1999.
2. Same as boundary surveys.
3. Same as boundary surveys.
4. Same as boundary surveys.
5. Same as boundary surveys.
6. Same as boundary surveys.
8. Locate all encroachments and describe

### B. Survey Plat.

1. The survey plat will bear the title

ALTA LAND TITLE SURVEY  
of State Trust managed land in  
Section, Township, Range  
G.&S.R.M., County, Arizona

2. The plat will bear the "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys" along with the required certifications as shown on the Minimum Standard Detail Requirements.
3. Same as boundary surveys.
4. Same as boundary surveys.
5. Same as boundary surveys.
6. Same as boundary surveys.
7. Same as boundary surveys.
8. Same as boundary surveys.
9. Same as boundary surveys.

B (Continued)

- 10 The boundaries of all State leases and rights-of-way will be delineated citing lease/right-of-way number and lessee name. Properly locate and dimensioned in relation to the current survey of section boundary
- 11 All evidence of encroachments will be accurately delineated, indicating physical evidence and extent.
- 12 All evidence of roads or utility easements not of record with the State Land Department will be accurately delineated.
- 13 The identifying title of all adjoining recorded subdivision plats will be shown with the recorded data.

Upon completion of the field survey and subsequent mathematical calculations, two (2) copies of the preliminary survey plat will be prepared for submission to the Cadastral and Survey Review Unit of the State Land Department for technical review and comment. A coordinate map and listing of coordinate value will be submitted with the Preliminary Land Title Plat. Any required additions, deletions and/or corrections will be forwarded to the surveyor for revision of the preliminary survey plat. Upon revision, the above forwarded material will be returned and a second review and comment will be performed to verify proper revision has been completed.

After the surveyor has been notified of the acceptance of the preliminary survey plat, surveyor will then record said survey plat with the appropriate county recorder's office. Surveyor will then supply to the State Land Department a reproducible mylar copy of the survey plat, showing the recording data.

## STATE PLATS

The subdivision of State Trust managed land is accomplished by the use of "State Plats" which are recorded with the appropriate county recorder's office. These "State Plats" are very similar to standard subdivision plats used to subdivide private land with one notable exception, the State Land Department is precluded from dedication of roads and other public areas by the Enabling Act for the State of Arizona. Therefore, "State Plats" declare by representation the location of roads and other public areas as to intent only not the actual dedication, this is left to the successful purchaser of those areas.

This section of the manual provides the information necessary to prepare a "State Plat" for the subdivision of State Trust managed land. The following citations will be considered minimum for the acceptance of all State Plats

A. The State plat will bear the title:

STATE PLAT NO. XX  
PROJECT NAME  
A TRACT MAP OF THE PROPOSED SUBDIVISION  
OF STATE TRUST MANAGED LAND IN  
SECTION, TOWNSHIP, RANGE  
G & S R.M., COUNTY, ARIZONA

B. The State plat will bear the following:

### STATEMENT OF CERTIFICATION

This is to certify that this plat and the survey upon which it is based were made in accordance with the State Land Department's "Manual of Survey" in force at the time of this survey. That the plat is correct and accurate, and that the section and/or 1/4 corner monuments shown actually exist or will be set as shown. That all data is sufficient to allow the retracement of the survey and the subdivision.

Signed \_\_\_\_\_ R.L.S. \_\_\_\_\_

NOTE: Official seal must be affixed to plat.

C The State Plat will bear the following:

DECLARATION

KNOW ALL MEN BY THESE PRESENT: THE STATE LAND DEPARTMENT, acting through \_\_\_\_\_, STATE LAND COMMISSIONER, under the provision of Section 37-334 Arizona Revised Statutes, has caused to be surveyed and described under the name of STATE PLAT NO. XX, PROJECT NAME, THE State managed land located in Section XX, Township YY, Range ZZ, G.&S.R.M., County, Arizona, as shown hereon, the same being GRANTED OR GENERAL FUND LANDS and hereby declares that the plat sets forth the locations of proposed public rights- of-way and other public areas

DEDICATION:

THE ARIZONA STATE LAND DEPARTMENT is precluded by the Enabling Act for the State of Arizona from dedication of public thoroughfares. It is the intent of the ARIZONA STATE LAND DEPARTMENT that those areas to be used for public ingress and egress and the placing of public utilities have been designated as such and will be offered for sale at public auction with the provision that the purchaser of same will forthwith dedicate same for purposes stated above.

