



September 2011

TRAINING TALK  
TRAINING NEWS/UPDATES FROM THE NEW ZEALAND INSTITUTE OF HIGHWAY TECHNOLOGY



# BUILDING AND MAINTAINING HIGHWAYS FOR THE FUTURE

6 - 8 NOVEMBER 2011  
QUALITY HOTEL PLYMOUTH INTERNATIONAL  
NEW PLYMOUTH TARANAKI

12th ANNUAL CONFERENCE



## PRELIMINARY PROGRAMME

Come and listen to the Presenters' giving their perspectives on 'Utilizing new and existing technology to achieve value for money' and which areas they look for value for \$\$\$.

**DAY 1**  
SUNDAY 6TH NOVEMBER

**2.00pm**  
Tour of Fitzroy Yachts

**5.00pm - 6.00pm**  
Registrations

**6.00pm - 7.00pm**  
Welcome Function and Opening of Trade Display

**DAY 2**  
MONDAY 7TH NOVEMBER

**Welcome**  
Willie Vance - CEO NZIHT

**Opening Address**  
Harry Duynhoven  
Mayor of New Plymouth

**Guest Speaker**  
Keith Quinn

**Morning Tea**

**Technical Sessions**

**Lunch**

**Technical Sessions**

**Afternoon Tea**

**Dinner/Entertainment**

**DAY 3**  
TUESDAY 8TH NOVEMBER

**Technical Sessions**

**Morning Tea**

**Technical Sessions**

**Lunch**

**Afternoon Tea**

**Close of Conference**

**GUEST SPEAKER**



**Keith Quinn**  
Sporting and Television Personality and Commentary King Keith Quinn's broadcasting career is simply quite exceptional. He has worked for NZBC - TVNZ from January 1965 and for ONE World of Sport since 1973.

But Keith is not limited to the spoken word. He is also a prolific writer and columnist, published in magazines and newspapers around the world, and is the author of 11 books on rugby and sporting matters.

### WHAT IS 50M LONG, SLEEPS UP TO 14, COSTS \$50M AND RECENTLY WON A PRESTIGIOUS INTERNATIONAL AWARD IN LONDON?

The answer is 'Zefira'. A 49.7m superyacht built by Fitzroy Yachts in Taranaki.



Those attending the NZIHT/NZTA conference in New Plymouth on November 6th will have the opportunity to visit the home of Zefira and see her sister-ship under construction at Fitzroy Yachts world class boatbuilding facility in New Plymouth. The

tour will be personally conducted by Fitzroy Yachts owner Peter White-Robinson.

This is a 'must not miss' opportunity that will give you a glimpse of how the rich and famous spend their money. See how the aluminium hulls are fabricated, how the latest gadgets and technology is used in a marine environment, and get an appreciation of the sumptuous living accommodation being fitted to these stunning super-luxury yachts.

**Be quick, as the tour is limited to 45 places only. Please contact Jill Warner for further details or visit our website at [www.nziht.co.nz](http://www.nziht.co.nz)**

Following the tour of the Fitzroy yachts facility, delegates will also have the chance to view another Taranaki icon and award winning structure, the Te Rewa Rewa bridge at Waiwaikaho.



Winner of the International Footbridge Award

NEW PLYMOUTH OFFICE:  
HAMILTON OFFICE:  
SHORT COURSES:

CONFERENCES AND SPECIALIST WORKSHOPS:  
WEBSITE:  
FOR DEGREE/DIPLOMA:  
THE DIP ENG (CIVIL):

CERT IN CIVIL INDUSTRY (INTRODUCTORY SKILLS):

Phone 06 759 7065  
Phone 07 839 2787  
Lisa Knowles  
Jan Kivell  
Jill Warner  
[www.nziht.co.nz](http://www.nziht.co.nz)  
Jill Warner  
Clarence Morkel  
May Osborne  
[admin@nziht.co.nz](mailto:admin@nziht.co.nz)

Fax 06 759 7066  
Fax 07 839 2787  
[lisa@nziht.co.nz](mailto:lisa@nziht.co.nz)  
[jan@nziht.co.nz](mailto:jan@nziht.co.nz)  
[jill@nziht.co.nz](mailto:jill@nziht.co.nz)

[jill@nziht.co.nz](mailto:jill@nziht.co.nz)  
[clarence@nziht.co.nz](mailto:clarence@nziht.co.nz)  
[may@nziht.co.nz](mailto:may@nziht.co.nz)

Email [clarence@nziht.co.nz](mailto:clarence@nziht.co.nz)  
ext 705  
ext 708  
ext 709

ext 709

NZIHT operates as an independent company with the Western Institute of Technology at Taranaki as the sole shareholder.





