



Republic of the Philippines
Department of Education
REGION X
DIVISION OF CAGAYAN DE ORO CITY

DEP ED-DIVISION OF CAGAYAN DE ORO CITY
CAGAYAN DE ORO CITY

RELEASED

DATE: AUG 27 2021

BY: [Signature]

August 27, 2021

DIVISION MEMORANDUM

No. 381 s. 2021

**SCHOOL-BASED DISASTER PREPAREDNESS AND RESPONSE MEASURES FOR TROPICAL
CYCLONES, FLOODING AND OTHER WEATHER-RELATED DISTURBANCES AND
CALAMITIES**

**TO: All Public and Private Elementary and Secondary School Heads
All Public and Private Elementary and Secondary School DRRM Coordinators**

1. Pursuant to the herein attached DepEd Order No. 33 Series of 2021, re: School-Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding and Other Weather-Related Disturbances and Calamities, all schools both public and private are mandated to follow the guidelines articulated in the said DepEd Order.
2. Attached is the copy of the DepEd Order and the guidelines for your reference.
3. For widest dissemination and strict compliance.

[Signature]
ALICIA E. ANGHAY

Asst. Schools Division Superintendent
Officer In-Charge
Office of the Schools Division Superintendent

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Republic of the Philippines
Department of Education

20 AUG 2021

DepEd ORDER
No. **033**, s. 2021

**SCHOOL-BASED DISASTER PREPAREDNESS AND RESPONSE MEASURES FOR
TROPICAL CYCLONES, FLOODING, AND OTHER WEATHER-RELATED
DISTURBANCES AND CALAMITIES**

To: Undersecretaries
Assistant Secretaries
Minister, Basic, Higher, and Technical Education, BARMM
Bureau and Service Directors
Regional Directors
Schools Division Superintendents
Public and Private Elementary and Secondary School Heads
All Others Concerned

1. The Department of Education (DepEd) issues the enclosed **School-Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding, Other Weather-Related Disturbances and Calamities** to guide public schools in preparing for and responding to the impacts of the aforementioned hazards.

2. Further substantiating and updating DepEd Order (DO) No. 83, s. 2011 titled *Disaster Preparedness Measures for Schools* and DO No. 21, s. 2015 titled *Disaster Risk Reduction and Management Coordination and Information Protocol*, the enclosed Guidelines define what must be done by schools in order to safeguard learners, personnel, and educational investments in times of calamities and emergencies, and the measures to be taken by the schools division and regional offices and the central office to enable and support the school-based measures.

3. The enclosures below are used for reference.

- a. Enclosure No. 1 - School-Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding and Other Weather-Related Disturbances and Calamities
- b. Enclosure No. 2 - School-Based Preparedness and Response Measures Checklist for Tropical Cyclones, Flooding and Other Weather-Related Disturbances and Calamities
- c. Enclosure No. 3 - Roles and Responsibilities of DepEd offices for Supporting School-Based Disaster Preparedness and Response Measures
- d. Enclosure No. 4 - Policy Guidelines on Flood Water and School Ground Elevation Marker in Schools



4. This Order shall take effect immediately upon publication in a newspaper of general circulation. This shall be registered with the Office of the National Administrative Register (ONAR) at the University of the Philippines (UP) Law Center, UP Diliman, Quezon City.

5. For more information, please contact the **Disaster Risk Reduction and Management Service**, 2nd Floor, Mabini Building, Department of Education Central Office, DepEd Complex, Meralco Avenue, Pasig City through email at drmo@deped.gov.ph or telefax number (02) 8637-4933.

6. Immediate dissemination of and strict compliance with this Order is directed.


LEONOR MAGTOLIS BRIONES
Secretary

Encls.:

As stated



References:

DepEd Order (Nos. : 83, s. 2011 and 21, s. 2015)

To be indicated in the Perpetual Index
under the following subjects:

CALAMITY
POLICY
SCHOOLS

MCR/SMMA/APA/MPC, DO-School-based Disaster Preparedness....
0127 - April 26, 2021



SCHOOL-BASED DISASTER PREPAREDNESS AND RESPONSE MEASURES FOR TROPICAL CYCLONES, FLOODING, AND OTHER WEATHER-RELATED DISTURBANCES AND CALAMITIES

I. Rationale

1. The Philippines remains highly vulnerable to natural hazards, particularly hydrometeorological ones such as tropical cyclones, weather disturbances, flooding, and storm surges. Based on the DepEd's Enhanced Basic Education Information System (EBEIS) data from school year (SY) 2009-2010 to 2018-2019, 47,188 schools reported to have experienced natural hazards; 39,956 schools experienced tropical cyclones; and 26,221 schools experienced flooding.
2. To address these vulnerabilities, the Department issued DO No. 83 s. 2011 and DO No. 21 s. 2015, which provide guidance on the implementation of disaster preparedness measures and protocols on disaster risk reduction and management coordination, and information management.
3. In recent years, schools had to cope with the impacts of intensifying cyclones and other weather-related disturbances, including secondary hazards such as flooding. This resulted to an increasing number of schools with damaged education investments, hence, the need for the issuance of this policy.
4. With bodies such as the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) and the National Disaster Risk Reduction and Management Council (NDRRMC) and its local counterparts providing forecasts and warnings to the public for these types of hazards, ample preparedness measures that enable prompt and appropriate response must be undertaken. These measures are critical to safeguard learners, personnel, and educational investments; and to support learning and public service continuity in the midst of a disaster or emergency.
5. It is therefore incumbent upon schools, with the support of the various levels of governance and offices of the Department of Education (DepEd), to create, enhance, and maintain mechanisms for anticipating, preparing for, and responding to the impacts of such hazards. The guidelines for **School-Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding, and Other Weather-Related Disturbances and Calamities**, outline the measures that must be taken by the schools and the support provided by the Schools Division Office, Regional Office, and Central Office to enable school-based DRRM measures.

II. Scope

6. The following guidelines shall be observed by **all concerned central, regional, division, and school officials and personnel of public schools, as well as Community Learning Centers** in the case of tropical cyclones, flooding, and other weather-related disturbances and calamities.
7. All concerned are encouraged to involve and engage learners, their families, community stakeholders, and Local School Board, to the extent deemed safe, feasible, and necessary.
8. Private schools are encouraged to refer to these guidelines in setting-up their own DRRM measures.

III. Definition of Terms¹

- a. **Disaster** - a serious disruption of a community or society's functioning due to widespread human, material, economic, or environmental losses, damages, and impacts, which exceeds the ability of the affected community or society to cope using its own resources.
- b. **Disaster Preparedness** - capacities developed by institutions and individuals to effectively anticipate, respond to, and recover from the impacts of likely, imminent, or current hazard events or conditions. This includes setting-up early warning systems, contingency planning, stockpiling of equipment and supplies, creating coordination and communication mechanisms, evacuation protocols, other training and field exercises.
- c. **Disaster Response** - services and assistance during or immediately after a disaster to save lives, reduce health impacts, ensure public safety, and meet the basic subsistence needs of the people affected. This includes disaster relief activities.
- d. **Disaster Risk** - the potential disaster losses in lives, health status, livelihood, assets and services, which could occur to a particular community or a Society over some specified future time period.

