

# Appendix A:

## 2020/2021 Renourishment Project Supporting Documents

Appendix A1: Construction Plans with  
Amendment

Appendix A2: Preconstruction and Post  
Construction Survey Profiles

# Appendix A1:

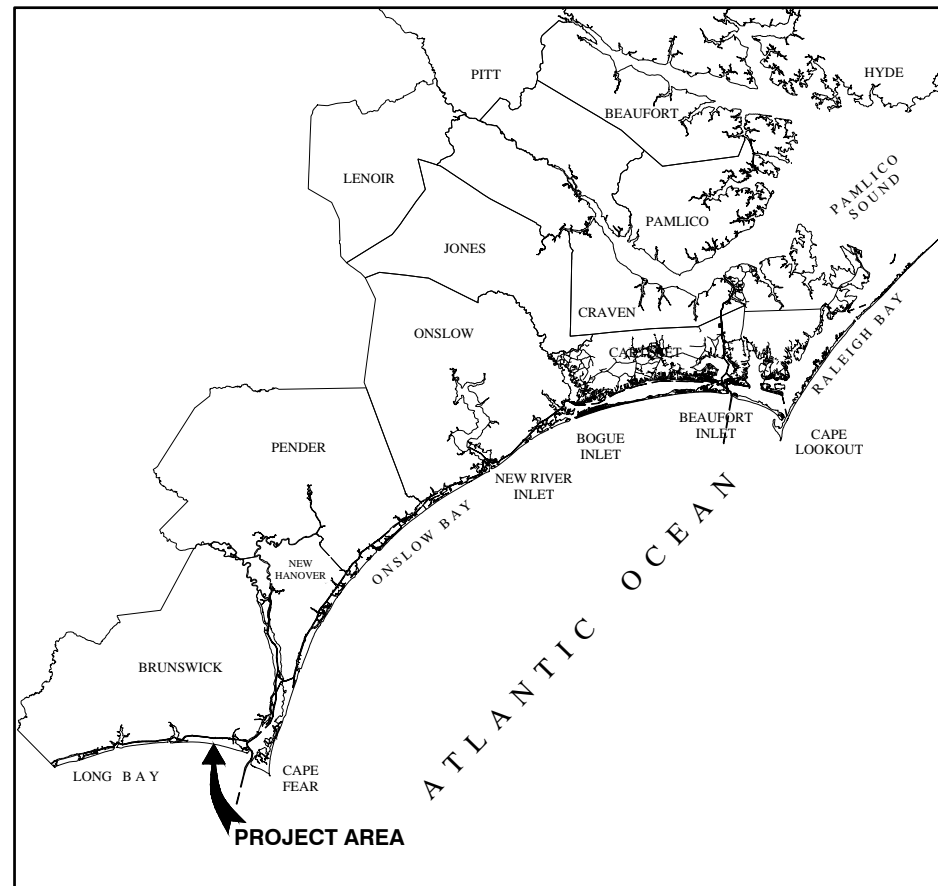
## Construction Plans with Amendment

# OAK ISLAND RENOURISHMENT PROJECT 2020/2021

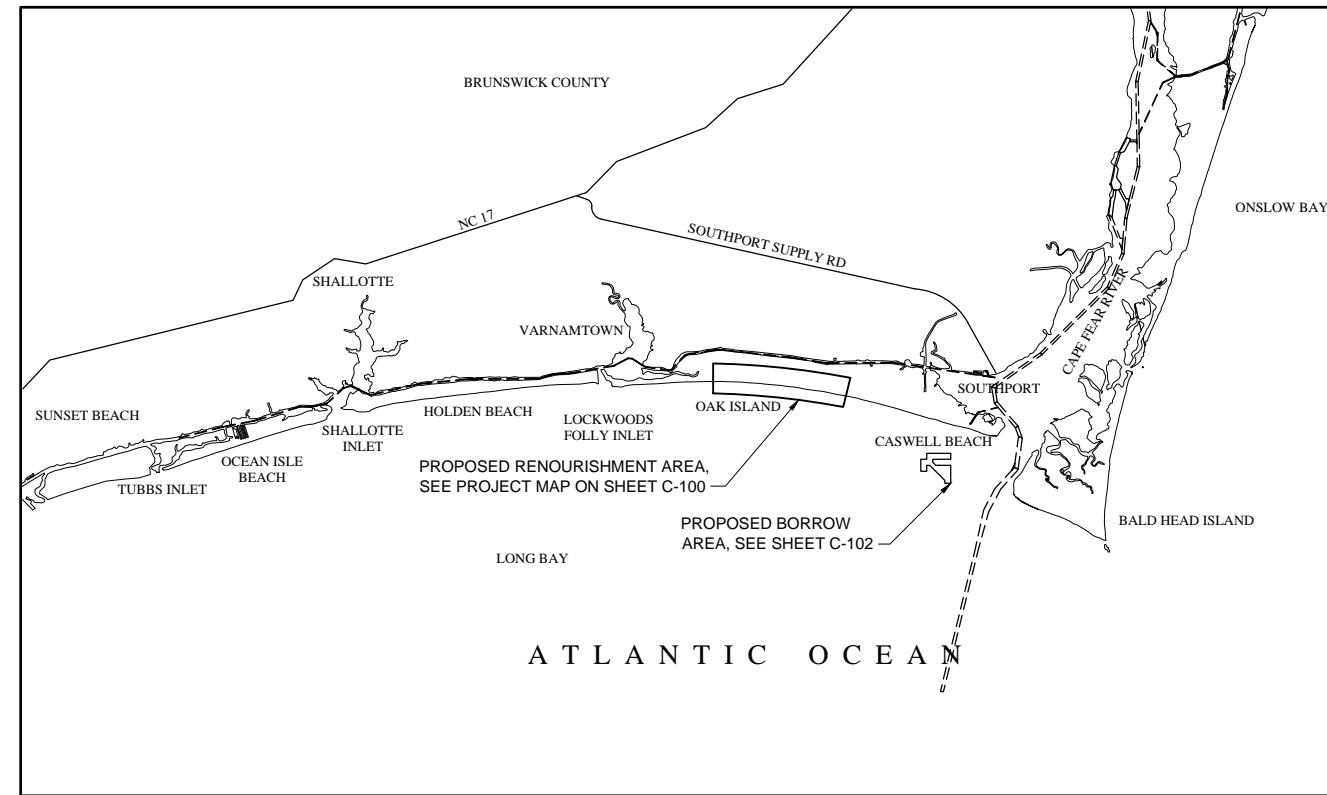
## OAK ISLAND, NORTH CAROLINA



**TOWN OF OAK ISLAND  
4601 E. OAK ISLAND DRIVE  
OAK ISLAND, NC 28465**



VICINITY MAP  
NTS



LOCATION MAP  
NTS



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

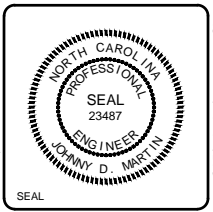
**COVER SHEET**

|               |                  |                  |               |
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| Designed by:  | KEF              | Date:            | 03/03/2021    |
| Dwn by:       | VNM              | MAN Project No.: | 10128-01      |
| Reviewed by:  | JDM              | Drawing code:    |               |
| Submitted by: | MOFFATT & NICHOL | Drawing Scale:   | 1:1 (0 SHEET) |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**G-001**

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File: G:\RAI\10128-01\10600\_CADD\_Active\_L\_1012801\_SheetSet\1012801-G-001 - Plotted: 3/22/2021 2:46 PM by MMORGAN

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**GENERAL NOTES:**

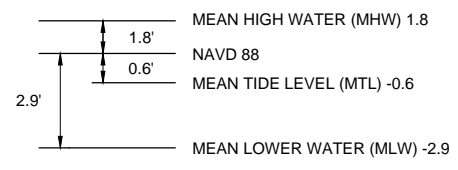
- ALL BEACH FILL, DREDGING AND PLANTING WORK SHALL CONFORM TO THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL PLACE THE PERMIT PLACARDS ON THE JOB SITE AND SHALL COMPLY WITH ALL TERMS OF THE PERMITS PERTAINING TO THE PERFORMANCE OF THE WORK. SEE THE TECHNICAL SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY OWNER OF DISCREPANCIES.
- ALL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED. METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIAL ARE THE CONTRACTORS RESPONSIBILITY.
- THE CONTRACTOR SHALL, ON A DAILY BASIS, REMOVE FROM THE SITE ANY EXCAVATED MATERIAL OR DEBRIS. DISPOSAL OF THE MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL DEBRIS SHALL BE DISPOSED OF IN A PERMITTED LANDFILL.
- THESE PLANS ARE INCOMPLETE WITHOUT THE PROJECT TECHNICAL SPECIFICATIONS. IF THERE ARE CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL ALERT THE OWNER AND ENGINEER. THE TECHNICAL SPECIFICATIONS SHALL TAKE PRECEDENCE.
- THE STAGING AND ACCESS AREAS SHOWN ON G-004 ARE OWNED BY THE TOWN OF OAK ISLAND. COORDINATION WITH THE TOWN MANAGER SHALL BE REQUIRED BEFORE USE. FOR THE STAGING AND ACCESS AREAS, THE POINT OF CONTACT IS:  
  
MR. DAVID KELLY  
TOWN MANAGER  
TOWN OF OAK ISLAND  
4601 EAST OAK ISLAND DRIVE  
OAK ISLAND, NC 28465  
(910) 201-8002  
dkelly@ci.oak-island.nc.us  
  
SEE THE TECHNICAL SPECIFICATIONS FOR A DESCRIPTION AND PHOTOS OF STAGING AND ACCESS AREAS.
- STAGING AND ACCESS AREAS SHALL BE MAINTAINED BY THE CONTRACTOR. STAGING AND ACCESS AREAS SHALL BE CLEARED OF DEBRIS AND CONTRACTOR INSTALLED AMENITIES AT THE COMPLETION AND ACCEPTANCE OF WORK IN THE AREA. THE CONTRACTOR SHALL RESTORE THE STAGING AND ACCESS AREAS TO THEIR ORIGINAL CONDITION AFTER WORK IN THE AREA IS COMPLETE. THIS WORK INCLUDES REPLACEMENT OF FENCING, SIGNS, SAND FENCE, BEACH VEGETATION, WALKWAYS, DUNES, DUNE VEGETATION, PARKING FACILITIES, PAVED AREAS AND OTHER MISCELLANEOUS ITEMS. ALL REPLACEMENT MATERIALS SHALL BE APPROVED BY THE ENGINEER/OWNER BEFORE INSTALLATION.
- UNLESS OTHERWISE APPROVED BY THE OWNER, EXCESS EQUIPMENT MAY ONLY BE STORED IN APPROVED STORAGE/STAGING AREAS OR TEMPORARY AREAS IN THE IMMEDIATE VICINITY OF THE BEACHFILL PLACEMENT SITE. THE OWNER RESERVES THE RIGHT TO LIMIT SUCH AREAS AS DEEMED NECESSARY. OPERATION OF GRADING AND OTHER CONSTRUCTION EQUIPMENT WILL NOT BE PERMITTED OUTSIDE THE WORK AREA LIMITS EXCEPT FOR INGRESS AND EGRESS OF THE SITE AT APPROVED LOCATIONS. THE STACKING OF DISCHARGE PIPES IN LAYERS EXCEEDING TWO PIPES HIGH SHALL BE PROHIBITED IN ANY OF THE STORAGE OR STAGING AREAS INCLUDING THE TEMPORARY AREAS.
- ANY EXISTING SIGNS, FENCES, OR OTHER STRUCTURES WITHIN THE WORK LIMITS SHALL BE PROTECTED AND/OR REMOVED AND LATER REPLACED BY THE CONTRACTOR AS DIRECTED.

**DREDGING**

- ALL DREDGING SHALL BE PERFORMED WITHIN THE LIMITS OF THE PERMITTED DREDGING AREA AS SHOWN IN THE DRAWINGS.
- PIPELINE CORRIDOR SHALL BE DELINEATED WITH BUOYS BY THE CONTRACTOR IN THE PRESENCE OF THE ENGINEER/OWNER BEFORE PLACEMENT.
- A POST-DREDGE SURVEY OF THE BORROW AREA SHALL BE COMPLETED BY AN INDEPENDENT PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF NORTH CAROLINA, COORDINATED AND PAID FOR BY THE CONTRACTOR TO STANDARDS OUTLINED IN THE TECHNICAL SPECIFICATIONS.
- THE PLANE COORDINATES AND BEARINGS SHOWN FOR THE DREDGING SURVEYS ARE BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 83 (NAD 83).
- ALL ELEVATIONS SHOWN ON THE DREDGING DRAWINGS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).
- THE BATHYMETRY PRESENTED ON THE DREDGING PLANS IS BASED ON A SURVEY COMPLETED IN JUNE 2019 BY GEODYNAMICS AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THAT TIME.

**BEACH FILL**

- ALL SAND EXCAVATED FROM THE BORROW AREAS SHALL BE TRANSPORTED TO, AND DEPOSITED ON, THE BEACH BETWEEN THE LINES, GRADES, AND CROSS-SECTIONS SHOWN ON THE DRAWINGS.
- AFTER NOTIFICATION BY THE CONTRACTOR OF THEIR INTENT TO COMMENCE DREDGING AND SAND PLACEMENT, A CURRENT BEACH SURVEY WILL BE PERFORMED BY THE CONTRACTOR NO MORE THAN 6 WEEKS BEFORE CONSTRUCTION. TRANSECTS SHALL BE AT 100 FOOT INTERVALS WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE UPDATED SURVEY AT LEAST 3 WEEKS PRIOR TO THE COMMENCEMENT OF BEACH FILL PLACEMENT. THE UPDATED BEACH SURVEY WILL BE USED TO ADJUST THE LIMITS AND GRADE LINES TO GENERALLY MEET THE FILL DENSITIES PROVIDED WITH THE SECTIONS ON SHEETS C-301 THRU C-313.
- SAND SHALL BE PLACED WITHIN THESE LIMITS AND GRADE LINES AS PRACTICALLY AS POSSIBLE. TOLERANCE SHALL BE WITHIN ±0.5 FOOT FOR DUNE AND BERM FEATURE OUT TO THE MEAN TIDE LEVEL (MTL). PAYMENT WILL BE MADE FOR THE CY/FT SHOWN ON THE ADJUSTED FILL TEMPLATE WITH A TOLERANCE OF ±10%. EVERY ATTEMPT WILL BE MADE BY THE CONTRACTOR TO FILL WITHIN THE PRESCRIBED TEMPLATE. SEE TECHNICAL SPECIFICATIONS. THE BEACH FILL SHALL BE PLACED BY REACH FROM EAST TO WEST.
- THE OWNER MAY MAKE ALTERATIONS IN THE PLAN DIMENSIONS, GRADE OF SLOPES, OR VOLUME OF FILL PER FOOT OF BEACH IN ORDER TO ACCOUNT FOR CHANGED CONDITIONS SINCE THE TIME OF THE EXISTING CONDITIONS SURVEY. THE CONTRACTOR SHALL WORK CLOSELY WITH THE OWNER TO ENSURE THAT THE TOTAL QUANTITY OF SAND ALLOWED UNDER THE CONTRACT IS PLACED AS EFFECTIVELY AS POSSIBLE.
- CONTRACTOR SHALL TAKE CARE TO GRADE THE DUNE AND BERM FEATURE SO THAT PONDING LANDWARD OF THE CRESTS IS MINIMIZED.
- EXISTING WALKWAYS SHALL REMAIN AND NOT BE DAMAGED BEYOND CURRENT CONDITIONS. ANY ADDITIONAL DAMAGE WILL BE REPAIRED OR REPLACED AT THE CONTRACTORS COST AS DIRECTED BY THE OWNER OR THE ENGINEER. FILL SHALL BE PLACED COMPLETELY UNDERNEATH AND/OR AROUND STRUCTURES.
- THE PLANE COORDINATES AND BEARINGS SHOWN FOR THE BEACH FILL SURVEYS ARE BASED ON THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 83 (NAD 83).
- ALL ELEVATIONS SHOWN ON THE BEACH FILL DRAWINGS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).
- THE BATHYMETRY/TOPOGRAPHY PRESENTED ON THE BEACH FILL PLANS AND SECTIONS IS BASED ON A SURVEY COMPLETED IN JANUARY 2021 BY TI COASTAL AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THAT TIME.
- THE MEAN HIGH WATER ELEVATION AND MEAN LOW WATER ELEVATION SHOWN ON THE BEACH FILL DRAWINGS AND BELOW ARE BASED ON NOAA TIDAL DATUMS AT THE OAK ISLAND, ATLANTIC OCEAN, NC STATION.



- CONTOURS FOR THE BEACH FILL PLANS ARE SHOWN AT 1 FT INTERVALS.
- PRE- AND POST-CONSTRUCTION SURVEYS OF THE BEACH AREA SHALL BE COMPLETED BY AN INDEPENDENT PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF NORTH CAROLINA, COORDINATED AND PAID FOR BY THE CONTRACTOR. TRANSECTS SHALL BE AT 100-FOOT INTERVALS. ADDITIONAL ELEVATIONS SHALL BE TAKEN AS NECESSARY TO ACCURATELY REPRESENT TOPOGRAPHY OF THE BEACH AREA.
- BEACH FILL SLOPES CALLED OUT ON PLANS ARE HORIZONTAL : VERTICAL.
- SEE TECHNICAL SPECIFICATION FOR ADDITIONAL PLACEMENT REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY SAND RAMPS OVER THE PIPELINE FOR PEDESTRIAN AND EMERGENCY VEHICLE ACCESS ALONG THE BEACH. THE MAXIMUM DISTANCE BETWEEN THESE TEMPORARY SAND RAMPS SHALL BE 500 FEET. THESE TEMPORARY SAND RAMPS SHALL BE LEVELED ONCE THE PIPELINE HAS BEEN MOVED. THE CONTRACTOR SHALL ALSO CONSTRUCT A BARRIER TO KEEP THE PUBLIC AT LEAST 250 FEET FROM THE DISCHARGE PIPE IN BOTH DIRECTIONS UP AND DOWN THE BEACH. SEE THE TECHNICAL SPECIFICATIONS.

**FILL QUANTITIES**

- THE FOLLOWING ESTIMATES OF SAND QUANTITIES REQUIRED FOR THE PROJECT ARE:  
  

|  |                   |
|--|-------------------|
| BASE PROJECT: START TO STA 415+00      | 530,000 CY        |
| ADD ALTERNATE #1: STA 415+00 TO 460+00 | 165,000 CY        |
| ADD ALTERNATE #2: STA 460+00 TO END    | 165,000 CY        |
| <b>BEACH RESTORATION: TOTAL</b>        | <b>860,000 CY</b> |
- THE FOLLOWING ESTIMATES OF PLANTING QUANTITIES REQUIRED FOR THE PROJECT ARE:  
  

|  |                  |
|--|------------------|
| BASE PROJECT: START TO STA 415+00      | 45,000 SY        |
| ADD ALTERNATE #1: STA 415+00 TO 460+00 | 16,000 SY        |
| ADD ALTERNATE #2: STA 460+00 TO END    | 14,000 SY        |
| <b>DUNE PLANTING: TOTAL</b>            | <b>75,000 SY</b> |



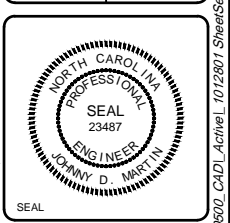
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|------------|-------------------------|-----|
| 03/21/2021 | ISSUED FOR CONSTRUCTION | JDM |
| 04/20      | BD DOCUMENTS            | JDM |
|            |                         |     |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
DRAWING INDEX AND  
NOTES**

|                  |                          |                 |                                   |                                |
|------------------|--------------------------|-----------------|-----------------------------------|--------------------------------|
| Designed by: KEF | Drawn by: VNM            | Checked by: SRM | Reviewed by: JDM                  | Submitted by: MOFFATT & NICHOL |
| Date: 03/03/2021 | MAN Project No: 10128-01 | Drawing code:   | Drawing Scale: 1" = 10' (0 SHEET) | Per scale:                     |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**G-002**  
INDEX: 2 OF 42

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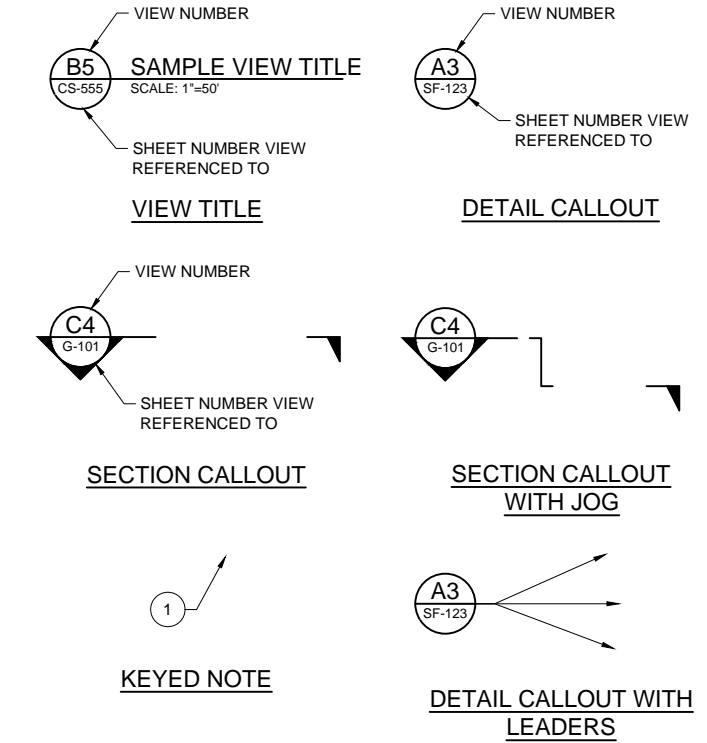
**ABBREVIATIONS**

|      |   |     |               |
|------|---|-----|---------------|
| CY   | CUBIC YARDS                                     | No. | NUMBER        |
| FT   | FEET OR FOOT                                    | TYP | TYPICAL       |
| MHW  | MEAN HIGH WATER                                 | WP  | WORK POINT    |
| MLW  | MEAN LOW WATER                                  | BL  | BASELINE      |
| MTL  | MEAN TIDE LEVEL                                 | @   | AT            |
| NAD  | NORTH AMERICAN DATUM                            | -   | APPROXIMATELY |
| NAVD | NORTH AMERICAN VERTICAL DATUM                   |     |               |
| NOAA | NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION |     |               |

**LEGEND**

|                 |                                  |                 |
|-----------------|----------------------------------|-----------------|
| <b>EXISTING</b> |                                  | <b>PROPOSED</b> |
| ---             | MEAN HIGH WATER LINE             | ---             |
| ---             | MEAN LOW WATER LINE              | ---             |
| ---             | MEAN TIDE LEVEL LINE             | ---             |
| ---             | PROPERTY LINE                    | ---             |
| ---             | MAJOR CONTOUR                    | ---             |
| ---             | MINOR CONTOUR                    | ---             |
| ---             | FILL SLOPE LIMIT                 | ---             |
| ---             | FILL SLOPE BREAK                 | ---             |
| ⊗               | CONSTRUCTION BASELINE WORK POINT | ⊕ WP-##         |
| ⊗               | NGS STATION                      |                 |
| ⊗               | NAME                             |                 |

**LEGEND**

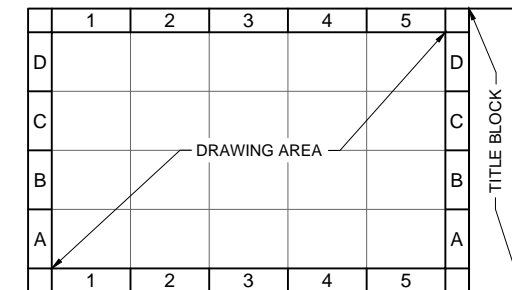


\* VIEW NUMBER IS BASED ON THE (DACS) LOCATION OF THE LOWER-LEFT EXTENTS OF THE VIEW ON THE REFERENCED SHEET. WHEN REFERENCING DRAWING INFORMATION BETWEEN SHEETS, BOTH THE VIEW AND SHEET NUMBERS MUST BE QUOTED TOGETHER - EITHER IN A CALLOUT FORMAT AS SHOWN ABOVE OR IN THE FORM:  
"VIEW NO./SHEET NO." (EG A1/CS-5001)

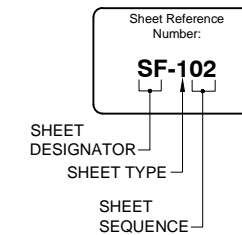
| SHEET TYPE DESIGNATORS |   |
|------------------------|---|
| 0                      | GENERAL (COVER SHEET, LEGEND, NOTES)                    |
| 1                      | PLANS (HORIZONTAL VIEWS)                                |
| 2                      | ELEVATIONS (NOT TYPICALLY USED)                         |
| 3                      | SECTIONS (OVERALL VIEWS)                                |
| 4                      | LARGE-SCALE VIEWS (PLANS, SECT. OR ELEV. - NOT DETAILS) |
| 5                      | DETAILS (MAY BE PLAN, SECT. OR ELEV. VIEWS)             |
| 6                      | SCHEDULES   |
| 7                      | USER DEFINED  |
| 8                      | USER DEFINED  |
| 9                      | 3D ISOMETRIC  |

| DISCIPLINE DESIGNATORS |            |
|------------------------|------------|
| DISCIPLINE             | DESIGNATOR |
| GENERAL                | G          |
| SURVEY/MAPPING         | V          |
| GEOTECHNICAL           | B          |
| CIVIL WORKS            | W          |
| CIVIL                  | C          |
| STRUCTURAL             | S          |
| MECHANICAL             | M          |
| ELECTRICAL             | E          |
| OTHER DISCIPLINES      | X          |

| SECONDARY DESIGNATORS |   |
|-----------------------|---|
| DEMOLITION            | D |
| GENERAL               | G |
| SUBSTRUCTURE          | B |
| FRAMING               | F |
| COMPONENT             | C |
| SITE                  | S |



**DRAWING AREA COORDINATE SYSTEM (DACS)**



| Rev. | Date       | By  | Description             |
|------|------------|-----|-------------------------|
| 1    | 03/21/2021 | JDM | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | JDM | BD DOCUMENTS            |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

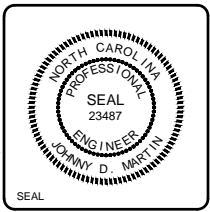
**ABBREVIATIONS & LEGEND**

|                  |                          |                 |                  |                                |                               |
|------------------|--------------------------|-----------------|------------------|--------------------------------|-------------------------------|
| Designed by: KEF | Drawn by: VNM            | Checked by: SRM | Reviewed by: JDM | Submitted by: MOFFATT & NICHOL | Per scale: 1" = 10' (0 SHEET) |
| Date: 03/03/2021 | MAN Project No: 10128-01 | Drawing code:   | Drawing Scale:   |                                |                               |

4770 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

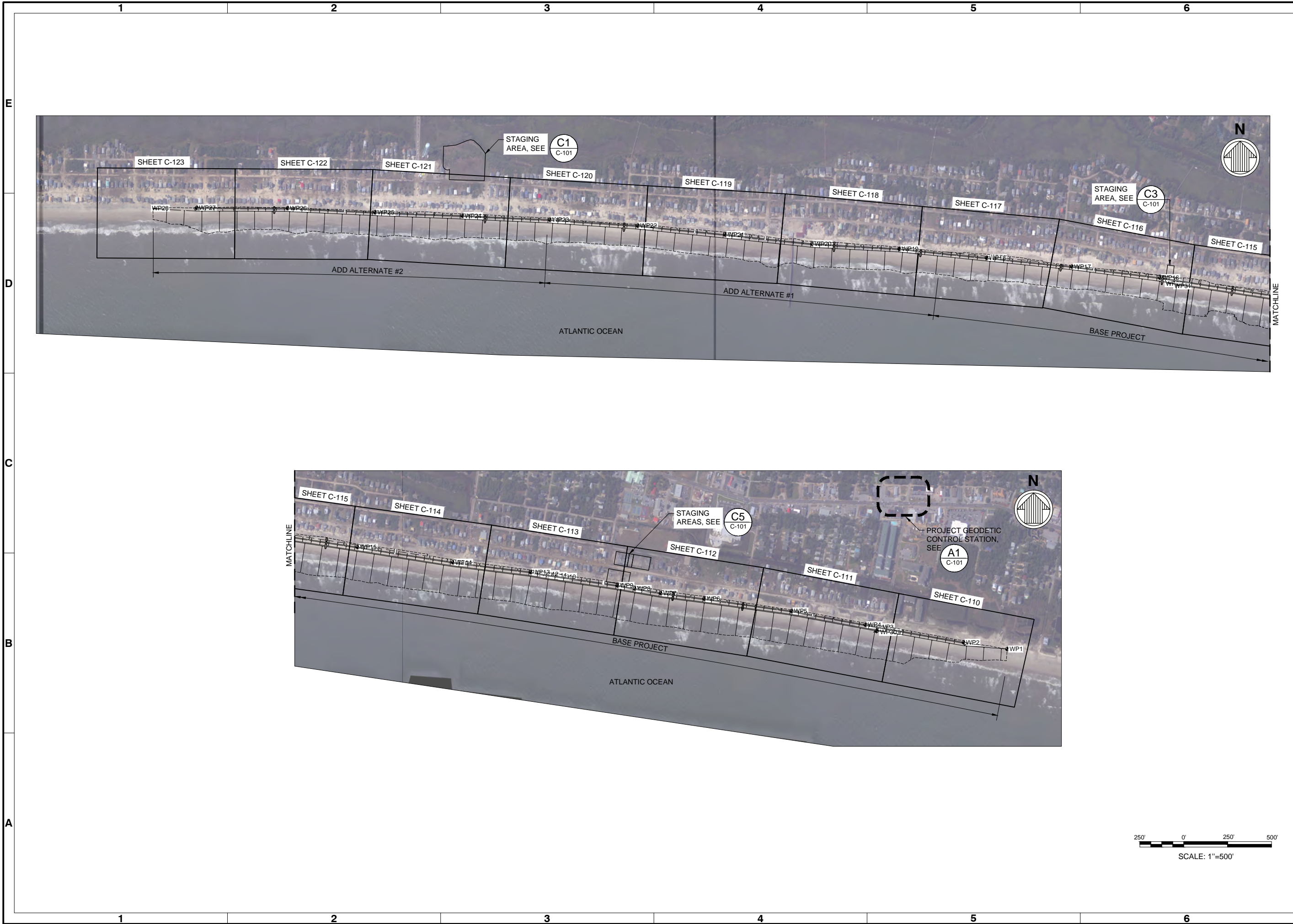
**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **G-003**

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| Rev. | Date       | Description             | Mark | Appr. |
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| 0    | 04/20/2021 | BD DOCUMENTS            | JDM  | JDM   |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

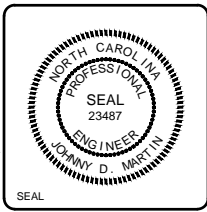
**KEY PLAN**

|                                |                          |                                   |
|--------------------------------|--------------------------|-----------------------------------|
| Designed by: KEF               | Date: 03/03/2021         | Rev: 1                            |
| Drawn by: VNM                  | MAN Project No: 10128-01 |                                   |
| Reviewed by: JDM               | SRM                      |                                   |
| Submitted by: MOFFATT & NICHOL | Drawing code:            | Drawing Scale: 1" = 10' (0 SHEET) |

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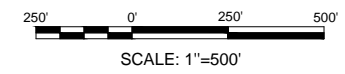
**moftatt & nichol**

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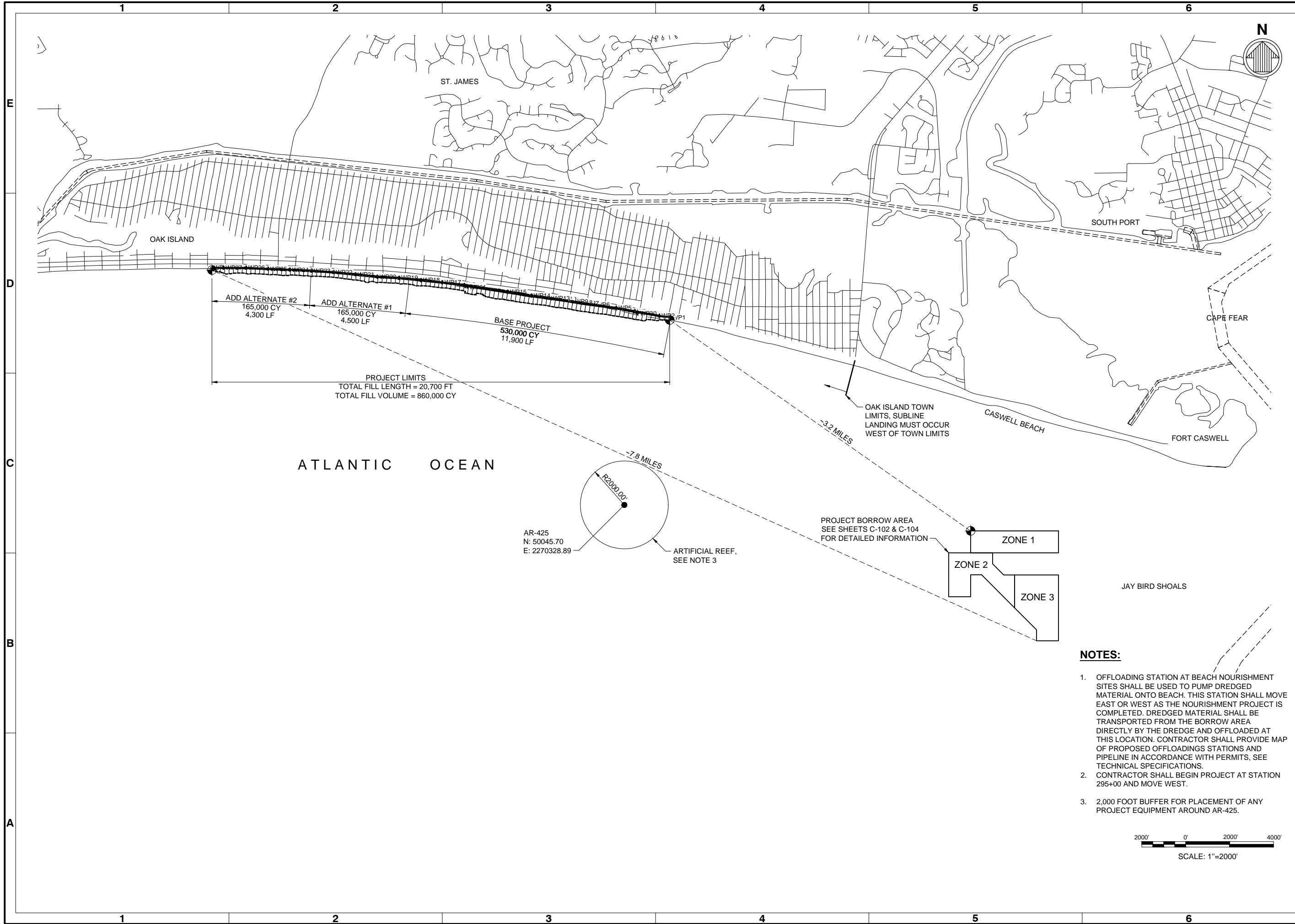


Sheet Reference No. **G-004**

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| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

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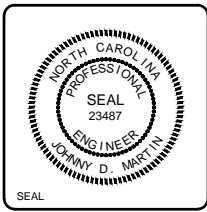
**PROJECT MAP**

|   |   |
|---|---|
| Date: 03/03/2021<br>Man Project No: 10128-01<br>Drawing Code: | Date: 03/03/2021<br>Man Project No: 10128-01<br>Drawing Code: |
|---|---|

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 919-781-4826

**moftatt & nichol**

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Sheet Reference No. **C-100**  
 INDEX: 5 OF 42

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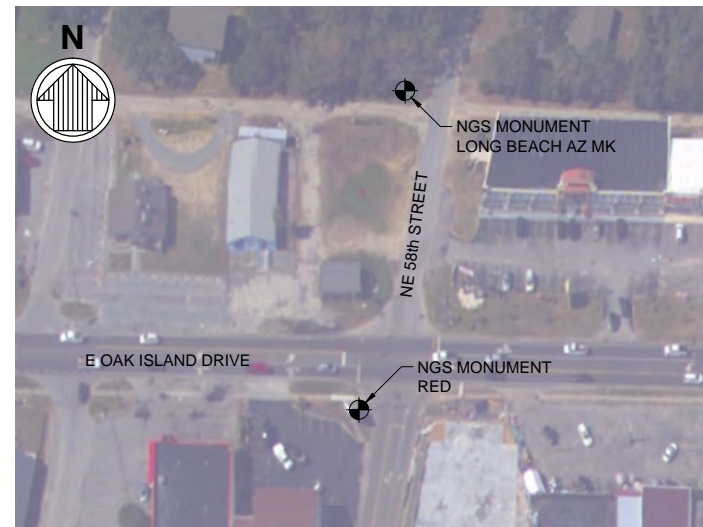
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G-004 NOT TO SCALE



**C3** STAGING AREA  
G-004 NOT TO SCALE



**C5** STAGING AREAS  
G-004 NOT TO SCALE



| MONUMENT         | NORTHING | EASTING    | ELEVATION |
|------------------|----------|------------|-----------|
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| RED              | 60209.52 | 2271232.70 | 13.23     |

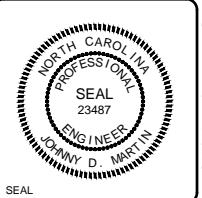
**A1** PROJECT GEODETIC CONTROL STATIONS  
G-004 NOT TO SCALE



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

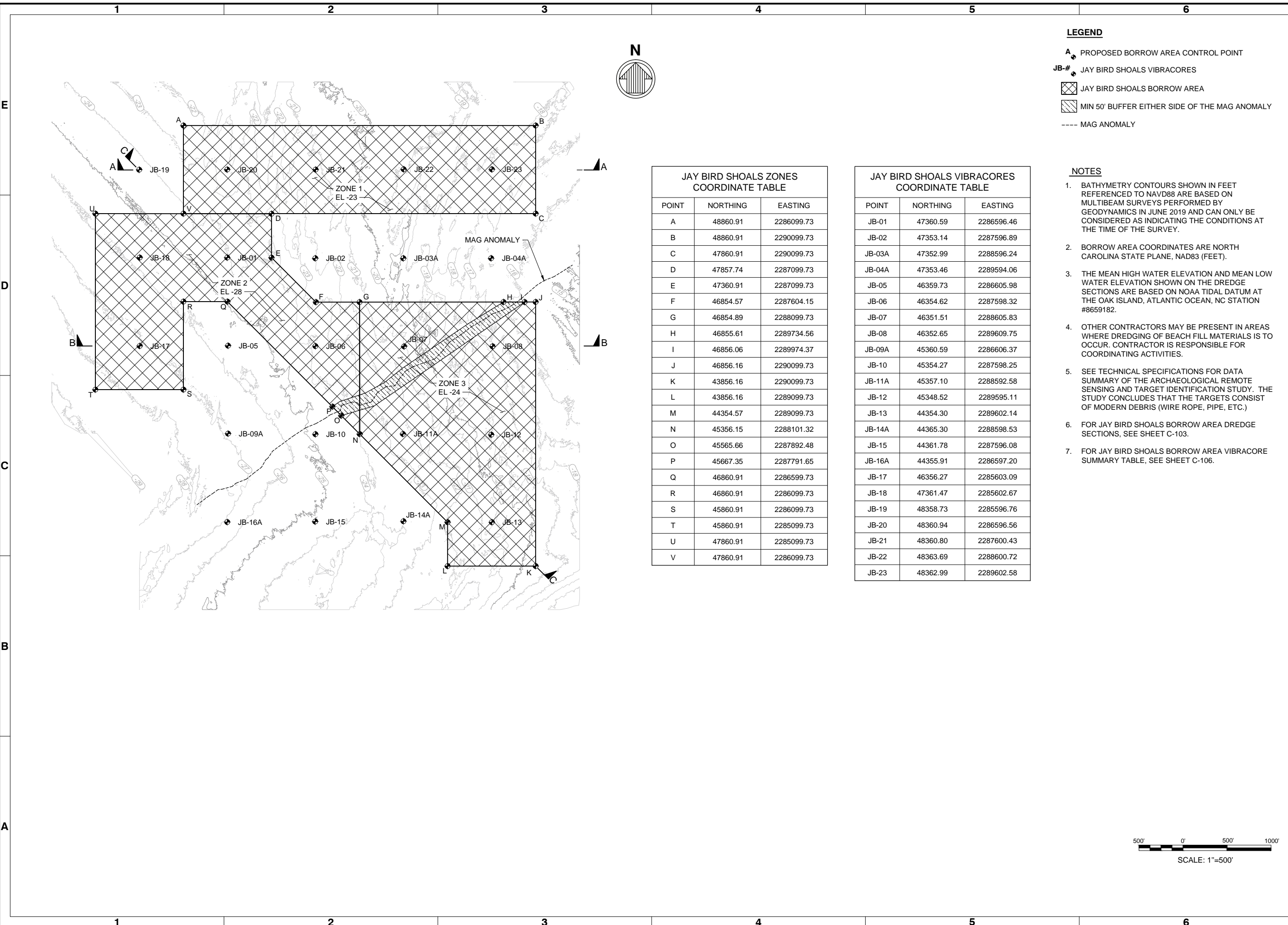
**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**  
**PROJECT STAGING, ACCESS, AND SURVEY CONTROL PLANS**

|  |                                |                                   |
|--|--------------------------------|-----------------------------------|
| Designed by: KEF   | Date: 03/03/2021               | Rev: 1                            |
| Dwn by: VNM  | MAN Project No: 10128-01       |                                   |
| Checked by: SRM  | Drawing code:                  |                                   |
| Reviewed by: JDM   | Submitted by: MOFFATT & NICHOL | Drawing Scale: 1" = 10' (0 SHEET) |
| 4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609 919-781-4826 |                                |                                   |
| PREPARED FOR THE TOWN OF OAK ISLAND                                  |                                |                                   |



Sheet Reference No.  
**C-101**  
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- LEGEND**
- A PROPOSED BORROW AREA CONTROL POINT
  - JB-# JAY BIRD SHOALS VIBRACORES
  - [Cross-hatched box] JAY BIRD SHOALS BORROW AREA
  - [Dashed line] MIN 50' BUFFER EITHER SIDE OF THE MAG ANOMALY
  - MAG ANOMALY

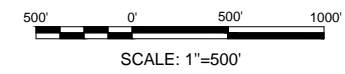
- NOTES**
1. BATHYMETRY CONTOURS SHOWN IN FEET REFERENCED TO NAVD88 ARE BASED ON MULTIBEAM SURVEYS PERFORMED BY GEODYNAMICS IN JUNE 2019 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THE TIME OF THE SURVEY.
  2. BORROW AREA COORDINATES ARE NORTH CAROLINA STATE PLANE, NAD83 (FEET).
  3. THE MEAN HIGH WATER ELEVATION AND MEAN LOW WATER ELEVATION SHOWN ON THE DREDGE SECTIONS ARE BASED ON NOAA TIDAL DATUM AT THE OAK ISLAND, ATLANTIC OCEAN, NC STATION #8659182.
  4. OTHER CONTRACTORS MAY BE PRESENT IN AREAS WHERE DREDGING OF BEACH FILL MATERIALS IS TO OCCUR. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ACTIVITIES.
  5. SEE TECHNICAL SPECIFICATIONS FOR DATA SUMMARY OF THE ARCHAEOLOGICAL REMOTE SENSING AND TARGET IDENTIFICATION STUDY. THE STUDY CONCLUDES THAT THE TARGETS CONSIST OF MODERN DEBRIS (WIRE ROPE, PIPE, ETC.)
  6. FOR JAY BIRD SHOALS BORROW AREA DREDGE SECTIONS, SEE SHEET C-103.
  7. FOR JAY BIRD SHOALS BORROW AREA VIBRACORE SUMMARY TABLE, SEE SHEET C-106.

**JAY BIRD SHOALS ZONES COORDINATE TABLE**

| POINT | NORTHING | EASTING    |
|-------|----------|------------|
| A     | 48860.91 | 2286099.73 |
| B     | 48860.91 | 2290099.73 |
| C     | 47860.91 | 2290099.73 |
| D     | 47857.74 | 2287099.73 |
| E     | 47360.91 | 2287099.73 |
| F     | 46854.57 | 2287604.15 |
| G     | 46854.89 | 2288099.73 |
| H     | 46855.61 | 2289734.56 |
| I     | 46856.06 | 2289974.37 |
| J     | 46856.16 | 2290099.73 |
| K     | 43856.16 | 2290099.73 |
| L     | 43856.16 | 2289099.73 |
| M     | 44354.57 | 2289099.73 |
| N     | 45356.15 | 2288101.32 |
| O     | 45565.66 | 2287892.48 |
| P     | 45667.35 | 2287791.65 |
| Q     | 46860.91 | 2286599.73 |
| R     | 46860.91 | 2286099.73 |
| S     | 45860.91 | 2286099.73 |
| T     | 45860.91 | 2285099.73 |
| U     | 47860.91 | 2285099.73 |
| V     | 47860.91 | 2286099.73 |

**JAY BIRD SHOALS VIBRACORES COORDINATE TABLE**

| POINT  | NORTHING | EASTING    |
|--------|----------|------------|
| JB-01  | 47360.59 | 2286596.46 |
| JB-02  | 47353.14 | 2287596.89 |
| JB-03A | 47352.99 | 2288596.24 |
| JB-04A | 47353.46 | 2289594.06 |
| JB-05  | 46359.73 | 2286605.98 |
| JB-06  | 46354.62 | 2287598.32 |
| JB-07  | 46351.51 | 2288605.83 |
| JB-08  | 46352.65 | 2289609.75 |
| JB-09A | 45360.59 | 2286606.37 |
| JB-10  | 45354.27 | 2287598.25 |
| JB-11A | 45357.10 | 2288592.58 |
| JB-12  | 45348.52 | 2289595.11 |
| JB-13  | 44354.30 | 2289602.14 |
| JB-14A | 44365.30 | 2288598.53 |
| JB-15  | 44361.78 | 2287596.08 |
| JB-16A | 44355.91 | 2286597.20 |
| JB-17  | 46356.27 | 2285603.09 |
| JB-18  | 47361.47 | 2285602.67 |
| JB-19  | 48358.73 | 2285596.76 |
| JB-20  | 48360.94 | 2286596.56 |
| JB-21  | 48360.80 | 2287600.43 |
| JB-22  | 48363.69 | 2288600.72 |
| JB-23  | 48362.99 | 2289602.58 |



| Rev. | Date       | Description             |
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| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

**BORROW AREA PLAN**

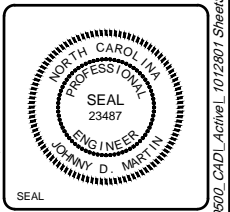
**VIEW - HOPPER DREDGE**

|                                |                                   |        |
|--------------------------------|-----------------------------------|--------|
| Designed by: KEF               | Date: 03/03/2021                  | Rev: 1 |
| Dwn by: VNM                    | M&N Project No: 10128-01          |        |
| Reviewed by: JDM               | Drawing code:                     |        |
| Submitted by: MOFFATT & NICHOL | Drawing Scale: 1" = 10' (0 SHEET) |        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moffatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **C-102**

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| Rev. | Date       | Appr. |
|------|------------|-------|
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| 0    | 04/20/2020 | JDM   |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

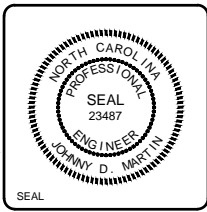
**BORROW AREA CROSS  
SECTIONS - HOPPER  
DREDGE**

|              |     |                  |                  |                |                            |
|--------------|-----|------------------|------------------|----------------|----------------------------|
| Designed by: | KEF | Date:            | 03/03/2021       | Rev:           | 1                          |
| Dwn by:      | VNM | MAN Project No.: | 10128-01         | Drawing code:  |                            |
| Drawn by:    | VNM | SRM              |                  | Drawing Scale: | 1" = 10' (0 SHEET)         |
| Reviewed by: | JDM | Submitted by:    | MOFFATT & NICHOL | Per scale:     | 4/2/2020 4:38 PM by: BFORD |

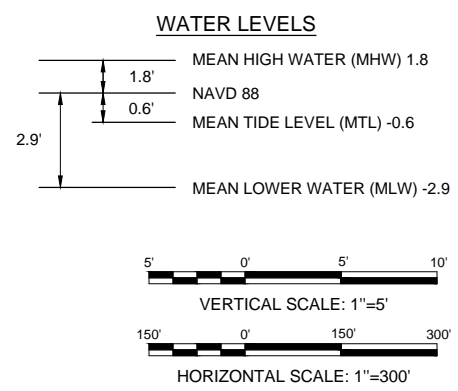
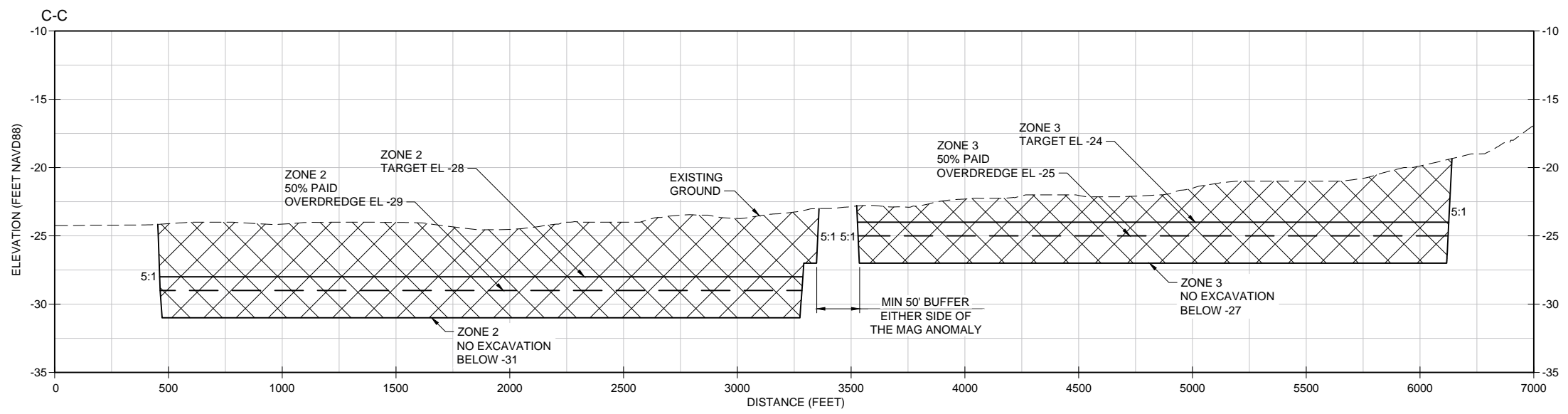
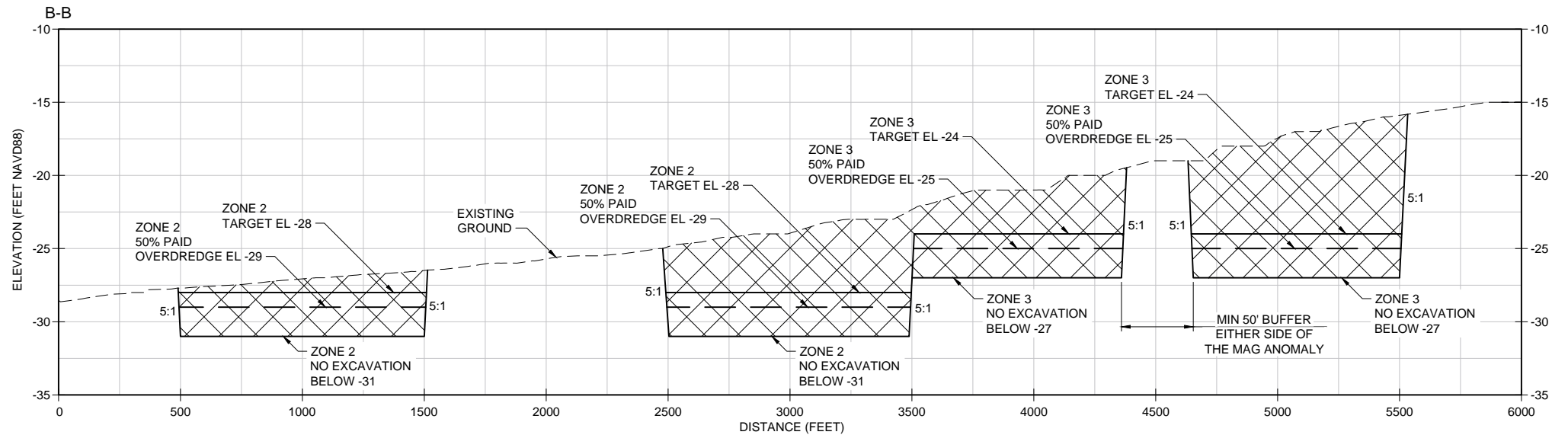
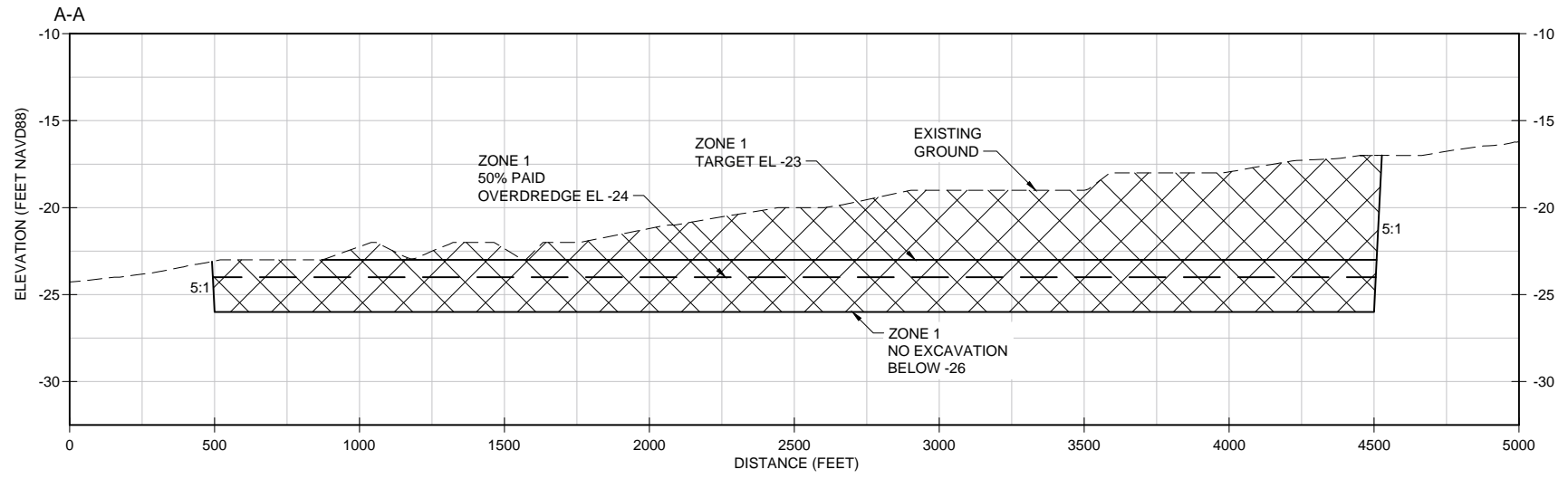
4700 FALLS OF THE NEUSE ROAD, STE  
300 RALEIGH, NC 27609  
919-781-4826

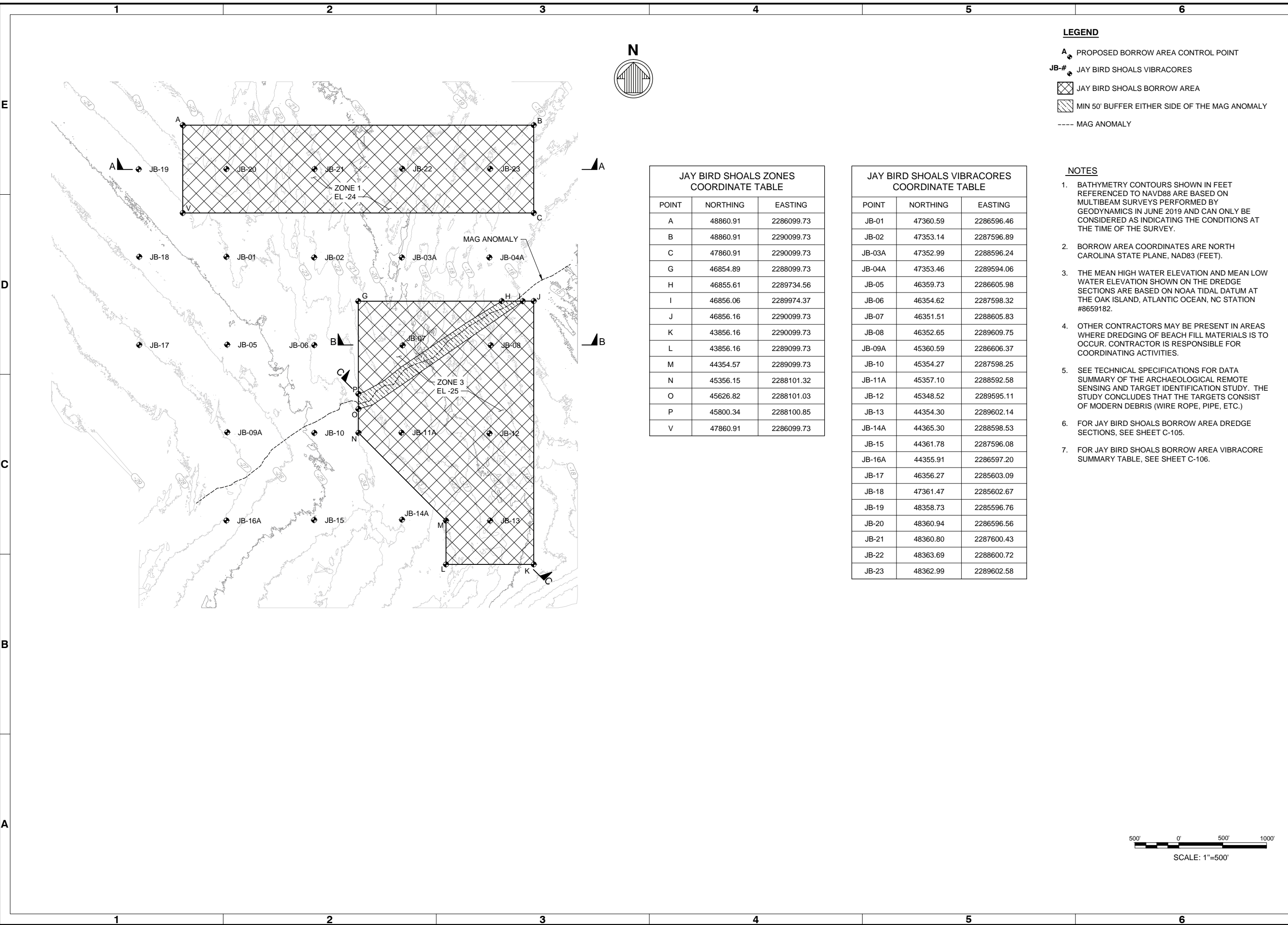
**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-103**  
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**JAY BIRD SHOALS ZONES  
COORDINATE TABLE**

| POINT | NORTHING | EASTING    |
|-------|----------|------------|
| A     | 48860.91 | 2286099.73 |
| B     | 48860.91 | 2290099.73 |
| C     | 47860.91 | 2290099.73 |
| G     | 46854.89 | 2288099.73 |
| H     | 46855.61 | 2289734.56 |
| I     | 46856.06 | 2289974.37 |
| J     | 46856.16 | 2290099.73 |
| K     | 43856.16 | 2290099.73 |
| L     | 43856.16 | 2289099.73 |
| M     | 44354.57 | 2289099.73 |
| N     | 45356.15 | 2288101.32 |
| O     | 45626.82 | 2288101.03 |
| P     | 45800.34 | 2288100.85 |
| V     | 47860.91 | 2286099.73 |

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COORDINATE TABLE**

| POINT  | NORTHING | EASTING    |
|--------|----------|------------|
| JB-01  | 47360.59 | 2286596.46 |
| JB-02  | 47353.14 | 2287596.89 |
| JB-03A | 47352.99 | 2288596.24 |
| JB-04A | 47353.46 | 2289594.06 |
| JB-05  | 46359.73 | 2286605.98 |
| JB-06  | 46354.62 | 2287598.32 |
| JB-07  | 46351.51 | 2288605.83 |
| JB-08  | 46352.65 | 2289609.75 |
| JB-09A | 45360.59 | 2286606.37 |
| JB-10  | 45354.27 | 2287598.25 |
| JB-11A | 45357.10 | 2288592.58 |
| JB-12  | 45348.52 | 2289595.11 |
| JB-13  | 44354.30 | 2289602.14 |
| JB-14A | 44365.30 | 2288598.53 |
| JB-15  | 44361.78 | 2287596.08 |
| JB-16A | 44355.91 | 2286597.20 |
| JB-17  | 46356.27 | 2285603.09 |
| JB-18  | 47361.47 | 2285602.67 |
| JB-19  | 48358.73 | 2285596.76 |
| JB-20  | 48360.94 | 2286596.56 |
| JB-21  | 48360.80 | 2287600.43 |
| JB-22  | 48363.69 | 2288600.72 |
| JB-23  | 48362.99 | 2289602.58 |

- LEGEND**
- A PROPOSED BORROW AREA CONTROL POINT
  - JB-# JAY BIRD SHOALS VIBRACORES
  - [Cross-hatched box] JAY BIRD SHOALS BORROW AREA
  - [Dashed line] MIN 50' BUFFER EITHER SIDE OF THE MAG ANOMALY
  - MAG ANOMALY

- NOTES**
- BATHYMETRY CONTOURS SHOWN IN FEET REFERENCED TO NAVD88 ARE BASED ON MULTIBEAM SURVEYS PERFORMED BY GEODYNAMICS IN JUNE 2019 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THE TIME OF THE SURVEY.
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  - FOR JAY BIRD SHOALS BORROW AREA DREDGE SECTIONS, SEE SHEET C-105.
  - FOR JAY BIRD SHOALS BORROW AREA VIBRACORE SUMMARY TABLE, SEE SHEET C-106.



| Rev. | Date       | Description             |
|------|------------|-------------------------|
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| 0    | 04/20/2021 | BD DOCUMENTS            |
| 0    |            |                         |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

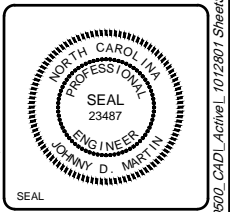
**BORROW AREA PLAN  
VIEW - HYDRAULIC  
PIPELINE DREDGE**

|                                   |                             |                    |
|-----------------------------------|-----------------------------|--------------------|
| Designed by:<br>KEF               | Date:<br>03/03/2021         | Rev:<br>1          |
| Drawn by:<br>VNM                  | M&N Project No.<br>10128-01 |                    |
| Checked by:<br>SRM                | Drawing code:               |                    |
| Reviewed by:<br>JDM               | Drawing Scale:<br>1" = 50'  |                    |
| Submitted by:<br>MOFFATT & NICHOL | Per scale:                  | 1" = 50' (0 SHEET) |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

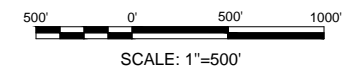
**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-104**

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| Rev. | Date       | Description             |
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| 0    | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

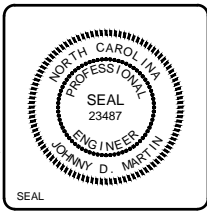
**BORROW AREA CROSS  
SECTIONS - HYDRAULIC  
PIPELINE DREDGE**

|               |                  |                  |                    |               |                  |
|---------------|------------------|------------------|--------------------|---------------|------------------|
| Designed by:  | KEF              | Date:            | 03/03/2021         | Rev:          | 1                |
| Drawn by:     | VNM              | MAN Project No.: | 10128-01           | Drawn by:     | SRM              |
| Reviewed by:  | JDM              | Drawing code:    |                    | Reviewed by:  | JDM              |
| Submitted by: | MOFFATT & NICHOL | Drawing Scale:   | 1" = 10' (0 SHEET) | Submitted by: | MOFFATT & NICHOL |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

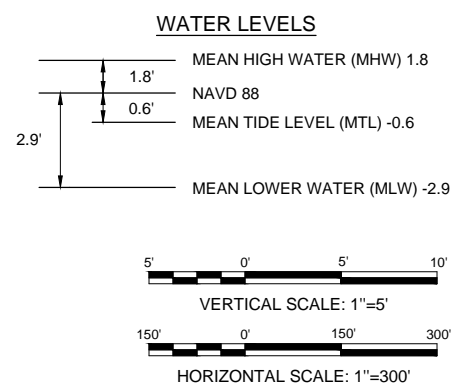
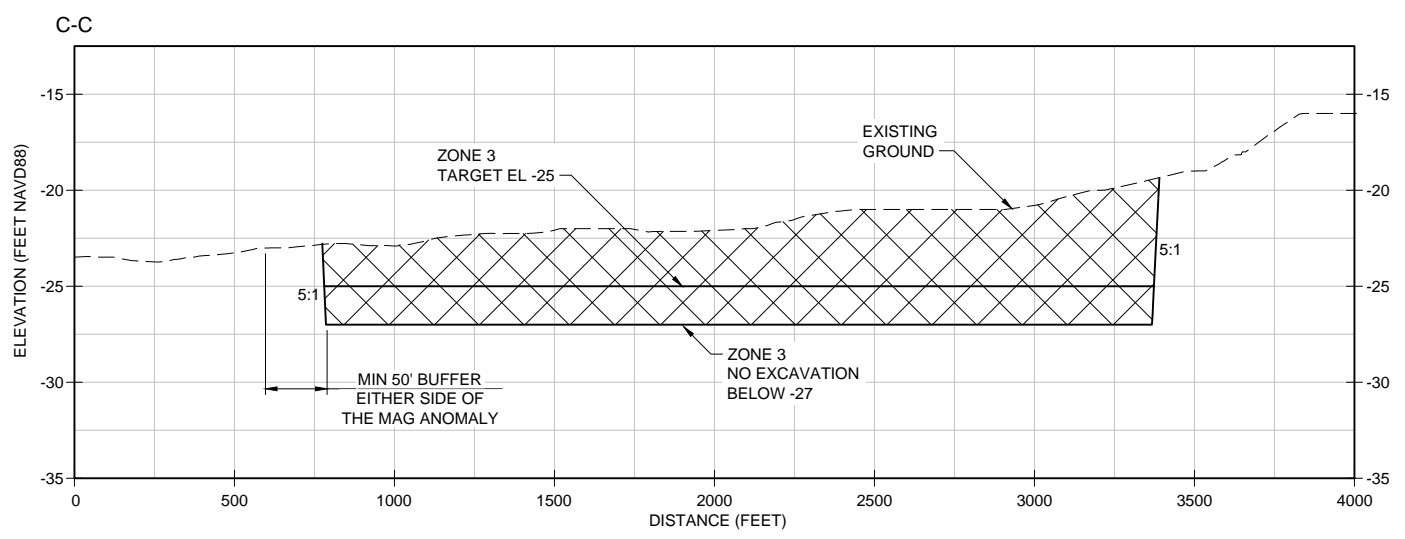
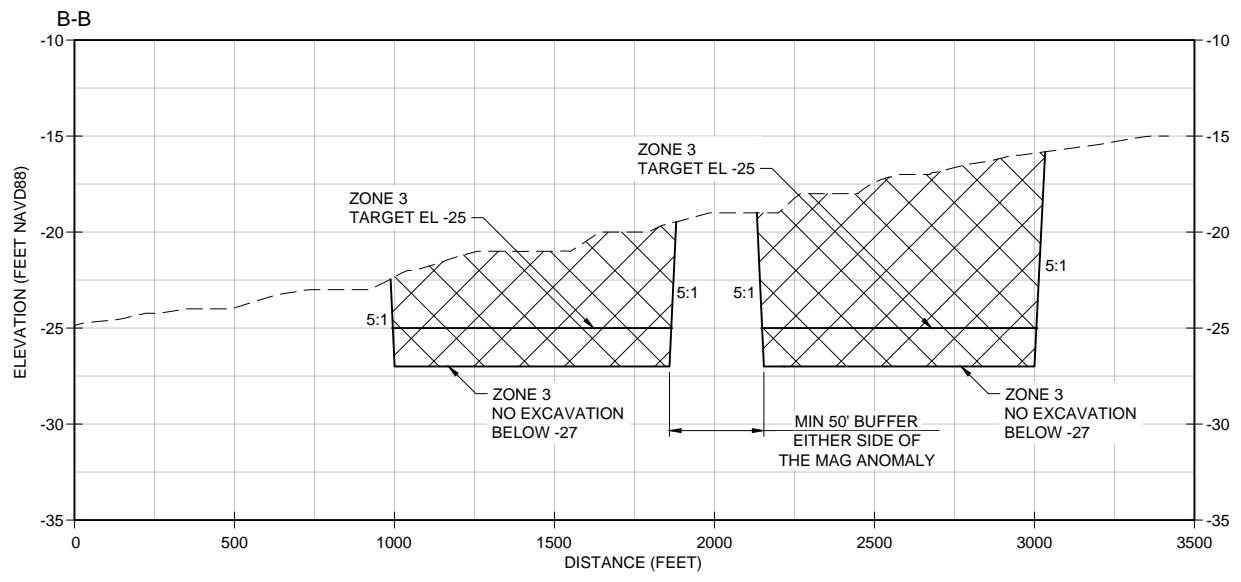
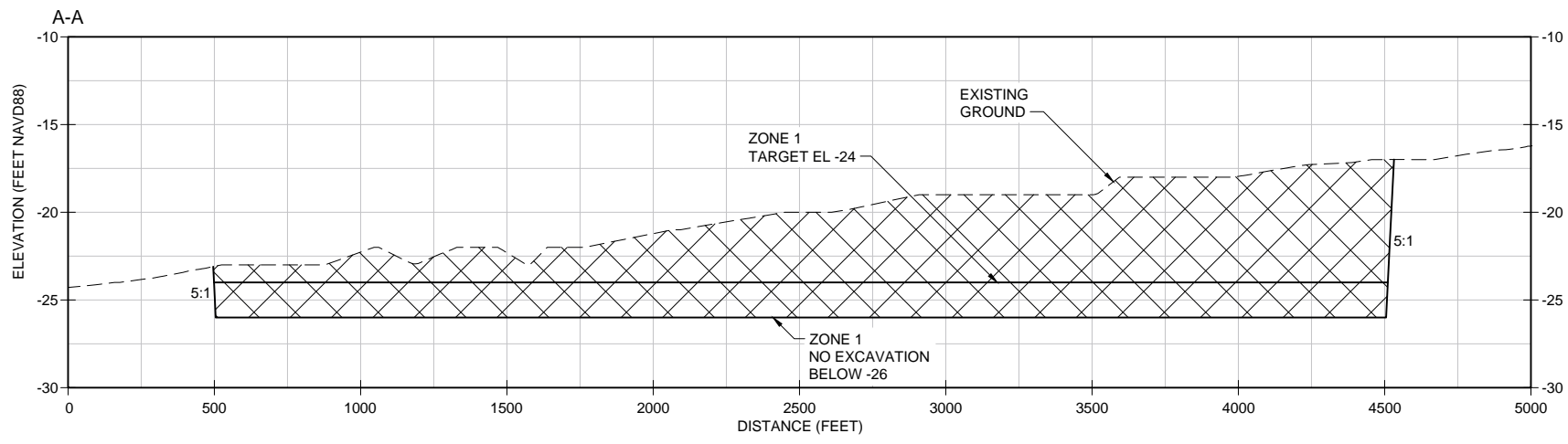
**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-105**

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### Oak Island Sediment Compatibility

#### Native Sediment Characteristics

Reference - (Athena, March 2019)

|                    |          |         |
|--------------------|----------|---------|
| Mean               | 1.90 phi | 0.27 mm |
| Standard Deviation | 0.81 phi | 0.57 mm |

#### Borrow Area Sediment Characteristics - Jay Bird Shoals

Reference - (American Vibracore Services, April 2019)

|                    |          |         |
|--------------------|----------|---------|
| Mean               | 1.60 phi | 0.33 mm |
| Standard Deviation | 1.46 phi | 0.36 mm |

Percent Gravel 1.62%  
 Percent Granular 3.88%  
 Percent Sand 89.77%  
 Percent Fines 4.74%

#### Summary of Jay Bird Shoals Borrow Area Sediment Characteristics

| Vibracore        | Sample Number | Sample Depth (ft) | Sample Elevation (ft NAVD88) | Permitted Dredge Elevation (ft NAVD88) | Gravel (%) | Granular (%) | Sand (%) | <#230 (%) | Carbonate (%) | Mean (mm) | Mean (phi) |      |
|------------------|---------------|-------------------|------------------------------|--|------------|--------------|----------|-----------|---------------|-----------|------------|------|
| JB-01            | 1             | 0-0.9             | -24.2                        | -25.1                                  | -31.0      | 2.18         | 1.99     | 92.25     | 3.58          | 6.80      | 0.34       | 1.56 |
|                  | 2             | 0.9-3.3           | -25.1                        | -27.5                                  |            | 3.20         | 6.66     | 80.27     | 9.87          | 6.80      | 0.45       | 1.15 |
|                  | 3             | 3.3-6             | -27.5                        | -30.2                                  |            | 3.94         | 5.72     | 86.20     | 4.14          | 6.80      | 0.40       | 1.32 |
|                  | 4             | 6-17              | -30.2                        | -41.2                                  |            | 0.03         | 0.34     | 97.21     | 2.42          | 20.80     | 0.27       | 1.89 |
| JB-06            | 1             | 0-1.7             | -23.6                        | -25.3                                  | -31.0      | 2.48         | 5.24     | 86.14     | 6.14          | 13.80     | 0.33       | 1.60 |
|                  | 2             | 1.7-2.1           | -25.3                        | -25.7                                  |            | 6.87         | 9.49     | 80.50     | 3.14          | 13.80     | 0.64       | 0.64 |
|                  | 3             | 2.1-10            | -25.7                        | -33.6                                  |            | 0.17         | 1.87     | 91.05     | 6.91          | 13.20     | 0.26       | 1.92 |
| JB-07            | 1             | 0-2               | -21.0                        | -23.0                                  | -27.0      | 0.67         | 2.69     | 91.64     | 5.00          | 9.30      | 0.26       | 1.93 |
|                  | 2             | 2-5               | -23.0                        | -26.0                                  |            | 3.74         | 7.67     | 82.56     | 6.03          | 9.30      | 0.40       | 1.32 |
|                  | 3             | 5-8               | -26.0                        | -29.0                                  |            | 3.51         | 7.68     | 81.03     | 7.78          | 11.80     | 0.45       | 1.14 |
| JB-08            | 1             | 0-2.5             | -17.5                        | -20.0                                  | -27.0      | 0.17         | 0.61     | 94.04     | 5.18          | 9.60      | 0.18       | 2.45 |
|                  | 2             | 2.5-5             | -20.0                        | -22.5                                  |            | 0.71         | 1.94     | 95.21     | 2.14          | 9.60      | 0.32       | 1.64 |
|                  | 3             | 5-6               | -22.5                        | -23.5                                  |            | 4.55         | 6.91     | 82.26     | 6.28          | 10.50     | 0.56       | 0.83 |
|                  | 4             | 6-16              | -23.5                        | -33.5                                  |            | 0.33         | 5.01     | 90.79     | 3.87          | 10.50     | 0.39       | 1.36 |
| JB-11A           | 1             | 0-2               | -22.3                        | -24.3                                  | -27.0      | 4.74         | 3.26     | 85.71     | 6.29          | 18.50     | 0.24       | 2.04 |
|                  | 2             | 2-6.5             | -24.3                        | -28.8                                  |            | 2.24         | 8.46     | 85.57     | 3.73          | 18.50     | 0.43       | 1.22 |
| JB-12            | 1             | 0-1.6             | -18.8                        | -20.4                                  | -27.0      | 0.15         | 0.69     | 97.60     | 1.56          | 5.90      | 0.33       | 1.60 |
|                  | 2             | 1.6-7             | -20.4                        | -25.8                                  |            | 0.65         | 2.67     | 92.11     | 4.57          | 5.90      | 0.25       | 1.98 |
|                  | 3             | 7-16              | -25.8                        | -34.8                                  |            | 3.19         | 5.36     | 85.72     | 5.73          | 18.80     | 0.35       | 1.51 |
| JB-13            | 1             | 0-1.5             | -20.9                        | -22.4                                  | -27.0      | 0.95         | 2.58     | 94.42     | 2.05          | 10.00     | 0.33       | 1.60 |
|                  | 2             | 1.5-3.1           | -22.4                        | -24.0                                  |            | 0.11         | 1.05     | 92.08     | 6.76          | 10.00     | 0.19       | 2.40 |
|                  | 3             | 3.1-4.4           | -24.0                        | -25.3                                  |            | 5.90         | 11.41    | 76.31     | 6.38          | 21.10     | 0.58       | 0.79 |
|                  | 4             | 4.4-10.5          | -25.3                        | -31.4                                  |            | 5.53         | 5.48     | 84.25     | 4.74          | 21.10     | 0.48       | 1.05 |
| JB-17            | 1             | 0-1.3             | -27.1                        | -28.4                                  | -31.0      | 0.47         | 5.60     | 86.92     | 7.01          | 14.70     | 0.37       | 1.43 |
|                  | 2             | 1.3-11.6          | -28.4                        | -38.7                                  |            | 0.82         | 1.15     | 93.95     | 4.08          | 11.00     | 0.27       | 1.87 |
| JB-18            | 1             | 0-0.5             | -25.7                        | -26.2                                  | -31.0      | 3.98         | 14.80    | 75.22     | 6.00          | 21.20     | 0.66       | 0.60 |
|                  | 2             | 0.5-6             | -26.2                        | -31.7                                  |            | 1.63         | 7.85     | 86.06     | 4.46          | 21.20     | 0.35       | 1.51 |
| JB-20            | 1             | 0-4               | -22.5                        | -26.5                                  | -26.0      | 2.64         | 5.78     | 85.19     | 6.39          | 18.20     | 0.34       | 1.56 |
| JB-21            | 1             | 0-4.5             | -21.6                        | -26.1                                  | -26.0      | 0.81         | 1.71     | 94.56     | 2.92          | 19.30     | 0.31       | 1.69 |
| JB-22            | 1             | 0-3               | -19.2                        | -22.2                                  | -26.0      | 0.13         | 1.03     | 92.87     | 5.97          | 6.50      | 0.23       | 2.12 |
|                  | 2             | 3-5               | -22.2                        | -24.2                                  |            | 3.58         | 5.52     | 86.96     | 3.94          | 18.80     | 0.39       | 1.36 |
|                  | 3             | 5-6               | -24.2                        | -25.2                                  |            | 2.63         | 5.13     | 84.45     | 7.79          | 18.80     | 0.41       | 1.29 |
|                  | 4             | 6-13              | -25.2                        | -32.2                                  |            | 0.54         | 1.66     | 94.79     | 3.01          | 7.70      | 0.34       | 1.56 |
| JB-23            | 1             | 0-6.5             | -17.7                        | -24.2                                  | -26.0      | 0.00         | 0.19     | 98.52     | 1.29          | 6.20      | 0.25       | 2.00 |
|                  | 2             | 6.5-8.3           | -24.2                        | -26.0                                  |            | 0.60         | 2.55     | 91.05     | 5.80          | 13.80     | 0.26       | 1.94 |
| average          |               |                   |                              |  |            | 2.11         | 4.51     | 88.44     | 4.94          | 13.14     | 0.36       | 1.54 |
| weighted average |               |                   |                              |  |            | 1.62         | 3.88     | 89.77     | 4.74          | 12.50     | 0.33       | 1.60 |

