

**MEMORANDUM OF UNDERSTANDING**  
**between**  
**THE MINISTRY OF WORK AND TRANSPORT**  
**DRAINAGE DIVISION**  
**and**  
**THE UNIVERSITY OF THE WEST INDIES**  
**CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT**  
  
**and**  
  
**THE JOINT CONSULTATIVE COUNCIL OF THE CONSTRUCTION INDUSTRY OF**  
**TRINIDAD AND TOBAGO (JCC)**

**I. PARTIES**

The purpose of this Memorandum of understanding (MOU) on water and coastal engineering management (WCEM) is to provide a framework for initiatives which will lead to improvement of (WCEM) in Trinidad and Tobago. This ("MOU") is the result of an initiative of the Storm Water Management Committee of the Joint Consultative Council of Trinidad and Tobago (JCC) and is here entered into between the University of the West Indies ("UWI") of which the Civil and Environmental Engineering Department ("UWICEED") will be the executor of this MOU on behalf of the UWI and the JCC a non-profit non-partisan body representing the interests of all professional bodies operating within the Construction Industry. .

**II. PURPOSE**

This MOU is entered pursuant to the Water Works and Water Conservation Act, Chap. 54:41 and any other future Act detailing out the jurisdiction of the MOWTDD. Any agreements entered pursuant to this MOU will be authorized by and be consistent with these Acts or other applicable statutes and regulations. This MOU is designed to provide a linkage between the MOWTDD the UWI and the JCC towards creating mechanisms for continuous and sustainable technical assistance, research and development and capacity building in the water and coastal engineering management focusing on

- Flood management
- Drainage and irrigation
- Coastal engineering and management
- River engineering and management
- Hazard awareness, prevention and mitigation was
- Fluvial processes, sedimentology and geomorphology
- Geographic Information Systems technology
- Decision support
- Any other related field

Teams of professionals from the MOWTDD and UWICEED will work together within the framework of this MOU. A Management Team (MT) comprising professionals from the Parties

and any other stakeholder agencies to facilitate the fulfilment of the goals and objectives identified in this MOU.

Effective cooperation and collaboration promoted through this MOU is expected to improve the level of service provided by the MOWTDD in keeping with its mandate to enhance the quality of the lives of the citizenry of Trinidad and Tobago, as well as to significantly advance the individual missions of the MOWTDD the UWICEED and the JCC

This MOU reaffirms the desire of MOWTDD the UWICEED and the JCC for close working relationships that promote the development of research and technology, education and capacity building towards conservation, improvement, and sustainable development of the nation's resources and environment.

### **III. BACKGROUND OF THE PARTIES AND AUTHORITY TO ENTER THIS MOU**

- 1) The MOWTDD is responsible for the development and maintenance of main watercourses and irrigation systems; design and construction of hydraulic and coastal structures; provision of advisory services, to ensure efficient and effective flood, erosion and sedimentation control, drainage and irrigation, coastal protection and reclamation; in keeping with its mission to improve the quality of lives of the citizenry of Trinidad and Tobago. The MOWTDD is empowered to act under the Waterworks and Water Conservation Act, Chap. 54:41
- 2) The UWICEED is a department within the Faculty of Engineering (“FOE”). The mission of the FOE is to (i) be a provider of world quality education, (ii) provide research and development programmes in support of Caribbean business, industry and infrastructure and (iii) position the human resources assets of the nation at the forefront in propelling growth, development and innovation in the region.
- 3) The JCC is a non-profit, non-partisan body consisting of at present:
  - i. The Association of Professional Engineers of Trinidad and Tobago;
  - ii. The Board of Architects of Trinidad and Tobago;
  - iii. The Institute of Architects of Trinidad and Tobago;
  - iv. The Institute of Surveyors of Trinidad and Tobago;
  - v. The Trinidad and Tobago Contractors Association;
  - vi. The Trinidad and Tobago Society of Planners.

