



BRIDGE INSPECTION & MAINTENANCE PROCEDURES (2 DAYS)

*** DATE RESCHEDULED* Hamilton 7-8 December**

Bridges are valuable assets, which cannot be built and then forgotten. Defects do occur which require attention during the life of a bridge. Natural events such as floods and earthquakes cause damage. Some bridge components deteriorate and require replacement within the life of the bridge. The bridge environment can affect durability and must be recognised. These areas must be addressed and appropriate maintenance carried out to ensure continued public safety as well as to maintain the asset and minimise repair costs.

Topics include:

- Asset management systems
- Condition assessment for common bridge materials
- Durability and maintenance of bridging materials
- Waterway, drainage and seismic damage
- The inspection procedure
- Coatings for steel structures
- Maintenance requirements
- Repair procedures
- Economic evaluation

For further information contact Jan Kivell, details below.

PAVEMENT REHABILITATION & DESIGN (2 DAYS)

Hamilton 29-30 November (Confirmed)

Since the adoption of the Austroads Pavement Design guide in NZ, pavement and rehabilitation design requires an understanding of mechanistic analysis procedures and the use of the computer program CIRCLY.

This course covers pavement design and rehabilitation design in accordance with the latest version of the Austroads Pavement Design Guide and the associated NZ Supplement, and contains hands-on applications of CIRCLY.

Topics include:

- Fundamentals of mechanistic analysis
- Hands-on CIRCLY applications
- Materials characterisation
- Design procedures for new pavements and rehabilitation treatments
- Design traffic determination

On completion of this course participants will have the knowledge to:

- Design new pavements and rehabilitation treatments using mechanistic analysis in accordance with Austroads and the NZ Supplement requirements
- Appreciate the attributes of CIRCLY and use it for design and analysis of different pavement configurations
- Apply the latest versions of the Austroads Pavement Design Guide and the NZ Supplement

For further information contact Lisa Knowles, details below.

ASPHALT MIX DESIGN (2 DAYS)

Christchurch 21-22 November

Asphalt paving mix design requires a clear understanding of design standards and specification requirements. Design also demands close attention to the details of testing procedures to ensure an economical blend and gradation of aggregates. Durable asphalt mixes must provide for stability, sufficient voids and workability to permit efficient construction.

This course has been updated to include the latest design methods from America and Australia. The methods will include Austroads APRG 18 Selection and Design of Asphalt Mixes and SHRP Superpave Mix Design. This will assist engineers and supervisors in their understanding of the design process and specifications.

Topics include:

- Objectives of design mix
- Designing a mix/practical considerations
- Performance based specifications
- Overview of asphalt manufacture and construction techniques
- Design of non-structural mixes
- Mix design and procedures
- Production testing and interpretation of test results
- Desirable mix properties
- Quality assurance

On completion of this course participants will have the knowledge to:

- Identify objectives of mix design and the properties required
- Have an overview of asphalt plant operations and construction techniques
- Understand the importance of production testing and interpretation of results
- Understand the implications of performance based specifications and quality assurance
- Understand methods for the design of non-structural mixes taking practical considerations into accounts

For further information contact Jan Kivell, details below.



NEW PLYMOUTH OFFICE:

Phone 06 759 7065
Fax 06 759 7066

HAMILTON OFFICE:

Phone 07 839 2787
Fax 07 839 2787
Email clarence@nziht.co.nz

SHORT COURSES:

Lisa Knowles lisa@nziht.co.nz ext 705
Jan Kivell jan@nziht.co.nz ext 708

CONFERENCES AND SPECIALIST

WORKSHOPS:
Jill Warner jill@nziht.co.nz ext 709

WEBSITE: www.nziht.co.nz

FOR DEGREE/DIPLOMA:

Jill Warner jill@nziht.co.nz ext 709

THE DIP ENG (CIVIL):

Clarence Morkel clarence@nziht.co.nz
May Osborne may@nziht.co.nz

CERT IN CIVIL INDUSTRY (INTRODUCTORY SKILLS)
admin@nziht.co.nz

REFRESHER LEVEL 1 TC & STMS (1 DAY)

Is your NZTA Qualification about to Expire? Don't get caught out!!