Note: Weighted average for Jay Bird Shoals is calculated based on sample heights down to permitted dredge elevation

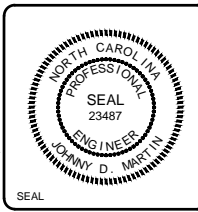


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| 1 | ISSUED FOR CONSTRUCTION | JDM | 03/21 |
| 0 | BD DOCUMENTS            | JDM | 04/20 |

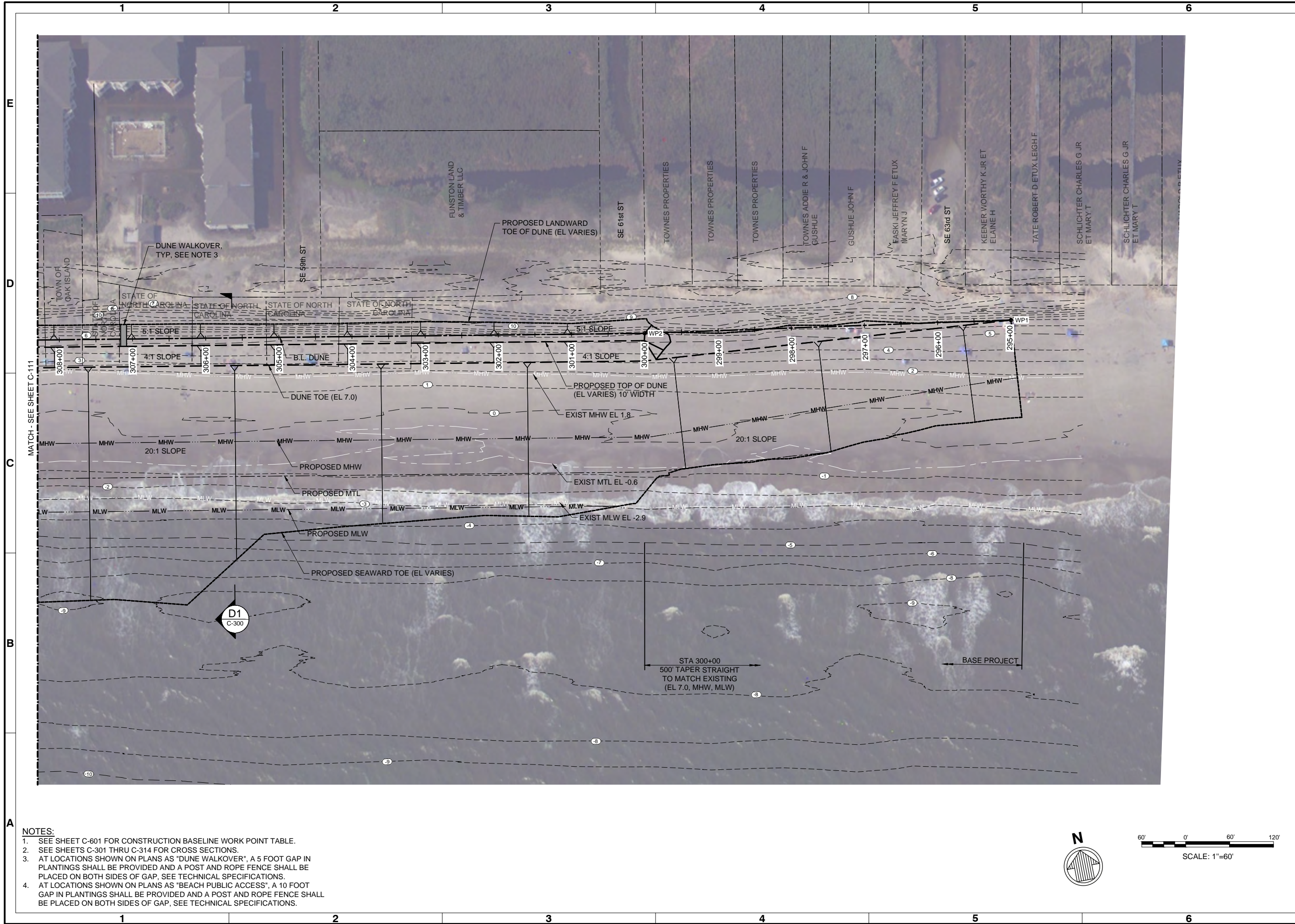
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
BORROW AREA  
VIBRACORE SUMMARY  
TABLE**

|                 |          |               |                  |             |                    |
|-----------------|----------|---------------|------------------|-------------|--------------------|
| Designed by:    | KEF      | Drawn by:     | VNM              | Checked by: | SRM                |
| Reviewed by:    | JDM      | Submitted by: | MOFFATT & NICHOL | Date:       | 03/03/2021         |
| MAN Project No. | 10128-01 | Drawing code: |                  | Per scale:  | 1" = 10' (0 SHEET) |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826  
**moftatt & nichol**  
PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-106**  
INDEX: 11 OF 42



- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

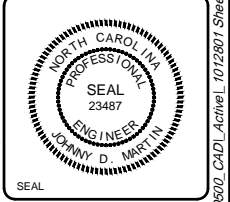
**SITE PLAN 1 OF 14**

|                  |                          |                  |                                |
|------------------|--------------------------|------------------|--------------------------------|
| Designed by: KEF | Drawn by: VNM            | Reviewed by: JDM | Submitted by: MOFFATT & NICHOL |
| Date: 03/03/2021 | MAN Project No: 10128-01 | Drawing code:    | Drawing Scale: 1" = 60'        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

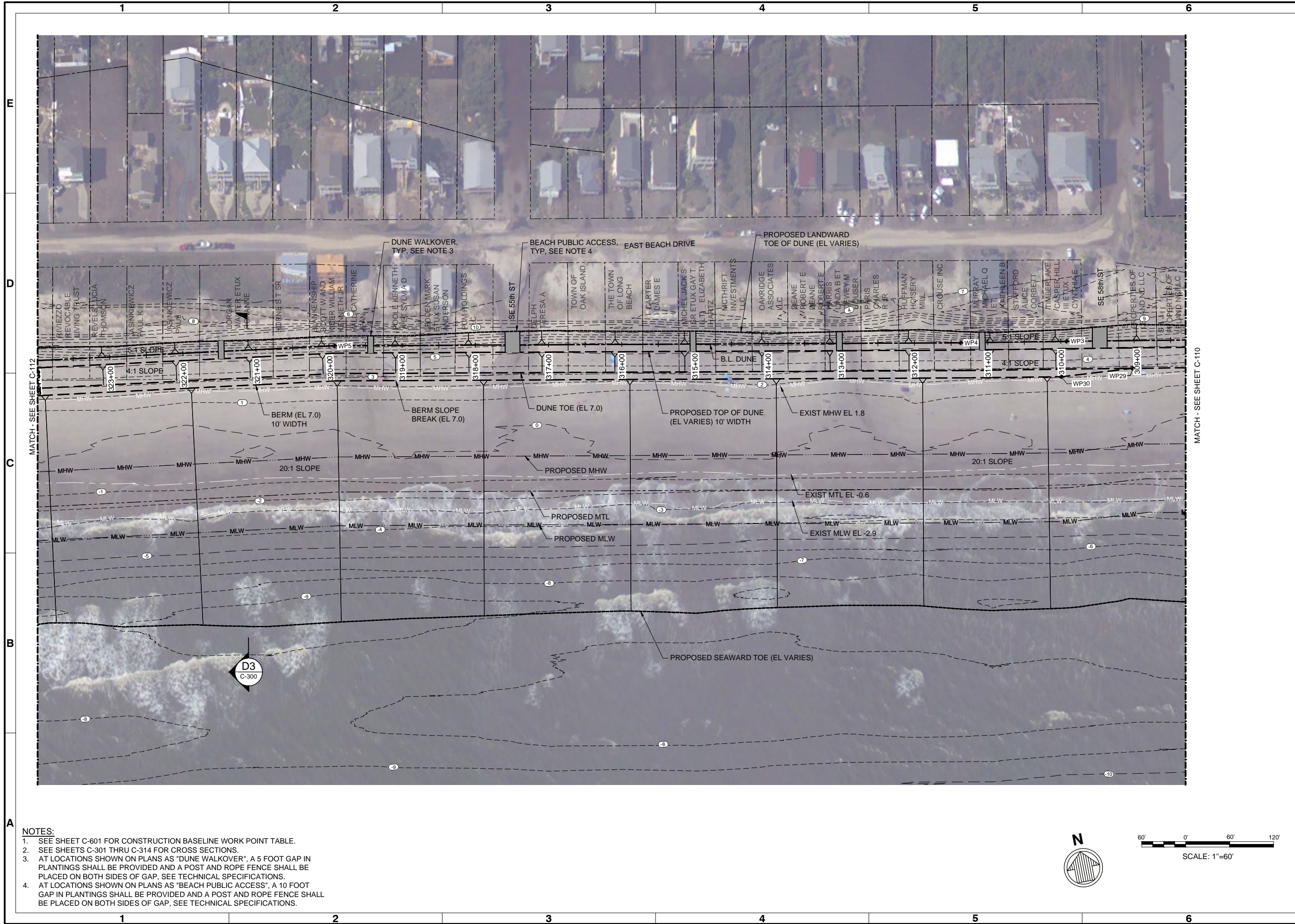
PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **C-110**

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- NOTES:**
1. SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  2. SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  3. AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  4. AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



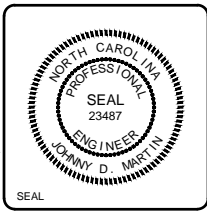
| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
SITE PLAN 2 OF 14**

|                     |                             |                     |                                   |
|---------------------|-----------------------------|---------------------|-----------------------------------|
| Designed by:<br>KEF | Drawn by:<br>VNM            | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL |
| Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code:       | Drawing Scale:<br>As Shown        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

PREPARED FOR THE TOWN OF OAK ISLAND

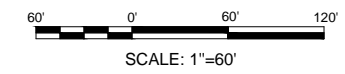


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| Sheet Reference No.<br><b>C-111</b> |
| INDEX: 13 OF 42                     |

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- NOTES:**
1. SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  2. SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  3. AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  4. AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

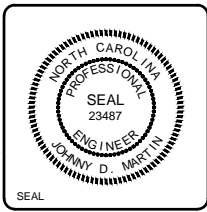
**SITE PLAN 3 OF 14**

|                                |                          |                                   |
|--------------------------------|--------------------------|-----------------------------------|
| Designed by: KEF               | Date: 03/03/2021         | Rev: 1                            |
| Drawn by: VNM                  | MAN Project No: 10128-01 |                                   |
| Reviewed by: JDM               | SRM                      |                                   |
| Submitted by: MOFFATT & NICHOL | Drawing code:            | Drawing Scale: 1" = 10' (0 SHEET) |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

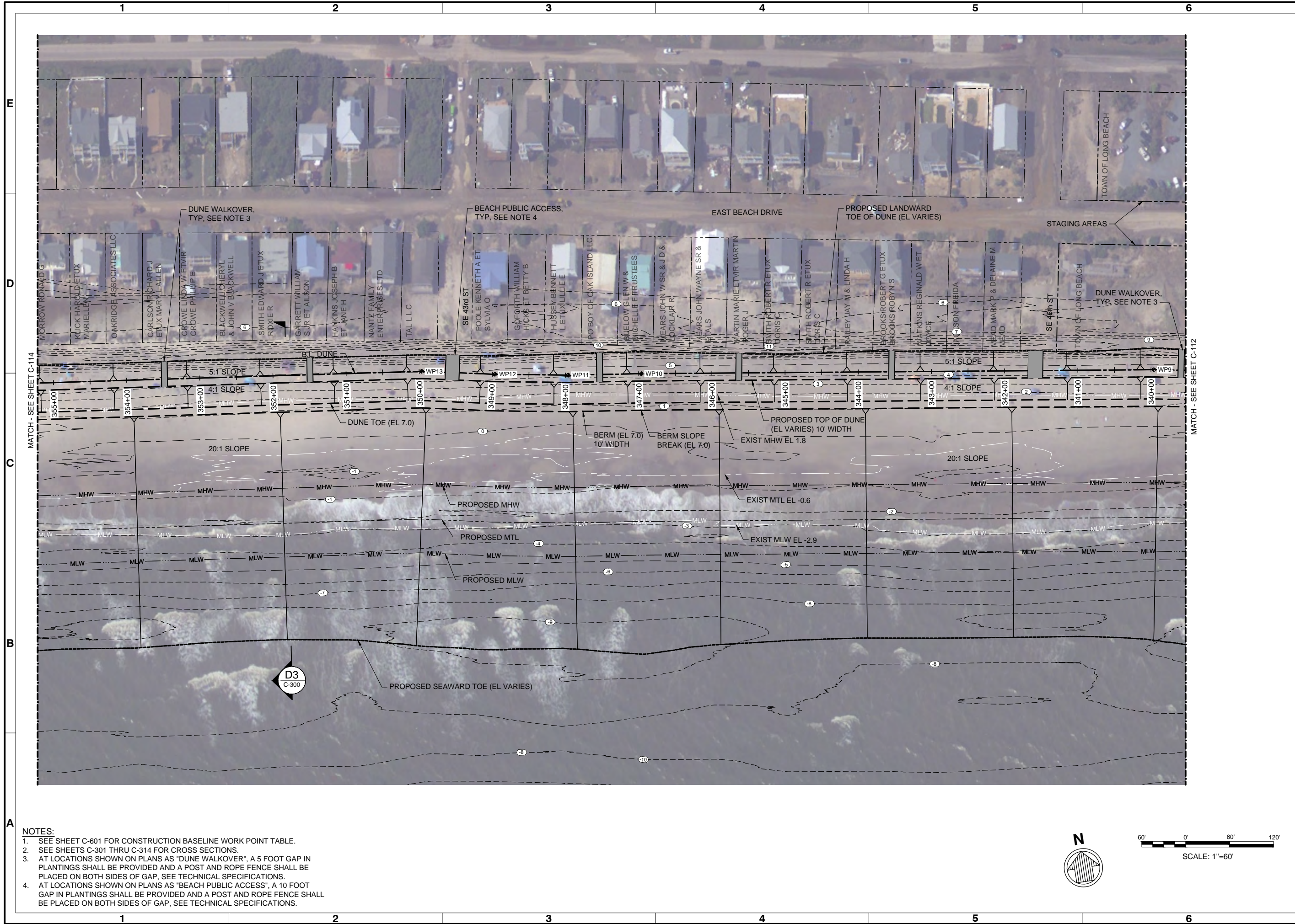
PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **C-112**

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| Rev. | Date       | Description             |
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| 0    | 04/20/2020 | BD DOCUMENTS            |

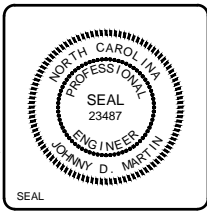
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

**SITE PLAN 4 OF 14**

|               |                  |                  |            |
|---------------|------------------|------------------|------------|
| Designed by:  | KEF              | Date:            | 03/03/2021 |
| Dwn by:       | VNM              | MAN Project No.: | 10128-01   |
| Reviewed by:  | JDM              | Drawing code:    |            |
| Submitted by: | MOFFATT & NICHOL | Drawing Scale:   | 1" = 60'   |

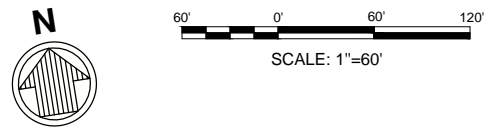
4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

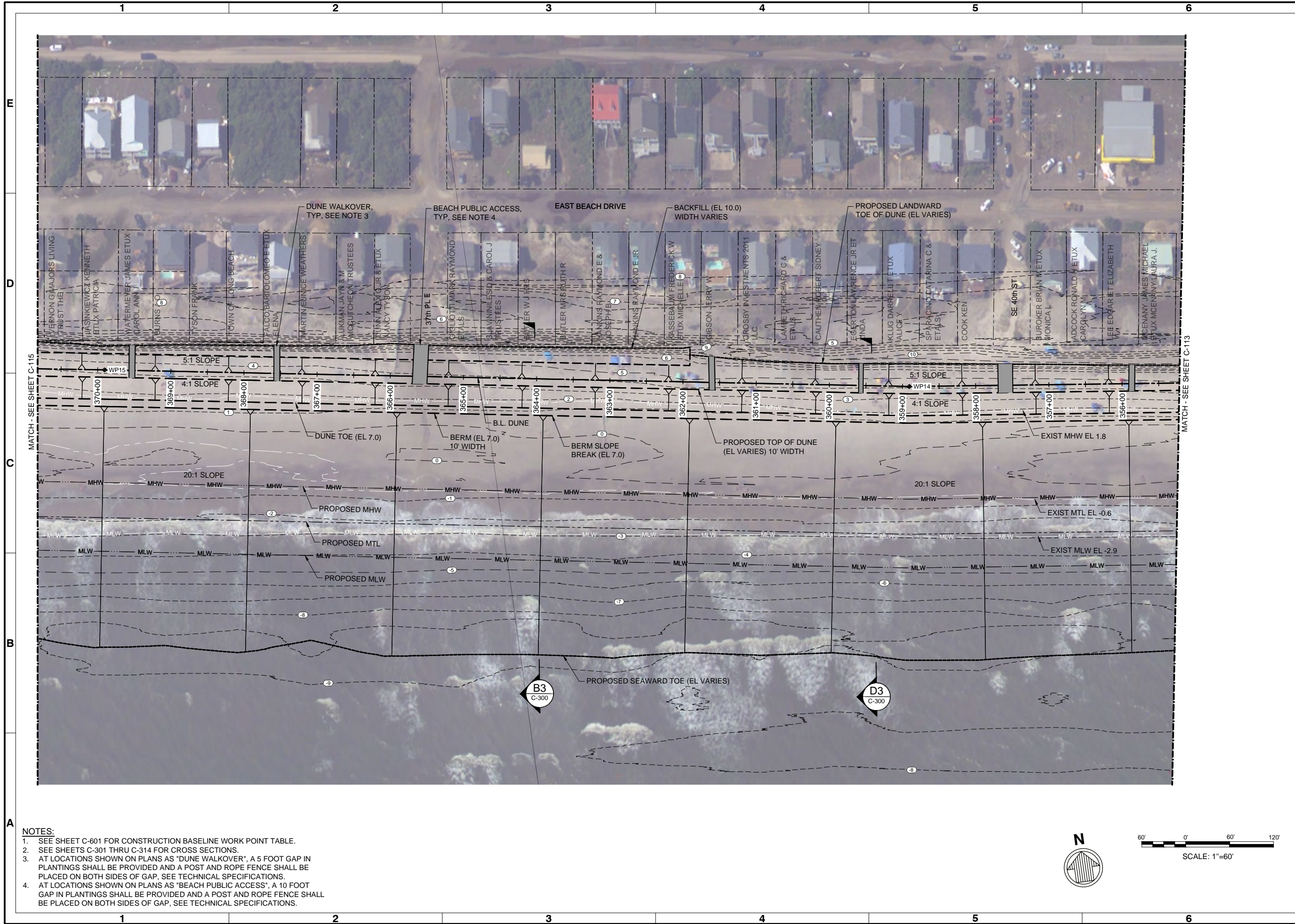
PREPARED FOR THE TOWN OF OAK ISLAND



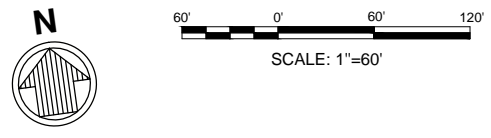
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| Sheet Reference No. | <b>C-113</b> |
| INDEX:              | 15 OF 42     |

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

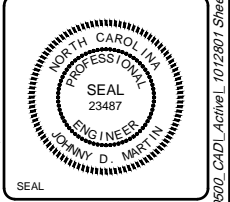
**SITE PLAN 5 OF 14**

|                                |                          |        |
|--------------------------------|--------------------------|--------|
| Designed by: KEF               | Date: 03/03/2021         | Rev: 1 |
| Dwn by: VNM                    | MAN Project No: 10128-01 |        |
| Reviewed by: JDM               | Drawing code:            |        |
| Submitted by: MOFFATT & NICHOL | Drawing Scale: 1" = 60'  |        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

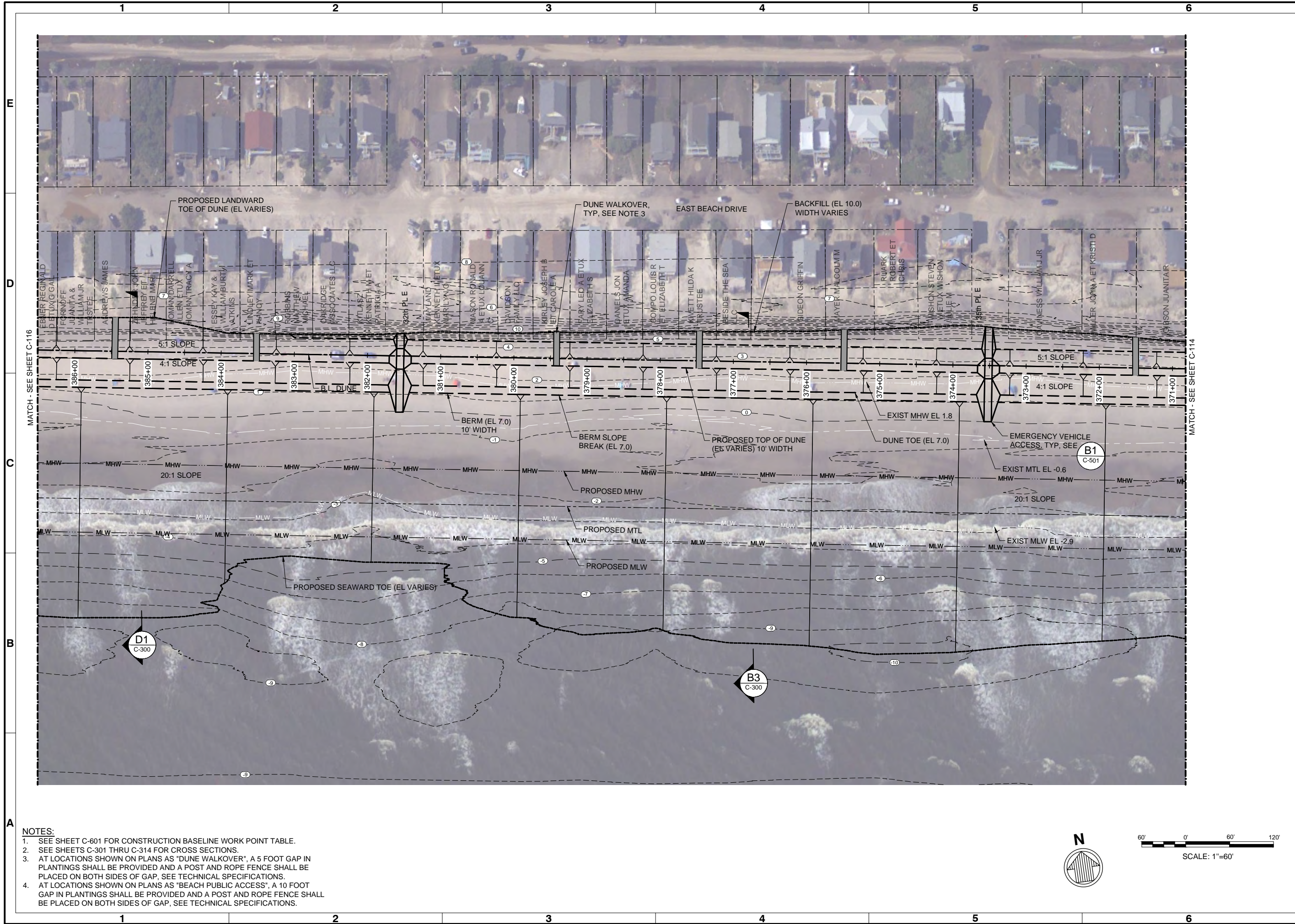
PREPARED FOR THE TOWN OF OAK ISLAND



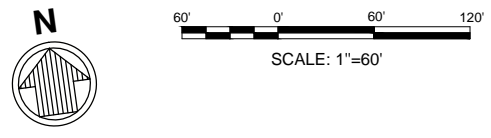
Sheet Reference No. **C-114**

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Rev. | Date       | Description             | By  |
|------|------------|-------------------------|-----|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION | JDM |
| 0    | 04/20/2020 | BD DOCUMENTS            | JDM |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

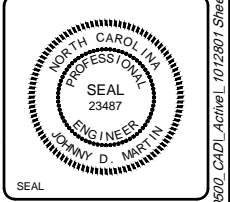
**SITE PLAN 6 OF 14**

|                                |                          |        |
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| Designed by: KEF               | Date: 03/03/2021         | Rev: 1 |
| Drawn by: VNM                  | MAN Project No: 10128-01 |        |
| Reviewed by: JDM               | Drawing code:            |        |
| Submitted by: MOFFATT & NICHOL | Drawing Scale: 1" = 60'  |        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

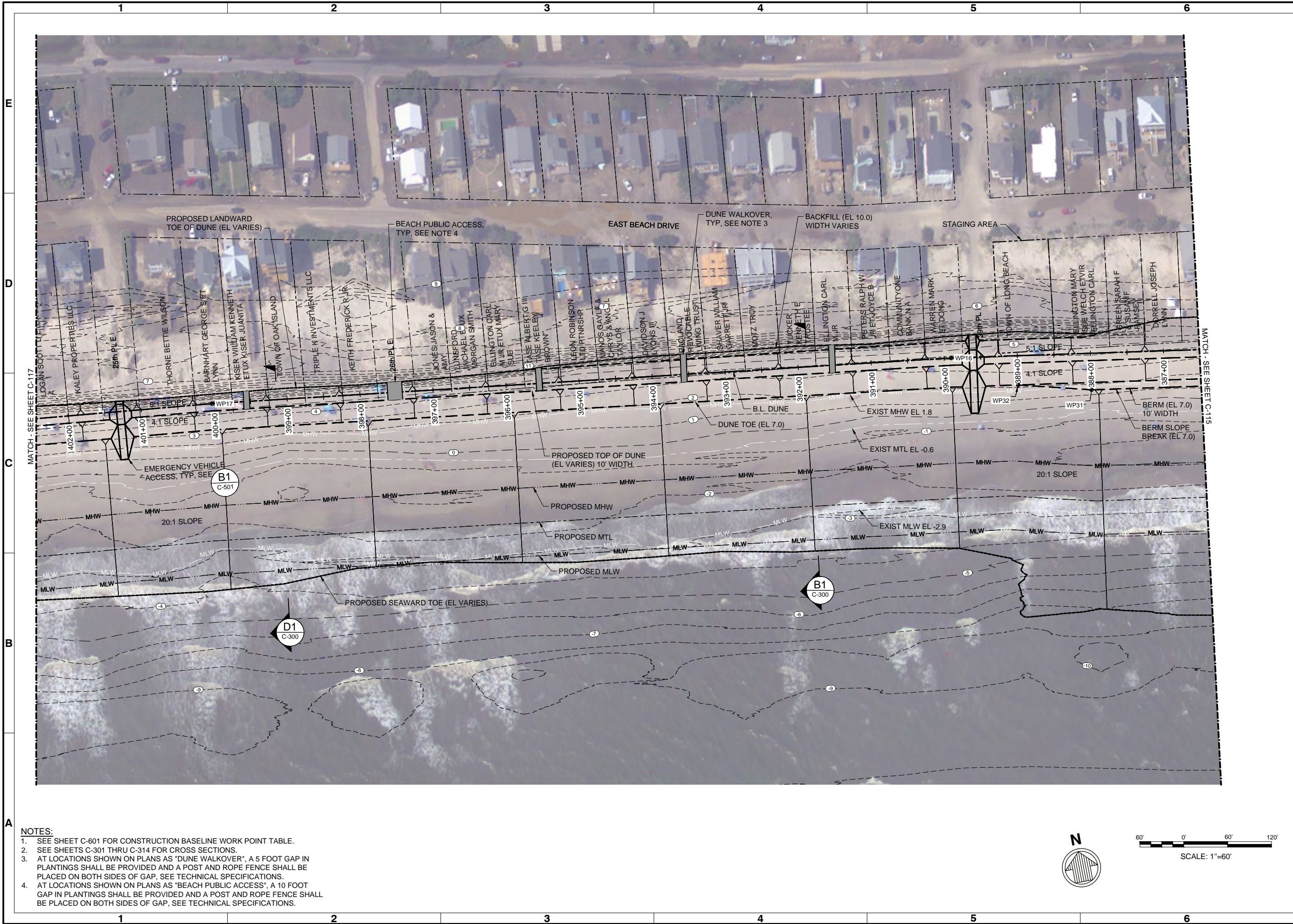
PREPARED FOR THE TOWN OF OAK ISLAND



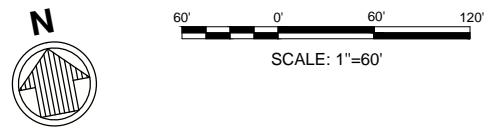
Sheet Reference No. **C-115**

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |
|      |            |                         |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

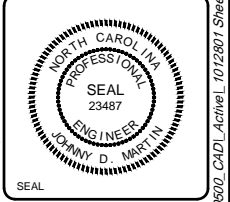
**SITE PLAN 7 OF 14**

|                  |                           |                  |                                |
|------------------|---------------------------|------------------|--------------------------------|
| Designed by: KEF | Drawn by: VNM             | Reviewed by: JDM | Submitted by: MOFFATT & NICHOL |
| Date: 03/03/2021 | M&N Project No.: 10128-01 | Drawing code:    | Drawing Scale: 1" = 60'        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **C-116**

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.

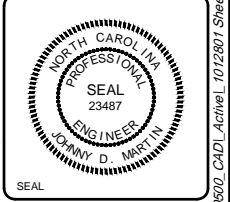


| Rev | Date       | Description             |
|-----|------------|-------------------------|
| 1   | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0   | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND**  
**RENOURISHMENT PROJECT 2020/2021**  
**SITE PLAN 9 OF 14**

|                  |                          |                 |                         |                                |
|------------------|--------------------------|-----------------|-------------------------|--------------------------------|
| Designed by: KEF | Drawn by: VNM            | Checked by: SRM | Reviewed by: JDM        | Submitted by: MOFFATT & NICHOL |
| Date: 03/03/2021 | MAN Project No: 10128-01 | Drawing code:   | Drawing Scale: 1" = 60' | Per scale: 1" = 60' (0 SHEET)  |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
 919-781-4826  
**moftatt & nichol**  
 PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-118**  
 INDEX: 20 OF 42

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

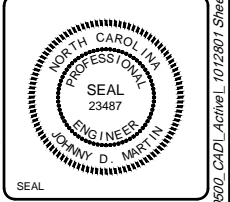
**SITE PLAN 10 OF 14**

|               |                  |                  |            |               |                  |
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| Designed by:  | KEF              | Date:            | 03/03/2021 | Rev:          | 1                |
| Dwn by:       | VNM              | MAN Project No.: | 10128-01   | Drawing code: |                  |
| Reviewed by:  | JDM              | Drawing Scale:   | 1" = 60'   | Per scale:    | 1" = 60' (SHEET) |
| Submitted by: | MOFFATT & NICHOL |                  |            |               |                  |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

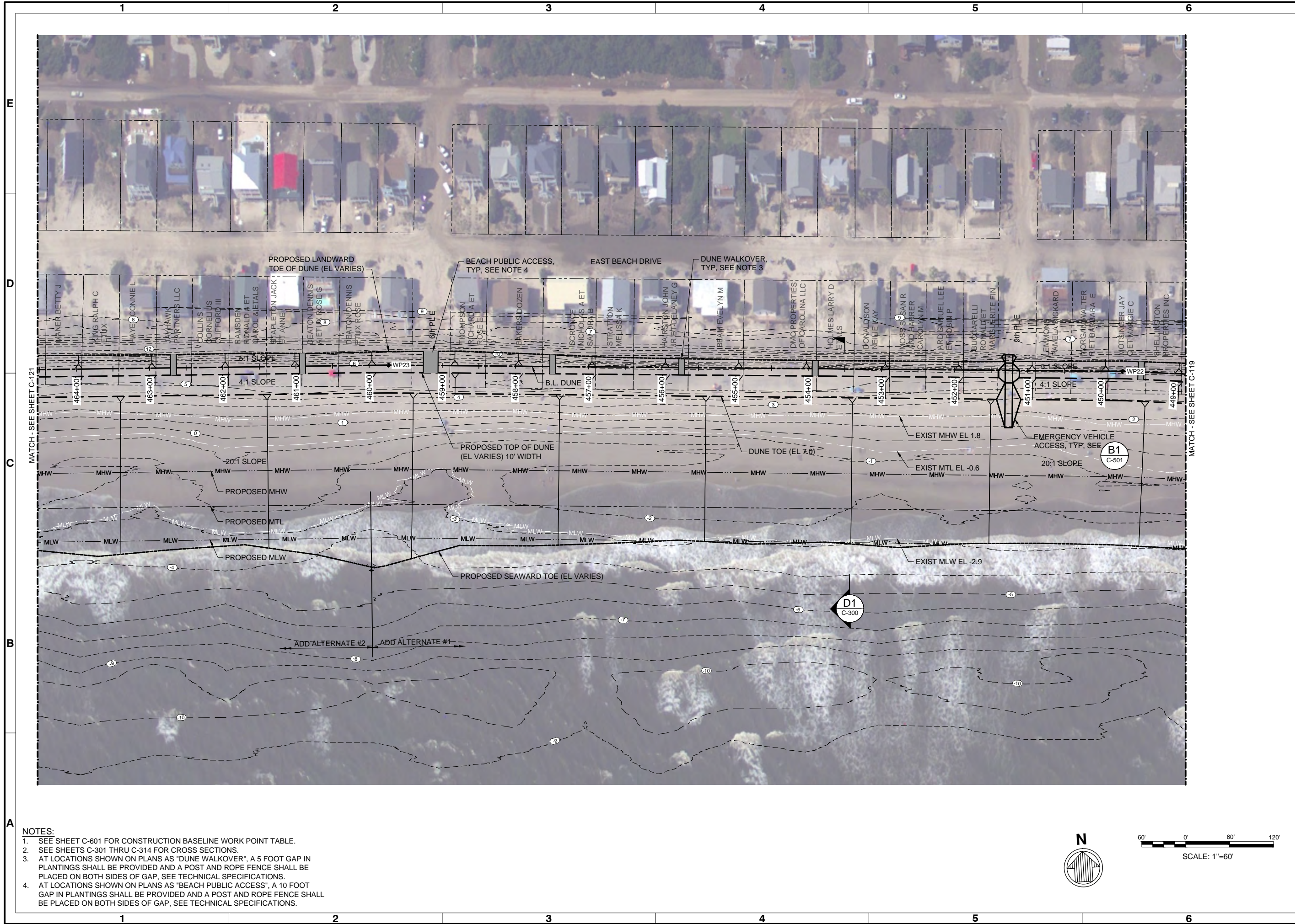
PREPARED FOR THE TOWN OF OAK ISLAND



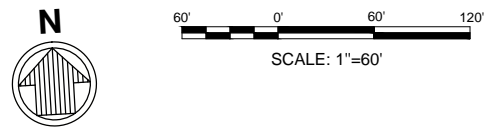
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**C-119**

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

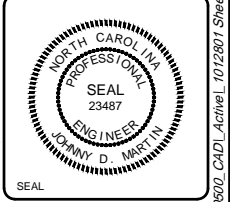
**SITE PLAN 11 OF 14**

|               |                  |                  |            |
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| Designed by:  | KEF              | Date:            | 03/03/2021 |
| Dwn by:       | VNM              | MAN Project No.: | 10128-01   |
| Reviewed by:  | JDM              | Drawing code:    |            |
| Submitted by: | MOFFATT & NICHOL | Drawing Scale:   | 1" = 60'   |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND

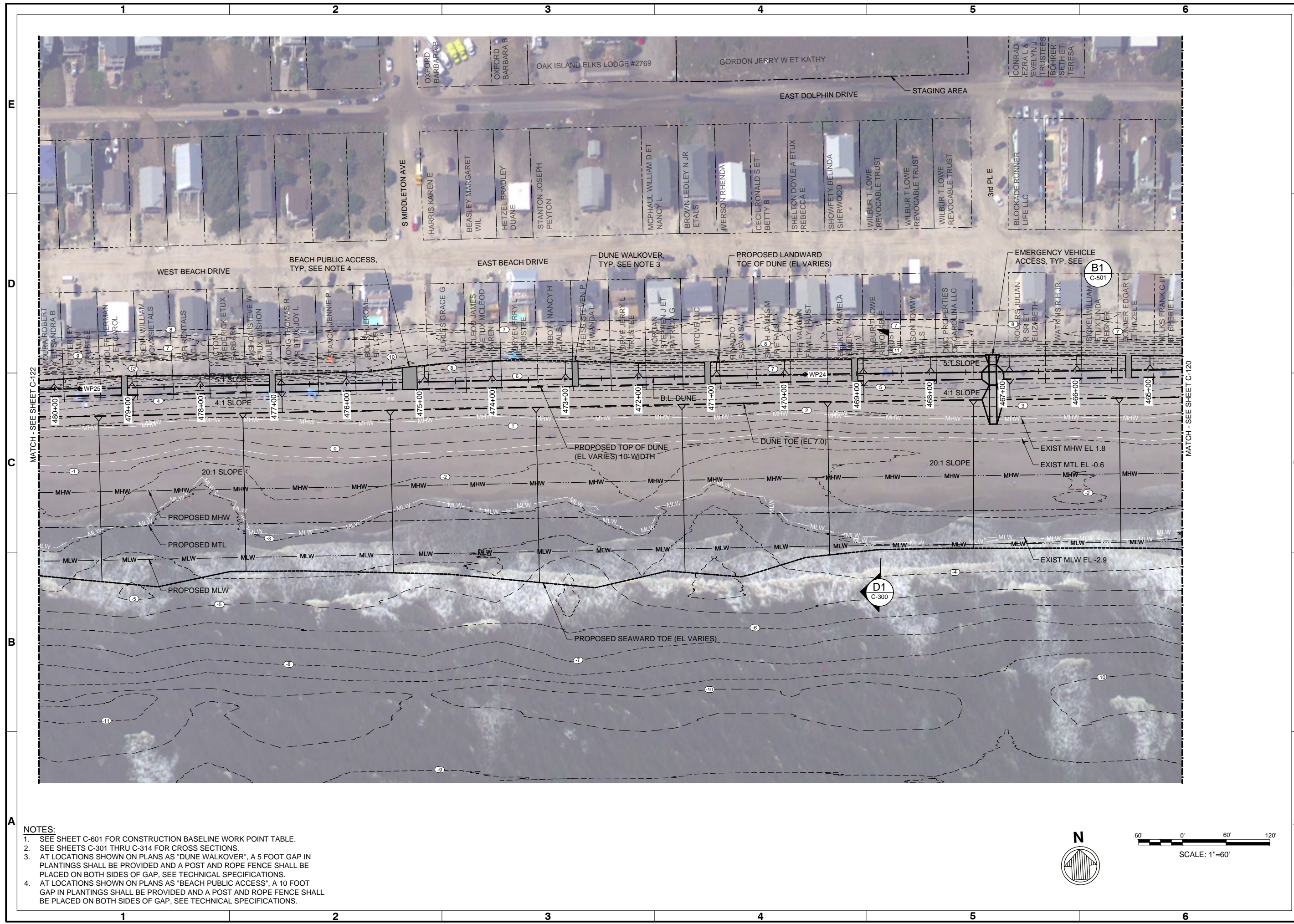


Sheet Reference No.  
**C-120**

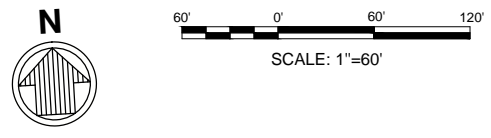
INDEX: 22 OF 42

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- NOTES:**
1. SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  2. SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  3. AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  4. AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Mark | Description             | Date       | Appr. |
|------|-------------------------|------------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21/2021 | JDM   |
| 0    | BD DOCUMENTS            | 04/20/2020 | JDM   |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

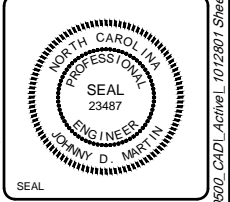
**SITE PLAN 12 OF 14**

|                  |                           |                  |                                     |
|------------------|---------------------------|------------------|-------------------------------------|
| Designed by: KEF | Drawn by: VNM             | Reviewed by: JDM | Submitted by: MOFFATT & NICHOL      |
| Date: 03/03/2021 | M&N Project No.: 10128-01 | Drawing code:    | Drawing Scale: 1" = 60' (10 SHEETS) |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

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PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **C-121**

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- NOTES:**
1. SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  2. SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  3. AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  4. AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.

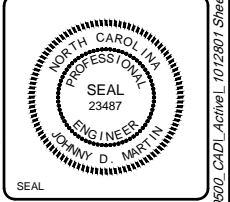


| Rev | Date       | Description             |
|-----|------------|-------------------------|
| 1   | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0   | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND**  
**RENOURISHMENT PROJECT 2020/2021**  
**SITE PLAN 13 OF 14**

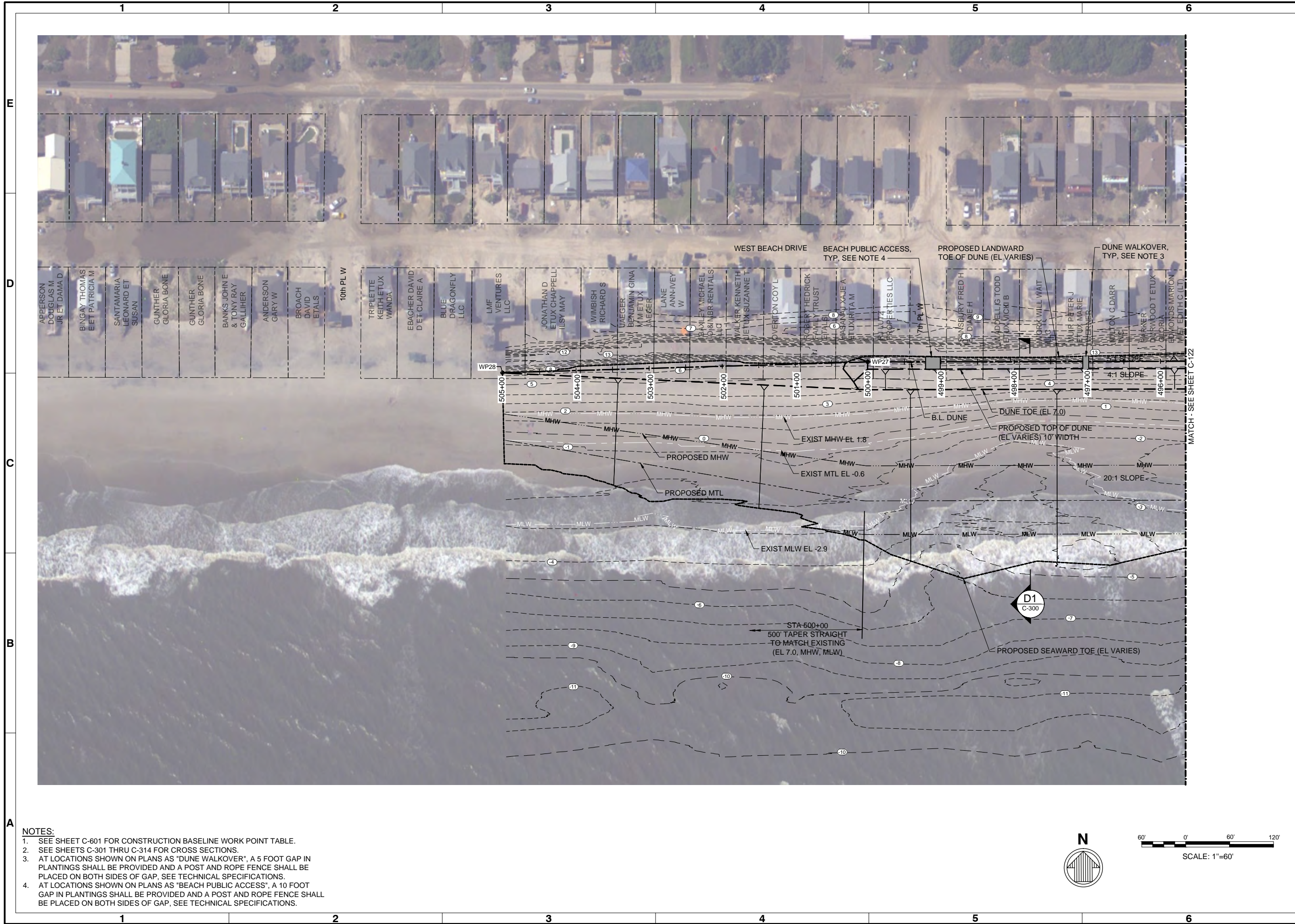
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| Designed by: KEF               | Date: 03/03/2021              | Rev: 1 |
| Drawn by: VNM                  | MAN Project No: 10128-01      |        |
| Checked by: SRM                | Drawing code:                 |        |
| Reviewed by: JDM               | Drawing Scale: 1" = 60'       |        |
| Submitted by: MOFFATT & NICHOL | Per Scale: 1" = 60' (0 SHEET) |        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
 919-781-4826  
**moffatt & nichol**  
 PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-122**  
 INDEX: 24 OF 42

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUES FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

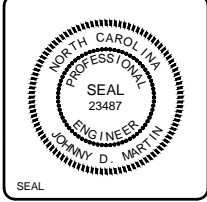
**SITE PLAN 14 OF 14**

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| Designed by:  | KEF              | Date:            | 03/03/2021 | Rev: | 1 |
| Drawn by:     | VNM              | MAN Project No.: | 10128-01   |      |   |
| Reviewed by:  | JDM              | SRM              |            |      |   |
| Submitted by: | MOFFATT & NICHOL | Drawing code:    |            |      |   |
|               |                  | Drawing Scale:   | 1" = 60'   |      |   |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

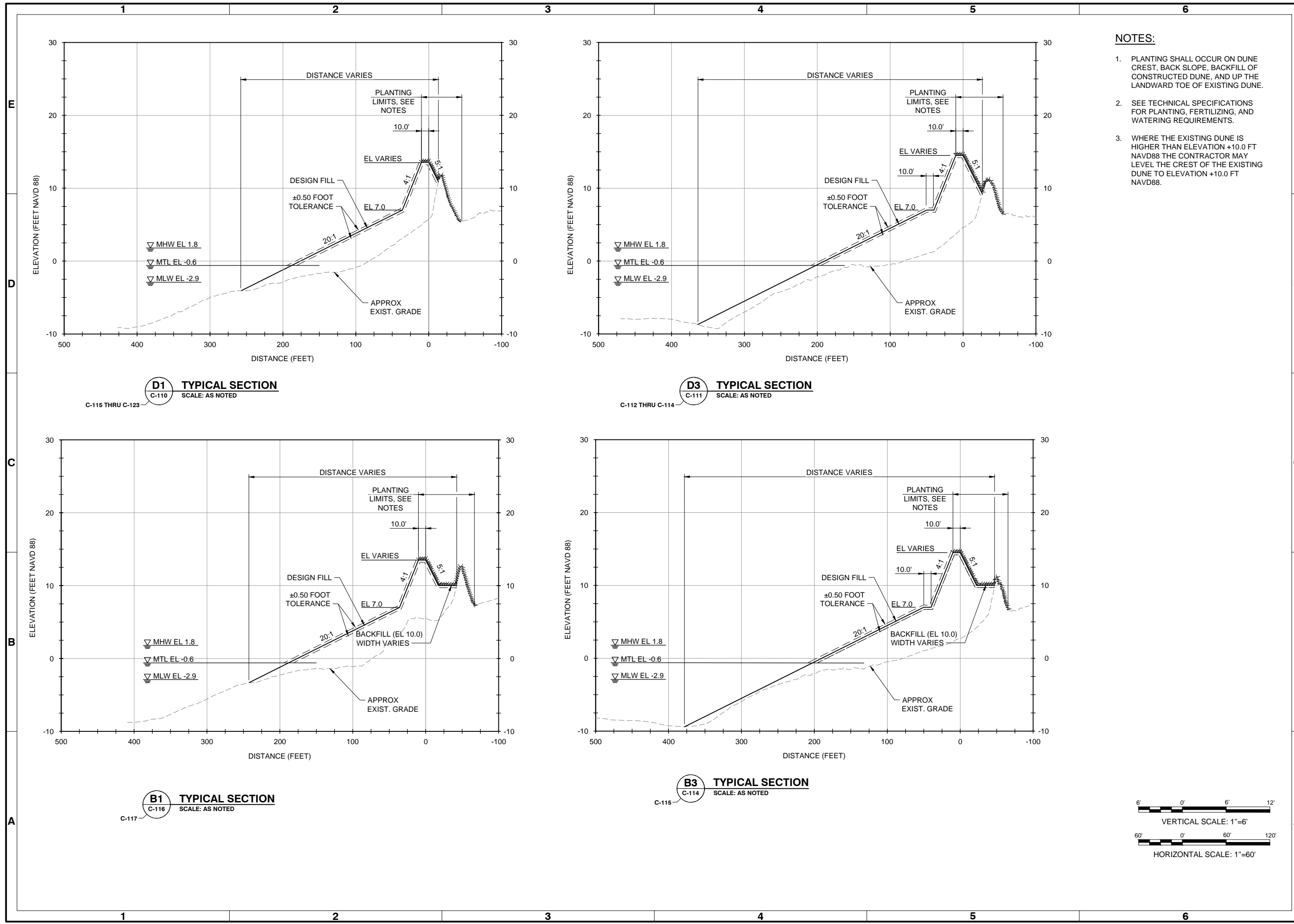
**moftatt & nichol**

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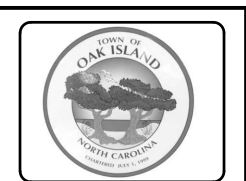


Sheet Reference No.  
**C-123**

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- NOTES:**
1. PLANTING SHALL OCCUR ON DUNE CREST, BACK SLOPE, BACKFILL OF CONSTRUCTED DUNE, AND UP THE LANDWARD TOE OF EXISTING DUNE.
  2. SEE TECHNICAL SPECIFICATIONS FOR PLANTING, FERTILIZING, AND WATERING REQUIREMENTS.
  3. WHERE THE EXISTING DUNE IS HIGHER THAN ELEVATION +10.0 FT NAVD88 THE CONTRACTOR MAY LEVEL THE CREST OF THE EXISTING DUNE TO ELEVATION +10.0 FT NAVD88.



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

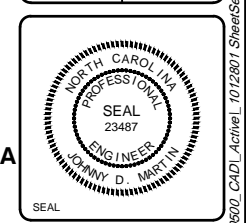
**TYPICAL CROSS SECTIONS**

|                                |                          |        |
|--------------------------------|--------------------------|--------|
| Designed by: KEF               | Date: 03/03/2021         | Rev: 1 |
| Drawn by: VNM                  | MAN Project No: 10128-01 |        |
| Checked by: SRM                | Drawing code:            |        |
| Reviewed by: JDM               | Drawing Scale: 1" = 60'  |        |
| Submitted by: MOFFATT & NICHOL | Per scale: 1" = 60'      |        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

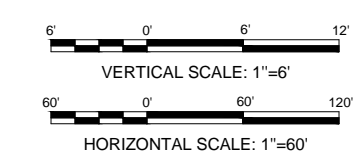
**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **C-300**

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| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

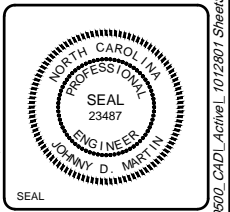
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 1 OF 14**

|                     |                                   |   |   |
|---------------------|-----------------------------------|---|---|
| Designed by:<br>KEF | Date:<br>03/03/2021               | MAN Project No.<br>10128-01                     | 1 |
| Dwn by:<br>VNM      | Drawn by:<br>SRM                  | Drawing code:                                   |   |
| Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Drawing Scale:<br>Per scale: 1" = 10' (0 SHEET) |   |

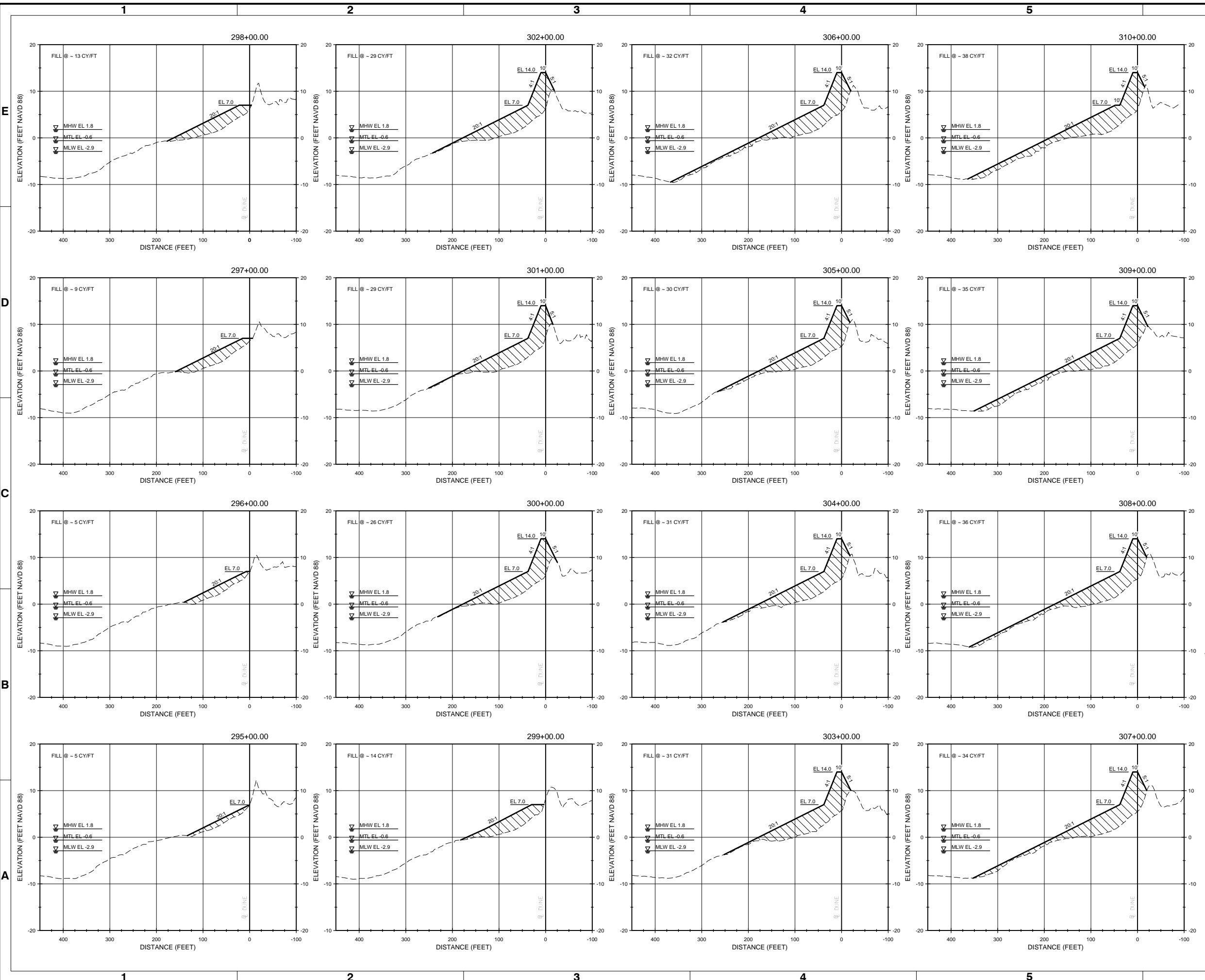
4700 FALLS OF THE NEUSE ROAD, SITE  
300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-301**  
INDEX: 27 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

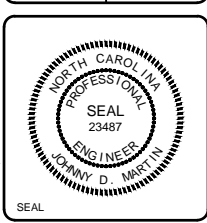
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 2 OF 14**

|                     |                  |                    |                     |                                   |                     |                             |               |   |
|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|---|
| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>Per scale: 1" = 10' (0 SHEET) |
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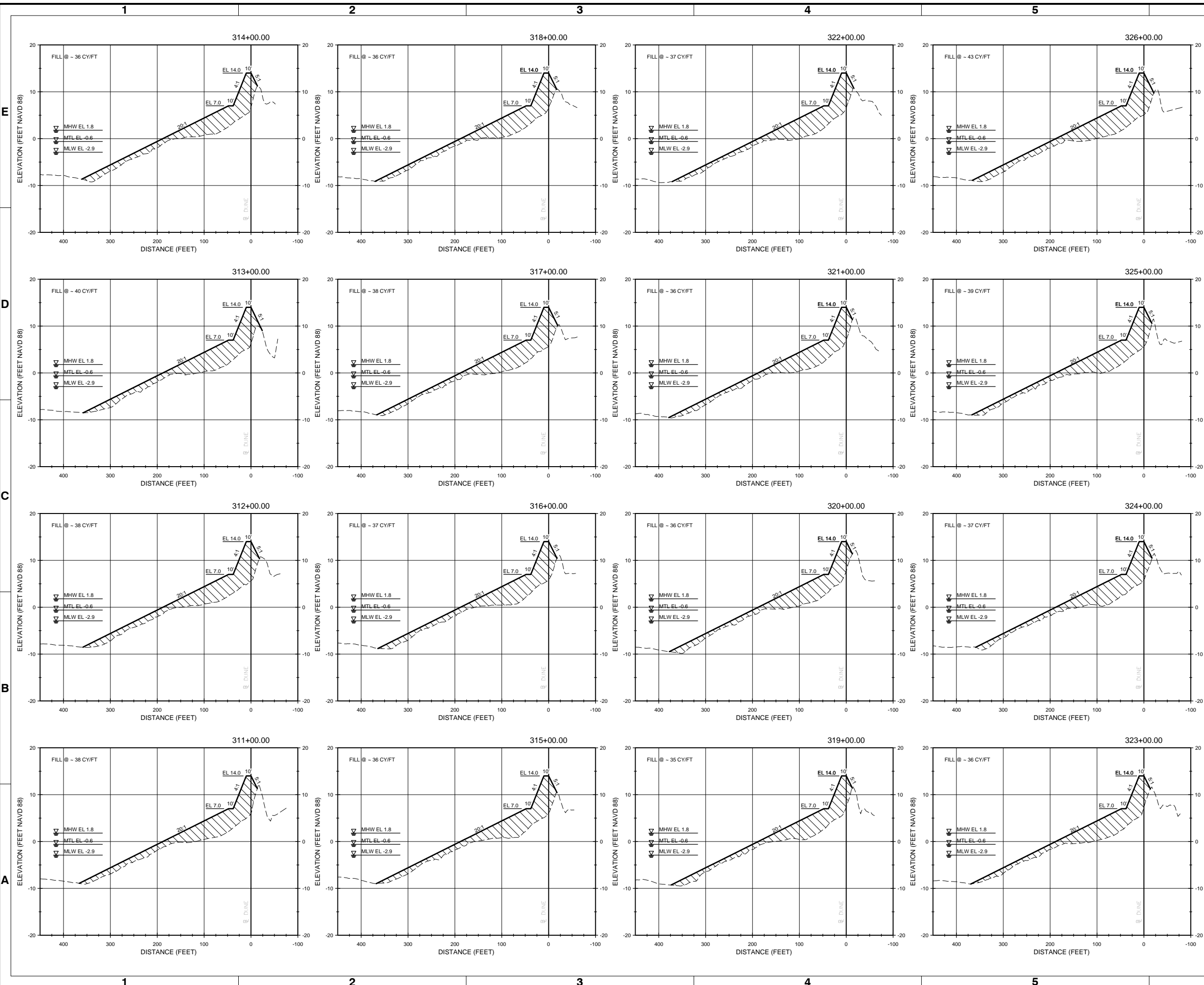
4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

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PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-302**  
INDEX: 28 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'



| Rev. | Date       | By  | Description             |
|------|------------|-----|-------------------------|
| 1    | 03/21/2021 | JDM | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | JDM | BD DOCUMENTS            |

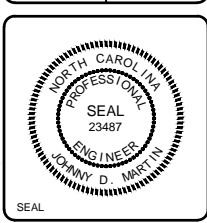
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 3 OF 14**

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| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>As Shown | Per scale:<br>1" = 10' (0 SHEET) |
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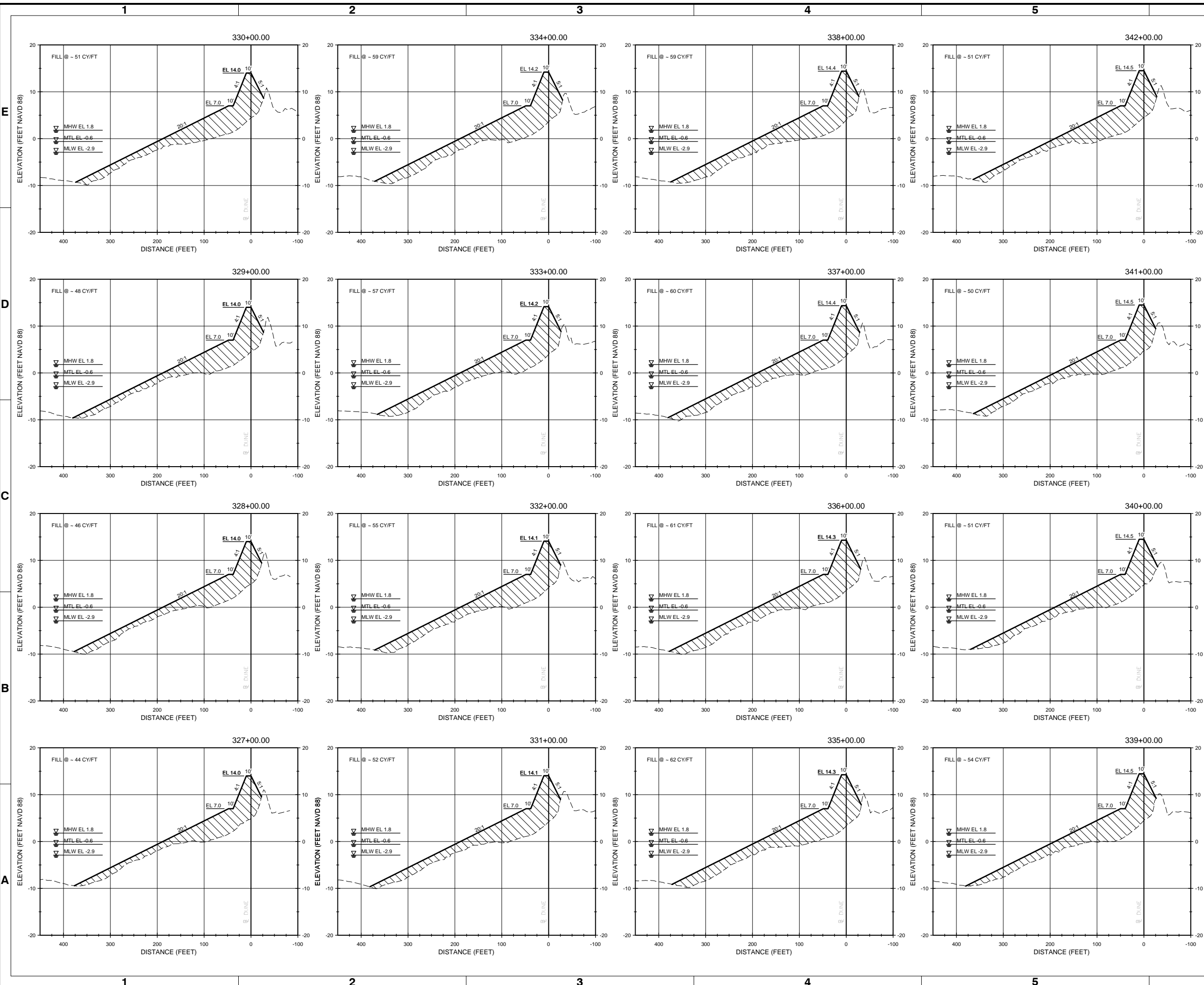
4700 FALLS OF THE NEUSE ROAD, STE 300  
RALEIGH, NC 27609  
919-781-4826

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Sheet Reference No.  
**C-303**  
INDEX: 29 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'



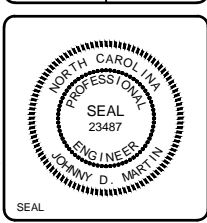
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| 0    | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 4 OF 14**

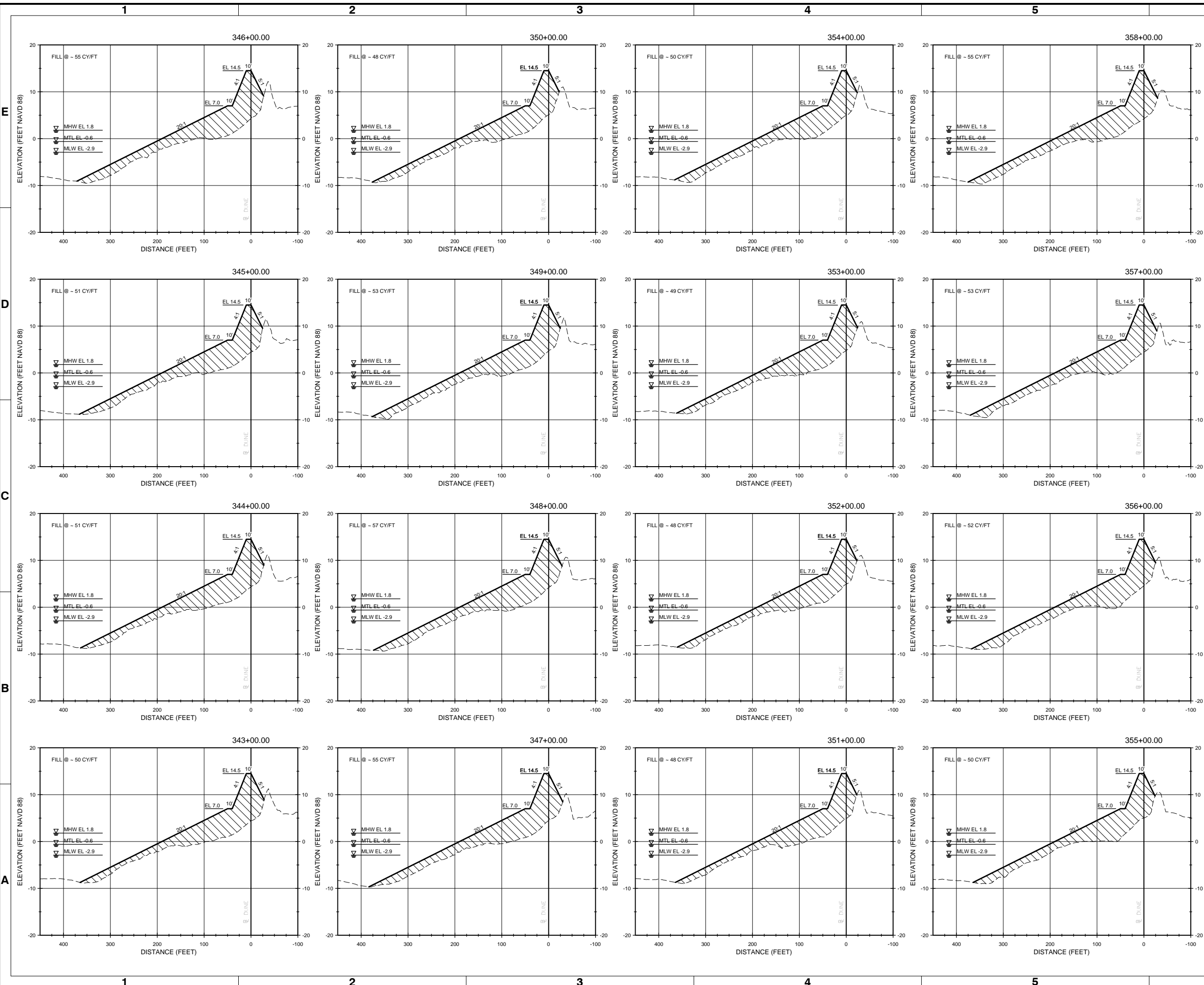
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| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>As Shown | Per scale:<br>1" = 10' (0 SHEET) |
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4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-304**  
INDEX: 30 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'





| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

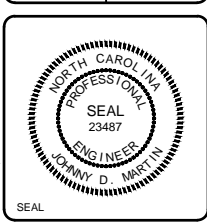
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 5 OF 14**

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|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|---|
| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>Per scale: 1" = 10' (0 SHEET) |
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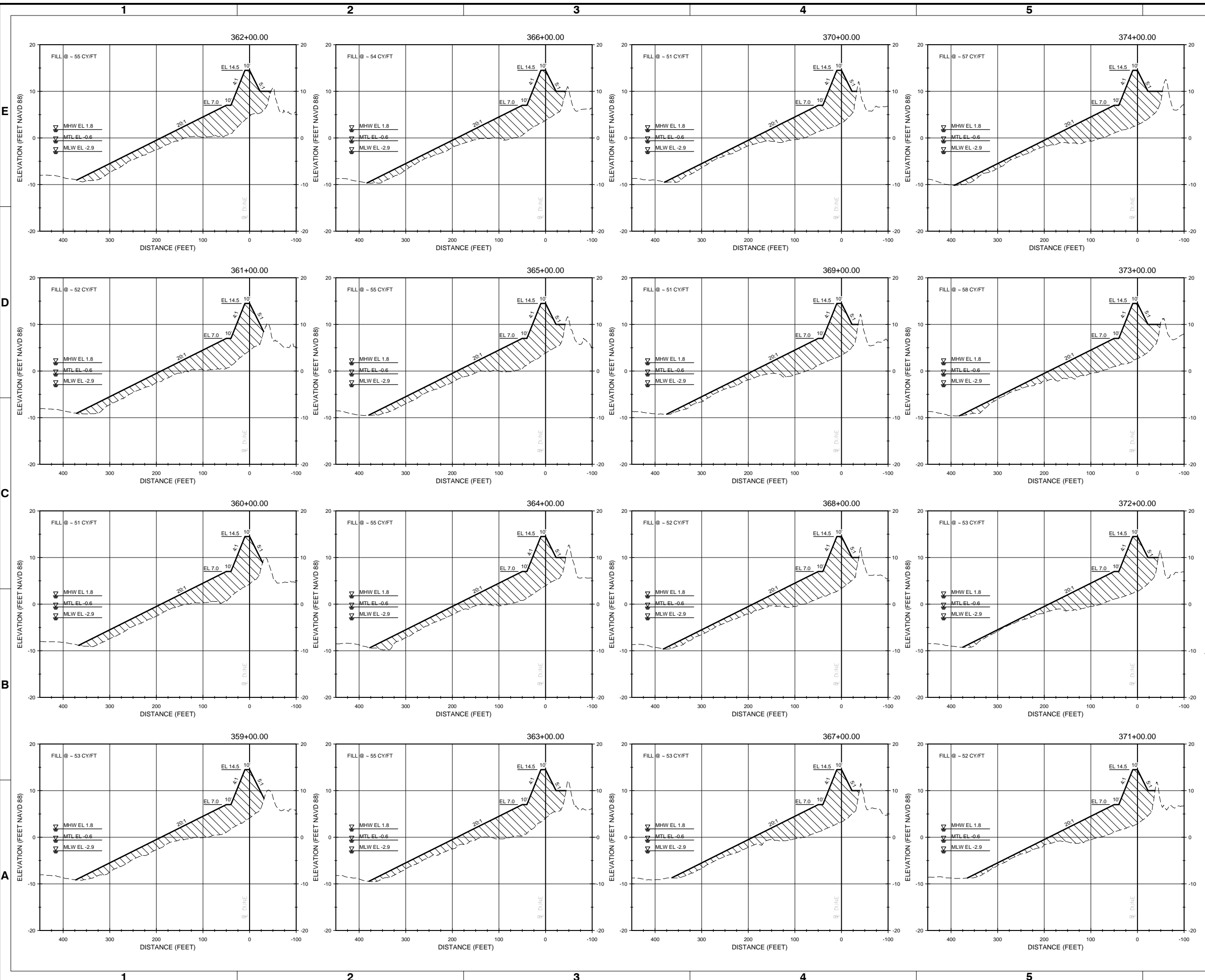
4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-305**  
INDEX: 31 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'

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| Rev. | Date       | By  | Description             |
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| 0    | 04/20/2020 | JDM | BD DOCUMENTS            |

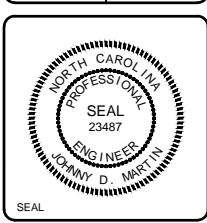
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 6 OF 14**

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|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|--------------------------------------|
| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>1" = 10' (0 SHEET) |
|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|--------------------------------------|

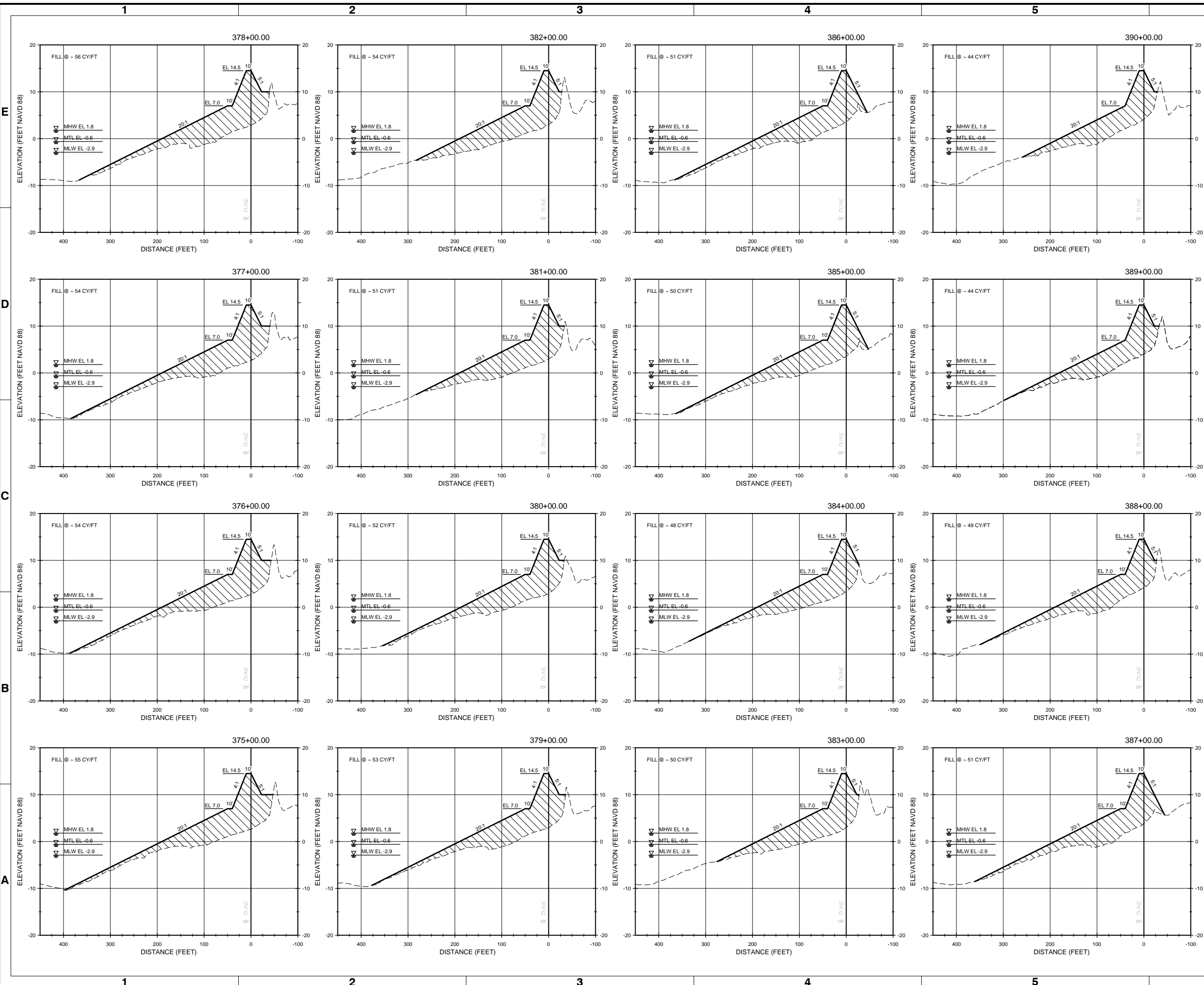
4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**mofoatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-306**  
INDEX: 32 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

