

MINUTES OF THE MEETING  
LABOR & EMPLOYMENT RELATIONS COMMITTEE  
MONTANA STATE SENATE

March 5, 1981

The meeting of the Labor & Employment Relations Committee was called to order by Chairman Harold Nelson on March 5, 1981, in Room 404 of the State Capitol at 1:00 p.m.

ROLL CALL: All members of the Committee were present.

CONSIDERATION OF HOUSE BILL 79:

Chairman Nelson introduced Representative Hal Harper, sponsor of HB 79 to the Committee, and Rep. Harper explained the bill to the Committee. This bill is by request of the Department of Labor & Industry. This bill is an Act to revise and clarify the law relating to the preference of Montana labor in public works contracts.

Representative Harper stated that this bill is an amendment to the prevailing wage law passed in 1931. The main points are:

- 1) In public contracts, Montana contractors that have the jobs are going to give Montana citizens first crack at those jobs.
- 2) The Contractors must pay the prevailing wage for those jobs.

Representative Harper stated that a weakness in the present law is that the Department has no authority to inspect the records so money is being wasted in court cases. The bill tries to clarify the law to attempt to save time and money and guarantee fair wages to workers.

Representative Harper told the Committee the main purposes of the bill are:

- 1) To save both time and money
- 2) To help guarantee fair wages to workers
- 3) To protect and encourage the legitimate contractor who follows the law.

PROPOSERS OF HOUSE BILL 79:

Representative Fabrega made some comments regarding the bill. The bill was introduced because they recognize some of the problems small contractors are having with the law. He stated that the \$50,000 is strictly a reporting requirement. If the job is less than \$50,000, you do not need to send a notice of completion of the job.

Representative Fabrega stated that every contractor should be aware of the law in Montana. It is the smaller contractor who has been hurt by this law.

Mr. Dave Hunter, representing the Department of Labor & Industry, stated that this bill is by request of the Department of Labor, and they support the bill. Mr. Hunter feels the bill would help them do a better job administratively.

Mr. James Murry, representing AFL-CIO, stated they are in support of House Bill 79. Mr. Murry's printed testimony is attached.

Mr. Joe Martin of Great Falls, representing Plumbers & Fitters Local 139, stated they support HB 79.

Mr. Joe Rossman of Butte, representing the Joint Council of Teamsters #2, stated they are in support of HB 79.

Mr. Jerry Driscoll of Billings, representing the Laborers' Union Local #98, stated they are in support of HB 79.

Mr. Pat Merkel of Bozeman, representing the Carpenters' Local No. 557, stated that this affects non-union contractors--especially those from out of state, and it makes the out-of-state contractors pay the prevailing wage.

Mr. Mark Brown of Bozeman, representing the Carpenters' Local 557, stated this bill would help to enforce the existing law and they are in support of HB 79.

Mr. Luther Glenn, representing the Department of Administration, offered an amendment to HB 79. This amendment is attached to the minutes.

Mr. Mitch Mihailovich of Butte, representing the Montana State Building and Construction Trades, stated they are in support of HB 79.

There were no opponents of HB 79 present at the hearing.

#### QUESTIONS ON HOUSE BILL 79:

Senator Aklestad wondered where all the contractors were that they are helping.

Rep. Harper stated that Rep. Fabrega was representing them.

Senator Keating asked who file the complaints or who can file the complaint.

Mr. Kane from the Department of Labor stated that presently the source of claims comes from the workers themselves and sometimes from other contractors. Sometimes the union people file a complaint, and sometimes a public official.

Senator Keating asked who establishes prevailing rates and how they are established.

Mr. Kane stated that the Commissioner of Labor establishes the rates. The rates are compiled by using various sources of wage rates.

Senator Aklestad asked if this bill wasn't similar to a bill two years ago. Representative Harper stated that he didn't think so. He stated that this is basically a different bill.

Senator Keating asked if anyone had any objections to the amendment that was offered by Mr. Glenn.

Representative Harper stated that it merely applies to the posting requirements.

Representative Fabrega expressed objection to the amendment offered by Mr. Glenn on the basis that the amendment conflicts with the intent of the bill to protect small contractors.

Chairman Nelson called the hearing closed on House Bill 79.

#### CONSIDERATION OF HOUSE BILL 75:

Representative Harper, sponsor of House Bill 75, stated that this bill is by request of the Department of Labor and Industry. This bill is an Act clarifying a week of unemployment and providing an exception whenever self-employment is not a primary source of income.

#### PROPOSERS OF HOUSE BILL 75:

Mr. Chad Smith, representing Montana Unemployment Advisors, Inc., stated that they believe the bill has merit, but it still doesn't say what it was written to say. Mr. Smith stated that the bill doesn't speak of self-employment--it speaks of wages.

Mr. Smith submitted an amendment, and this amendment is attached to the minutes.

Mr. Dave Hunter from the Department of Labor stated that he thinks the amendment would make the law more clear and he urged the Committee to support the bill with the amendment offered by Mr. Smith.

There were no opponents of House Bill 75 present at the hearing.

Representative Harper offered an amendment to House Bill 75. This amendment is attached to the minutes.

Mr. Kansier from the Department of Labor stated that Rep. Harper's amendment and Mr. Smith's amendment virtually do the same thing.

Representative Harper expressed preference for his amendment.

Senator Goodover asked how many people were affected by this bill. Mr. Kansier stated there were quite a few, but he didn't know the exact number.

Mr. Kansier stated that the average partial payment was \$67, and the average full payment was \$95. He further stated the bill encourages people to accept part-time employment and that the bill reduces cost to the division since only partial payments are given by the division.

There was discussion about earnings per week before you qualify formally for unemployment benefits.

#### CONSIDERATION OF HOUSE BILL 414:

Chairman Nelson introduced Representative Nordtvedt, sponsor of House Bill 414, to the Committee and Representative Nordtvedt explained the bill to the Committee. This bill is an Act to revise the qualifications of an applicant for registration as an engineer-in-training.

Representative Nordtvedt stated that the engineering student has had more emphasis on math and science; whereas, the engineering technology student has had more practical application. Representative Nordtvedt told the Committee the graduate of an engineering curriculum of four years could take an eight-hour written examination. Upon passing such examination, the applicant shall be certified or enrolled as an engineer-in-training if he is otherwise qualified. The engineering technology student must wait four years upon graduation before he is permitted to take the exam, and Representative Nordtvedt doesn't feel this should be.

#### PROPONENTS OF HOUSE BILL 414:

Dr. Donald Reichmuth, instructor of Construction Engineering Technology at MSU in Bozeman, Montana, stated he supports HB 414. Dr. Reichmuth's printed testimony is attached.

Representative Carl Seifert, representing himself, spoke in support of HB 414. Rep. Seifert did not think the training between the two engineering programs was that different.

Mr. John Sturgeon of Bozeman, representing the Associated Students of Mechanical Engineering Technology, stated they are in support of HB 414. He feels this legislation would help keep more engineers in Montana.

Mr. Jim Shipstead of Butte, representing himself, stated that he supports HB 414.