IN WITNESS WHEREOF:

THE ARIZONA STATE LAND DEPARTMENT acting through \_\_\_\_\_, STATE LAND COMMISSIONER, has hereunto affixed its signature this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

ARIZONA STATE LAND DEPARTMENT

\_\_\_\_\_  
ARIZONA STATE LAND COMMISSIONER

C. (Continued)

ACKNOWLEDGMENT

State of Arizona

SS

County of Maricopa

On This, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ before me, personally appeared \_\_\_\_\_, ARIZONA STATE LAND COMMISSIONER known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes herein expressed

IN WITNESS WHEREON:

I hereunto set my hand and official seal. My commission expires \_\_\_\_\_,

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Notary Public

D. The following citations will refer to specific technical requirements for State plats.

- 1 All parcels of land will be designated as TRACTS and identified numerically. If, at some future time, a "tract" must be split, the numeric identified will be appended by a alphabetic suffix.
2. "Tract" boundary lines will follow the center lines of streets, alleyways, equestrian trails, drainage ways, etc. They will be mathematically dimensioned and boldly delineated.
3. All streets will be named and delineated by the use of dashed lines. Show the street widths but not the sideline dimensions.
- 4 All alleyways, equestrian trails, drainage ways, etc. will be identified and delineated by dashed lines. They will be dimensioned as are the streets.
5. All section corner monuments, as well as, property corner monuments will be properly identified and described on the plat

D (Continued)

6. The gross area, in acres, of each "tract" will be given in tabular form on the plat. The area, in acres, of all types of public area, as it relates to each "tract," will be shown adjacent to the tract area in table. A copy of the traverse closure calculation must be submitted showing error of closure and precision.
7. Where a "tract" lies within two (2) or more sections, the portion of the tract within each section must be calculated and shown on a copy of the State plat. This will also apply to all streets and other public area types that lie within two or more sections.
8. The State Plat size will conform to A.R.S. 5-11-481 B.I.

Upon completion of the "State Plat," two (2) preliminary copies will be submitted to the Cadastral and Survey Review Unit of the State Land Department for technical review and comment. A coordinate map and listing of coordinate values, or a CAD Drawing File in DXF format, including the Point Data Base, must be submitted with the preliminary "State Plat." Any required additions, deletions and/or corrections will be forwarded to the surveyor for revision of the preliminary "State Plat". Upon revision, the above forwarded material will be returned and a second review and comment will be performed to verify proper revision has been completed.

After the surveyor has been notified of the acceptance of the "State Plat," the surveyor will then record said "State Plat" with the appropriate county recorder's office. The surveyor will then supply to the State Land Department a reproducible mylar copy of the "State Plat," reduced to a sheet size of 18" X 24", and one (1) presentation black line copy of same and a 24" X 36", reproducible mylar copy of the "state Plat."

## Amended State Plats

The subdivision of State Trust managed land is accomplished by the use of "State Plats" which are recorded with the appropriate County Recorder's Office. These "State Plats" are very similar to standard subdivision plats used to subdivide private land with one notable exception, the State Land Department is precluded from dedication of roads and other public areas by the Enabling Act for the State of Arizona. Therefore, "State Plats" declare by representation the location of roads and other public areas as to intent only not the actual dedication, this is left to the successful purchaser of those areas.

This section of the manual provides the information necessary to prepare an "Amended State Plat" for the resubdivision or replotting of State Trust managed land. The following citations will be considered minimum for the acceptance of all Amended State Plats.

A The Amended State Plat will bear the Title:

STATE PLAT NO XX

AMENDMENT TO PREVIOUS PROJECT NAME

A Resubdivision of State Plat No. xx, Project Name as Recorded in Book \_\_\_ of Maps, Page \_\_\_, at the \_\_\_\_\_ County Recorder's Office being a tract map of State Managed Lands in Section(s) pp, Maricopa County, Arizona, the above properties being within T.- \_\_\_, R.- \_\_\_\_\_, G.&S R.M., Maricopa County, Arizona

1. The AMENDED STATE PLAT will be given a new state plat number.

B. The Amended State Plat will bear the following:

STATEMENT OF CERTIFICATION

This is to certify that this plat and the survey upon which it is based were made in accordance with the State Land Department's "Manual of Survey" in force at the time of this survey. That the plat is correct and accurate, and that the section and/or Y4 corner monuments shown actually exist or will be set as shown. That all data is sufficient to allow the retracement of the survey and the subdivision.