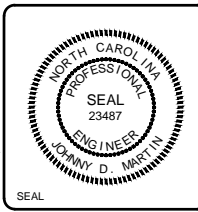
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 7 OF 14**

|                     |                             |                    |                                      |                                   |
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| Designed by:<br>KEF | Drawn by:<br>VNM            | Checked by:<br>SRM | Reviewed by:<br>JDM                  | Submitted by:<br>MOFFATT & NICHOL |
| Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code:      | Drawing Scale:<br>1" = 10' (0 SHEET) | Per scale:                        |

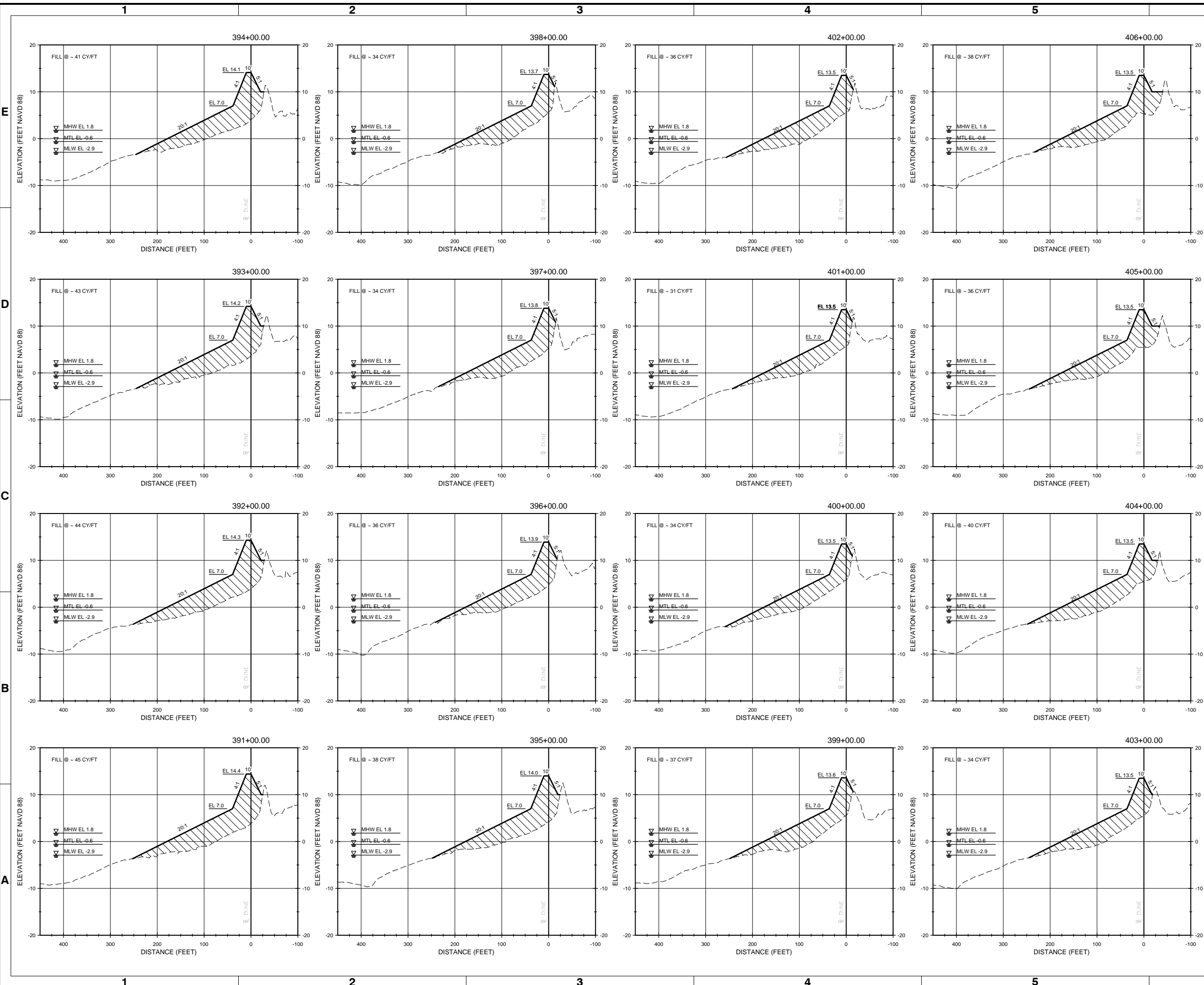
4700 FALLS OF THE NEUSE ROAD, STE  
300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-307**  
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- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'



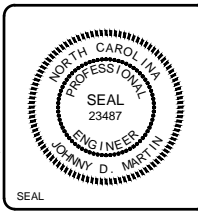
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|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 8 OF 14**

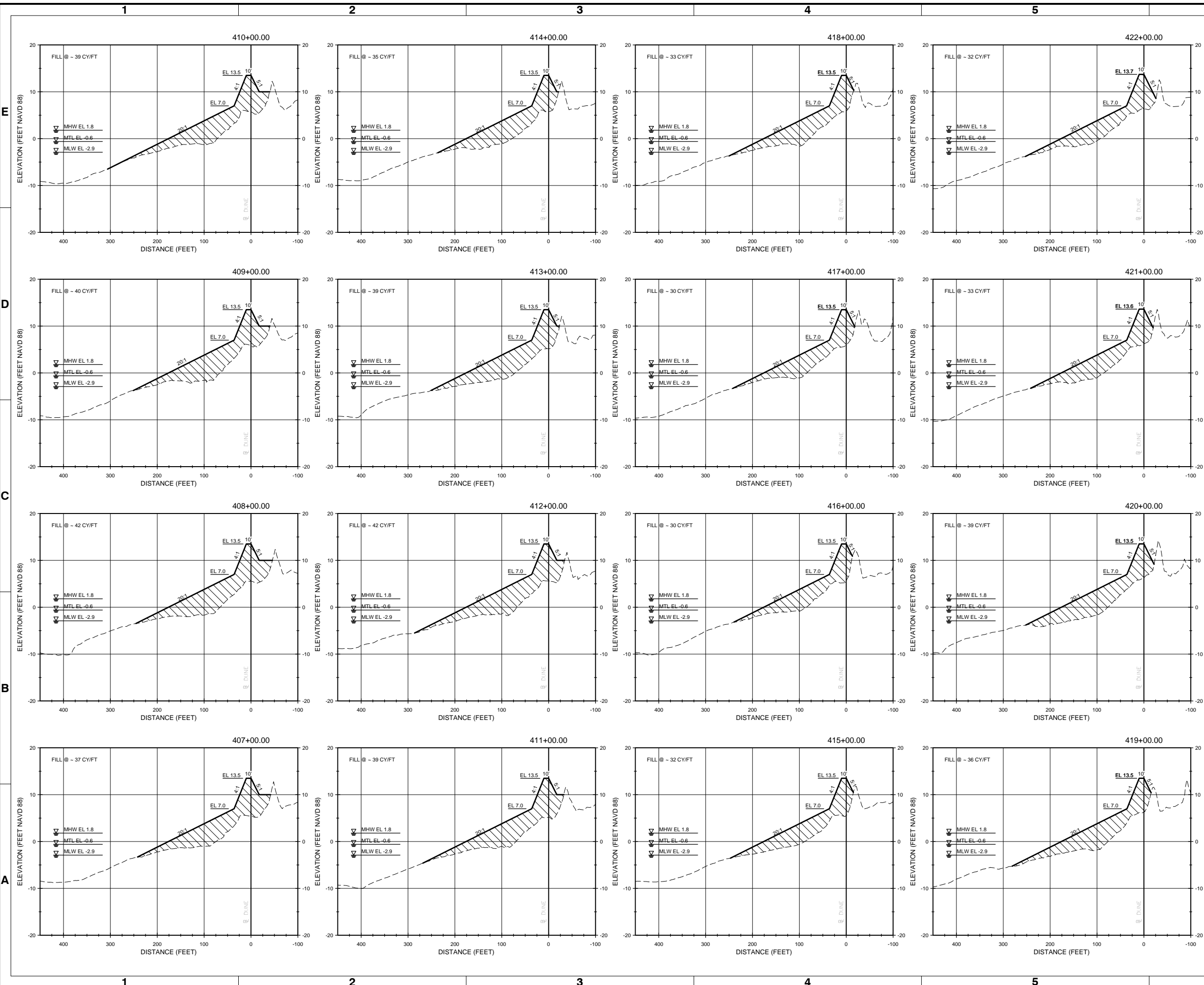
|                     |                             |                     |   |
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| Designed by:<br>KEF | Drawn by:<br>VNM            | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL               |
| Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code:       | Drawing Scale:<br>Per scale: 1" = 10' (0 SHEET) |

4700 FALLS OF THE NEUSE ROAD, STE  
300 RALEIGH, NC 27609  
919-781-4826

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-308**  
INDEX: 34 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

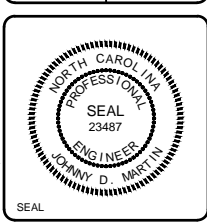
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 9 OF 14**

|                     |                  |                    |                     |                                   |                     |                             |               |                                      |
|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|--------------------------------------|
| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>1" = 10' (0 SHEET) |
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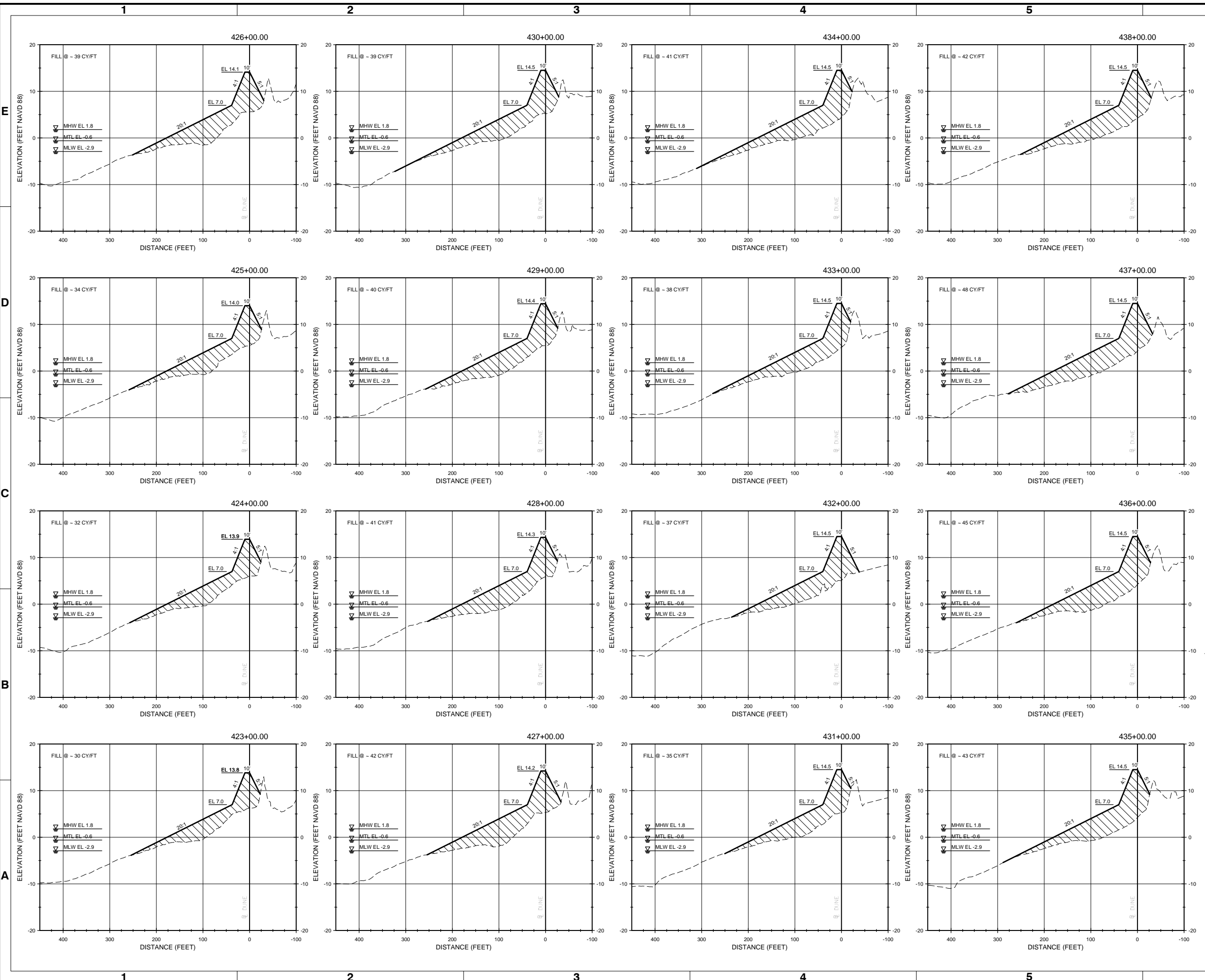
4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-309**  
INDEX: 35 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

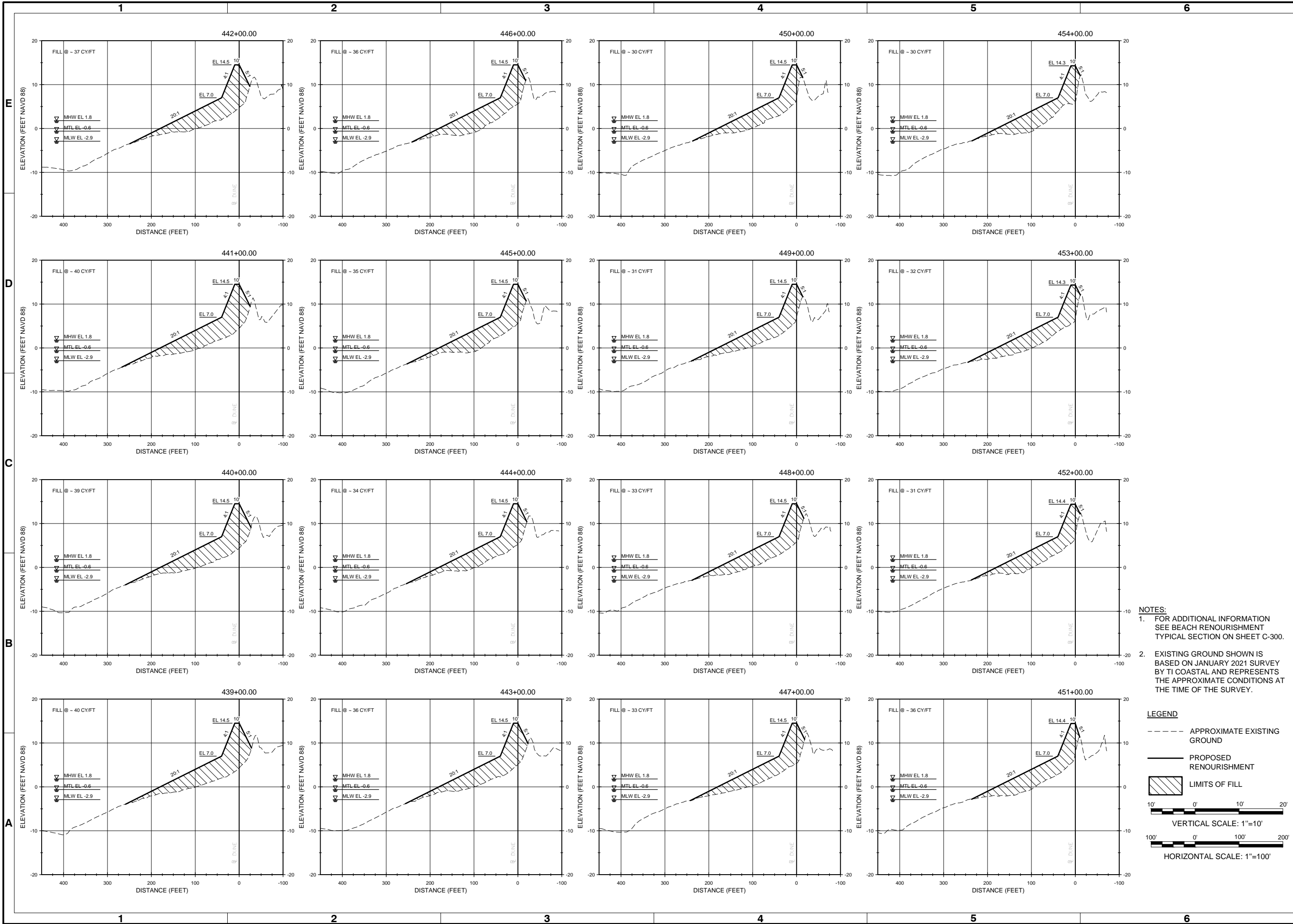
**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'

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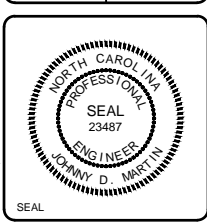
| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 10 OF 14**

|                     |                  |                    |                     |                                   |                     |                             |               |   |
|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|---|
| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>Per scale: 1" = 10' (0 SHEET) |
|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|---|

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-310**  
INDEX: 36 OF 42

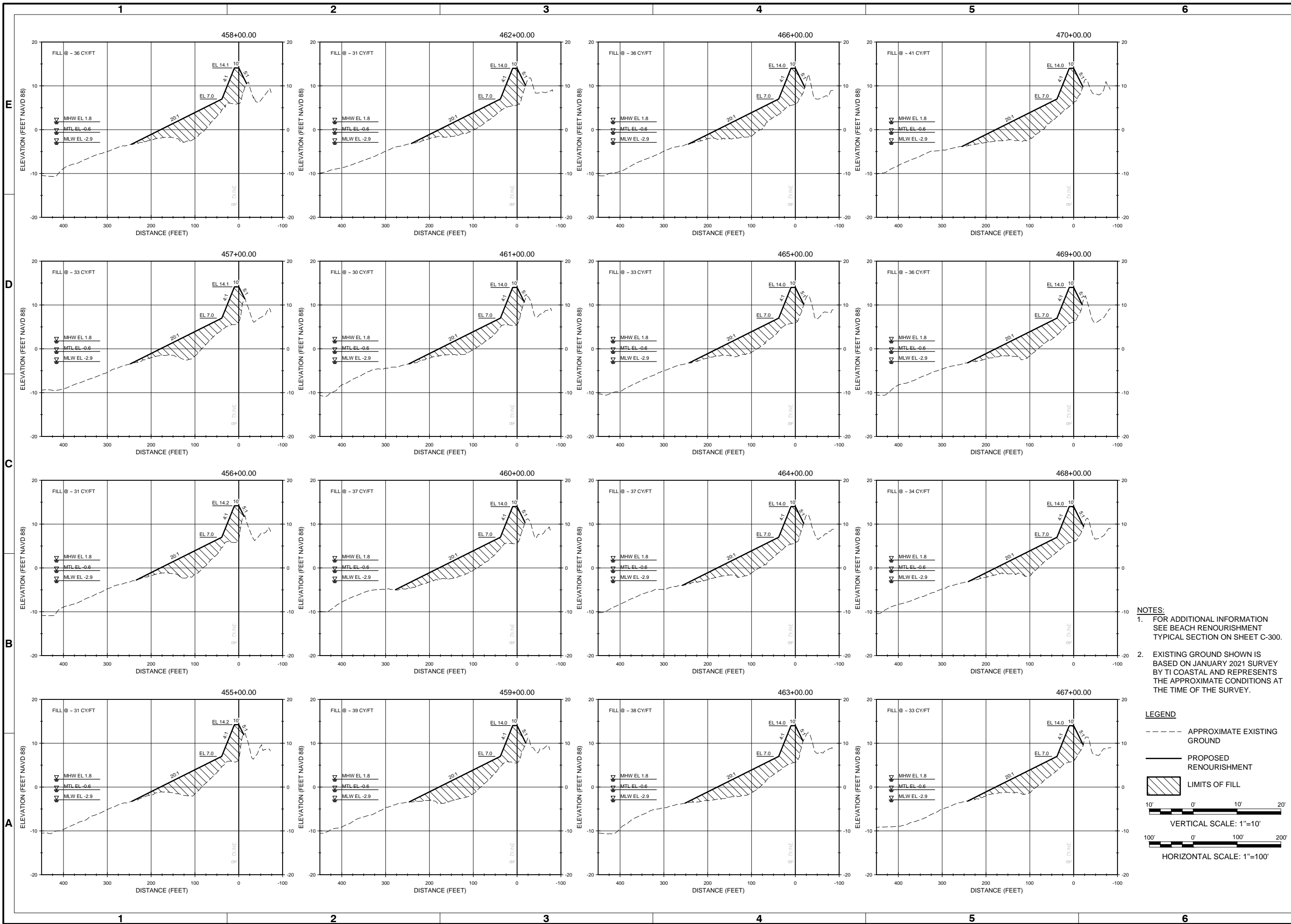
- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

VERTICAL SCALE: 1"=10'  
HORIZONTAL SCALE: 1"=100'

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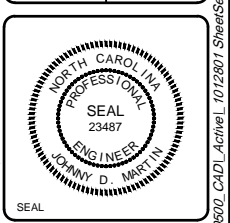
| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 11 OF 14**

|                     |                  |                    |                     |                                   |                     |                             |               |                                      |
|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|--------------------------------------|
| Designed by:<br>KEF | Drawn by:<br>VNM | Checked by:<br>SRM | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code: | Drawing Scale:<br>1" = 10' (0 SHEET) |
|---------------------|------------------|--------------------|---------------------|-----------------------------------|---------------------|-----------------------------|---------------|--------------------------------------|

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-311**  
INDEX: 37 OF 42

- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

VERTICAL SCALE: 1"=10'  
HORIZONTAL SCALE: 1"=100'

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| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

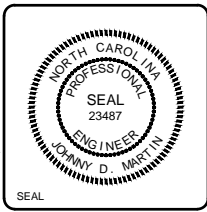
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 12 OF 14**

|                     |                             |                     |   |
|---------------------|-----------------------------|---------------------|---|
| Designed by:<br>KEF | Drawn by:<br>VNM            | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL               |
| Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code:       | Drawing Scale:<br>Per scale: 1" = 10' (0 SHEET) |

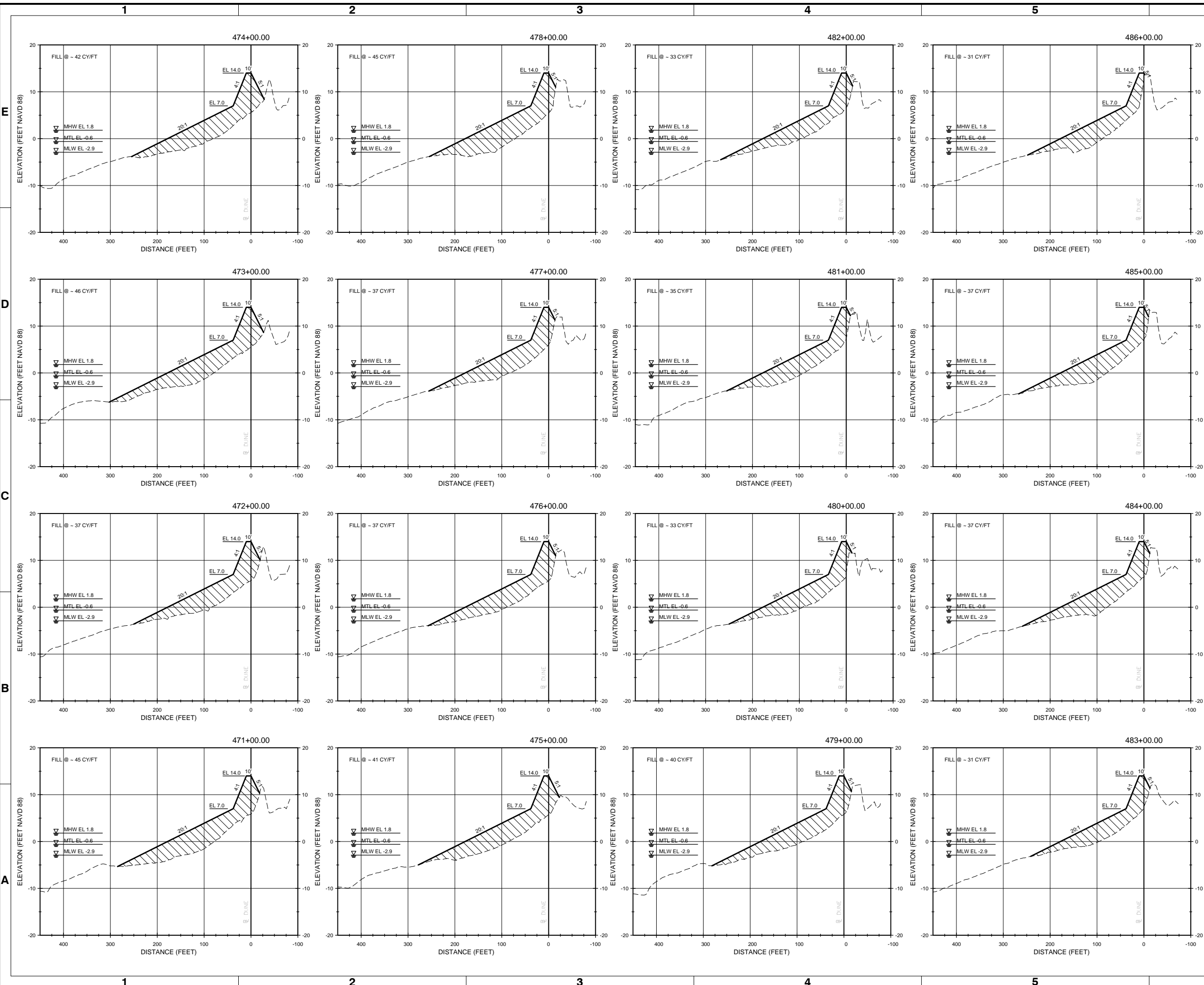
4700 FALLS OF THE NEUSE ROAD, STE  
300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-312**  
INDEX: 38 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'

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| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2021 | BD DOCUMENTS            |

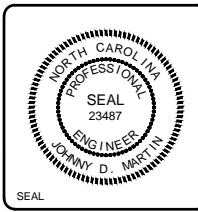
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 13 OF 14**

|                     |                             |                     |   |
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| Designed by:<br>KEF | Drawn by:<br>VNM            | Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL               |
| Date:<br>03/03/2021 | MAN Project No.<br>10128-01 | Drawing code:       | Drawing Scale:<br>Per scale: 1" = 10' (0 SHEET) |

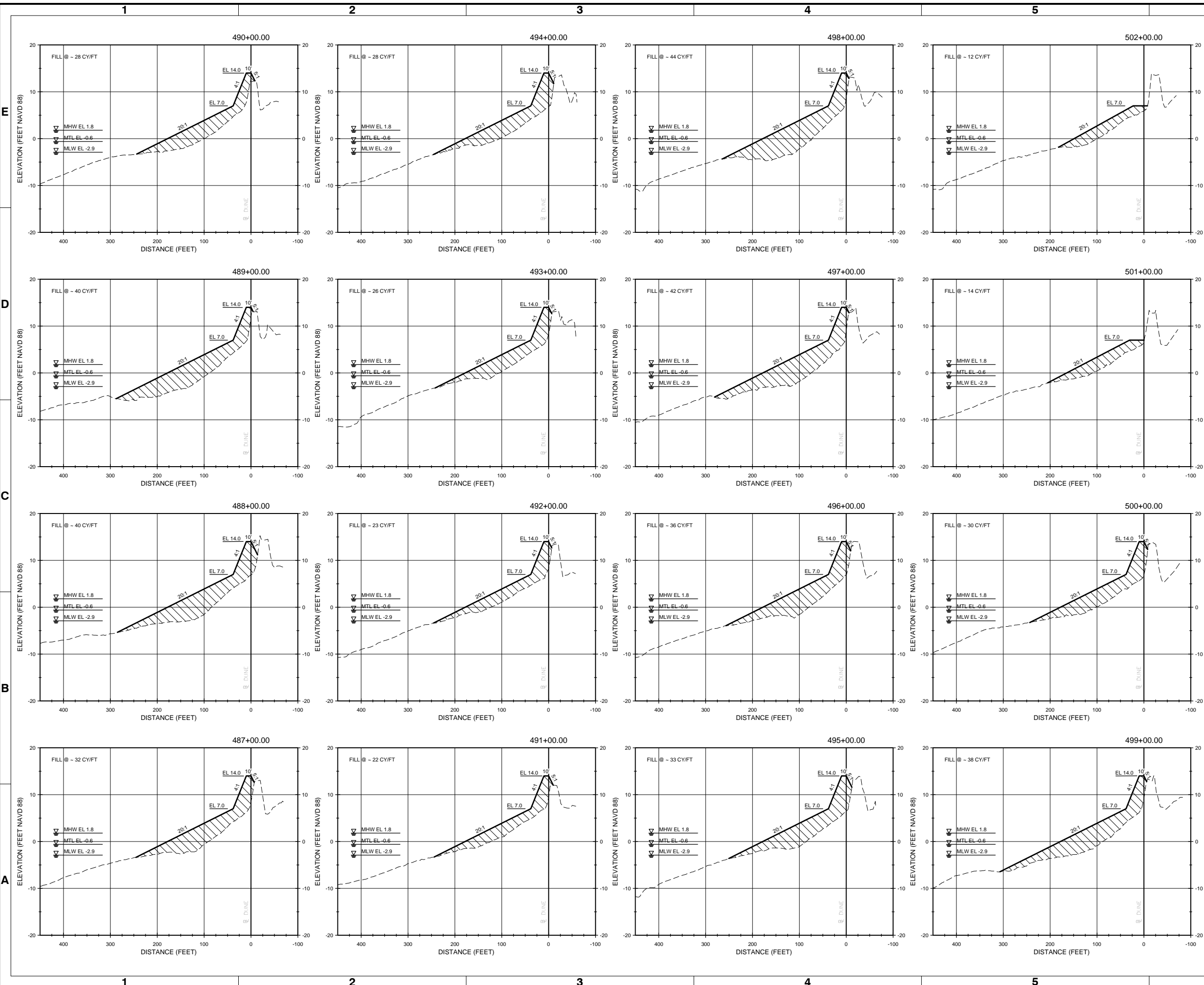
4700 FALLS OF THE NEUSE ROAD, STE  
300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-313**  
INDEX: 39 OF 42



- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'

File: Q:\RA\10128-01\0600\_CAD\_Active\_1012801\_SheetSet\1012801-C-313\_Plot.dwg, 3/23/2021 9:03 AM by: MORGAN, NEKOL; Plotted: 3/23/2021 2:44 PM by: AMORGAN



| Mark | Description             | Date  | Appr. |
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| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

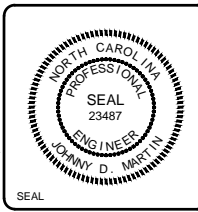
**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
CROSS SECTIONS -  
SHEET 14 OF 14**

|                                   |                             |                                 |
|-----------------------------------|-----------------------------|---------------------------------|
| Designed by:<br>KEF               | Date:<br>03/03/2021         | Rev:<br>1                       |
| Dwn by:<br>VNM                    | MAN Project No.<br>10128-01 |                                 |
| Reviewed by:<br>JDM               | SRM                         |                                 |
| Submitted by:<br>MOFFATT & NICHOL | Drawing code:               | Drawing Scale:<br>1:1 (0 SHEET) |

4700 FALLS OF THE NEUSE ROAD, STE  
300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-314**  
INDEX: 40 OF 42

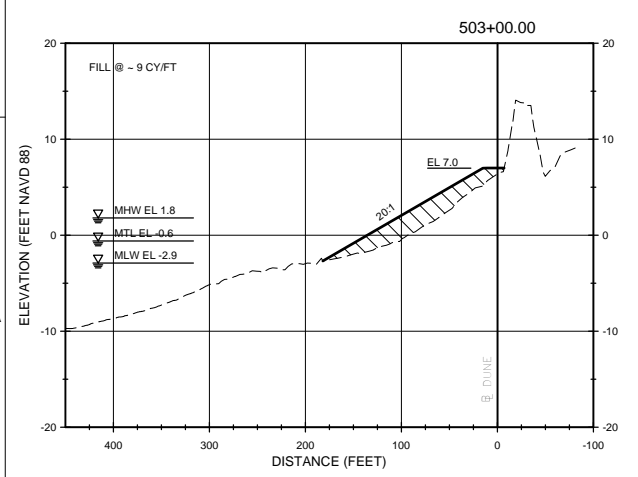
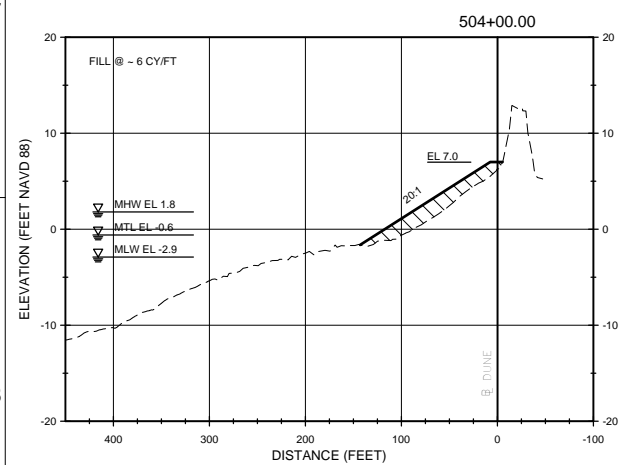
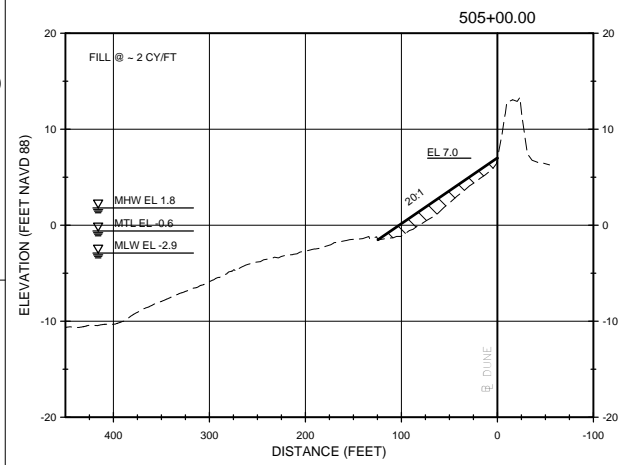
- NOTES:**
- FOR ADDITIONAL INFORMATION SEE BEACH RENOURISHMENT TYPICAL SECTION ON SHEET C-300.
  - EXISTING GROUND SHOWN IS BASED ON JANUARY 2021 SURVEY BY TI COASTAL AND REPRESENTS THE APPROXIMATE CONDITIONS AT THE TIME OF THE SURVEY.

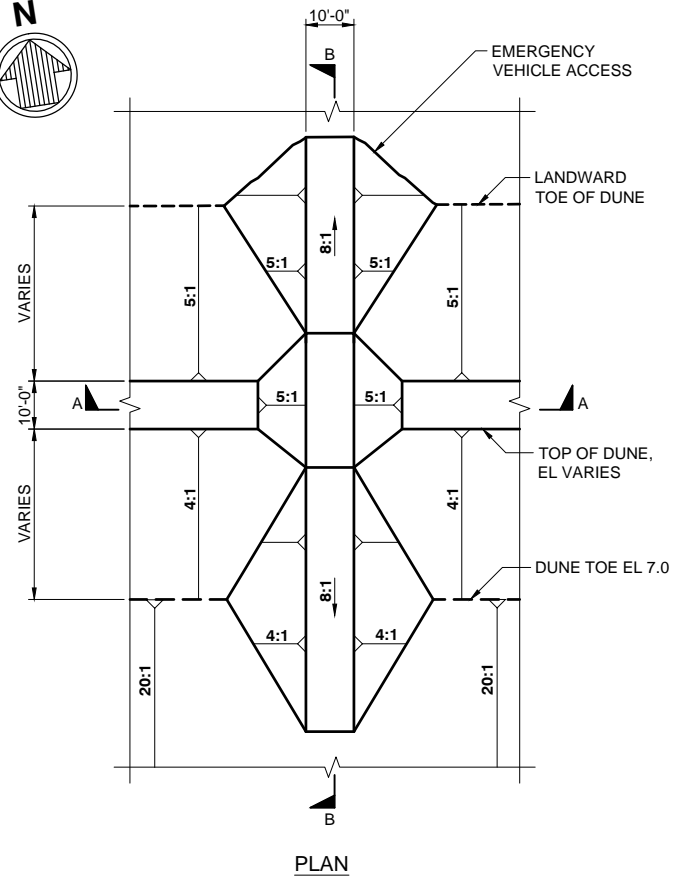
**LEGEND**

- APPROXIMATE EXISTING GROUND
- PROPOSED RENOURISHMENT
- ▨ LIMITS OF FILL

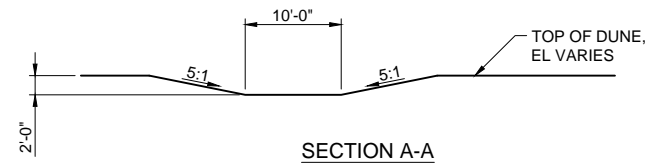
10' 0' 10' 20'  
VERTICAL SCALE: 1"=10'

100' 0' 100' 200'  
HORIZONTAL SCALE: 1"=100'

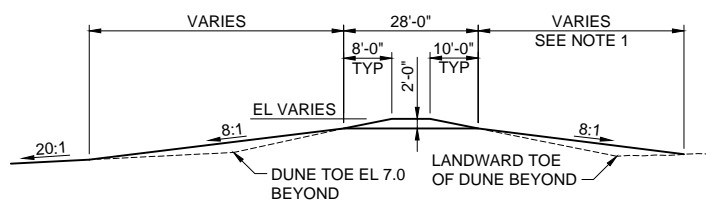




PLAN



SECTION A-A



SECTION B-B

NOTES:

1. SLOPE VARIES FROM 6:1 MINIMUM TO 8:1 MAXIMUM AT SE 49th STREET AND SE 52nd STREET LOCATIONS TO AVOID FILL WITHIN EXISTING PARKING LOTS.
2. 10 FOOT GAP IN PLANTING FOR EMERGENCY VEHICLE ACCESS.

**B1 EMERGENCY VEHICLE ACCESS**  
NOT TO SCALE

C-115 THRU C-118, C-120 THRU C-122



| Mark | Date  | Description             |
|------|-------|-------------------------|
| 1    | 03/21 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20 | BD DOCUMENTS            |

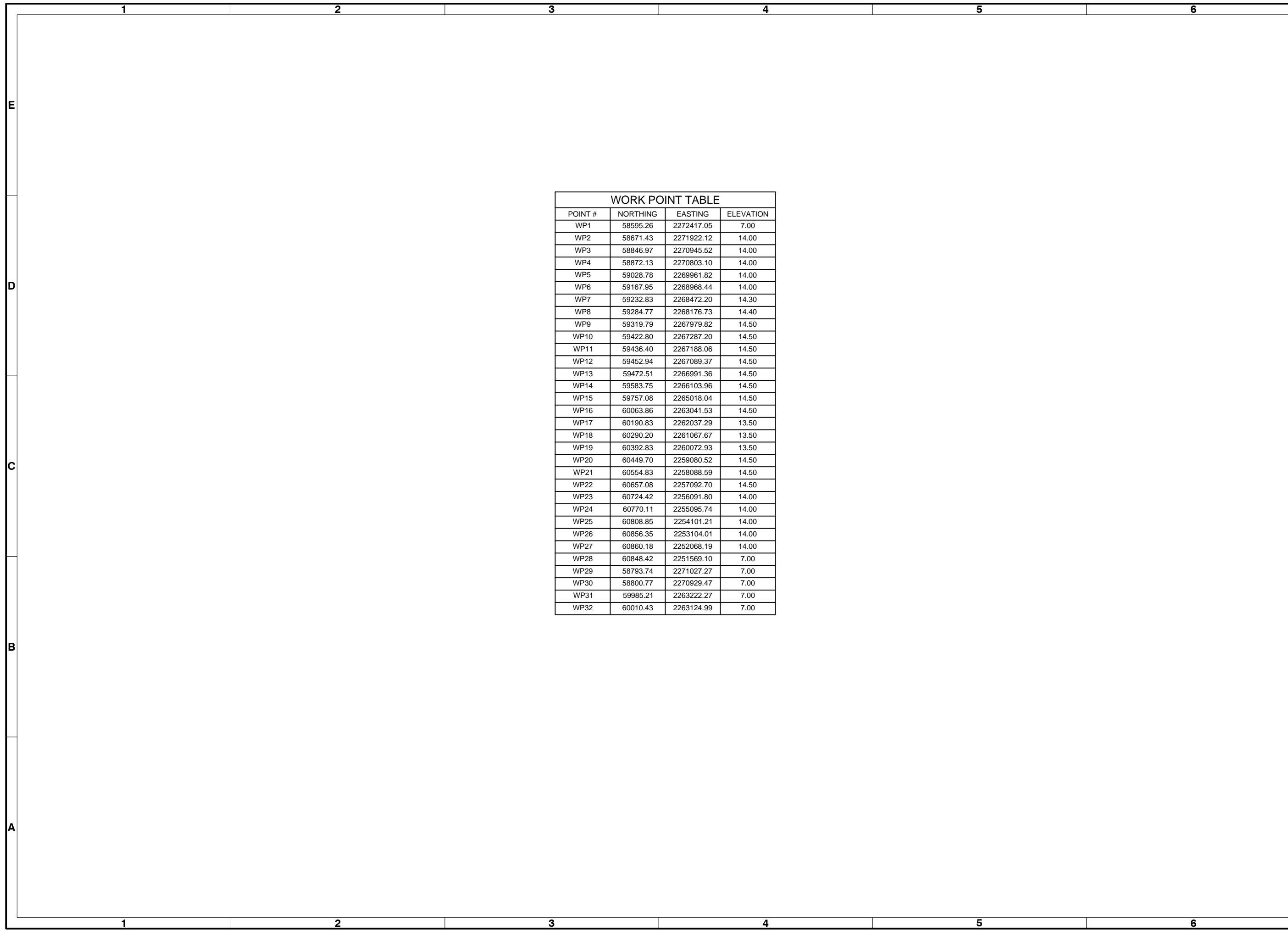
OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
MISCELLANEOUS  
DETAILS

|               |                  |                  |               |      |   |
|---------------|------------------|------------------|---------------|------|---|
| Designed by:  | KEF              | Date:            | 03/03/2021    | Rev: | 1 |
| Dwn by:       | VNM              | MAN Project No.: | 10128-01      |      |   |
| Reviewed by:  | JDM              | Drawing code:    |               |      |   |
| Submitted by: | MOFFATT & NICHOL | Drawing Scale:   | 1:1 (0 SHEET) |      |   |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826  
**moftatt & nichol**  
PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-501**  
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E

D

C

B

A

1

2

3

4

5

6

1

2

3

4

5

6

| WORK POINT TABLE |          |            |           |
|------------------|----------|------------|-----------|
| POINT #          | NORTHING | EASTING    | ELEVATION |
| WP1              | 58595.26 | 2272417.05 | 7.00      |
| WP2              | 58671.43 | 2271922.12 | 14.00     |
| WP3              | 58846.97 | 2270945.52 | 14.00     |
| WP4              | 58872.13 | 2270803.10 | 14.00     |
| WP5              | 59028.78 | 2269961.82 | 14.00     |
| WP6              | 59167.95 | 2268968.44 | 14.00     |
| WP7              | 59232.83 | 2268472.20 | 14.30     |
| WP8              | 59284.77 | 2268176.73 | 14.40     |
| WP9              | 59319.79 | 2267979.82 | 14.50     |
| WP10             | 59422.80 | 2267287.20 | 14.50     |
| WP11             | 59436.40 | 2267188.06 | 14.50     |
| WP12             | 59452.94 | 2267089.37 | 14.50     |
| WP13             | 59472.51 | 2266991.36 | 14.50     |
| WP14             | 59583.75 | 2266103.96 | 14.50     |
| WP15             | 59757.08 | 2265018.04 | 14.50     |
| WP16             | 60063.86 | 2263041.53 | 14.50     |
| WP17             | 60190.83 | 2262037.29 | 13.50     |
| WP18             | 60290.20 | 2261067.67 | 13.50     |
| WP19             | 60392.83 | 2260072.93 | 13.50     |
| WP20             | 60449.70 | 2259080.52 | 14.50     |
| WP21             | 60554.83 | 2258088.59 | 14.50     |
| WP22             | 60657.08 | 2257092.70 | 14.50     |
| WP23             | 60724.42 | 2256091.80 | 14.00     |
| WP24             | 60770.11 | 2255095.74 | 14.00     |
| WP25             | 60808.85 | 2254101.21 | 14.00     |
| WP26             | 60856.35 | 2253104.01 | 14.00     |
| WP27             | 60860.18 | 2252068.19 | 14.00     |
| WP28             | 60848.42 | 2251569.10 | 7.00      |
| WP29             | 58793.74 | 2271027.27 | 7.00      |
| WP30             | 58800.77 | 2270929.47 | 7.00      |
| WP31             | 59985.21 | 2263222.27 | 7.00      |
| WP32             | 60010.43 | 2263124.99 | 7.00      |

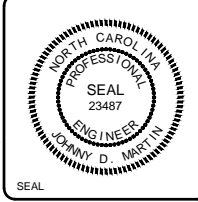


| Mark | Date  | Description             |
|------|-------|-------------------------|
| 1    | 03/21 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20 | BD DOCUMENTS            |

OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
WORK POINT TABLE

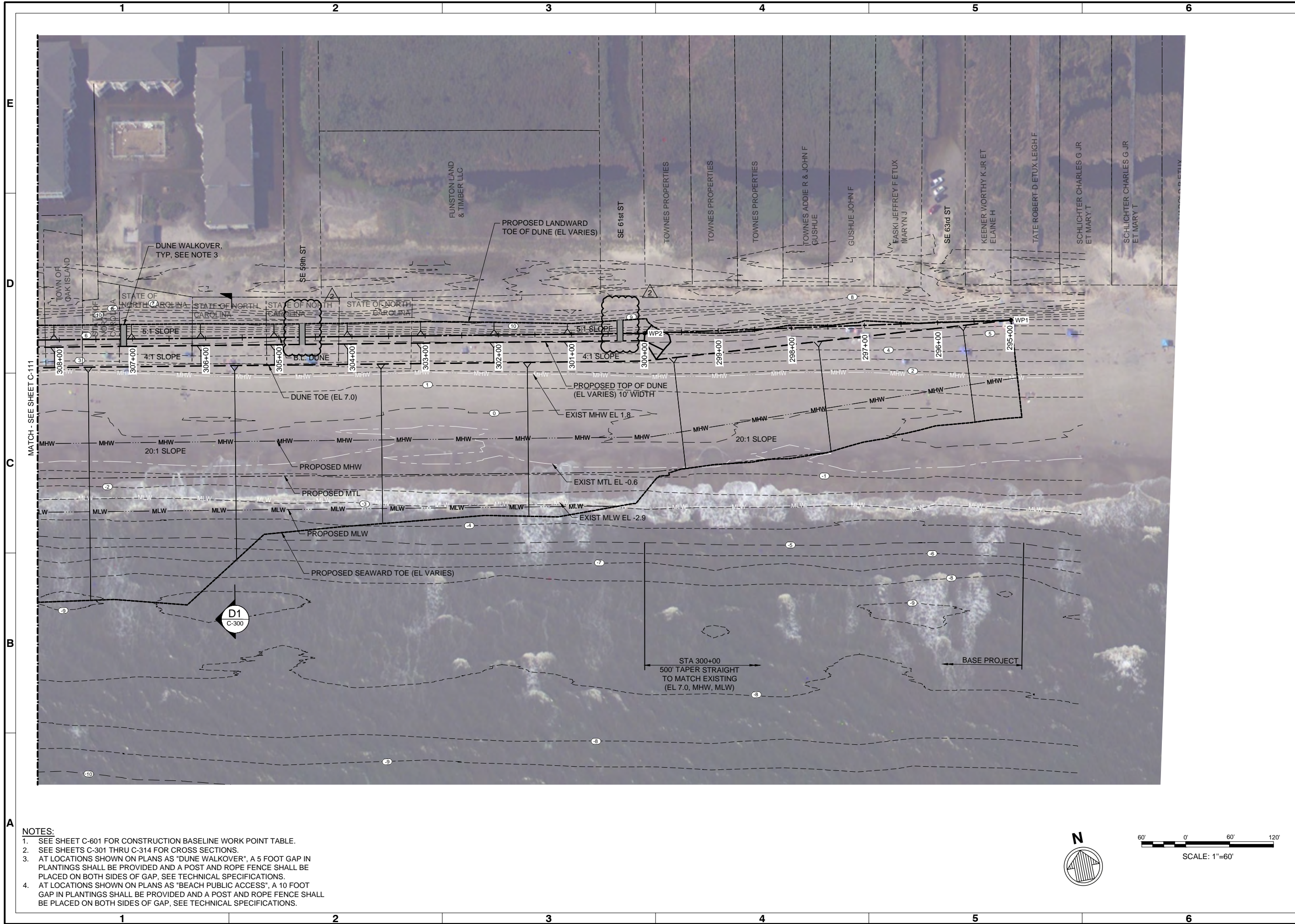
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|---------------------|-----------------------------------|---------------------------|-----------------------------|-----------------------------|
| Designed by:<br>KEF | Drawn by:<br>VNM                  | Checked by:<br>SRM        | Date:<br>03/03/2021         | Rev:<br>1                   |
| Reviewed by:<br>JDM | Submitted by:<br>MOFFATT & NICHOL | Drawing code:<br>10128-01 | MAN Project No.<br>10128-01 | Per scale:<br>1:1 (0 SHEET) |

4700 FALLS OF THE NEUSE ROAD, STE  
300 RALEIGH, NC 27609  
919-781-4826  
**moftatt & nichol**  
PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-601**  
INDEX: 42 OF 42

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 2    | 03/03/2021 | BEACH ACCESS ROLLED     |
| 1    | 03/01/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

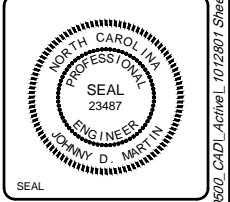
**OAK ISLAND RENOURISHMENT PROJECT 2020/2021**

**SITE PLAN 1 OF 14**

|                  |                          |                  |                                |
|------------------|--------------------------|------------------|--------------------------------|
| Designed by: KEF | Drawn by: VNM            | Reviewed by: JDM | Submitted by: MOFFATT & NICHOL |
| Date: 03/03/2021 | MAN Project No: 10128-01 | Drawing code:    | Drawing Scale: 1" = 60'        |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

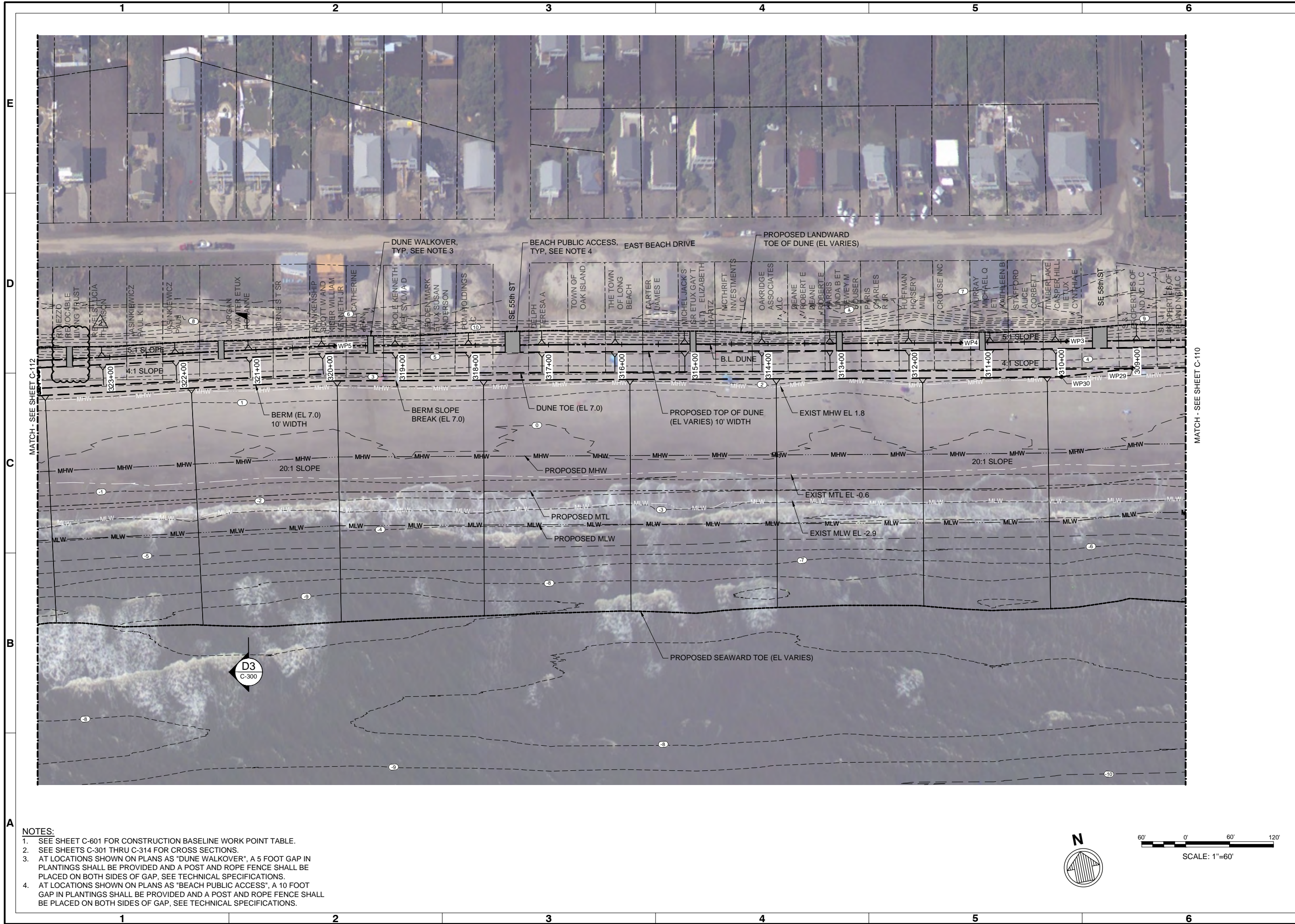
PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No. **C-110**

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



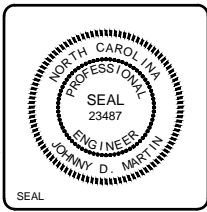
| Mark | Description             | Date       | Appr. |
|------|-------------------------|------------|-------|
| 2    | BEACH ACCESS ADDED      | 03/21/2021 | JDM   |
| 1    | ISSUED FOR CONSTRUCTION | 03/21/2021 | JDM   |
| 0    | BD DOCUMENTS            | 04/20/2021 | JDM   |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
SITE PLAN 2 OF 14**

|               |                  |                  |            |      |   |
|---------------|------------------|------------------|------------|------|---|
| Designed by:  | KEF              | Date:            | 03/03/2021 | Rev: | 2 |
| Dwn by:       | VNM              | MAN Project No.: | 10128-01   |      |   |
| Reviewed by:  | JDM              | Drawing code:    |            |      |   |
| Submitted by: | MOFFATT & NICHOL | Drawing Scale:   | As Shown   |      |   |

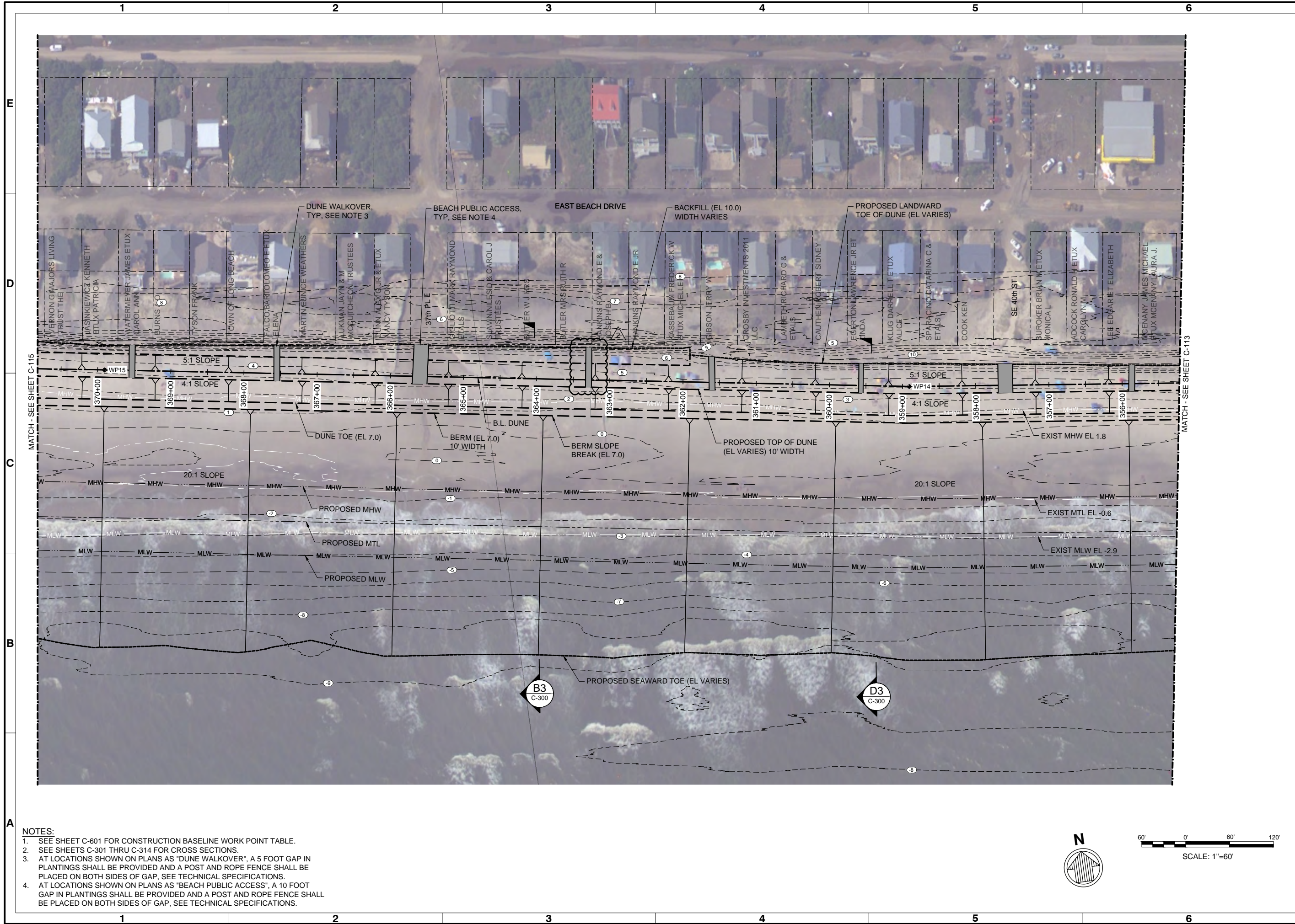
4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

PREPARED FOR THE TOWN OF OAK ISLAND

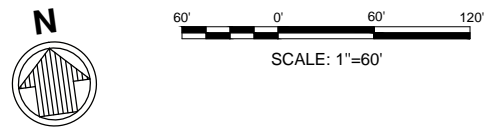


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|---------------------|--------------|
| Sheet Reference No. | <b>C-111</b> |
| INDEX:              | 13 OF 42     |

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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Rev. | Date       | Description             |
|------|------------|-------------------------|
| 2    | 03/21/2021 | BEACH ACCESS ADDED      |
| 1    | 03/21/2021 | ISSUED FOR CONSTRUCTION |
| 0    | 04/20/2020 | BD DOCUMENTS            |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

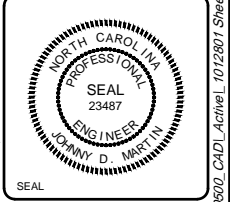
**SITE PLAN 5 OF 14**

|               |                  |                  |                        |               |   |
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| Designed by:  | KEF              | Date:            | 03/03/2021             | Rev:          | 2 |
| Dwn by:       | VNM              | MAN Project No.: | 10128-01               | Drawing code: |   |
| Reviewed by:  | JDM              | Drawing Scale:   | 1" = 10' (0 SHEET)     | Per scale:    |   |
| Submitted by: | MOFFATT & NICHOL | Prepared for:    | THE TOWN OF OAK ISLAND |               |   |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moftatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-114**

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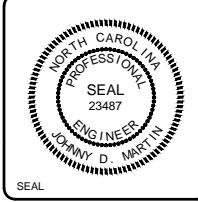


| Mark | Description            | Date  | Appr. |
|------|------------------------|-------|-------|
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| 1    | ISSUE FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS           | 04/20 | JDM   |

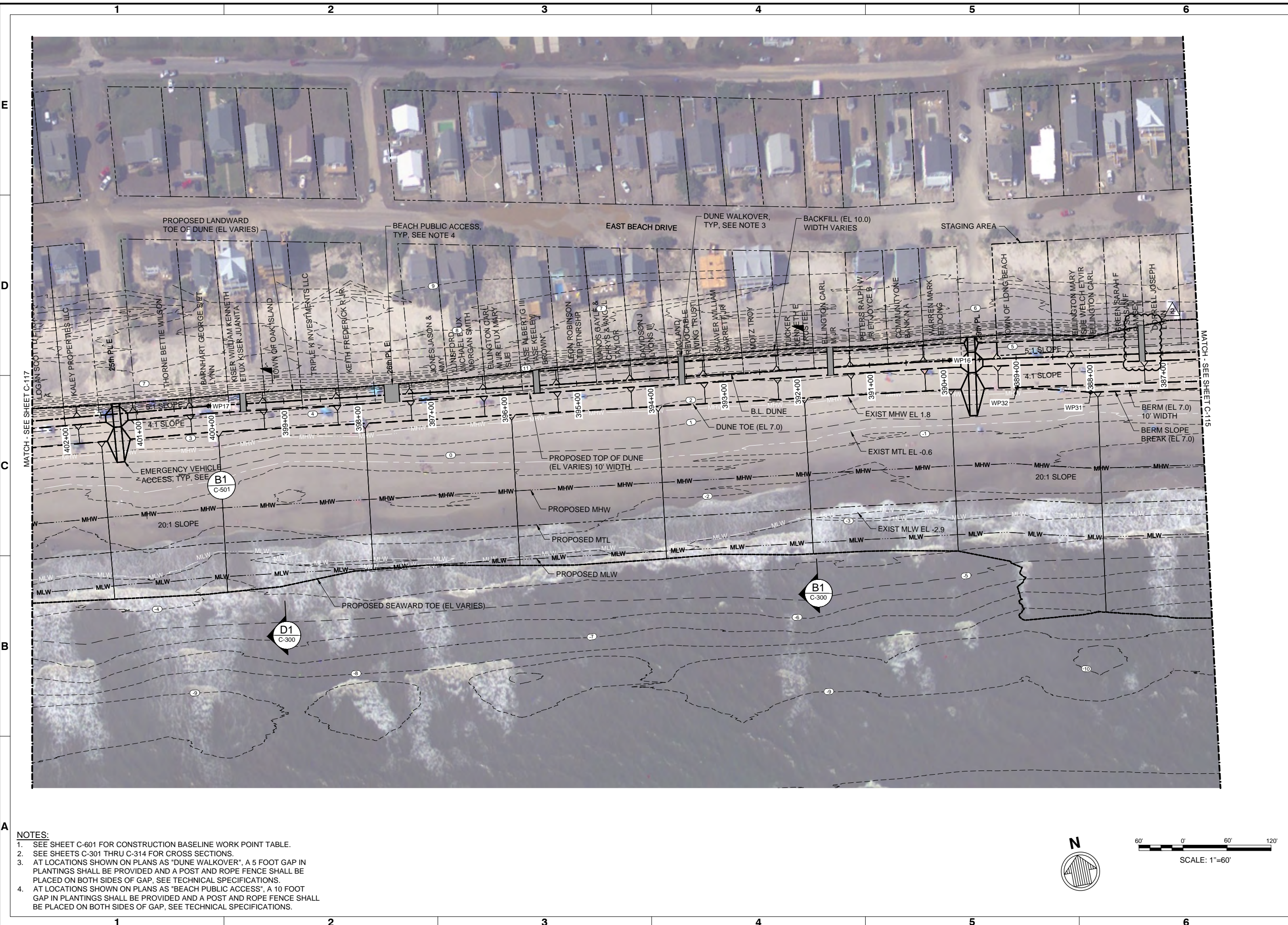
OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021  
SITE PLAN 7 OF 14

|               |                  |                  |            |                |                    |
|---------------|------------------|------------------|------------|----------------|--------------------|
| Designed by:  | KEF              | Date:            | 03/03/2021 | Rev:           | 2                  |
| Drawn by:     | VNM              | MAN Project No.: | 10128-01   |                |                    |
| Reviewed by:  | JDM              | SRM              |            |                |                    |
| Submitted by: | MOFFATT & NICHOL | Drawing code:    |            | Drawing Scale: | 1" = 60' (0 SHEET) |

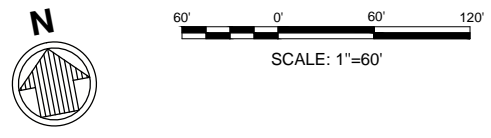
4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826  
**moftatt & nichol**  
PREPARED FOR THE TOWN OF OAK ISLAND



Sheet Reference No.  
**C-116**  
INDEX: 18 OF 42



- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.