The JCC has as some of its objectives the obligation “to make representation to Government Bodies on matters which pertain to the national interest”..and ‘to improve all aspects of the construction industry.’ The JCC is also the Industry Training Organisation (ITO) under the national Training Agency (NTA). The JCC in conjunction with FIDIC is

also the provider of professional training in FIDIC forms of contract and has trained over 2500 professionals in the Caribbean

#### **IV. PARTICIPATION IN THE MT**

The MOWTDD, JCC and UWI agree to participate in the MT,. The MT will endeavour to achieve MOWTDD, UWICEED and JCC objectives by doing the following:

- i. developing a shared JCC/MOWTDD/UWICEED vision through the setting of goals to develop support and capacity for storm water and coastal engineering management in a sustainable manner taking into account the nation's resources and the environment;
- ii. supporting the developing and the utilization of institutional policies, organizational structures, and operational procedures to focus resources to formulate and achieve sustained technical support and assistance, research and development and capacity building in the fields of herein identified within this MOU;
- iii. ensuring that research and technology development and capacity building is responsive to present and emerging stakeholder needs and national priorities;
- iv. promote the developing of detailed research and technology proposals, including funding and personnel requirements and educational programmes in the fields of water management identified within this MOU; to address stakeholder needs and national priorities..
- v. commenting on the implementation and completion of proposals with respect to their timely and substantial completion, technology development and transfer process that is synchronized with existing and anticipated management, education, training and outreach requirements.
- vi. The detailed Research, Technology Development and Management proposal under this MOU will be developed and agreed upon between THE MOWTDD AND UWICEED only. The JCC's role will be limited to activated on the MT. The research and technology proposal will be developed incrementally and will form appendices to this MOU.

#### **V RESEARCH, TECHNOLOGY DEVELOPMENT AND MANAGEMENT PROPOSAL BETWEEN THE MOWTDD AND UWICEED.**

Proposals are to be developed through Standard Project Proposals identified as appendices to this MOU in which the MOWTDD AND UWICEED responsibilities are as follows:

- a) MOWTDD agrees to:
  - i. Identify as part of the MT projects or areas in which technical support and assistance is required from the UWI facilitated by the UWICEE

- ii. Participate in setting technical support and assistance, research and technology development and capacity building priorities as part of the MT and to communicate these priorities the MT, the Ministry of Works and Transport (“MOWT”) and other stakeholders.
- iii. Provide or recommend, if possible and consistent with MOWTDD’s authority and priorities, funding to facilitate technical assistance and support and carry out research plans and implement educational programmes developed by the MT.
- iv. Participate, when feasible and consistent with MOWTDD’s authority and priorities, in the transfer of research findings into technologies useable by MOWTDD, UWICEED and other stakeholders, including the general populace.
- v. Assist in life cycle monitoring of the effectiveness of technologies and practices implemented and provide feedback to help make any necessary improvements in technologies and practices.

b) UWICEED agrees to:

- i. Provide the requisite professional and support personnel and resources to enable the provision of technical support and assistance for projects or areas identified by the MOWTDD.
- ii. Participate in setting of technical support and assistance, research and technology development and capacity building priorities as part of the MT.
- iii. Provide, if feasible and consistent with UWICEED's authority and priorities, funding and personnel to support and carry out research, technology development, and education activities and training.
- iv. Participate, when feasible and consistent with UWICEED’s authority and priorities, in the transfer of research findings into technologies useable by MOWTDD, UWICEED and other stakeholders, including the general populace.
- v. Provide leadership in training MOWTDD's professional and support staff, including field personnel in the application of new and revamped technologies and practices; as prioritized by the MT.

- vi. Provide leadership in development of education programmes and activities within the fields of water management identified within this MOU; as prioritized by the MT.
- vii. Transfer research and technology findings into formats useful to the MOWTDD's professional and support staff, as well as other stakeholders, including the general populace.
- viii. Assist in life cycle monitoring of the effectiveness of technologies and practices implemented and provide feedback to help make any necessary improvements in technologies and practices.