## BITUMEN – BASIC SAFETY (1 DAY)

**Auckland 20 September / Hamilton 23 September**

**Palmerston North 26 September**

**Christchurch 28 September / Dunedin 30 September**

It is absolutely essential that all those involved in any way with bituminous materials fully understand the significant hazards presented and the procedures used to ensure safety. This is an essential awareness course for anybody involved in any way with the road surfacing industry and is presented with the aid of graphic practical demonstrations. A special variation of this course "Bitumen - Managing the Risk" is designed specifically for senior managers, engineers and supervisors. It is a pre-requisite for other advanced courses for those handling, working near, operating or maintaining bitumen equipment or supervising the use of bituminous materials. This course will assist with compliance with the Health and Safety in Employment Act and the self-governance Operate Safe" scheme administered by Roading New Zealand.

### Topics Include:

- Introduction to bituminous materials including emulsions
- Health hazards, personal precautions
- Hazards when working around bitumen plants and hot-mix plants
- Hazards associated with field operations
- Importance of appropriate training
- Dangers of water
- First aid for bitumen burns
- Dangerous goods, flash point, auto-ignition, safe distance
- Explosion hazards, empty tank hazards
- Maintenance hazards, spillage precautions
- Fire safety including 'hands on' experience in the use of portable fire extinguishers to fight flammable liquid fires
- Miscellaneous associated hazards encountered in the road surfacing industry



**For further information contact Jan Kivell, details below.**

**Last courses for 2011**

## BITUMEN TANKER AND PLANT OPERATOR (1 DAY)

**Palmerston North 8 September**

**Hamilton 12 September**

**Christchurch 15 September**

The operation of bitumen tankers, sprayers, bitumen storage and blending plants demands a sound knowledge of the properties of bitumen and associated products and adherence to strict safety procedures. Production is improved if operators have the appropriate advanced knowledge and skill to accurately and safely use plant and equipment. Quality is maintained by bitumen product knowledge, adherence to handling procedures, accurate blend calculation and careful record keeping. This course is designed as a "follow-on" from the awareness level Bitumen Safety course specifically for hands-on operators.

Please Note: This course is a prerequisite to the Bitumen Sprayer Operator Course

### Topics Include:

- Bitumen, additives, polymers, emulsions
- Safe operation of fixed plant
- Roading NZ Code of Safe Practice
- Loading, bending, heating and transferring
- Transfer hose safety and compliance
- Plant maintenance
- Storage and transportation
- Dangerous goods classification & labelling
- Measurement and control
- Safe tanker operation
- Sampling and documentation
- Calculation of blends
- Record keeping
- Plant maintenance safety

**For further information contact Jan Kivell, details below.**



## BITUMEN SPRAYER OPERATOR (1 DAY)

**Palmerston North 9 September / Hamilton 13 September / Christchurch 16 September**

Precise and competent operation of the bitumen sprayer is essential to successful chipsealing operations. Sprayer performance is improved if operators have detailed knowledge of the principles of the chipsealing process and the appropriate skills to accurately use the equipment. Output quality is enhanced by bitumen product knowledge, adherence to safe handling procedures and careful record keeping.

### Topics Include:

- Bitumen products for chipsealing
- Chipseal types and basic design principles
- Storage, blending and transportation
- Sampling and documentation
- Sprayer types, pumps and operating systems
- Troubleshooting
- Spray charts
- Correct spraybar set-up
- Hand-spraying
- Sprayer maintenance
- Operational safety
- RNZ E/2 industry certification of sprayers
- Field measurement and control
- Calculation of hot spray rates for cutbacks and emulsions
- Spraying Hot PMB's
- Bitumen sprayer record keeping.

**For further information contact Jan Kivell, details below.**



## AGGREGATES FOR PAVEMENT CONSTRUCTION (1 DAY)

**Dunedin 29 September  
Hamilton 27 October**

This course identifies the properties and characteristics of aggregates and systems for quarrying, storage, selection and handling, so that these properties are not altered and their quality remains consistent until placements in the pavement. Future performance-based specifications may not be as prescriptive as they have been and this course reflects this.

### Topics Include:

- Function of structural layers in a pavement
- Factors controlling performance
- Selection of pavement aggregates - sealed and unsealed pavements
- Role of clay minerals
- Source rock characteristics
- Aggregate production and properties of the product
- Quality assurance/quality control
- Aggregates to meet TNZ M/4 and TNZ B/2 requirements
- Storage, handling and compaction of aggregate for pavements
- Use of marginal and low quality aggregates.

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

- Understand factors affecting pavement construction
- Determine influences on aggregate layers
- Learn methods of selecting pavement aggregates
- Determine quality of aggregate resources
- Understand quarrying processes
- Relate understandings to pavement construction techniques.