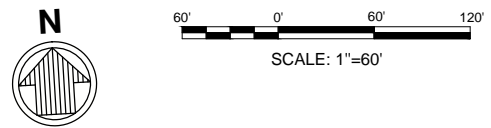


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- NOTES:**
- SEE SHEET C-601 FOR CONSTRUCTION BASELINE WORK POINT TABLE.
  - SEE SHEETS C-301 THRU C-314 FOR CROSS SECTIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "DUNE WALKOVER", A 5 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.
  - AT LOCATIONS SHOWN ON PLANS AS "BEACH PUBLIC ACCESS", A 10 FOOT GAP IN PLANTINGS SHALL BE PROVIDED AND A POST AND ROPE FENCE SHALL BE PLACED ON BOTH SIDES OF GAP, SEE TECHNICAL SPECIFICATIONS.



| Mark | Description             | Date  | Appr. |
|------|-------------------------|-------|-------|
| 2    | BEACH ACCESSES ADDED    | 03/21 | JDM   |
| 1    | ISSUED FOR CONSTRUCTION | 03/21 | JDM   |
| 0    | BD DOCUMENTS            | 04/20 | JDM   |

**OAK ISLAND  
RENOURISHMENT PROJECT 2020/2021**

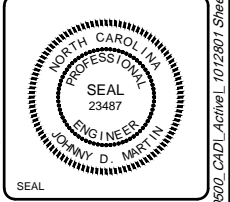
**SITE PLAN 10 OF 14**

|               |                  |                  |            |      |   |
|---------------|------------------|------------------|------------|------|---|
| Designed by:  | KEF              | Date:            | 03/03/2021 | Rev: | 2 |
| Drawn by:     | VNM              | MAN Project No.: | 10128-01   |      |   |
| Reviewed by:  | JDM              | SRM              |            |      |   |
| Submitted by: | MOFFATT & NICHOL | Drawing code:    |            |      |   |
|               |                  | Drawing Scale:   | 1" = 60'   |      |   |

4700 FALLS OF THE NEUSE ROAD, STE 300 RALEIGH, NC 27609  
919-781-4826

**moffatt & nichol**

PREPARED FOR THE TOWN OF OAK ISLAND



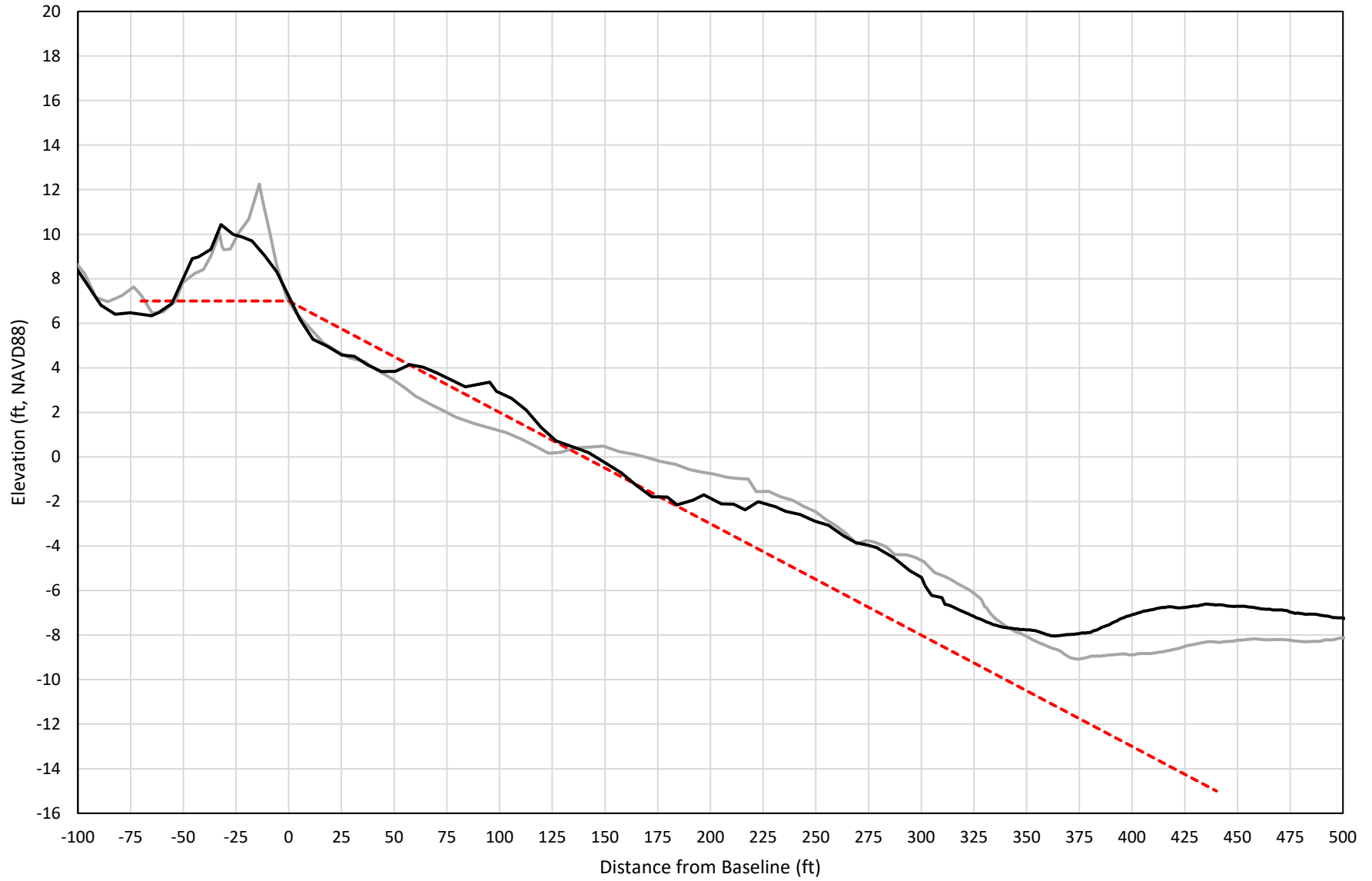
Sheet Reference No.  
**C-119**

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# Appendix A2:

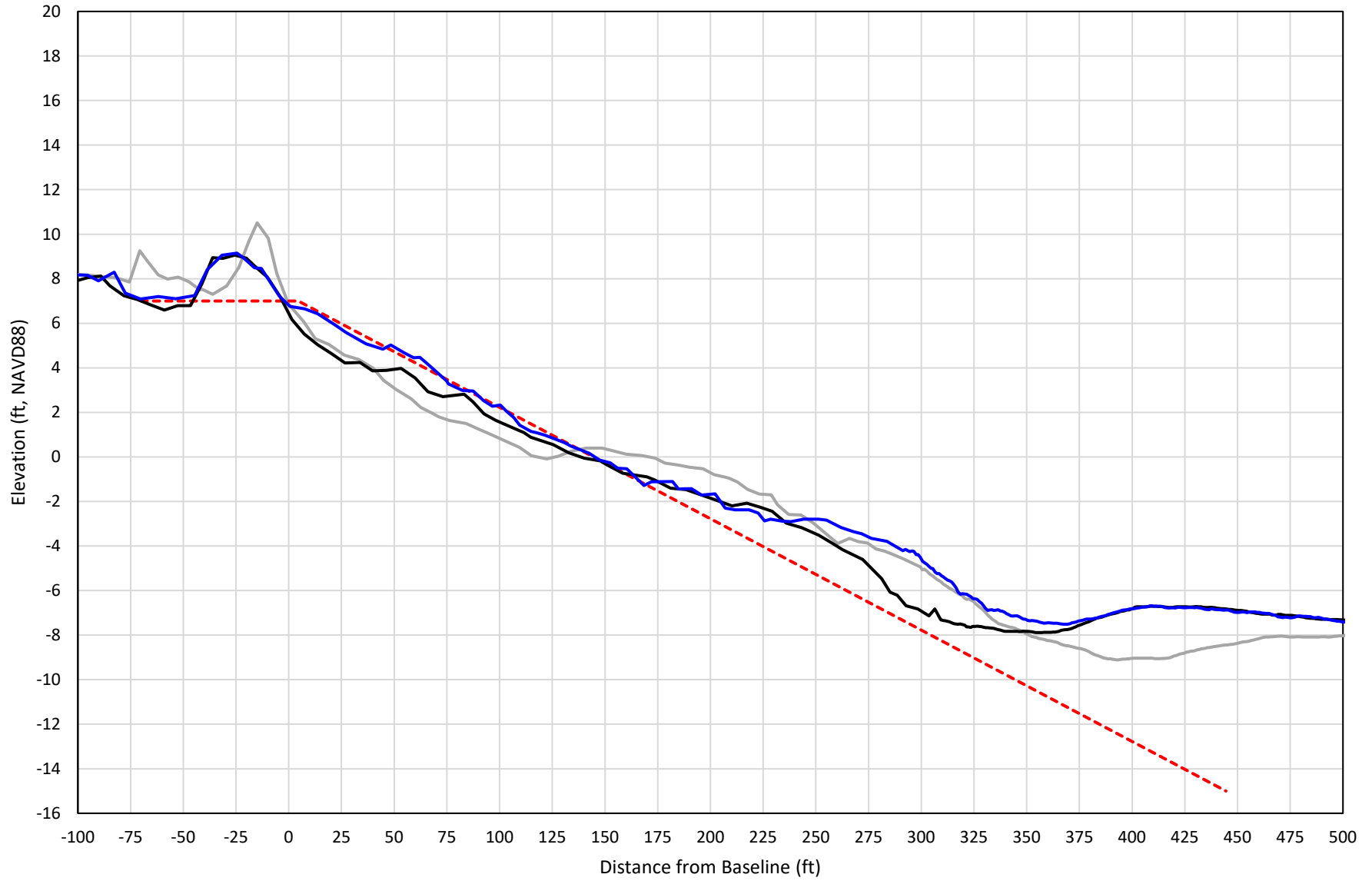
## Preconstruction and Post Construction Survey Profiles

# 295+00



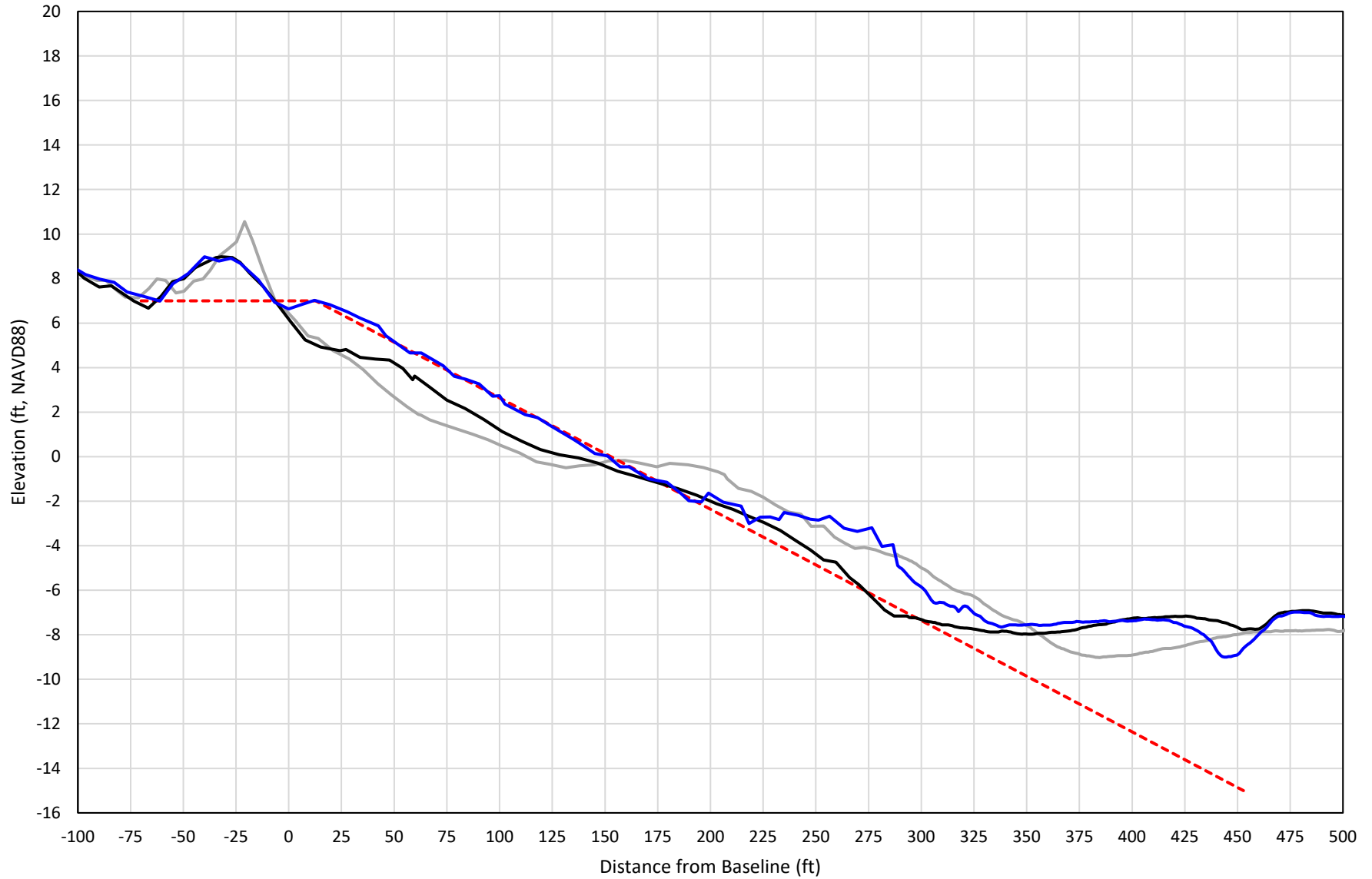
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# 296+00



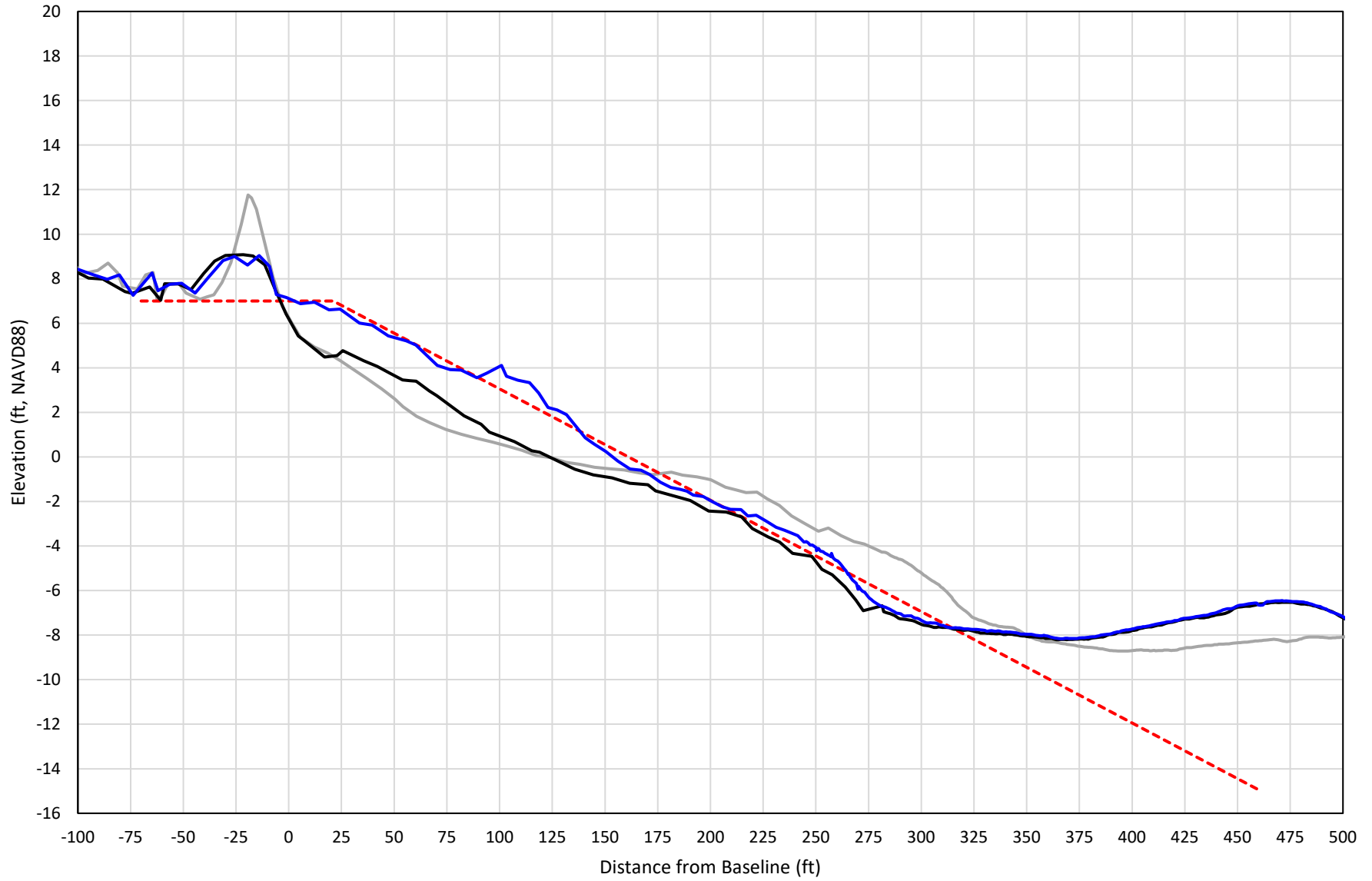
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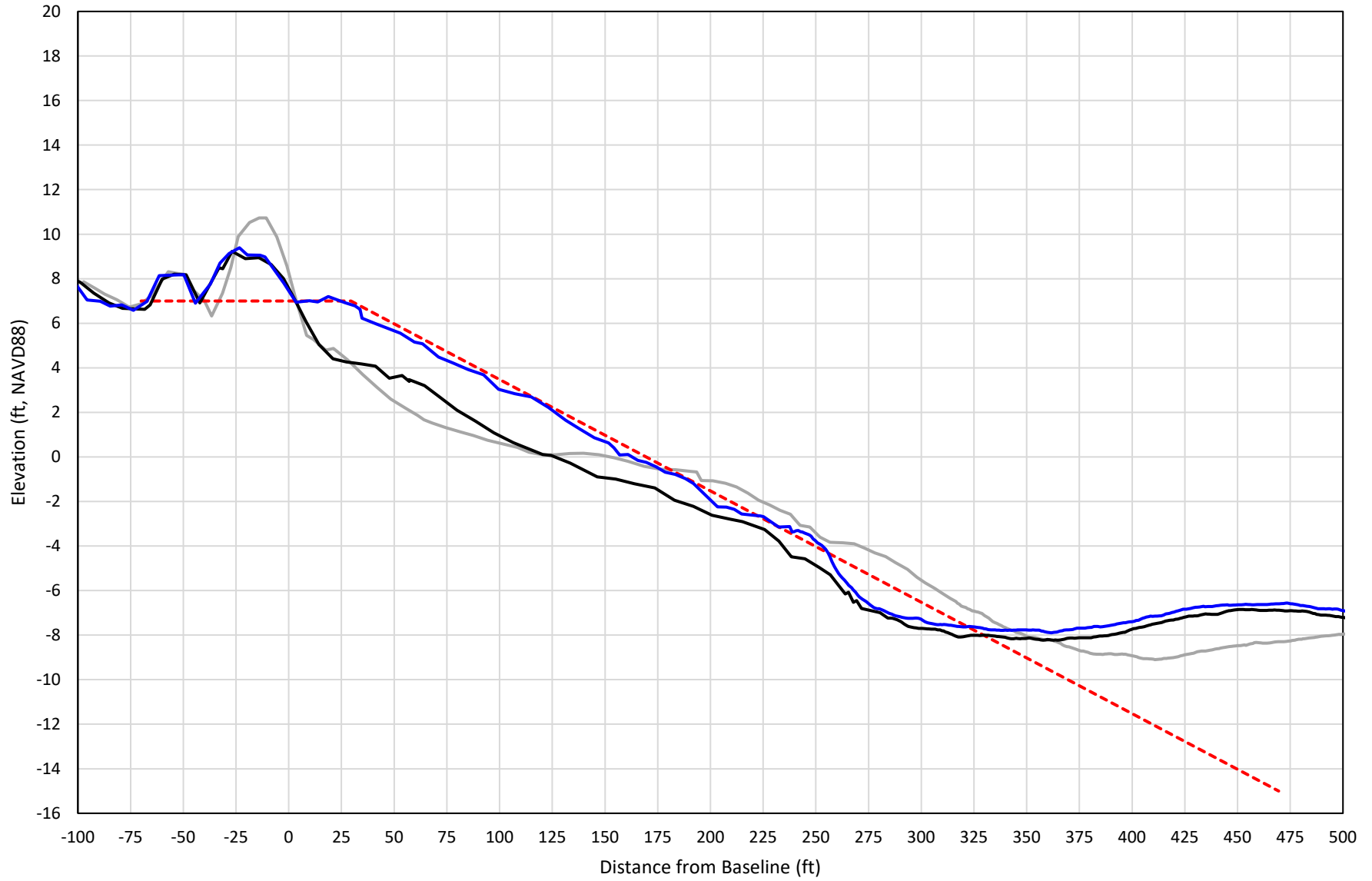
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# 298+00



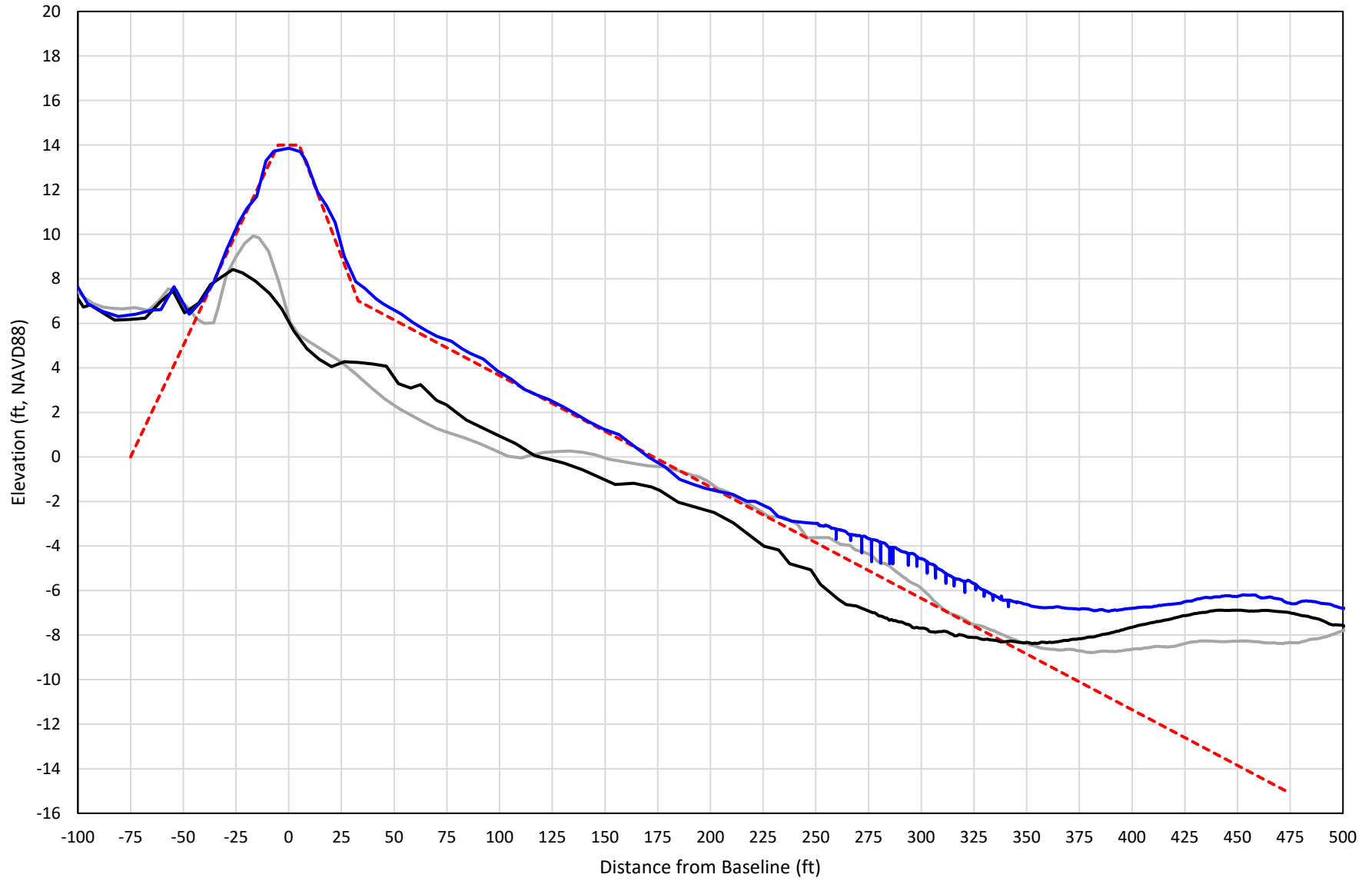
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# 299+00



— 299+00 Precon    - - - 299+00 Temp001    — 299+00 BD\_210407    — 299+00 AD\_210409

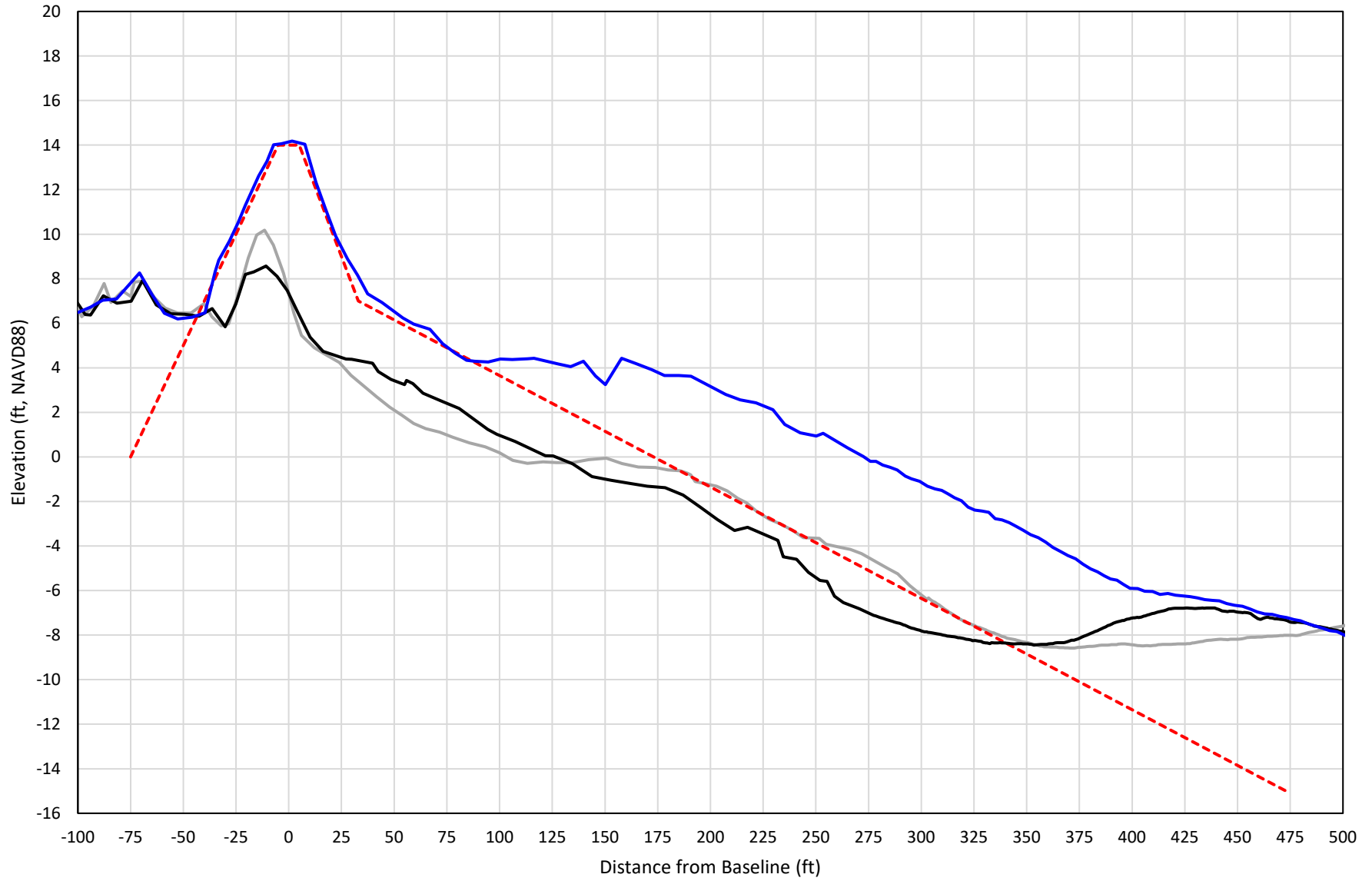
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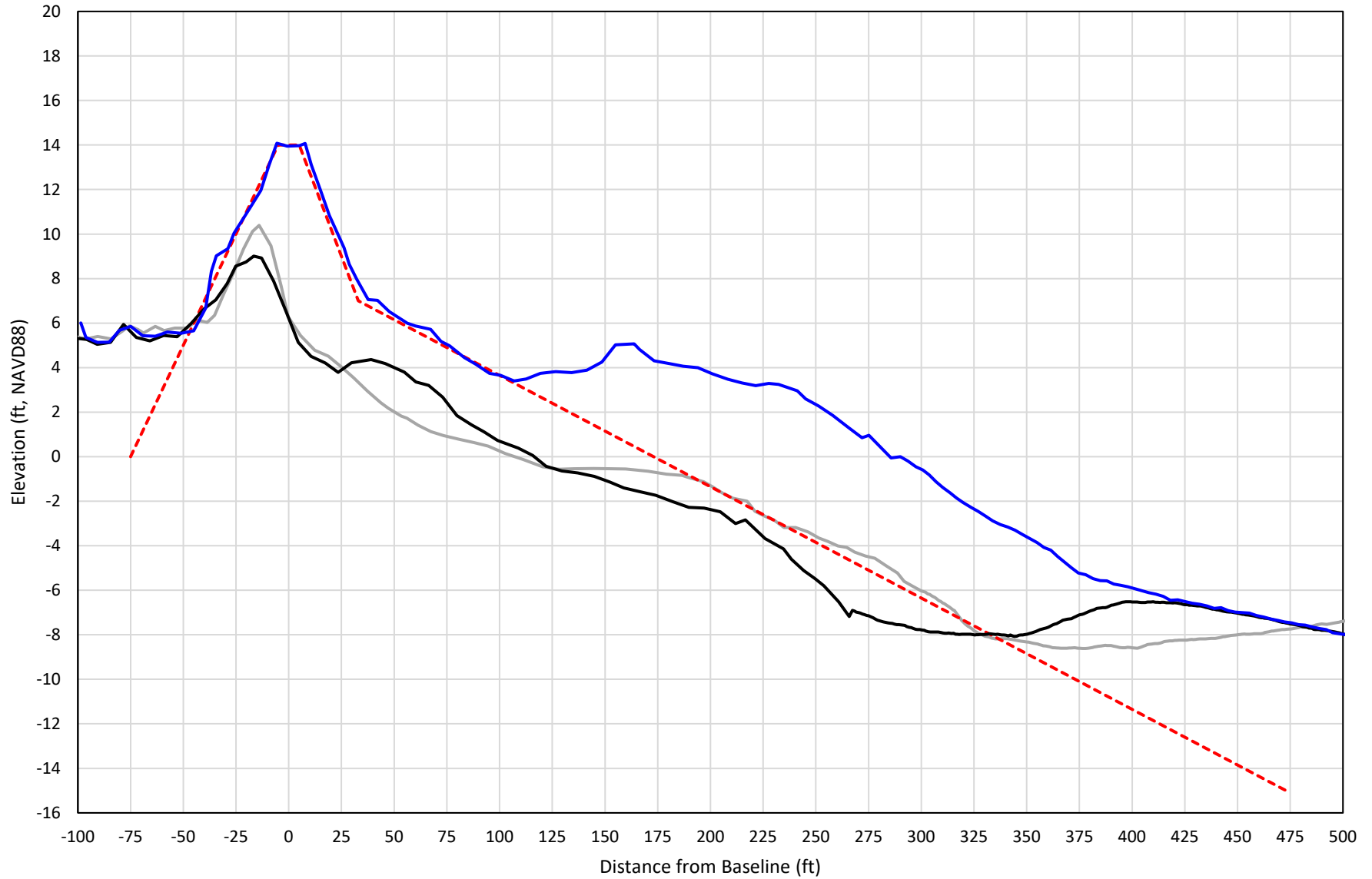


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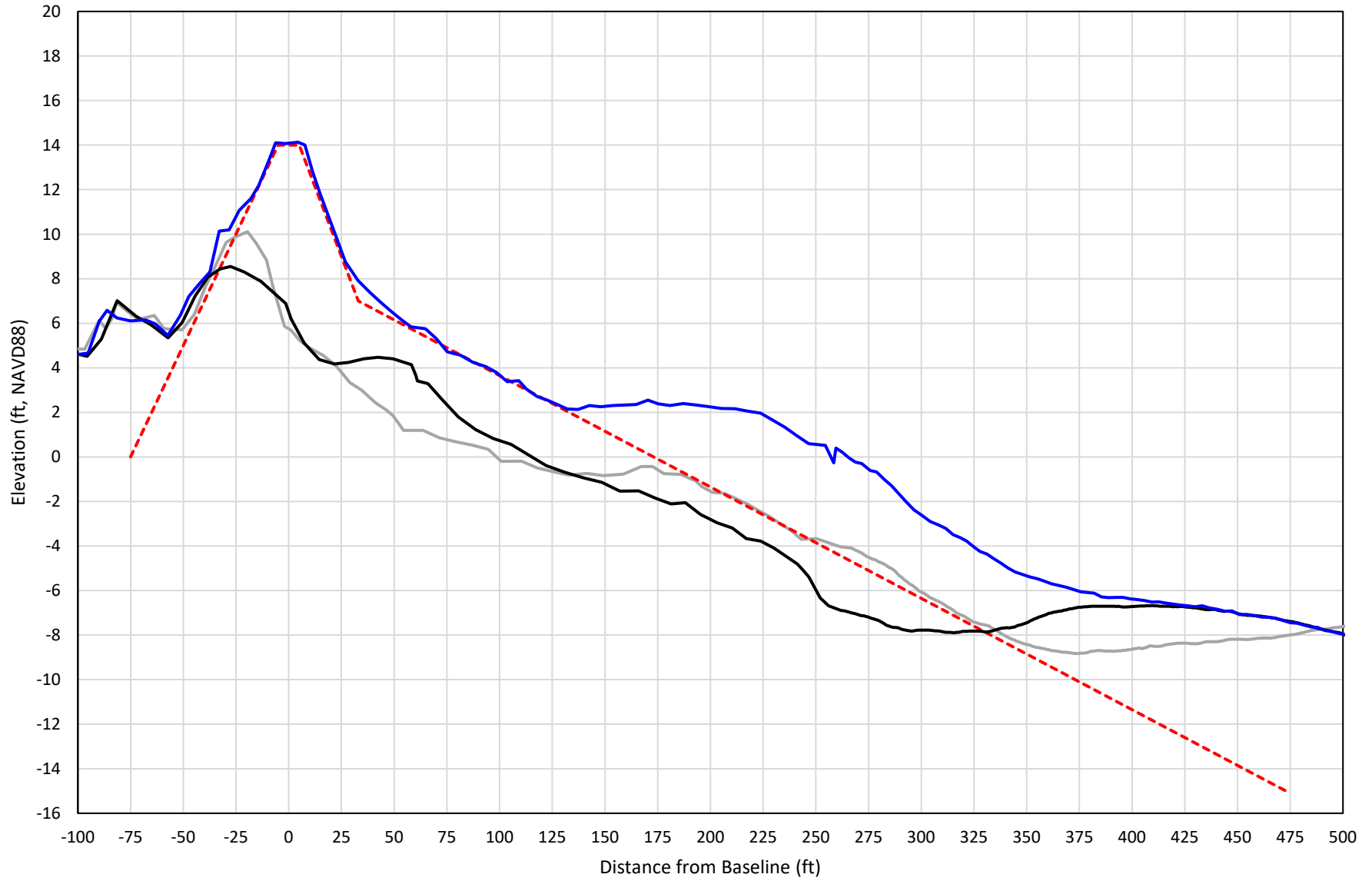
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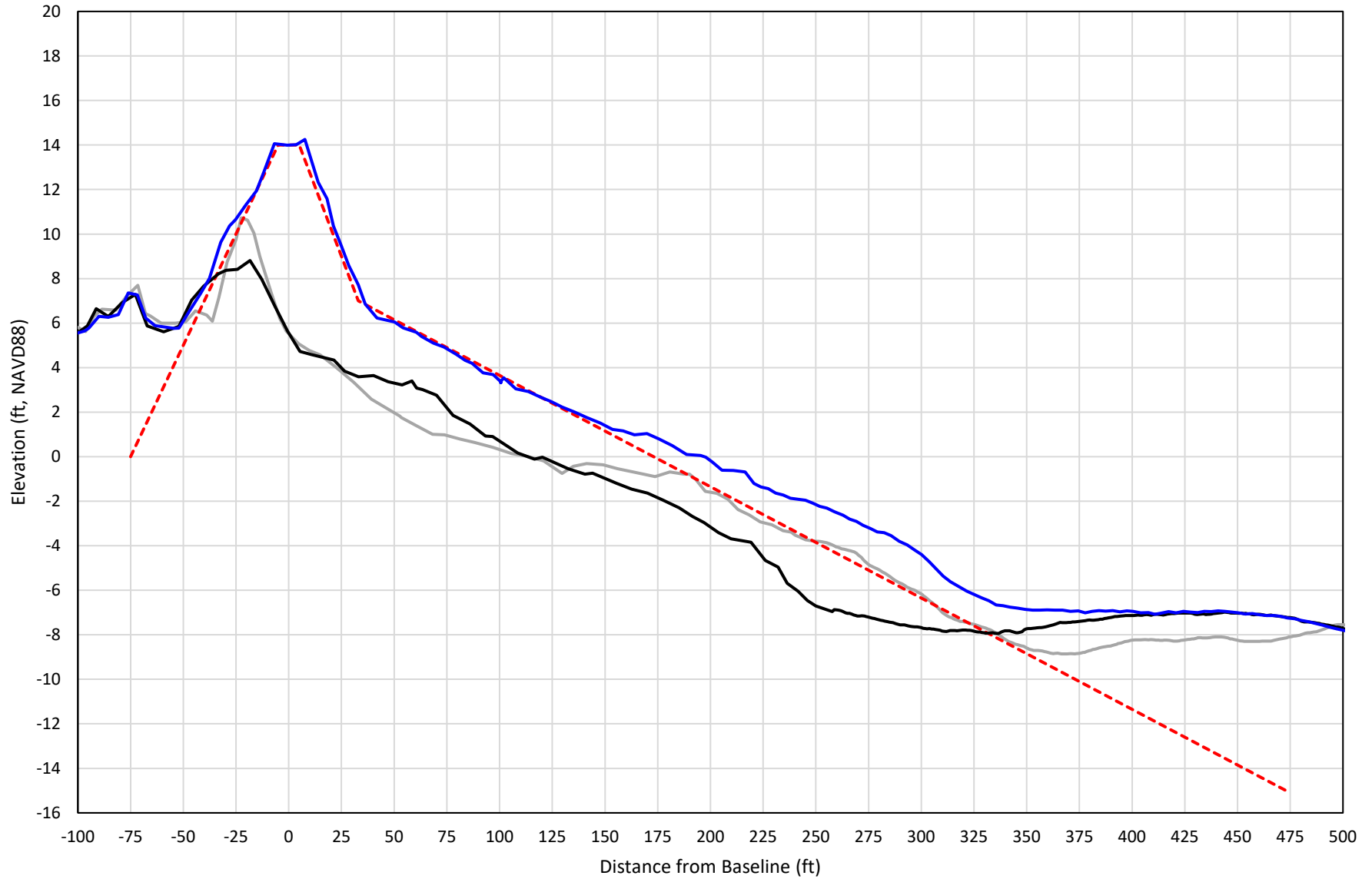
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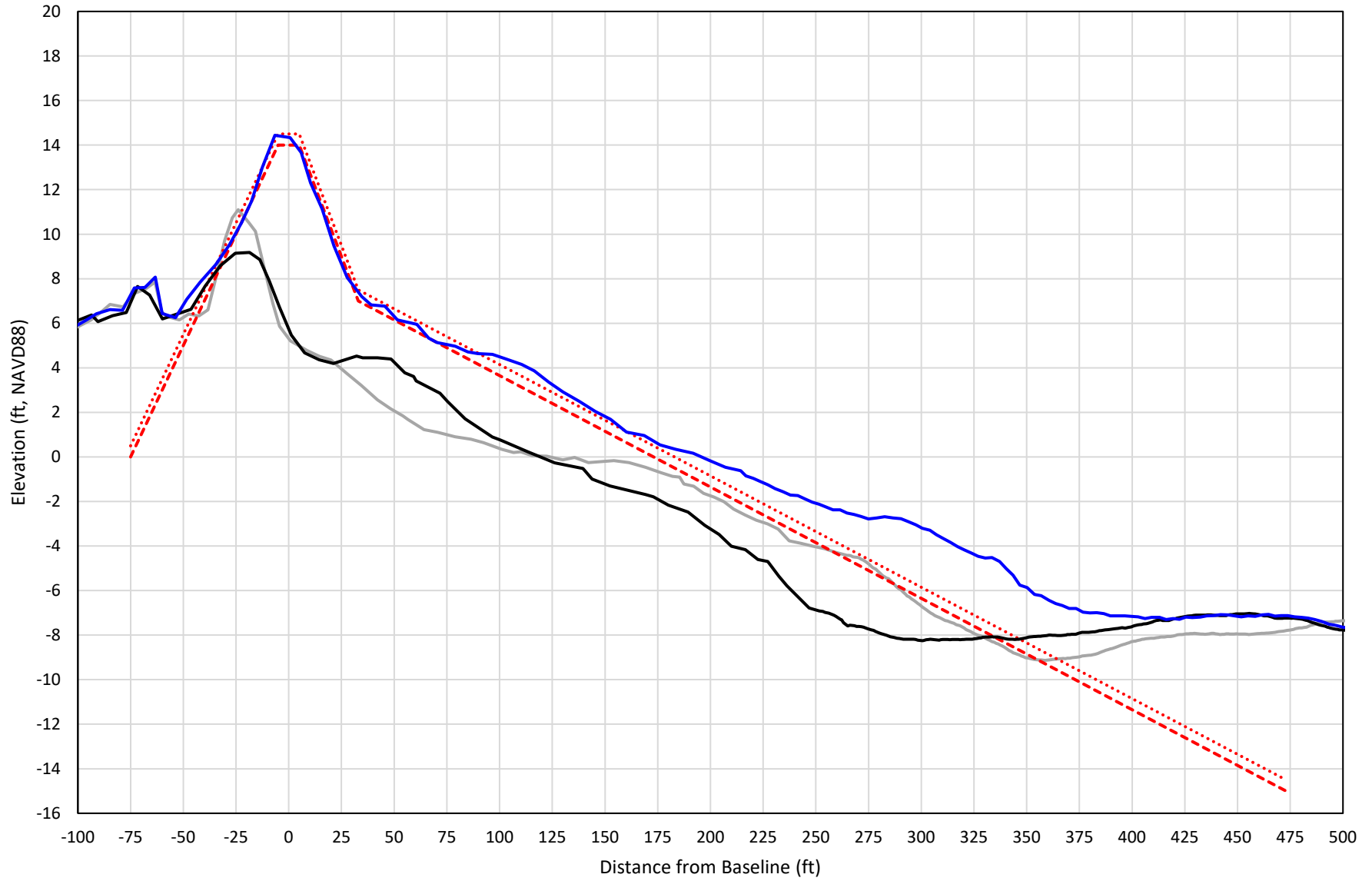
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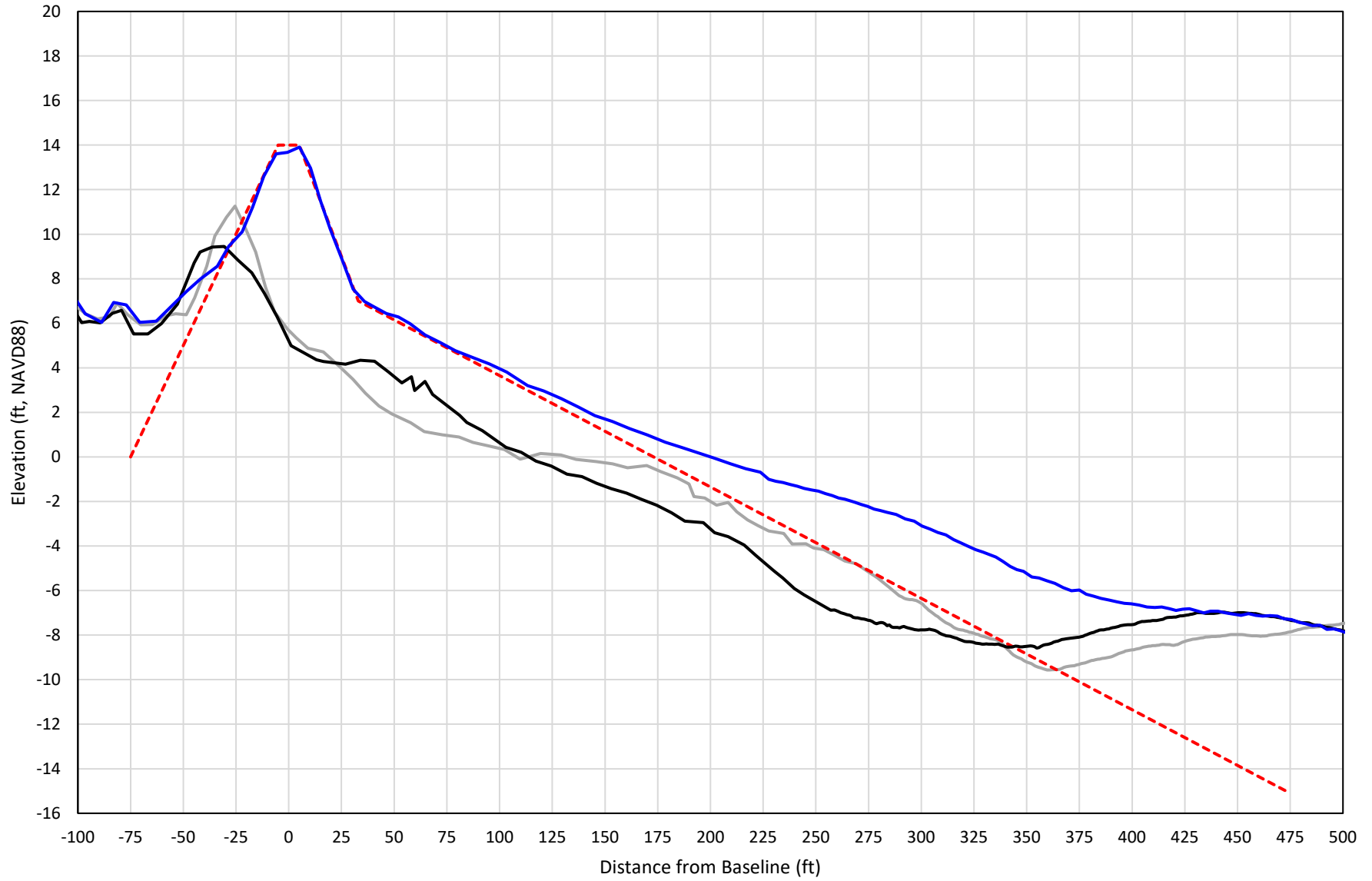
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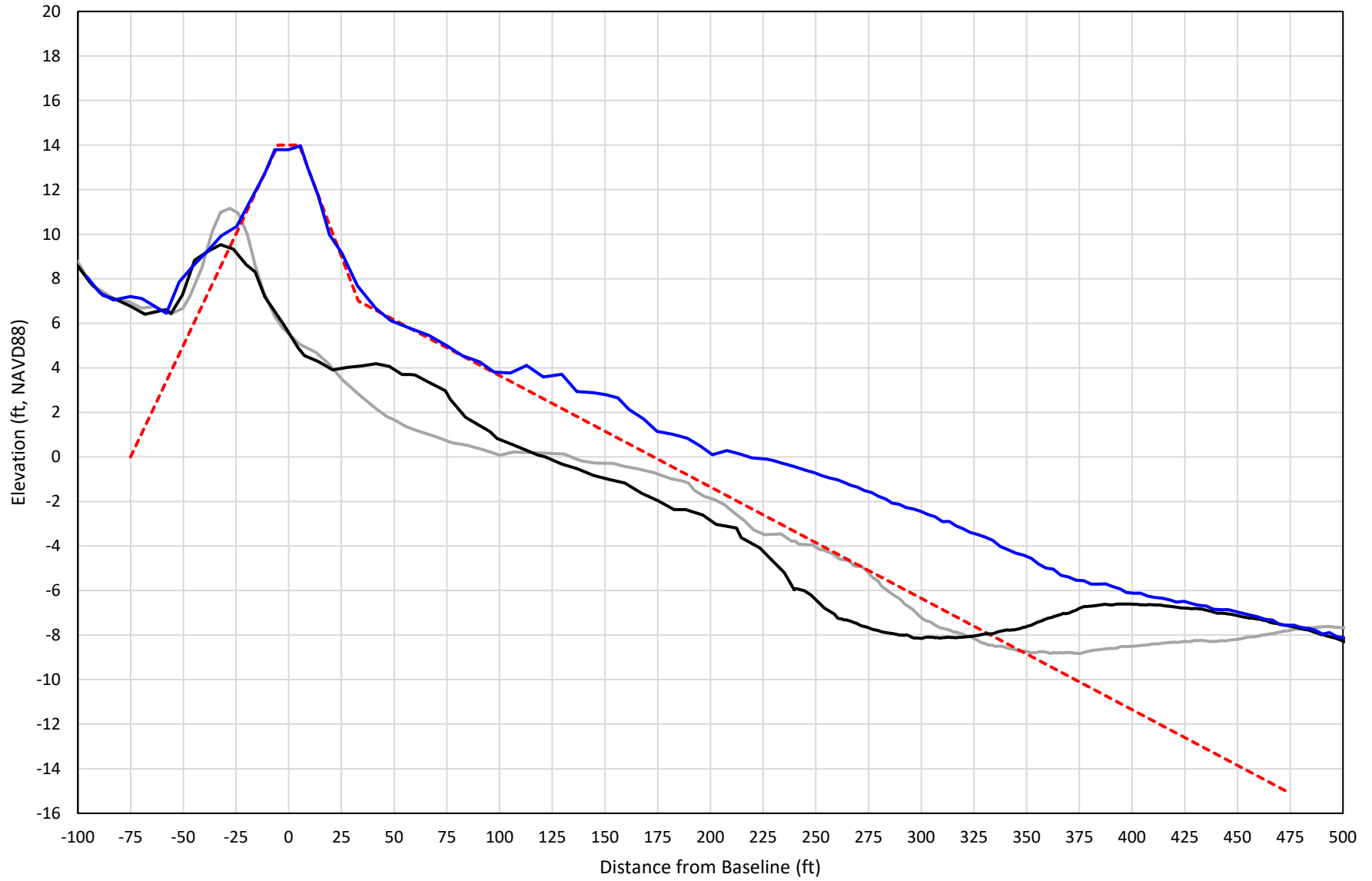
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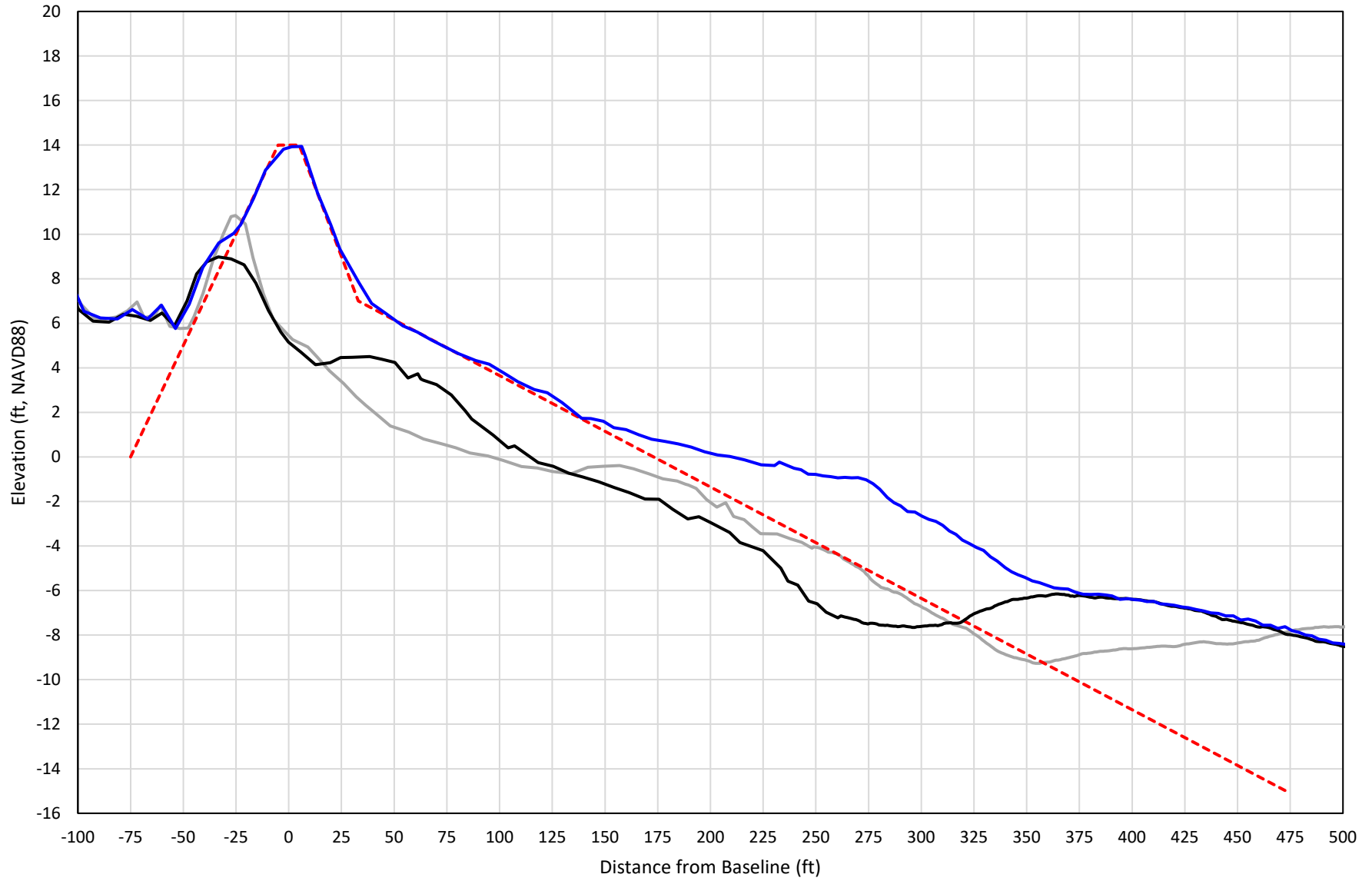
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— 307+00 Precon    - - - 307+00 Temp001    — 307+00 BD\_210407    — 307+00 AD\_210413

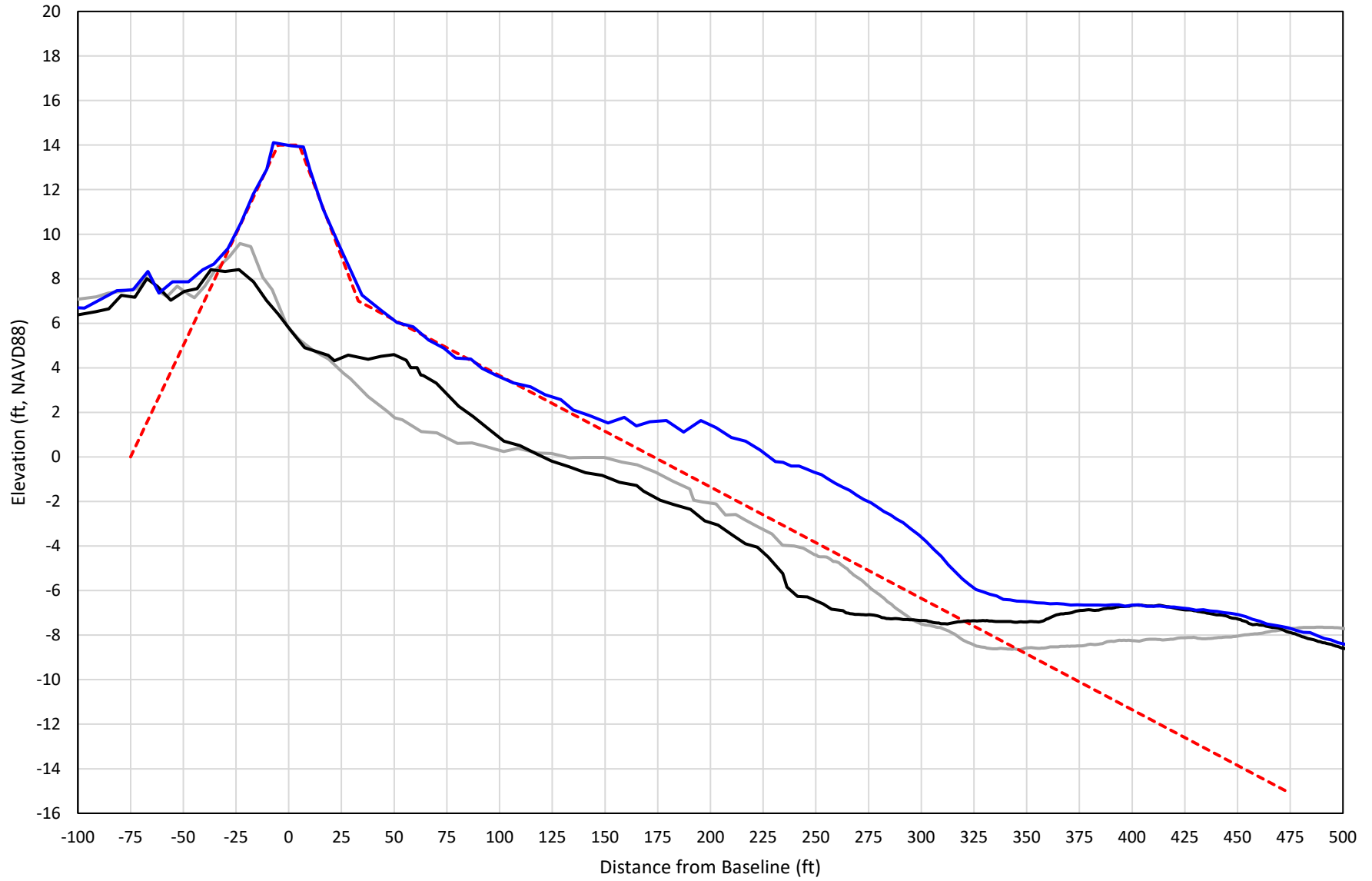
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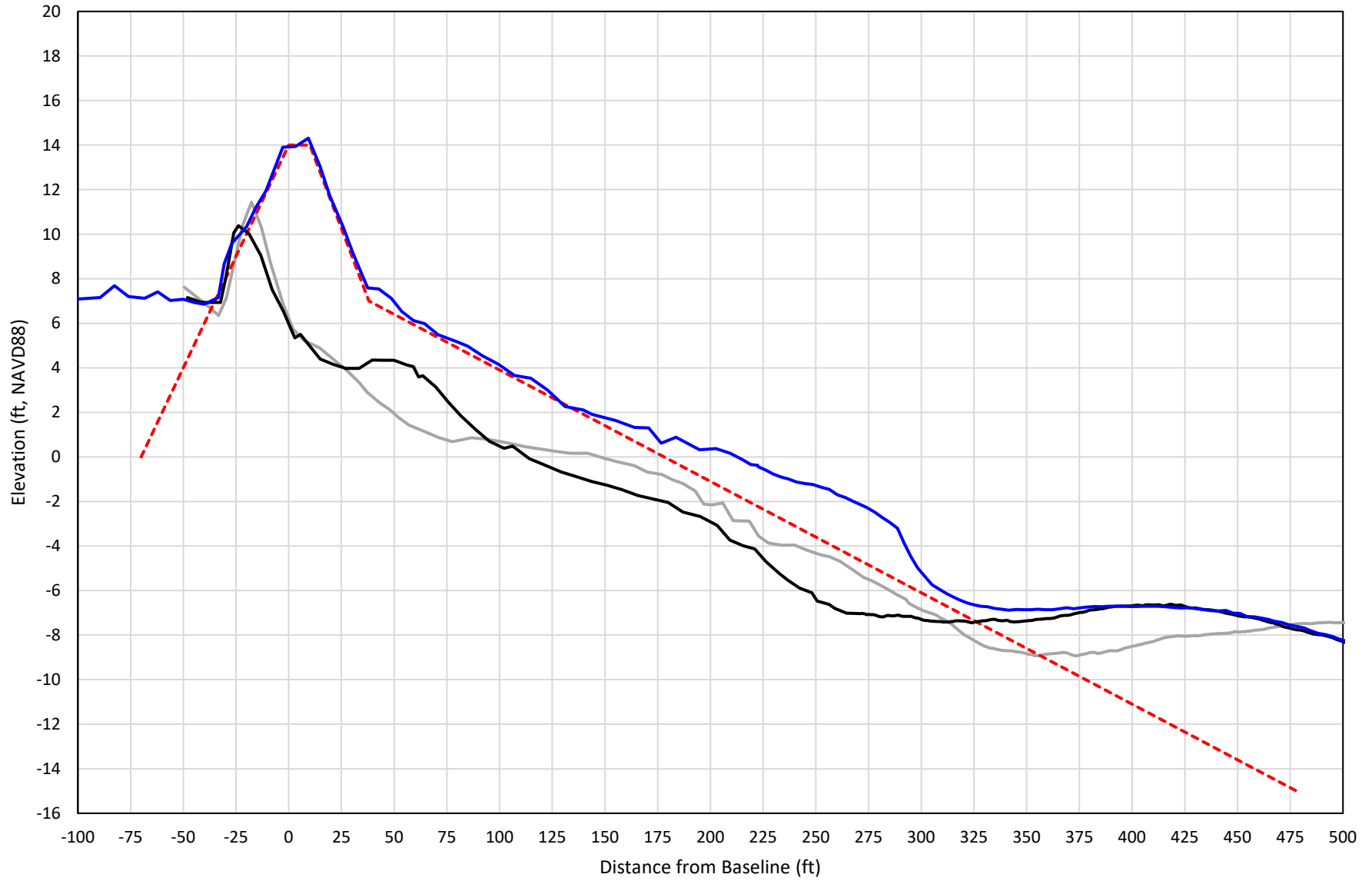


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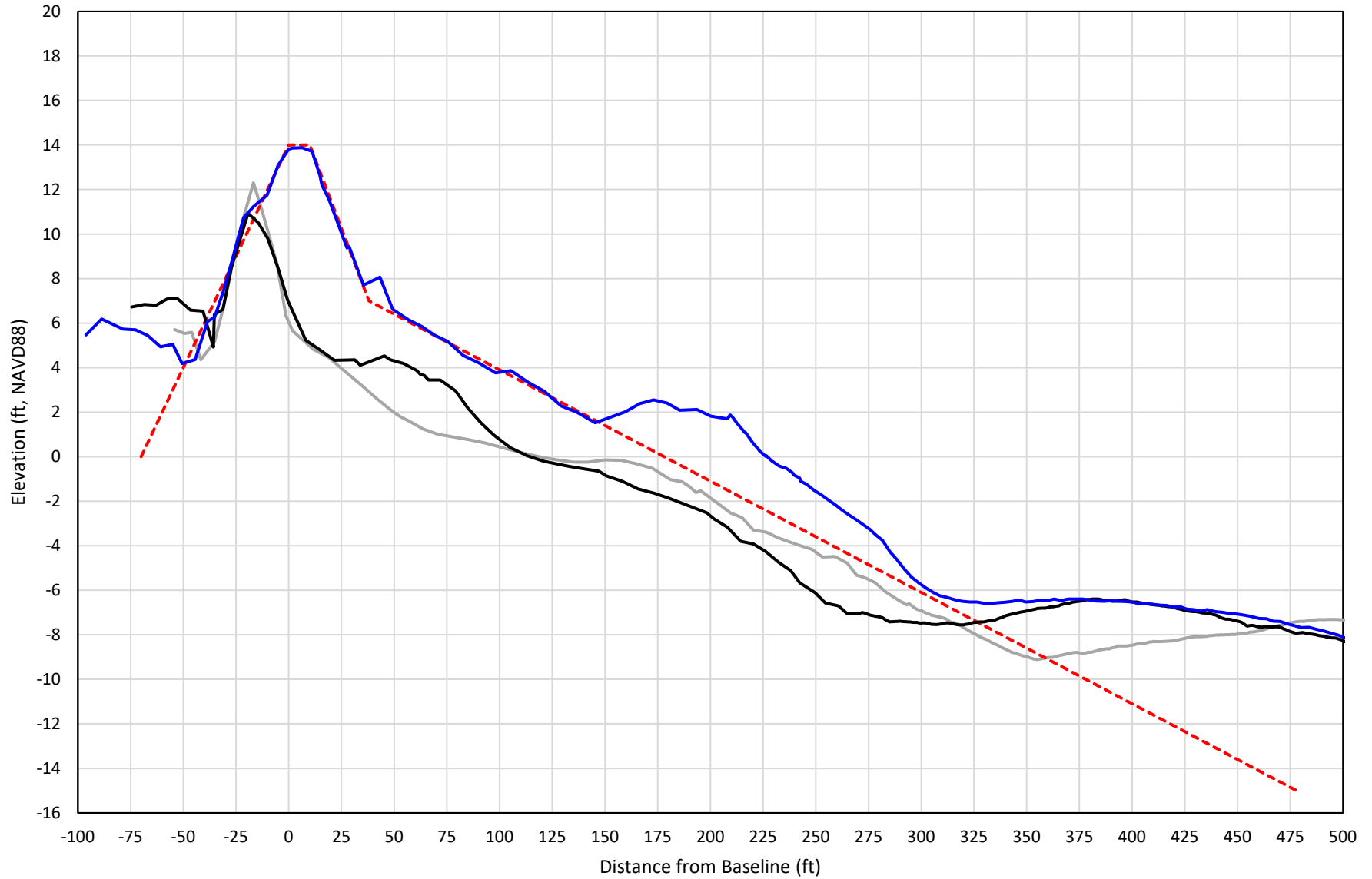
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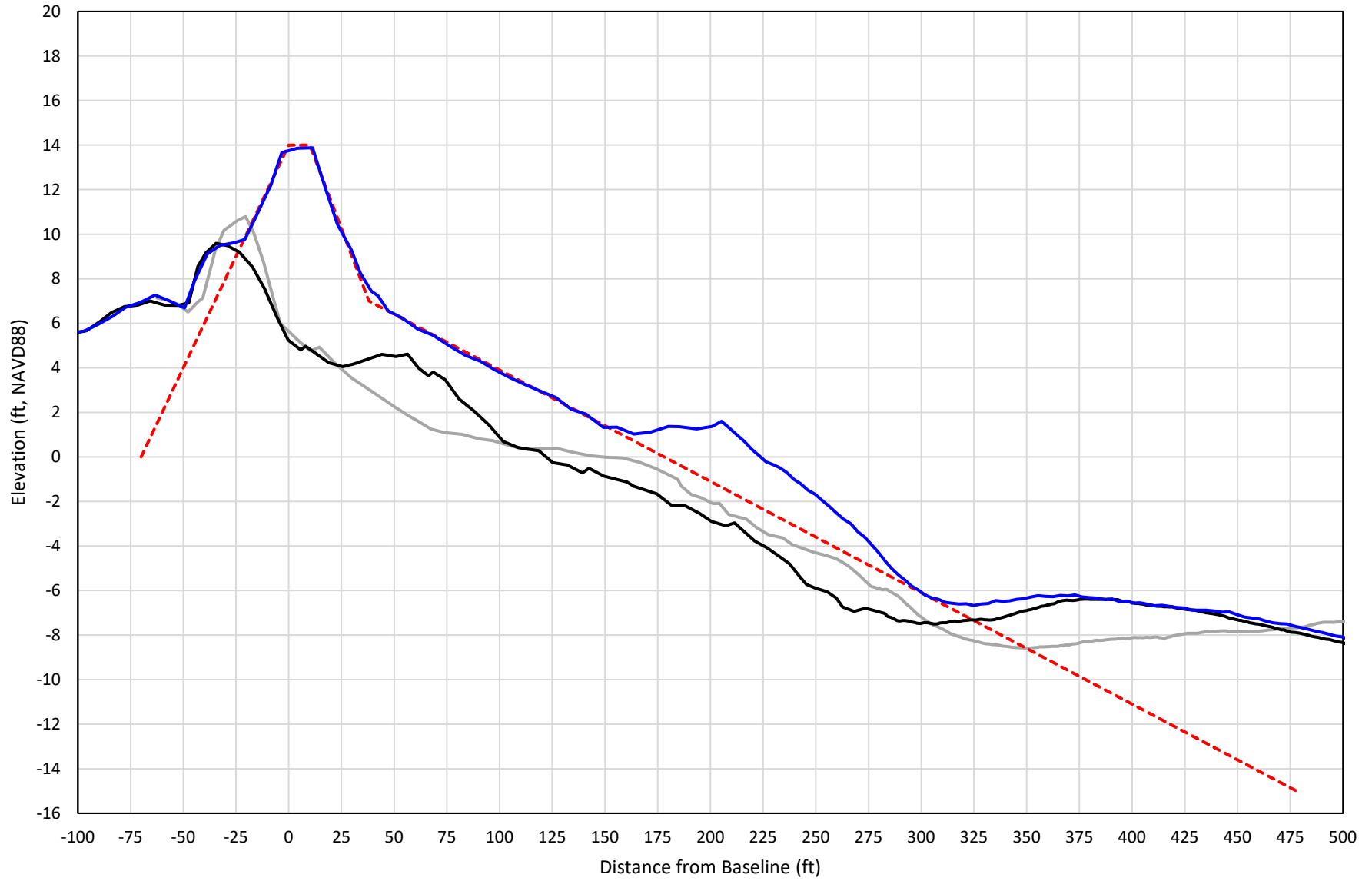
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# 311+00



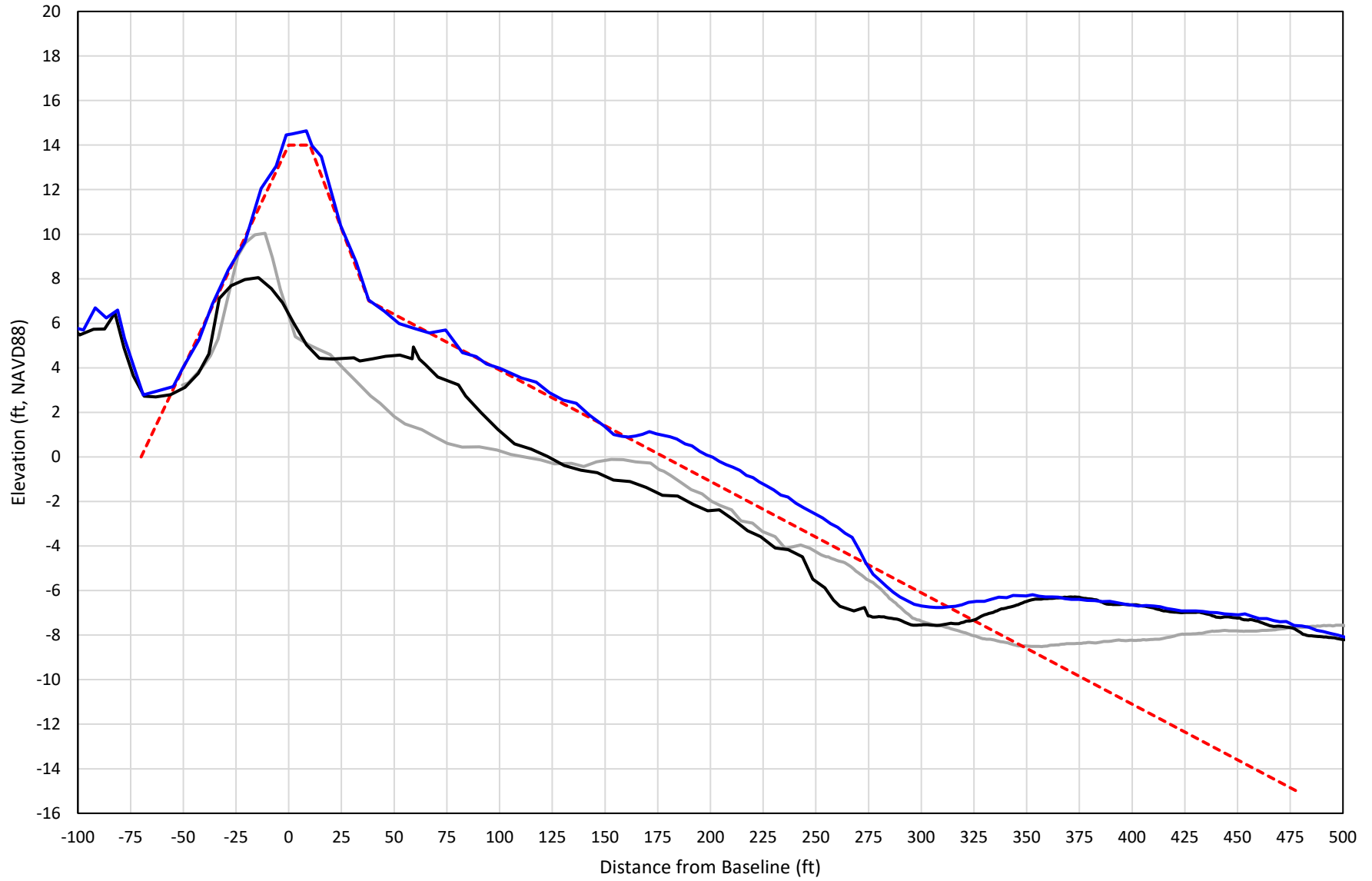
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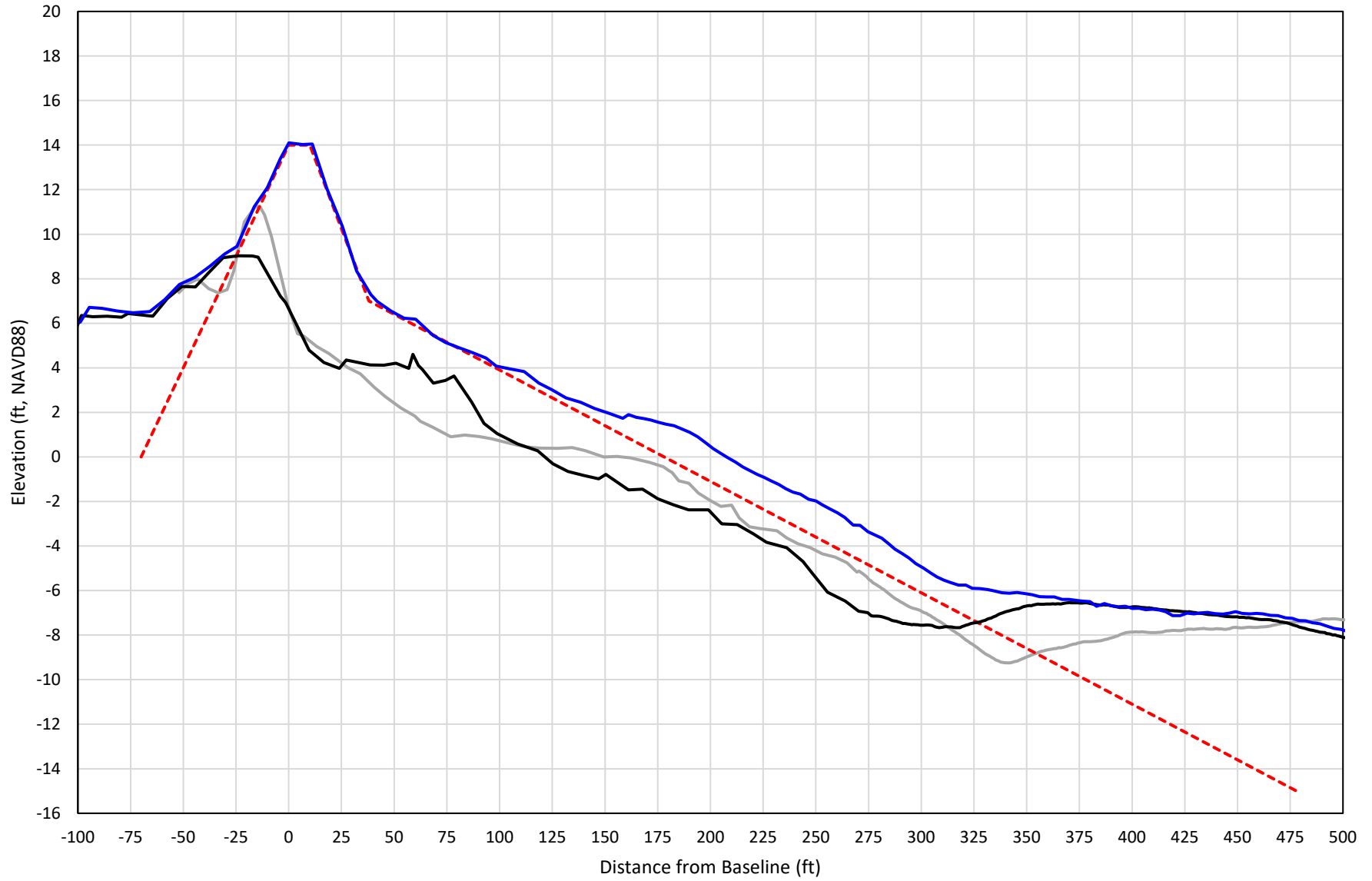
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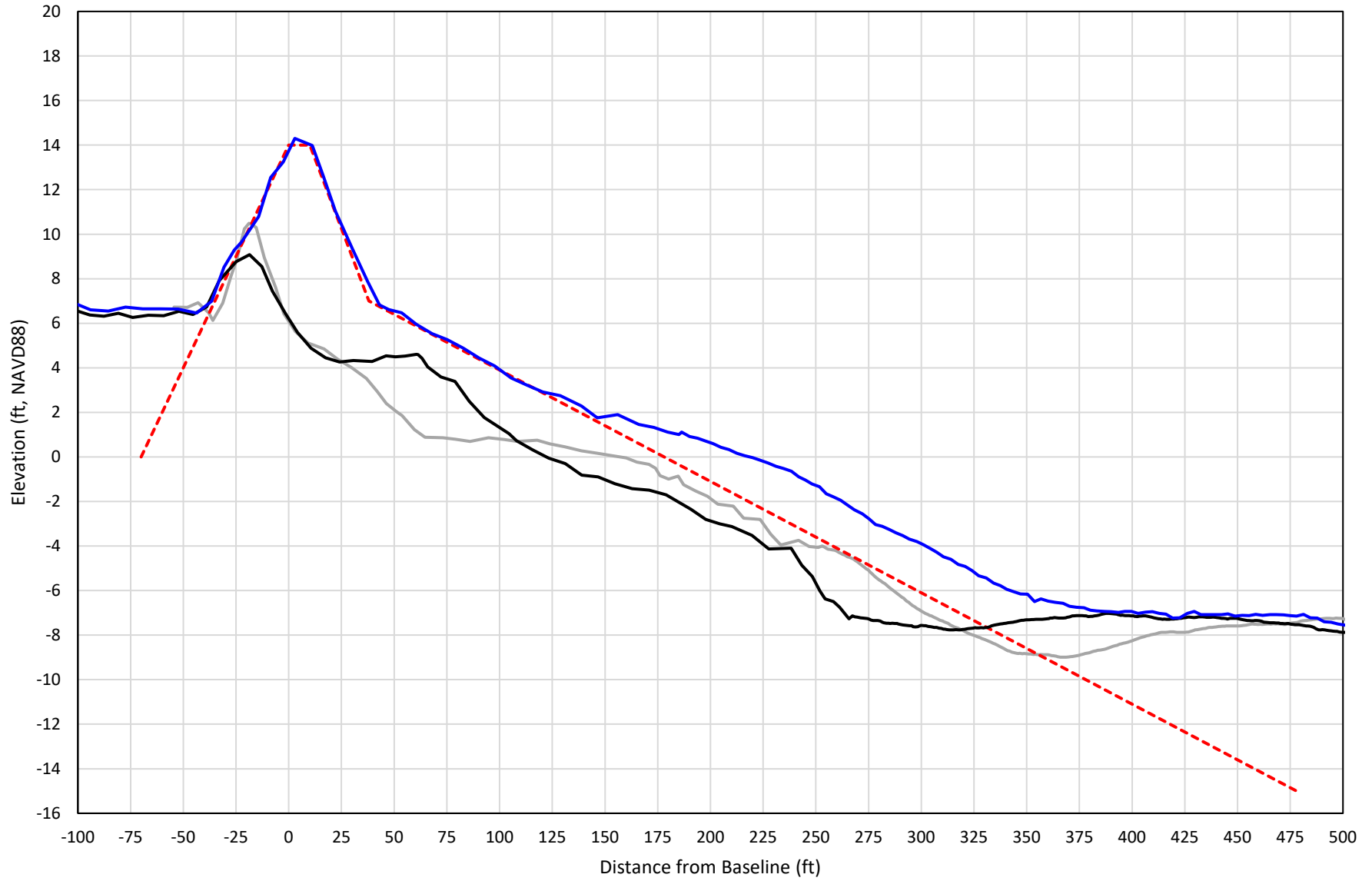
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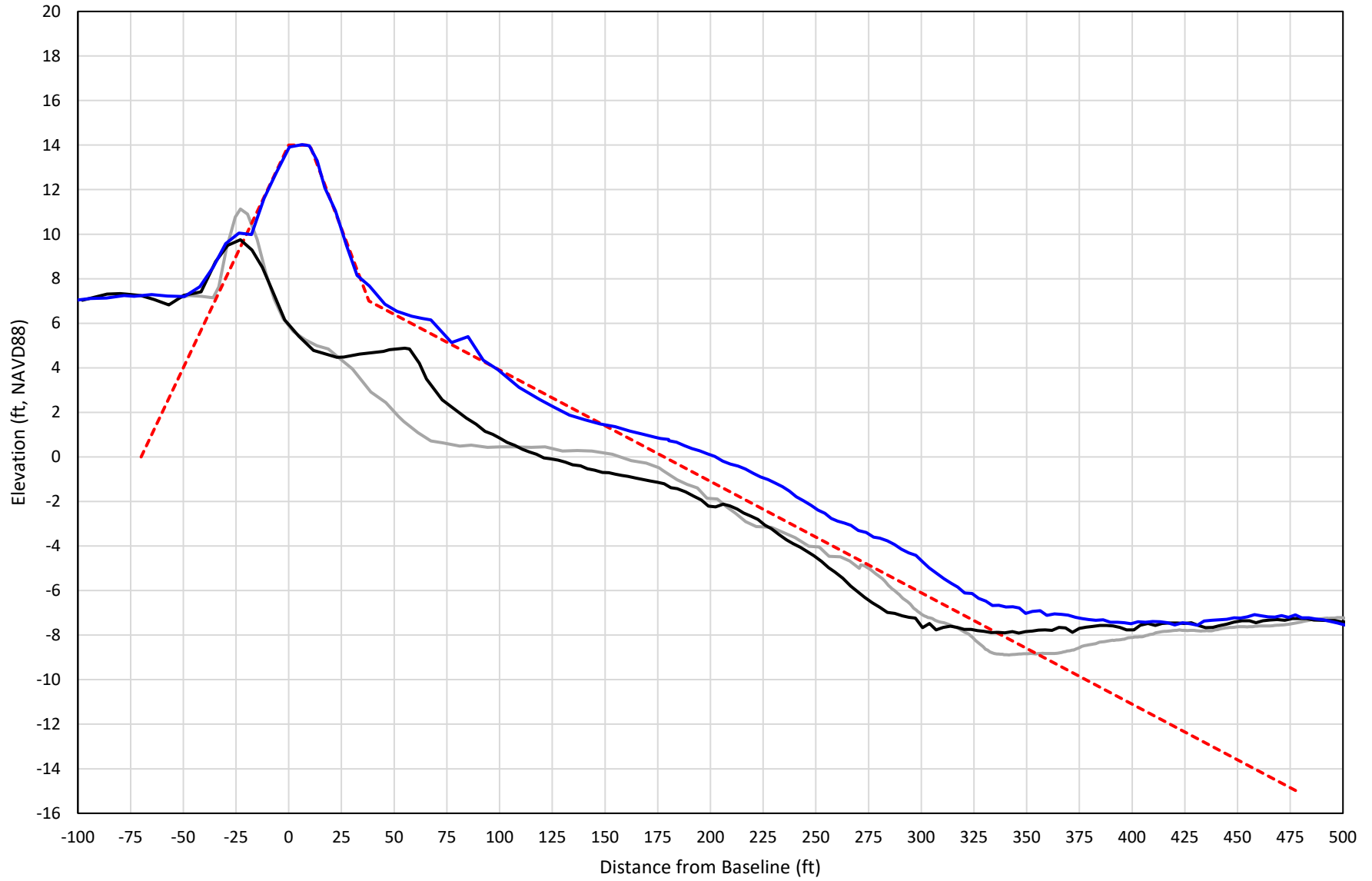
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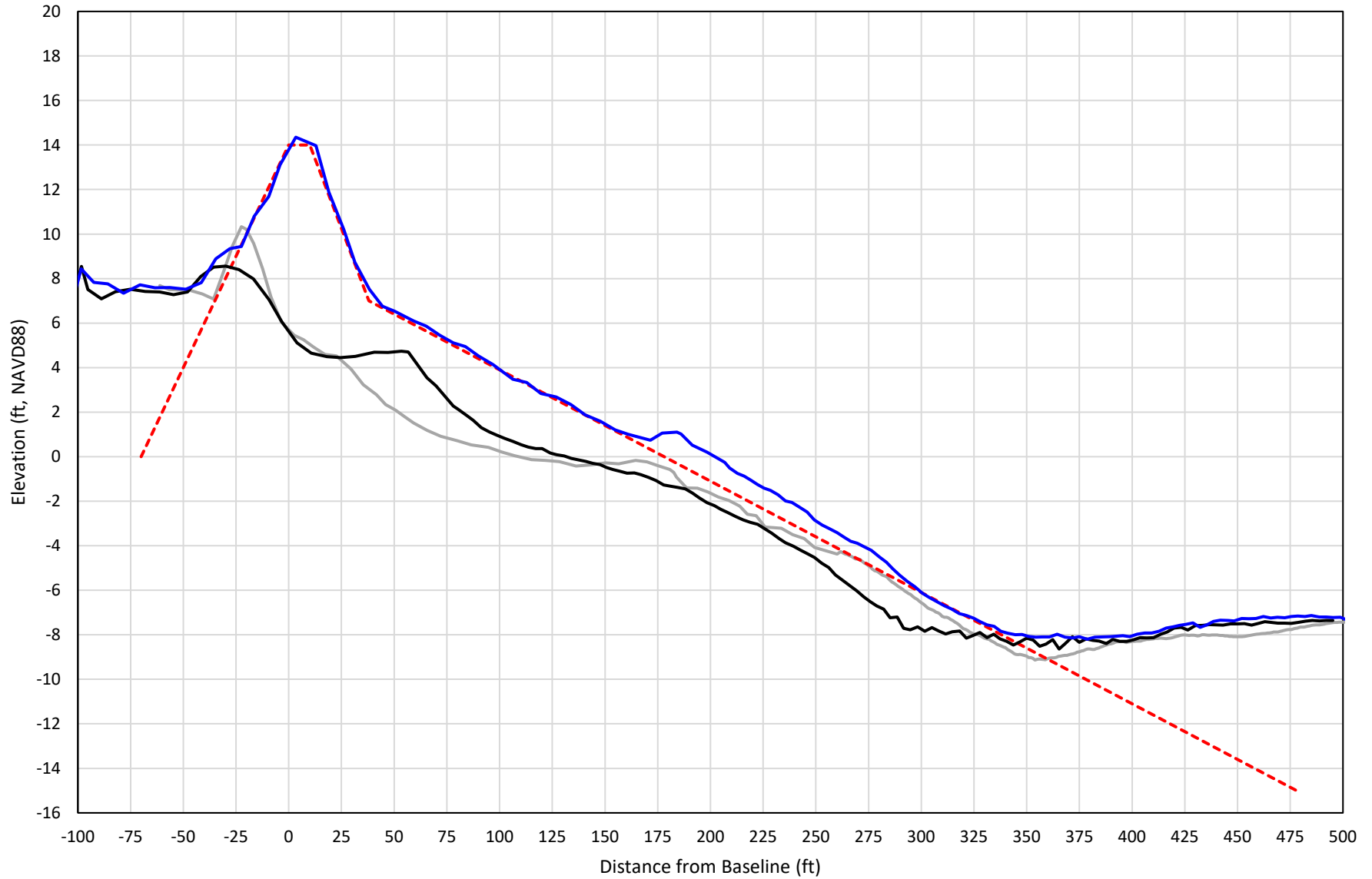
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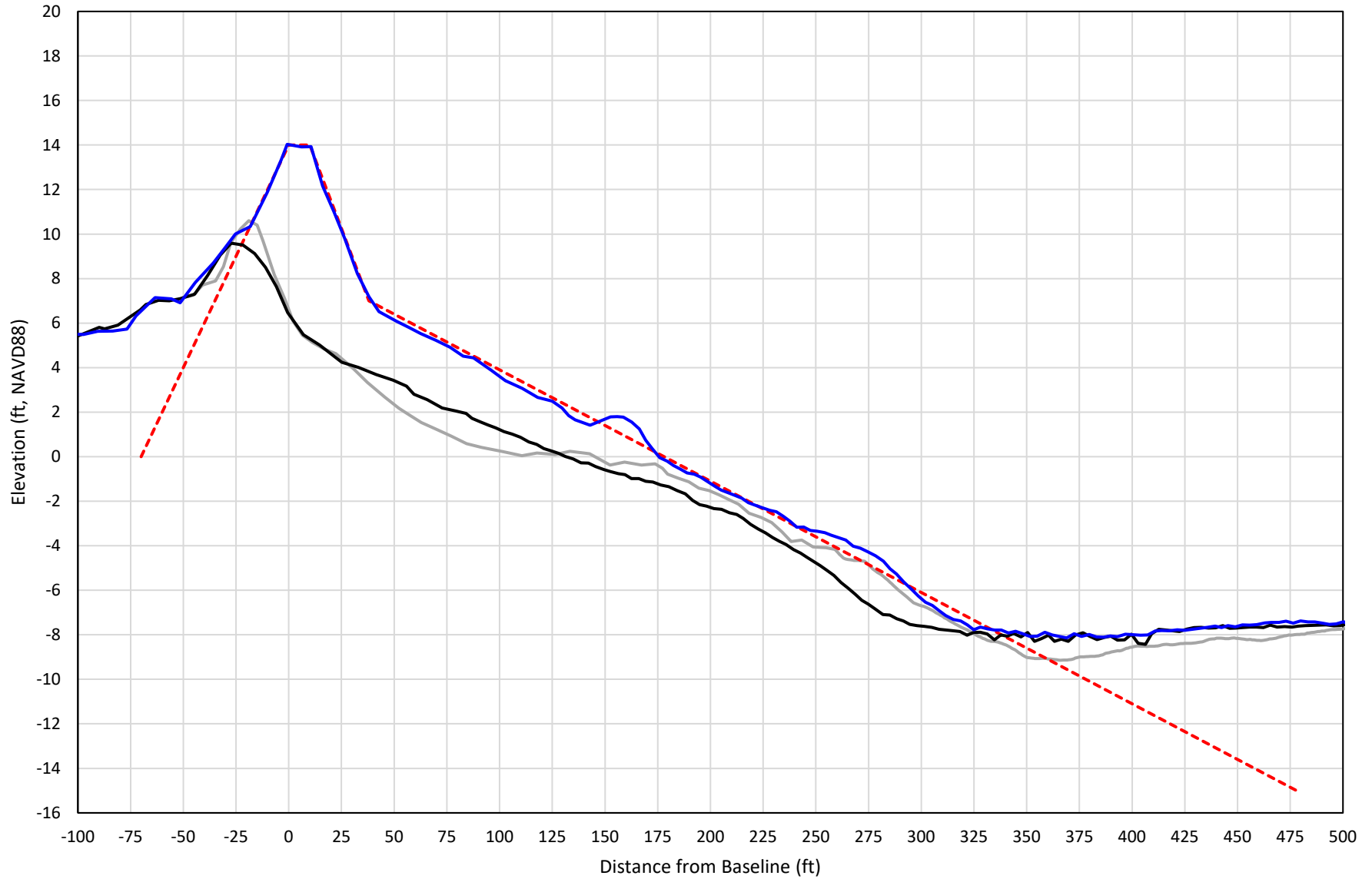