## **V. Implementation**

The responsibility for implementation of this MOU is expected to be shared between the MT and the MOWTDD and will take the form of the following:

- i. The MT will have the overall responsibility for carrying out aspects of this agreement as outlined under **IV. PARTICIPATION IN THE MT**
- ii. The MOWTDD through the Director of Drainage will be responsible for the development (or delegation of such development) of Project Sub-Agreements (PSA) if and when such sub-agreements are deemed necessary or appropriate to the successful implementation of specific projects or activities. Standard Project Proposal

### **Assumptions:**

- Every project proposal needs to be approved by the Signatory at MOWT (Minister, PS, and Director of Drainage) depending if and what budget required
- Each project proposal will have to be written in the format here outlined and in collaboration with the Drainage Division,
- Each project proposal needs to clearly state which goals and objectives mentioned in the MOU are supported by this particular project

In order to define a general project proposal the following are identified:

- UWI offering independent specialized technical assistance (in-depth reviews / recommendations)
- UWI offering training for MOWT personnel (specific courses, seminars, symposia, access to UWI courses)
- MOWTDD to offer students practical experience in related fields (design, construction)
- MOWTDD to offer thesis projects in areas covered by this MOU

- UWI supporting MOWTDD with improving population awareness through the developing of materials such as booklets, TV ads, etc...
- The MT to identify and aid in developing professional platform in areas covered by this MOU.
- The MT to support development of national database in collaboration with other stakeholders
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Some projects can be done within the context of the existing responsibilities of each party and will require no extra budget. Others, which require input beyond the normal activities, will have to identify responsibilities, input and budget for each particular project. Financing will be provided via the MOWT.

### **Proposed Standard Project Proposal Set-up**

The following are the items proposed for the standard proposal (see excel table for more details)

- 1 Introduction
- 2 Justification
- 3 Background
- 4 Scope of Work
- 5 Approach
- 6 Project Planning
- 7 Responsibilities
- 8 Output
- 9 Resources
- 10 Project Management
- 11 Budget

- iii.** Establishing internal processes, procedures and relevant review criteria to include continuous review of program plans, the development and monitoring of success benchmarks regarding the MOWTDD-UWICEED collaborations and project plans; and evaluation of projects supported under this MOU.
- iv.** Periodically assessing the success and progress of projects launched pursuant to this MOU and recommending improvements to this MOU and/or implementing procedures.
- v.** Preparing periodic status reports on each of the projects undertaken through Project PSA under this MOU to the Permanent Secretary, Ministry of Works and Transport.

## **VI. Designated Points of Contact**

The primary contact and liaison to each Party to this MOU is as follows:

### **For MOWTDD:**

Director of Drainage  
Ministry of Works and Transport  
Drainage Division  
41-43 Sackville Street  
Port of Spain  
Trinidad, W.I.

Telephone: 868-623-7729  
Facsimile: 868-627-4780

### **For UWICEED:**

Head of Department  
University of the West Indies  
Civil and Environmental Engineering Department  
St. Augustine Campus  
St. Augustine  
Trinidad, W.I.

Telephone: 868-662-2002 ext 2504  
Facsimile:

### **For JCC**

The President of the JCC  
The Professional Centre Building  
Unit 202, Fitzblackman Drive, Wrightson Road Extension, Port of Spain,  
Trinidad, West Indies.  
Tel: 868-623-9396 or 622-2722  
Fax: 625-5749  
Email: [jcctt1@gmail.co](mailto:jcctt1@gmail.co)

The primary contact and liaison to each Party to this MOU may designate a secondary contact and liaison to be a member of the PM

## **VII Duration**

- i. This MOU will become effective upon the date of the last signature of a party's approving official and shall remain in effect for 5 years from the effective date. This MOU may be terminated by mutual written agreement or by any party at any time and for any reason. A party wishing to terminate this MOU should endeavour to give the other party 90 days written notice.
- ii. This MOU will be reviewed annually and may be amended at any time by mutual written consent of the authorized representatives of the parties to the MOU. It may be subject to reconsideration at other times as may be required and as agreed to by the authorized representatives of the parties to the MOU.

**IN WITNESS THEREOF** the Parties, each acting through their duly authorized representatives, have caused this MOU to be signed in their names and delivered.

**Ministry of Works and Transport**

\_\_\_\_\_  
(Signature)

Name:  
Title:

Date: Month Day, 2010

**University of the West Indies  
Civil and Environmental Engineering Department**

\_\_\_\_\_  
(Signature)

Name:  
Title:

Date: Month Day, 2010

**The Joint Consultative Council**

\_\_\_\_\_  
(Signature)

Name:  
Title:

Date: Month Day, 2010