Check your NZTA photo ID cards for expiry dates. If you have staff with Level 1 TC or STMS qualifications, their ID cards will expire three years from the initial training date. NZTA stipulates that you cannot practice until your qualification is refreshed. NZIHT have NZTA qualified trainers to carry out refresher courses for both of these qualifications at competitive prices.

For dates and locations for all TTM Courses please refer to the course calendar on page 10. If there is not a location that suits, please make sure you contact us as there will be more advertised.

In-house training is available on request for larger groups.

Register early as numbers are limited on these courses, this is to ensure each participant receives quality training.

For further information on any of these courses contact Jan Kivell, details below.

LEVEL 1 BASIC TRAFFIC CONTROLLER (TC) (1 DAY)

This one day course promotes safe working practices, standards and operating procedures at roadwork sites. This is the NZ Transport Agency (NZTA) Level 1 Basic Traffic Controller (TC), which covers the standards and operating procedures required by the Code of Practice for Temporary Traffic Management (COP/TTM). Appropriately trained and qualified staff must be available to carry out temporary traffic management duties in compliance with the NZTA COP/TTM on all worksites. The course will assist with compliance with the Health and Safety in Employment Act. This course is the pre-requisite for entry requirement for people wanting further training to Level 1 Site Traffic Management Supervisor (STMS) standard of the Code of Practice for Temporary Traffic Management.



Topics include:

- Health and safety principles
- Principles of temporary traffic management
- Component parts and layout of a worksite
- Setting up and worksite rules
- Authorised sign use
- Temporary traffic management equipment
- Manual traffic control
- Pedestrians and cyclists
- Static operations
- Mobile and semi static maintenance/inspection operations
- Night time protection
- Low Volume Roads
- Implications of Local Roads Supplement

On completion of this course participants will have the knowledge to:

- Assist the STMS in the setting up of roadwork sites in accordance with approved Traffic Management Plans
- Develop a consistent approach to traffic control
- Analyse Traffic Management Plans in relation to various roading situations
- Apply exercises in the planning and setting up of roadwork sites to actual roading situations
- Understand the requirements for sign selection, placement, safe operating procedures and worksite protection for Level 1 roads.
- Understand and apply the standards for Local Roads

LEVEL 1 SITE TRAFFIC MANAGEMENT SUPERVISOR (STMS) (2 DAYS)

The NZTA Code of Practice for Temporary Traffic Management (COP/TTM) requires that appropriately trained and qualified personnel must carry out and supervise Temporary Traffic Management duties on all worksites. The head Traffic Controller is designated the Site Traffic Management Supervisor (STMS).



The STMS has specific duties and has ultimate responsibility for overall traffic management at the worksite. This two-day course provides training to the requirements of the NZTA Code of Practice for Temporary Traffic Management and covers the new standards and operating procedures for NZTA and Local Roads.

Pre-requisite for entry:

NZTA requires that you must be registered on the NZTA database and hold a current Level 1 Basic TC (or TC Refresher) qualification or have held a Level 1 STMS qualification (at any time) in the past. Please provide your NZTA Photo ID card number on your registration form.

Topics Include:

- Basic components of a roadwork site:
- Checking Traffic Management Plans provided
- Designing Traffic Management Plans for different work stages
- Setting up, checking and removing roadworks safety measures
- Controlling traffic at a worksite, including Stop/Go operations
- Working safely within the protected area
- Effectiveness of personal protective equipment
- Reporting and recording accidents and crashes
- Plant and work vehicle operation and safety
- Worksite safety audits
- Local Roads supplement

For dates and locations for TC & STMS courses please refer to the Course Calendar on Page 6



UNDERSTANDING NZS3910:2003 CONDITIONS OF CONTRACT (2 DAYS)

Christchurch 17-18 November
Invercargill 23-24 November
Auckland 30 November - 1 December

How well do you know the contents of NZS3910, which are the 'rules' for administering and managing civil and building contracts?

