DOOR COUNTY, WISCONSIN COMMUNITY CONSULTATION OFFICERS (CCO) MEETING

March 8, 2022



FEMA

Introductions

Risk MAP Project Team

- Munib Ahmad FEMA Regional Engineer
- Ken Hinterlong FEMA Regional Engineer
- Frank Shockey FEMA NFIP Specialist
- Cadence Peterson FEMA Planning Specialist
- Nicole Metzger STARR II Project Manager

Wisconsin Department of Natural Resources (WDNR)

- Brian Cunningham State NFIP Coordinator
- Chris Olds Floodplain Engineer





Today's Agenda

- The Value of Updated Flood Maps for Your Community
- Reviewing the Updated Flood Risk Data for Your County
- Next Steps in the Map Adoption Process
- Understanding Floodplain Management
 Ordinance Requirements
- Hazard Mitigation Planning
- Answer Your Questions

The Value of Updated Flood Maps for Your Community

Flood Maps Are Used to Make Important Decisions





The Status of this Study



National Flood Insurance Program (NFIP) - Participation Status

- Participating in the NFIP. Special Flood Hazard Areas (SFHA) have been identified:
 - Door County (Unincorporated Areas) (550109)
 - Village of Egg Harbor (550029)
 - Village of Ephraim (550611)
 - City of Sturgeon Bay (550111)
- Not currently participating in the NFIP.
 SFHA have been identified:
 - Village of Sister Bay (550030)



VOLUME 1 OF 1



DOOR COUNTY, WISCONSIN

AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
DOOR COUNTY, UNINCORPORATED AREAS	550109
EGG HARBOR, VILLAGE OF	550029
EPHRAIM, VILLAGE OF	550611
FORESTVILLE, VILLAGE OF	550110
SISTER BAY, VILLAGE OF	550030
STURGEON BAY, CITY OF	550111



PRELIMINARY: DECEMBER 17, 2021

TO BE DETERMINED FLOOD INSURANCE STUDY NUMBER 55029CV000B Version Number 2.4.3.5

REVISED:

Federal Emergency Management Agency



Reviewing the Updated Flood Risk Data for Your County

Why is FEMA Updating Your Flood Maps?

The Great Lakes Coastal Flood Study provides updated flood risk information for areas around each of the Great Lakes using uniform methodology, updated terrain data, and modern wave modeling techniques.

Many factors contribute to flood map revisions:

- Population growth & increased development
- Movement in rivers & shorelines
- Changing technology and improved modeling techniques and data





Program Goals and Status





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The Great Lakes Coastal Flood Study Approach

Regional Study Approach

- Lakewide water level and wave analysis
 - 150 storms from 1960 to 2009
 - Modeling conducted by STARR in 2016
- Greater consistency in assumptions
- Reduces number of boundary conditions







from FEMA Great Lakes Coastal Guidelines "D.3" Update

Local/County-Level Activities

- Mapping tasks performed at the county level
- Nearshore wave transformations
- Episodic erosion
- Wave setup
- Runup and overtopping
- Overland wave propagation

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The Great Lakes Coastal Flood Study in Your County

Coastal Flood Hazard Analysis:

- 247 miles of coastline
- 105 coastal transects
- Transects placed at representative shoreline reaches based on:
 - Topography
 - Exposure
 - Shoreline material
 - Upland development
- Integration of riverine and coastal Special Flood Hazard Areas
- Topography
 - USACE JALBTCX LiDAR (2013)
 - Supplemental NOAA LiDAR (2018)







Lake Michigan Water Levels





Measuring Coastal Base Flood Elevation



SWEL = Stillwater Elevation (storm surge level) TWEL = Total Water Elevation (SWEL + wave effects)



Special Flood Hazard Areas (SFHAs) - Coastal

Zone VE

- Coastal high-hazard zone, where wave action and/or high-velocity water can cause structural damage during the 1-percent-annual-chance flood
- Wave heights or wave runup >= 3 feet
- Subdivided into elevation zones, and BFEs are assigned