¹ Taken from the Definition of Terms from RA 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010

- e. **Disaster Risk Reduction** - the concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposures to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.
- f. **Disaster Risk Reduction and Management** - the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities to lessen the adverse impacts of hazards and the possibility of disaster.
- g. **Emergency** – unforeseen or sudden occurrence, especially danger, demanding immediate action.
- h. **Field Offices** – are the regions, divisions, schools, and learning centers where the policy and principle of the governance of basic education shall be translated into programs, projects, and services.
- i. **Hazard** – a dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihood and services, social and economic disruption, or environmental damage.
- j. **School** - refers to any structure or space, with or without marked visible boundaries, which is either recognized by the government or known by the community as a learning space for children.²

IV. Policy Statement

- 9. In accordance with DepEd Order No. 37, s. 2015 (The Comprehensive Disaster Risk Reduction and Management in Education Framework), the Department issues the School-Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding, and Other Weather-Related Disturbances and Calamities to protect learners and personnel from death, injury, and harm; ensure learning continuity in the aftermath of a disaster; and protect education investments from the impacts of natural hazards. This contributes to the achievement of the Department's goal of ensuring the safety and resilience of learners and personnel in light of the risks and impacts of disasters and emergencies.
- 10. Recognizing the value of School-based Management in DRRM, the primary responsibility of undertaking disaster preparedness measures rests upon the schools. Nevertheless, schools are encouraged to seek

² From RA 11188 (*Special Protection of Children in Situations of Armed Conflict Act*)

assistance from their respective local governments in order to effectively implement such disaster preparedness measures. Moreover, response measures shall remain to be shared responsibilities of the schools, and of the Central, Regional, and Schools Division Offices.

11. Parallel processes and structures shall therefore be strengthened across all levels of the Department to support and enable schools to implement and localize appropriate disaster preparedness and response measures for tropical cyclones, flooding, and other weather-related disturbances and calamities.

V. Guidelines on School-based Disaster Preparedness and Response Measures

School Heads, School DRRM Coordinators, and School DRRM Teams

12. The School Head shall be primarily responsible for the planning, implementation, and monitoring of school-based disaster preparedness measures. As such, accountability for impacts and damages to school facilities and resources due to negligence and/or non-compliance to disaster preparedness measures shall rest upon the School Head. Performance reports on DRRM shall be included in the School Head's permanent records.
13. To support the School Head, a **School DRRM (SDRRM) Coordinator** shall be designated in each school. As an update to Department Order No. 21, s. 2015 or the *Disaster Risk Reduction and Management Coordination and Information Protocol*, the SDRRM Coordinator shall be different from the School Head to allow for dedicated personnel to handle DRRM. Each School Head shall designate, from the pool of permanent school personnel, one (1) teaching or non-teaching staff to serve as the SDRRM Coordinator. Whenever feasible, the SDRRM Coordinator should be a non-teaching personnel. This is to ensure that teachers are spared from doing non-teaching related work. School personnel who satisfy the given minimum criteria shall be prioritized:
 - a. Has completed trainings on DRRM, Climate Change Adaptation and Mitigation, Education-in-Emergencies, and Basic Life Support preferably sponsored by DepEd, government agencies, and/or DepEd partner organizations;
 - b. Computer and internet literate;
 - c. School is readily accessible from place of residence in times of disasters or emergencies;
 - d. Is physically fit;
 - e. Able to form and sustain linkages with community stakeholders and local authorities; and

- f. Able to discharge duties as SDRRM Coordinator for at least three (3) consecutive school years, in consideration of service continuity and maximizing the benefits from trainings provided.
14. In cases of temporary incapacity of the SDRRM Coordinator, an alternate SDRRM Coordinator shall be designated by the School Head to ensure the continued implementation of school DRRM measures. Whenever feasible, the alternate SDRRM should be a non-teaching personnel. This is to ensure that teachers are spared from doing non-teaching related work.
15. Recognizing that collaborative efforts are critical in times of disasters and emergencies, all are reminded that Department Order No. 21, s. 2015 directs the constitution of a **School DRRM Team** to lead the implementation of preparedness and response measures. In cognizance of the differing contexts, needs, and capacities, School Heads shall exercise prerogative and flexibility in constituting their respective SDRRM Teams. However, schools are encouraged to engage learners, their families, and community stakeholders in their SDRRM Team to the extent deemed safe, feasible, and necessary.
16. In view of emergency response services rendered by School DRRM Teams in times of calamities and emergencies, concerned personnel may be granted vacation service credits for teaching personnel or compensatory time off for non-teaching personnel, in lieu of overtime pay, subject to the provisions of DepEd Order No. 53, s. 2003 (*Updated Guidelines on Grant of Vacation Service Credits to Teachers*), which grants teaching personnel credits for services rendered during periods of calamity and rehabilitation when schools are used as evacuation centers; DepEd Order No. 30, s. 2016 (*Guidelines on the Rendition and Payment of Overtime Services for DepEd Non-Teaching Personnel*) which allows for the rendition of overtime services for relief, rehabilitation, reconstruction, and other related work or services during calamities and disasters by non-teaching personnel; and other relevant policies, in accordance to the guidelines set by the Civil Service Commission and the Department of Budget and Management (DBM), and DBM Budget Circular No. 2 series of 2015.

Flood Water and School Ground Elevation Markers

17. To aid in prevention and mitigation, and preparedness and response measures, and the overall and long-term planning for school site development, schools shall erect a **Flood Water and School Ground Elevation Marker** in a conspicuous site inside the campus which indicates the critical levels of flooding based on prevailing LDRRMC guidelines, and the highest level of flooding documented in the area. If schools do not have yet the capacity to erect Flood Water and School

Ground Elevation Marker, it is suggested that this shall be coordinated with LGU or other external stakeholders.

18. Specific guidelines for the Flood Water and School Ground Elevation Markers are contained in Enclosure No. 4 to this Department Order.