Mr. Bill Olson, representing the Montana Contractors' Assoc., stated they are in support of HB 414. Mr. Olson distributed a

pamphlet and printed testimony. These attachments are included in the minutes.

Mr. Mike Schmit of Helena, a graduate of Engineering Technology representing himself, stated that he supports the bill. He doesn't think these students should be penalized four years before taking the EIT exam.

Mr. Len LeVeaux of Butte, representing himself, stated that he is a graduate CET from Montana State University, and he has been working for seven years. He does not feel that he was more qualified after working for four years than he would have been if he had been able to take the exam directly upon graduation.

OPPONENTS OF HOUSE BILL 414:

Mr. Al Kersich of Billings, representing the Board of Engineering and Licensing, stated they oppose HB 414. Mr. Kersich distributed a sheet describing the two curriculums for engineering students. This sheet is attached.

Mr. C. E. Abramson of Missoula, representing the Montana Board of Professional Engineers and Land Surveyors, stated they oppose HB 414. He stated that they see no reason for this piece of legislation, and he thinks the bill is against the public interest.

Mr. H. S. Hanson, representing the Montana Technical Council, stated they oppose HB 414. Mr. Hanson distributed a letter from Morton S. Fine, National Council of Engineering Examiners, to Dennis Williams of the Montana Technical Council. This letter is attached.

Representative Nordtvedt made closing remarks in support of House Bill 414.

QUESTIONS ON HOUSE BILL 414:

Senator Aklestad asked who establishes the test at this time. Rep. Nordtvedt stated that he thought the exam was determined by national standards.

Senator Aklestad asked if the test would be more stringent from now on.

Representative Nordtvedt stated that it would test areas which are more academically oriented.

Senator Aklestad asked who dictated this. Mr. Kersich stated that the U.S. government did this.

Senator Ryan asked how the engineering graduate would fare after waiting four years to take the exam.

Mr. Kersich stated that he thought it would be easier for them with their professional experience.

Senator Ryan asked if there was a monetary consideration here. Rep. Nordtvedt stated that he didn't know about that.

Dr. Reichmuth stated that there was only a difference of one dollar between the two graduates as far as beginning salaries go, so they are virtually the same.

Senator Anderson asked if there was a significant difference in the curriculums.

Rep. Nordtvedt stated that he felt the curriculum for the technology course was adequate though different.

Senator Anderson asked about the time the program in engineering technology had been established.

Rep. Nordtvedt stated that it had been established about 20 years ago at Montana State University.

Senator Keating asked if the engineering graduate and the engineering technology graduate passed the EIT exam at the same time, would this give the technology graduate increased status.

Mr. Kersich stated that he didn't believe there would be any increased status for passing the EIT exam.

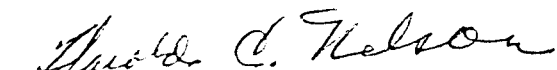
There was general discussion about language in the bill.

Rep. Nordtvedt stated that he had no objection with the Board coming up with some other language, but they have to bring some equity between the graduate of an engineering program and the graduate of a technology program.

Senator Keating asked if the Board would object to engineering technology students taking the EIT exam upon graduation.

Mr. Kersich stated that the Board didn't deal with just Montana but with other states as well, and possibly they could work something out. He further stated that the language would have to be very carefully worded.

ADJOURN: There being no further business, the meeting adjourned at 2:55 p.m.



Senator Harold C. Nelson, Chairman

ROLL CALL

LABOR & EMPLOYMENT RELATIONS COMMITTEE

47 th LEGISLATIVE SESSION - - 1981

Date Mar. 5

| NAME                       | PRESENT | ABSENT | EXCUSED |
|----------------------------|---------|--------|---------|
| GARY C. AKLESTAD, VICE-CH. | ✓       |        |         |
| MIKE ANDERSON              | ✓       |        |         |
| PAT M. GOODOVER            | ✓       |        |         |
| WILLIAM HAFFERMAN          | ✓       |        |         |
| THOMAS F. KEATING          | ✓       |        |         |
| BILL NORMAN                | ✓       |        |         |
| PATRICK L. RYAN            | ✓       |        |         |
| HAROLD C. NELSON, CHAIRMAN | ✓       |        |         |
|                            |         |        |         |
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|                            |         |        |         |
|                            |         |        |         |

Each day attach to minutes.

NAME :

DATE: 3/5/81

ADDRESS :

PHONE :

REPRESENTING WHOM?

APPEARING ON WHICH PROPOSAL:

DO YOU :

SUPPORT?

✓

AMEND?

OPPOSE?

COMMENTS :

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.



NAME:

*James W. Murray*

DATE:

*3-5-81*

ADDRESS:

*P.O. Box 1176*

*Helena*

PHONE:

*442-1708*

REPRESENTING WHOM?

*Mont. State AFL-CIO*

APPEARING ON WHICH PROPOSAL:

*HB 79*

DO YOU:

SUPPORT?

*X*

AMEND?

OPPOSE?

COMMENTS:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.



Box 1176, Helena, Montana

JAMES W. MURRY  
EXECUTIVE SECRETARY

ZIP CODE 59601  
406/442-1708

Room 100 "Steamboat Block"  
616 Helena Ave.

TESTIMONY OF JAMES W. MURRY ON HOUSE BILL <sup>79</sup>95, BEFORE HEARINGS OF THE SENATE LABOR COMMITTEE, MARCH 5, 1981

I am Jim Murry, Executive Secretary of the Montana State AFL-CIO here to support House Bill 79.

This bill clarifies the law entitled "Preference for Montana Labor in Public Works Contracts," which was first enacted in 1931.

The law provides for two things. First, whenever a public contract of any kind is put out for bid, the contractors must give first job preference to bona fide Montana residents. Second, the contractor must pay what is defined as the standard prevailing wage. This is a good law in Montana as in other states. It has been on the books for years.

This law makes for better and safer construction. It puts Montanans to work. It pumps money into the local economy for the local merchants. The public is well served by the Preference for Montana Labor in Public Works Contracts law.

The problem is that the law has not been well enforced. That hurts workers whose wages are lower than they are entitled to, if they work for an unscrupulous contractor. That hurts honest contractors who obey the law and are penalized by losing bids to those who ignore the laws of Montana. That brings in outside workers. And it puts much less money into the economy of local towns.

This bill does not strengthen the law. It merely makes the law enforceable, so that all contractors abide by the same consistent rules.

There are two important clarifications of the law in this bill. First, it requires that each contract and bid specification carry the wage rates, including fringe benefits. That way all the parties concerned know exactly what the rules of the game are, before project start-up.

Second, copies of the payroll records must be submitted by the contractor to the Department of Labor on request. The Department has the power of subpoena when the request is denied. As it is now, the department must sometimes initiate legal proceedings just to see the records. This change will save the state time and money and assure justice to contractors and workers alike.

This bill is important to workers in the construction trades. It provides fair wages. It penalizes only those who break the law, and rewards fair and sincere contractors by making them competitive. It provides for monetary input to local economies, to grocery stores and clothing stores, and all main street merchants.