Zone AE

- Applied in areas subject to lower wave energy or inundation by the 1-percent-annual-chance flood
- Wave heights or wave runup < 3 feet
- Subdivided into elevation zones, and BFEs are assigned

Zone AO

- Applied in areas of sheet-flow and shallow flooding
- Given an associated depth instead of a BFE

Zone AH

- Applied in areas of ponding
- Assigned a BFE



Wave Runup Mapping

- Wave runup is very sensitive to shoreline characteristics, especially slope
- Single Base Flood Elevation (BFE)
- Gutters perpendicular to the shore divide the BFEs
- Runup is mapped to elevation associated with BFE, unless overtopping occurs
- VE transitions to AE where runup elevation (BFE) is less than 3 feet above ground elevations





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Wave Overtopping

- Wave overtopping occurs when the wave runup elevation exceeds the barrier's crest elevation
- When overtopping occurs, the zone behind the barrier is designated as:
 - AE if the landward slope is positive
 - BFE established based on runup elevation
 - AO if the landward slope is negative
 - Sheet flow depth established
 - AH if the landward slope is negative and flow is trapped behind a barrier
 - BFE established
- The overtopping rate determines VE splash zones and sheet flow depths





Photo: Green, M. Spencer. AP Photo. 2012.

http://journalstar.com/ap/business/two-story-waves-on-great-lakes-halt-shipping/article_bcf2bb34-b528-52f5-8cd4-0c57e7ea8922.html

Overland Wave Propagation Mapping





Overland Wave Propagation Mapping

- Tiered BFEs reflect overland wave decay or regeneration over inundated inland areas as waves propagate onshore over different terrain
- BFEs are defined by wave crest elevation
- Internal gutters are placed where BFEs change moving onshore and follow land use features or terrain elevations
- Transitional zones capture changes in shoreline characteristics between transects
- Landward extent of mapping defined by the 1-percent SWEL





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Overland Wave Propagation Mapping - LiMWA

Limit of Moderate Wave Action (LiMWA)

- Defines the inland limit of the area expected to experience 1.5-foot or greater breaking waves during a 1-percent-annual-chance event
- Area seaward of the LiMWA is defined as the "Coastal A" on the Great Lakes



Riverine – Coastal SFHA Integration

Riverine Confluences:

- $\hfill\square$ Heins Creek
- Hibbard Creek
- Kayes Creek
- \square Mink River
- Renard Creek
- Rieboldts Creek
- □ Shivering Sands Creek Donlans Creek
- Sugar Creek
- □ Three Springs Creek
- Whitefish Bay Creek





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Riverine – Coastal SFHA Integration



Confluence of Kayes Creek and Little Sturgeon Bay



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ZONE AE (EL 586)

ZONE VE (EL 586)



Summary of Map Actions (SOMA)