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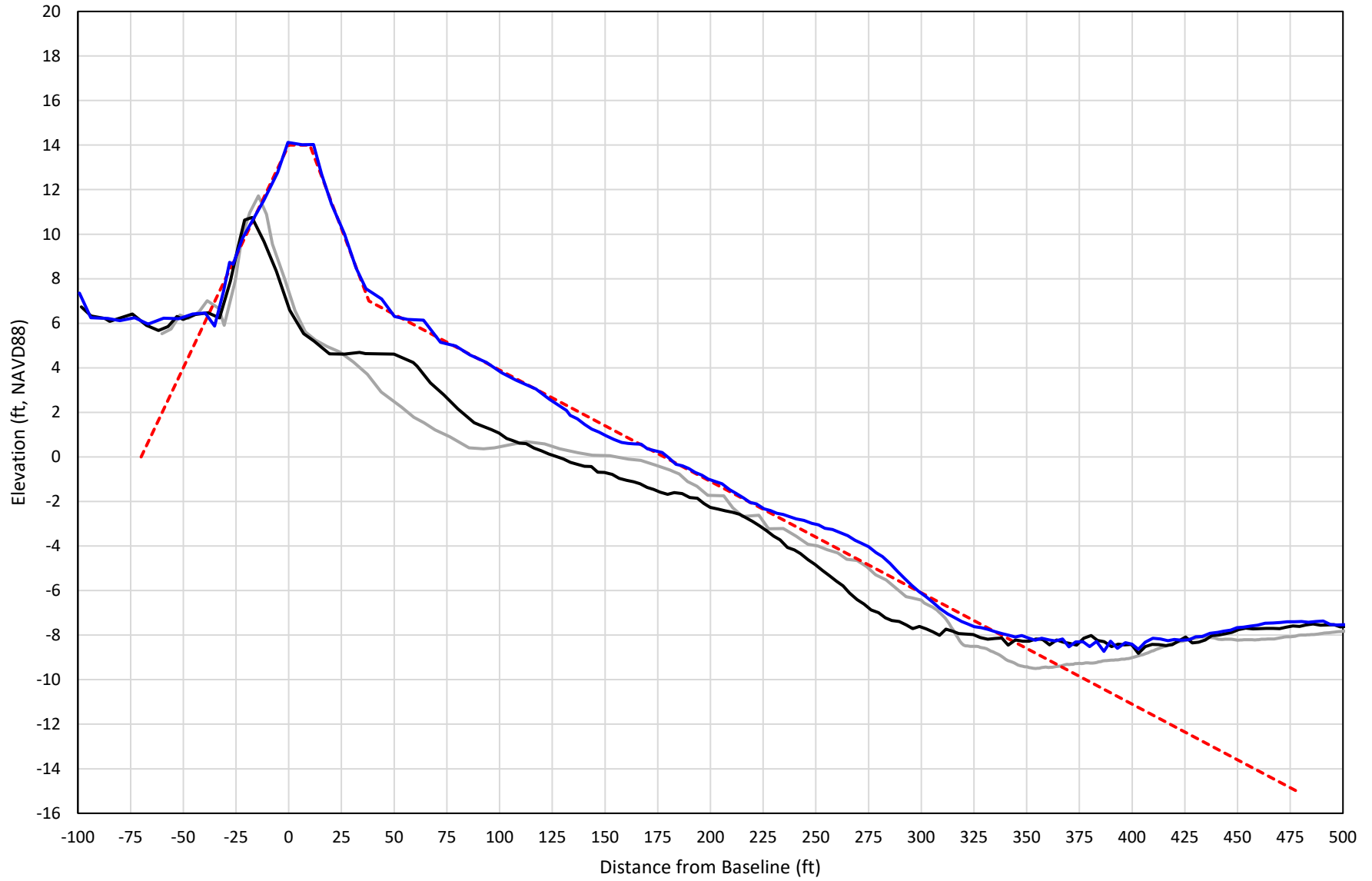
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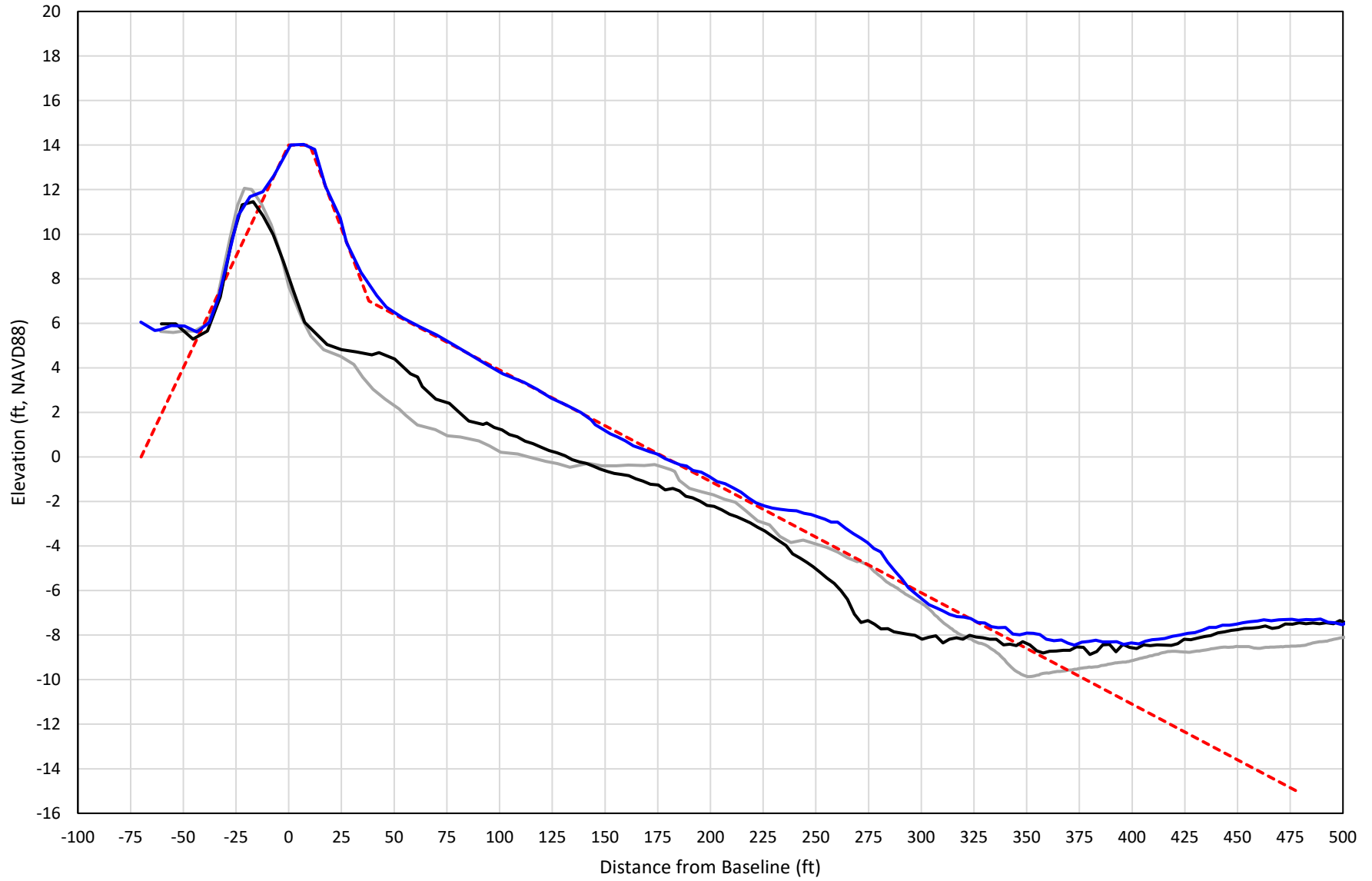
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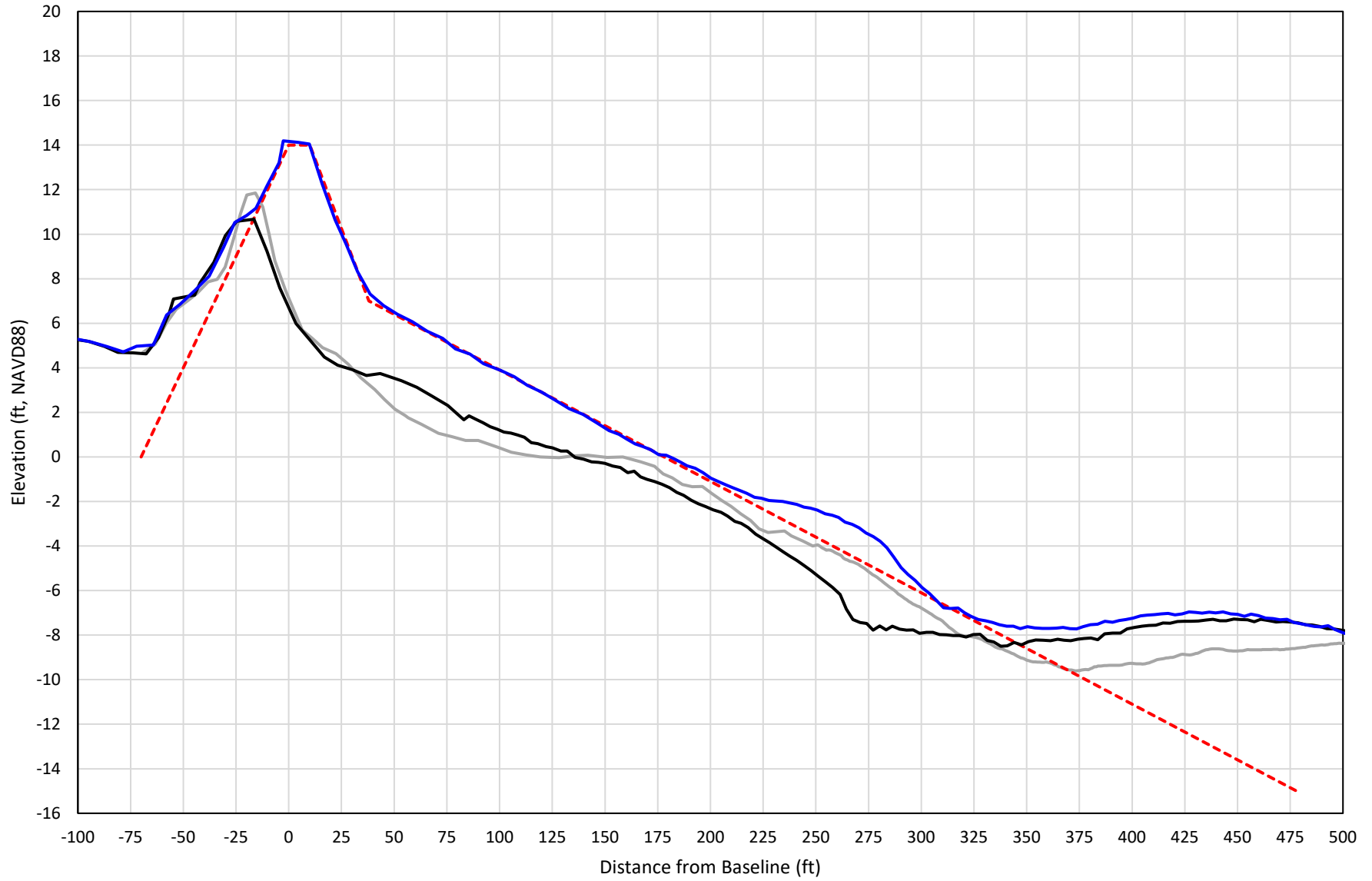
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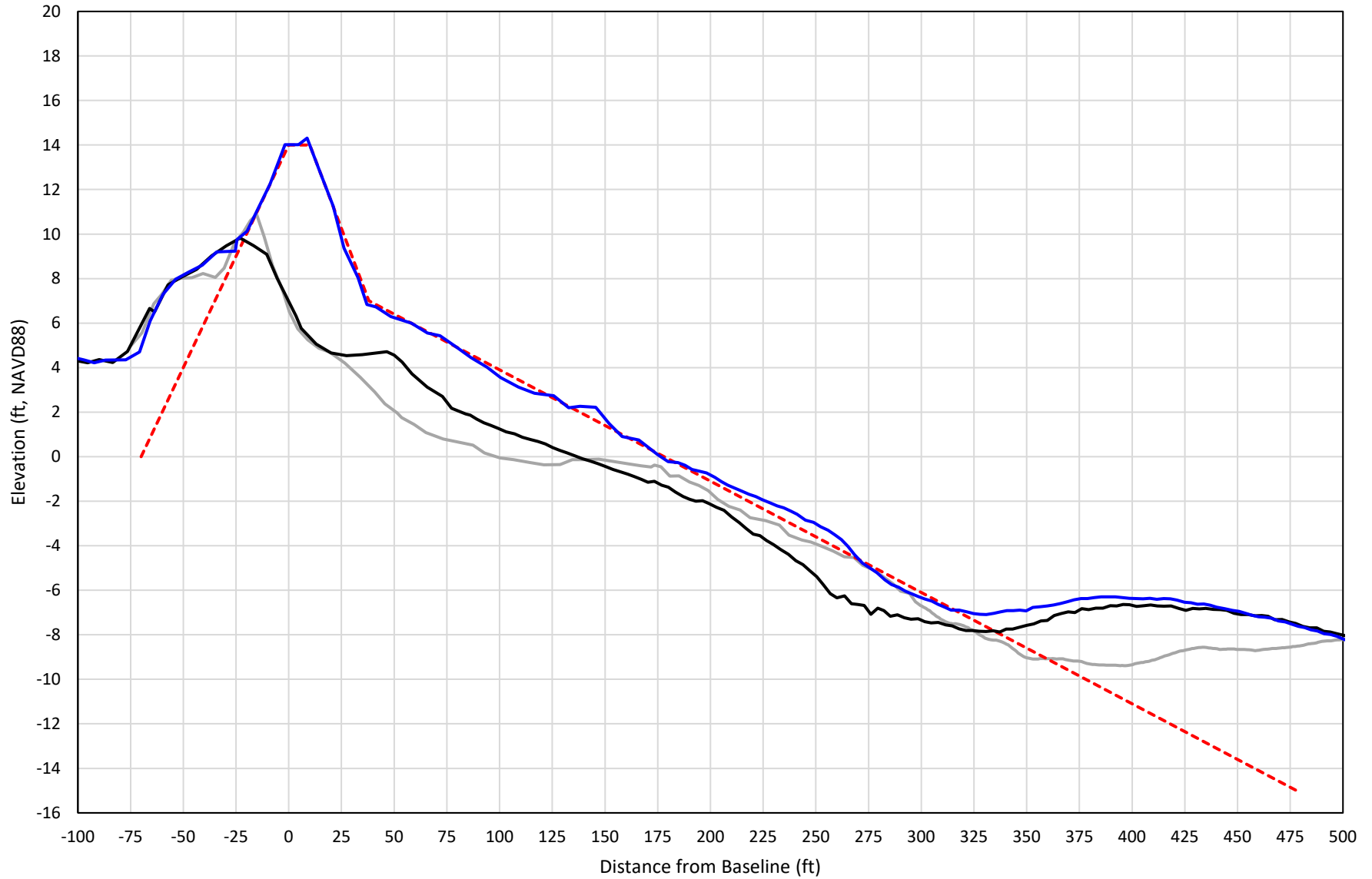
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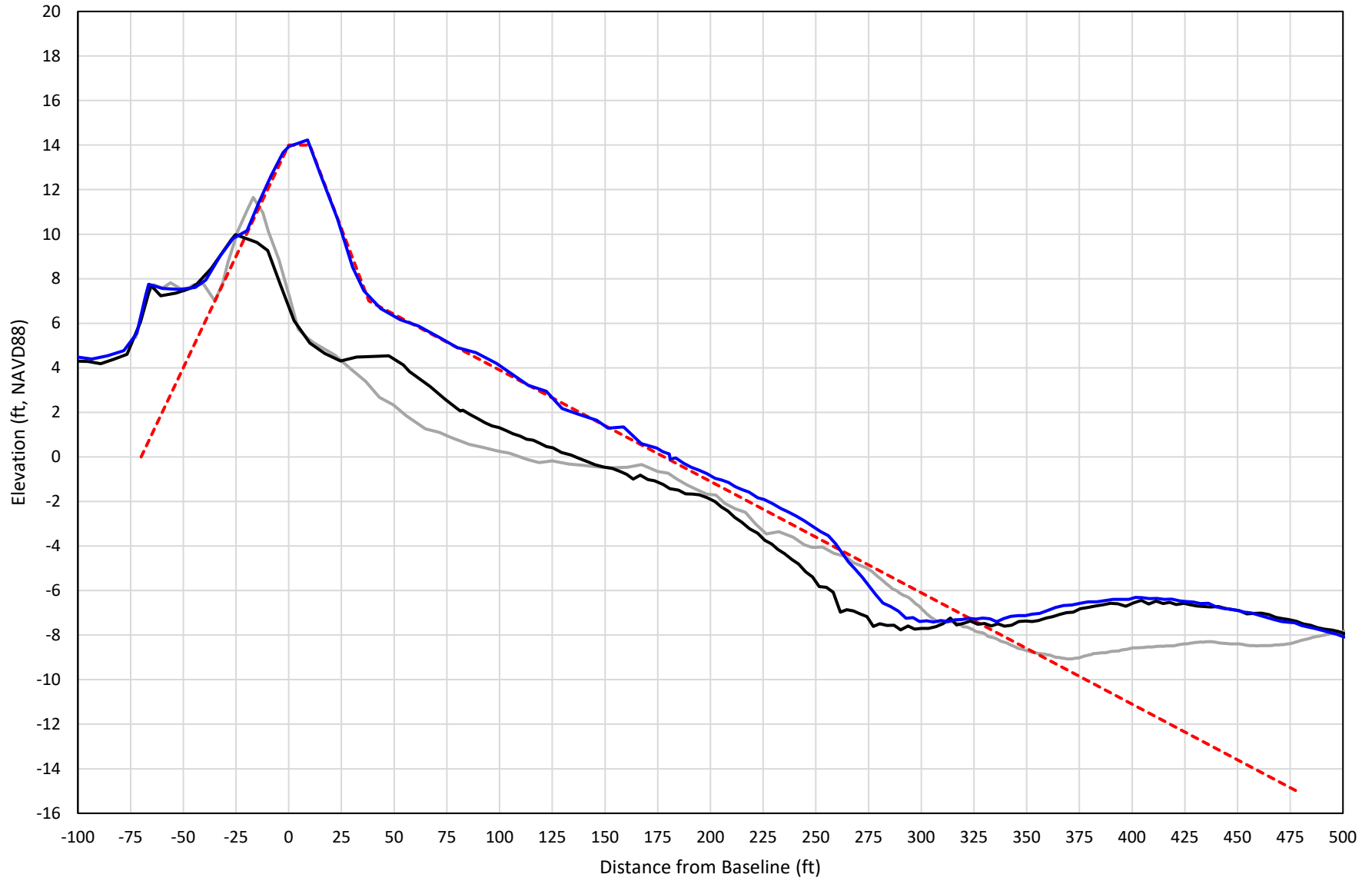
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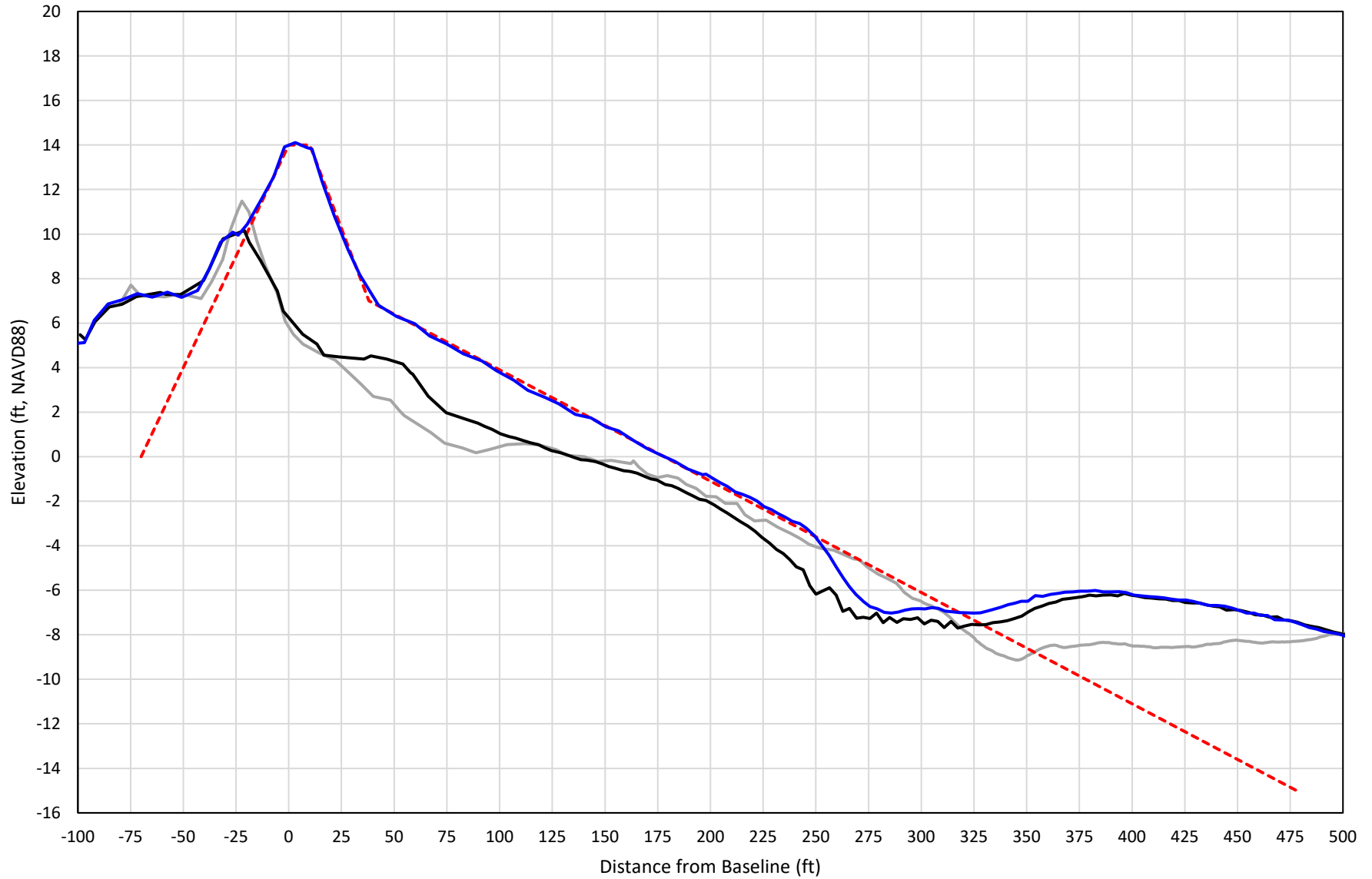
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— 323+00 Precon    - - - 323+00 Temp002    — 323+00 BD\_210412    — 323+00 AD\_210417

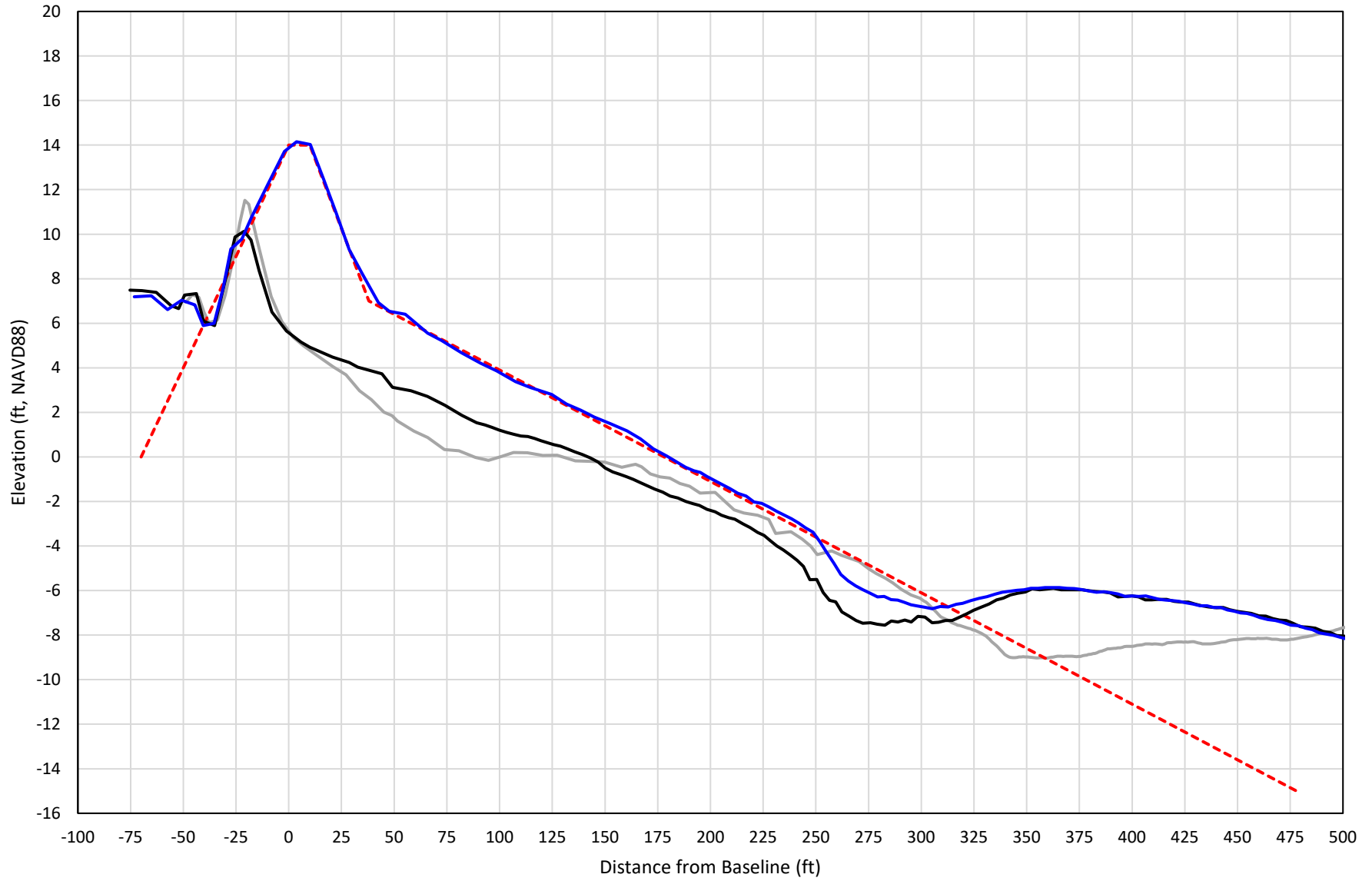
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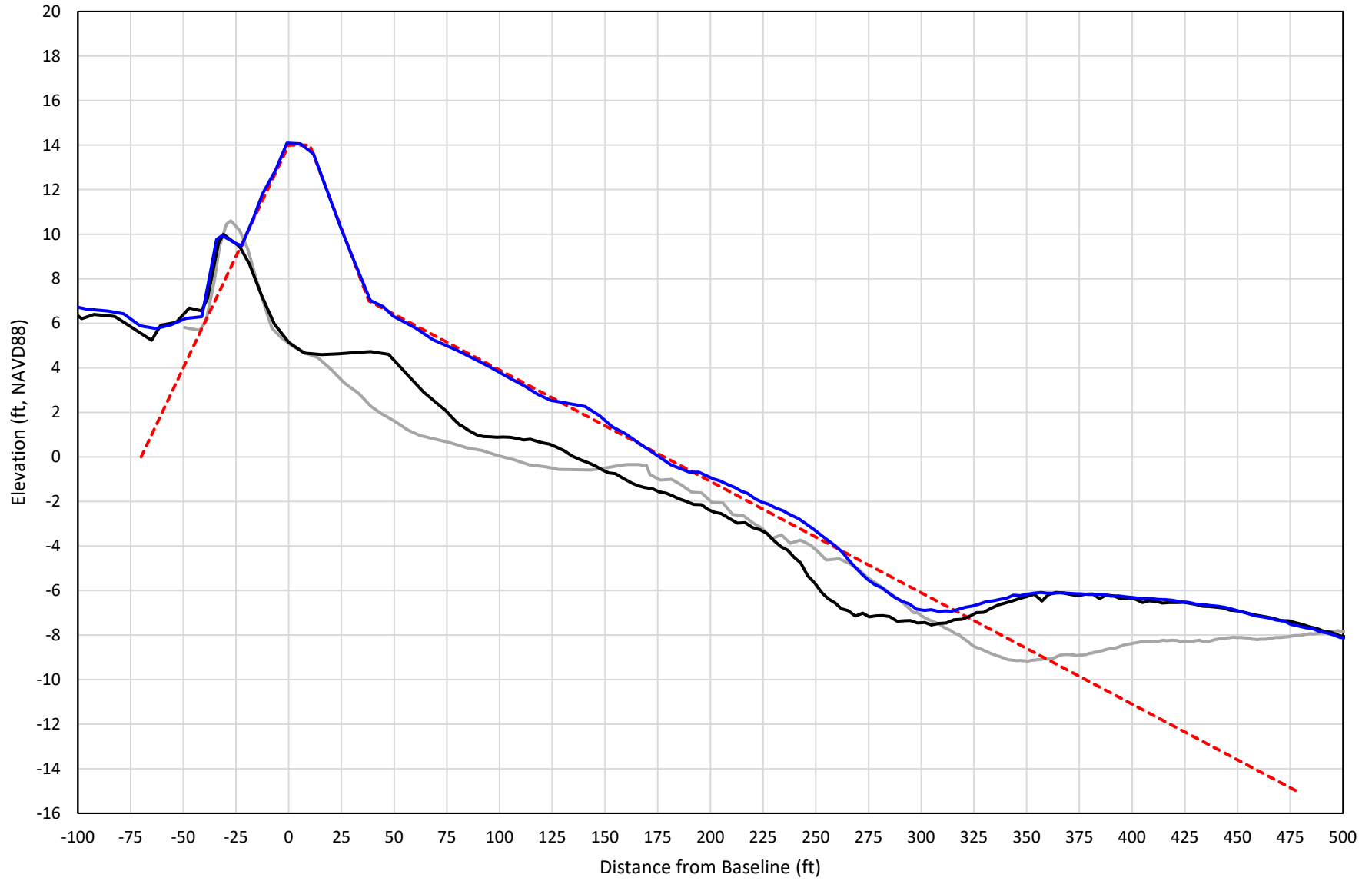


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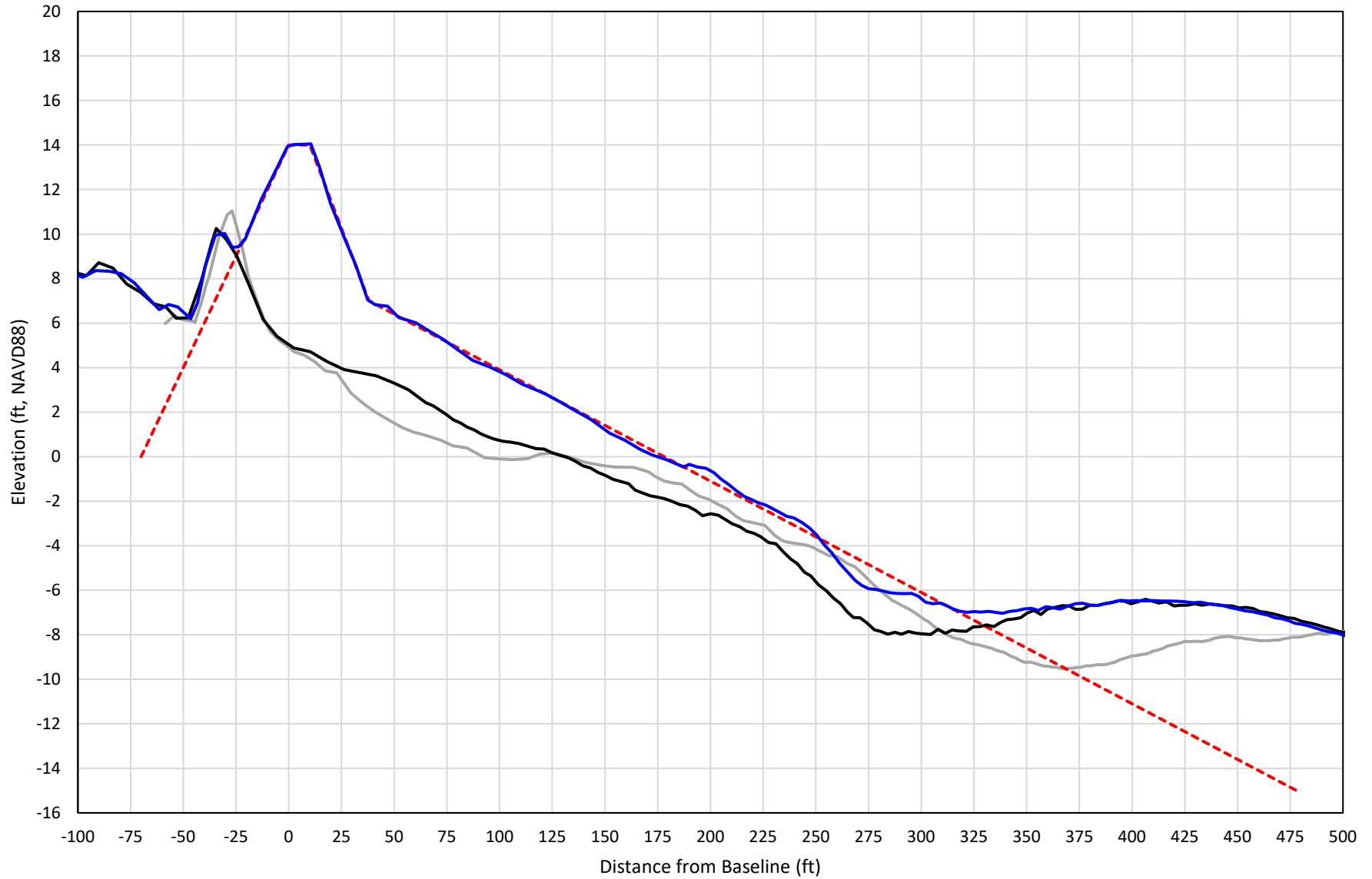
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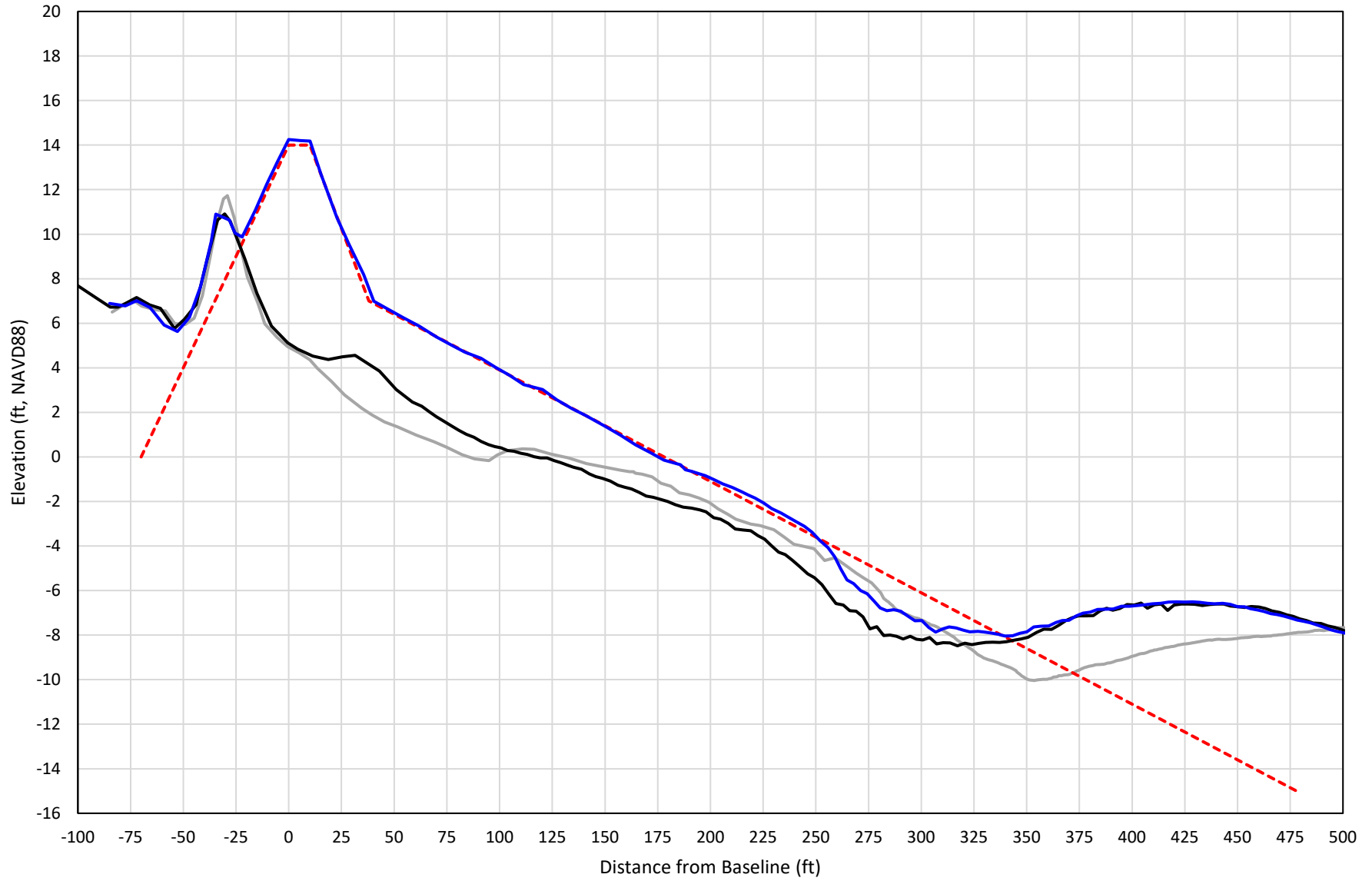
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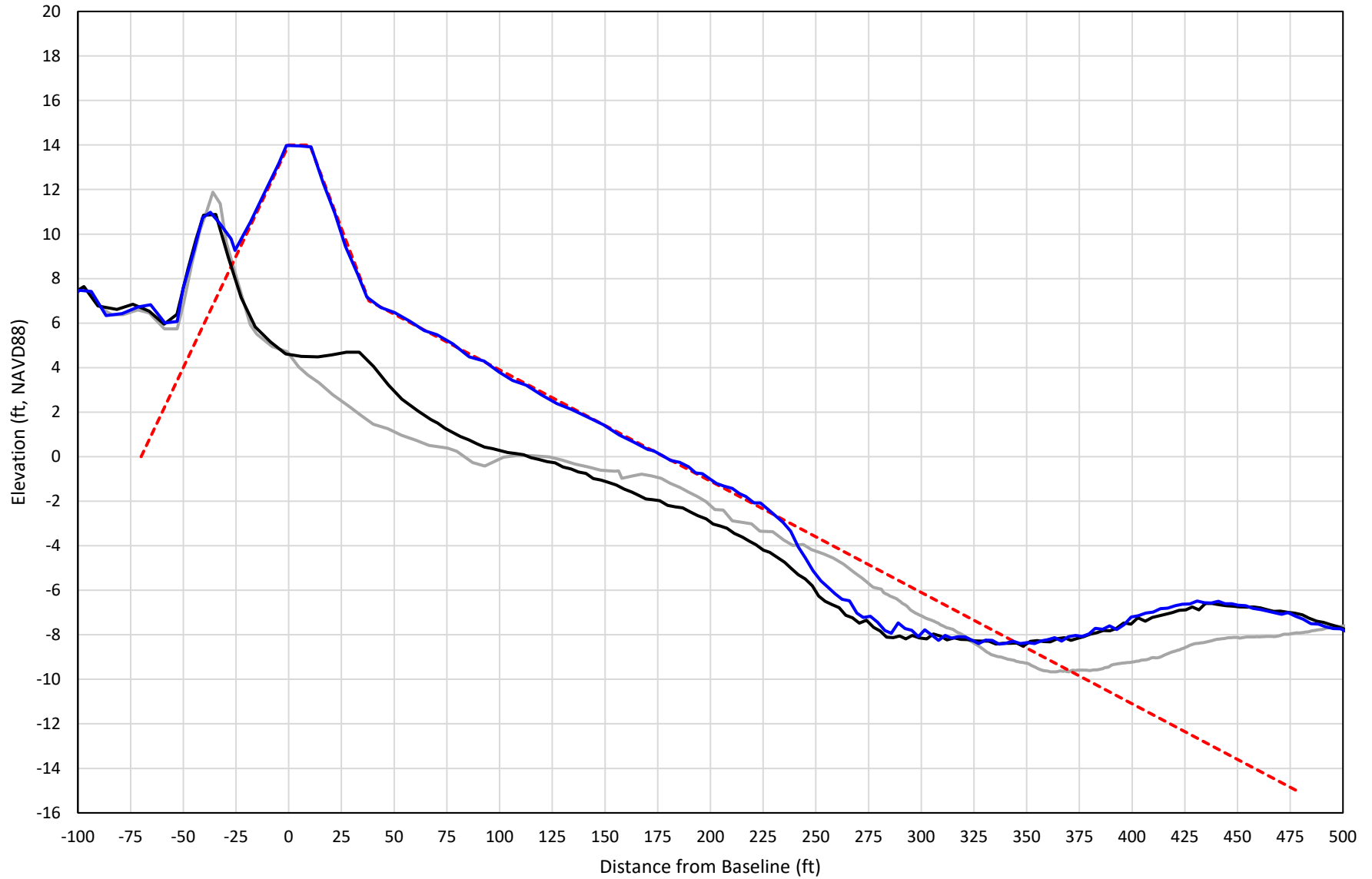
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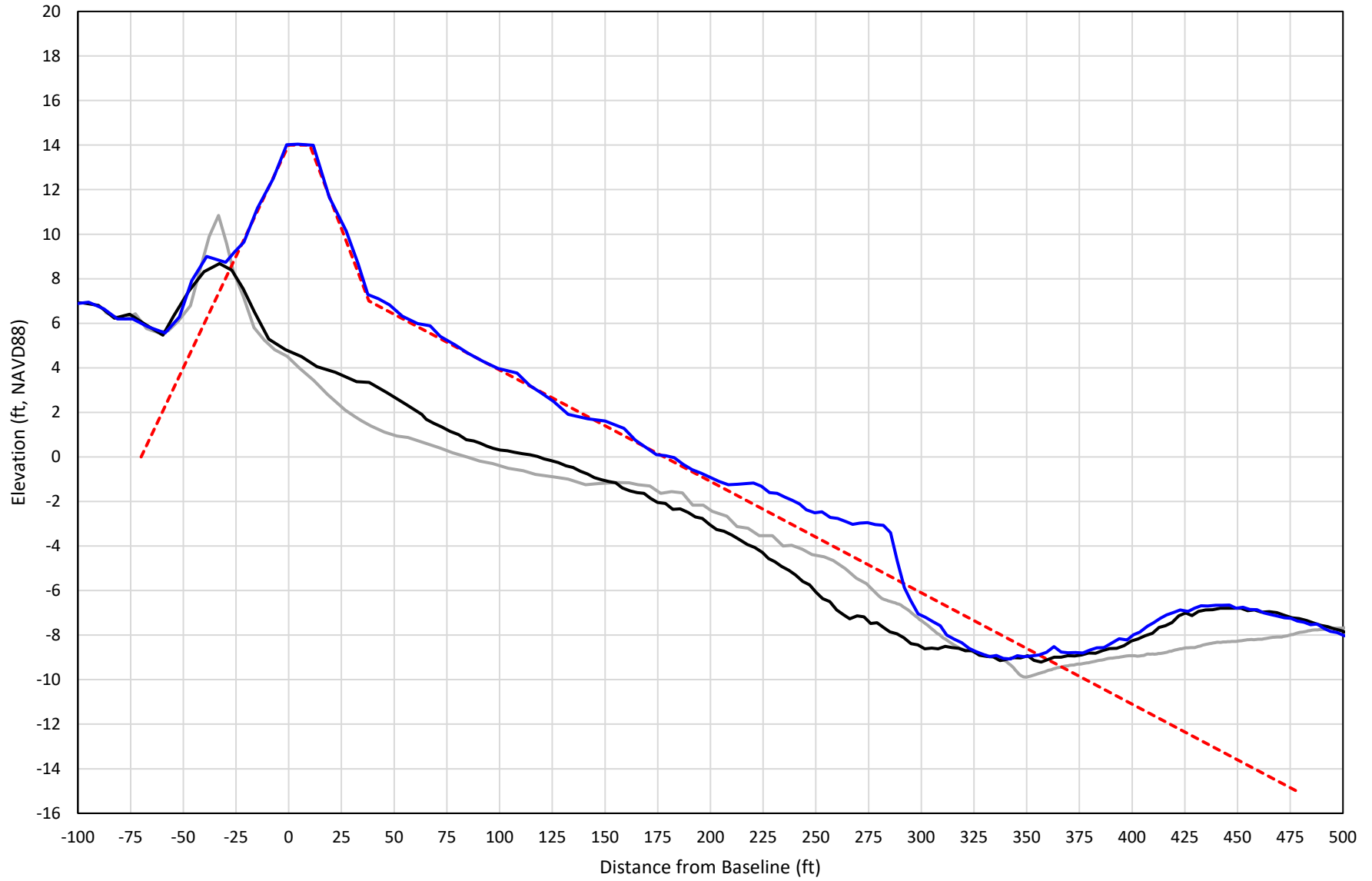
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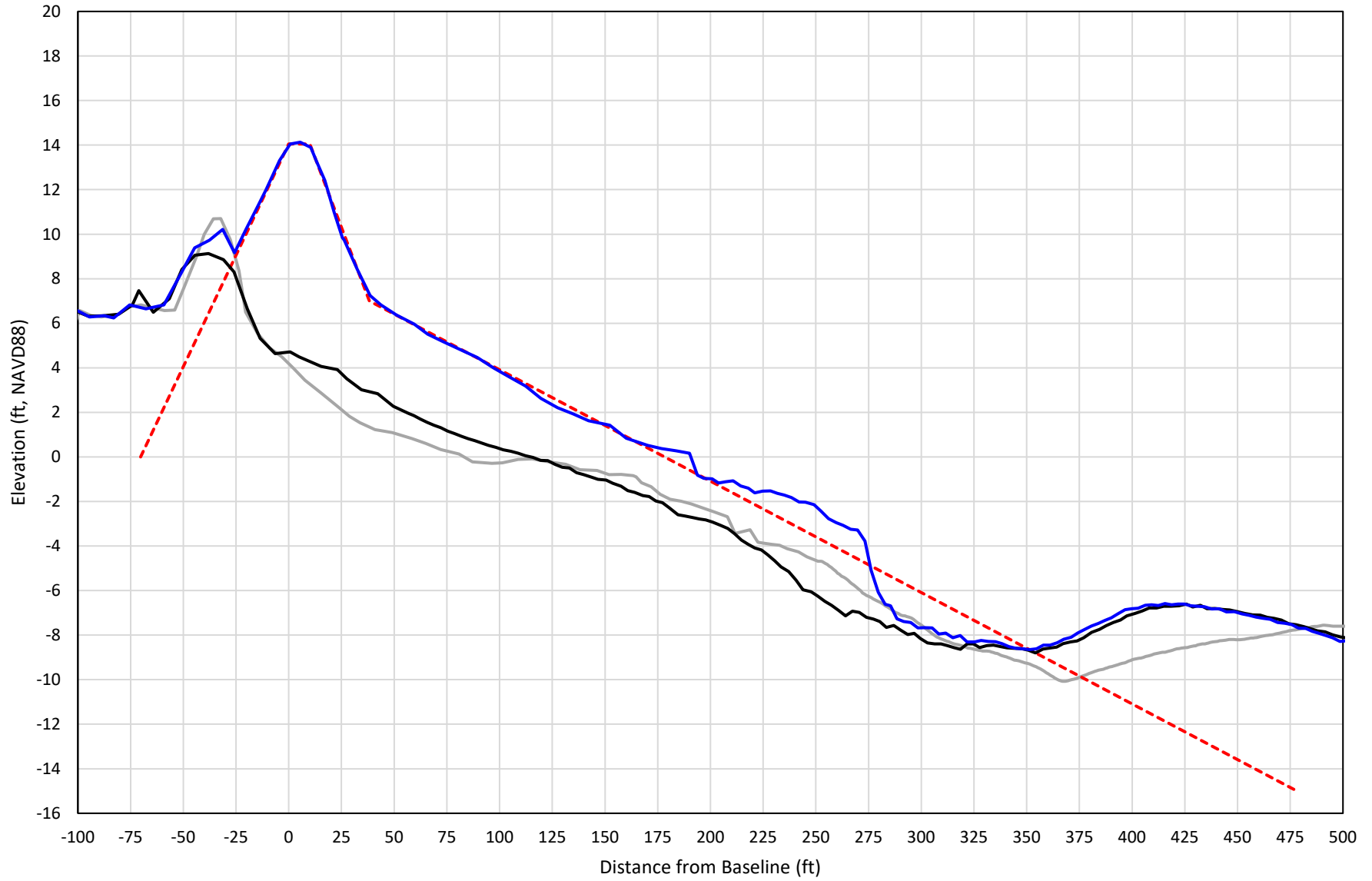
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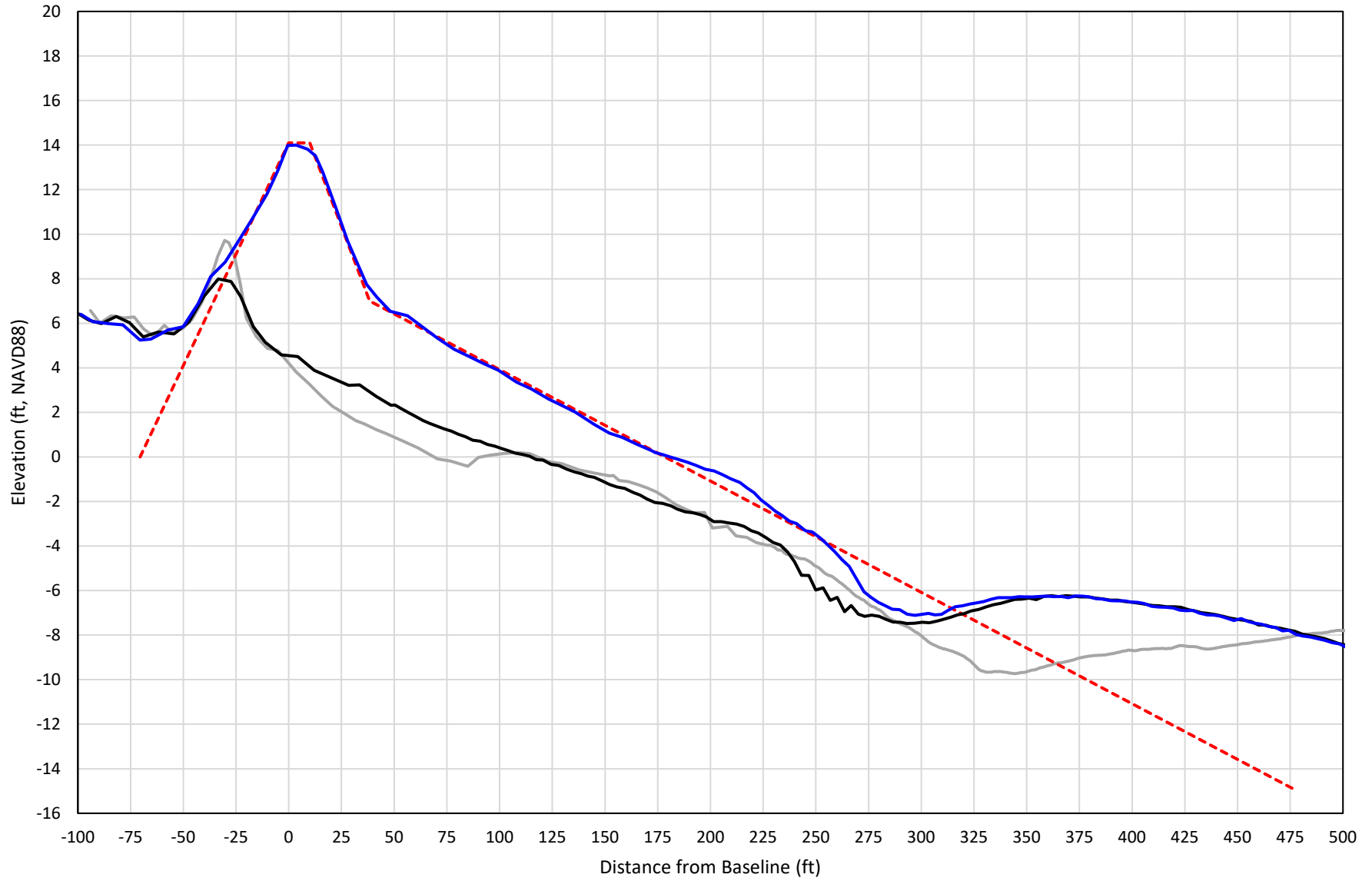
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# 331+00



— 331+00 Precon    - - - 331+00 Temp002    — 331+00 BD\_210415    — 331+00 AD\_210419

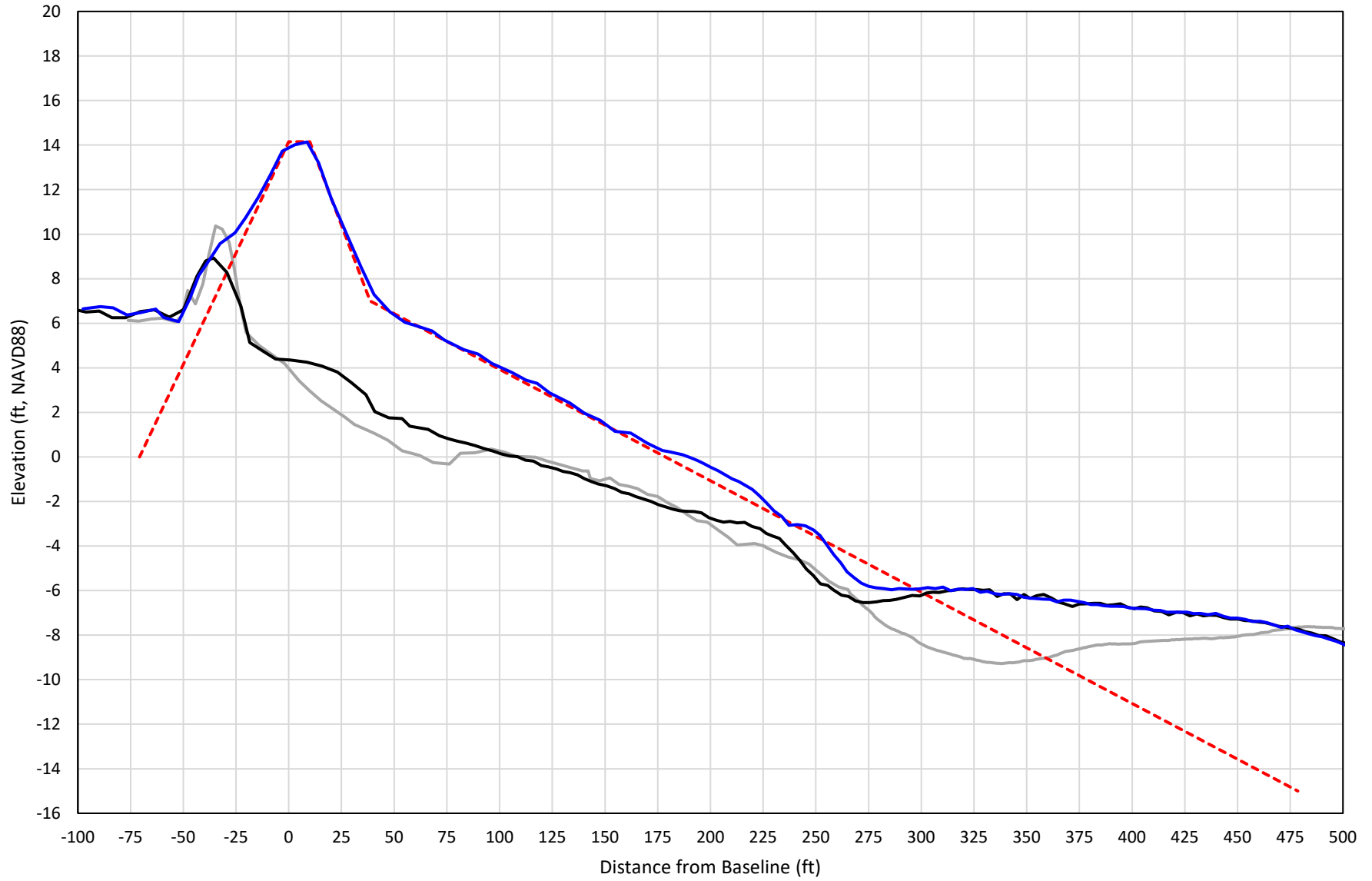
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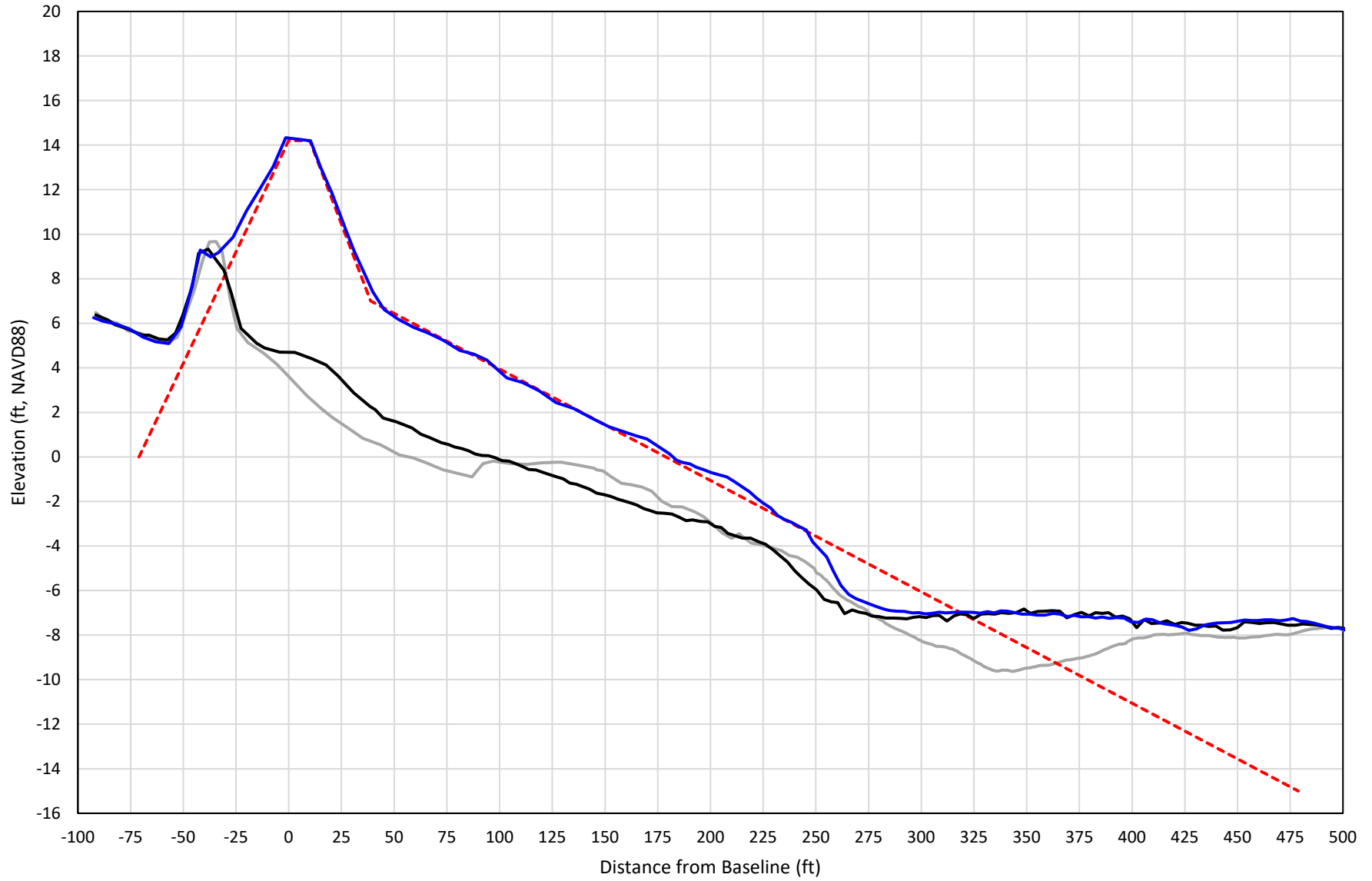


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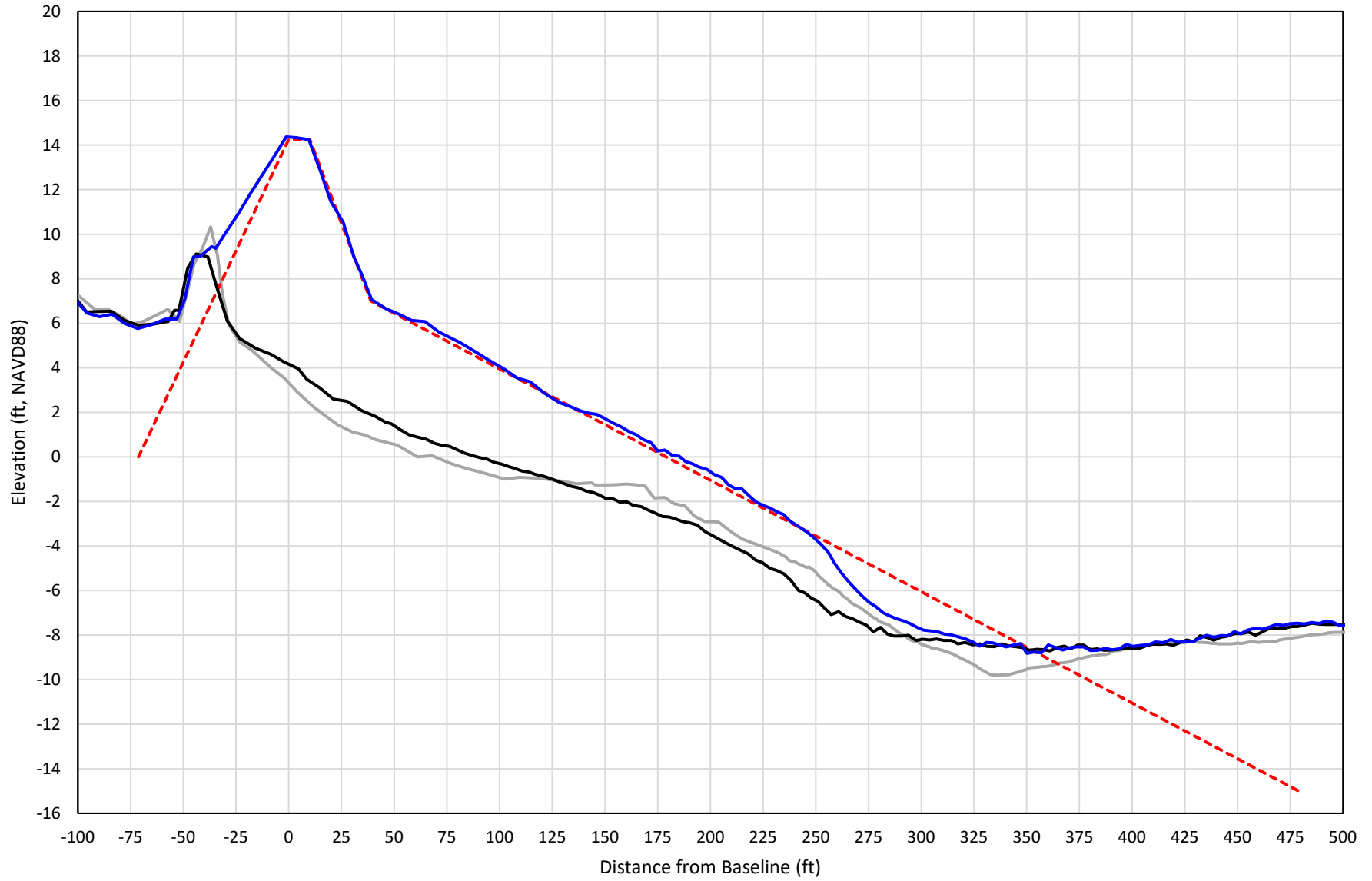
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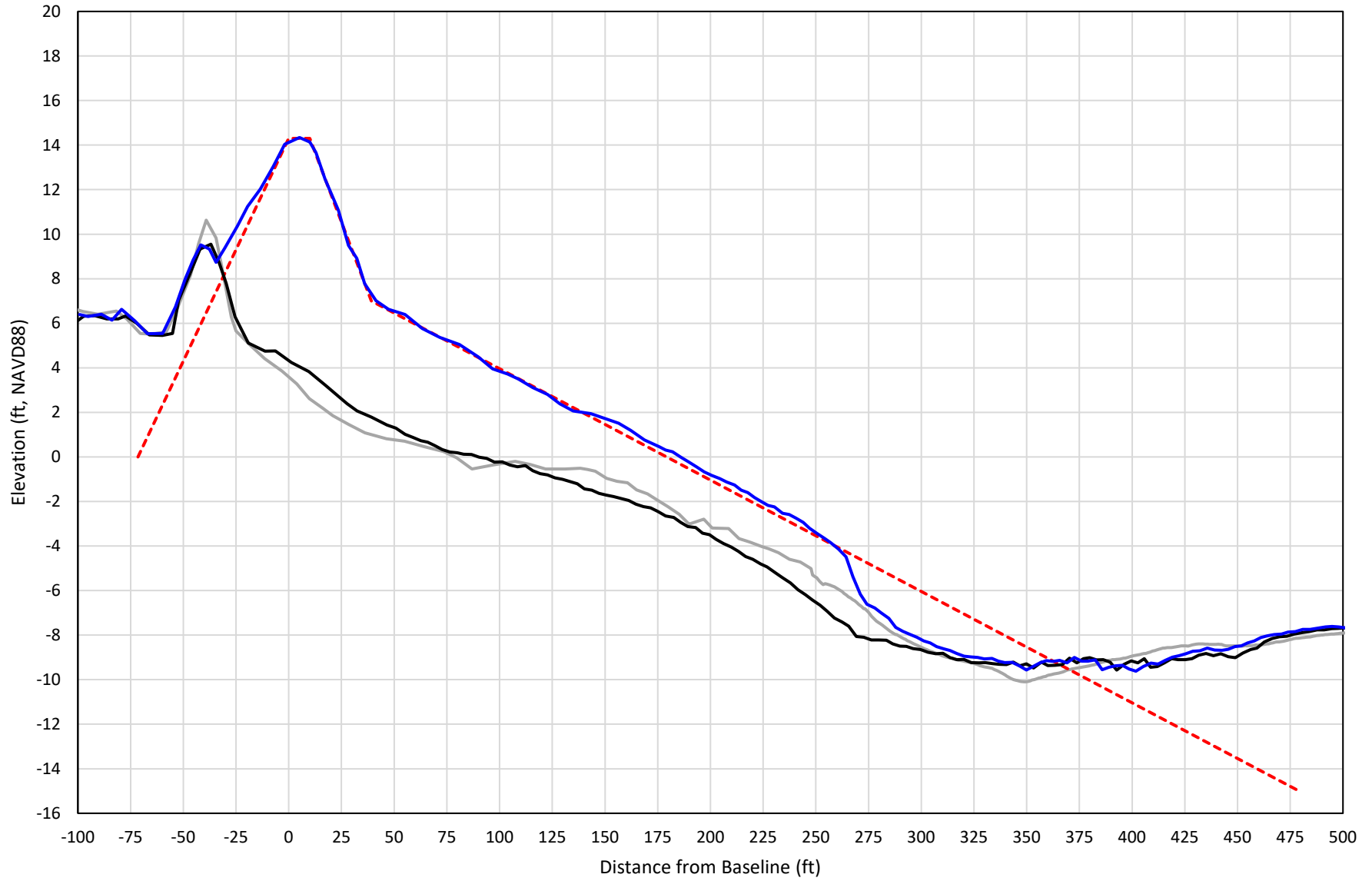
— 334+00 Precon    - - - 334+00 Temp002    — 334+00 BD\_210415    — 334+00 AD\_210419

# 335+00



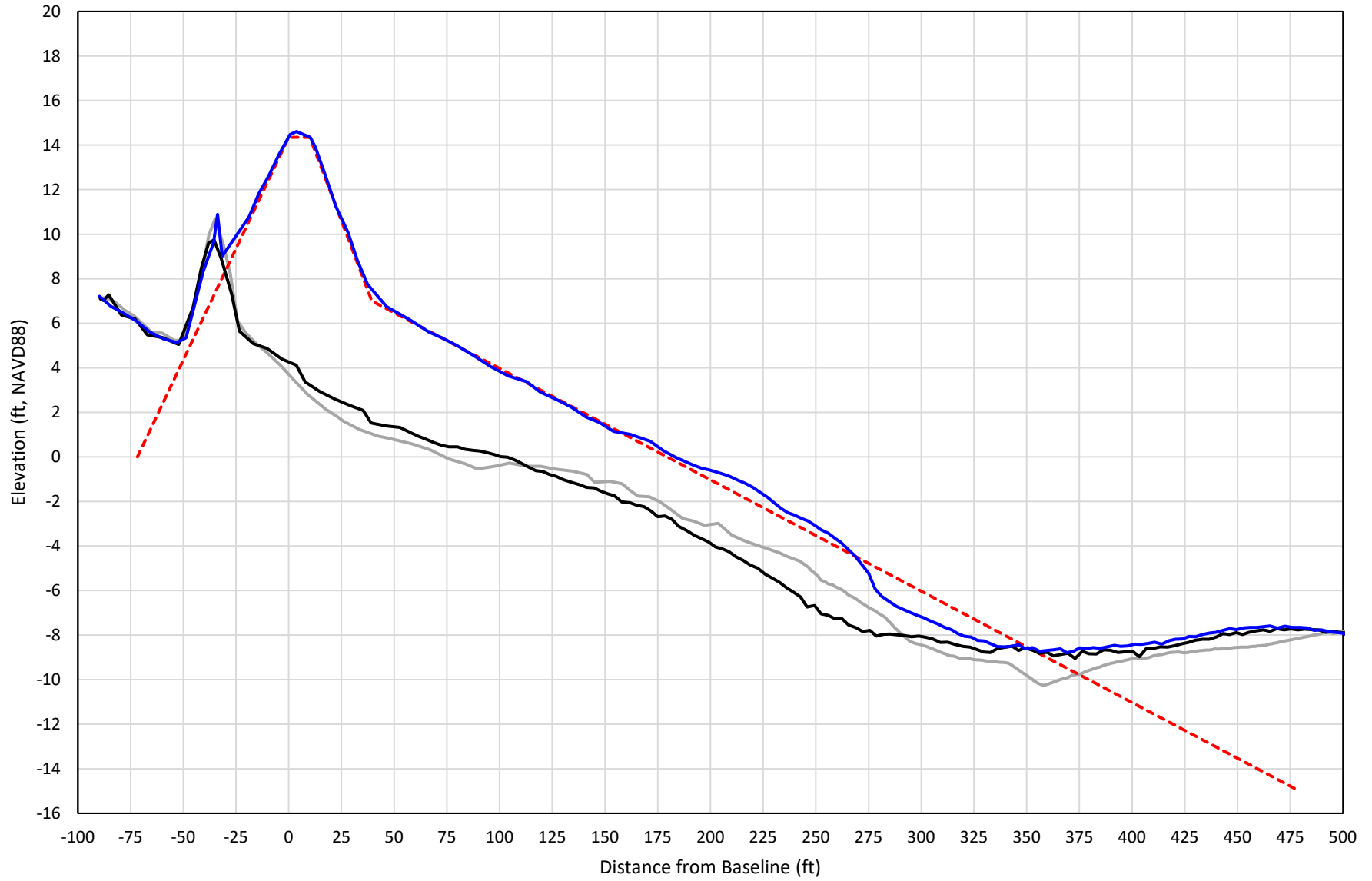
— 335+00 Precon    - - - 335+00 Temp002    — 335+00 BD\_210415    — 335+00 AD\_210419