We ask you to vote yes on House Bill 79 to make the current law enforceable. It only seems fair that every contractor would have to play by the same rules.

NAME: Joseph J. MARTIN

DATE: 3-5-81

ADDRESS: P.O. Box 1703 - GREAT FALLS, MONT. 59403

PHONE: 452-1979

REPRESENTING WHOM? PLUMBERS + FILTERS LOCAL 139

APPEARING ON WHICH PROPOSAL: H.B. 79

DO YOU: SUPPORT: ✓ AMEND?        OPPOSE?       

COMMENTS: \_\_\_\_\_

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME: Jimmy Driscoll

DATE: 3-5-81

ADDRESS: 4344 Stone St Billings

PHONE: 259-1655

REPRESENTING WHOM? Laborer's Union Local 98

APPEARING ON WHICH PROPOSAL: HB 79

SUPPORT?

X

AMEND?

OPPOSE?

**COMMENTS:**

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME: MARK BROWN DATE: 3/5/81

ADDRESS: 713 S. 14th BOZEMAN

PHONE: 586-0939

REPRESENTING WHOM? CARPENTERS LOCAL #557

APPEARING ON WHICH PROPOSAL: H.B. 79

DO YOU: SUPPORT? YES AMEND? \_\_\_\_\_ OPPOSE? \_\_\_\_\_

COMMENTS: \_\_\_\_\_

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME :

DATE :

5-5-81

ADDRESS :

PHONE :

Dept of Admini

HB 79

DO YOU :

SUPPORT?

AMEND?

OPPOSE?

COMMENTS:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

DEPARTMENT OF ADMINISTRATION  
PURCHASING DIVISION



TED SCHWINDEN, GOVERNOR

MITCHELL BUILDING, ROOM 165

STATE OF MONTANA

(406) 449-2575

HELENA, MONTANA 59620

TO: Senate Labor Committee  
Harold Nelson, Chairman and Committee Members

FROM: Department of Administration  
Purchasing Division *[Signature]*  
Luther Glenn, Administrator

DATE: March 4, 1981

SUBJECT: HB 79, "AN ACT TO REVISE AND CLARIFY THE LAW RELATING TO THE PREFERENCE OF MONTANA LABOR IN PUBLIC WORKS CONTRACTS; AMENDING SECTIONS 18-2-401 AND 18-2-403, MCA."

The Department of Administration is in favor of the concept of the Act; however, requests your consideration to amend the legislation as noted below:

Page five, line two following the word projects, insert: Amounting To More Than \$50,000.

This recommendation would not alter the responsibility of the Public Contracting Agency who awards construction projects over \$50,000.

The amendment would eliminate the Purchasing Division's statutory responsibility to geographically identify the prevailing wage rate for each job classification which may be incorporated within bid specifications and the thousands of contracts primarily concerned with the procurement of materials and supplies.

Job classification wage rates for service requirements such as repair, maintenance and installation are not readily available and the obligation to identify each rate and benefit would result in the delay of the bid process.

pj



NAME :

DATE \_\_\_\_\_

ADDRESS :

PHONE :

REPRESENTING WHOM?

APPEARING ON WHICH PROPOSAL:

DO YOU:

SUPPORT?

AMEND?

OPPOSE?

COMMENTS :

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME :

DATE: March 1968

ADDRESS :

PHONE :

REPRESENTING WHOM?

APPEARING ON WHICH PROPOSAL:

DO YOU:

SUPPORT?

AMEND?

OPPOSE?

COMMENTS:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

*Submitted by Rep. Harper*

Amend HB 75 as follows:

1. Title, line 7.

Following: "PROVIDING"

Strike: "AN"

Insert: "A MODIFICATION OF THE SELF-EMPLOYMENT"

Following: "EXCEPTION"

Insert: "SUCH THAT"

Following: "WHENEVER"

Insert: "EARNINGS FROM"

Following: "SELF-EMPLOYMENT"

Strike: "IS NOT A PRIMARY SOURCE OF INCOME"

Insert: "AND WAGES COMBINED ARE LESS THAN 2 TIMES THE WEEKLY  
BENEFIT AMOUNT, AN INDIVIDUAL IS UNEMPLOYED"

2. Page 1.

Following: "self-employed"

Strike: "FOR THE PURPOSE OF THIS SECTION. An individual who is  
able and available for full-time work may not be considered to  
be engaged in self-employment IN ANY WEEK DURING WHICH HE EARNS  
WAGES OF LESS THAN TWO TIMES HIS WEEKLY BENEFIT AMOUNT"

Insert: "unless the individual is also employed by another and  
his earnings from self-employment and wages combined are less  
than two times his weekly benefit amount; under these circumstances  
an individual is considered unemployed."

NAME: CHAD SMITH DATE: 3-5-81

ADDRESS: Box 604 HELENA

PHONE: 442-2980

REPRESENTING WHOM? MONT-UNEMP COMP ADVISOR INC

APPEARING ON WHICH PROPOSAL: 14B75

DO YOU: SUPPORT? AMEND? OPPOSE?

COMMENTS:

written amendment submitted -

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

*Submitted by:*  
*Chad Smith*

HOUSE BILL NO. 75  
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MR. CHAIRMAN: I move to amend the third reading copy of House Bill No. 75 as follows:

1. On page 1, in line 24 by deleting the words "WAGES OF".
2. On page 1, in line 25 before the period by adding the words "FROM SELF-EMPLOYMENT AND WAGES" .

NAME: Dr. Donald R Reichmuth DATE: 3/5/81

ADDRESS: 622 So 6<sup>th</sup> Ave Bozeman MT 59715

PHONE: 586-0730 office 994-2111

REPRESENTING WHOM? Construction Engineering Technology Study

APPEARING ON WHICH PROPOSAL: HB 414

DO YOU: SUPPORT? X AMEND? X OPPOSE?

COMMENTS: Prepared statements attached

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

March 5, 1981

Summary of Testimony on HB 414

Amending Qualifications for Engineer-in-Training

My testimony is based on personal knowledge and is independent from any official position of Montana State University.

Name & Address:

Dr. Donald R. Reichmuth  
622 South 6th Avenue  
Bozeman, MT 59715

My Background

- 1) Taught Engineering and Technology students at MSU since 1967.
- 2) Advise Construction Engineering Technology Students.
- 3) Professional Registered as an Engineer & Land Surveyor (2962ES).

My Testimony

- 1) Construction Engineering Technology (CET) stresses Technical Management and Field Construction while Civil Engineering (CE) stresses Technical Design. Students in these curriculums take many of the same courses with no significant difference in results.
- 2) Many past CET students are now professionally registered in Montana and other states and I do not know of any problem which has been caused by this registration.
- 3) Registration is needed for certain management positions.  
Examples: a) Montana Department of Highways  
In certain areas in this work the CETs are better qualified than the CEs.  
b) Federal Technical Positions.
- 4) Let the E.I.T. test speak for itself.
  - a) The Montana Law School has recently changed to required testing.
  - b) Current law is arbitrary and does not judge ability.
  - c) The Registration Board can control quality with the E.I.T. test.  
(If this is not the case, why give tests?)