SOMA-1

PRELIMINARY SUMMARY OF MAP ACTIONS

Community: DOOR COUNTY

Community No: 550109

2A.LOMCs on Revised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	96-05-2142A	07/26/1996	5660 LORITZ ROAD	5501090085A	55029C0380E
LOMA	98-05-478A	11/26/1997	10820 N. APPLEPORT ROAD - GOVT LOT 1, SECTION 1	5501090045A	55029C0208D
LOMA	98-05-074A	01/21/1998	8436 BUES POINT ROAD	5501090065A	55029C0305D
LOMA	98-05-1590A	01/21/1998	WISN 2136 GASOLINE TOWN ROAD - SECTION 24	5501090025A	55029C0018D
LOMA	98-05-590A	03/06/1998	3561 BIG CREEK ROAD - SECTION 4	5501090105A	55029C0479D
LOMA	98-05-3410A	05/06/1998	SECTION 14 - 8374 BUES POINT ROAD	5501090065A	55029C0310D
LOMA	98-05-3978A	09/02/1998	1251 KINSEY BAY LANE - GOVT. LOT 1, SECTION 13	5501090065A	55029C0216D
LOMA	98-05-5674A	09/23/1998	5524 BUTTS ROAD - GOVT LOT 4, SECTION 33	5501090085A	55029C0380D
LOMA	99-05-178A	10/23/1998	PARCELS 211 & 21G - 10828 NORTH APPLEPORT LANE	5501090045A	55029C0208D
LOMA	99-05-816A	01/06/1999	SECTION 12 - PART OF GOVERNMENT LOT 2 - 10508 SOUTH APPLEPORT LANE	5501090045A	55029C0208D
LOMA	99-05-2030A	02/12/1999	SECTION 35, GOVERNMENT LOT 3 - 5634 SCHAUER ROAD	5501090085A	55029C0383D
LOMA	99-05-1192A	03/31/1999	HOTZ GIBRALTAR SUBDIVISION - LOT 9 - N. 8367 WHITE CLIFF ROAD	5501090085A	55029C0260D
LOMA	99-05-830A	04/21/1999	SECTION 33 - GOVT LOTS 3 & 4 - 5526 BUTTS ROAD	5501090085A	55029C0380D
LOMA	99-05-3524A	05/14/1999	SECTION 3 - LOT 3 -	5501090085A	55029C0390D
LOMA	99-05-4252A	06/23/1999	7353 CTH "6"	5501090085A	55029C0264D
LOMA	99-05- <mark>4</mark> 872A	07/09/1999	2393 WHITE STAR ROAD	5501090150A	55029C0420D
LOMA	99-05-7048A	02/02/2000	7432 WEST KANGAROO LAKE ROAD	5501090085A	55029C0295D

FFN

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All LOMCs were addressed in the preliminary Summary of Map Actions (SOMA) and placed into one of four categories:

- 1. Incorporated
- 2. Not Incorporated (validated)
 - 2A LOMCs on Revised Panels
 - 2B LOMCs on Unrevised Panels
- 3. Superseded
- 4. To be Re-determined
- Be sure to review the prelim SOMA for completeness
- If you note a LOMC missing from the list, submit the omission with your comments

Next Steps in the Map Adoption Process

Timeline for Door County





Final Steps





#1: Inform the Community – Virtual Open Houses

- Experts and local officials on-hand
- Screen-sharing map viewer in breakouts
- Opportunity to share map information with residents a
- Provide input to the project team



Two Open Houses are planned for April 7 & 12, 2022 (5-8 p.m.)



- Homeowners may choose to submit comments through community officials
- FEMA requests that community officials forward the initial round of comments to FEMA no later than April 7, 2022





#3: Appeal Process

- Appeal Period is 90 days
- Publication of notice in Federal Register
 - Notification to communities by letter, including local newspaper publications
- All are welcome to submit information
 - FEMA recommends directing comments through local community officials to provide a consolidated picture
- Appeals should be submitted to STARR II or FEMA Region 5
 - Additional instructions will be provided to community CEOs
- FEMA will evaluate all appeals and comments for resolution after the appeal period







The Appeals Period: Appeals vs. Comments

To be considered an appeal, a submittal must:

- Be received during the statutory 90-day appeal period
- Relate to new or modified BFEs, base flood depths, SFHA boundaries, SFHA zone designations, or floodways
- Be based on data that show the new or modified BFEs, base flood depths, SFHA boundaries, SFHA zone designations, or floodways to be scientifically or technically incorrect
- Be accompanied by all data, including H&H if necessary and/or other supporting technical data, that FEMA needs to revise the preliminary version of the FIS report and FIRMs
- Be certified by a Registered Professional Engineer or Licensed Land Surveyor, as appropriate
- The term comment is used for any submittal that does not meet the requirements for an appeal as outlined above



Issuing the Letter of Final Determination





Understanding Floodplain Management Ordinance Requirements

Participation in the National Flood Insurance Program

- The NFIP is a voluntary program.
- Participation requires that communities adopt and enforce floodplain management regulations.
- The floodplain management regulations need to be based on the risk data provided by FEMA (the FIRM and FIS report).
- Participation in the NFIP makes federal flood insurance available to insure buildings and personal property inside buildings within your communities.
- Federally regulated lenders require flood insurance coverage for buildings in the SFHA that secure loans; insurance is also required as a condition of receiving Federal financial assistance to purchase, repair, improve, or rehabilitate buildings within the SFHA.
- Most disaster assistance is in the form of a loan through the Small Business Administration (SBA)



