



CLSA Education Committee
Exam Preparation Publications and Resources
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The Education Committee's Exam Preparation Subcommittee has compiled a list of reference materials to help candidates prepare for the LSIT Exam, and the PLS exam. These are by no means complete lists, but reflect some of the publications and resources that are considered industry standard references for exam preparation and that are used by many land surveyors. We welcome comments and additions to improve these lists. References marked with a "%" are similar titles, those marked with a "*" are free to download or free to download with CLSA membership, and those marked "\$" may be very costly from retail sources. Certainly there are many more to add to this list. Your suggestions are welcome!

PRE-LSIT (NCEES FS exam) Essential References:

A BPELS/NCEES approved calculator such as the HP-33s or HP-35s

A recent edition of an elementary surveying textbook

Definitions of Surveying and Associated Terms - ACSM

Basic Surveying Computations – Zimmerman

Land Surveyor Reference Manual – Harbin

**Basic Surveying Theory and Practice* – Oregon DoT

http://www.oregon.gov/ODOT/HWY/GEOMETRONICS/docs/BasicManual2000_02.pdf

**LS/LSIT Exam Preparation Course Workbooks and Videos* - Caltrans

<http://www.dot.ca.gov/hq/row/landsurveys/LSITWorkbook/WorkbookTOC.html>

Additional Recommended References:

**FS Exam Specifications* - NCEES

http://www.ncees.org/exams/fundamentals/fs_exam_specs.pdf

**FS Reference Formulas* - NCEES

http://www.ncees.org/exams/study_materials/surveying_equations.pdf

FS Sample Questions and Solutions - NCEES

http://www.ncees.org/exams/study_materials/

Additional study references or textbooks may be required if candidate feels review is needed considering their self-evaluation with respect to the NCEES *FS Exam Specifications* such as:

A grammar textbook (if review is needed)

A basic math textbook (if review is needed)

An algebra textbook (if review is needed)

A geometry textbook (if review is needed)

A trigonometry textbook (if review is needed)

NOTES:

Pre-LSIT candidates may be interested in the NSPS Certified Survey Technician (CST) Program: http://www.nspsmo.org/cst/get_certified.shtml

Comments and feedback are appreciated.

LSIT (NCEES FS exam) Essential References:

ALL of the PRE-LSIT essential AND additional references

Boundary Control and Legal Principles – Brown

Writing Legal Descriptions – Wattles

Calculator Instruction/Programming Manual

% *HP33s Surveying Tools* – www.HP33sSurveyor.com

% *Surveying Solutions for the HP 33s* – www.SoftwarebyDZign.com

% *HP35s Surveying Tools* – www.HP33sSurveyor.com

% *HP35 Programming Manual* – www.landsurveys.com/store/cart.php?m=product_list&c=5

*NCEES FS Exam Specifications

http://www.ncees.org/exams/fundamentals/fs_exam_specs.pdf

*NCEES FS Reference Formulas

http://www.ncees.org/exams/study_materials/surveying_equations.pdf

NCEES FS Sample Questions and Solutions

http://www.ncees.org/exams/study_materials/

*LS/LSIT Exam Preparation Course Workbooks and Videos - Caltrans

<http://www.dot.ca.gov/hq/row/landsurveys/LSITWorkbook/WorkbookTOC.html>

*Restoration of Lost or Obliterated Corners and Subdivision of Sections – BLM

http://www.dot.ca.gov/hq/row/landsurveys/Study_material/BLM_References/BLM_lost_oblit.pdf

Additional Recommended References:

Surveying Solved Problems for the FS and PS exams - Van Sickle

% *Route Surveying and Design* - Meyer

% *Route Location and Surveying* – Hickerson

Evidence & Procedures for Boundary Location - Brown/Robillard/Wilson

Ethics for the Professional Surveyor - Mouland

Elements of Photogrammetry with Applications in GIS – Wolf & Dewitt

**Geodesy for the layman* – NOAA (if review is needed)

http://www.dot.ca.gov/hq/row/landsurveys/Study_material/Geodesy_laymans_guide.pdf

% *Astronomy for Surveyors* – There are various authors for this title

NOTES:

NCEES FS exam:

8 hours (4-hour morning session and 4-hour afternoon session)

170 multiple-choice (85 per session)

Exam is closed-book; reference (see errata) will be provided.

PLS (California State-specific and NCEES PS exams) Essential References:

ALL of the LSIT essential AND additional references

*CLSA LS Exam Guide

<http://www.californiasurveyors.org/> MEMBER - FREE DOWNLOAD FROM CLSA STORE

*Previous years LS Exams and grading plans - BPELS

<http://www.californiasurveyors.org/> MEMBER - FREE DOWNLOAD FROM CLSA STORE

Laws for the California Surveyor - Minnick

Prior year PLS Act - CLSA

Prior year Subdivision Map Act - CLSA

% Water Boundaries – Cole

% Water Boundaries – Flushman

1973 Manual of Instructions for the Survey of the Public Lands - BLM

2009 Manual of Survey Instructions - BLM

*Additional BLM Reference Materials

http://www.dot.ca.gov/hq/row/landsurveys/Study_material/BLM_References/index.html

**Surveys Manual Chapter 12, Construction* – Caltrans

**Surveys Manual Chapter 13, Photogrammetry* – Caltrans

http://www.dot.ca.gov/hq/row/landsurveys/SurveysManual/Manual_TOC.html

*NCEES PS Exam Specifications

http://www.ncees.org/exams/professional/ps_exam_specs.pdf

CCS83 – A Practical Guide – Sincek

% Similar content available at: <http://www.dot.ca.gov/hq/row/landsurveys/LSITWorkbook/11.pdf>

Additional Recommended References:

Advanced Land Descriptions - Cuomo/Minnick

Introduction to Geodesy - Smith

LS Review Manual - Buckner

CA LS License Review Manual - Chelapati

**Guide to the Preparation of Records of Survey and Corner Records* - CEAC

<http://www.ceaccounties.org/resources/1/Policy%20Areas/Survey/Resources/Approved%20CEAC%20Guide%203-27-09.pdf>

Interpreting Land Records - Wilson

Errors in Practical Measurements - Barry

GPS for Land Surveyors - Van Sickle

Easements and Reversions - Wilson

The California Law of Water Rights - Hutchins

River and Lake Boundaries - Simpson

Land Survey Systems – McEntyre

\$ Surveying and Boundaries – Clark

\$ The Legal Elements of Boundaries and Adjacent Properties – Skelton

NOTES: You will not take every reference listed above into the PS/PLS exams!

NCEES PS exam: 6 hours (4-hour morning session and 2-hour afternoon session)

100 multiple-choice (67 for morning session, 33 for afternoon session)

Exam is open-book, but check with your board about any restrictions.

California State-specific PLS exam: 4 hours (4-hour morning session)