This popular course, from a practical and 'hands-on' point of view will benefit Clients, Consultants and Contractors regarding how to manage and administer contracts and to understand their obligations and liabilities in terms of these General Conditions of Contract

Major points covered are:

- Types of contracts
- Contractor and Client obligations
- Role of the Engineer / Engineer's representative
- Variations and how to value them
- Extensions of time and the financial implications to Clients
- Disputes
- Termination of contracts / sub-contracts
- Calculation of percentages for on-site costs, overhead and profit and rate per working day

On completion of this course participants will have the knowledge to:

- Use course notes as an up to date reference for managing contracts
- Understand NZS3910:2003
- Be familiar with different types of contracts
- Understand the procedure for lodging claims and the concept of being time-barred and those claims being dismissed as being out of time
- Understand 'extension of time' and associated implications and costs
- Be able to value variations

For further information contact Lisa Knowles, details below.

GEOMETRIC DESIGN (2 DAYS)

Christchurch 1-2 December

This course covers geometric design principles specifically for the design of New Zealand roads. The aim of this course is to develop an understanding of the principles of geometric design, and apply these to design safe, functional and aesthetic road alignments in accordance with the requirements of the new State Highway Geometric Design Manual.

Topics Include:

- Design parameters
- Horizontal alignment design
- Vertical alignment design
- Co-ordination of horizontal and vertical alignments
- Speed Parameters
- Earth work and mass diagram

Who should attend?

Engineers and pavement designers from Local Authorities, Consulting Engineers and Contractors

For further information contact Lisa Knowles, details below.



SUPERCHARGED SUPERVISORS TOOLKIT (1 DAY)

Christchurch 23 November

Supervision is the use of leadership, to get the work done, on behalf of your company in the constraints of time, budget and quality and to the satisfaction of the client. It also involves building your team, training and developing its members so that they can achieve the outcome even when you are not there.

This highly interactive one day course will address four essentials to the supervisor:

- What you have to **BE**
- What you have to **KNOW**
- What you have to **DO**
- What you have to **LEARN**

Topics Include:

- How to lead - what you actually do!
- Understanding your own and others behaviour
- What motivation is
- Team Building skills
- Delegation guidelines
- Principles of training
- Briefing and Debriefing your team
- Problem solving
- Being a coach

For further information contact Lisa Knowles, details below.

ENVIRONMENTAL MANAGEMENT (1 DAY)

Christchurch 7 December

Environmental Management is becoming a major part of the contracting world

This course will take participants through the role of the statutory bodies for Resource Management, Planning, Processes under the Act, into environmental issues for management. Civil site-specific requirements will be covered in detail. The daily requirements for the civil workplace under the Act, application and control will be a major part of the course.

Topics Include:

- The roll of the Statutory Bodies
- Processes under Resource Management Act
- Sub-divisional developments
- Act amendments
- Land Use
- Planning
- Environment issues
- Coastal environmental issues
- National environment standards
- Biodiversity

For further information contact Lisa Knowles, details below.

INSPECTING ROADS & ESTABLISHING MAINTENANCE NEEDS (1 DAY)

Wellington 6 December

This course outlines the inspection methodology involved in establishing physical maintenance needs. Having confirmed the needs, the inspector must apply skill and knowledge to identify and report needs, cost options and priorities.

Topics Include:

- Methods to determine work requirements
- Understanding pavement materials and modes of failure
- Prioritising needs
- Quality
- Parameters influencing level of activity
- Evaluation options
- Preparation of future work programmes

Who should attend?