Respectfully submitted,

  
Donald R. Reichmuth

7690 Fowler Lane  
Bozeman, MT 59715  
3 March 1981

Senate Labor Committee  
Montana State Senate  
Helena, Montana

RE: HB 414

Honorable Senators:

It is my understanding that House Bill 414, introduced by Rep. Nordtvedt, will be considered by the Senate tomorrow afternoon. I wish to state my opinion of this Bill, but am unable to attend the session. Please accept this letter as my deposition.

House Bill 414 essentially proposes that college graduates of four-year engineering technology programs (Bachelor of Science) be allowed to take the Engineer-In-Training exam at the time of graduation. Presently, the Board of Registration's interpretation of the law required technology graduates to wait four years after graduation before taking the E.I.T. examination.

Simply stated, I support the proposal of HB 414. The E.I.T. examination tests the student on science and engineering fundamentals. It is not intended to test on experience; the professional engineering exam serves that purpose. If a person, through formal academic study and further self-study, can successfully complete the E.I.T. exam, then we should encourage not discourage.

My position as Coordinator of the Construction Engineering Technology curriculum at Montana State University allows me considerable exposure to these students. In addition, I teach students in the civil engineering program, and am a registered engineer. As Secretary-Treasurer of the Montana Section of the American Society of Civil Engineers I am exposed to the profession. Considering all of these associations, I believe that passage of HB 414 will not dilute the integrity of the profession, as opponents have stated. The examination, if valid, should assure that only those with sufficient knowledge will pass. Advancement to full engineering registration will still be dependent upon the Board's scrutiny of the applicants experience and completion of the P.E. exam.

One last additional emphasis -- the language of the final version of HB 414 should clearly state engineering technology degrees from four-year programs.

Thank you for considering my submittal.

Sincerely,

  
Joe D. Armijo  
PE 3947E



NAME: LOHAN D. STURGEON DATE: 3/5/81

ADDRESS: 416 NORTH 19<sup>th</sup> BOZEMAN, MONT. 59715

PHONE: 586-6213

REPRESENTING WHOM? ASSOCIATED STUDENTS OF M<sup>E</sup>C<sup>H</sup>. ENGR. TECH.

APPEARING ON WHICH PROPOSAL: HB 414

DO YOU: SUPPORT? X AMEND? X OPPOSE?

COMMENTS:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME: JIM SHIPSTEAD DATE: 3-5-81

ADDRESS: 1828 TEXAS, BUTTE

PHONE: 792-2904

REPRESENTING WHOM? SELF

APPEARING ON WHICH PROPOSAL: HB 414

DO YOU: SUPPORT? X AMEND?        OPPOSE?       

COMMENTS: I support the bill with the  
small amendments proposed by Ken  
Hordveth.

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME: William Olson DATE: 3/5/81

ADDRESS: Helena, Montana

PHONE: 442-4162

REPRESENTING WHOM? Montana Contractors Association

APPEARING ON WHICH PROPOSAL: HB 414

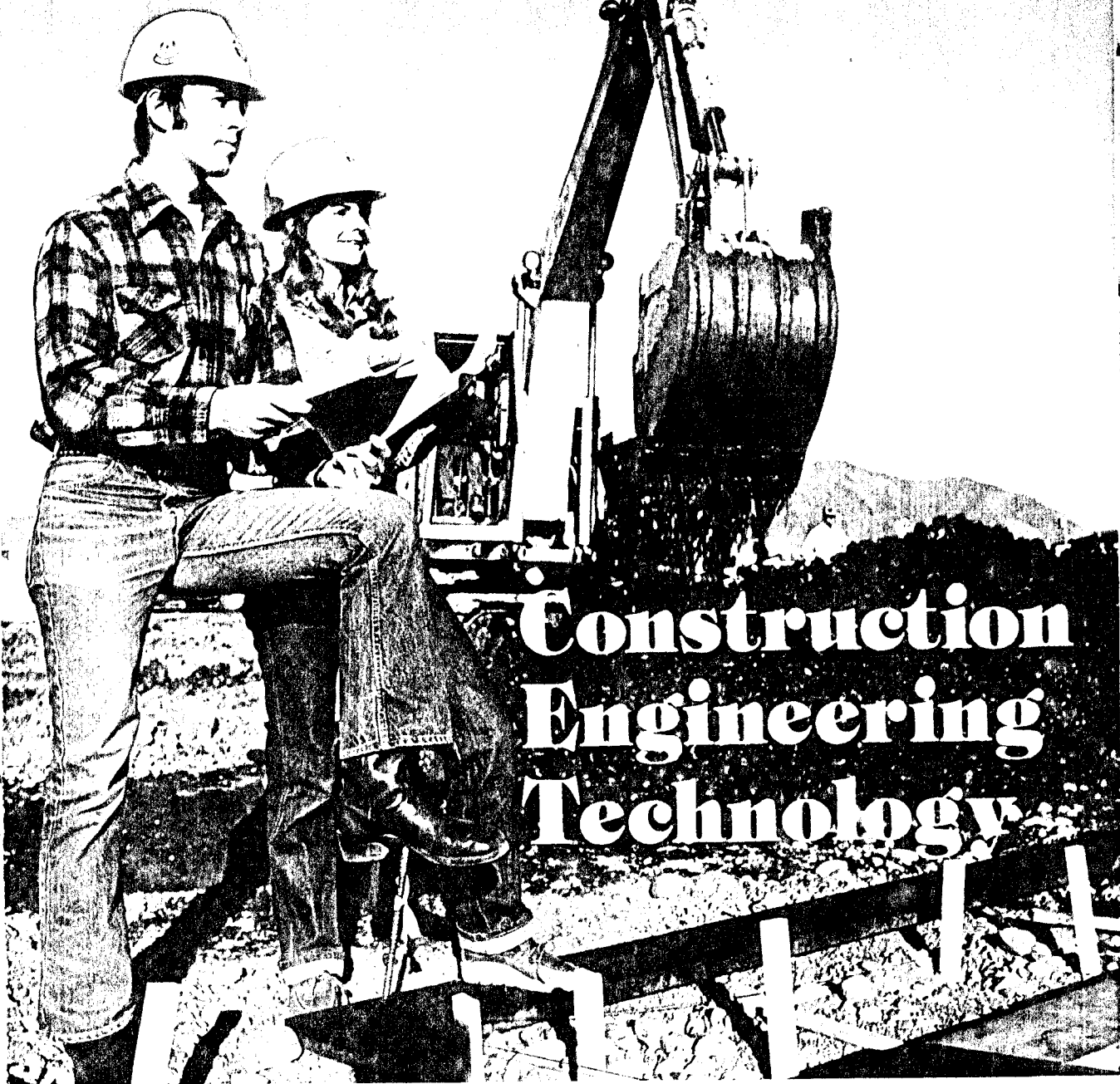
DO YOU: SUPPORT? ☒ AMEND? ☐ OPPOSE? ☐

COMMENTS: \_\_\_\_\_

Written Testimony submitted.