School-based Disaster Preparedness Measures

19. Schools Heads, with the support of their SDRRM Coordinators and Teams, shall undertake minimum measures for disaster preparedness. Such measures must recognize and be responsive to the local setting and context, and the needs of various learners including those with disabilities.
20. The following minimum assessment, planning, and capacity building measures shall be undertaken to **prepare for and build capacities for disaster response**:
 - a. Ensure the availability of updated baseline education data of the school;
 - b. Use the second or higher floors of multi-story school buildings for laboratory, computer, and TechVoc rooms and equipment. School records, documents, equipment, and learning materials should also be stored in rooms located in these floors and secured in water-proof containers/packaging. In cases when schools have no multi-story structures, coordinate with the LGU to utilize available government structures; such structures should have been pre-identified beforehand;
 - c. Remove structures or items (e.g., garden or landscape decorations, school ground furniture) that may obstruct the movement of learners and personnel from the classrooms towards the open school grounds, pre-identified evacuation areas, and entrance/exits;
 - d. Prune/trim trees that may cause harm to people or damage structures or properties in the event of any weather disturbances;
 - e. Regularly clean and clear all drainage systems;
 - f. Conduct an annual risk assessment through the Student-Led Watching and Hazard Mapping prior to the development of the School Improvement Plan (SIP), guided by Department Order No. 23, s. 2015, and address identified hazards in coordination with concerned DepEd offices, the LGU, and community stakeholders;
 - g. Coordinate with the local DRRM council to harmonize and align DRRM measures;

- h. Create and/or update the school DRRM Contingency Plan, which must include a Student-Family Reunification Plan. The Contingency Plan can be a section of a school DRRM Plan which contains a Prevention and Mitigation Plan;
- i. Integrate DRRM in regular school programs and activities and in the School Improvement Plan (SIP);
- j. Pre-identify possible locations for Temporary Learning Spaces (TLS), and alternative delivery modes of education;
- k. Establish and operate an Early Warning System (e.g., bulletin board for weather advisories, bell/siren emergency signal, mobile or web-based warning system);
- l. Maintain, disseminate, and post relevant and updated emergency hotlines, and disaster measures and plans in strategic locations throughout the school;
- m. In coordination with the DRRM coordinator of Schools Division Office and community stakeholders, make available emergency response equipment and supplies;
- n. Conduct quarterly multi-hazard drills applicable to the school's identified hazards. Involve the LGU, parents/guardians, partners, and other stakeholders in the conduct of the drills; and
- o. Conduct capacity building activities, including but not limited to basic life support and use of the emergency and response equipment and coordination mechanisms, involving learners, personnel, and community stakeholders.

21. **Immediate preparedness for response measures** shall be undertaken in case: (a) a Pre-Disaster Risk Assessment initiated by relevant authorities (e.g., NDRRMC, PAGASA, LGUs) calls for preparedness actions; (b) a Yellow Warning Rainfall Advisory is raised; (c) or a General Flood Advisory is issued as a result of weather-related disturbances (e.g., tropical cyclones, low pressure areas, intertropical convergence zone, tail end of a frontal system). Schools Division DRRM Coordinators shall ensure that such advisories are disseminated to concerned schools by conducting the following:

- a. Activate warning systems to disseminate advisories to learners and personnel;
- b. Coordinate with the LGU, using existing guidelines, on the cancellation or suspension of classes and work;

- c. Take necessary steps to secure weak parts of school buildings against heavy rain, flooding, and strong winds including school signs, elevated water tanks, and flagpoles. Single-level schools built at ground level may be anchored by guy wires to strengthen the stability of the structure;
- d. Prune/trim trees that may cause harm to people or damage structures or properties in the event of any weather disturbances;
- e. Clean and clear all drainage systems;
- f. Switch off electrical lines; and
- g. Safeguard (e.g., place inside containers to protect against water) and transfer education resources and vital records in the pre-identified storage area.

22. The **use of schools as evacuation centers** for families and individuals affected by disasters shall continue to be guided by RA No. 10821 entitled “Children’s Emergency Relief and Protection Act”, which stipulates in Section 4 that *LGUs “shall establish and identify safe locations as evacuation centers for children and families”*, and in Section 5 that *“only in cases where there is no other available place or structure which can be used as a general evacuation center may a school or child development center be used as an evacuation center.”* Thus, should their respective LGUs request for the use of their school premises, as evacuation centers, school heads are reminded of the following terms specified in RA 10821:

- a. LGUs shall coordinate with the School Heads and respective Schools Division Superintendents before schools may be used as temporary evacuation centers. A Memorandum of Agreement shall be executed between the LGU and the school to be used as temporary evacuation center.
- b. Should the school be used, the LGU shall coordinate with the School Head and ensure that gymnasiums, learning and activity centers, auditoriums and other open spaces shall be utilized first; classrooms shall only be used as a last resort.
- c. The use of school premises shall be as brief as possible. It shall only be up to three (3) days for short-term displacement, fifteen days for medium and long-term displacement, or until such time that the respective LGUs are able to establish alternative transitional sites.
- d. If the use is predicted to exceed fifteen days, the affected LGU shall provide written documentation to the DepEd and the

Department of the Interior and Local Government (DILG) on the following:

- i. The name and location of the school;
- ii. All alternative evacuation centers, transitional relocation sites, and/or permanent relocation sites for final site selection;
- iii. Measures being implemented to prevent interference or disruption to the school and educational activities of children; and
- iv. Timeline for the relocation of and plan of action for internally displaced persons to sites outside of schools.

23. Per the Implementing Rules and Regulation (IRR) of the Republic Act 10821 or the Children's Emergency Relief and Protection Act of 2016 Rule 5 Section 4, LGUs are responsible for facilitating general cleaning, fumigation, payment of utilities, and repair of schools used as evacuation centers. Damages incurred by schools used as evacuation centers shall be immediately reported by their respective School Heads to the LGU for appropriate action. Repairs and/or replacement of damaged facilities and materials of damages to schools used as evacuation centers shall be immediately undertaken to ensure the safety and well-being of internally displaced persons. Such repairs and replacement shall be monitored by the School Head and Schools Division Superintendent in coordination with the LGU. LGUs shall also provide clean-up kits. Furthermore, IRR of RA 10821 stipulates that the LGU shall execute a Memorandum of Agreement (MOA) with schools when the latter are intended to be used as evacuation centers.

Meanwhile, the DepEd shall ensure the following:

- a. School personnel shall focus on providing education services, particularly education continuity for children in affected communities; they shall not be assigned as camp managers.
- b. The Regional or Division Office of DepEd, led by the Engineer and the DRRM Coordinator, assisted by DPWH, the Local Engineering Office, and the Bureau of Fire Protections shall conduct regular site inspection of public schools to ensure the stability of the structure for the safety of the children and their environment. A report on the inspection shall be submitted to the Secretary of DepEd, copy furnished the Local Chief Executive, for the purpose of repair of the damaged school being used as an evacuation center.
- c. The necessary adjustments shall be made in times of public health emergencies to align with existing public health protocols.