Road supervisors, inspectors, engineers and managers responsible for Inspecting road networks to establish maintenance needs.

For further information contact Jan Kivell, details below.



Gain the National Certificate in Civil Infrastructure

(General Introductory Skills)

For only \$120* + GST

- Attend five blocks off-job (total 8 days over 20 weeks)
- Off job training is included
- Full assessment of unit standards on the NZQA framework

Palmerston North intake starting 20-21 March 2012

Auckland intake starting 17-18 April 2012

Christchurch intake starting 2-3 May 2012

Wellington intake starting 23-24 May 2012

Hamilton intake starting 18-19 June 2012

Napier intake starting 4-5 July 2012

Training includes the following blocks:



*** Only available to NZ Citizens or Permanent Residents of NZ with proof of residency/citizenship.**

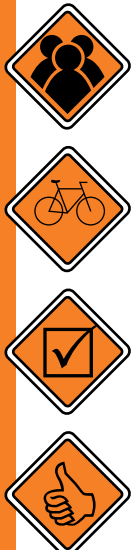
For full information please contact the programme co-ordinator:

Jan Kivell

NZ Institute of Highway Technology

E: jan@nziht.co.nz

P: 06 759 7065 ext 708





Course Calendar

November - December 2011

KEY: ♦ Confirmed courses, but spaces still available
♣ Potential courses still require numbers to run

| COURSE TITLE | DATE | LOCATION | COST (EXCL GST) |
|--|---|--|--|
| Asphalt Mix Design (2 days) | ♣ 21-22 November | Christchurch | \$640.00 |
| Bridge Inspection and Maintenance (2 days) | ♣ 7-8 December | Hamilton | \$640.00 |
| Environmental Management (1 day) | 7 December | Christchurch | \$420.00 |
| Geomechanics for NZ Roading (1 day) | ♦ 2 November | Auckland | \$420.00 |
| Geometric Design for Roads (2 days) | 1-2 December | Christchurch | \$640.00 |
| Inspecting Roads and Establishing Maintenance Needs (1 day) | 6 December | Wellington | \$420.00 |
| Level 1 Basic Traffic Controller (TC) (1 day) | 2 November 9 November ♦ 15 November ♦ 22 November 23 November ♣ 7 December 12 December 15 December 19 December 18 January 19 January 24 January 26 January | Tauranga Nelson Auckland Christchurch Wanganui New Plymouth Napier Palmerston North Auckland Christchurch Auckland Hamilton Lower Hutt | \$345.00 plus NZTA Registration \$40.00 |
| Level 1 Site Traffic Management Supervisor (STMS) (2 days) | ♦ 7-8 November 8-9 November ♦ 9-10 November 14-15 November 17-18 November 29-30 November 6-7 December 14-15 December 20-21 December 17-18 January 18-19 January 24-25 January 26-27 January | Christchurch Napier Auckland Lower Hutt Taupo Hamilton Tauranga Auckland Christchurch New Plymouth Napier Palmerston North Auckland | \$495.00 plus NZTA Registration \$40.00 |
| Pavement and Rehabilitation Design (2 days) | ♦ 29-30 November | Hamilton | \$750 |
| Refresher – Level 1 STMS and Refresher – Level 1 Basic TC (1 day) | 3 November 16 November ♦ 23 November 24 November ♦ 8 December 13 December 16 December 19 January 20 January 25 January 27 January | Tauranga Auckland Christchurch Wanganui New Plymouth Napier Palmerston North Christchurch Auckland Hamilton Lower Hutt | \$300 plus NZTA Registration \$40.00 |
| Supercharged Supervisors Toolkit (1 day) | 23 November | Christchurch | \$470.00 |
| Understanding NZS3910:2003 Conditions of Contract (2 days) | ♦ 17-18 November 23-24 November ♦ 30 Nov - 1 Dec | Christchurch Invercargill Auckland | \$640.00 |

Short Course Registration Form

Name of NZIHT Short Course: _____

Course Location: _____ Course Date: _____

Name: _____

Name: _____

Name and Postal Address of your organisation: _____

Contact person: _____ Email: _____

All correspondence will be forwarded to the Contact Person

Phone: _____ Fax: _____

Order No: _____

Please note: Confirmation letters will be sent five working days prior to the course date.