Ordinance Adoption During Map Updates

- Timeline Prior to Effective Date:
 - 6 months prior: FEMA 6-month LFD Letter
 - 4 months prior: Draft Ordinance (suggested)
 - 3 months prior: FEMA 90-day Reminder Letter
 - 1 month prior: FEMA 30-day Reminder Letter



- Ordinance needs to be compliant prior to effective date of FIRM & FIS (or community may be suspended from NFIP)
- WDNR will assist communities to update local Floodplain Management Regulations



Where to Find Minimum NFIP Requirements

- NFIP Minimum Floodplain Management Standards are found in Part 60 of Title 44, Code of Federal Regulations
- Coastal-specific standards are found in Part 60.3(e)
- NFIP minimum standards have been incorporated into the Wisconsin DNR model floodplain ordinance for use by affected communities.
- FEMA and Wisconsin DNR will offer additional coastal floodplain management training sessions to Wisconsin's Lake Michigan coastal communities later in the spring of 2022.



Differences in Development Requirements

A Zones

- Fill is allowed outside the floodway, or if it can be shown not to cause a rise in the BFE.
- Fully enclosed foundation walls (flood openings required) are allowed.
- The lowest floor must be elevated to or above the BFE.
- An as-built lowest floor elevation is required to be on file with the permit records.

VE Zones (and AE Zones on the water side of a LiMWA)

- Fill is not allowed for structural support of buildings.
- Only open foundations on columns or piles, free of obstructions, or breakaway walls are allowed below the BFE.
- Bottom of lowest horizontal structural member to or above BFE, with an as-built elevation on file.
- A Professional Engineer or Architect shall certify the design of the structure, including wind loading, and that must be on file with the permit records.





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LiMWA (Limit of Moderate Wave Action) on the Map

• The Community Rating System (CRS) benefits communities requiring VE zone construction standards in areas defined by the LiMWA or areas subject to waves greater than 1.5 feet.





Flood Insurance and Map Changes

JAMES SINK | Regional Flood Insurance Liaison, FEMA Region 5

National Flood Insurance Program

- Created by Congress in 1968 to reduce the loss of property and life by lessening the impact of disasters.
- The NFIP is a voluntary program.
 - Federally-backed flood insurance is available to residents in communities that enforce minimum floodplain regulations
- The NFIP is often described as a three-legged stool:



GET FLOOD INSURANCE





Anyone in a Participating Community Can Purchase Flood Insurance through the NFIP

https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book

Standard Flood Insurance Policy (SFIP) Limits





Special Conditions Apply to Group Flood Insurance Policies (GFIPs)

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Standard Flood Insurance Policy (SFIP): Coverages

- Coverage A: Building Property
- Coverage B: Personal Property
- Coverage C: Other Coverages
 - Debris removal
 - Loss Avoidance Measures
 - Property Moved to Safety
 - Condominium Loss Assessment
- Coverage D: Increased Cost of Compliance





First, What Are Flood Zones?





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Moving from Lower-Risk to Higher-Risk: What Does This Mean for Me?

- If your risk is going up...
 - You may be required to have flood insurance if you have a federally-backed loan
 - Even if you don't have a federally-backed loan, flood insurance is strongly encouraged
 - You may be eligible for cost savings through the Newly Mapped Discount





What is the Newly Mapped Discount?

- A property may be eligible for the Newly Mapped discount if...
 - Previously designated in a Zone B, C, or X on the previous flood map and newly mapped into an SFHA
 - Previously designated in a Zone D, A99, or AR and newly mapped into a different SFHA zone
- And...
 - The policy effective date is within 12 months of the effective FIRM revision date; or
 - The policyholder applied for the policy within 45 days of initial lender notification, if the notification occurred within 24 months of the effective FIRM revision date
- The Newly Mapped Discount is not available in emergency

program communities or if it is the community's initial FIRM

- The Newly Mapped Discount offers policyholders newly mapped in to the SFHA 70% off the full-risk premium for the first \$35,000 of building coverage and a glidepath towards their full-risk rate
 - The glidepath cannot exceed 15%. The exact percentage is announced annually by FEMA.