School-based Disaster Response Measures

24. Schools Heads, with the support of their SDRRM Coordinators and Teams, shall continue to be guided by their activated School Contingency Plan. Disaster response measures provided herein shall likewise be undertaken. Performance of duties shall be balanced at all times with ensuring one's own personal safety and security.
25. The following timetable and response measures shall serve as a guide and may be adjusted based on prevailing contexts and conditions. The necessary changes shall likewise be made in times of public health emergencies to align with existing public health protocols.
26. Within **24 hours** from the receipt of notice from the Division DRRM Coordinator or local authorities (e.g., LGU, LDRRMC) of advisories on the weather disturbance (please see Sec. VII, Para 23), coordinate with the Division DRRM Coordinator on the status of preparedness and/or response measures, and updates on the impacts of the hazard (e.g., suspension of classes and work, the use of the school as an evacuation center, impacts to learners and personnel).
27. Within **24 to 72 hours** from landfall of a tropical cyclone, or from flooding and/or landslide from any weather disturbance other than tropical cyclones:
 - a. If safe, undertake a rapid assessment of the impacts and damages from the hazard. Submit the Rapid Assessment of Damages Report (RADaR), guided by DepEd Order No. 21, s. 2015. This includes the assessment of damages to school facilities, educational resources, and impacts to learners and personnel;
 - b. Continue to disseminate advisories and/or warnings from authorities;
 - c. Continue the submission of reports and updates to the Division DRRM Coordinator; and
 - d. Deploy response and learning continuity interventions, in coordination with the Schools Division Office and other community stakeholders and partners.
 - e. **After 72 hours and onwards** from landfall of a tropical cyclone, or from flooding and/or landslide from any weather disturbance other than tropical cyclones, continue to implement response and learning continuity interventions, including the conduct of Psychological First Aid for affected learners and personnel. Continue coordination and the submission of reports and updates to the Division DRRM Coordinator, including submission of RADaR.

Support Mechanisms for School-Based Disaster Preparedness and Response Measures

28. The Central, Regional, and Schools Division Office shall provide the needed support, listed in Enclosure 3 of this Department Order, to enable the timely, coordinated, efficient, and effective delivery of school-based disaster preparedness and response measures.
29. The primary responsibility for which rests upon the respective Heads of Office at each level of governance: the Secretary, or his/her designated Undersecretary handling DRRM, at the Central Office, the Regional Director at the Regional Office, and the Schools Division Superintendent at the Schools Division Office.
30. Heads of Offices shall be supported by the Disaster Risk Reduction and Management Service (DRRMS) at the Central Office, the Regional DRRM Coordinator at the Regional Office, and the Division DRRM Coordinator at the Schools Division Office.
31. Department Order No. 21, s. 2015 likewise directs the Regional and Schools Division Office to organize their own DRRM Teams to lead the implementation of well-coordinated DRRM measures. The Regional Directors and Schools Division Superintendents shall exercise prerogative and flexibility in constituting their respective DRRM Teams, with due consideration to the following:
 - a. Membership and functions DRRM Teams shall be parallel to the Central Office DRRM Team established through Department Order No. 44, s. 2018;
 - b. Regional DRRM Teams shall consider the structures and mechanisms of their Division DRRM Teams; and
 - c. Division DRRM Teams shall consider the structures and mechanisms of their School DRRM Teams.
32. DRRM Operations of the Central, Regional, and Schools Division Offices shall remain guided by Department Order No. 21, s. 2015; and *Enclosure No. 3* to this Department Order.
33. In view of emergency response services rendered by School DRRM Teams in times of calamities and emergencies, concerned personnel may be granted vacation service credits for teaching personnel or compensatory time off for non-teaching personnel, in lieu of overtime pay, subject to the provisions of DepEd Order No. 53, s. 2003 (*Updated Guidelines on Grant of Vacation Service Credits to Teachers*) which grants teaching personnel credits for services rendered during periods of calamity and rehabilitation when schools are used as evacuation centers; or DepEd Order No. 30, s. 2016 (*Guidelines on*

the Rendition and Payment of Overtime Services for DepEd Non-Teaching Personnel) which allows for the rendition of overtime services for relief, rehabilitation, reconstruction, and other related work or services during calamities and disasters by non-teaching personnel; and other relevant policies, in accordance to the guidelines set by the Civil Service Commission and the Department of Budget and Management, and DBM Budget Circular No. 2 series of 2015.

VI. Monitoring and Evaluation

34. The Disaster Risk Reduction and Management Service shall continue leading the implementation of monitoring, evaluation, and reporting of disaster preparedness and response measures at the national level. Relative to this Order, it shall establish appropriate systems and mechanisms engaging DRRM Coordinators across all governance levels.

VIII. Effectivity/Transitory Provision

35. Department Order No. 83, s. 2011 in its entirety is hereby repealed while portions of Section IV.B.1 of Department Order No. 21, s. 2015 that are inconsistent with this Order are amended accordingly.
36. This Order shall take effect immediately after its publication on the DepEd website as well as filing with the Office of the National Administrative Register (ONAR) at the University of the Philippines (UP) Law Center, UP Diliman, Quezon City

VII. References

Department Order No. 83, s. 2011 (*Disaster Preparedness Measures for Schools*)

Department Order No. 21, s. 2015 (*Disaster Risk Reduction and Management Coordination and Information Protocol*)

Department Order No. 23, s. 2015 (*Student-Led School Watching and Hazard Mapping*)

DepEd Order No. 30, s. 2016 (*Guidelines on the Rendition and Payment of Overtime Services for DepEd Non-Teaching Personnel*)

Department Order No. 44, s. 2018 (*Formation of the Department of Education Disaster Risk Reduction and Management Team in the Central Office*)

RA 10821 (*Children's Emergency Relief and Protection Act*)

RA 11188 (*Special Protection of Children in Situations of Armed Conflict Act*)

DepEd Order No. 53, s. 2003 (*Updated Guidelines on Grant of Vacation Service Credits to Teachers*)

Enclosure No. 2 to DepEd Order No. 033, s. 2021

**SCHOOL-BASED PREPAREDNESS AND RESPONSE MEASURES CHECKLIST
FOR TROPICAL CYCLONES, FLOODING, AND OTHER WEATHER-RELATED
DISTURBANCES AND CALAMITIES**

Preparedness in Normal Times

Even in the absence of pre-disaster advisories and warning signs, capacities to prepare for disaster response must be established and strengthened. As such, the following minimum assessment, planning, and capacity building measures shall be undertaken in normal times:

- ☐ Ensure the availability of updated baseline education data of the school;
- ☐ When possible, use the second or higher floors of multi-story school buildings for laboratory, computer, and TechVoc rooms and equipment. School records, documents, equipment, and learning materials should also be stored in rooms located in these floors and secured in water-proof containers/packaging. In cases when schools have no multi-story structures, pre-arrange with the LGU the use of available multi-story government structures which can house these resources in times of disasters;
- ☐ Remove structures or items (e.g. garden or landscape decorations, school ground furniture) that may obstruct the movement of learners and personnel from the classrooms towards the open school grounds, pre-identified evacuation areas, and entrance/exits;
- ☐ Prune/trim trees that may cause harm to people or damage structures or properties in the event of any weather disturbances;
- ☐ Regularly clean and clear all drainage systems;
- ☐ Conduct an annual risk assessment through the Student-Led Watching and Hazard Mapping prior to the development of the School Improvement Plan (SIP), guided by Department Order No. 23, s. 2015, and address identified hazards in coordination with concerned DepEd offices, the LGU, and community stakeholders;
- ☐ Coordinate with the local DRRM council to harmonize and align DRRM measures;
- ☐ Create and/or update the school DRRM Contingency Plan. The Contingency Plan should include a Student-Family Reunification Plan. The Contingency Plan can be a section of a school DRRM Plan which contains a Prevention and Mitigation Plan;
- ☐ Integrate DRRM in regular school programs and activities and in the School Improvement Plan (SIP);

- ☐ Pre-identify possible locations for Temporary Learning Spaces (TLS), and alternative delivery modes of education;
- ☐ Establish and operate an Early Warning System (e.g. bulletin board for weather advisories, bell/siren emergency signal, mobile or web-based warning system);
- ☐ Maintain, disseminate, and post relevant and updated emergency hotlines, and disaster measures and plans in strategic locations throughout the school;
- ☐ In coordination with concerned DepEd offices and community stakeholders, make available emergency response equipment and supplies;
- ☐ Conduct quarterly multi-hazard drills applicable to the school's identified hazards. Involve the LGU, parents/guardians, partners and other stakeholders in the conduct of the drills; and
- ☐ Conduct capacity building activities, including but not limited to basic life support and use of the emergency and response equipment and coordination mechanisms, involving learners, personnel, and community stakeholders.