Cancellations: participant withdrawals must be notified in writing. Withdrawals after the close-off date (5 working days prior to the course date) will be charged 50% of the course fee. Non attendance will also be charged the full rate. Substitute participants are welcome. Please refer to page 9 of our 2011 Training Programme for full registration details and conditions.

Course cost \$ _____

Plus 15% GST \$ _____

Cheque enclosed for: \$ _____

(Please make payable to the NZ Institute of Highway Technology Ltd), or

Please invoice us for: \$ _____

The NZIHT reserves the right to alter course dates, postpone or cancel courses due to unforeseen circumstances or where numbers are not sufficient.

Post or Fax to:

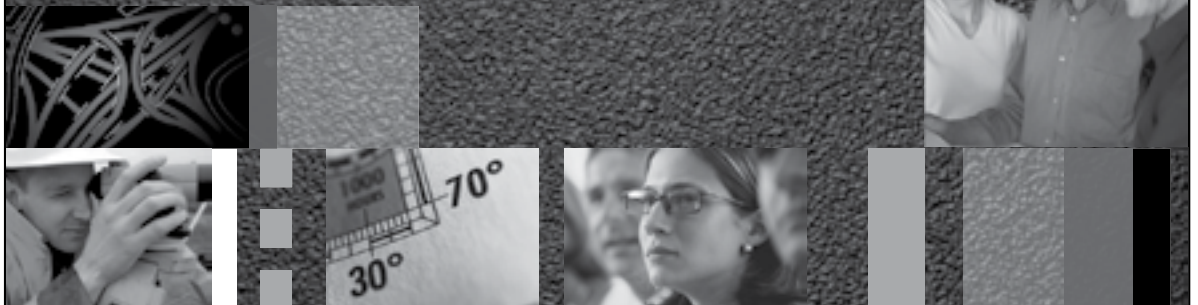
**The Course Co-ordinator,
New Zealand Institute of Highway Technology Ltd
PO Box 4273, New Plymouth 4340
Phone (06) 759 7065, Fax (06) 759 7066**



PART TIME STUDY • FULL TIME STUDY
BLOCK COURSES • PROFESSIONAL DEVELOPMENT

SEAL A FUTURE IN HIGHWAY TECHNOLOGY

Bachelor of Engineering Technology (Highways)
Graduate Diploma in Engineering (Highways)



Build a secure career with a tertiary qualification in Highway Engineering and Management through part-time block course study.

NZ Diploma in Engineering (Civil) and NZCE (Civil) graduates can qualify for entry into Year 3 of the Bachelor of Engineering Technology (Highways) allowing you to step-up to a degree level qualification.

Other graduates may qualify for entry into the one year Graduate Diploma in Engineering (Highways).

For more information and course details please contact (06) 7597065 or email jill@nziht.co.nz
www.nziht.co.nz

Topics covered in the qualifications include

Transportation Engineering • Project Management • Traffic Engineering
• Pavement Engineering • Geometric Design • Engineering Management

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All programmes/courses are offered by NZIHT in association with the Western Institute of Technology at Taranaki (WITT), which is the accredited provider.

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FOR ALL ENQUIRIES:
FOR SHORT COURSES:
FOR DIPLOMA/DEGREE
ENQUIRIES:

Phone: 06 759 7065, Fax: 06 759 7066
Lisa Knowles: lisa@nziht.co.nz, Jan Kivell: jan@nziht.co.nz
Jill Warner: jill@nziht.co.nz
www.nziht.co.nz