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

*Submitted by Mr. Bill Olson*  
**Montana State University, Bozeman**  
*Representing Montana Contractors Assoc.*



# Construction Engineering Technology

TO: Senate Committee on Labor

FROM: Construction Engineering Technology Students, Montana State University

DATE: February 20, 1981

Dear Senators:

We feel House Bill 414; " an act amending Section 37-67-307, MCA, to revise the qualifications of an applicant for registration as an Engineer-In-Training" should be inacted.

The reason the Engineering Board was established was to license competent engineers. The purpose was to protect the public from incompetent engineers. The Engineering-In-Training test, the first step in achieving licensing is designed to keep unqualified people from becoming licensed professional engineers. We feel people with engineering technology degrees should be allowed to take the Engineering-In-Training examination upon graduation without waiting four years. The waiting period of four years makes the test more difficult to pass and puts an unnecessary hardship on engineering technology students.

Engineering technology graduates are allowed to take the Engineering-In-Training examination upon graduation in other states. Technology graduates are capable of passing the test and have previously passed it.

We are not asking for the examination to be made easier or to be given special considerations. We would like the same opportunity given to other four year engineering graduates, an equal chance. We would like to allow the Engineering-In-Training examination to accomplish its objective - to guarantee the competence of engineers.

## COURSE DESCRIPTIONS

### Surveying

#### CET 201 Plane Surveying

Fundamentals of surveying, taping, leveling, transit traversing, topographic mapping and elementary applied construction surveys.

#### CET 202 Route Surveying

Theory and problem applications in route survey curves, earthwork, mass diagram development and analysis, and quantity takeoff involving planimeter, calculators and computer programs.

#### CET 203 Advanced Surveying

Route surveys, construction surveys, legal land surveys, triangulation and engineering astronomy.

### Mechanics and Fluids

#### EM 205 Mechanics

Statics and analysis of force systems in equilibrium with applications to structural configurations such as trusses and space frames, section properties, distributed force systems, and shear and moment distribution in beams.

#### EM 215 Mechanics of Materials

Equilibrium and deformation of structural elements, concepts of stress and strain and their interrelationship, representation and transformation of combined stress states, axial, torsional and flexural stresses and deformation; and linear column buckling.

#### EM 331 Applied Fluid Mechanics

Basic and applied fluid mechanics.

### Materials

#### McET 321 Properties of Materials

Properties of materials and manufacturing processes for technology curricula students.

#### CET 302 Construction Materials

Physical properties of common construction materials with emphasis on soils and aggregates. Laboratory testing of these materials for classification and field control.

## Course Descriptions (continued)

### Materials (continued)

#### CET 303 Highway Technology

Principles of geometric and structural design; traffic, drainage, bituminous and concrete pavements; stabilization and surface treatments. Laboratory testing of bituminous materials, and preparation and testing of asphaltic concrete paving mixes.

#### CET 305 Concrete Technology

Physical properties of concrete; mix design, field practices and laboratory testing for field control. Concrete forming.

### Construction

#### Arch 308/309 Building Technology I & II

Basic materials for structural framing, walls and finishes, construction details and methods. Trade practices including quantity survey, costs and contract documents.

#### McET 445 Building Systems

A survey of the systems and equipment for water supply, sanitation, fire protection, electrical service, heating, air conditioning and acoustical systems of buildings.

#### CET 404 Construction Planning and Methods

Construction planning, equipment and methods including: construction equipment applications, production and economics; critical path and other scheduling and control procedures for building, heavy and highway construction.

#### CE 407 Estimating & Scheduling

Preparation of an estimate and bid for an actual project. Critical path network preparation and use for scheduling, financial scheduling and resource leveling of the project estimated.

#### McET 403 Industrial Safety

Fundamentals of safety engineering. Industrial hazards, accident prevention, statistics, safety codes, ventilation requirements, survey of safety devices, and governmental regulations.

Course descriptions (continued)

Technical-Professional Electives

Students are required to take at least four courses (16 credits) from the attached listing of approved technical-professional electives.

Approved Technical-Professional Electives

| <u>Course</u> | <u>Subject</u>                       | <u>Credit</u> |
|---------------|--------------------------------------|---------------|
| Arch 342      | Architectural Structures I           | 4             |
| 343           | " " II                               | 4             |
| 344           | " " III                              | 4             |
| Arch 512      | Professional Practice                | 4             |
| Arch 480      | Advanced Building Construction       | -             |
| CE 432        | Hydrologic Process                   | 3             |
| CE 451        | Airport Engineering                  | 3             |
| CE 462        | Photogrammetry, Interpretative       | 3             |
| CE 463        | Photogrammetry, Analytical           | 3             |
| CE 480        | Special Topics                       | -             |
| EEET 342      | Instrumentation and Electronics      | 4             |
| EEET 343      | Electrical Machinery                 | 4             |
| I&ME 313      | Methods and Standards                | 4             |
| I&ME 354      | Engineering Statistics               | 4             |
| I&ME 373      | Production Cost Analysis             | 4             |
| I&ME 425      | Managerial Economy                   | 4             |
| I&ME 434      | Principles of Engineering Management | 4             |
| I&ME 474      | Production Planning and Control      | 4             |
| I&ME 476      | Quality Assurance in Organization    | 4             |
| McET 323      | Welding and Metallurgy               | 4             |
| McET 341      | Thermodynamics I                     | 4             |
| 342           | " II                                 | 4             |



# CURRICULUM IN CONSTRUCTION ENGINEERING TECHNOLOGY

## Freshman Year

|   | A         | W         | S         |
|---|-----------|-----------|-----------|
| BuAc 225--Principles of Accounting .....                  |           | 4         |           |
| Chem 121--Introductory General Chemistry .....            | 3         |           |           |
| Chem 125--Introductory General Chemistry Laboratory ..... | 1         |           |           |
| CS 101--Introduction to Scientific Computing .....        |           |           | 4         |
| Math 100--Intermediate Algebra .....                      | 5         |           |           |
| Math 115,117--Elements of Mathematics .....               |           | 5         | 5         |
| ME 111--Engineering Graphics .....                        | 2         |           |           |
| ME 113--Descriptive Geometry .....                        |           | 2         |           |
| Electives* .....  | 4         | 5         | 8         |
|   | <u>15</u> | <u>16</u> | <u>17</u> |

## Sophomore Year

|   |           |           |           |
|---|-----------|-----------|-----------|
| CET 201--Plane Surveying .....          | 4         |           |           |
| CET 202--Route Surveying .....          |           | 4         |           |
| CET 203--Advanced Surveying .....       |           |           | 4         |
| EM 205--Mechanics .....                 |           | 4         |           |
| EM 215--Mechanics of Materials .....    |           |           | 4         |
| Phys 205,206,207--College Physics ..... | 4         | 4         | 4         |
| Electives* .....                        | 8         | 4         | 4         |
|   | <u>16</u> | <u>16</u> | <u>16</u> |