Preparedness for Response Measures

The following measures must be undertaken in case: (a) a Pre-Disaster Risk Assessment initiated by relevant authorities (e.g. NDRRMC, PAGASA, LGUs) calls for preparedness actions; (b) a Yellow Warning Rainfall Advisory is raised; (c) or a General Flood Advisory is issued as a result of weather-related disturbances (e.g. tropical cyclones, low pressure areas, intertropical convergence zone, tail end of a frontal system):

- ☐ Activate warning systems to disseminate advisories to learners and personnel
- ☐ Coordinate with the LGU, using existing guidelines, on the cancellation or suspension of classes and work
- ☐ Take necessary steps to secure weak parts of school buildings against heavy rain and strong winds. Single-level schools built at ground level may be anchored by guy wires to strengthen the stability of the structure
- ☐ Prune/trim trees that may cause harm to people or damage structures or properties in the event of any weather disturbances
- ☐ Clean and clear all drainage systems
- ☐ Switch off electrical lines
- ☐ Safeguard (e.g. place inside containers to protect against water) and transfer education resources and vital records in the pre-identified storage area

Response Measures

Within **24 hours from the receipt of notice** from the Division DRRM Coordinator or local authorities (e.g. LGU, LDRRMC) of advisories on the weather disturbance, coordinate with the Division DRRM Coordinator on the:

- ☐ Status of preparedness and/or response measures
- ☐ Updates on the impacts of the hazard (e.g. suspension of classes and work, the use of the school as an evacuation center, impacts to learners and personnel)

Within **24 to 72 hours from landfall** of a tropical cyclone, or from **flooding** and/or **landslide** from any weather disturbance other than tropical cyclones:

- ☐ If safe, undertake a rapid assessment of the impacts and damages from the hazard. Submit the Rapid Assessment of Damages Report (RADaR), guided by DepEd Order No. 21, s. 2015. This includes the assessment of damages to school facilities, educational resources, and impacts to learners and personnel
- ☐ Continue to disseminate advisories and/or warnings from authorities
- ☐ Continue the submission of reports and updates to the Division DRRM Coordinator
- ☐ Deploy response and learning continuity interventions, in coordination with the Schools Division Office and other community stakeholders and partners

After 72 hours and onwards from landfall of a tropical cyclone, or from flooding and/or landslide from any weather disturbance other than tropical cyclones:

- ☐ Continue to implement response and learning continuity interventions, including the conduct of Psychological First Aid for affected learners and personnel
- ☐ Continue coordination and the submission of reports and updates to the Division DRRM Coordinator, including submission of RADaR

Roles and Responsibilities of DepEd Offices for Supporting School-Based Disaster Preparedness and Response Measures

A. Immediate Preparedness for Response Measures

Preparedness for Response is done to enable the prompt and effective implementation of response interventions.

Timeline	Central Office	Regional Office	Schools Division Office
Upon completion of Pre-Disaster Risk Assessment, or issuance of either a Yellow Warning Rainfall Advisory, a General Flood Advisory, or any similar advisory	<i>The DRRMS, Regional DRRM Coordinators, and Schools Division DRRM Coordinators shall attend Pre-Disaster Risk Assessments convened at the National, Regional, and Provincial/ City-level respectively</i>		
	Disseminate NDRRMC Pre-Disaster Risk Assessment (PDRA) results, as necessary.	Disseminate PDRA results conducted by RDRRMC and/ or DRRMS, as necessary.	Disseminate PDRA results conducted by LDRRMC and/or Regional Office, as necessary.
	Disseminate advisories from warning agencies (<i>DOST-PAGASA, PHIVOLCS, DILG, DENR-MGB, and NDRRMC</i>). Reiterate of school-based preparedness measures, class and work suspensions and other measures through email and social media platforms.	Disseminate advisories from central office and or RDRRMC to respective Divisions.	Disseminate advisories from Regional Office and or LDRRMC to respective Schools. Coordinate localized class and work suspension with LGU as a preemptive measure.
	Convene Regional DRRM Coordinators of exposed and affected regions for preparedness for response meeting/s.	Convene Division DRRM Coordinators for preparedness for response meeting/s.	Convene School DRRM Coordinators for preparedness for response meeting/s.
	Convene the Education Cluster and other partners for preparedness for response meeting/s as necessary.	Convene partners in the Regional level for preparedness for response meeting/s as necessary.	Convene partners in the Division level for preparedness for response meeting/s as necessary.

	Activate the Quick Response and Recovery Team in the Central Office, as necessary.	Activate the Regional DRRM Team, as necessary.	Activate the Division DRRM Team, as necessary.
	Prepare baseline data for affected areas.		
	Standby funds and resources for response interventions.		
	Provide notice to Regional Offices to prepare for the deployment of response and learning continuity resources prepositioned in regional DepEd warehouses.	Prepare for the deployment of response and learning continuity resources prepositioned in regional DepEd warehouses.	
	Preposition assistance from Education Cluster Partners in exposed and affected Regions.		
	Standby DRRMS Staff for 24/7 NDRRMC Operation Center/Virtual Duty.		

B. Response Measures

Response is undertaken immediately after the onslaught of the disaster to save lives, minimize the impacts of secondary hazards, and ensure safety and learning continuity.