*For further information please contact Lisa Knowles, details below.*

## UNDERSTANDING NZS3910:2003 CONDITIONS OF CONTRACT (2 DAYS)

**Palmerston North 5-6 October  
Auckland 19-20 October  
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 please contact Lisa Knowles, details below.*

## GEOMECHANICS FOR NZ ROADING (1 DAY)

**Dunedin 6 October / Wellington 12 October / Auckland 2 November**

This course draws together the necessary soil investigation and geotechnical procedures for roading construction and maintenance. The course provides an up-to-date overview of investigative techniques and analysis.

### Topics Include:

- Geotechnical engineering and pavement design
- Fundamental soil properties
- Compaction
- Planning geomechanical investigations
- In-situ investigation and testing
- Laboratory testing issues
- Effects and control of water movement
- Soil strength improvement
- Bearing capacity.

### Who Should Attend?

Engineers, Technicians, Supervisors and Local Authority staff involved in pavement design and construction.

*For further information contact Lisa Knowles, details below.*



## BRIDGE INSPECTION & MAINTENANCE PROCEDURES (2 DAYS)

Christchurch 28-29 September

Hamilton 19-20 October

*Last courses  
for 2011*

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



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

- Identify the principles of bridge inspection and maintenance
- Carry out bridge inspections under supervision
- Gain an understanding of administration and management systems
- Use the Transit NZ Bridge Inspection and Maintenance Manual to inspect and evaluate bridge conditions and detect faults
- Prepare repair procedures under supervision
- Detect potential instances of bridge failure
- Learn ways to enhance durability of materials used in bridge construction.

*For further information contact Jan Kivell, details below.*

## LEADERSHIP TRAINING (3 DAYS)

Christchurch 21-23 September / Wellington 18-20 October

This course is aimed at anybody who is in charge of a work team of any size. It is delivered in an inductive (experiential) format which allows participants to be totally involved in the learning process. The course is high on involvement and equips the participants to take the concepts into the workplace and use them. There is an assessment programme at the end where they, their mentor and their line manager sign off the transfer to work component of the training. In this three day course there is also time to include the DiSC Behavioural Profile Diagnostic. This invaluable tool enables participants to understand themselves, the effect their behaviour has on others and how to create the optimum work environment for each of their direct reports.

DiSC Behavioural profiling links directly to leadership and delegation, communication, feedback, performance management and handling conflict. It therefore provides a base for learning that takes the knowledge gained into attitudinal and behavioural changes by having participants learning the valuable skill of knowing when and how to adapt their leadership behaviour to those they are leading and interacting with at all levels of the organisation.

### Topics include the following Modules:

- Module One - Improving Performance
- Module Two - Learning, Learning how to learn
- Module Three - Communication
- Module Four - Expectations of people
- Module Five - The Leader/Manager concept
- Module Six - Teamwork; Building and maintaining teams
- Module Seven - Motivation
- Module Eight - Conflict management
- Module Nine - DiSC® Workshops
- Module Ten - Performance management
- Module Eleven - Coping & Stress Profile
- Module Twelve - Time Management
- Module Thirteen - Transfer to work