# 336+00



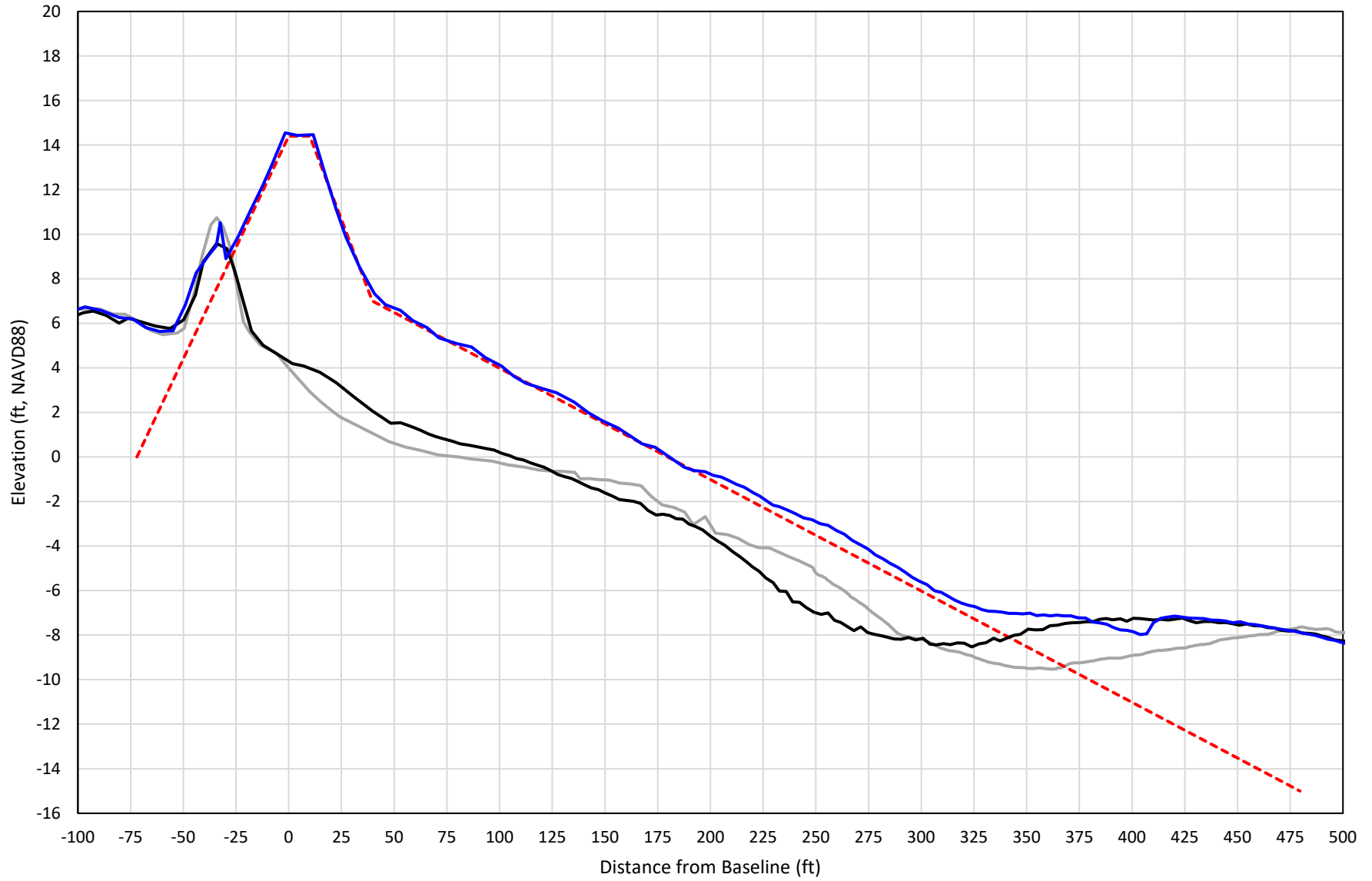
— 336+00 Precon    - - - 336+00 Temp002    — 336+00 BD\_210415    — 336+00 AD\_210420

# 337+00



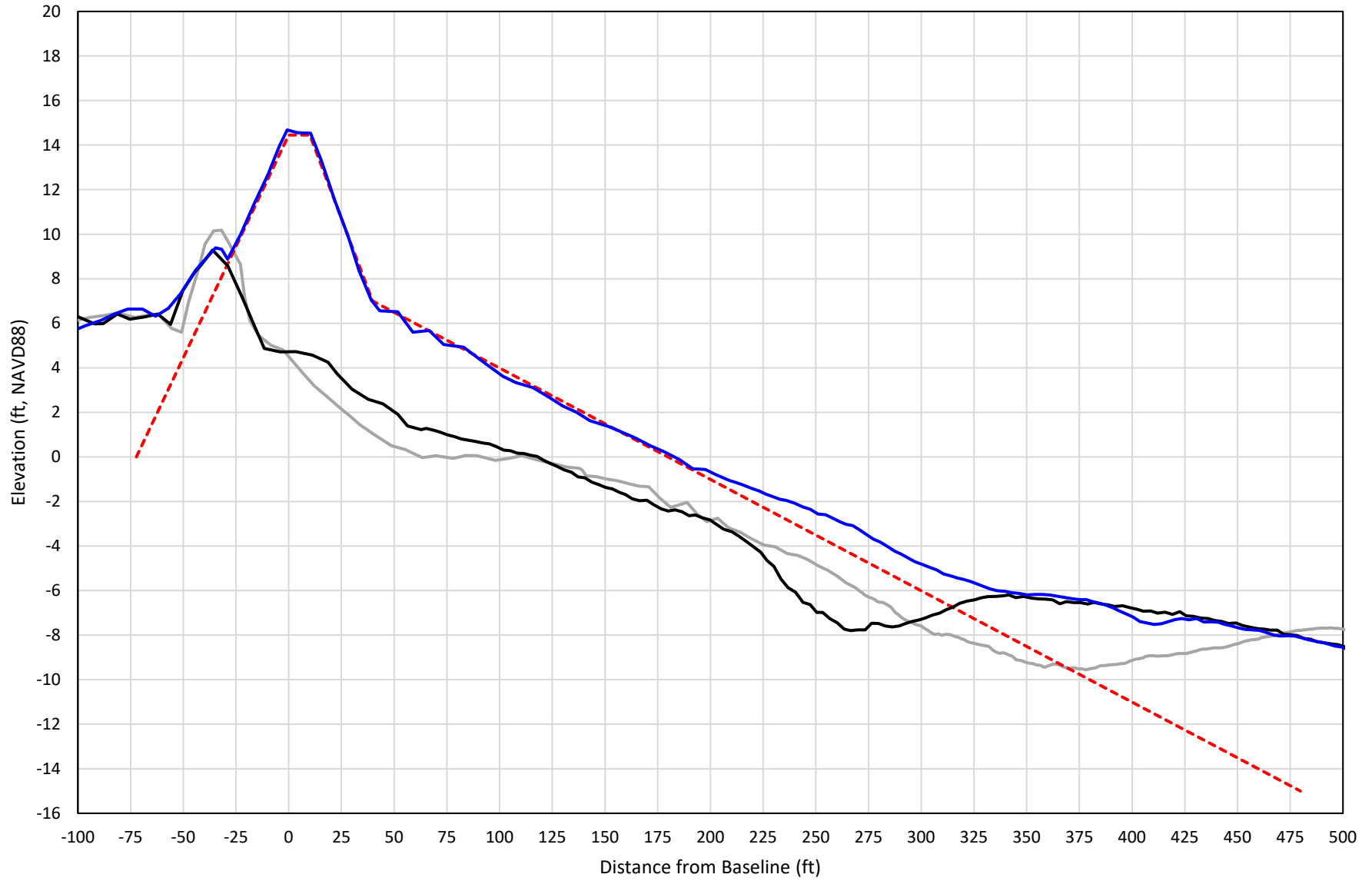
— 337+00 Precon    - - - 337+00 Temp002    — 337+00 BD\_210415    — 337+00 AD\_210420

# 338+00



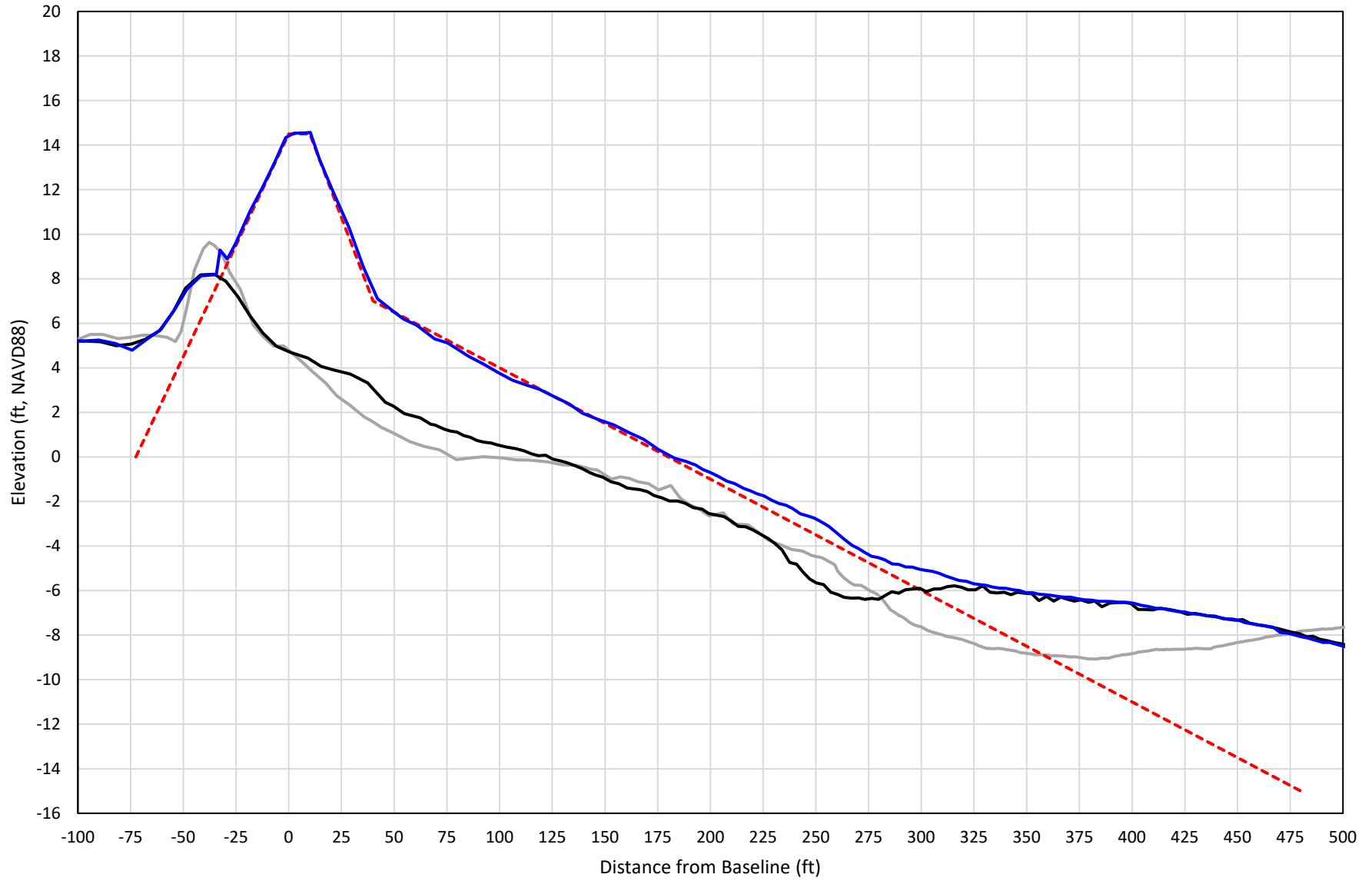
— 338+00 Precon    - - - 338+00 Temp002    — 338+00 BD\_210415    — 338+00 AD\_210420

# 339+00



— 339+00 Precon    - - - 339+00 Temp002    — 339+00 BD\_210415    — 339+00 AD\_210421

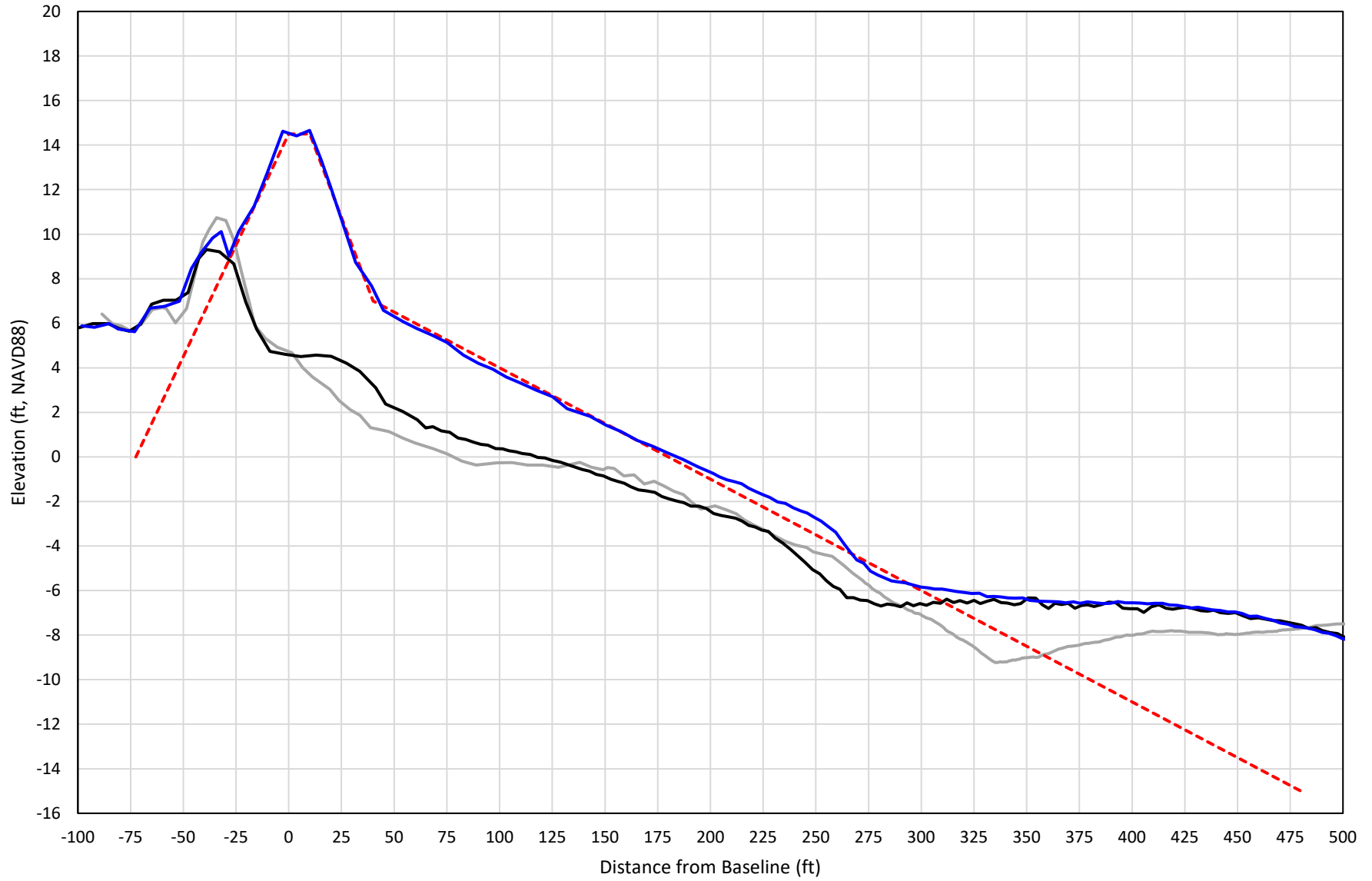
# 340+00



— 340+00 Precon    - - - 340+00 Temp002    — 340+00 BD\_210415    — 340+00 AD\_210421

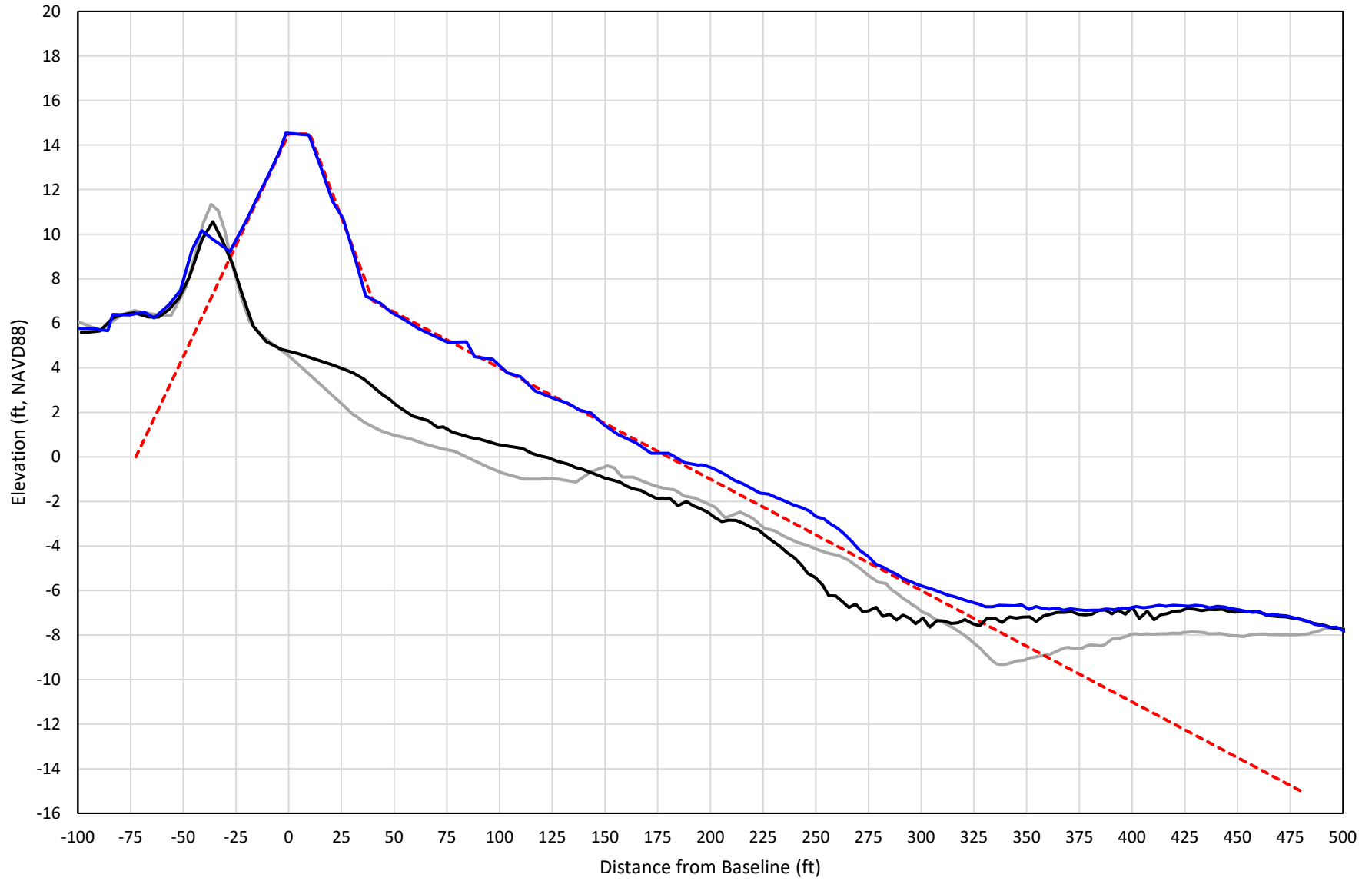


# 341+00



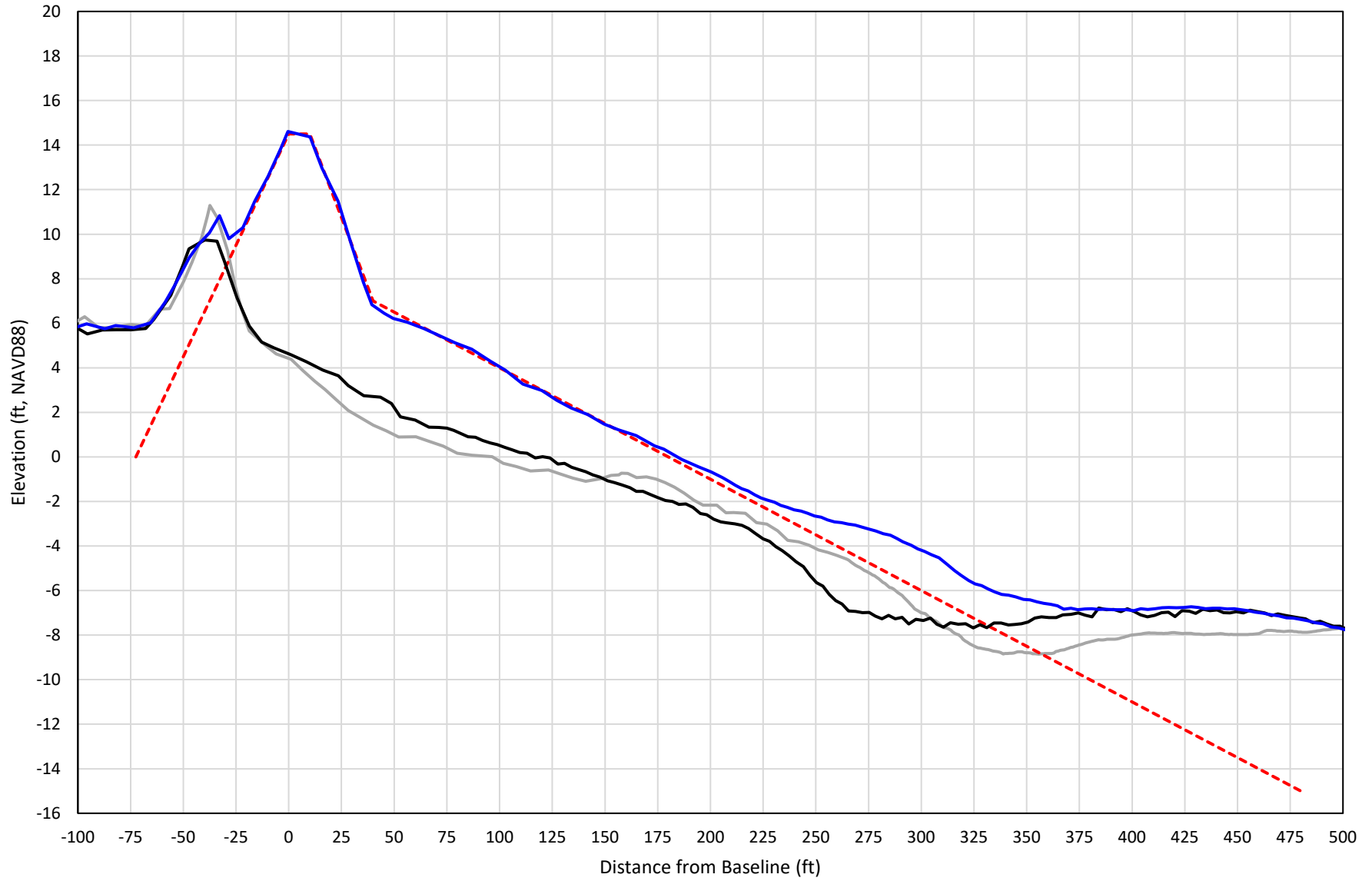
— 341+00 Precon    - - - 341+00 Temp002    — 341+00 BD\_210415    — 341+00 AD\_210421

# 342+00



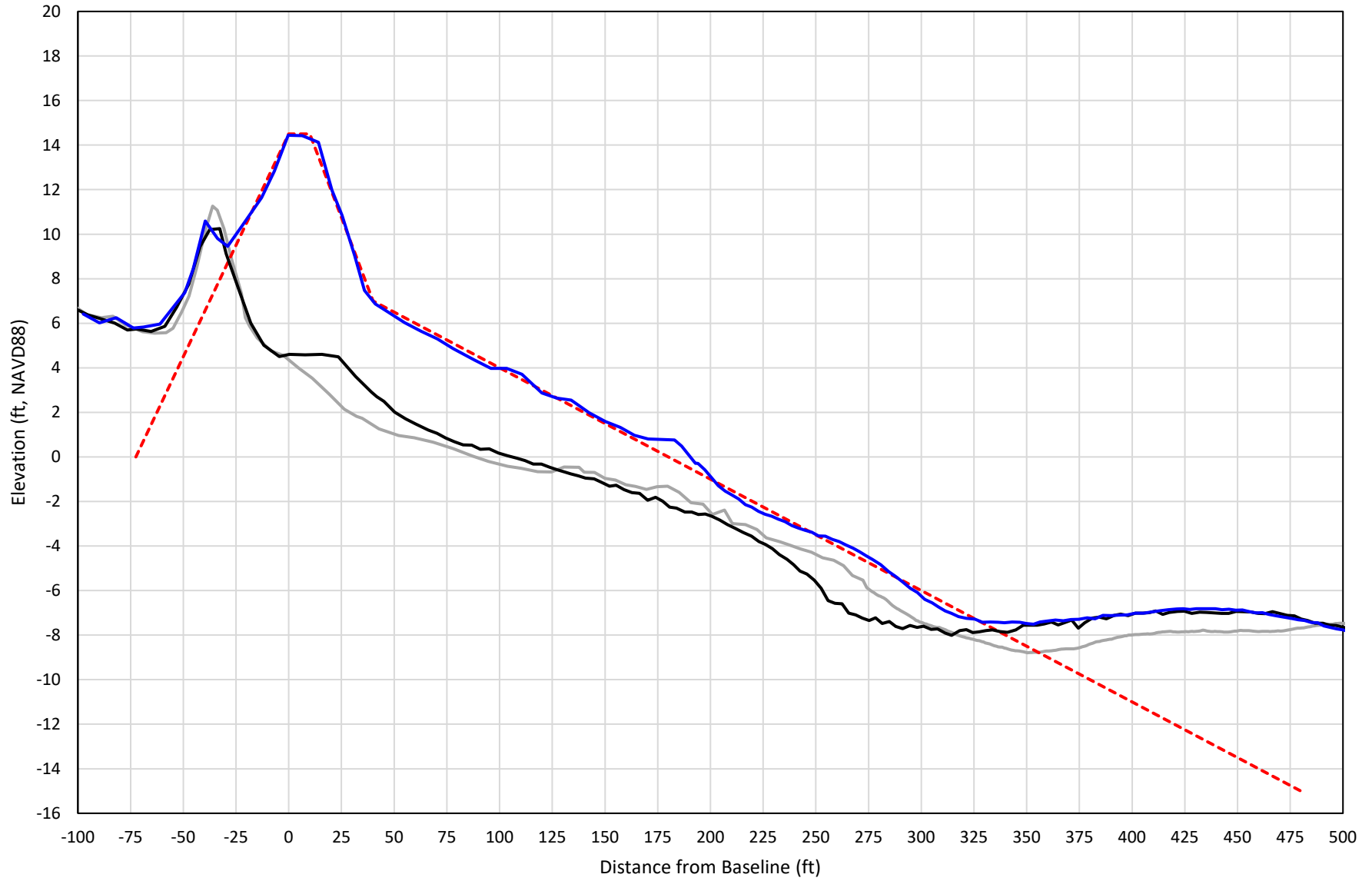
— 342+00 Precon    - - - 342+00 Temp002    — 342+00 BD\_210415    — 342+00 AD\_210421

# 343+00



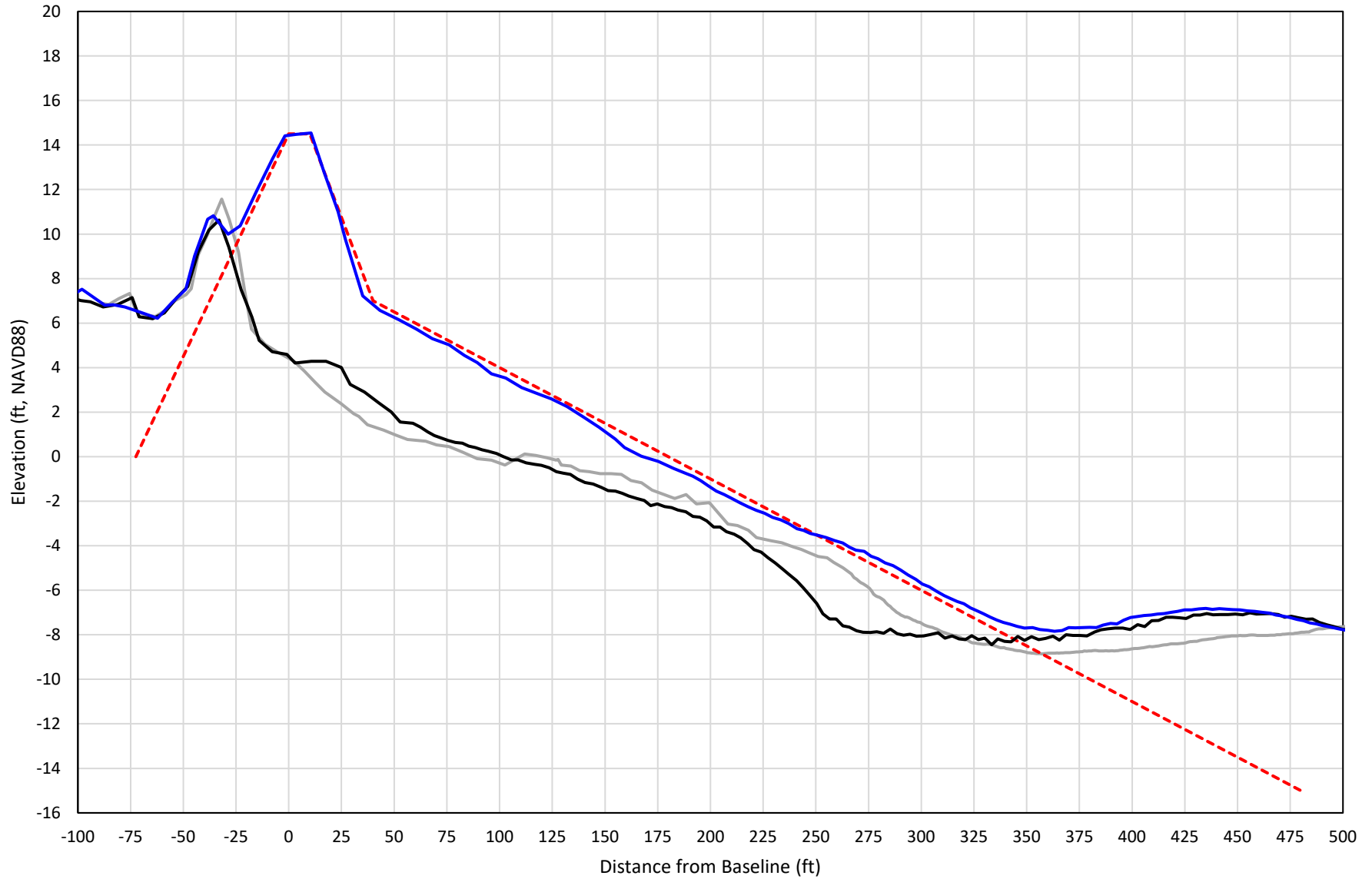
— 343+00 Precon    - - - 343+00 Temp002    — 343+00 BD\_210415    — 343+00 AD\_210422

# 344+00



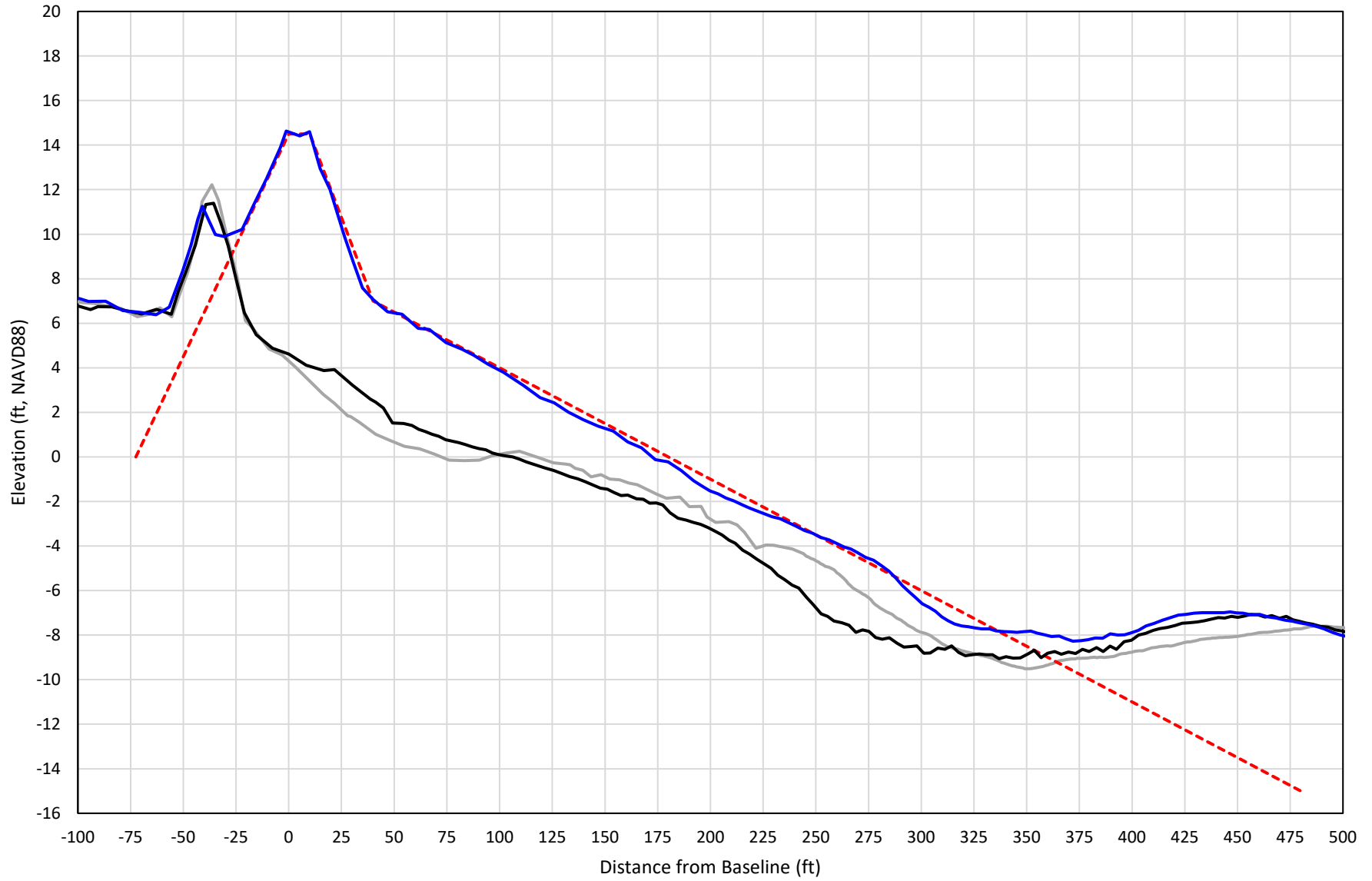
— 344+00 Precon    - - - 344+00 Temp002    — 344+00 BD\_210415    — 344+00 AD\_210422

# 345+00



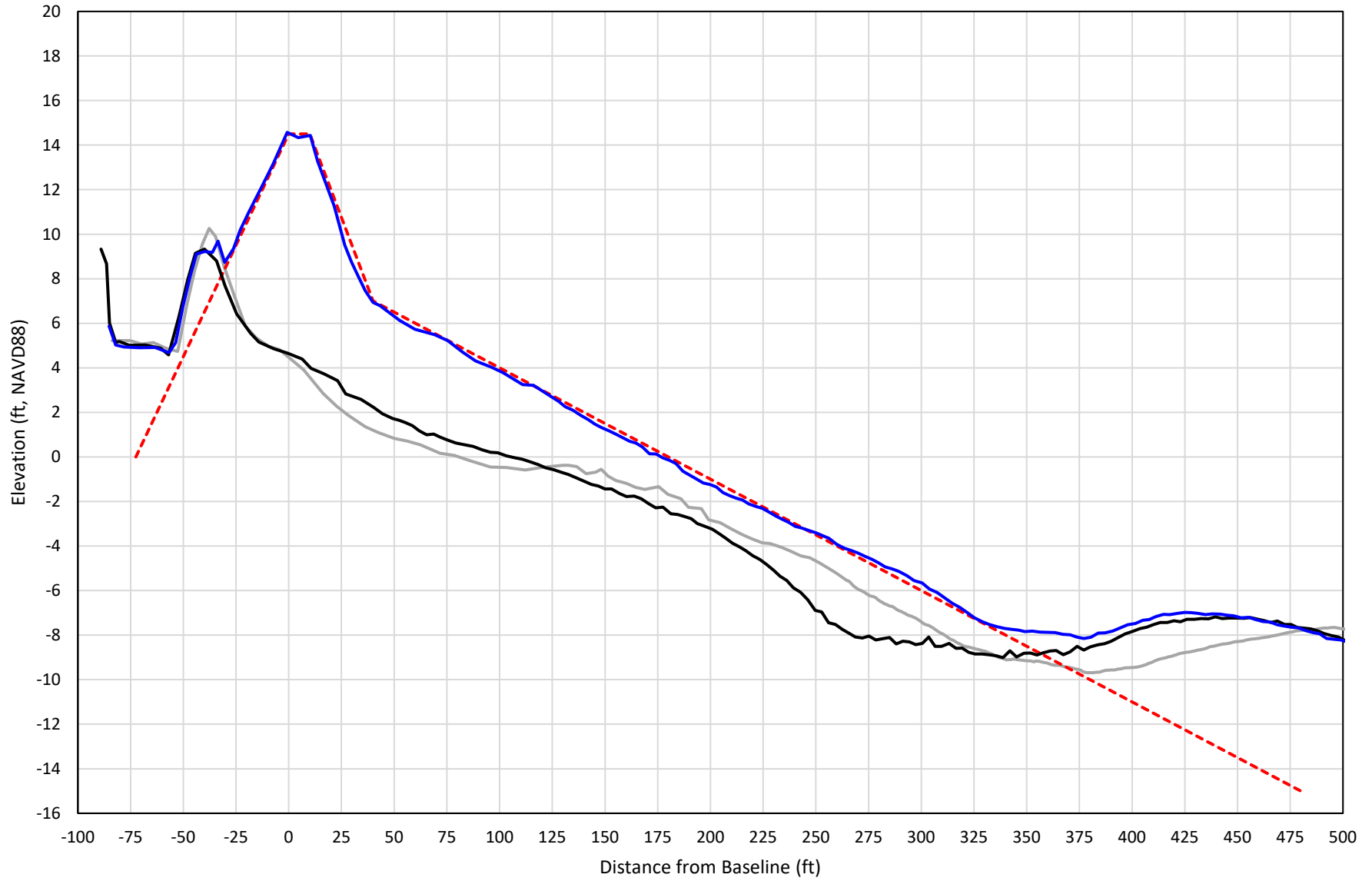
— 345+00 Precon    - - - 345+00 Temp002    — 345+00 BD\_210415    — 345+00 AD\_210422

# 346+00



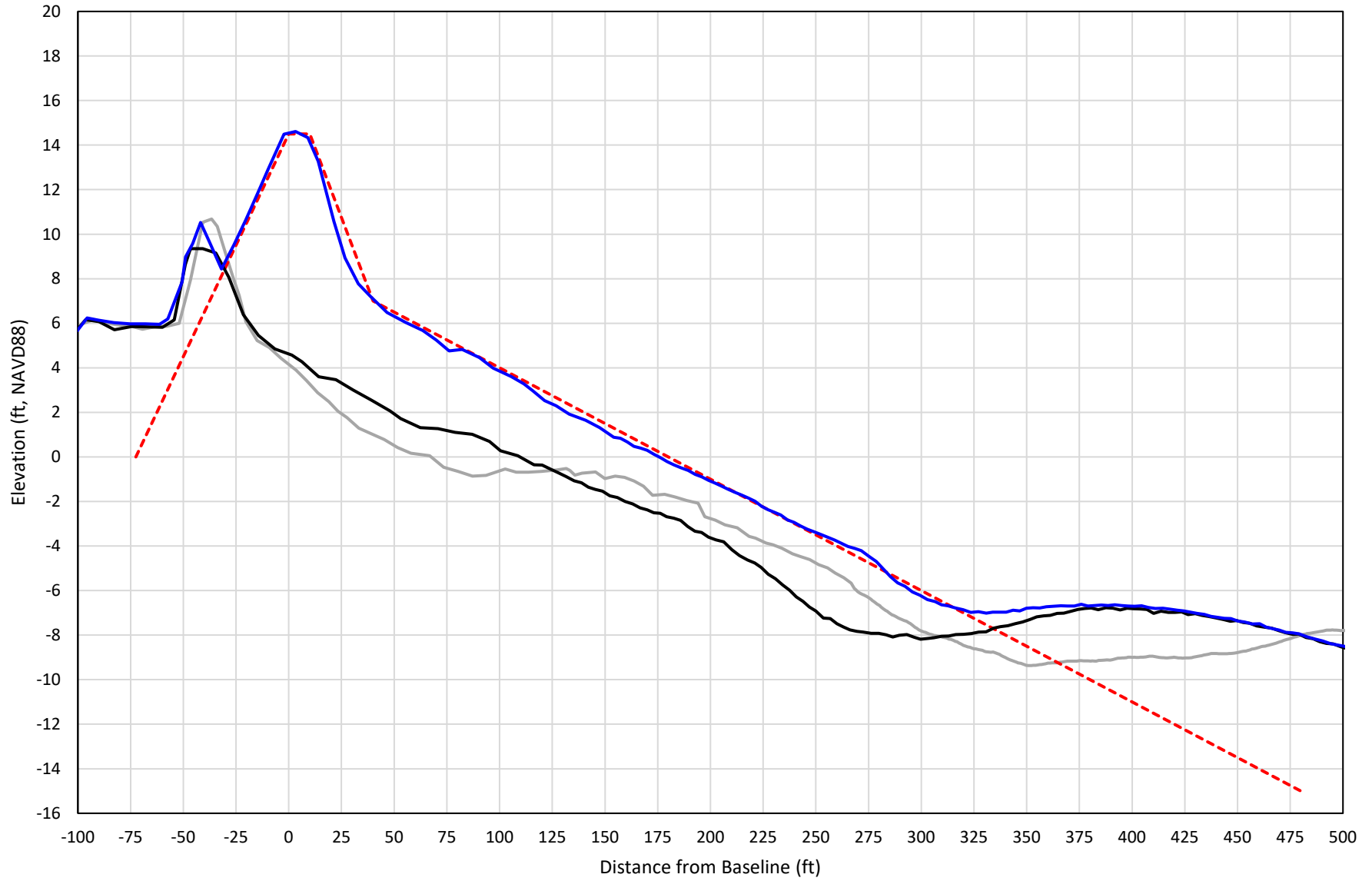
— 346+00 Precon    - - - 346+00 Temp002    — 346+00 BD\_210415    — 346+00 AD\_210422

# 347+00



— 347+00 Precon    - - - 347+00 Temp002    — 347+00 BD\_210415    — 347+00 AD\_210422

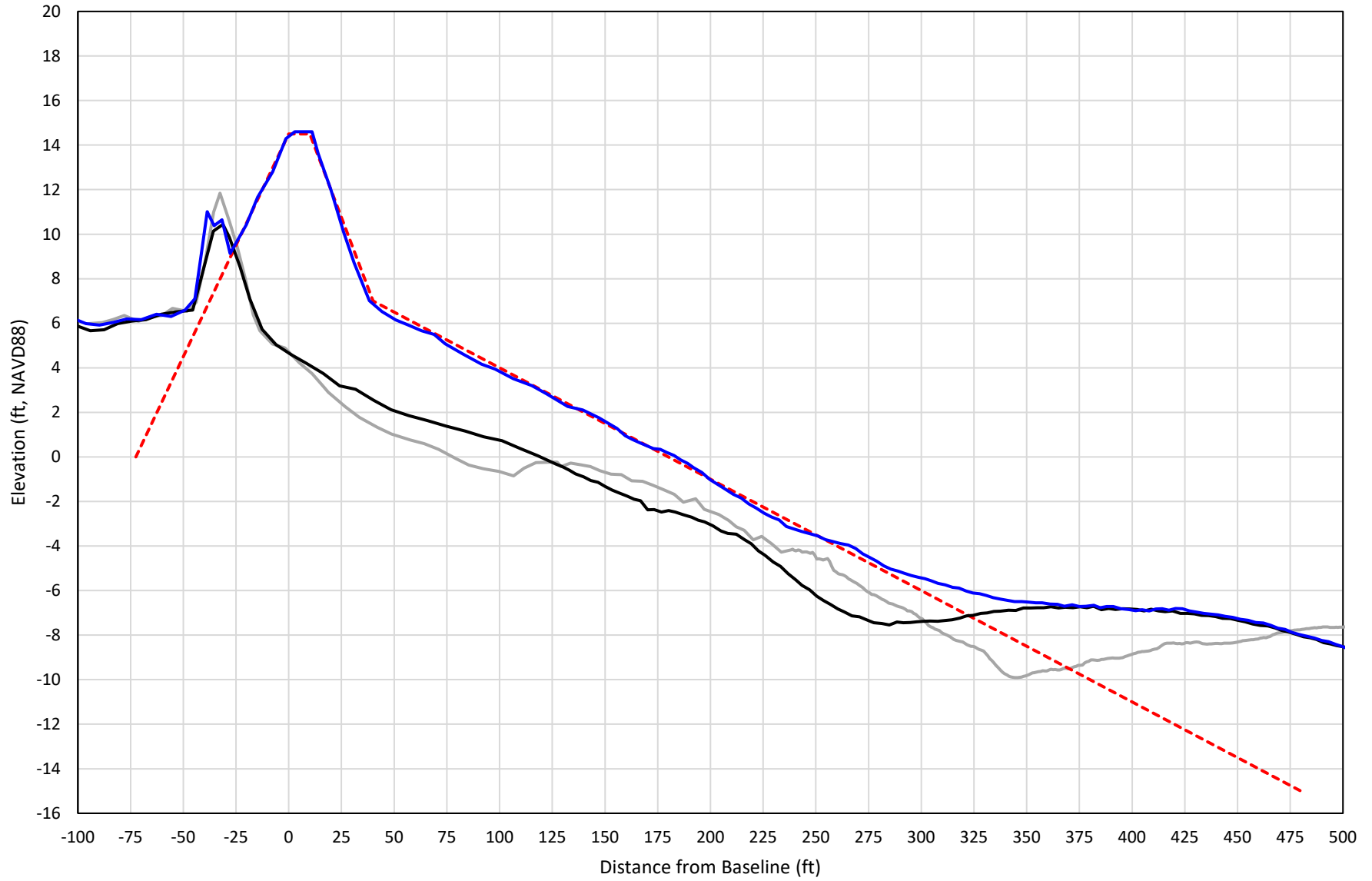
# 348+00



— 348+00 Precon    - - - 348+00 Temp002    — 348+00 BD\_210415    — 348+00 AD\_210423

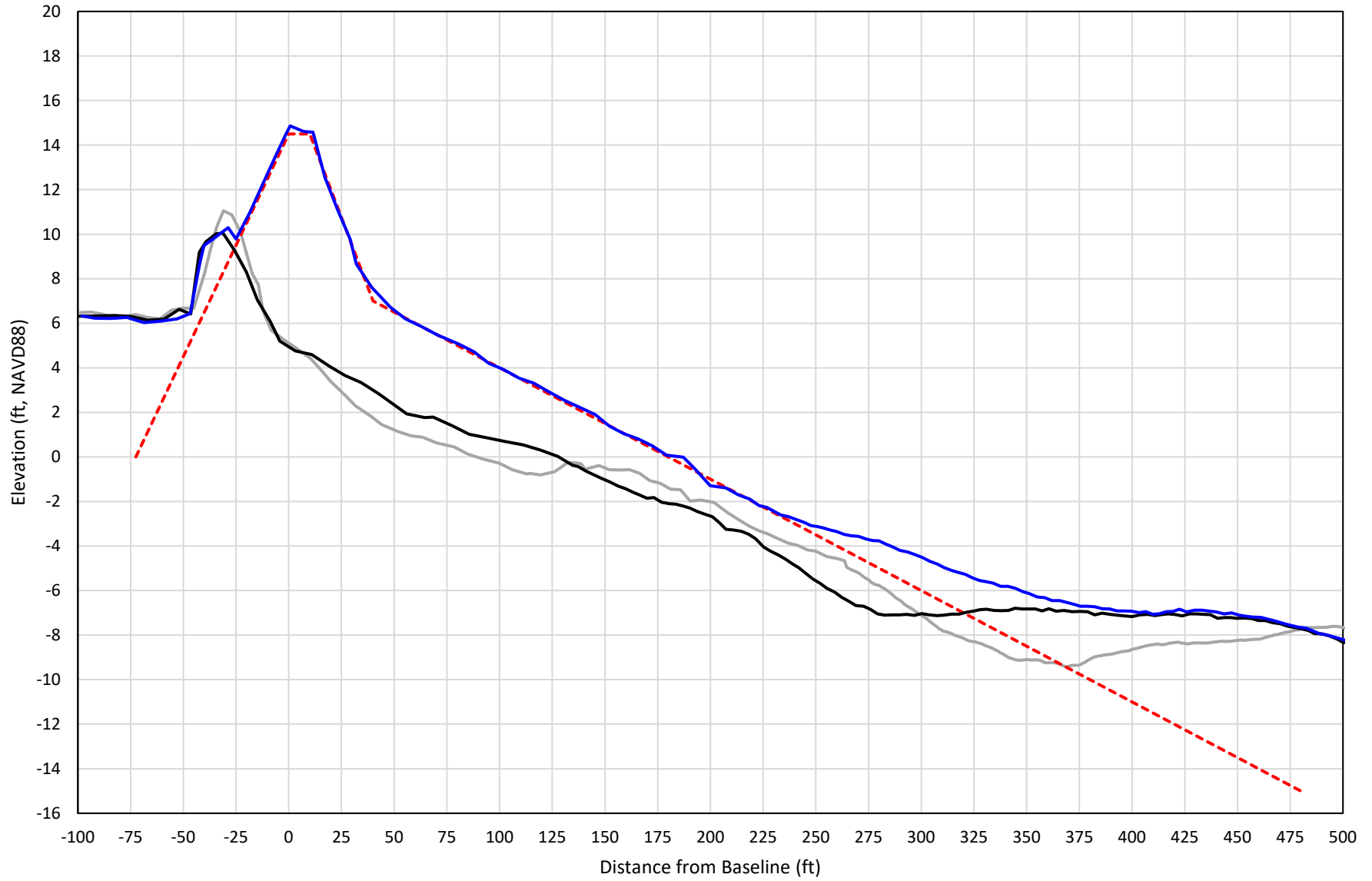


# 349+00



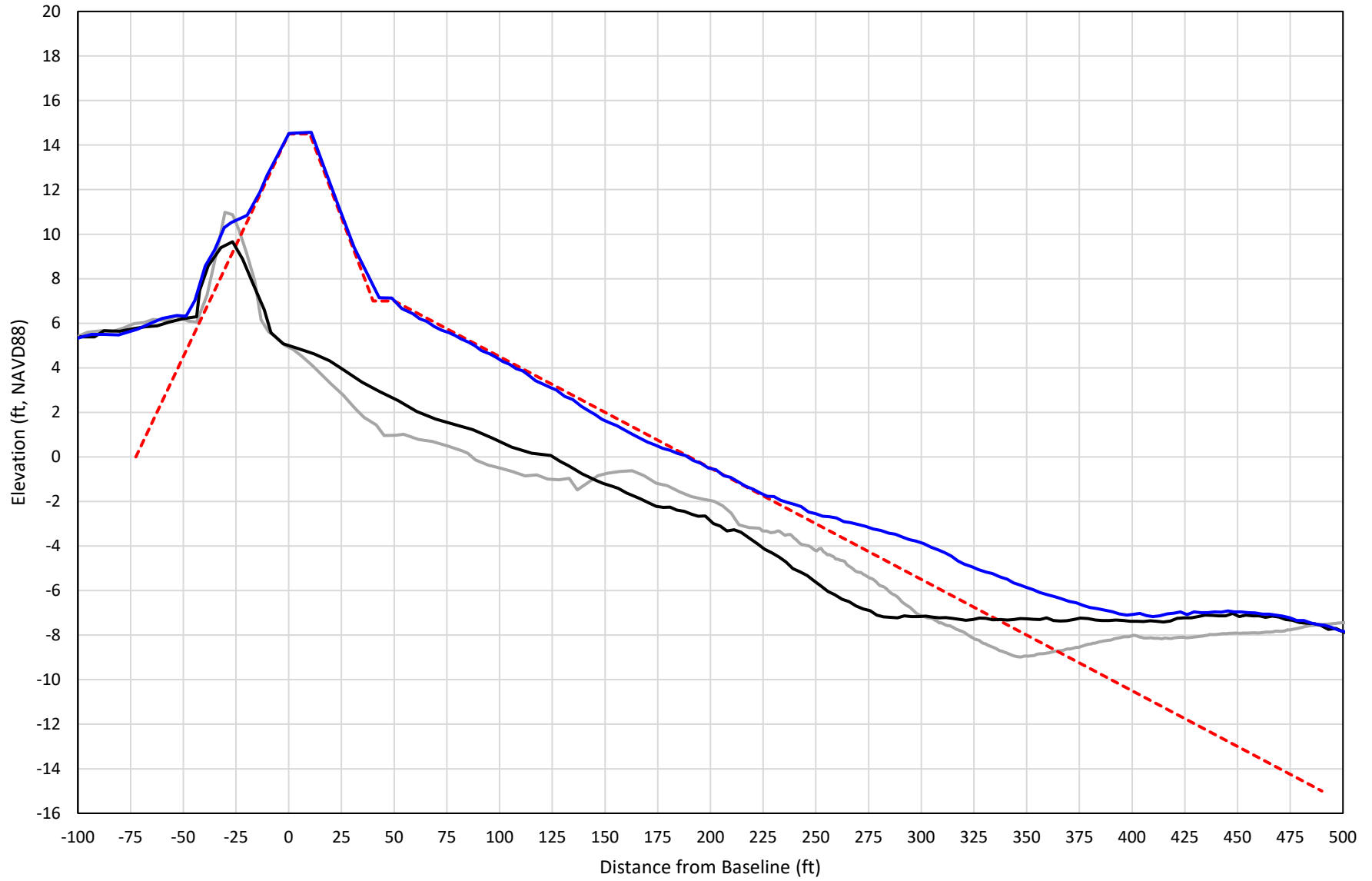
— 349+00 Precon    - - - 349+00 Temp002    — 349+00 BD\_210419    — 349+00 AD\_210423

# 350+00



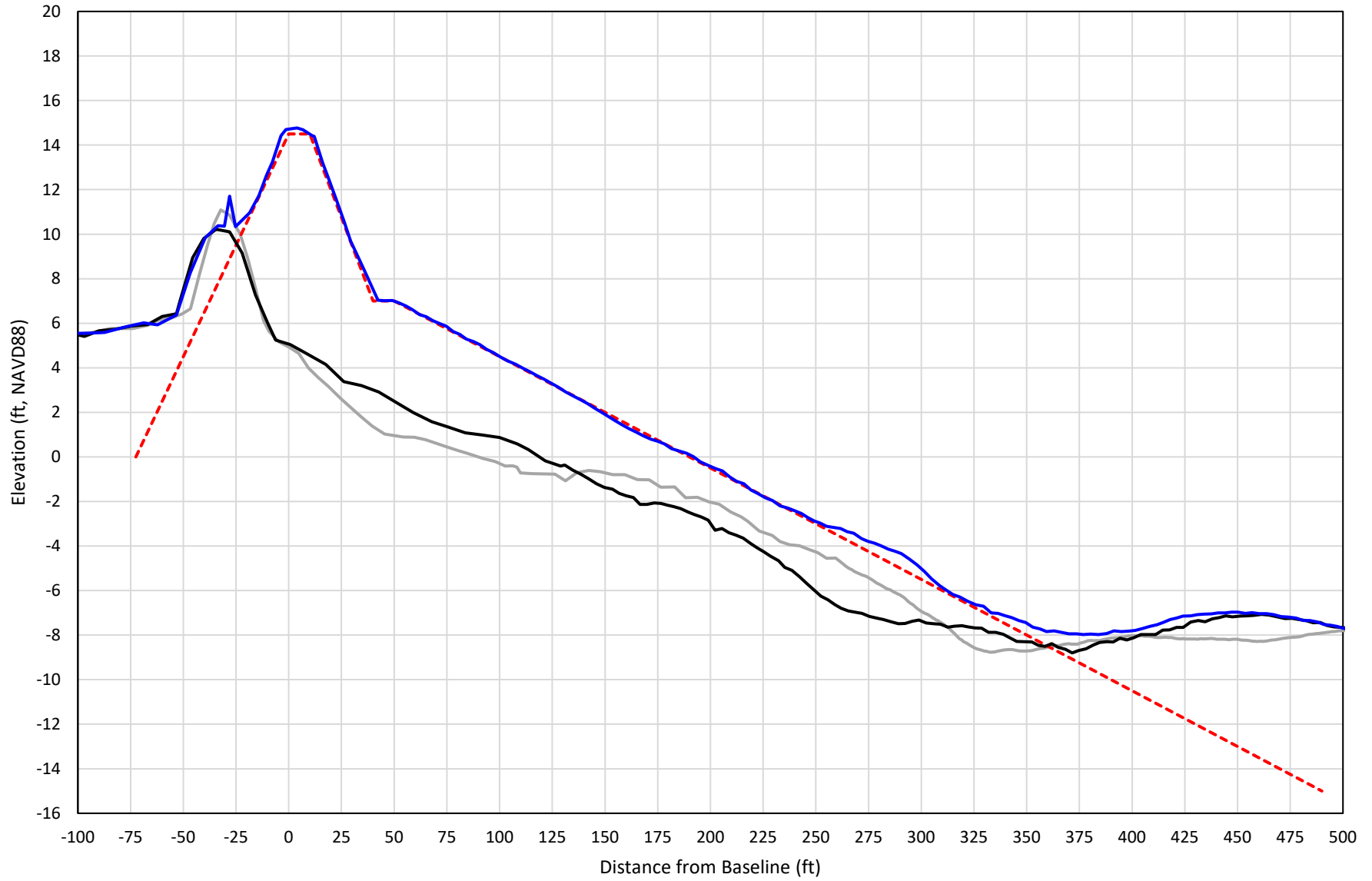
— 350+00 Precon    - - - 350+00 Temp002    — 350+00 BD\_210419    — 350+00 AD\_210423

# 351+00



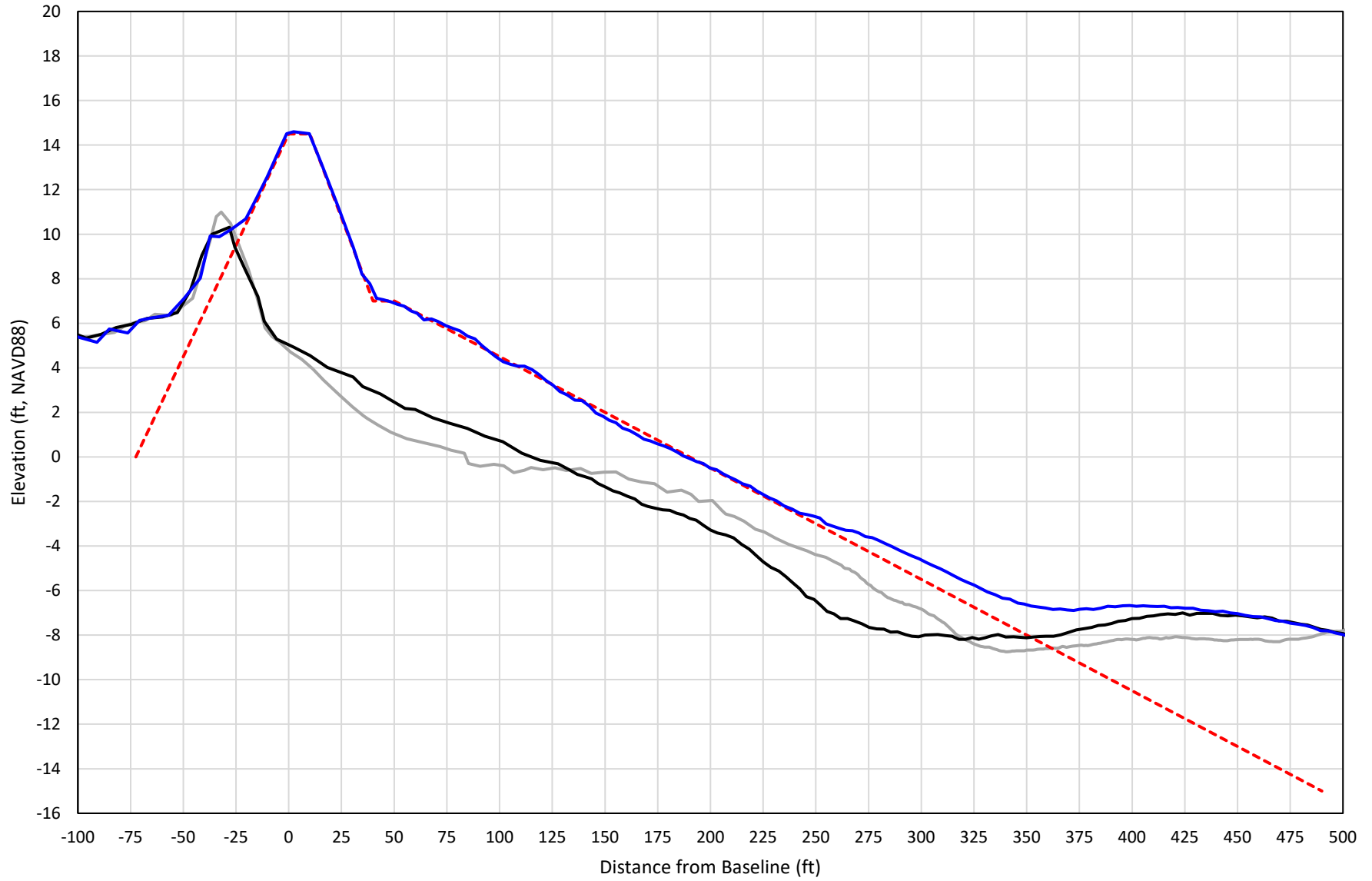
— 351+00 Precon    - - - 351+00 Temp002    — 351+00 BD\_210419    — 351+00 AD\_210426

# 352+00



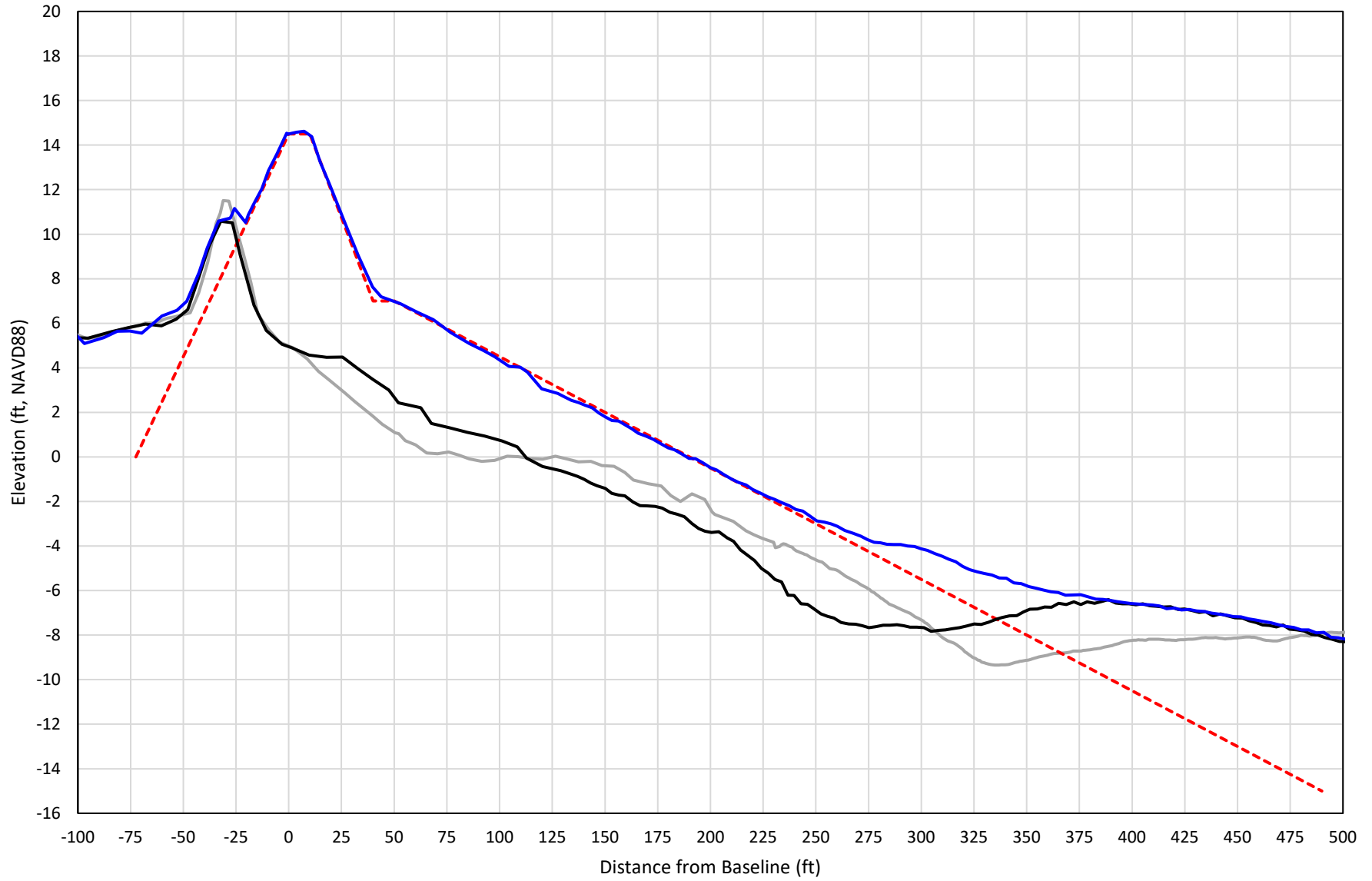
— 352+00 Precon    - - - 352+00 Temp002    — 352+00 BD\_210419    — 352+00 AD\_210426

# 353+00



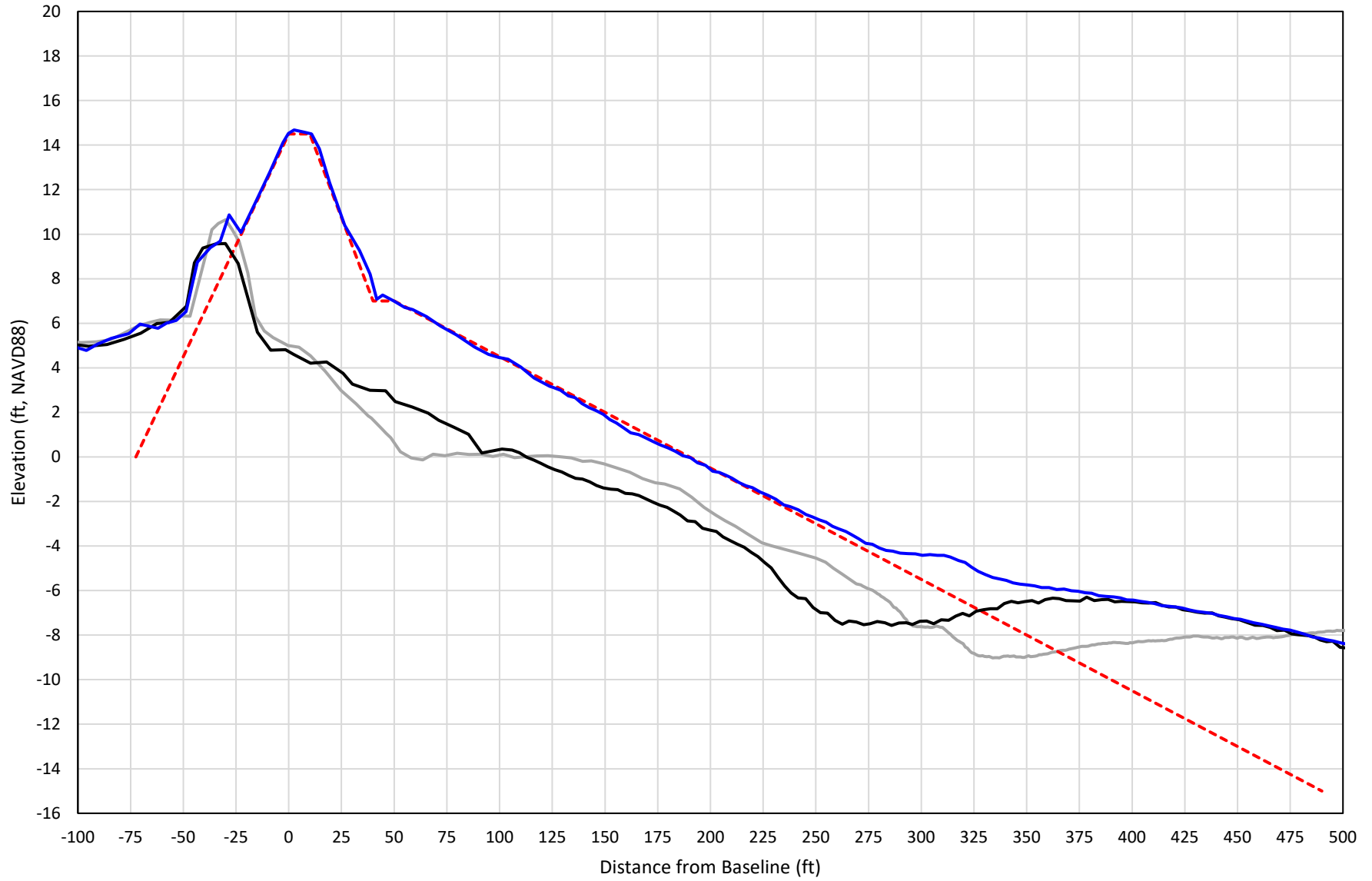
— 353+00 Precon    - - - 353+00 Temp002    — 353+00 BD\_210419    — 353+00 AD\_210426

# 354+00



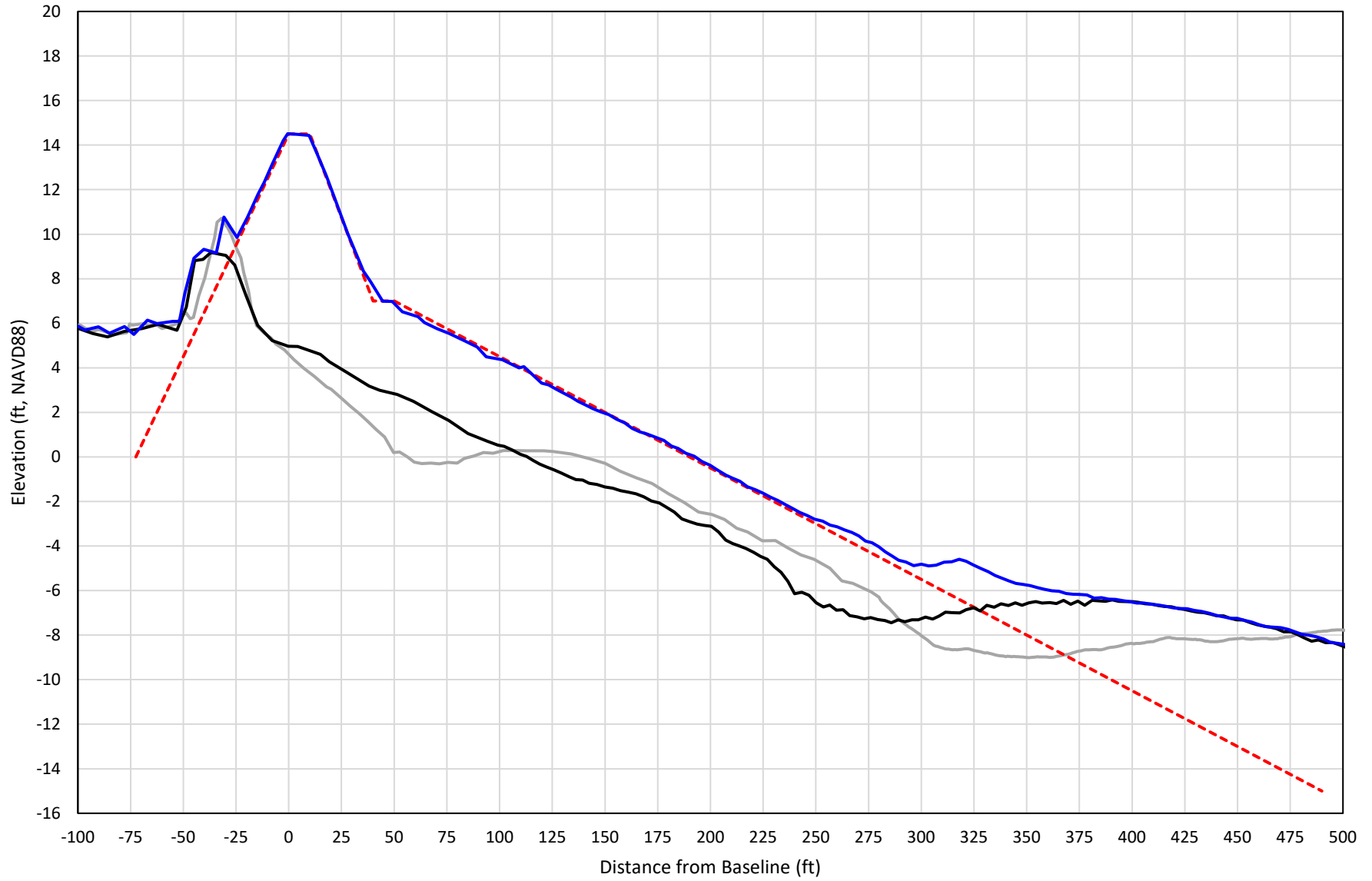
— 354+00 Precon    - - - 354+00 Temp002    — 354+00 BD\_210419    — 354+00 AD\_210427

# 355+00



— 355+00 Precon    - - - 355+00 Temp002    — 355+00 BD\_210422    — 355+00 AD\_210427