Signed \_\_\_\_\_ R.L.S. \_\_\_\_\_

NOTE: Official seal must be affixed to plat.

C. The Amended State Plat will bear the following:

DECLARATION

KNOW ALL MEN BY THESE PRESENTS: THE STATE LAND DEPARTMENT, acting through \_\_\_\_\_, STATE LAND COMMISSIONER, under the provision of Section 37-334 Arizona Revised Statutes, has caused to be surveyed and described, under the name of STATE PLAT NO XX, AMENDMENT TO PREVIOUS PROJECT NAME, the State managed land located in Section XX, Township YY, Range ZZ, G.&S.R.M., County, Arizona, as shown hereon, the same being GRANTED OR GENERAL FUND LANDS and hereby declares that the plat sets forth the locations of proposed public rights-of-way and other public areas.

DEDICATION:

THE ARIZONA STATE LAND DEPARTMENT is precluded by the Enabling Act for the State of Arizona from dedication of public thoroughfares. It is the intent of the ARIZONA STATE LAND DEPARTMENT that those areas to be used for public ingress and egress and the placing of public utilities have been designated as such and will be offered for sale at public auction with the provision that the purchaser of same will forthwith dedicate same for purposes stated above IN WITNESS WHEREOF:

THE ARIZONA STATE LAND DEPARTMENT acting through \_\_\_\_\_, STATE LAND COMMISSIONER, has hereunto affixed its signature this \_\_\_ day of \_\_\_\_\_, 200\_\_\_,

ARIZONA STATE LAND DEPARTMENT

\_\_\_\_\_  
ARIZONA STATE LAND COMMISSIONER

C. (Continued)

ACKNOWLEDGMENT

State of Arizona

SS

County of Maricopa

On this, the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, personally appeared \_\_\_\_\_, ARIZONA STATE LAND COMMISSIONER, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes herein expressed.

IN WITNESS WHEREOF:

I hereunto set my hand and official seal. My commission expires \_\_\_\_\_,

\_\_\_\_\_  
Notary Public

- D. The following citations will refer to specific technical requirements for State plats
1. All parcels of land will be designated as TRACTS and identified numerically. If, at some future time, a "tract" must be split, the numeric identified will be appended by a alphabetic suffix.
  2. "Tract" boundary lines will follow the center lines of streets, alleyways, equestrian trails, drainageways, etc. They will be mathematically dimensioned and boldly delineated.
  3. All streets will be names and delineated by the use of dashed lines. Show the street widths but not the sideline dimensions.
  4. All alleyways, equestrian trails, drainageways, etc. will be identified and delineated by dashed lines. They will be dimensioned as are the streets.
  5. All section corner monuments, as well as, property corner monuments will be properly identified and described on the plat.

D. (Continued)

6. The gross area, in acres, of each "tract" will be given in tabular form on the plat. The area, in acres, of all types of public area, as it relates to each "tract", will be shown adjacent to the tract area in table. A copy of the traverse closure calculation must be submitted showing error of closure and precision.

7. Where a "tract" lies within two (2) or more sections, the portion of the tract within each section must be calculated and shown on a copy of the Amended State Plat. This will also apply to all streets and other public area types that lie within two or more sections.

8. Where there is more than one (1) Amendment, the next continuous number will be placed prior to the word "Amended i.e 2nd Amended ", These will be assigned by the Cadastral and Survey Staff

9. If a State plat is to be resubdivided and contains a Certificate of Purchase or a Patent, these areas will be referenced as an "exception" on the Amended State Plat

10. The "Amended State Plat" size will conform to A.R.S. § II- 481 .B.I.

Upon completion of the "Amended State Plat", three (3) preliminary copies will be submitted to the Cadastral and Survey Review Unit of the State Land Department for technical review and comment. A coordinate map and listing of coordinate values, or a CAD Drawing File in DXF format, including the Point Data JBase, must be submitted with the preliminary "Amended State Plat." Any required additions, deletions and/or corrections will be forwarded to the surveyor for revision of the preliminary "Amended State Plat". Upon revision, the above forwarded material will be returned and a second review and comment will be performed to verify that proper revision has been completed.

After the surveyor has been notified of the acceptance of the "Amended State Plat", the surveyor will then record said "Amended State Plat 11, with the appropriate County Recorder' s Of f ice. The surveyor will then supply to the State Land Department a reproducible mylar copy of the "Amended State Plat", reduced to a sheet size of 18" X 24", and one (1) presentation black line copy of same and one 24" X 36", reproducible mylar copy.