Moving from Higher-Risk to Lower-Risk: What Does This Mean for Me?

- If your risk is going down...
 - The mandatory purchase requirement no longer applies to federally-backed loans
 - Low risk does not mean no risk
 - More than 35% of all flood insurance claims in Wisconsin occur OUTSIDE of the 1-percent-annual-chance floodplain!
- The map change by itself no longer directly influence premiums. Policyholders likely will not see a change in their premium as a result of the map change alone.
- To learn more about the NFIP's new pricing methodology, e-mail james.sink@fema.dhs.gov for training invitations.





State Role

- Establish development/building protection standards and promulgate state regulations
- Provide technical assistance
- Assist with update and adoption of local flood damage prevention regulations

Wisconsin Department of Natural Resources (WDNR)

Brian Cunningham, (608) 220-5633

brian.cunningham@wisconsin.gov



Your Role in this Process

As local officials, floodplain administrators, and staff, you can:





Resources for Insurance

FloodSmart

- Buying a Policy
- Flood Mapping Change Information
- For general inquiries about the National Flood Insurance Program, contact the FEMA Mapping and Insurance eXchange (FMIX) center at 877-336-2627 or <u>FloodSmart@FEMA.DHS.gov</u>
- When your community's flood map is updated to reflect the current risks where you live, requirements for flood insurance coverage and the cost of your policy can change.
 - https://www.floodsmart.gov/flood-mapzone/map-changes

FEMA

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Wisconsin Department of Natural Resources (WDNR)

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Hazard Mitigation Planning

Hazard Mitigation and Mitigation Planning

Any sustained action taken to reduce long-term risk to people and property from hazards and their effects

Benefits of Mitigation Planning:

- Increases public awareness and understanding of risk areas and vulnerabilities by engaging the whole community
- Provides eligibility for certain FEMA programs
- Builds partnerships with diverse stakeholders
- Identifies potential risk reduction measures
- Improves communication and sharing of risk data and related products at all levels of government and with the public



Hazard Mitigation Planning and Flood Risk Products



Flood Risk Products

- •Provide credible data to help communities take action
- •Help identify and prioritize areas for risk reduction action
- •Help support education and outreach
- •Visualize flood risk



Mitigation Planning and Grants

FEMA ASSISTANCE PROGRAM	IS A LOCAL MITIGATION PLAN REQUIRED?
Hazard Mitigation Grant Program (HMGP) project grant	Yes
Flood Mitigation Assistance (FMA) project grant	Yes
Building Resilient Infrastructure and Communities (BRIC) project grant	Yes
Rehabilitation of High Hazard Potential Dam (HHPD) Grant Program	Yes



WEM Mitigation Contacts and More

Web: https://dma.wi.gov/DMA/wem/mitigation/hazard-mitigation Phone: (608) 242-3000

> Gwen Drewes State Hazard Mitigation Officer (608) 957-5715 guenevere.drewes@wisconsin.gov

Want More Information?

Hazard Mitigation Planning: <u>https://www.fema.gov/hazard-mitigation-planning</u> Hazard Mitigation Assistance: <u>https://www.fema.gov/hazard-mitigation-assistance</u> Mitigation Planning Resources: <u>https://www.fema.gov/hazard-mitigation-planning-resources</u>



Encouraging Open House Turnout

Community Outreach by Local Officials

Why Open House Engagement is Important

- Address map concerns and community impact
- Answer questions and provide local insight
- Experts and local officials offer one-on-one time
- Screen-sharing of maps in individual breakout rooms
- You're a trusted source of information

Virtual Open House Events: April 7 & 12 5 - 8 p.m.