*For further information please contact Lisa Knowles, details below.*





# Course Calendar

## September - November 2011

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

| COURSE TITLE   | DATE   | LOCATION  | COST (EXCL GST)                                  |
|--|--|---|--|
| Aggregates for Pavement Construction (1 day)               | 29 September<br>27 October   | Dunedin<br>Hamilton   | \$420.00   |
| Asphalt Paving Construction Supervisor (3 days)            | 26-28 September  | Wellington  | \$990.00   |
| Asphalt Production Plant Operation (2 days)                | 12-13 September  | Christchurch  | \$640.00   |
| Bitumen – Basic Safety (1 day)                             | ♣ 20 September<br>23 September<br>26 September<br>28 September<br>30 September   | Auckland<br>Hamilton<br>Palmerston North<br>Christchurch<br>Dunedin   | \$420.00   |
| Bitumen – Sprayer Operator (1 day)                         | ♣ 9 September<br>13 September<br>♦ 16 September  | Palmerston North<br>Hamilton<br>Christchurch  | \$420.00   |
| Bitumen – Tanker and Plant Operator (1 day)                | ♣ 8 September<br>♣ 12 September<br>♦ 15 September  | Palmerston North<br>Hamilton<br>Christchurch  | \$420.00   |
| Bridge Inspection and Maintenance Procedures (2 days)      | 28-29 September<br>19-20 October   | Christchurch<br>Hamilton  | \$640.00   |
| Chipseal Design (2 days)                                   | ♣ 5-6 September  | Palmerston North  | \$640.00   |
| Civil Construction Supervisor #2 (3 days)                  | 20-22 September  | Christchurch  | \$990.00   |
| Geomechanics for NZ Rooding (1 day)                        | 6 October<br>12 October<br>2 November  | Dunedin<br>Wellington<br>Auckland   | \$420.00   |
| Geometric Design for Roads (2 days)                        | 1-2 September  | Wellington  | \$640.00   |
| Leadership Training (3 days)                               | 21-23 September<br>18-20 October   | Christchurch<br>Wellington  | \$990.00   |
| Level 1 Basic Traffic Controller (TC) (1 day)              | ♦ 7 September<br>12 September<br>20 September<br>21 September<br>29 September<br>4 October<br>5 October<br>11 October<br>18 October<br>26 October<br>2 November<br>9 November<br>15 November<br>22 November<br>23 November     | New Plymouth<br>Rotorua<br>Palmerston North<br>Dunedin<br>Napier<br>Christchurch<br>Auckland<br>Lower Hutt<br>Taupo<br>Hamilton<br>Tauranga<br>Nelson<br>Auckland<br>Christchurch<br>Wanganui | \$345.00<br>plus<br>NZTA Registration<br>\$40.00 |
| Level 1 Site Traffic Management Supervisor (STMS) (2 days) | 6-7 September<br>14-15 September<br>27-28 September<br>11-12 October<br>13-14 October<br>19-20 October<br>26-27 October<br>7-8 November<br>8-9 November<br>9-10 November<br>15-16 November<br>17-18 November<br>29-30 November | Tauranga<br>Wanganui<br>Auckland<br>New Plymouth<br>Rotorua<br>Palmerston North<br>Dunedin<br>Christchurch<br>Napier<br>Auckland<br>Lower Hutt<br>Taupo<br>Hamilton                           | \$495.00<br>plus<br>NZTA Registration<br>\$40.00 |
| Pavement and Rehabilitation Design (2 days)                | <b>Full</b> 19-20 September  | Auckland  | \$750.00   |
| Pavement Surfacing Supervisor Chipsealing (2 days)         | 20-21 September  | Auckland  | \$640.00   |



# Course Calendar

## September - November 2011

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

| COURSE TITLE   | DATE   | LOCATION   | COST (EXCL GST)                               |
|--|--|--|---|
| Refresher – Level 1 STMS and<br>Refresher – Level 1 Basic TC (1 day) | 8 September<br>13 September<br>20 September<br>30 September<br>5 October<br>6 October<br>12 October<br>19 October<br>27 October<br>3 November<br>16 November<br>23 November<br>24 November | New Plymouth<br>Rotorua<br>Palmerston North<br>Napier<br>Christchurch<br>Auckland<br>Lower Hutt<br>Taupo<br>Hamilton<br>Tauranga<br>Auckland<br>Christchurch<br>Wanganui | \$300<br>plus<br>NZTA Registration<br>\$40.00 |
| Reinstatement of Service Trenches (1 day)                            | 13 October   | Wellington   | \$420.00                                      |
| Stabilisation of Road Pavements (1 day)                              | 5 October  | Dunedin  | \$420.00                                      |
| Supercharged Supervisors Toolkit (1 day)                             | 6 October  | Auckland   | \$470.00                                      |
| Survey and Set out Stage 1 (1 day)                                   | 14 September   | Christchurch   | \$470.00                                      |
| Survey and Set out Stage 2 (2 days)                                  | 14-15 September<br>28-29 September<br>12-13 October  | Auckland<br>Christchurch<br>Palmerston North   | \$750.00                                      |
| Understanding NZS3910:2003 Conditions of Contract (2 days)           | ♦ 19-20 October<br>17-18 November<br>23-24 November<br>30 Nov-1 Dec  | Auckland<br>Christchurch<br>Invercargill<br>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:   | \$ | _____ |
| <i>(Please make payable to the NZ Institute of Highway Technology Ltd), or</i> |    |       |
| 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**



# 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

## ENQUIRE NOW FOR OUR 2012 INTAKE!

Training includes the following blocks:



Level 1 Basic Traffic Controller (TC) (1 day off-job training & self-directed study)  
*\*Unit standards: 5627, 20877, 20878*



Survey & Set Out – Stage 1 (2 day off-job training & self-directed study)  
*\*Unit standards: 6476, 6480*



Basic Worksite Knowledge (2 days off-job training & self-directed study)  
*Unit standards: 6453, 1978, 12382, 17592, 17593, 22283*



Health & Safety for Civil Construction (2 days off-job training & self-directed study)  
*Unit standards: 6475, 17327, 20868, 20870, 20873*



First Aid (1 day off-job training)  
*Unit standards: 6401, 6402*

*\* 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](mailto:jan@nziht.co.nz) P: 06 759 7065 ext 708