Timeline	Central Office	Regional Office	Schools Division Office
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0 to 24 hours from entry to PAR <i>(for Tropical Cyclones)</i> ; or from issuance of a Yellow Warning Rainfall Advisory or General Flood Advisory <i>(for weather disturbances other than Tropical Cyclones)</i>	Activate DepEd Response Operations Protocol: - Deployment of Online Monitoring Sheet - Coordination with affected regions & divisions - Monitoring and data gathering - Preparation and submission of Situation Reports (SitReps) and Education Cluster Reports (ECRs) - Coordination with Response Cluster members	Consolidate into a regional level report the submitted reports of Division DRRM Coordinators on the following: - Class Suspension & Resumption - Schools Used as ECs and decampment - Other related incidents (e.g. flooding, landslides, fatalities/injuries)	Consolidate and submit to Regional Office and DRRMS the following reports: - Class Suspension & Resumption - Schools Used as ECs and decampment - Other related incidents (e.g. flooding, landslides, fatalities/injuries)
	Render 24/7 NDRRMC Operations Center (OpCen) and/or Virtual Coordinating Center (VCC) Duty upon activation of Red Alert.	Render OpCen and/or VCC duty upon activation of RDRRMC.	Render OpCen and/or VCC duty upon activation of LDRRMC.
	Attend Response NDRRMC Cluster Meetings.	Attend Response RDRRMC Cluster Meeting.	Attend to LDRRMC Response Cluster Meetings.
	Track whereabouts of key officials of the Central Office.	Track whereabouts of key officials of the Region.	Track whereabouts of key officials of the Division.
24 to 48 hours from landfall <i>(for Tropical Cyclones)</i> ; or from flooding and/or landslide <i>(for</i>	Activate Rapid Assessment of Damages Report (RADaR).	Reiterate submission of RADaR.	Reiterate submission of RADaR.
	Convene Quick Response and Recovery Team (QRRT).	Convene DRRM Team at the Regional Level.	Convene DRRM Team at the Division Level.
	Continue dissemination of advisories from warning agencies and NDRRMC to DepEd EXECOM, MANCOM, partners, and affected field offices.	Continue dissemination of advisories from warning agencies and RDRRMC to regional office personnel and divisions.	Continue dissemination of advisories from warning agencies and LDRRMC to division office personnel and schools.

<i>weather disturbances other than Tropical Cyclones)</i>	Continue the following: a. Coordination with affected regions & divisions b. Monitoring and data gathering c. Preparation and submission of SitReps and ECRs d. Coordination with Response Cluster members	Continue to consolidate into a regional level report the submitted reports of Division DRRM Coordinators on the ff: a. Class Suspension & Resumption b. Schools Used as ECs and decampment c. Other related incidents (e.g. flooding, landslides, fatalities/injuries)	Continue consolidation and submission of the ff: reports to Regional Office and DRRMS: a. Class Suspension & Resumption b. Schools Used as ECs and decampment c. Other related incidents (e.g. flooding, landslides, fatalities/injuries)
	Call for Education Cluster meeting.	Call for partners' meeting at the Regional Level.	Call for partners' meeting at the Division Level.
48 to 72 hours from landfall (<i>for Tropical Cyclones</i>); or from the flooding and/or landslide (<i>for weather disturbances other than Tropical Cyclones</i>)	Consolidate and provide RADaR to regional and division coordinators for vetting.	Ensure the immediate validation and vetting of the consolidated RADaR of SDOs.	Reiterate submission of RADaR. Validate and submit to DRRMS the vetted consolidated RADaR.
	Reiterate submission of RADaR to regions and divisions with low percentage of submission and/or Certificate of No Damage.	Reiterate submission of RADaR to divisions with low percentage of submission and/or Certificate of No Damage.	Reiterate submission of RADaR to schools without submission.
	Prepare necessary documents and resources for deployment of Central Office response and learning continuity interventions, in coordination with Education Cluster Partners and other partners.	Begin deployment of Regional Office-generated resources for response and learning continuity interventions, in coordination with regional partners.	Begin deployment of Schools Division Office-generated resources for response and learning continuity interventions, in coordination with division partners.
	Oversee the deployment of response	Begin deployment of response and	Coordinate with the Regional Office for

	and learning continuity resources prepositioned in regional DepEd warehouses.	learning continuity resources prepositioned in regional DepEd warehouses.	the deployment of response and learning continuity resources prepositioned in regional DepEd warehouses.
	DRRMS to coordinate with External Partnership Service (EPS) for the in-kind donations.		
	Monitor cash donations from DepEd field offices.	Consolidate into a regional-level report the summary of submitted deposit slips from divisions and submit to DRRMS.	Submit deposit slip of cash donations to region and DRRMS.
	DRRMS to continue dissemination of advisories from warning agencies and NDRRMC to DepEd EXECOM, MANCOM, partners, and affected field offices.	Regional DRRM Team to continue dissemination of advisories from warning agencies and RDRRMC to regional office personnel and divisions.	Division DRRM Team to continue dissemination of advisories from warning agencies and LDRRMC to division office personnel and schools.
	Continue the following: a. Coordination with affected regions & divisions b. Monitoring and data gathering c. Preparation and submission of SitReps and ECRs d. Coordination with Response Cluster members	Continue to consolidate into a regional level report the submitted reports of Division DRRM Coordinators on the following: a. Class Suspension & Resumption b. Schools Used as ECs and decampment c. Other related incidents (e.g. flooding, landslides, fatalities/injuries)	Continue consolidation and submission of the following reports to Regional Office and DRRMS: a. Class Suspension & Resumption b. Schools Used as ECs and decampment c. Other related incidents (e.g. flooding, landslides, fatalities/injuries)
72 hours and		Continue deployment of Regional Office-generated resources for response	Continue deployment of Schools Division Office-generated resources for

onwards from landfall <i>(for Tropical Cyclones)</i> ; or after the flooding and/or landslide <i>(for weather disturbances other than Tropical Cyclones)</i>		and learning continuity interventions, in coordination with regional partners.	response and learning continuity interventions, in coordination with regional partners.
	Deploy response and learning continuity interventions, in coordination with partners.	Implement response and learning continuity interventions using Central Office resources.	Implement response and learning continuity interventions using Central Office resources.
	DRRMS to transmit the vetted RADaR to Education Facilities Division, Bureau of Learning Resources, and Information and Communication Technology Service (ICTS) to mobilize immediate response interventions.		
	Continue the following: a. Coordination with affected regions & divisions b. Monitoring and data gathering c. Preparation and submission of SitReps and ECRs d. Coordination with Response Cluster members	Continue to consolidate into a regional level report the submitted reports of Division DRRM Coordinators on the following: a. Class Suspension & Resumption b. Schools Used as ECs and decampment c. Other related incidents (e.g. flooding, landslides, fatalities/injuries)	Continue consolidation and submission of the following reports to Regional Office and DRRMS: a. Class Suspension & Resumption b. Schools Used as ECs and decampment c. Other related incidents (e.g. flooding, landslides, fatalities/injuries)
	Conduct Field Visits for immediate assessment as needed.	Participate in school visits for immediate assessment.	Participate in school visits for immediate assessment.

POLICY GUIDELINES ON FLOOD WATER AND SCHOOL GROUND ELEVATION MARKER IN SCHOOLS

I. Background

Schools are highly vulnerable to a wide array of disasters, particularly ones related to tropical cyclones, floods, and other hydrometeorological hazards. Tropical cyclones and other weather disturbances (e.g. tropical cyclones, low pressure areas, intertropical convergence zone, tail end of a frontal system) are often accompanied by heavy rains that cause secondary hazards like floods and soil erosion greatly affects learners, personnel, and to the school ground itself.

With the worsening impacts of climate change, flooding incidents pose greater threats especially to low lying areas. Coastal areas also experience heavy flooding because of sea water rise; areas near rivers or streams experience overflowing when heavy rains come; and cities or urban areas which have less trees and more grounds which have been developed and concretized have less ground absorption capacity thus increasing risks of flooding.