Encouraging Open House Turnout

- Ensures inclusive and effective engagement
- Incorporate historical context
- Groups or leaders who should be included in outreach
- How else CERC can help
 - · Toolkit
 - Ongoing communications support and outreach



Open House Toolkit

Door County, Wisconsin





FEMA Engineering Library Data Requests

• Requests must be sent in writing to:

FEMA Engineering Library 3601 Eisenhower Ave. Suite 500 Alexandria, VA 22304-6426 E-mail: <u>FEMA-EngineeringLibrary@fema.dhs.gov</u> Fax: (703) 202-4090 Phone: 1-877-336-2627

• Request must include:

FIS Data Request Form (https://www.fema.gov/sites/default/files/documents/fema_flood-insurance-study-data-request-form.pdf) Applicable Fees (https://www.fema.gov/flood-maps/change-your-flood-zone/status/flood-map-related-fees) Payment Information Form (https://www.fema.gov/sites/default/files/documents/fema_flood-maps-payment-information-form.pdf)

• Once the research has been completed, an information specialist will contact you to discuss the path forward.



Federal Emergency Management Agency Washington, D.C. 20472

Flood Insurance Study (FIS) Data Requests

The Federal Emergency Management Agency (FEMA) has identified seven categories into which requests for Flood Insurance Study (FIS) backup (i.e., technical and administrative support) are separated. These categories and their associated fees are below:

Requests for Flood Insurance Backup Data	Fee
1. Portable Document Format (PDF) or Diskettes of hydrologic and hydraulic backup data for current or historical FISs	\$300, plus a \$93 per-case surcharge fee to recover the cost of library maintenance and archiving. For larger requests that require more than 4 hours of research, additional hours will be charged at \$40 per hour
2. PDF or Mylar copies of topographic mapping developed during FIS process	\$300, plus a \$93 per-case surcharge fee to recover the cost of library maintenance and archiving. For larger requests that require more than 4 hours of research, additional hours will be charged at \$40 per hour.
3. PDF of survey notes developed during FIS process	\$300, plus a \$93 per-case surcharge fee to recover the cost of library maintenance and archiving. For larger requests that require more than 4 hours of research, additional hours will be charged at \$40 per hour.
4. PDF of individual Letters of Map Change (LOMCs)	\$40 for first letter; \$10 for each additional letter in the same request. Requesters will be notified about availability of the data and the fees associated with the requested data.
5. PDF of preliminary map panels	\$35 for first panel; \$2 for each additional panel in the same request. Requesters will be notified about availability of the data and the fees associated with the requested data.
6. DVDs of Digital Line Graph files, FIRM files or Digital LOMR attachment files	\$150 per county or Digital LOMR attachment shape file. Requesters will be notified about availability of the data and the fees associated with the requested data.
7. Computer diskettes and user manuals for FEMA computer programs	\$25 per copy. Requesters will be notified about availability of the data and the fees associated with the requested data.

As shown in the table above, for Categories 1-3, an initial fee of \$300 is required to initiate the request and required before the requested data will be provided. If the data requested are available and the request is not cancelled, the final fee is calculated as a sum of the standard per-product charge plus a per-case surcharge of \$93, to help recover library maintenance and archiving costs. The total costs of processing requests in Categories 1-3 will vary based on the complexity of the research involved in retrieving the data and the volume and medium of the data to be reproduced and distributed. The initial flat fee will be applied against the total costs to process the request, and FEMA will invoice the requester for the balance plus the per-case surcharge before the data are provided. No data will be provided to a requester until all required fees have been paid.

For Categories 4-7, there is no initial fee to initiate a request for data. Requesters will be notified about the availability of, and the fees associated with, the requested data.

Mapping Resources

- FEMA Flood Map Changes Viewer
 - www.msc.fema.gov/fmcv
- Preliminary Flood Hazard Data
 - www.fema.gov/view-yourcommunitys-preliminary-floodhazard-data
- Steady State Program
 - www.msc.fema.gov





Questions and Additional Information

Visit: <u>www.greatlakescoast.org</u> <u>www.fema.gov/preliminaryfloodhazarddata</u> FEMA Region 5 Regional Engineer, Wisconsin Munib Ahmad 312-408-2207 <u>munib.ahmad@fema.dhs.gov</u>

STARR II (Contractor)

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Question & Answer Session