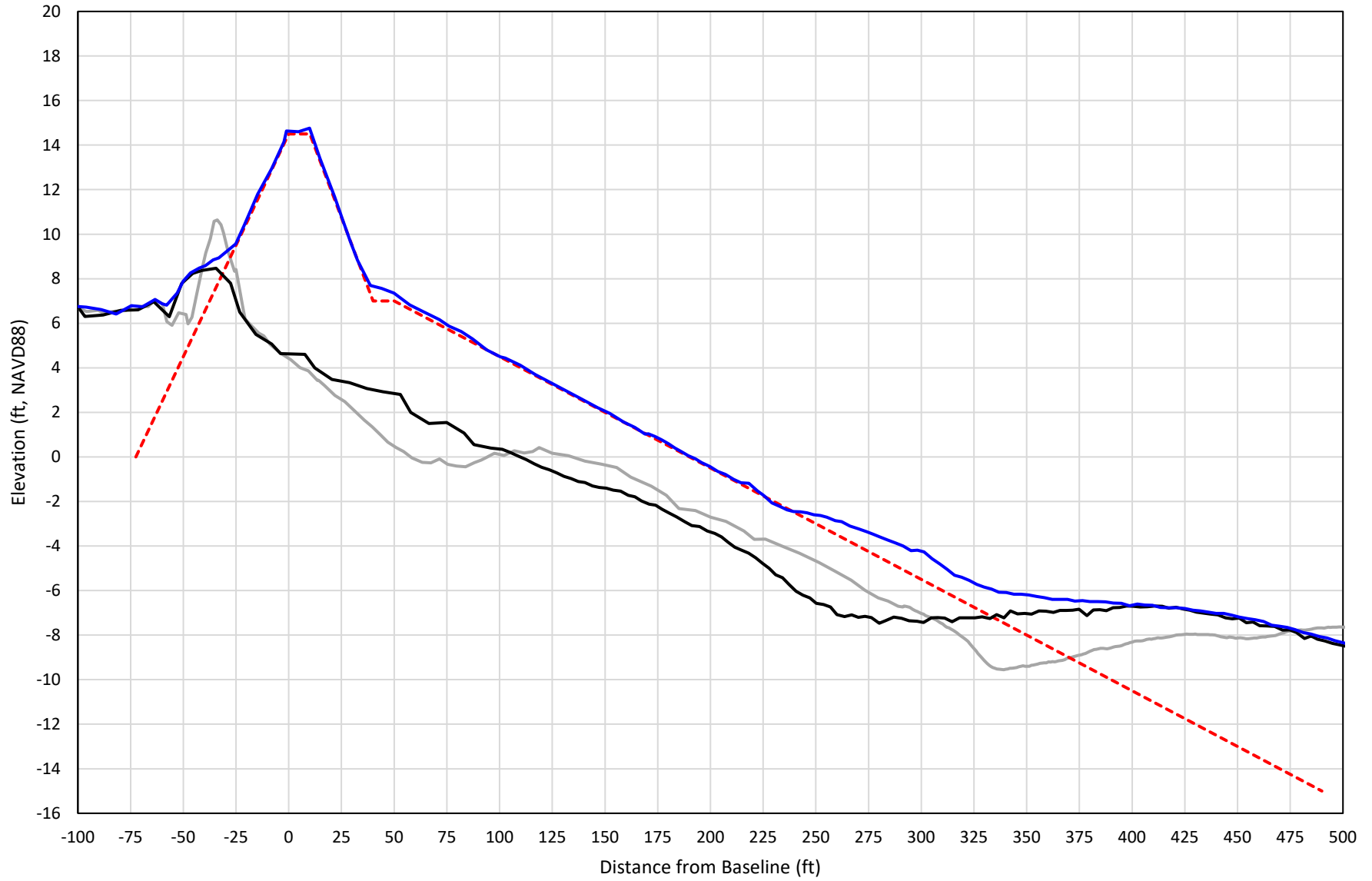
# 356+00



— 356+00 Precon    - - - 356+00 Temp002    — 356+00 BD\_210422    — 356+00 AD\_210427

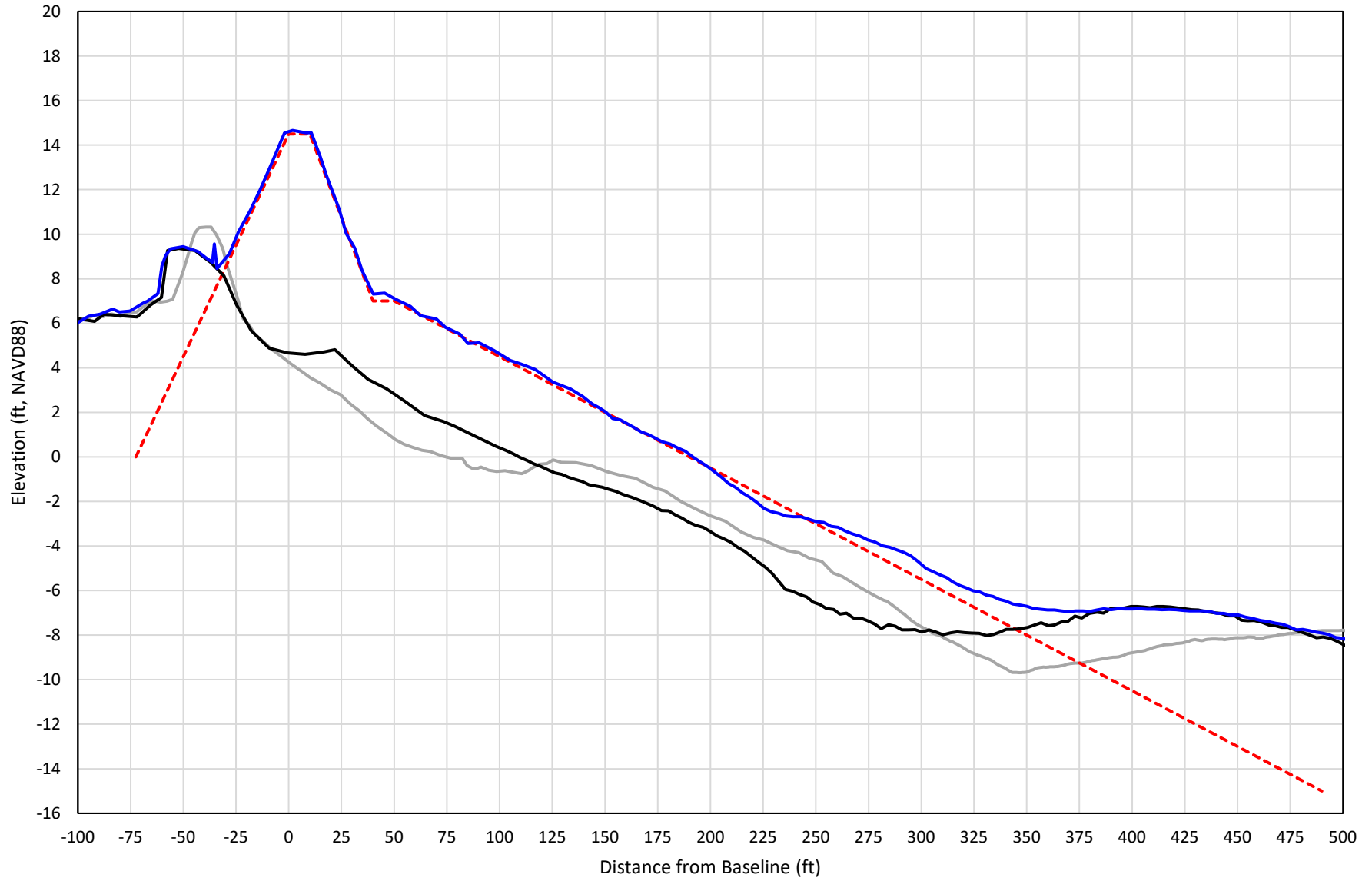


# 357+00



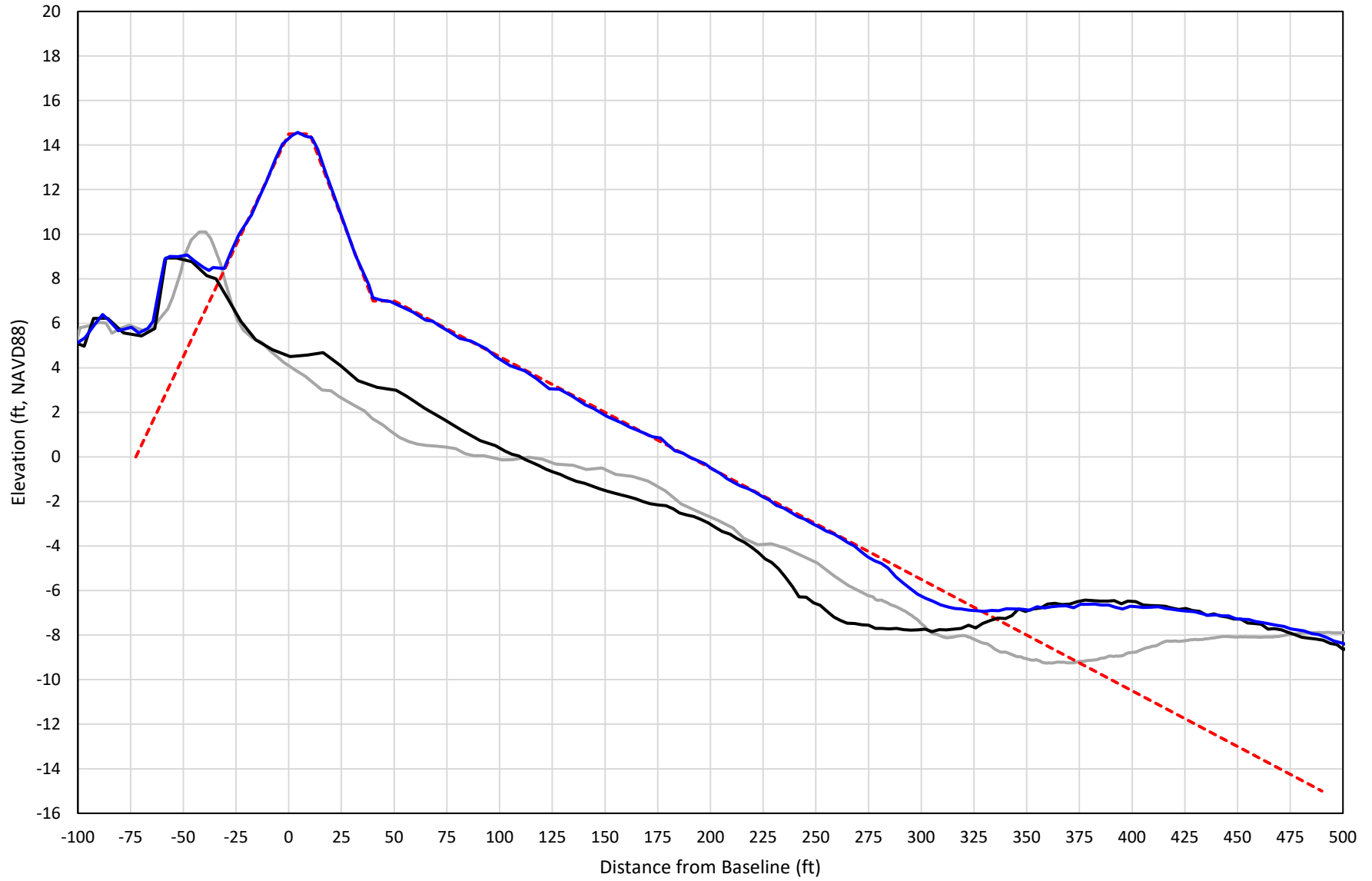
— 357+00 Precon    - - - 357+00 Temp002    — 357+00 BD\_210422    — 357+00 AD\_210427

# 358+00



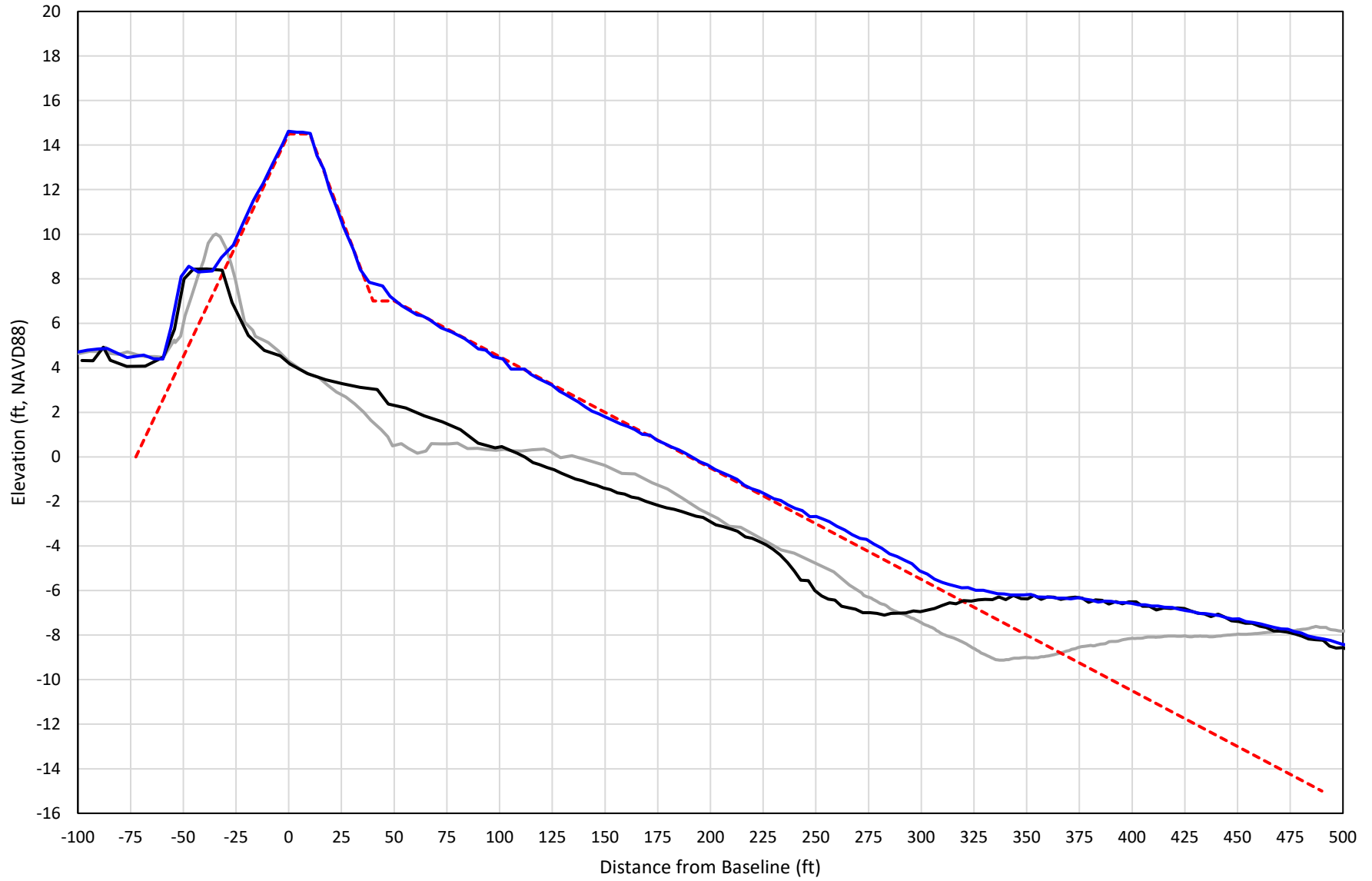
— 358+00 Precon    - - - 358+00 Temp002    — 358+00 BD\_210422    — 358+00 AD\_210427

# 359+00



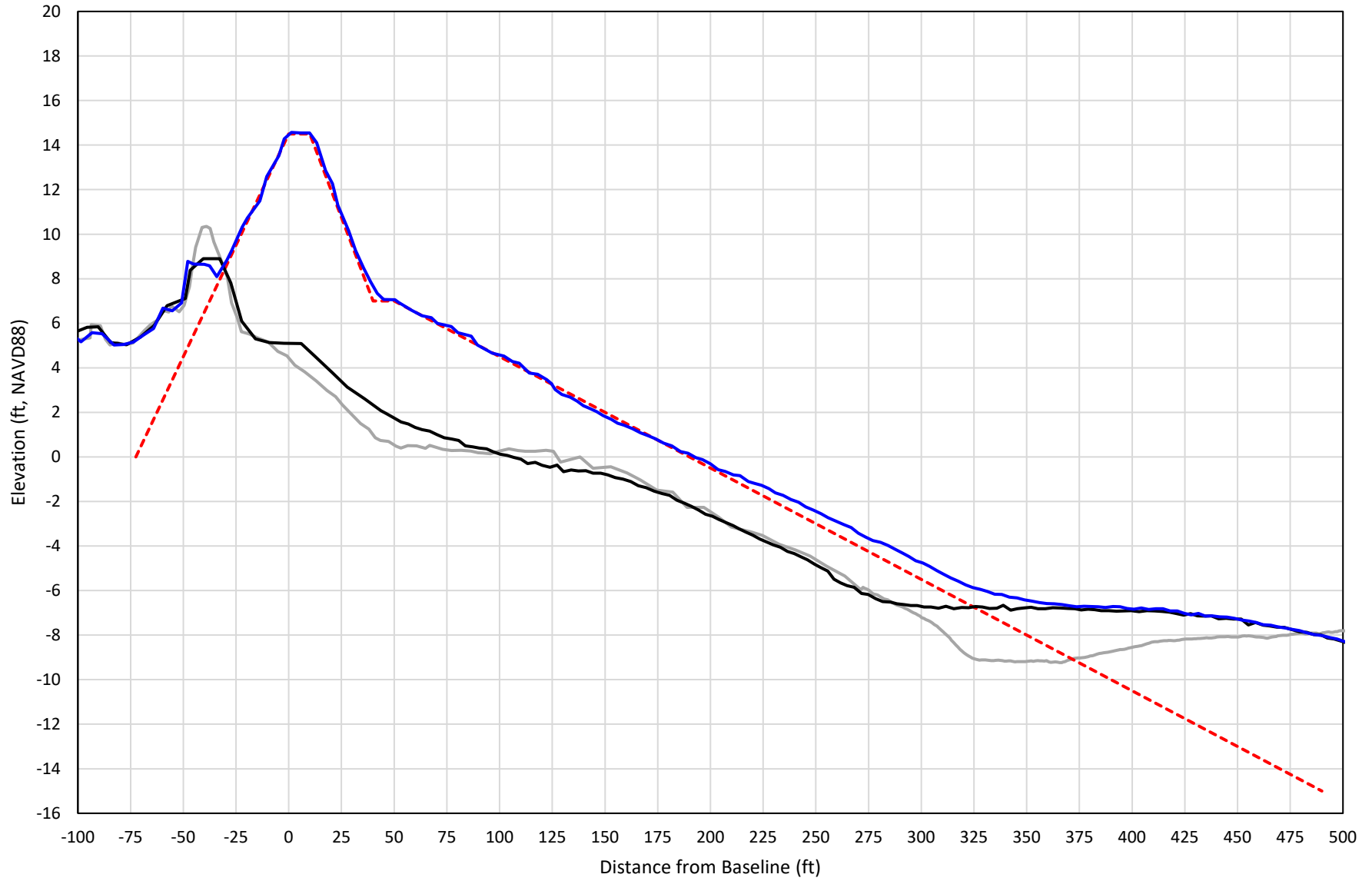
— 359+00 Precon    - - - 359+00 Temp002    — 359+00 BD\_210422    — 359+00 AD\_210428

# 360+00



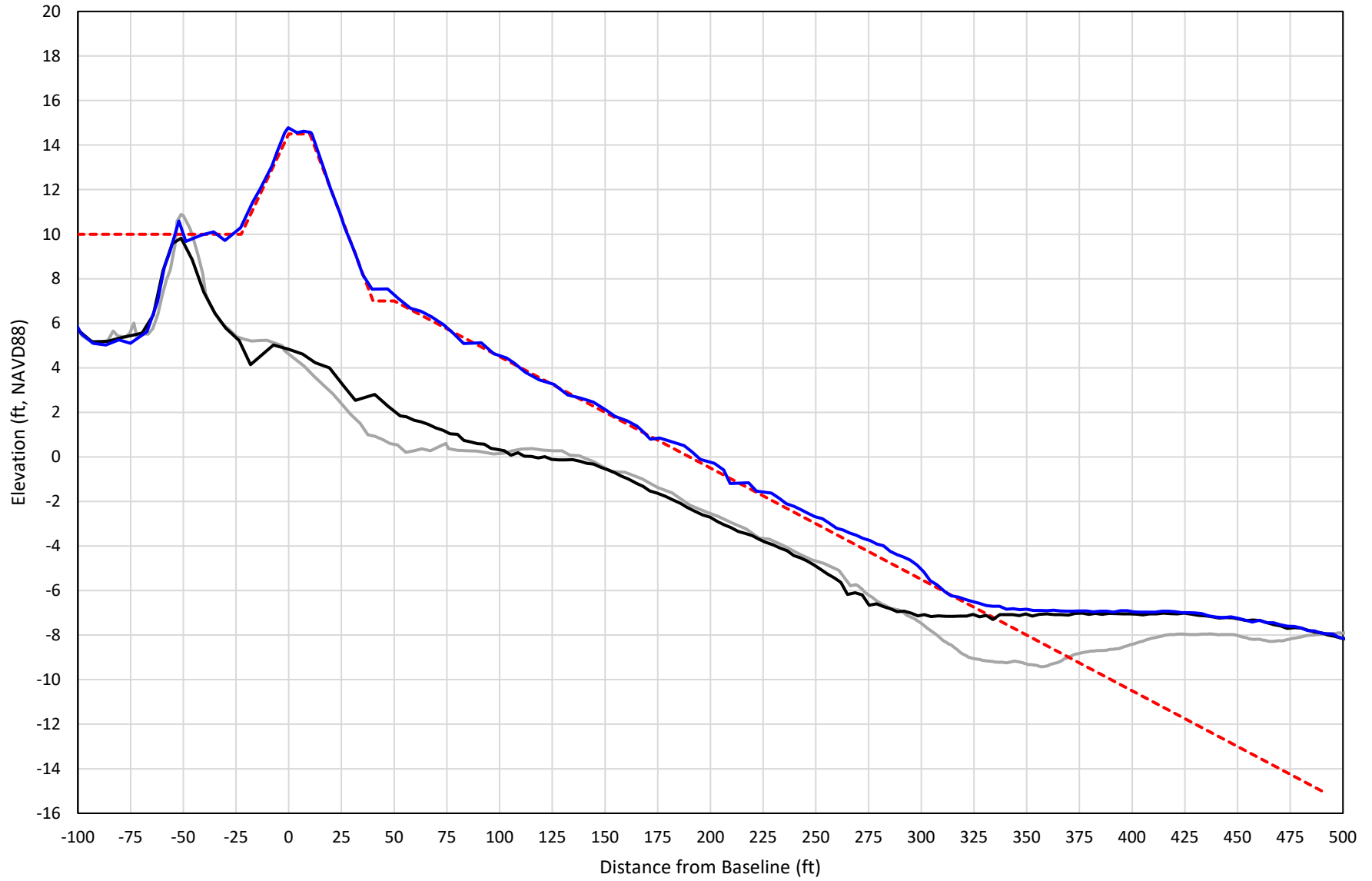
— 360+00 Precon    - - - 360+00 Temp002    — 360+00 BD\_210422    — 360+00 AD\_210428

# 361+00



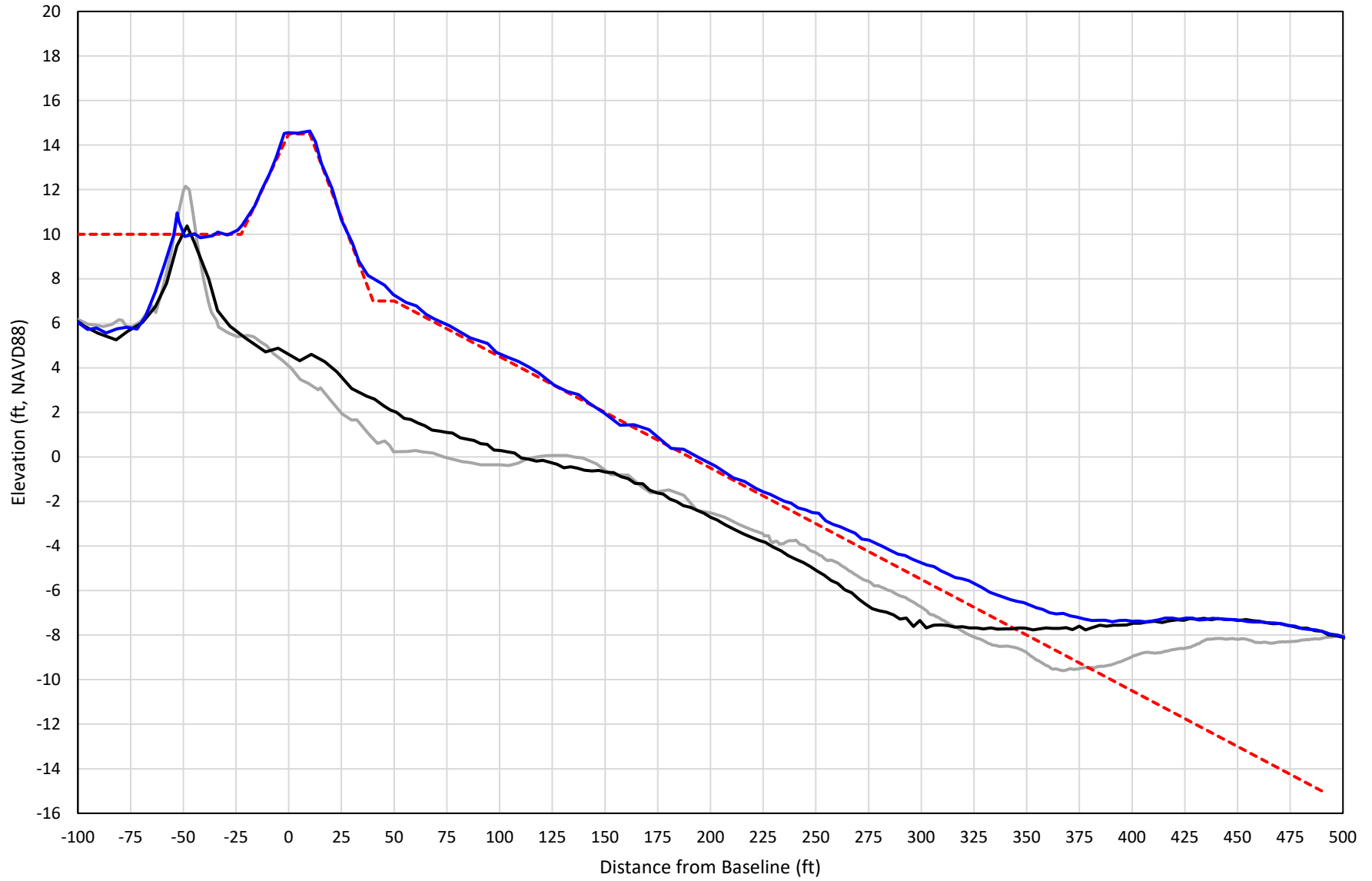
— 361+00 Precon    - - - 361+00 Temp002    — 361+00 BD\_210426    — 361+00 AD\_210428

# 362+00



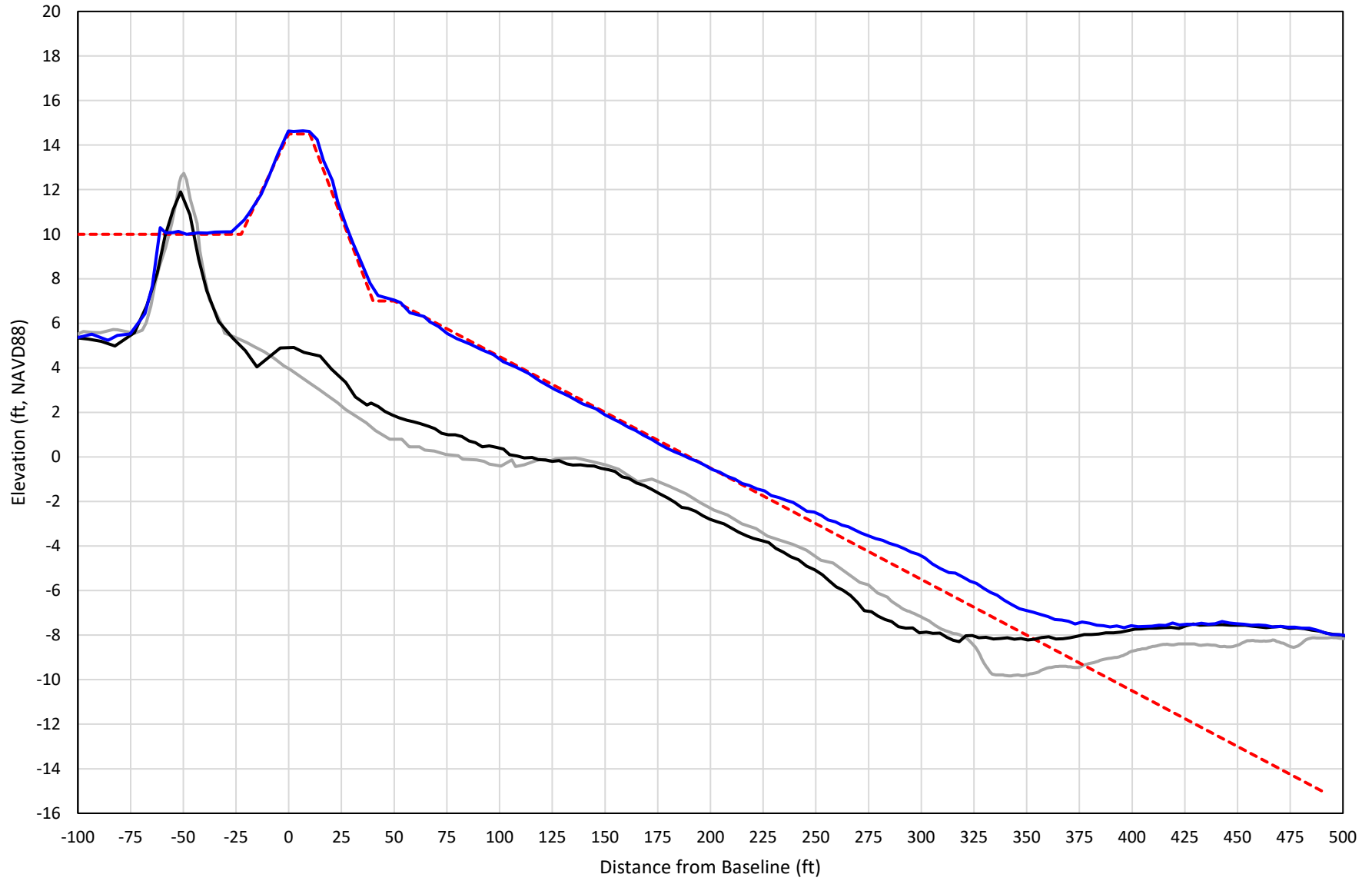
— 362+00 Precon    - - - 362+00 Temp002    — 362+00 BD\_210426    — 362+00 AD\_210428

# 363+00



— 363+00 Precon    - - - 363+00 Temp002    — 363+00 BD\_210426    — 363+00 AD\_210428

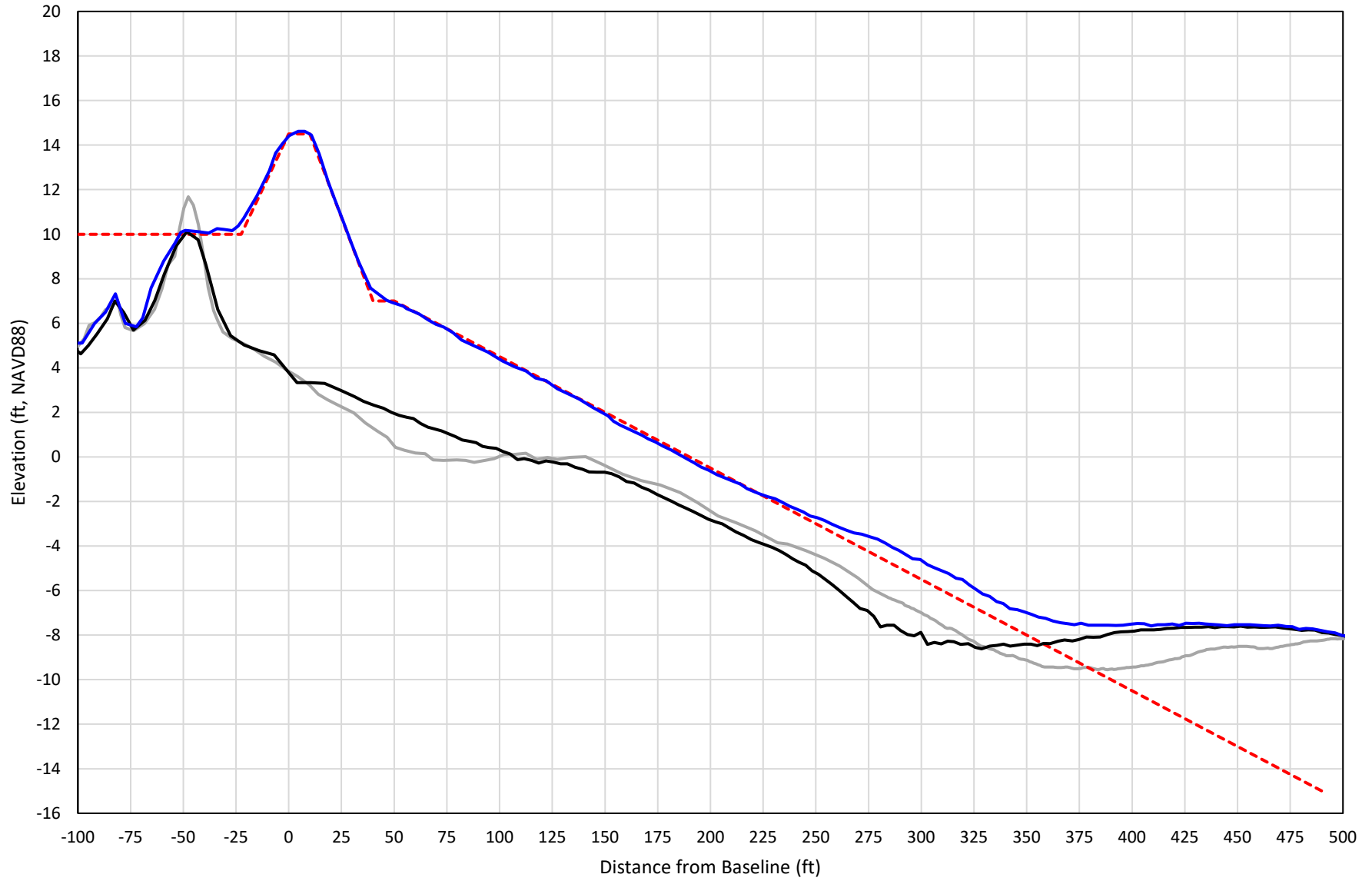
# 364+00



— 364+00 Precon    - - - 364+00 Temp002    — 364+00 BD\_210426    — 364+00 AD\_210429

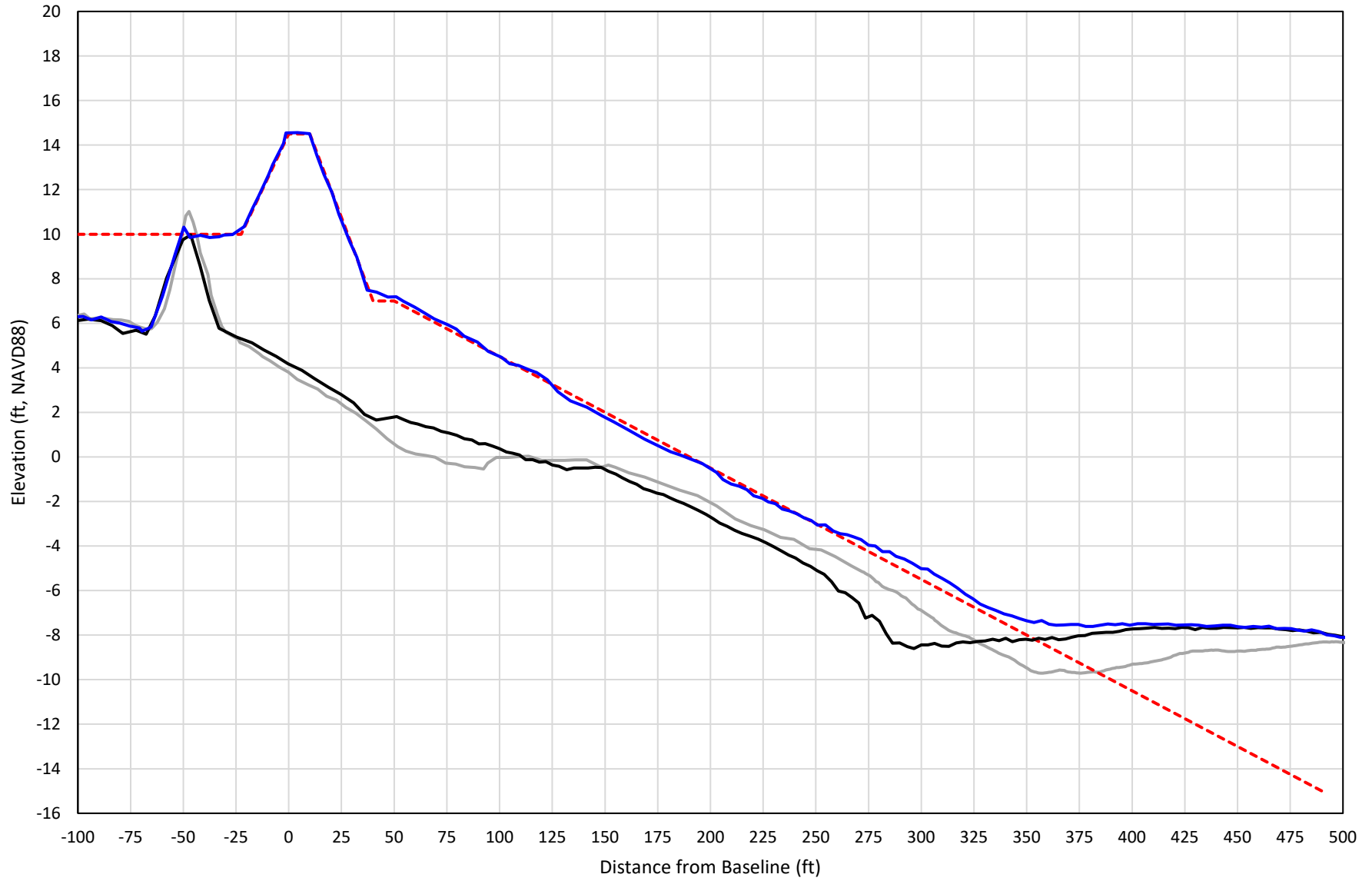


# 365+00



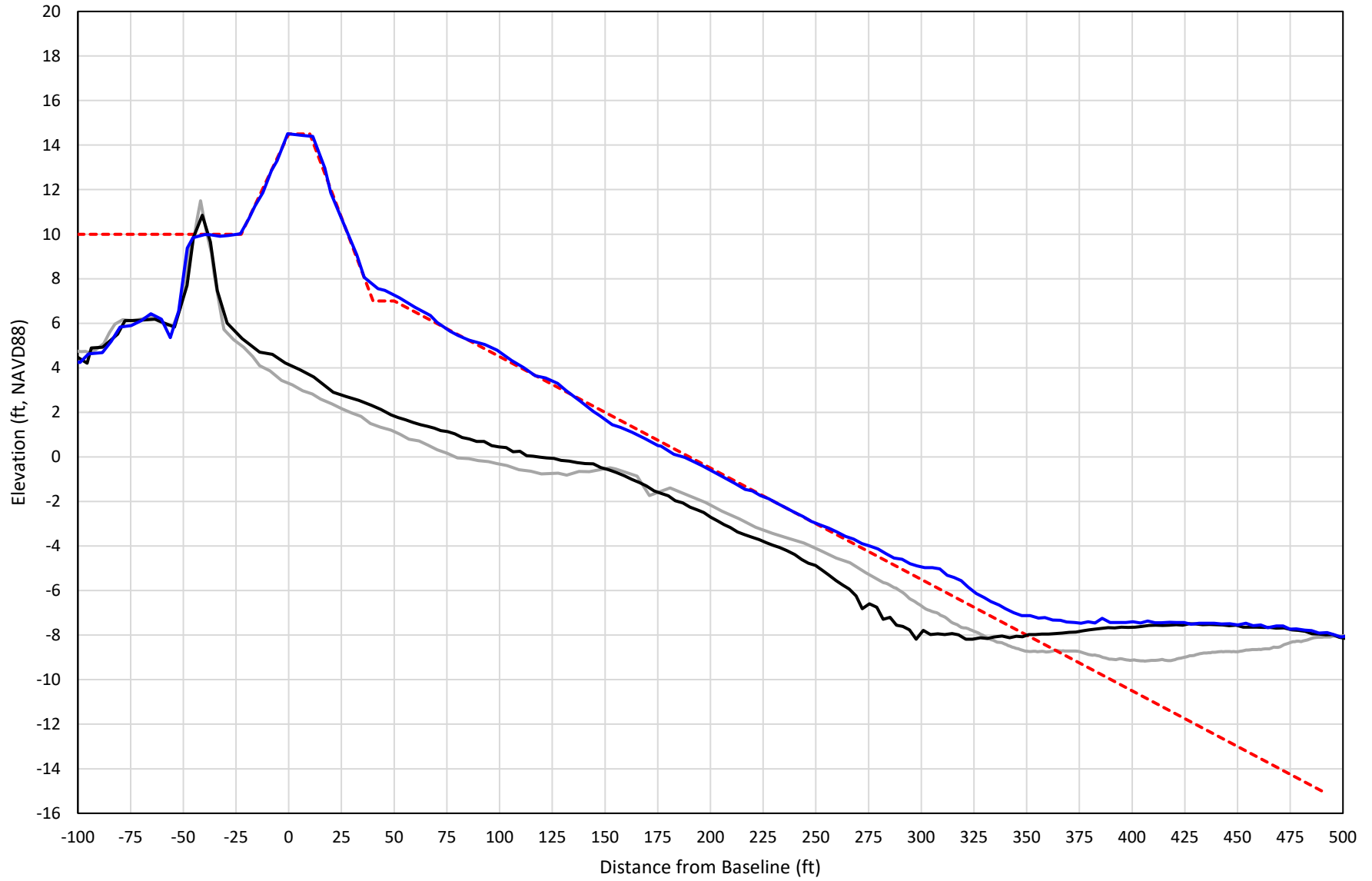
— 365+00 Precon    - - - 365+00 Temp002    — 365+00 BD\_210426    — 365+00 AD\_210429

# 366+00



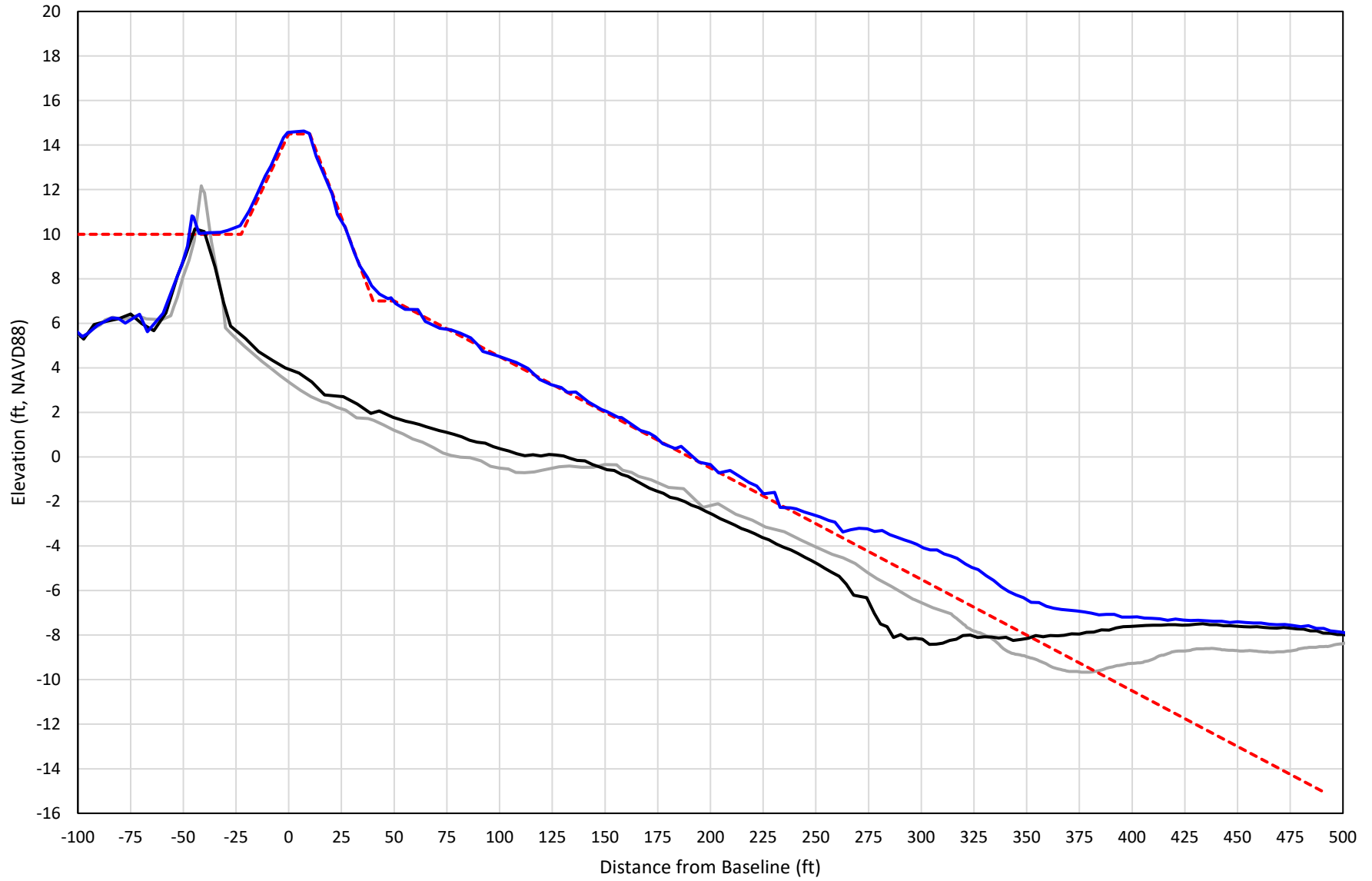
— 366+00 Precon    - - - 366+00 Temp002    — 366+00 BD\_210426    — 366+00 AD\_210429

# 367+00



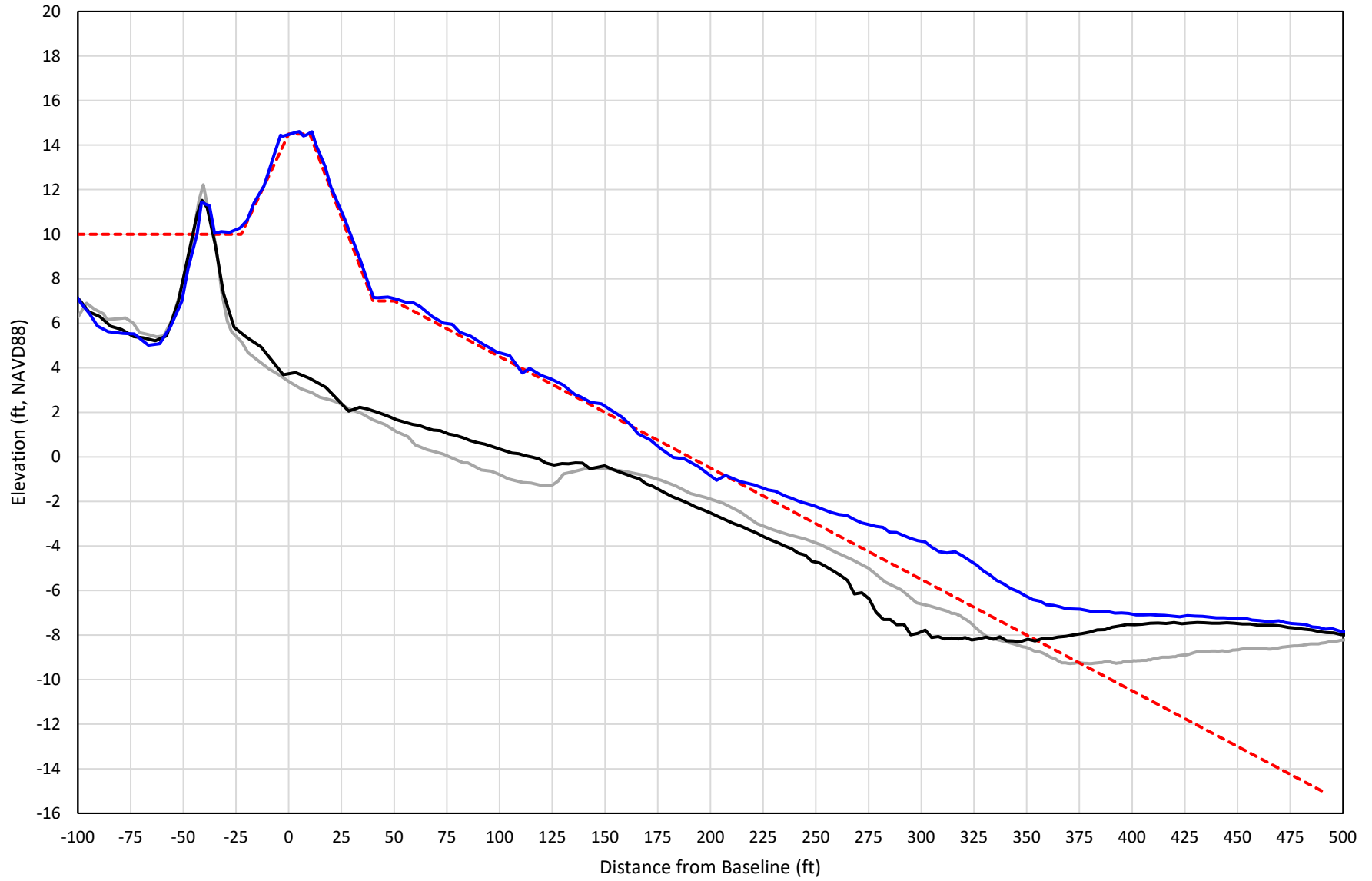
— 367+00 Precon    - - - 367+00 Temp002    — 367+00 BD\_210426    — 367+00 AD\_210429

# 368+00



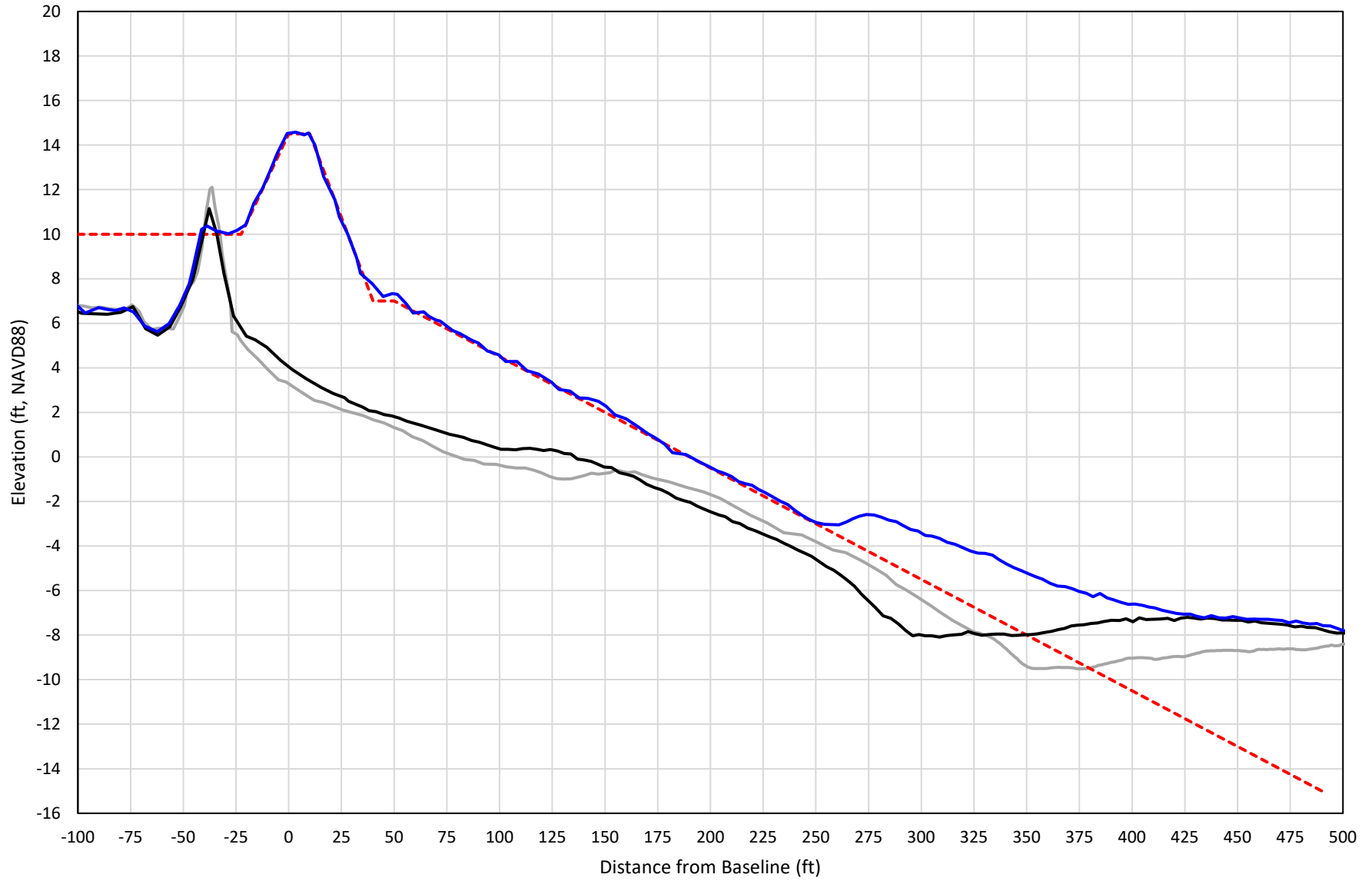
— 368+00 Precon    - - - 368+00 Temp002    — 368+00 BD\_210426    — 368+00 AD\_210501

# 369+00



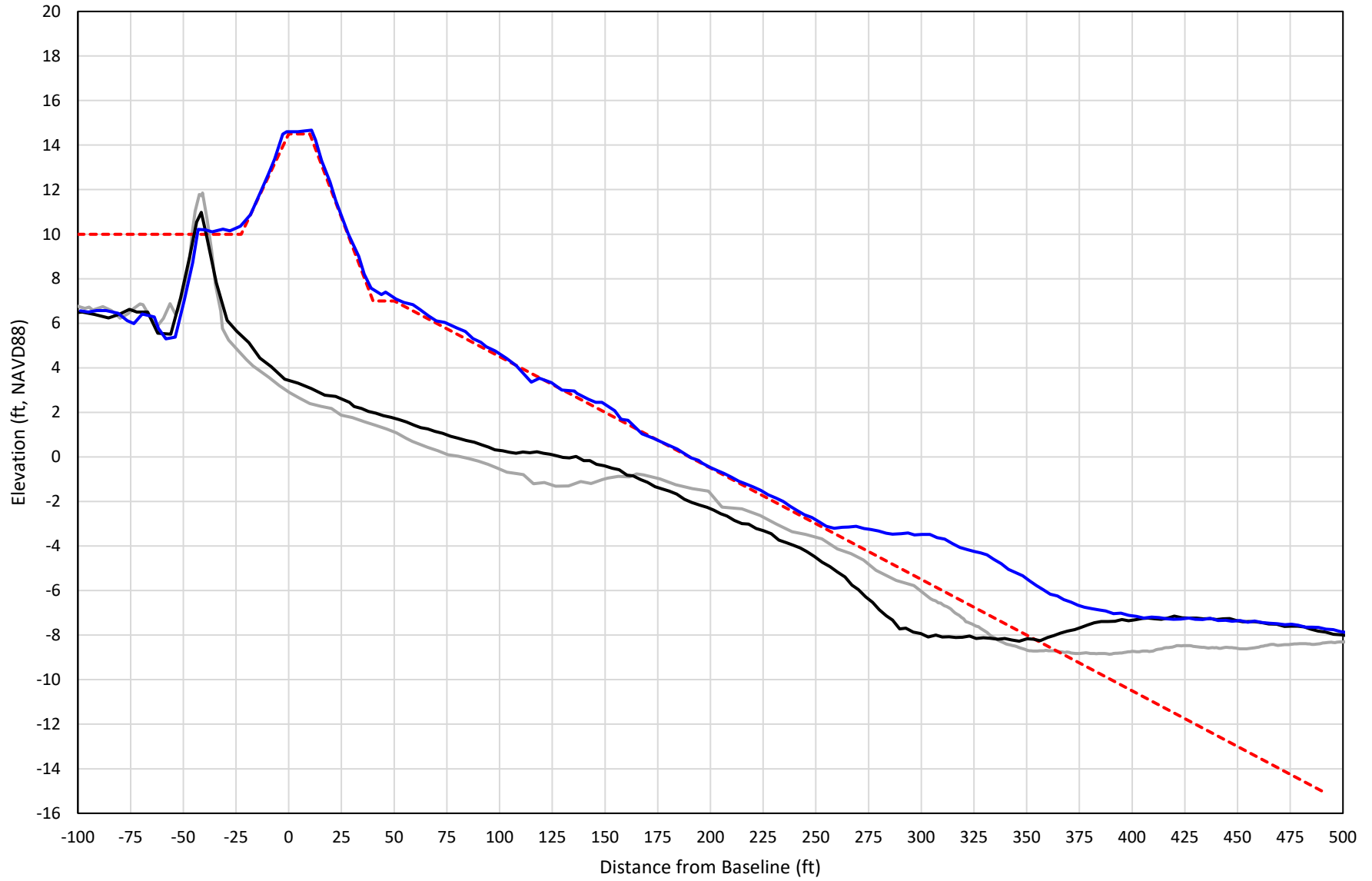
— 369+00 Precon    - - - 369+00 Temp002    — 369+00 BD\_210426    — 369+00 AD\_210501

# 370+00



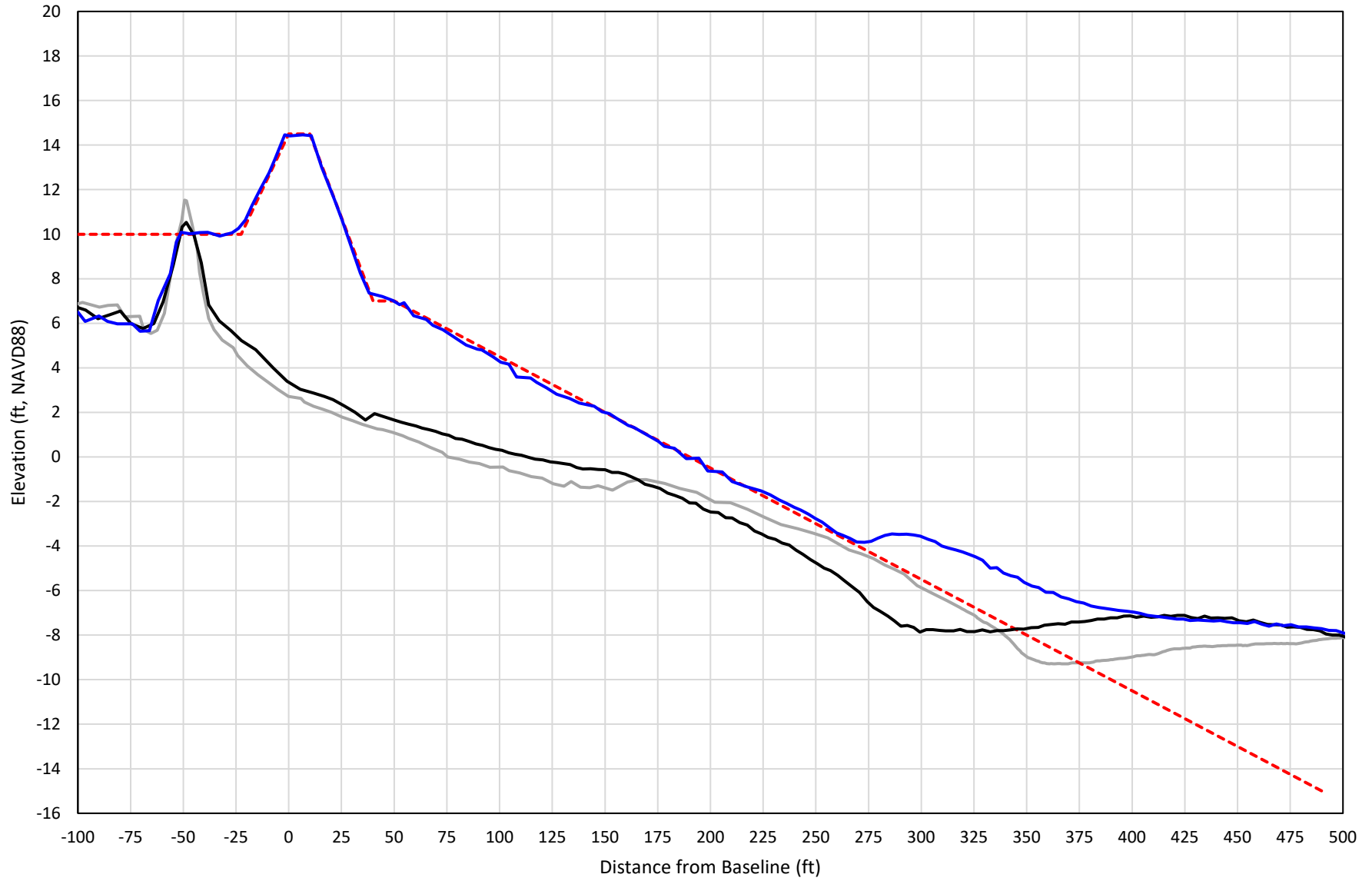
— 370+00 Precon    - - - 370+00 Temp002    — 370+00 BD\_210428    — 370+00 AD\_210501

# 371+00



— 371+00 Precon    - - - 371+00 Temp002    — 371+00 BD\_210428    — 371+00 AD\_210501

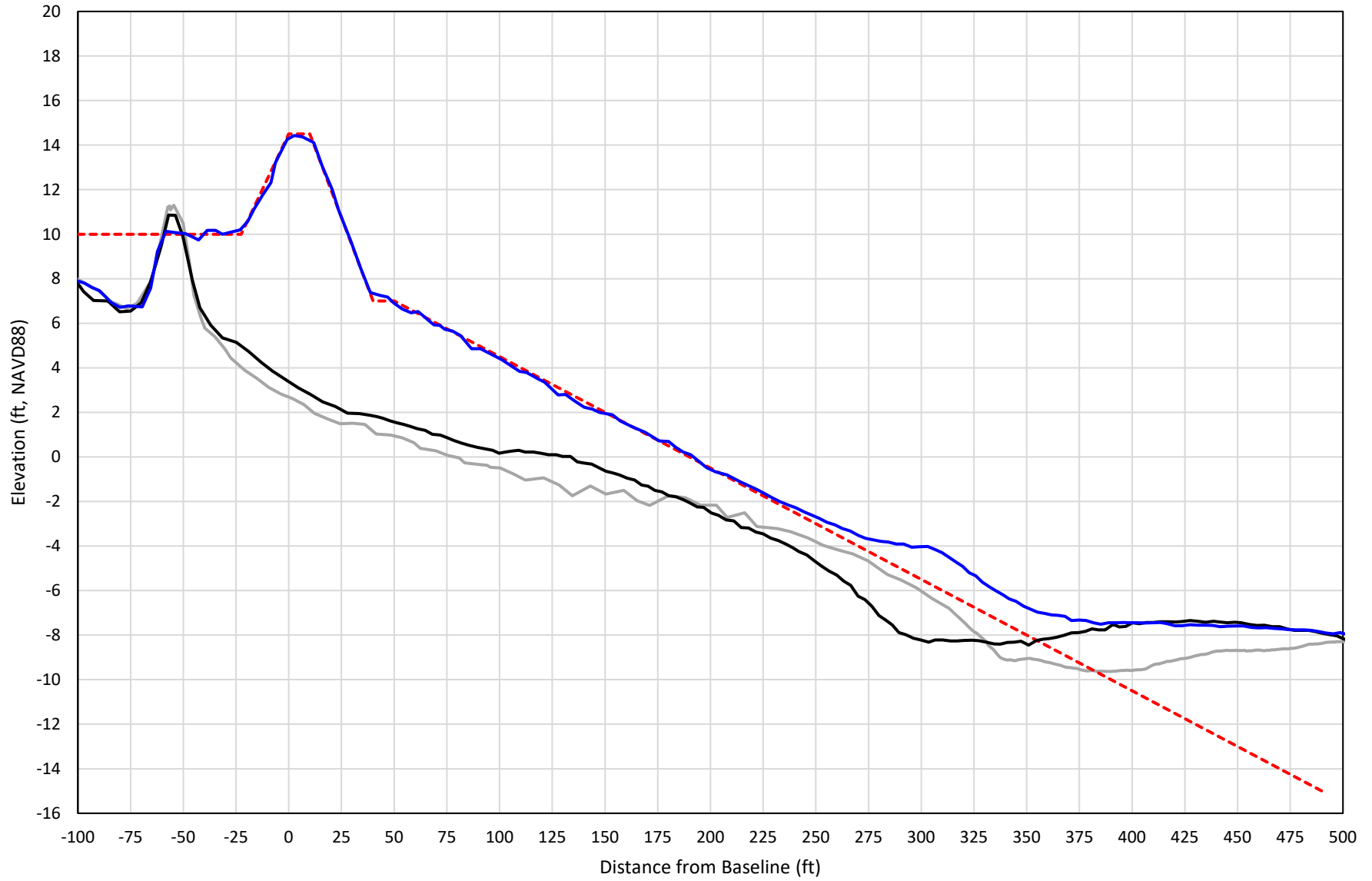
# 372+00



— 372+00 Precon    - - - 372+00 Temp002    — 372+00 BD\_210428    — 372+00 AD\_210502

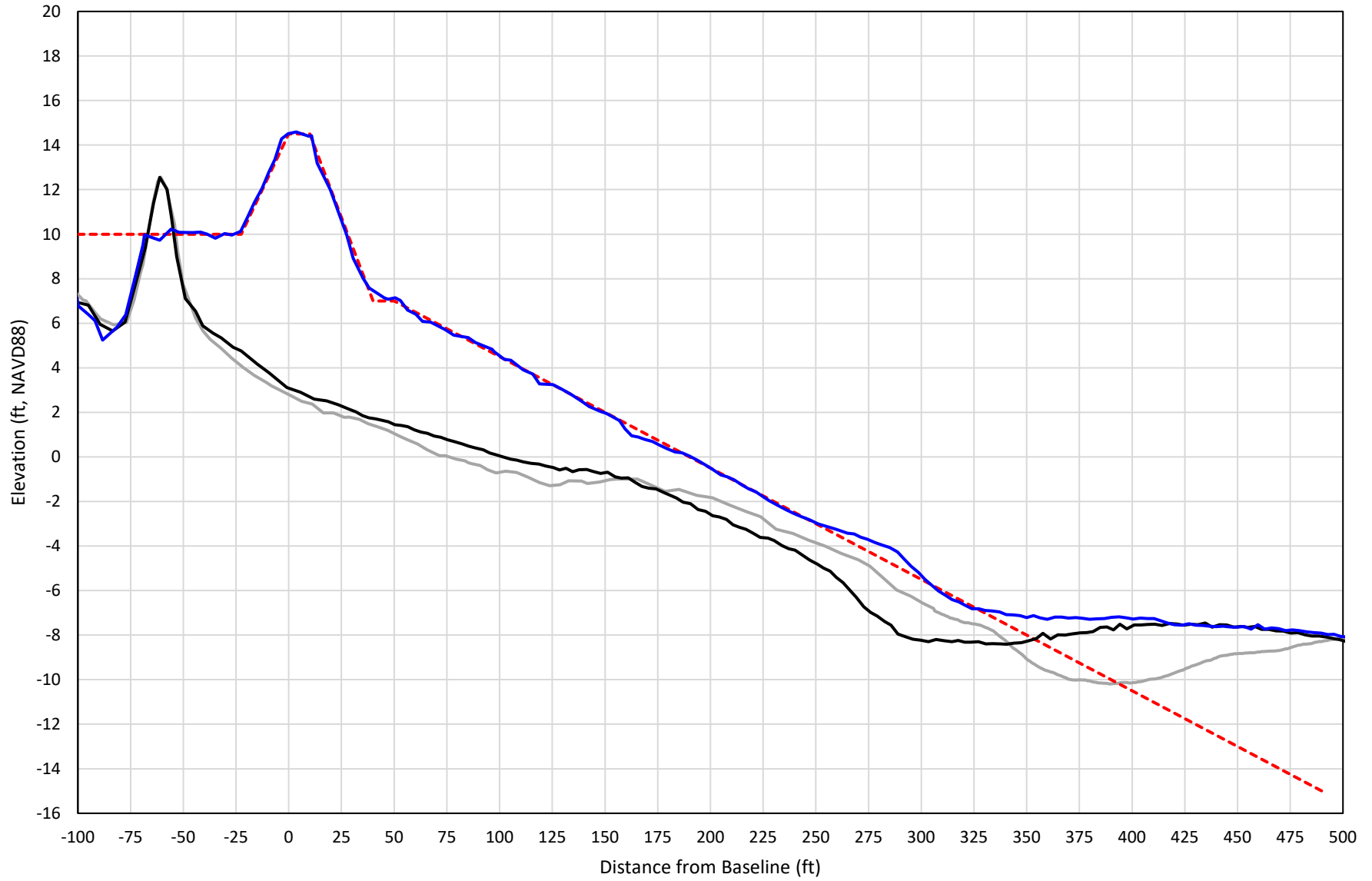


# 373+00



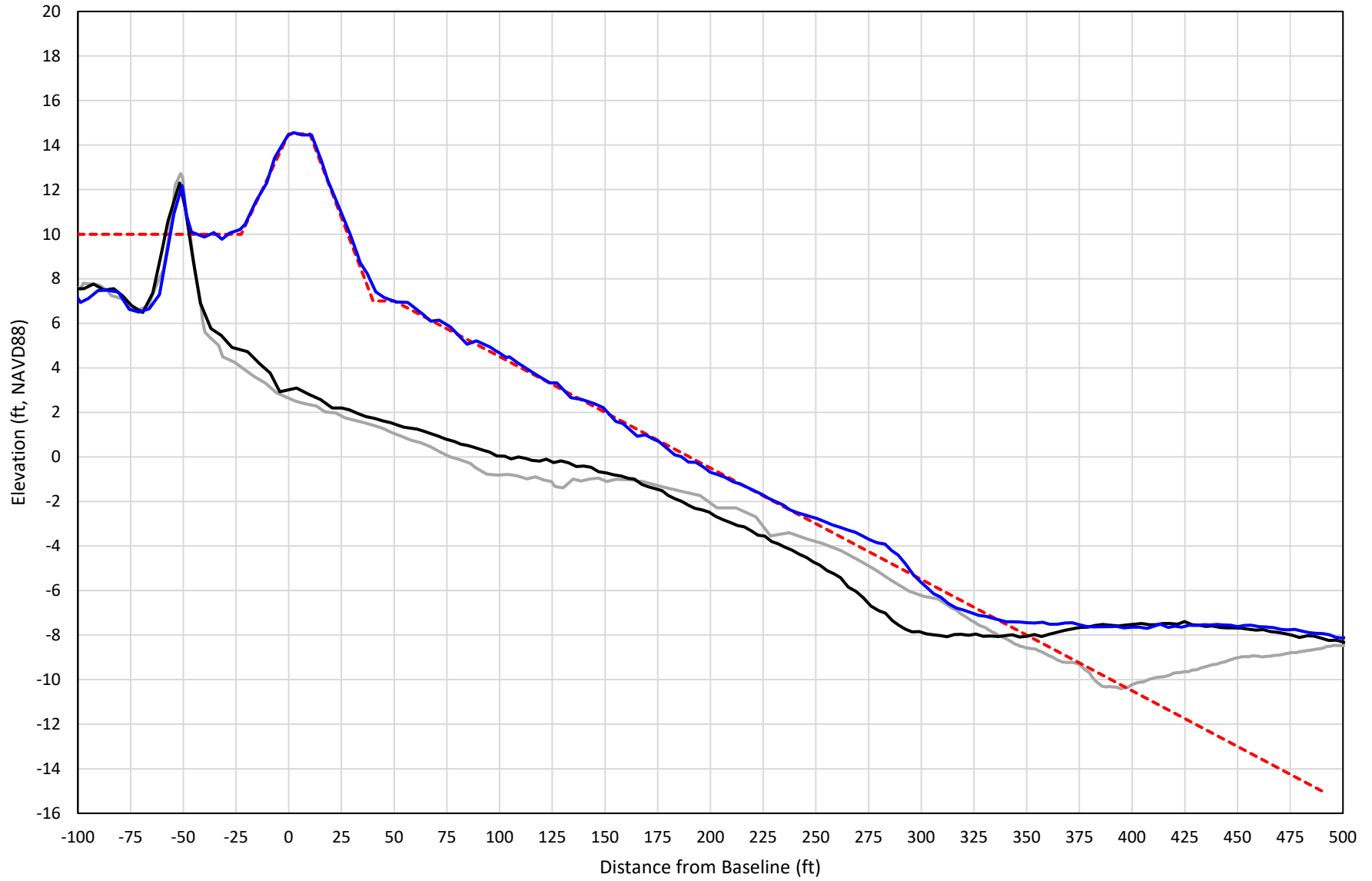
— 373+00 Precon    - - - 373+00 Temp002    — 373+00 BD\_210428    — 373+00 AD\_210502

# 374+00



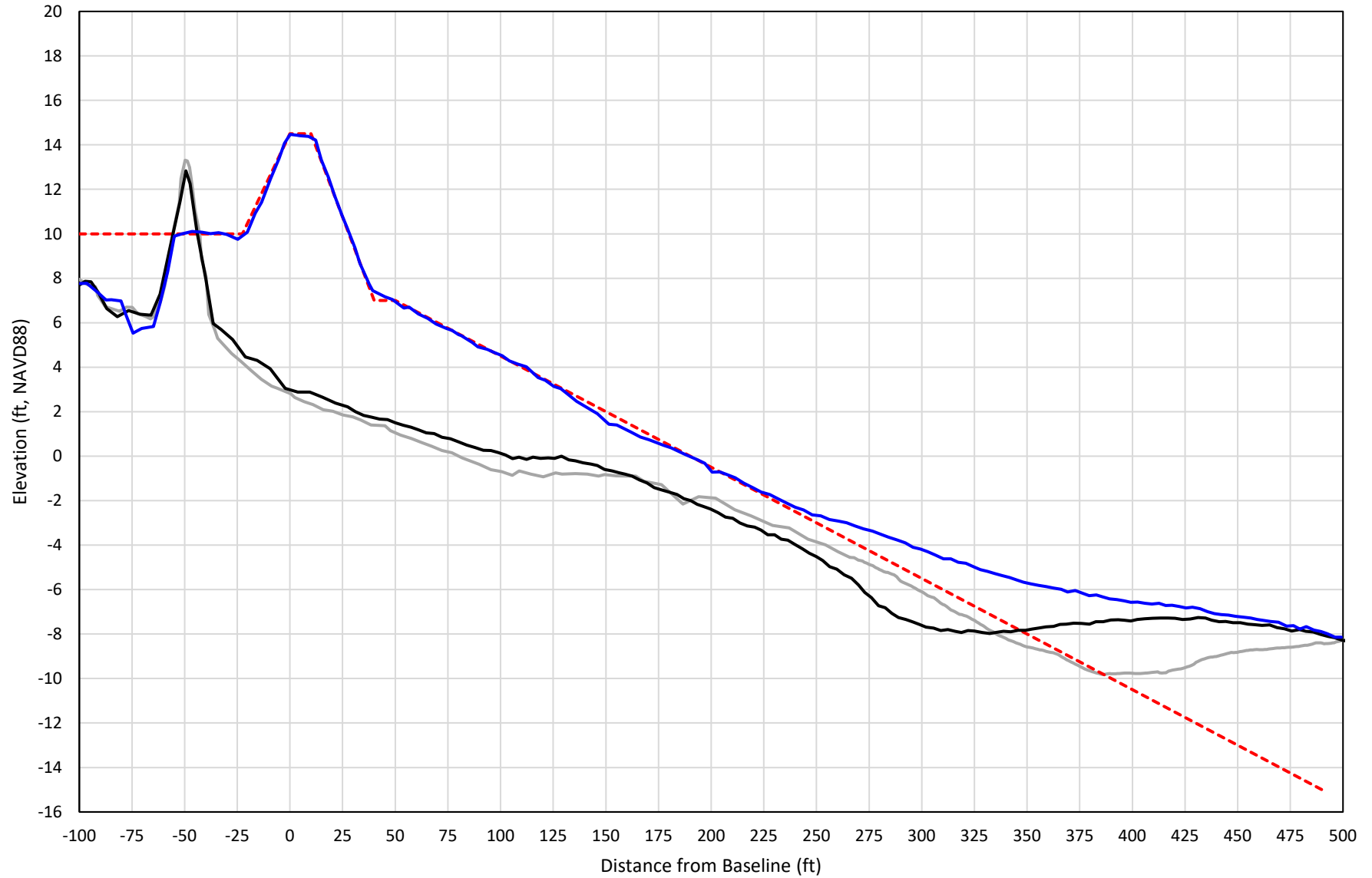
— 374+00 Precon    - - - 374+00 Temp002    — 374+00 BD\_210428    — 374+00 AD\_210502