## Junior Year

|  |           |           |           |
|--|-----------|-----------|-----------|
| Arch 308--Building Technology I .....                              | 4         |           |           |
| Arch 309--Building Technology II .....                             |           | 4         |           |
| CE 306--Organization & Administration of Construction Prjcts ..... |           |           | 4         |
| CET 302--Construction Materials .....                              |           | 4         |           |
| CET 303--Highway Technology .....                                  |           |           | 4         |
| CET 305--Concrete Technology .....                                 |           |           | 4         |
| EM 331--Applied Fluid Mechanics .....                              | 4         |           |           |
| Geol 231--Geology for Engineers .....                              | 4         |           |           |
| I&ME 325--Engineering Economy .....                                |           |           | 4         |
| I&ME 331--Law for Engineers & Architects .....                     |           | 4         |           |
| McET 321--Materials & Processes .....                              | 4         |           |           |
| Electives* .....   |           | 4         |           |
|  | <u>16</u> | <u>16</u> | <u>16</u> |

## Senior Year

|   |           |           |           |
|---|-----------|-----------|-----------|
| CE 407--Estimating & Scheduling .....               |           | 4         |           |
| CET 404--Construction Planning & Materials .....    | 4         |           |           |
| EEET 341--Electrical Engineering Fundamentals ..... | 4         |           |           |
| I&ME 433--Human Relations in Industry .....         |           |           | 4         |
| McET 403--Industrial Safety .....                   |           | 4         |           |
| McET 445--Building Systems .....                    |           | 4         |           |
| Electives* .....                                    | 8         | 4         | 12        |
|   | <u>16</u> | <u>16</u> | <u>16</u> |

A minimum of 192 credits is required for graduation.

\*Electives (must be approved by the department):

|  | Credits   |
|--|-----------|
| Business (up to 8 credits of advanced ROTC may be substituted) | 9         |
| Humanities and social sciences .....                           | 24        |
| Technical-professional area .....                              | 16        |
| Written and oral communications .....                          | 12        |
| Total .....  | <u>61</u> |

NAME :

DATE: 3-5-81

ADDRESS :

PHONE :

REPRESENTING WHOM?

APPEARING ON WHICH PROPOSAL:

DO YOU:

SUPPORT?



AMEND?

OPPOSE?

COMMENTS:

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME: LEN LEUBAUX DATE: MARCH 5

ADDRESS: 1937 WALL ST.

PHONE: 723-9322

REPRESENTING WHOM? MYSELF

APPEARING ON WHICH PROPOSAL: HB 414

DO YOU: SUPPORT? ☒ AMEND? ☐ OPPOSE? ☐

COMMENTS: AS A GRADUATE CET  
FROM MONTANA STATE UNIVERSITY  
AND PRACTICING ENGINEERING IN MY  
PRESENT OCCUPATION I FEEL THIS  
BILL WOULD GREATLY ENHANCE  
MY SERVICE TO MY EMPLOYER.

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.

NAME: C. E. ABRAMSON DATE: TH 5 MAR-81

ADDRESS: 8807 Hellgate Station, Missoula, MT 59807

PHONE: 721-3585

REPRESENTING WHOM? MT Bd of Prof Engrs + Land Surveyors

APPEARING ON WHICH PROPOSAL: HB 414

DO YOU: SUPPORT?        AMEND?        OPPOSE? X

COMMENTS: As public member of the  
Engineers and Surveyors Board, I  
feel that this change would be a  
large mistake. There is no reason  
to have non-Engineers take the  
Engineer-in-Training (EIT) exam,  
and many fundamental reasons legislate  
against starting such a process.

NO PREPARED STATEMENT

PLEASE LEAVE ANY PREPARED STATEMENTS WITH THE COMMITTEE SECRETARY.



*Submitted by Mr. J. L. Hanson  
Representing Montana Technical Council*

NATIONAL COUNCIL OF ENGINEERING EXAMINERS  
P.O. Box 5000 • Seneca, South Carolina 29678 • Telephone (803) 882-5230

February 10, 1981

Dennis Williams  
Montana Technical Council  
c/o Northern Testing Laboratories  
P. O. Box 951  
Great Falls, Montana 59403

Dear Mr. Williams:

I am pleased to enclose information relative to our telephone discussion today regarding potential changes in the Montana statute regulating the practice of engineering. Our discussion related primarily to changes in the status of engineering technology graduates in the registration process in Montana.

During the discussion, you summarized the proposed changes in legislation as:

1. Allowing persons holding degrees from other than ABET-accredited curricula to take the Fundamentals of Engineering (FE) examination;
2. Allowing engineering technology (ET) graduates to take the FE exam immediately upon graduation (or as seniors as this is implied from comparison to seniors in engineering programs).

You posed the following questions:

1. Would this proposed legislation, if enacted, affect the ability of Montana registrants to achieve registration in other jurisdictions by reciprocity/comity?
2. How does the proposed legislation compare with the "Model Law" as promulgated by NCEE?
3. How would the proposed changes in the Montana statute compare with statutes in other jurisdictions?
4. What are the pros and cons of the proposed changes as seen from the national viewpoint?

I will comment on the questions in the order listed above.

1. The ability to achieve registration in other jurisdictions by reciprocity/comity would be severely restricted and indeed in most cases rendered impossible in other jurisdictions where the Montana registrant had achieved registration through a process which was not compatible with the other jurisdiction and where the other board determined that the applicant had lesser qualifications (educational and/or experience).

60<sup>th</sup> Anniversary 1920-1980

2. The present "Model Law" promulgated by NCEE does not make provisions for the registration of graduates of engineering technology curricula. Such graduates might be treated in some jurisdictions under a classification for graduates of engineering-related or science-related curricula. The statutes in the other jurisdictions are quite varied in this regard, and there are no generalized conclusions which can be drawn.

3. In comparing the proposed changes with the current statutes in other jurisdictions, there are a number of conclusions which can be drawn:

- a. There are nine (9) state boards which will not recognize the completion of an ET curricula as meeting their educational qualifications for registration;
- b. Eight (8) boards require an additional two years of experience after graduation from an ET curriculum before allowing the applicant to take the FE exam;
- c. Nine (9) boards will not accept the application of an ET graduate until there is evidence of a varied additional amount of qualifying engineering experience (from four to 8 years);
- d. There are fourteen (14) state boards which allow a graduate of a 4-year ABET-accredited ET curriculum (Bachelor of Engineering Technology - BET) to sit for the FE exam at graduation, but most of these states require an additional four to 8 years of qualifying experience before the applicant can sit for the Principles and Practice of Engineering (P&P) examination;
- e. There are four (4) state boards which allow a graduate of a 4-year ABET-accredited BET curriculum to sit for the FE exam at graduation, but delay the issuance of an EIT certificate until after two (2) years qualifying experience have been obtained.

