Republic of the Philippines
Department of Education
REGION VIII - EASTERN VISAYAS

August 26, 2021

REGIONAL MEMORANDUM
No. 000493 , s. 2021

REQUEST FOR THE LIST OF DEPED STRUCTURES FOR THE RETROFITTING CONCRETE PETROGRAPHY RESEARCH PROGRAM

To: Schools Division Superintendents
Regional Engineers
Division Engineers

1. Attached herewith is OUA Memo 00-0821-0198 dated 23 August 2021 entitled **Request for the List of DepEd Structures for the Retrofitting Concrete Petrography Research Program.**

2. In relation to this, the Schools Division Superintendents through their respective Division Engineers, are directed to submit the candidate list of DepEd structures for assessment which can either be school buildings or administration offices at the school or division levels deemed to necessitate retrofitting works in the future.

3. The Regional Engineer shall monitor the Schools Division Offices' compliance to this memorandum.

4. The above-mentioned list shall be submitted directly through the email address stated, using the form attached as **Annex A** on or before September 3, 2021.

5. Immediate dissemination of and compliance with this Memorandum are desired.

MA. GEMMA MERCADO LEDESMA
Regional Director

Enclosures: (as stated)
References: OUA Memo 00-0821-0198, *Request for the List of DepEd Structures for the Retrofitting Concrete Petrography Research Program*
To be indicated in the Perpetual Index under the following subjects:

INFRASTRUCTURE BUILDING ASSESSMENT EDUCATION FACILITIES

ESSD-CPV

DEPARTMENT OF EDUCATION RECORDS SECTION REGIONAL OFFICE NO. VIII RECEIVED 4:50 pm By: Date: 8/27/21

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Republika ng Pilipinas

Kagawaran ng Edukasyon

Tanggapan ng Pangalawang Kalihim

OUA MEMO 00-0821-0198
MEMORANDUM
23 August 2021

For: **Regional Directors**
Schools Division Superintendents
Regional Engineers
Division Engineers

Subject: **REQUEST FOR THE LIST OF DEPED STRUCTURES FOR THE RETROFITTING CONCRETE PETROGRAPHY RESEARCH PROGRAM**

Relative to the DOST-GIA research program "Comprehensive Evaluation of Critical Infrastructures and Construction Raw Materials in the Philippines Using Concrete Petrography" which started in March 2019, the third phase of the program entitled "Philippine Comprehensive Nationwide Construction Resources Technical Evaluation (Phil. CONCRETE) has been implemented to assess concrete raw materials and hardened concrete taken from government structures nationwide.

In line with this, the Concrete Petrography Research Program of the National Institute of Geological Sciences, which is comprehensively coordinated with the DPWH-Bureau of Research and Standards and the Commission on Audit, is requesting the list of Department of Education (DepEd) structures that may need rehabilitation and retrofitting measures in various Regional and Division Offices.

DepEd Regional and Division Offices are hereby directed to submit the candidate list of DepEd structures for assessment which can either be school buildings or administration offices at the school, division, or regional levels deemed to necessitate retrofitting works in the future.

Lists should be submitted via email to Engr. Nehru Rainier P. Sarmiento at nehru.sarmiento@deped.gov.ph using the attached form (Annex A) on or before September 3, 2021. The prompt submission will ensure the inclusion of these structures for assessment, together with regional COA facilities and selected DOH and DPWH structures.

Office of the Undersecretary for Administration (OUA)
[Administrative Service (AS), Information and Communications Technology Service (ICTS), Disaster Risk Reduction and Management Service (DRRMS), Bureau of Learner Support Services (BLSS), Baguio Teachers Camp (BTC), Central Security & Safety Office (CSSO)]
Department of Education, Central Office, Meralco Avenue, Pasig City
Rm 519, Mabini Bldg; Mobile: +639260320762; Tel: (+632) 86337203, (+632) 86376207
Email: usec.admin@deped.gov.ph; Facebook/Twitter @depedtayo

For further information on the above subject, please contact Engr. Nehru Rainier P. Sarmiento, Engineer III/Area Manager – NCR and Region IV-A, at 0920 824 1427 and email at the aforementioned address.

For immediate and appropriate action.