Prevention and mitigation measures that incorporate the risks of flooding must therefore be strengthened. The historical data on flooding should be considered in proper planning, including in the design and construction of school buildings and facilities to mitigate the risk brought by flood water.

Flood water and school ground markers will help DepEd, LGUs, and stakeholders determine the kind of facilities that would be appropriate especially in terms of floor elevation to avoid water flooding classrooms. Proper orientation of the school building may also be properly planned with the use of the flood markers to know the exit ways of the flood water through gravity flow where lower elevation of the school site might be used as flood water exit points. These would also serve as useful guides to overall community development.

These markers would also guide the school in safeguarding learning resources such as teaching and learning materials, computers, furniture, and even in determining the best and safest location of laboratories and libraries.

II. Technical Specification

A. Flood Marker Footing and Pedestal

1. Concrete footing size will be 800mm x 800mm with 16 mm reinforcing steel bars @ 0.20m on center both ways.
2. Concrete pedestal will be 300mm x 300mm x 400mm with 16 mm reinforcing steel bars

3. Reinforcing bars for concrete exposed to weather shall be protected with at least 75mm clear distance and in no case less 40mm concrete. This condition may be waived when adequate waterproofing is provided.
4. Reinforcing bars shall be deformed conforming to ASTM A615 billet steel as follows: i. 16mm ϕ bars and larger shall be high grade with minimum $F_y = 414\text{MPA}$ (6000PSI). ii. 12mm ϕ bars and smaller shall be an intermediate grade with minimum $F_y = 276\text{MPA}$ (40000PSI). 2 if bending and welding are important, deformed bar shall conform to ASTM A706 low alloy grade 414 steel bar.
5. All concrete works shall be done in accordance ACI-318-95 building code for reinforced concrete and all structural steel works shall be done in accordance with the AISC specifications as it does not conflict with the National Structural Code of the Philippines (NSCP – 1) requirements.
6. At the lower bottom of the flood marker should be put the elevation of the ground above sea level where the flood marker constructed

B. Flood Marker

1. Reinforced concrete (see attached approved design)
2. Concrete surfaces must be applied with waterproofing before applying elastomeric paints as final coating

C. Text Description

1. Flood marker text must be visible in 8 inches width
2. Text height must be 0.10m
3. Text width must be a total of 0.15m
4. Text color should be luminous white with black background
5. Text font face should be Arial Black

The same are reflected and visualized in the attached design contained in Enclosure No. 5 to this Department Order.

D. Alarm Identification Level

It is recommended that the alarm levels of “Red”, “Orange”, and “Yellow” shall be used to refer to the set of actions (i.e. Evacuation, Preparation for Evacuation, and Alert/Stand-by, respectively) that have to be taken relative to the flood water elevation.

The identification of the elevation of the flood waters for each of the alarm levels shall be coordinated by the School Head, together with the School DRRM Coordinator and the Physical Facilities Coordinators, with the LDRMC and the community. The said levels will depend on the assessment of the LDDRMC, in coordination with the school, in consideration of the elevation of the school ground and the lowest floor finish elevation of the school buildings. Other factors

such as the amount of projected rainfall for a given time period, proximity to bodies of water, the sea water rise for all schools near coastal areas, the porosity of the school ground, and topography and elevation shall be considered. The flood water levels in the attached design are forwarded only as a guide, and schools are enjoined to localize and adapt these measures to fit their local contexts, in close coordination with their LDRRMC.

It is best that the flood water marker of the school is part of a larger early warning system of the community, i.e. flood water markers outside the school and along specific locations in the community be installed by the LGU, as it is possible that the vicinity surrounding the school is already flooded while the school is not yet flooded, and vice-versa.

III. Implementation Guidelines

Every DepEd school is required to erect flood water and school ground elevation markers (against sea level) inside the school as part of mitigation and prevention measures against floods. These shall display the critical levels of flooding based on prevailing LDRRMC guidelines, and historical data on the highest recorded level of flooding (*please see attached design*).

The flood water and school ground elevation markers against sea level should be constructed and located near the entrance or gate of the school site, in a noticeable area and free from any obstacle. Procurement of supplies, materials and labor should be in accordance with existing procurement procedures.

The Schools Division Offices and Regional Offices shall provide necessary support and technical assistance to schools on the construction of the flood water and school ground elevation markers, and facilitate the following:

- a. Division Offices
 1. The School Governance and Operation Division (SGOD) through the Division DRRM Coordinator and Division Engineer shall conduct a joint validation for schools needing flood water and school ground elevation markers.
 2. The Division DRRM Coordinator shall prepare the list of validated schools needing flood water and school ground elevation markers meanwhile the Division Engineer shall prepare the Program of Works (POW) for funding allocation.
 3. The list of validated schools needing flood water and school ground elevation markers and the corresponding POW's shall be submitted by the Division DRRM Coordinator to Schools Division Superintendent (SDS) for approval.

4. The list of validated schools and POW's approved by the SDS shall be submitted by the Division DRRM Coordinator to the Regional Director (RD) copy furnished the Regional DRRM Coordinator and Regional Engineer.
 5. The SGOD through the Division DRRM Coordinator in cooperation with the Division Engineer shall conduct a joint school monitoring during the construction of the flood water and school ground elevation markers to check if it is in accordance with the approved design and guidelines.
 6. If there will be a revision on the foundation design due to the location of schools, the request for the modification on the design of flood water and school ground elevation markers shall be coordinated by the Division DRRM Coordinator to the Division Engineer for the preparation of the modified design and POW.
 7. Modified design and POW upon approval of the SDS shall be submitted by the Division DRRM Coordinator to the RD copy furnished the Regional DRRM Coordinator and Regional Engineer.
- b. Regional Offices
1. The list of schools needing flood water and school ground elevation markers and corresponding POW's shall be endorsed to the Disaster Risk Reduction and Management Service (DRRMS) by the Regional DRRM Coordinator, upon approval of the RD, for funding allocation.
 2. The Regional DRRM Coordinator shall submit to the DRRMS, copy furnished the Education Facilities Division (EFD) report, approved by the Regional Director, on the (a) status of the utilization of the downloaded funds for the construction of flood water and school ground elevation markers, and (b) consolidated issues encountered and recommendation on the construction of the flood water and school ground elevation markers.
 3. Requests for modified design of the flood water and school ground elevation markers shall be endorsed to the DRRMS by the Regional DRRM Coordinator, upon approval of the Regional Director.

IV. Monitoring and Evaluation

The DRRMS, in coordination with the Education Facilities Division (EFD) shall lead the monitoring and evaluation of this policy guidelines. Relative to this, it shall establish appropriate systems and mechanisms engaging DRRM Coordinators and DepEd Engineers across all governance levels.

All Regional Offices and the Division Offices should ensure the construction of flood markers in all schools in accordance with the approved design and material specification and secure that the location of the flood water and school ground elevation markers is visible and located in a safe area.