4. Before making any generalizations about the desirability of the proposed legislation in Montana, it is important to draw the distinction between the baccalaureate engineering technology 4-year degree accredited by ABET and the other type of engineering technology programs, namely, 2-year associate degrees (even though accredited by ABET), and 4-year curricula non-accredited. Boards generally do not recognize those who are not graduates of a 4-year BET program approved by ABET as fulfilling educational qualifications for registration. The diversity of all other such programs is such that there is no way of judging the quality of these programs unless there is a recognized accreditation process (ABET). Any lowering of these standards will not be viewed favorably by most, if not all, registration boards and consequently, by NCEE.

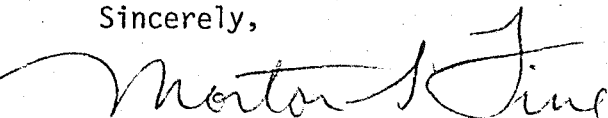
If the political pressures in Montana are such that some recognition must be given to ET graduates, then the practice which exists in some boards at the present time would be desirable, namely, to include in the registration process only those who

Dennis Williams  
February 10, 1981  
Page 2

are graduates of BET ABET-accredited curricula and to delay by a number of years after qualifying experience the taking of the FE examination for such graduates. If the latter were unacceptable, and the applicant were allowed to take the exam as a graduate or a senior in a BET ABET-accredited program, then the issuance of an EIT certificate should be delayed pending the successful completion of the education program plus an appropriate number of years of qualifying experience.

I trust that the above information may be useful to you in your area of concern. If I can be of any further assistance, please do not hesitate to call on me.

Sincerely,

A handwritten signature in cursive script, reading "Morton S. Fine". The signature is written in dark ink and is positioned above the typed name and title.

Morton S. Fine, P.E.  
Executive Director

MSF/bsk

Presented by:  
 Mr. Al Krueh, Billings, Mt.  
 Representing the Board of Engineering  
 & Licensing

## Curriculum in Civil Engineering

| Freshman Year  |    |    |    |
|--|----|----|----|
| Chem 131, 132—General Chemistry  | A  | W  | S  |
| Chem 134—Fundamentals of Organic Chem or<br>M B 101—Micro in Relation to Man | 3  | 3  |    |
| Chem 135, 136—General Chem Laboratory  | 1  | 1  | 4  |
| C E 100—Seminar  | 1  |    |    |
| C E 201—Civil Engineering Measurements                                       |    |    | 4  |
| Geol 231—Geology for Engineers   |    |    | 4  |
| Math 121, 122, 123—Calc & Analytic Gmtry                                     | 4  | 4  | 4  |
| ME 111—Engineering Graphics  | 2  |    |    |
| ME 113—Descriptive Geometry  |    | 2  |    |
| SpCm 104—Intro to Public Speaking  |    | 3  |    |
| Electives*   | 4  | 4  |    |
|  | 15 | 17 | 16 |

| Sophomore Year                           |    |    |    |
|--|----|----|----|
| C E 101—Civil Engineering Science        | A  | W  | S  |
| E M 251, 252, 253—Solid Mechanics        | 4  | 4  | 4  |
| Math 224, 225, 226—Calc & Diff Equations | 4  | 4  | 4  |
| Phys 226, 229—General & Modern Physics   |    | 4  | 4  |
| Electives*                               | 8  | 4  |    |
|  | 16 | 16 | 16 |

| Junior Year                         |      |              |  |
|-------------------------------------|------|--------------|--|
| C E 314—Structural Design I         | Crs. | Qtr. Offered |  |
| C E 315—Structural Design II        | 4    | W, S         |  |
| C E 320—Soil Mechanics              | 4    | A, S         |  |
| C E 330—Water Resources Engineering | 4    | W, S         |  |
| C E 356—Highway Trans Engng         | 4    | W, S         |  |
| E M 313—Structural Mechanics        | 4    | A, W         |  |
| E M 324—Engineering Materials       | 4    | W, S         |  |
| E M 335—Mechanics of Fluids         | 5    | A, W         |  |
| I&ME 325—Engineering Economy        | 4    | A, W, S      |  |
| Phys 230—General & Modern Physics   | 4    | A, W, S      |  |
| Electives*                          | 7    |              |  |
|                                     | 48   |              |  |

| Senior Year                      |    |         |  |
|----------------------------------|----|---------|--|
| C E 400—Seminar                  | 1  | A, W, S |  |
| C E 404—Construction Engineering | 4  | A, W    |  |
| C E 440—Prin of Env Engng        | 4  | A, S    |  |
| EE 351—Prin of Elec Engng        | 4  | A, W    |  |
| I&ME 331—Law for Engrs & Archts  | 4  | A, W, S |  |
| ME 334—Thermodynamics            | 4  | W, S    |  |
| SpCm 301—Tech & Prof Com         | 4  | A, W, S |  |
| Electives*                       | 23 |         |  |
|                                  | 48 |         |  |

\*Electives (must be approved by the department): Credits  
 Professional electives ..... 26

The student must take a minimum of four courses in the Department of Civil Engineering & Engineering Mechanics; he/she may take not more than three courses in any of the sub-areas of civil engineering or engineering mechanics; up to eight credits of advanced ROTC may be used as professional electives.

Humanities and social sciences ..... 24  
 50

## Curriculum in Construction Engineering Technology

| Freshman Year                         |    |    |    |
|---------------------------------------|----|----|----|
| Chem 121—Introductory Gen Chem        | A  | W  | S  |
| Chem 125—Introductory Gen Chem Lab    | 3  |    |    |
| C S 101—Intro to Sci Computing        | 1  |    | 4  |
| Math 100—Intermediate Algebra         |    | 5  | 5  |
| Math 115, 117—Elements of Mathematics |    | 5  | 5  |
| ME 111—Engineering Graphics           | 2  |    |    |
| ME 113—Descriptive Geometry           |    | 2  |    |
| Electives*                            | 4  | 10 | 7  |
|                                       | 15 | 17 | 16 |

| Sophomore Year                     |    |    |    |
|------------------------------------|----|----|----|
| CET 201—Plane Surveying            | A  | W  | S  |
| CET 202—Route Surveying            | 4  |    |    |
| CET 203—Advanced Surveying         |    | 4  |    |
| E M 205—Mechanics                  |    | 4  |    |
| E M 215—Mechanics of Materials     |    | 4  |    |
| Geol 231—Geology for Engineers     |    | 4  |    |
| I&ME 373—Production Cost Analysis  | 4  |    |    |
| Phys 205, 206, 207—College Physics | 4  | 4  | 4  |
| Electives*                         | 4  | 4  |    |
|                                    | 16 | 16 | 16 |

| Junior Year                             |    |    |    |
|---|----|----|----|
| C E 305—Org & Admin of Const Prjcts     | A  | W  | S  |
| CET 302—Soils & Aggregates              |    | 4  |    |
| CET 303—Highway Technology              |    | 4  |    |
| CET 305—Concrete Technology             |    | 3  |    |
| CET 311—Materials Science               | 4  |    |    |
| CET 312—Building Construction           |    | 3  |    |
| E M 331—Applied Fluid Mechanics         | 4  |    |    |
| I&ME 325—Engineering Economy            |    | 4  |    |
| I&ME 331—Law for Engineers & Architects |    | 4  |    |
| Electives*                              | 8  | 7  |    |
|   | 16 | 18 | 15 |

| Senior Year                            |    |    |    |
|--|----|----|----|
| C E 407—Estimating & Scheduling        | A  | W  | S  |
| CET 404—Const Planning & Methods       | 4  |    |    |
| CET 411—Excavating & Foundation Const  | 3  |    |    |
| CET 412—Structural Elements            |    | 3  |    |
| EEET 341—Electrical Engng Fundamentals | 4  |    |    |
| I&ME 433—Human Relations in Industry   |    | 4  |    |
| McET 403—Industrial Safety             |    | 4  |    |
| McET 445—Building Systems              |    | 4  |    |
| Electives*                             | 6  | 11 |    |
|  | 17 | 15 | 15 |

