

# MOWER COUNTY CLASS SPECIFICATION

## CLASS TITLE: Engineering Technician II

<b>BAND:</b>	<b>GRADE:</b>  9	<b>SUBGRADE:</b>
<b>DEPARTMENT:</b> Highway	<b>ACCOUNTABLE TO:</b> Hwy. Department Supervisor	<b>FLSA STATUS:</b> Non-exempt
<b>CLASS SUMMARY:</b> Incumbents are responsible for surveying, designing and inspecting construction of roadways, bike paths, bridges and culverts for County. Duties include: conducting inspections of bituminous material, concrete street, plants, grading and bridges; drafting construction plans based on completed surveys; conducting preliminary surveys; conducting needs studies; and, auditing construction projects.		
<b>DISTINGUISHING CHARACTERISTICS:</b> This classification represents the base level within the three level series of Engineering Technician. Incumbents assigned to this level have the training and knowledge to perform the general expectations of the work but lack the experience and on-the-job training to perform the full range of duties and responsibilities required of the class.		

DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)	FRE-QUENCY
1.	Conducts inspections of bituminous material, concrete street, plants, grading and bridges which includes: inspecting job sites, ensuring material quality and workmanship meet standards, documenting all quantities and work for payment, testing mixes, accepting or rejecting materials based on existence of deviations from mix designs, checking that excavations and embankments meet grading requirements, checking installation of erosion control for proper installation and checking form and reinforcement provisions.	Weekly 40%
2.	Drafts construction plans based on completed surveys which includes: calculating elevation of finished roadways, determining necessary thickness of materials, computing quantities of materials and determining need for addition materials such as erosion control devices.	Weekly 30%

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DUTY NO.	ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)	FRE-QUENCY
3.	Conducts preliminary surveying which includes: determining alignment, right of way and elevation and computing amount of soil, gravel or concrete to remove or replace.	Annually 10%
4.	Conducts needs studies which includes: calculating future costs of construction, estimating quantities of constructions items needed and determining what needs qualify for Federal or State funding.	Quarterly 10%
5.	Audits construction projects which includes: calculating final payments, copying plans, proof-reading special provisions and finalizing easement acquisitions.	Annually 10%
6.	Performs other duties of a similar nature or level.	As Required

**Knowledge** (position requirements at entry):

Knowledge of:

- Surveying techniques;
- Bituminous and concrete characteristics and testing procedures;
- Road building techniques;
- Soil characteristics;
- Bridge and culvert construction techniques;
- Construction methods involving steel, form building and pile bearing;
- Mathematics;
- Computers and computer software;
- State and County specifications and provisions.

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**Skills** (position requirements at entry):

Skill in:

- Using survey equipment;
- Inspecting construction materials and methods;
- Using computers and computer-aided drafting;
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, etc. sufficient to exchange or convey information and to receive work direction.

**Training and Experience** (position requirements at entry):

Requires graduation from a 2 year vocational or technical school program in Civil Engineering and two years of survey or engineering experience; or related area, an equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above.

**Licensing Requirements** (position requirements at entry):

- Requires certification Level I in Aggregate and bituminous street/QM plant and a level II certification in concrete field, grading and base.

**Physical Requirements:**

Positions in this class typically require: balancing, stooping, kneeling, reaching, driving, lifting, fingering, grasping, talking, hearing, seeing and repetitive motions.

Incumbents may be subjected to moving mechanical parts, personal injury, fumes, odors, dusts, gases, poor ventilation, chemicals, oils, extreme temperatures, work space restrictions, intense noise and travel.

Light Work: Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

**Classification History:**

Draft prepared by Fox Lawson and Associates LLC

Date: 12/1998