Consolidated data of schools with constructed flood water and school ground elevation markers, reports on the issues and recommendations on the construction of the flood water and school ground elevation markers should be submitted by the regional DRRM coordinators in coordination with regional DepEd engineers to DRRMS, copy furnished EFD on an annual basis for necessary enhancement of this policy guidelines.

V. Fund Source

The construction of the flood water and school ground elevation marker shall be funded under the Basic Education Facilities Fund (BEFF), guided by the POWs approved by the EFD.

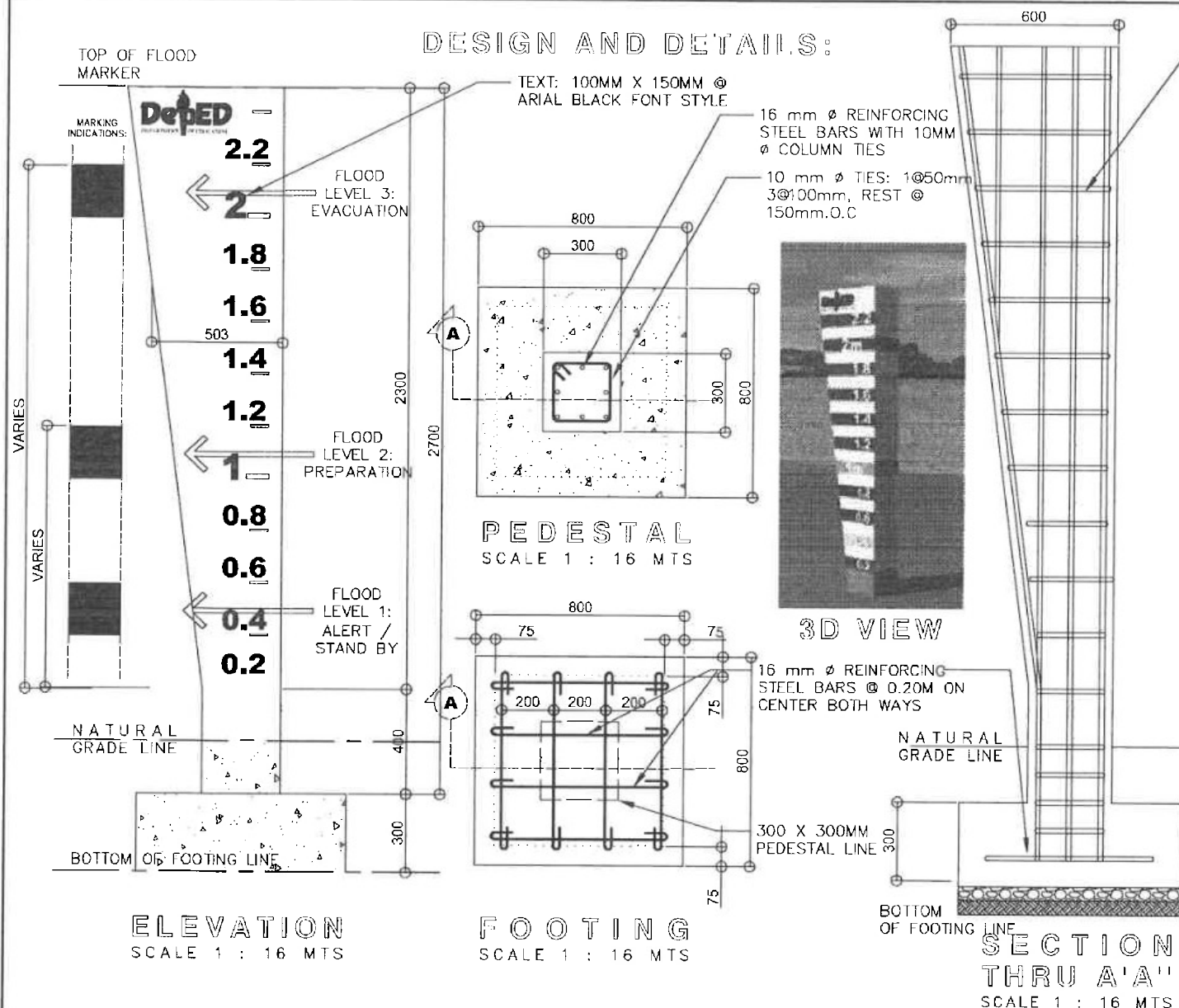


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DEPED-OSEC-442835

DESIGN AND DETAILS:



10 mm Ø TIES: 1@50mm,
3@100mm, REST @
150mm.O.C

III. Technical Specification

A. Flood Marker Footing and Pedestal (please see annex A; Design)

1. Concrete footing size will be 800mm x 800mm with 16 mm reinforcing steel bars @ 0.20m on center both ways.
2. Concrete pedestal will be 300mm x 300mm x 400mm with 16 mm reinforcing steel bars
3. Reinforcing bars for concrete exposed to weather shall be protected with at least 75mm clear distance and in no case less 40mm concrete. This condition may be waived when adequate waterproofing is provided.
4. Reinforcing bars shall be deformed conforming to ASTM A615 billet steel as follows: i. 16mmØ bars and larger shall be high grade with minimum $F_y = 414\text{MPa}$ (6000PSI). ii. 12mmØ bars and smaller shall be intermediate grade with minimum $F_y = 276\text{MPa}$ (4000PSI). 2 if bending and welding are important, deformed bar shall conform to ASTM A706 low alloy grade 414 steel bar.
5. All concrete works shall be done in accordance ACI-318-95 building code for reinforced concrete and all structural steel works shall be done in accordance with the AISC specifications as it does not conflict with the national structural code of the Philippines (NSCP - 1) requirements.
6. At the lower bottom of the flood marker should be put the elevation of the ground above sea level where the flood marker constructed

B. Flood Marker

1. Reinforced concrete (Verify details)
2. Concrete surfaces must be applied with waterproofing before applying elastomeric paints as final coating.

C. Text Description

1. Flood marker text must be visible
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REPUBLIC OF THE PHILIPPINES DepEd DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION MARICOPA AVENUE, PASIG CITY	DESIGNED BY: <i>[Signature]</i> JURELSON P. CULADO CIVIL ENGINEER UP-DepEd	ARCHITECT: <i>[Signature]</i> JET RAYMOND G. LABASO ARCHITECT II UP-DepEd	RECOMMENDING APPROVAL: <i>[Signature]</i> ANABELLE R. RANCA CHIEF, EFD-MS DepEd	RECOMMENDING APPROVAL: <i>[Signature]</i> RONALDO R. CO DIRECTOR IV HEAVY PUBLIC REVENUE AND MANAGEMENT SERVICE	APPROVED BY: <i>[Signature]</i> ALAN DELA PASCUA SUPERVISOR FOR CONSTRUCTION	PROJECT TITLE: FLOOD MARKER LOCATION:	PROJECT CODE:	OWNER: DEPARTMENT OF EDUCATION DepEd SHEET CONTENTS:	SHEET NO: A-1 1
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