\*Electives (must be approved by the department)

| Minor   |  | Credits |
|---|--|---------|
| (Business, Geotechnical, etc.; up to 8 credits of advanced ROTC may be substituted) |  | 9       |
| Humanities and social sciences  |  | 24      |
| Technical-professional area   |  | 16      |
| Written and oral communications   |  | 12      |
|   |  | 61      |



To Whom It May Concern:

When I graduated from Montana State University (June, 1976) with a B.S. degree in Mechanical Engineering Technology (McET) I was denied permission by the State Board of Registration for Professional Engineers to take the Engineer-in-Training (EIT) examination. I was told my educational background was insufficient, and four years of engineering experience would be required before I could take the exam. Subsequently I accepted a position with Continental Oil Company in Oklahoma as an engineering technician and after ten months I resigned this position to fill an opening with Halliburton Services of Duncan, Oklahoma as a manufacturing tooling designer. In April of 1978 I took, and successfully completed, the EIT exam and became registered in Oklahoma.

Oklahoma requires one year of engineering related experience for graduates of a "technology" program before registration, but in some Oklahoma schools a technology degree may be obtained after only two years of formal education. With only moderate review for a few weeks before the exam, I found the testing to be much less rigorous than expected, and indeed the material on which I was tested had been well covered by my formal training in the McET curriculum at MSU.

I have since moved and transferred my registration back to Montana, and am currently a lecturer in the Mechanical Engineering department at MSU. When I look at the broad range of

subjects a potential McET graduate must master, it seems only fair that he be allowed to prove his proficiency (or lack of it) in a formal examination. If that examination demonstrates that he is capable of high quality engineering work, then he should not be denied the opportunity to practice in the state of Montana as an "Engineer-in-Training". The inequity of the current law will only continue to drive our best engineers to other states where they can be more readily recognized for their ability. I would hope the Montana State Legislature would not wish this condition to continue.

Sincerely,

A handwritten signature in cursive script, appearing to read "Martin Westland".

Martin Westland

508 So. 10th Ave.  
Bozeman, MT 59715  
March 4th, 1981

To whom it may concern:

This letter is written in support of HB 414 passed by the Montana House of Representatives in 1981 as it applies to students in, and graduates of, 4 year engineering technology curricula in the state of Montana. I believe that the aforesaid students and graduates should be entitled to take the engineer-in-training examinations at the same time in their university or post-graduate career as any other student or graduate of any Montana community system unit, and that they should be treated in the same manner as these other graduates in all respects. I furthermore believe that they, the engineering technology students and graduates, should be treated identically with any other person who has passed the ~~engineering~~ -in-training examination with respect to time-of-experience as he progresses toward his professional engineering examination.

<sup>other</sup> Any treatment of the technology people as described above is, in my opinion, unfair, discriminatory and is protection of the engineering profession rather than the public and denies equal opportunity.

Sincerely,

T. R. Murphy, Asst Prof., M&E Dept. MS 26

508 So. 10th Ave.  
Bozeman, Mt 59715  
March 4th, 1981

To whom it may concern:

This letter is written in support of HB 414 passed by the Montana House of Representatives in 1981 as it applies to students in, and graduates of, 4-year engineering technology curricula in the state of Montana. I believe that the aforesaid students and graduates should be entitled to take the engineer-in-training examination at the same time in their university or post-graduate career as any other student or graduate of any Montana University system unit, and that they should be treated in the same manner as these other graduates in all respects. I furthermore believe that they, the engineering technology students and graduates, should be treated identically with any other person who has passed the ~~engineering~~ - in training examination with respect to time-of-experience as he progresses toward his professional engineering examination.

Any <sup>other</sup> treatment of the technology people as described above is, in my opinion, unfair, discriminatory and is protection of the engineering profession rather than the public and denies equal opportunity.

Sincerely,

T. R. Murphy, Asst Prof., M & D Dept. M 522  
254-2222

3/4/81

To Whom It May Concern  
Senate Hearing Committee

I would like to urge your support in changing the ruling that Construction Engineering Technology Students may not take the Engineer in Training exam until four years after graduation.

The professional standards of our engineering profession will not be affected by allowing them to take the exam in their senior year as do the Civil Engineering Students.

Thank you for considering this important issue.

Sincerely

Alan J. Jackson

LECTURER

DEPT. OF CIVIL ENGINEERING  
MONTANA STATE UNIVERSITY

DATE \_\_\_\_\_

March 5, 1981

COMMITTEE ON LABOR & EMPLOYMENT RELATIONS

# VISITORS' REGISTER

| NAME               | REPRESENTING                    | BILL #    | Check One      |        |
|--------------------|---------------------------------|-----------|----------------|--------|
|                    |                                 |           | Support        | Oppose |
| Jim Mocahee        | Assoc. of State of INS          | 414 HB    |                |        |
| M. T. Kersich      | Bd of Eng & LS                  | 414 HB    |                | ✓      |
| S. Housen          | Mont. Technical Council         | HB-414    |                | ✓      |
| JOSEPH J. MARTIN   | PLUMBERS & FITTERS LOCAL 139    | HB 79     | ✓              |        |
| William Olson      | Montano Contractors Assn.       | HB 414    | ✓              |        |
| Harold Karsier     | Dept. of Labor                  | HB-75     |                |        |
| David L. Hunter    | Dept of Labor                   | HB 75, 79 | ✓✓             |        |
| MARK BROWN         | CARPENTER'S LOCAL #557          | H.B. 79   | ✓              |        |
| Patrick Muehl      | Carpenter Local #557            | HB. 79    | ✓              |        |
| E. Stramson        | Board of PE's & LS's            | HB 414    |                | ✓      |
| James W. Perry     | Mont. State AFL-40              | HB 79     | ✓              |        |
| Tom Dussell        | Laborers Union Local 98         | HB 79     | ✓              |        |
| Joe Rosman         | Construction J.E. #2            | HB 79     | ✓              |        |
| John McQuinn       | Construction J.E. #2            | HB 79     | ✓              |        |
| Donald R. Kirkwood | Construction Eng. Tech Students | HB 414    | ✓ w/ amendment |        |
| Chas Smith         | Unemp Camp advisors Inc         | HB 75     | amend          |        |
| Heath D. Sturgeson | ASMET Mont. St. U.              | HB 414    | ✓ w/ amend     |        |