



## Senior UC Civil Engineering and Architecture Students visit the Large-Scale Construction Project to Build the 2019 SEA Games Complex at New Clark City

### Firsthand Exposure to PH's Largest Infrastructure Undertaking under the "Build, Build, Build" Program of the Government

After four years of textbook knowledge & classroom instruction, it was time for Senior UC Civil Engineering and Architecture students to be exposed to Real World Projects. This was in the form of a Field Trip to the multi-billion peso government project at New Clark City, where the UC student group was given a formal briefing on the Large-Scale Project currently being implemented & executed thereon; followed by a Physical Tour of the actual construction grounds of the 2019 Southeast Asian (SEA) Games Sports Complex.

The 30th Southeast Asian Games are scheduled to be held on November 30, 2019 to December 10, 2019.

MTD submitted an Unsolicited Proposal to the BCDA valued at P120B for the development of the National Government Administrative Center (NGAC).

The BCDA opted to implement the project in several phases with two (2) initial government offices and the sports facilities (for the hosting of the Games) as "Phase 1a." This phase was duly valued at P13.0B. The development of the NGAC is one of the largest infrastructure undertaking of the Government's "Build, Build, Build" infrastructure program.

No less than the CEO of MTD Philippines, Engr. Isaac S. David, the proponent & awardee of the SEA Games Sports Complex, briefed the UC student group on the process, the implementation and the execution of this large-scale infrastructure project.

The Briefing covered the evolution of the Project from the unsolicited proposal; to the negotiations (which involved the Asian Development Bank acting as the BCDA's Technical Advisors); to the actual construction process; up to the completion and eventual turn-over of the finished Project. The Briefing thus provided the UC student group an unprecedented firsthand perspective on the evolution of a complex, concurrent large-scale project; which constitutes a valuable real-world view as to the current state and evolving practices of the design, engineering and construction industry of the country.

At the briefing, Engr. David revealed that the project had engaged up to more than 7,000 workers; hundreds of Independent Design Checkers and Construction Management Consultants; and more than 200 construction and earth moving equipment; --- who and which have been on-site 24/7 since Day 1 (March 2018) of the Project's formal Notice to Proceed. The equipment mobilization alone is "four times the number of construction equipment needed," under the normal course of construction. In addition, MTD Philippines duly introduced the use of precast and prefabricated structures to speed up the construction process, to optimize the labor requirement and to duly raise and update quality assurance procedures. Because of this massive combination of technology and manpower, MTD Philippines said that the sports complex is thus expected to be completed by the end of August this year, at half the time that has been officially allotted for its target date of completion.

The 40-hectare New Clark City Sports Complex features three key structures which the UC student group duly visited: the Athletics Stadium, the Aquatics Center, and the Athletes' Village.

The Athletics Stadium features a 9-lane, 400-meter class I standard track that is currently undergoing certification by the International Association of Athletics Federations (IAAF). The stadium features a 20,000-seating capacity. The tracks were built in full compliance with IAAF and the Olympics Standards and Specifications.

Additionally, as a measure to boost the performance of athletes, the stadium will be equipped with "SmarTracks\*," which is



UC CE/Arch Seniors receive a full-fledged Briefing and a Tour of the Construction Site; courtesy of MTD Philippines CEO Engr. Isaac S. David.

described to be "the first of its kind athletic performance tracking technology." This feature will enable athletes and coaches to automatically record data "in real time" as to team and individual performances. It will thus allow intelligent, efficient monitoring and recording of the athletes' training regimen.

The Aquatics Center will feature an eight-lane training lap pool, a 10-lane Olympic-size competition pool, and a diving pool with a five-meter maximum depth; which are all in compliance to the standards and specifications of the Fédération Internationale de Natation (FINA) or the International Swimming Federation. The FINA is the International Olympic Committee-recognized federation for administering international water sports competitions.

Engr. David emphasized that the precise observation of the stringent standards and specifications set by these international organizations; --- is significantly critical and crucial as even small discrepancies in dimensions or orientations may lead to the suspension of various events.

Finally, the Athletes' Village will duly accommodate the 1,500 athletes and officials who are expected in this year's SEA Games. The Village will feature 525 rooms, gym amenities, kitchen and dining areas, conference rooms, and other recreational facilities necessary in the conduct of the games.

Graduating UC Engineering and Architecture students were awed by the grand scale of the construction. Particularly impressive was the diverse range of the latest engineering technology being applied thereon; as well as the massive manpower deployment in the Project. The students duly appreciated being exposed to the Proponent-MTD's application of various contemporary and advanced construction technology; specially their being given a firsthand view of MTD's exacting & rigorous adherence to international federation sports standards & specifications.

For the UC student group, the Field Trip experience represented invaluable exposure to actual application of specialized global standards & the attendant new construction technology, duly indispensable in a Project that constitutes an updating of the country's National Sports Infrastructure. This, considering that the last major government sports construction was way back in 1934.

That MTD's Project Presentation was reinforced by a physical tour of the actual construction works on the track & field & swimming sites; --- duly allowed the UC student group to witness & see how the Project complied with the exacting International Sports and Athletic standards and specifications that were being executed in "real time" in front of their eyes. To see how Large-Scale Projects are being implemented & executed was & is an incredibly broadening exposure, the UC Seniors raved, beyond the classic textbook & classroom experience.

Senior UC Architecture student Kristin May Ymson said that being briefed by the Project Proponent and duly interacting with industry professionals in a hard hat, had inspired her to learn more and become excited to be part of the industry in the future. Civil Engineering Senior John Rullan added that he learned more about international construction guidelines and procedures by being guided by the actual Project Practitioners in the Project Complex. Rullan said that seeing this large-scale project beyond the walls of the classroom, had amply validated his ambition to aspire to be part of the industry that is available after graduation.

MTD provided UC the opportunity to reinforce school knowledge with real life applications; duly giving to graduating engineering and architecture students priceless insights as to the competencies they must obtain to measure up as future industry practitioners.

**The Construction of the 2019 SEA Games Sports Complex**

- Proponent, Designer & Builder •  
MTD Philippines Engr. Isaac S. David, CEO
- 30th Southeast Asian Games •  
November 30, 2019 to December 10, 2019
- Total Project Cost: P13.0 Billion
- Track & Field Stadium •  
Seating Capacity: 20,000  
9 Lane, 400 meter Class 1 Standard Track  
with SmarTracks\* Athletic Performance Tracking Technology  
Certified by the International Association of Athletics Federations (IAAF)
- Aquatic Center •  
10 Lane Olympic Size Competition Pool  
Diving Pool with Five Meter Diving Depth  
8 Lane Training Lap Pool  
Certified by the Fédération Internationale de Natation (FINA)
- The Athletes' Village •  
1,500 Accommodation  
525 Rooms; Gym; Dining; Kitchen; Recreation Rooms.
- Construction Data •  
7,000 workers  
200+ Independent Design Checkers & Construction Management Consultants  
200+ Construction & Earth Moving Equipment  
Precast & Prefabricated Structures
- Turn-Over of Completed Facilities: on August 30, 2019  
(at half the time officially allotted for the Project Completion)
- 2019 Olympic Standards Upgrading  
of the PH National Sports Infrastructure  
since the 1934 Rizal Memorial Sports Complex

## The Roster of New UC Civil Engineers

|  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | <p>• 66.67% UC Passing Rate •<br/>of First-Time Examinees</p> <p>• 47.37% National Passing Rate •</p> |  |  |  |  |  |  |  |  |  |  |  |