ALAIN DEL B. PASCUA
Undersecretary

LIST OF DEPED STRUCTURES NEEDING ASSESSMENT

Region	Division	School ID	Name of School	School Address	Building Number	Building Name (If any)	No. of Storeys/Floors	No. of Rooms	Age of Building (approximate)

Prepared by:

DepEd Engineer
Contact Number:_____

Noted:

Schools Division Superintendent

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August 16, 2021

SEC. LEONOR M. BRIONES
Secretary
Department of Education
DepEd Complex, Meralco Ave.
Pasig City

SUBJECT: Concrete Petrography Research Program: Request for List of DepEd Structures for Retrofitting

Dear **Sec. Briones**:

We would like to thank you for your support to the DOST-GIA funded research program "Comprehensive Evaluation of Critical Infrastructures and Construction Raw Materials in the Philippines using Concrete Petrography," which started last March 2019 and introduces the international testing method of concrete petrography for hardened concrete of lifeline structures and concrete raw materials in the Philippines.

Together with DPWH-Bureau of Research and Standards and Commission on Audit, we are currently implementing the third phase of the research program, with the project titled **"Philippine Comprehensive Nationwide Construction Resources Technical Evaluation (Philippine CoNCReTE)"** which aims to assess concrete raw materials and hardened concrete taken from government structures nationwide. This project is in preparation for the future adoption of concrete petrography as a complementary assessment tool to ensure resilience of lifeline concrete structures in the Philippines.

In connection with this, we would like to request for a list of DepEd structures in different regions that may need assessment for future rehabilitation and retrofitting measures. We would like to include these structures as possible sites of assessment, together with regional COA facilities and selected DOH & DPWH structures.

We are looking forward to your positive response and to a strong and fruitful partnership.

Very truly yours,

CARLO A. ARCILLA, PhD
Project Leader, Implementing Agency
National Institute of Geological Sciences
University of the Philippines,
Diliman, Quezon City

ATTACHMENT:
PROJECT BRIEF

PROGRAM TITLE: Philippine Comprehensive Nationwide Construction Resources Technical Evaluation (Philippine CoNCReTE)
PROJECT LEADER: DR. CARLO A. ARCILLA

RATIONALE:
The quality of concrete, despite being one of the most important building materials used in the Philippines, is currently focused only its physical strength and not so much on durability. To ensure resilience of lifeline structures in the advent of various natural disasters that visit the country annually, concrete petrography assessment (ASTM-C856) is adopted and applied to selected lifeline structures in NCR in the last 3 years through the newly established concrete petrography laboratories at UP-NIGS and DPWH-BRS. Together with detailed assessment of hardened concrete, detailed characterization of construction raw materials was also conducted to explore possible mitigating measures to address various concrete deteriorations that were observed.

The Philippines comprises different geological terranes which gives rise to variability of raw materials in terms of their geological, chemical and physical characteristics. Also, the country is exposed to four types of micro-climatic conditions. These factors mean that concrete conditions are not always the same. The technical milestones generated from NCR structures and raw materials research will be implemented in all regions using the same project design, scientific tools, and protocols.

Capacity building and skills training from experienced petrographers and specialized staff will be needed to operationalize future regional laboratories. Local stakeholders in the regions will also be informed on the potentials of petrography as an effective complementary assessment tool for concrete quality.

OBJECTIVES:
The project aims to implement nationwide assessment and evaluation of concrete taken from government structures and concrete raw materials being used for construction projects in the various regions identified by COA and DPWH.

SPECIFIC OBJECTIVES
1. To conduct concrete petrography assessment on select key government structures in each region
2. To evaluate concrete raw materials being used in construction projects for each region using geologic, chemical, and engineering testing to introduce intervention and address concrete issues
3. To train DPWH regional personnel assigned to the concrete petrography laboratory in sample collection, preparation, analysis, and report writing

TARGET OUTPUTS:
1. Concrete petrography assessments of a total of 105 select key government structures nationwide, with 15 COA Regional complexes assessed
2. Geologic, chemical, and physical evaluation reports of 20 aggregate sources, and 5 additives sources from selected areas nationwide
3. 1 fully functional Concrete Petrography Laboratory with trained personnel at DPWH-BRS
4. 16 regional geologists and engineers of DPWH capacitated to conduct concrete petrography and petrographic characterization of aggregates

TARGET BENEFICIARIES:
1. COA Regional Offices will benefit from the detailed concrete petrography assessment of their facilities, and concrete petrography will be established as an assessment tool for their structures
2. DPWH Regional Offices will benefit from the development of staff and facilities capable of offering concrete petrography and concrete raw materials evaluation
3. Local Construction Industry nationwide will benefit from having the service of concrete petrography available in UP NIGS and DPWH BRS laboratories
4. Local Government Units Engineering Departments will benefit from the trainings and information on the quality of concrete and raw materials being used in public structures
5. Academe will benefit from the new research opportunities on concrete durability and properties of aggregates and additives
6. General Public will benefit from the assurance of safe public structures