# 375+00



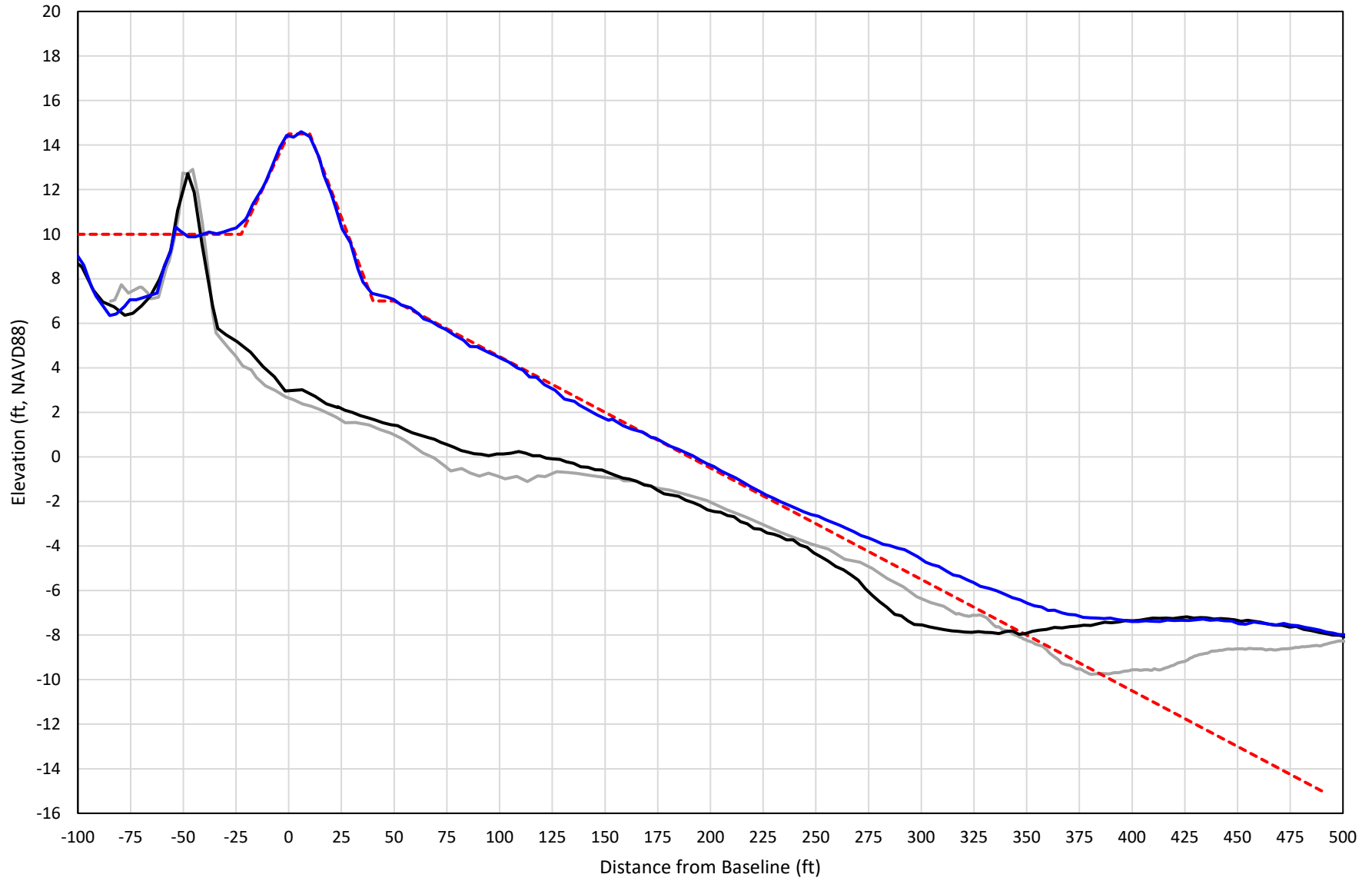
— 375+00 Precon    - - - 375+00 Temp002    — 375+00 BD\_210428    — 375+00 AD\_210502

# 376+00



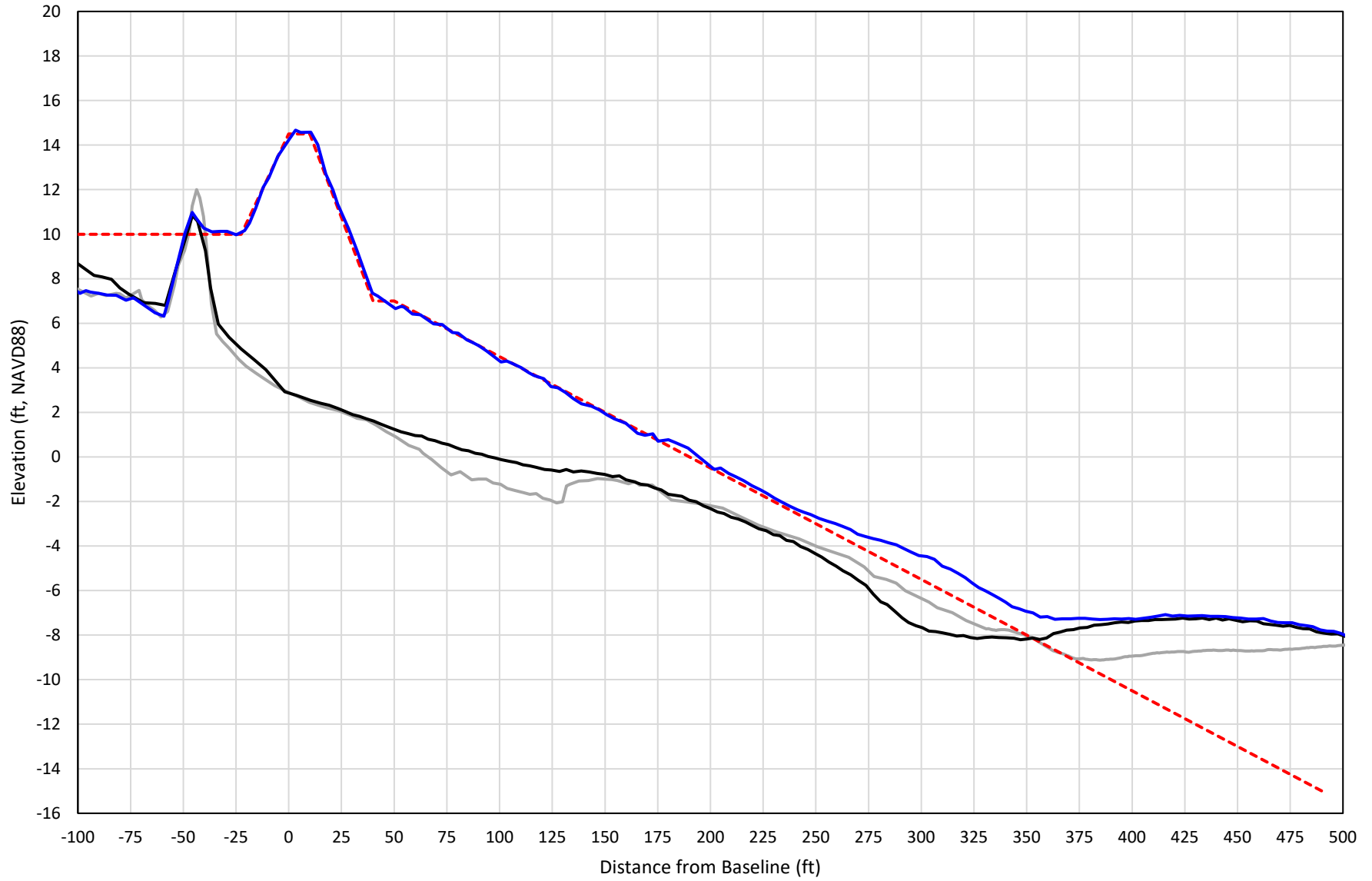
— 376+00 Precon    - - - 376+00 Temp002    — 376+00 BD\_210428    — 376+00 AD\_210503

# 377+00



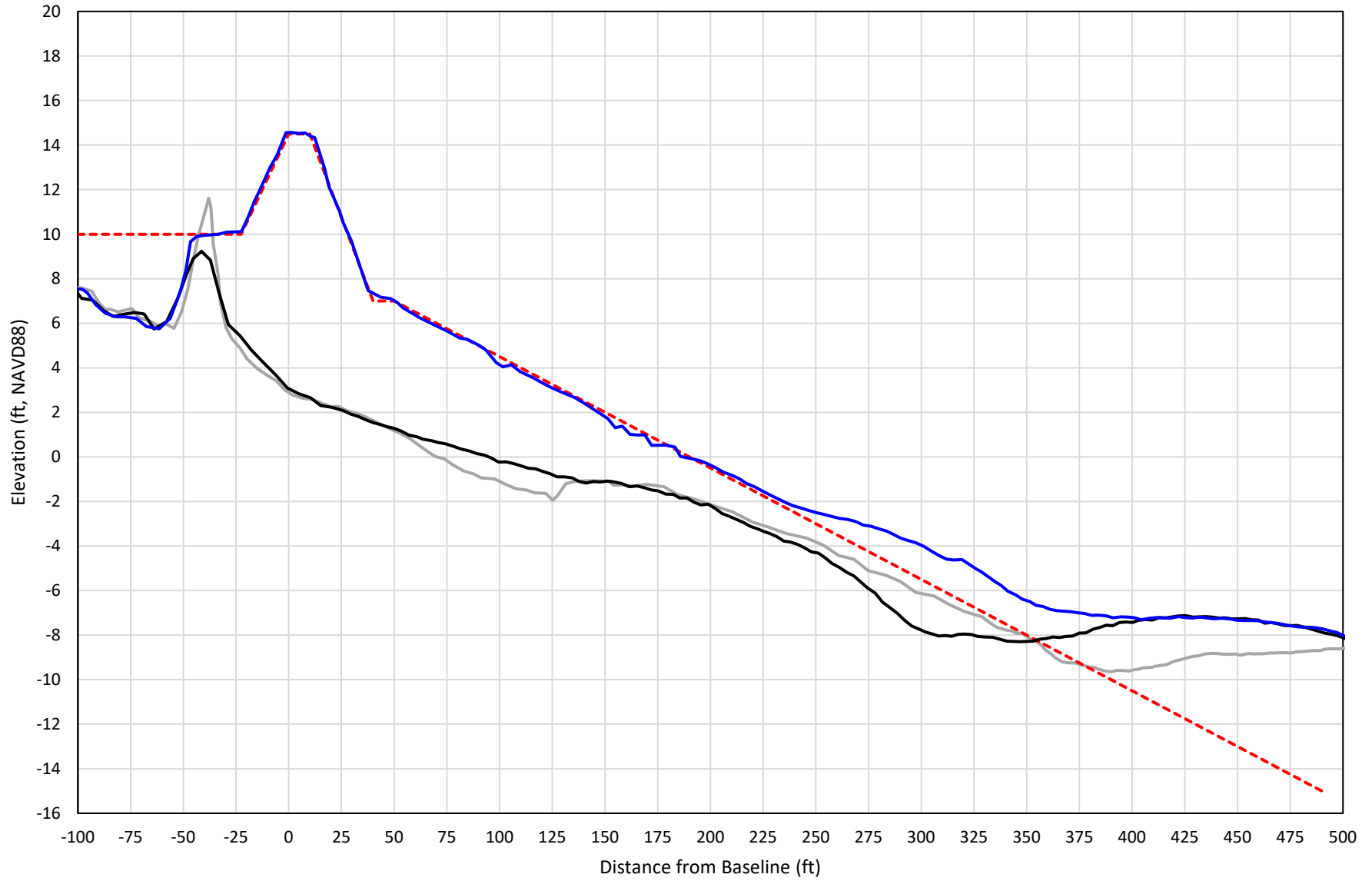
— 377+00 Precon    - - - 377+00 Temp002    — 377+00 BD\_210428    — 377+00 AD\_210503

# 378+00



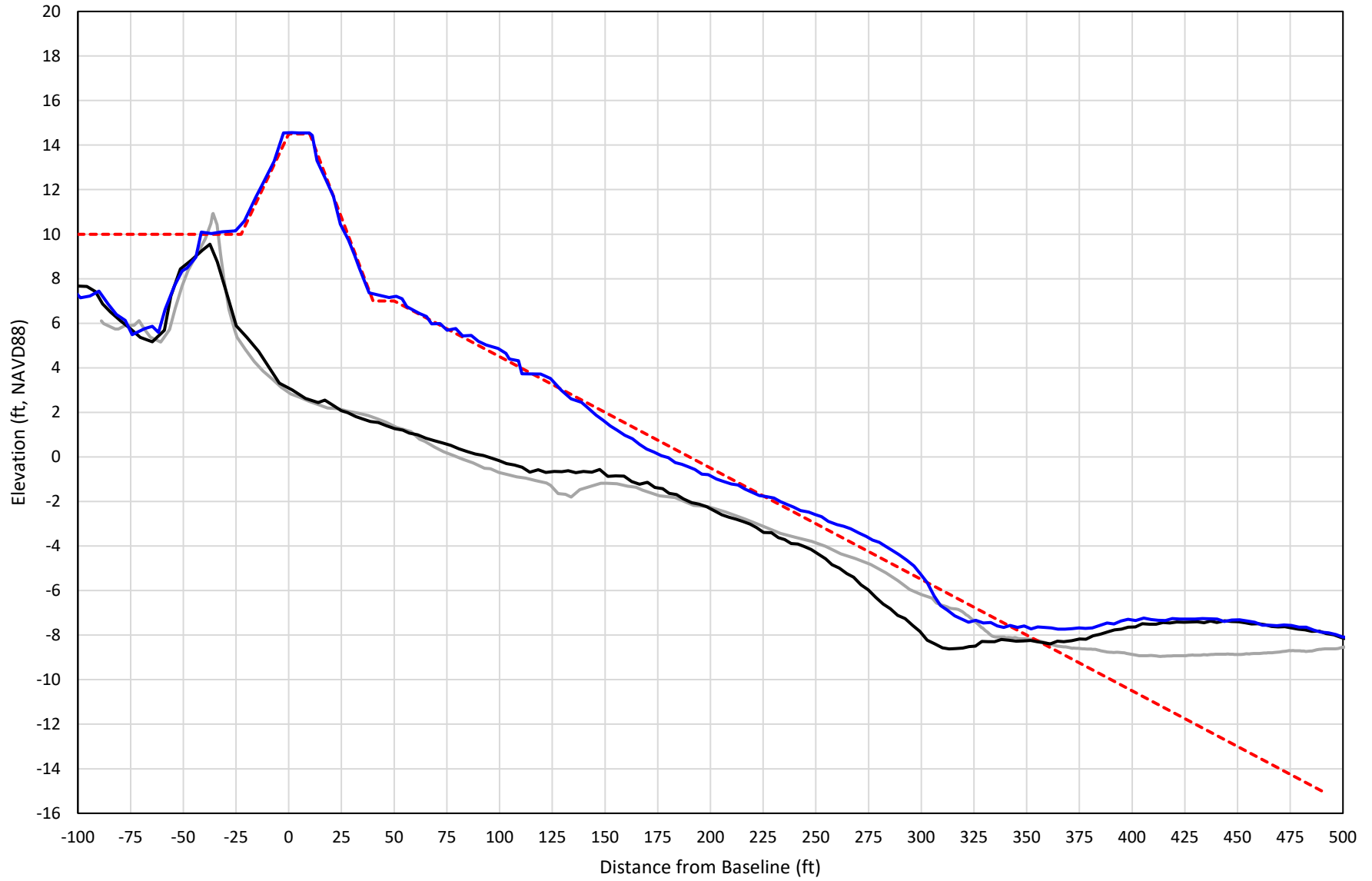
— 378+00 Precon    - - - 378+00 Temp002    — 378+00 BD\_210428    — 378+00 AD\_210503

# 379+00



— 379+00 Precon    - - - 379+00 Temp002    — 379+00 BD\_210428    — 379+00 AD\_210503

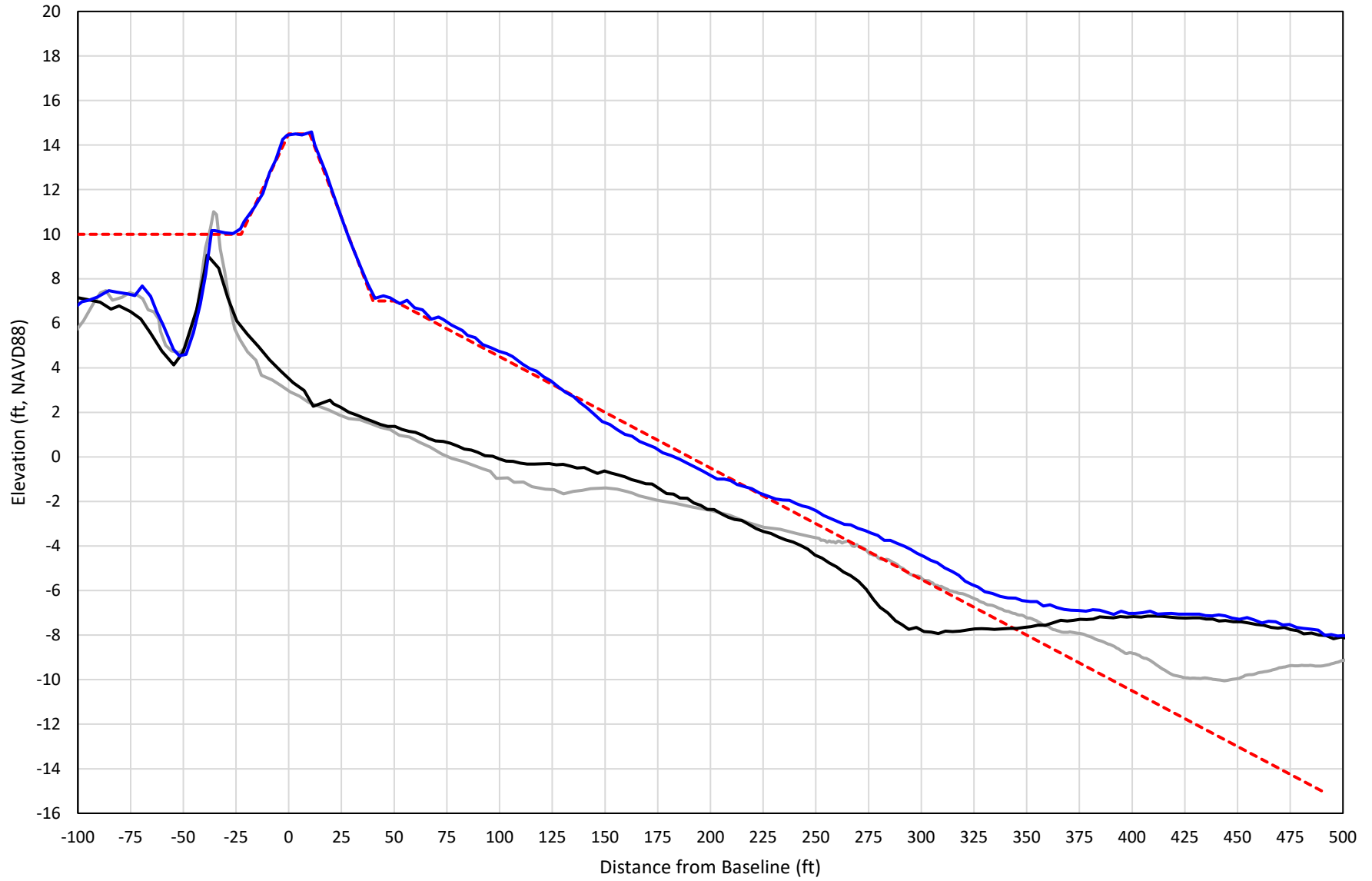
# 380+00



— 380+00 Precon    - - - 380+00 Temp002    — 380+00 BD\_210428    — 380+00 AD\_210503

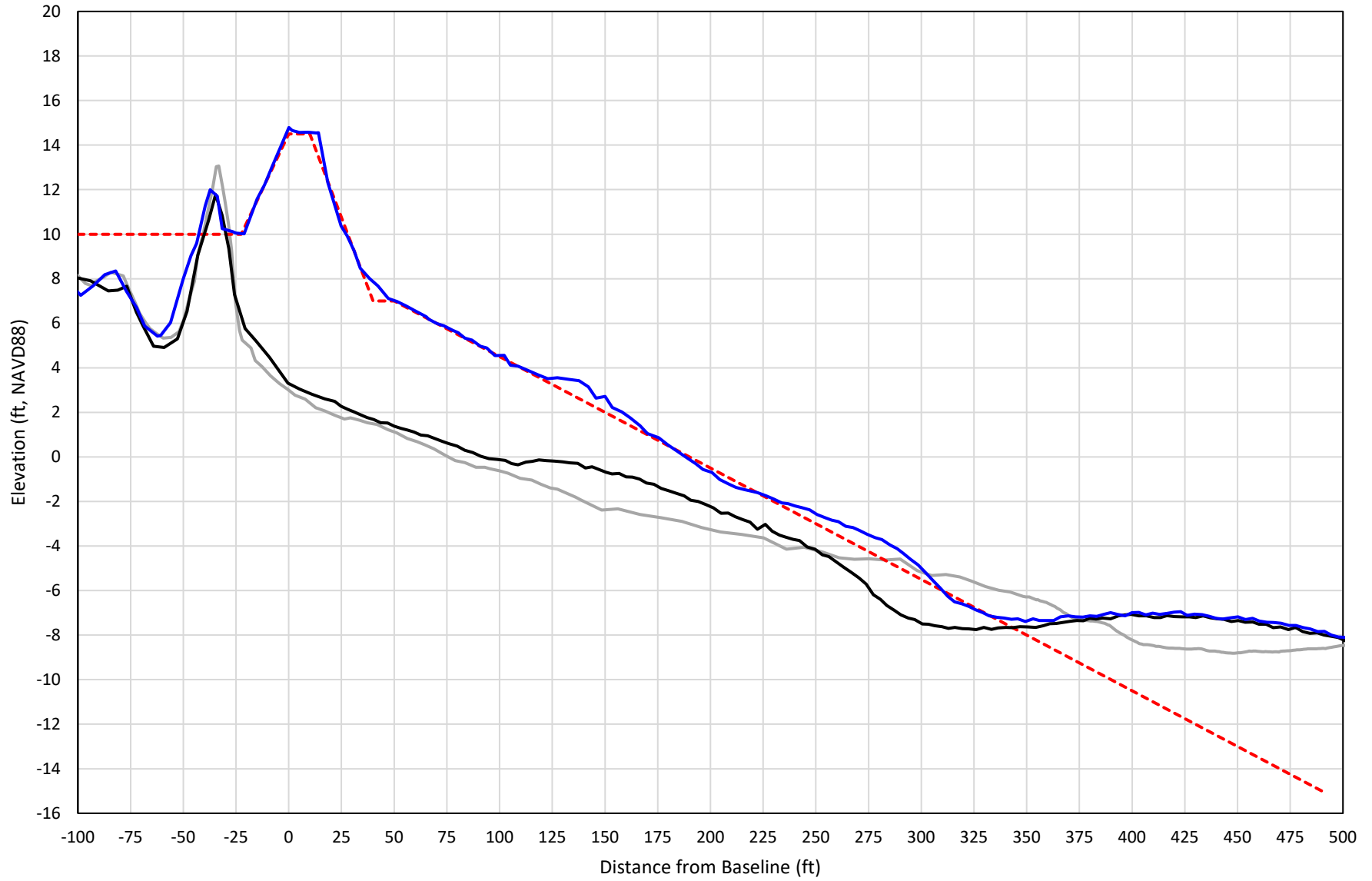


# 381+00



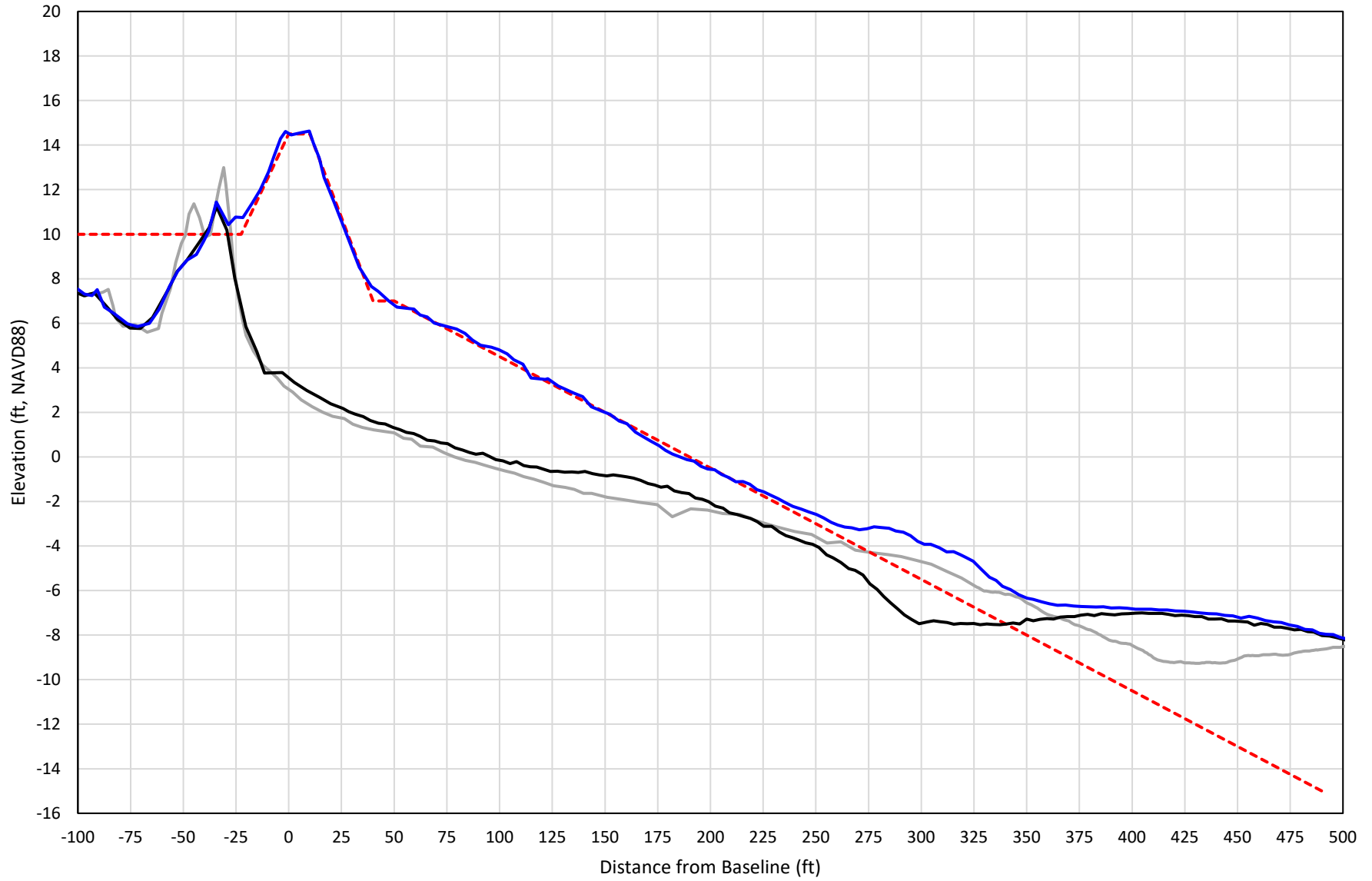
— 381+00 Precon    - - - 381+00 Temp002    — 381+00 BD\_210428    — 381+00 AD\_210503

# 382+00



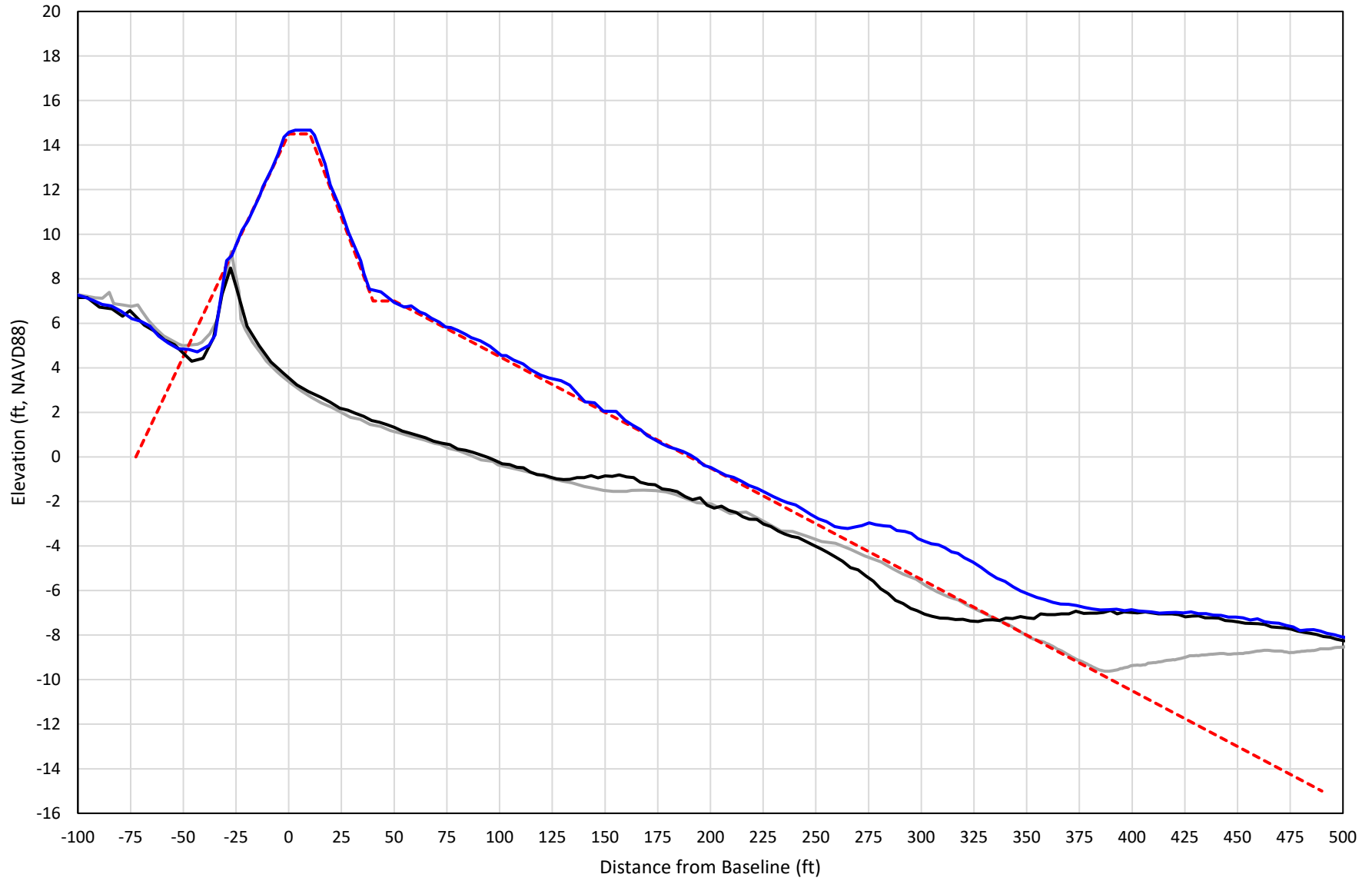
— 382+00 Precon    - - - 382+00 Temp002    — 382+00 BD\_210428    — 382+00 AD\_210504

# 383+00



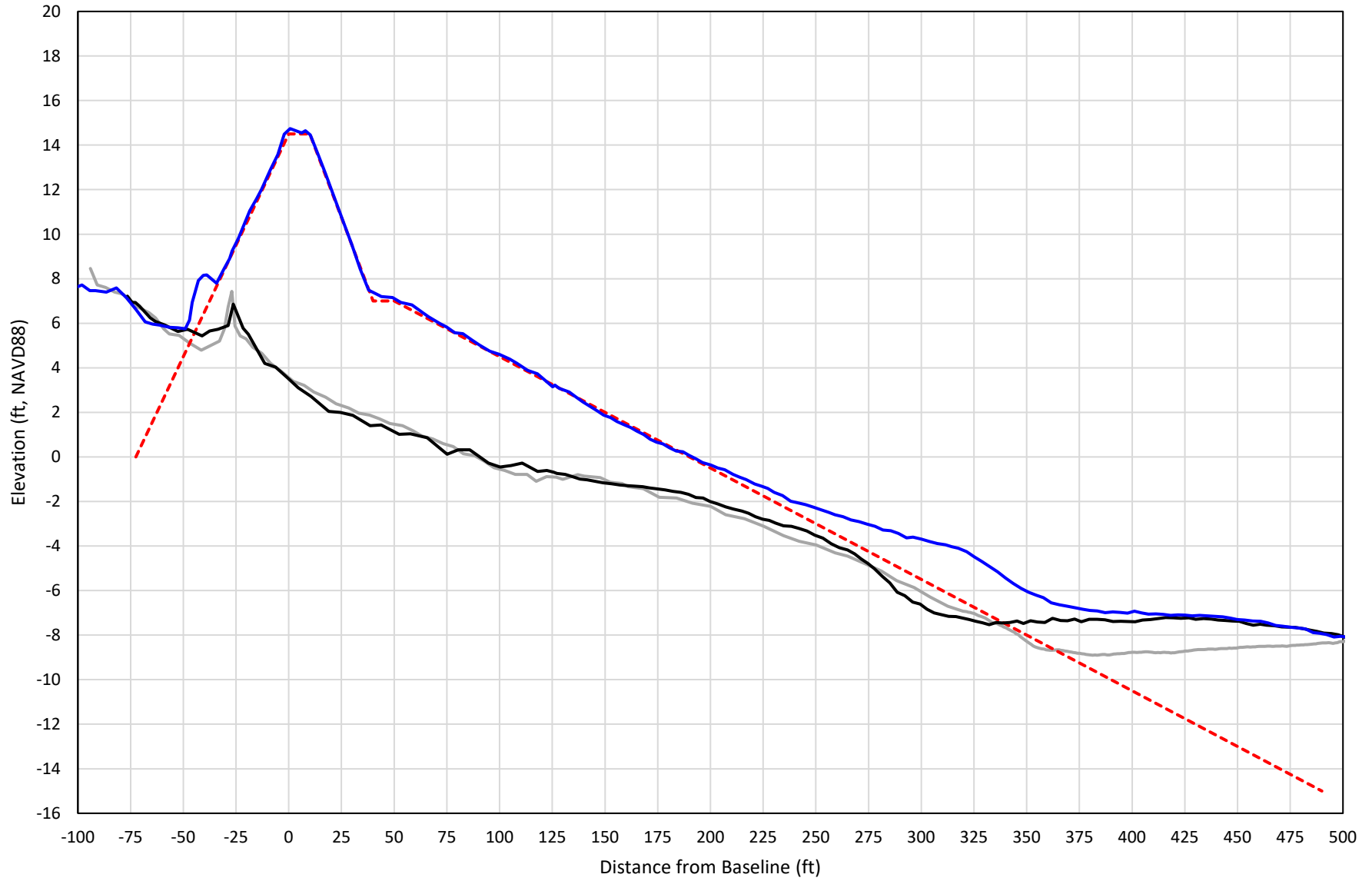
— 383+00 Precon    - - - 383+00 Temp002    — 383+00 BD\_210428    — 383+00 AD\_210507

# 384+00



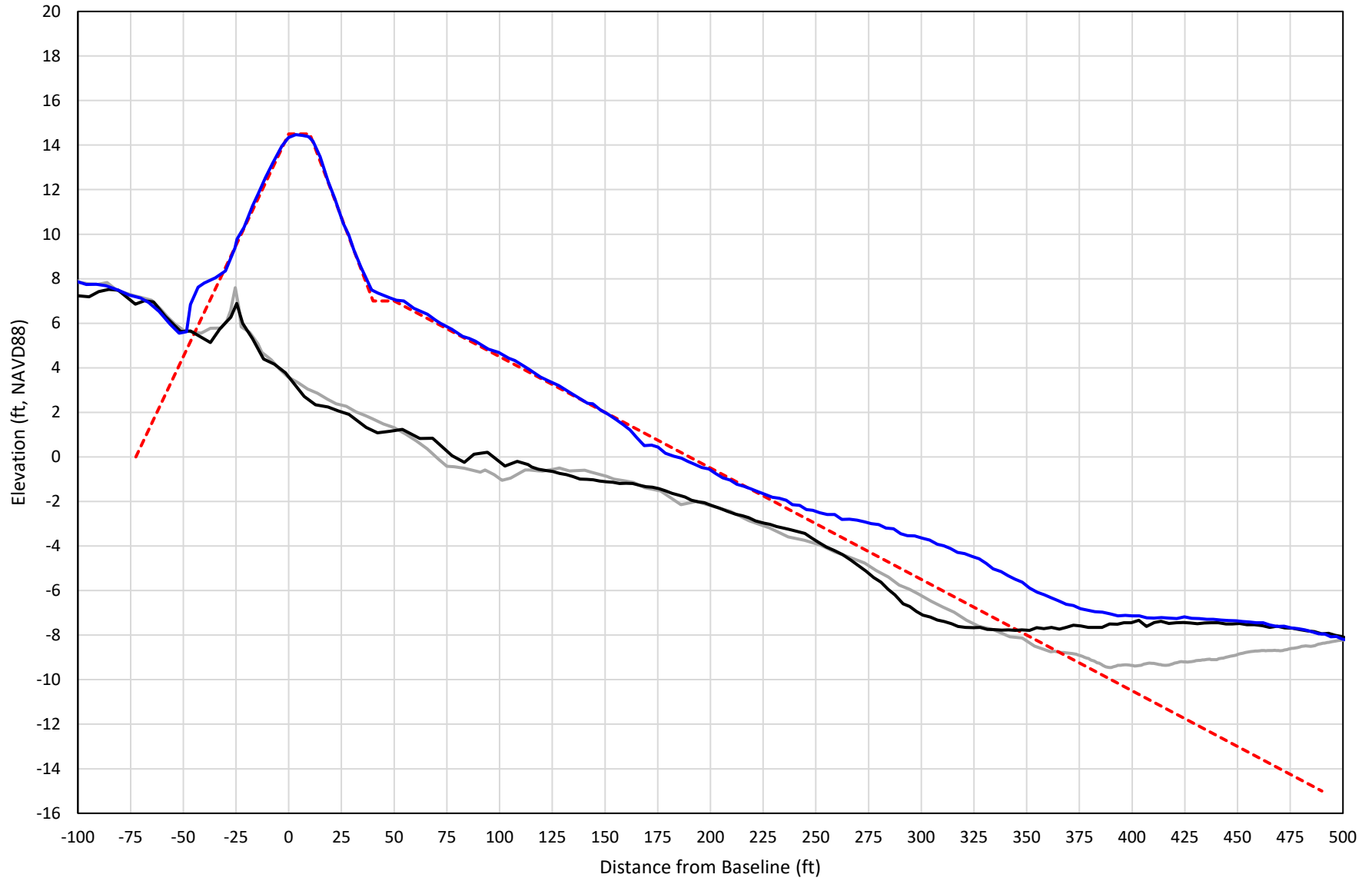
— 384+00 Precon    - - - 384+00 Temp002    — 384+00 BD\_210428    — 384+00 AD\_210507

# 385+00



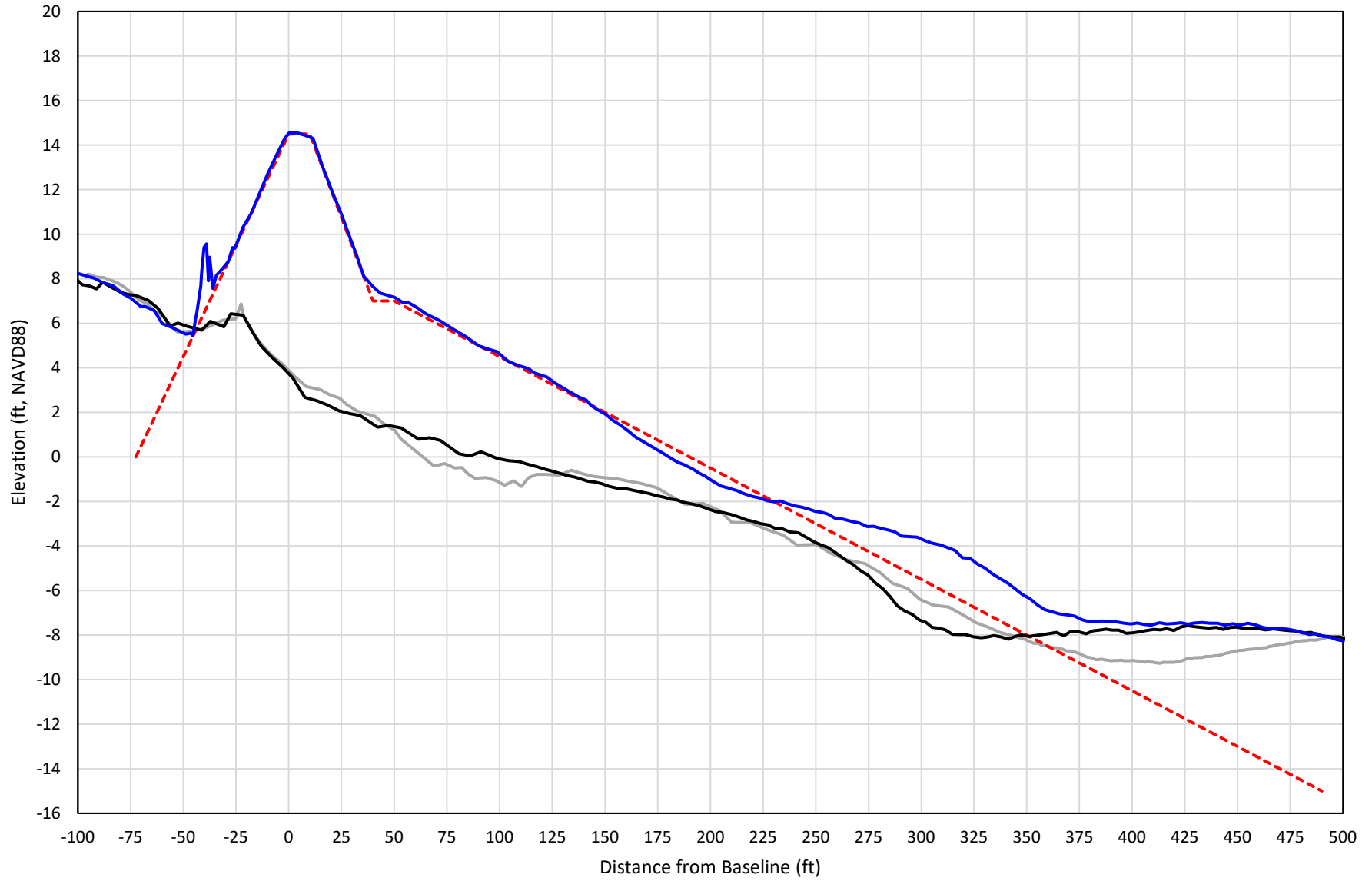
— 385+00 Precon    - - - 385+00 Temp002    — 385+00 BD\_210503    — 385+00 AD\_210512

# 386+00



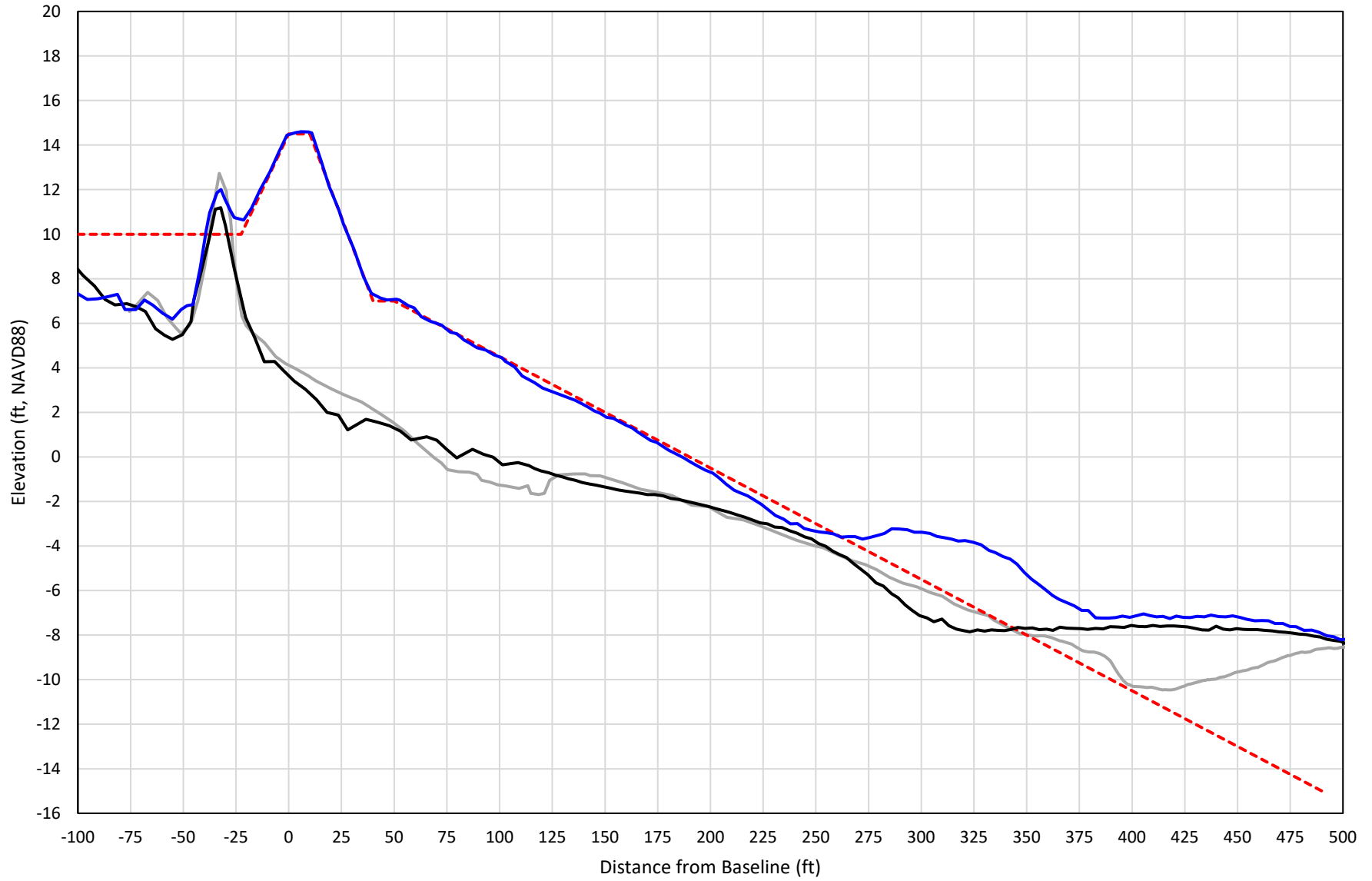
— 386+00 Precon    - - - 386+00 Temp002    — 386+00 BD\_210503    — 386+00 AD\_210512

# 387+00



— 387+00 Precon    - - - 387+00 Temp002    — 387+00 BD\_210503    — 387+00 AD\_210512

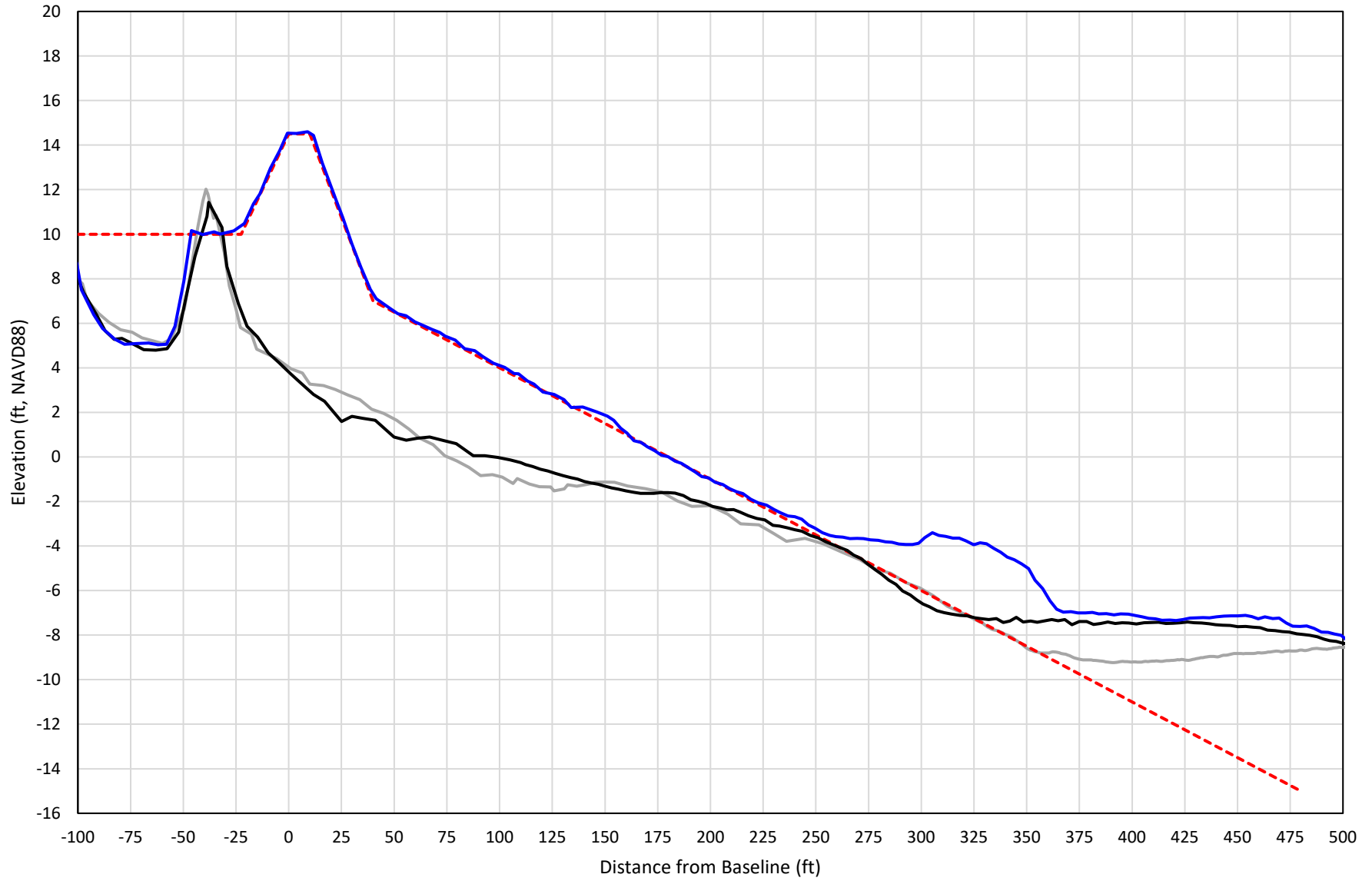
# 388+00



— 388+00 Precon    - - - 388+00 Temp002    — 388+00 BD\_210503    — 388+00 AD\_210510

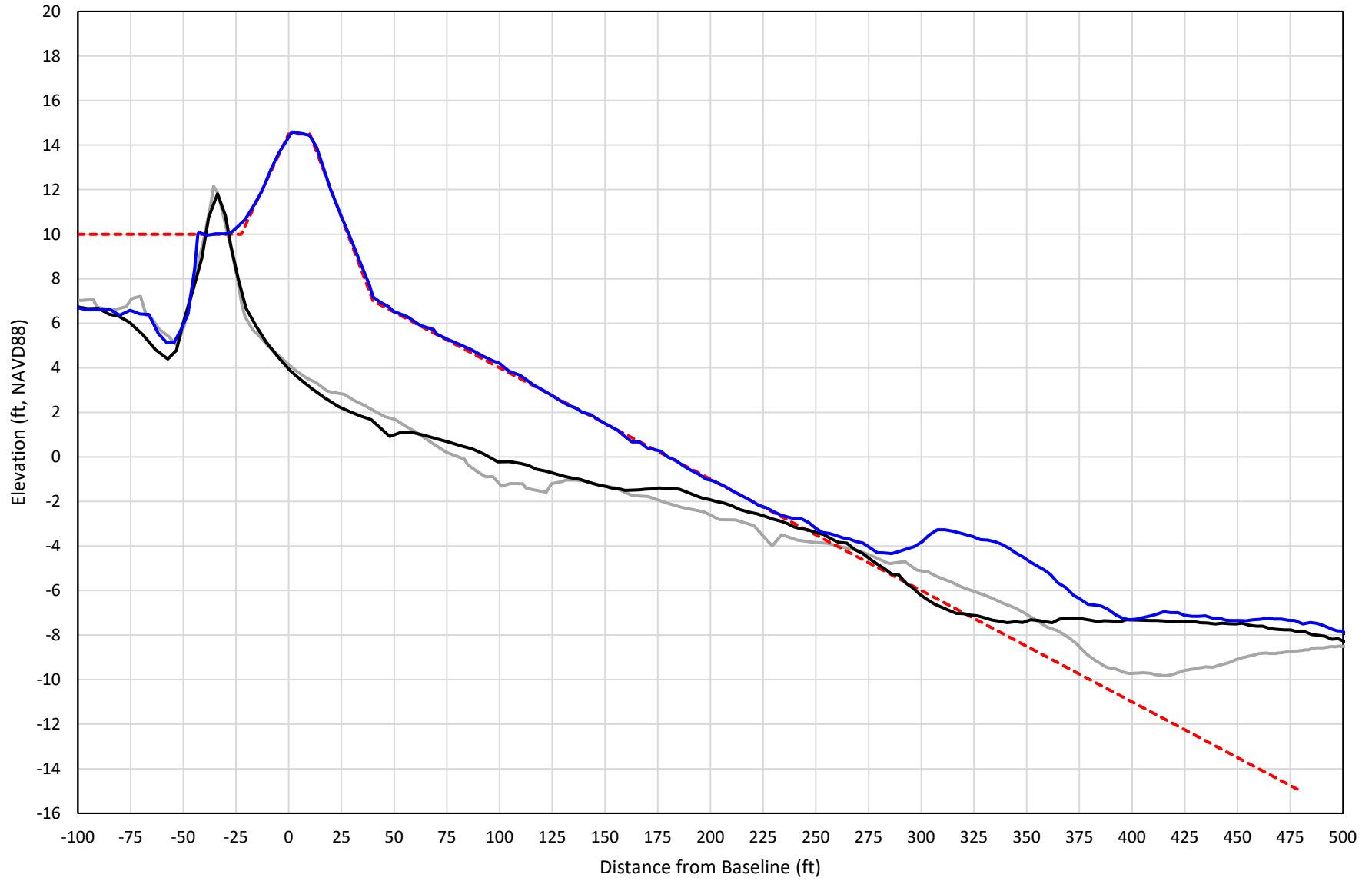


# 389+00



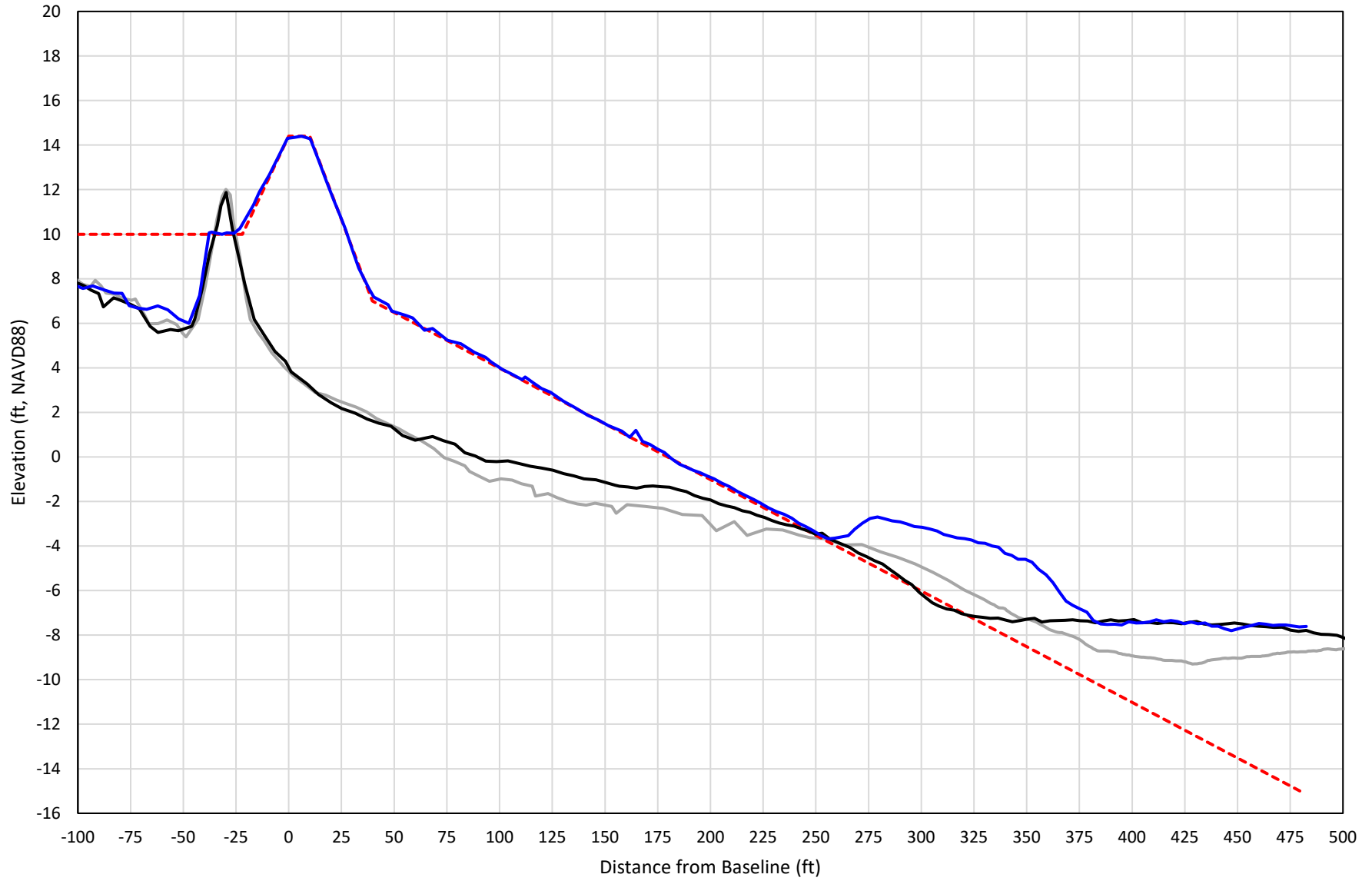
— 389+00 Precon    - - - 389+00 Temp002    — 389+00 BD\_210503    — 389+00 AD\_210510

# 390+00



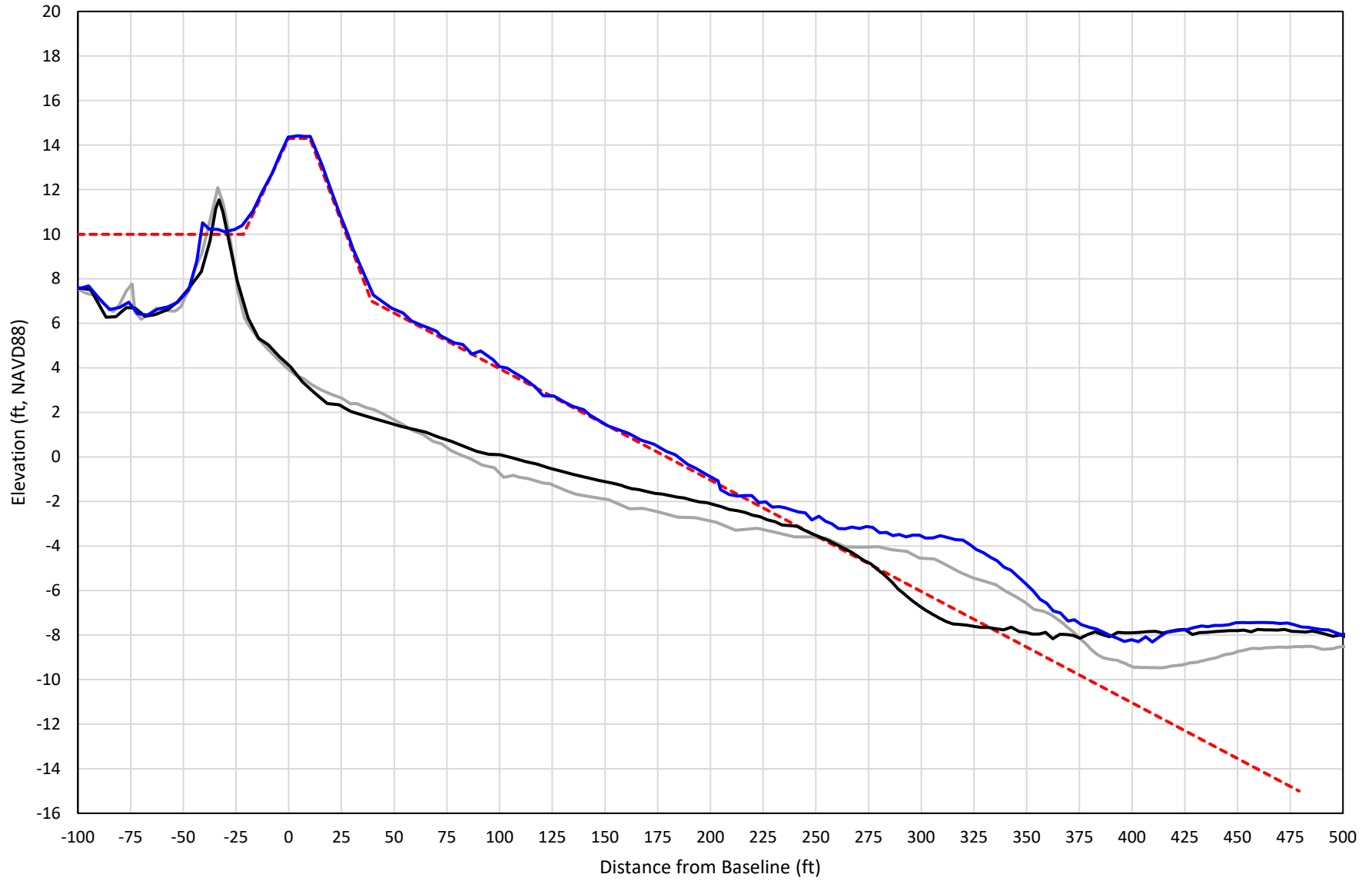
— 390+00 Precon    - - - 390+00 Temp002    — 390+00 BD\_210503    — 390+00 AD\_210510

# 391+00



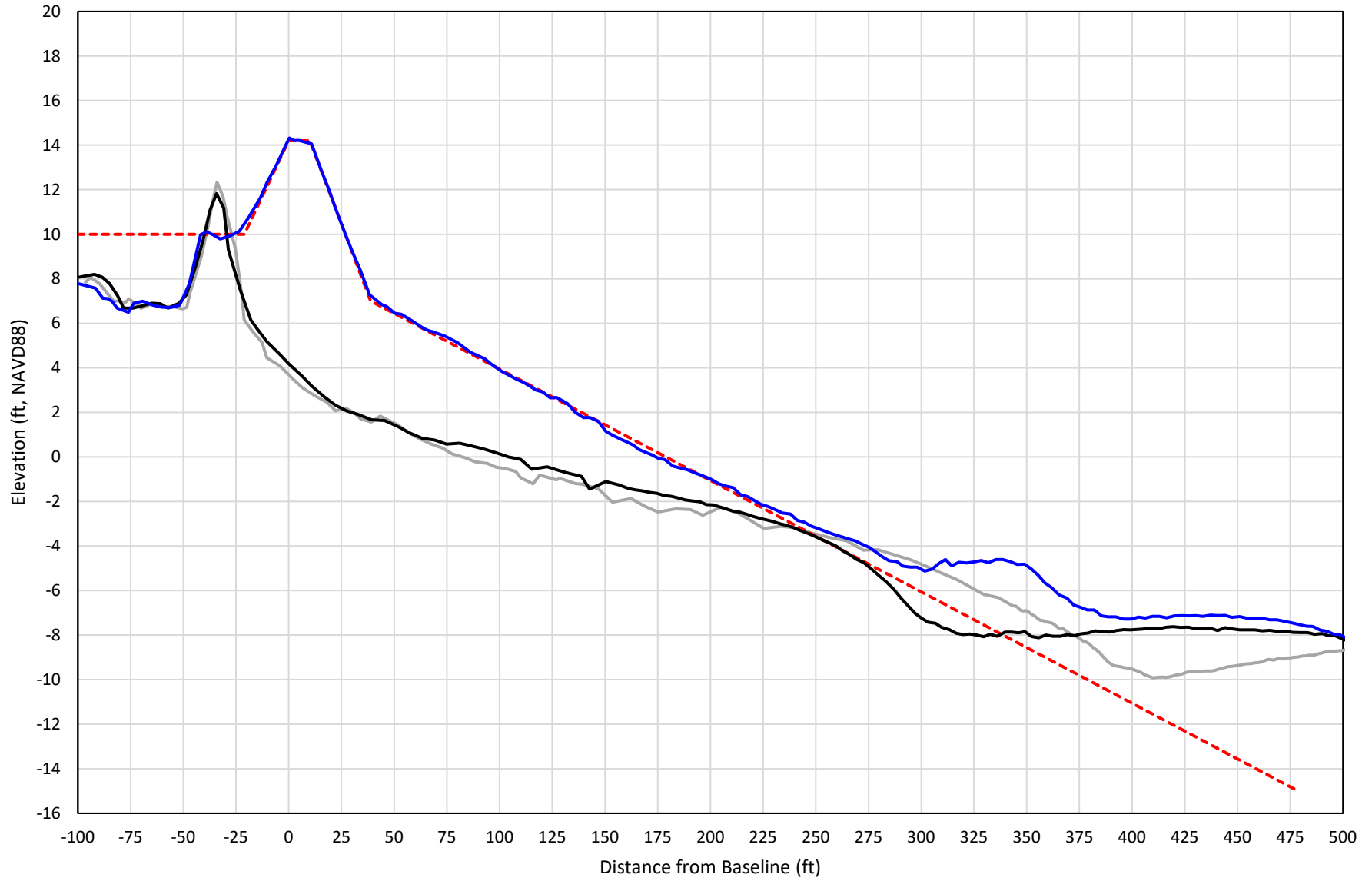
— 391+00 Precon    - - - 391+00 Temp002    — 391+00 BD\_210503    — 391+00 AD\_210510

# 392+00



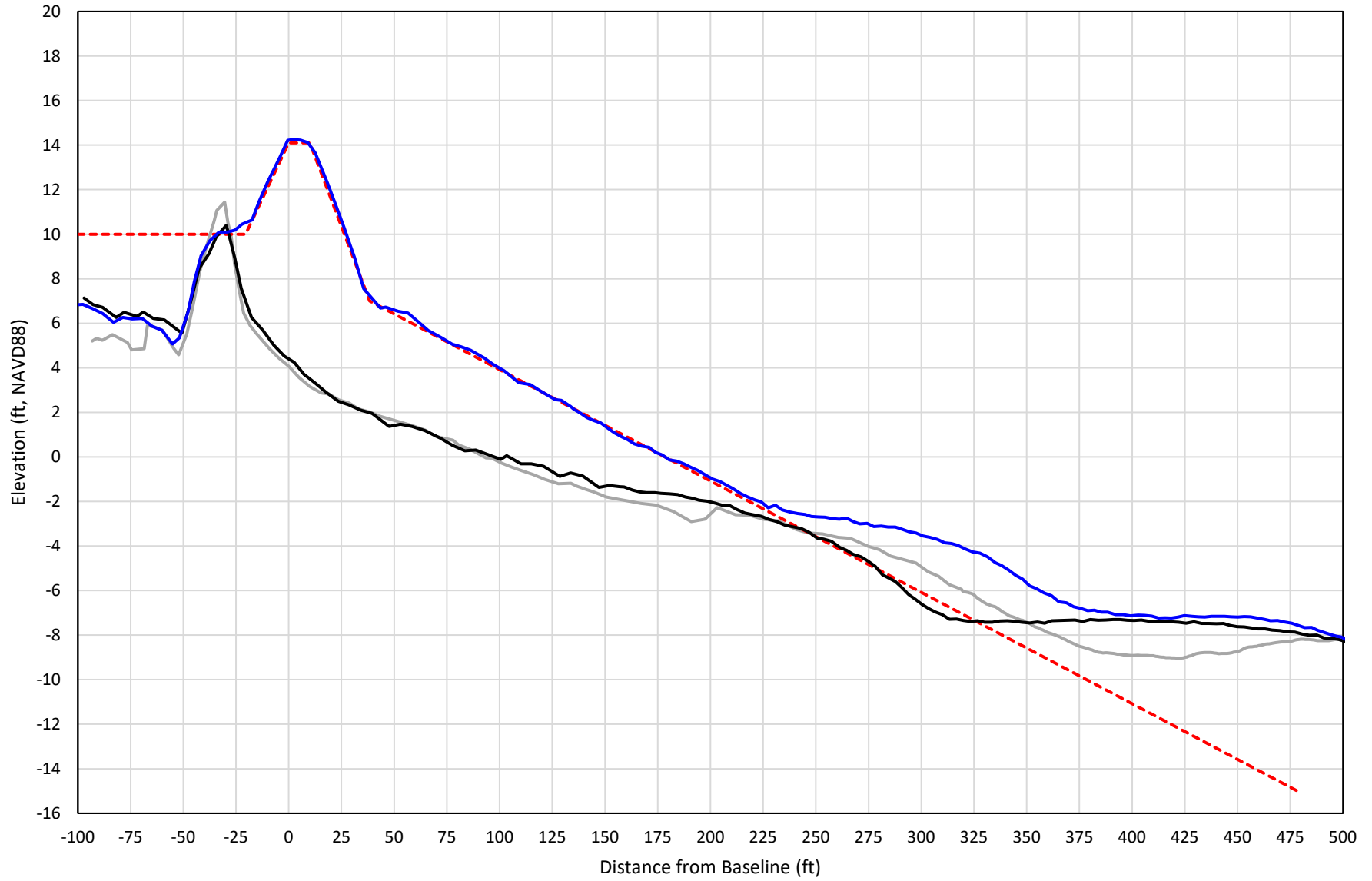
— 392+00 Precon    - - - 392+00 Temp002    — 392+00 BD\_210503    — 392+00 AD\_210510

# 393+00



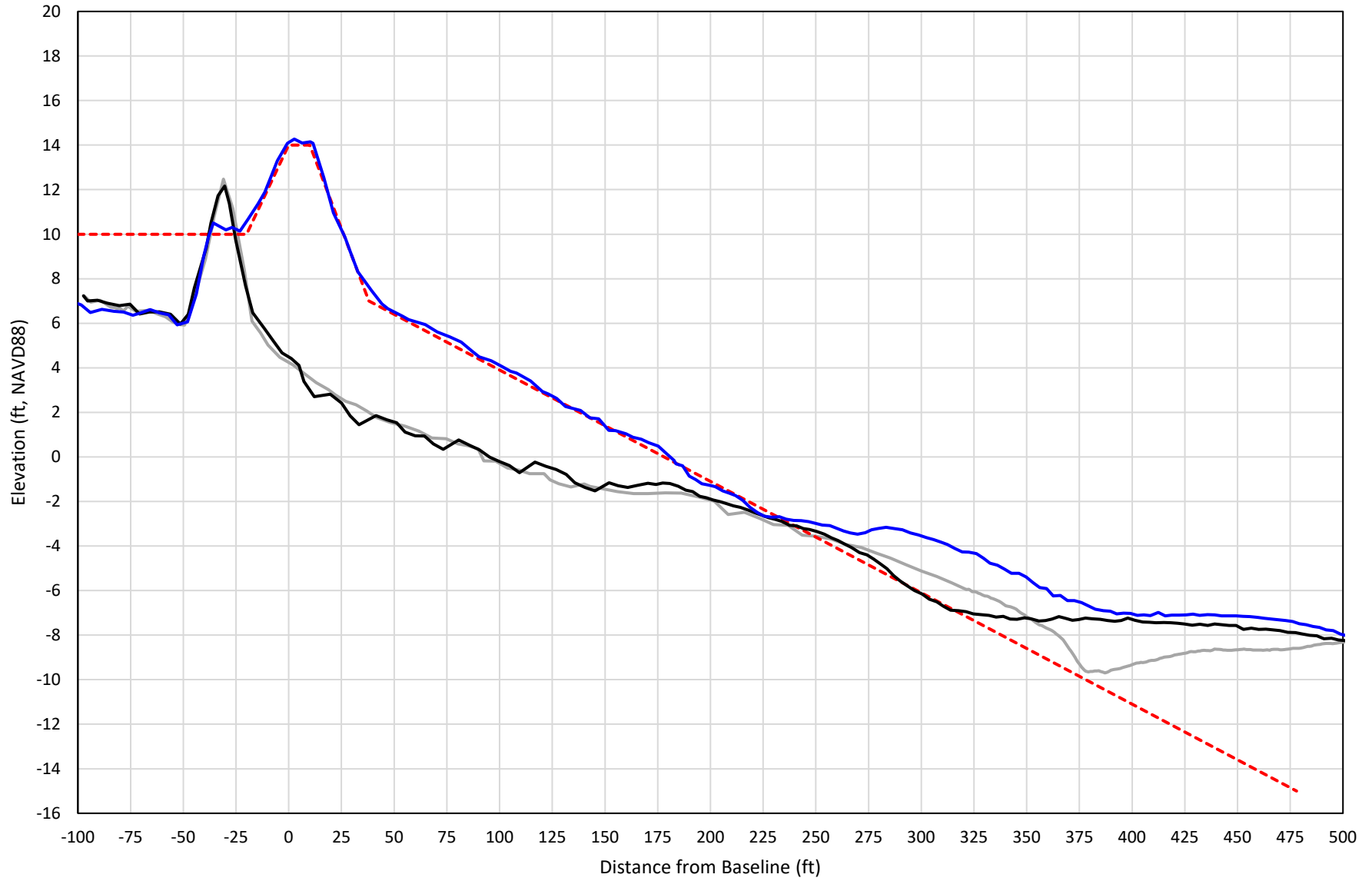
— 393+00 Precon    - - - 393+00 Temp002    — 393+00 BD\_210503    — 393+00 AD\_210512

# 394+00



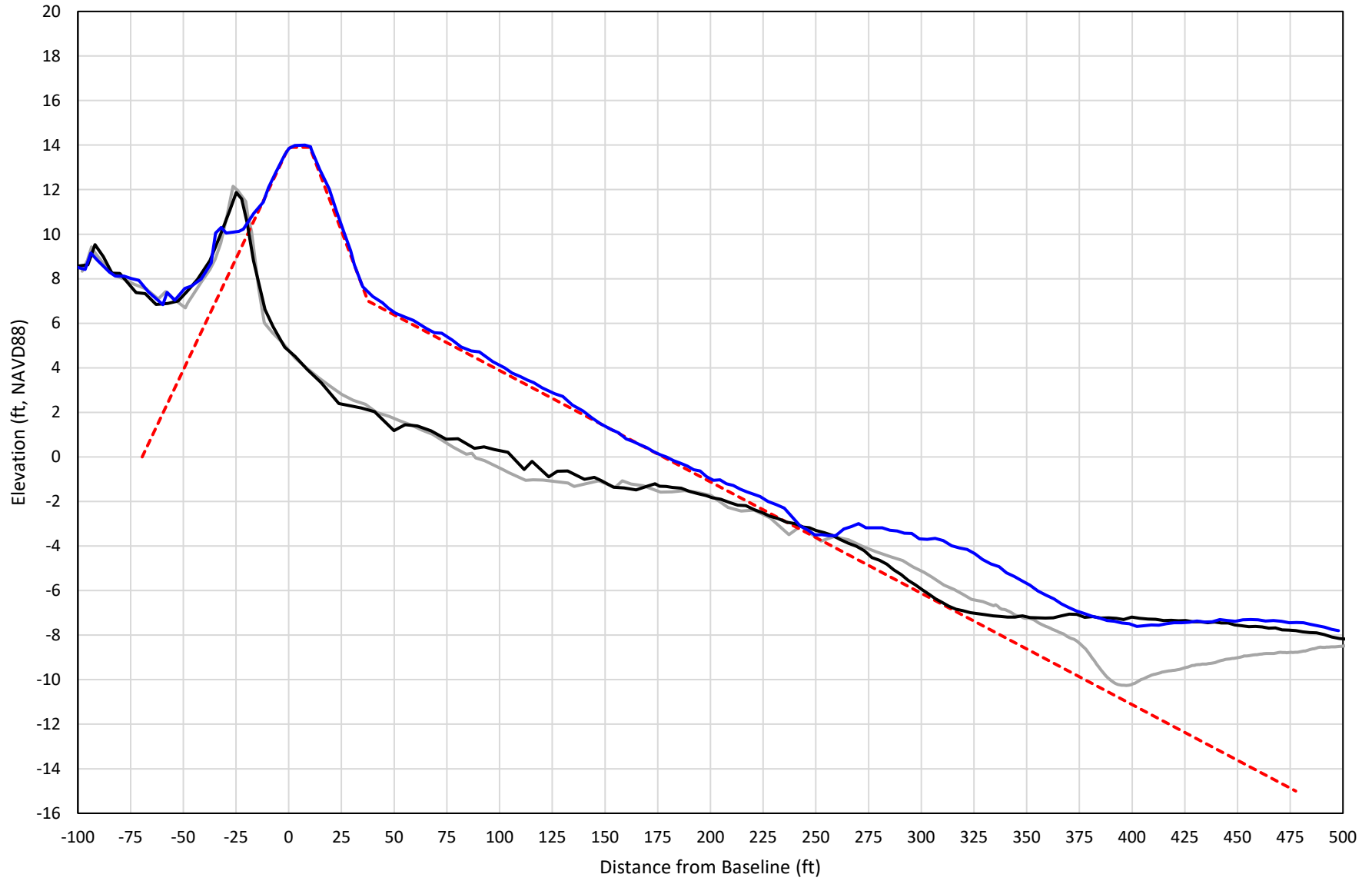
— 394+00 Precon    - - - 394+00 Temp002    — 394+00 BD\_210503    — 394+00 AD\_210512

# 395+00



— 395+00 Precon    - - - 395+00 Temp002    — 395+00 BD\_210503    — 395+00 AD\_210512

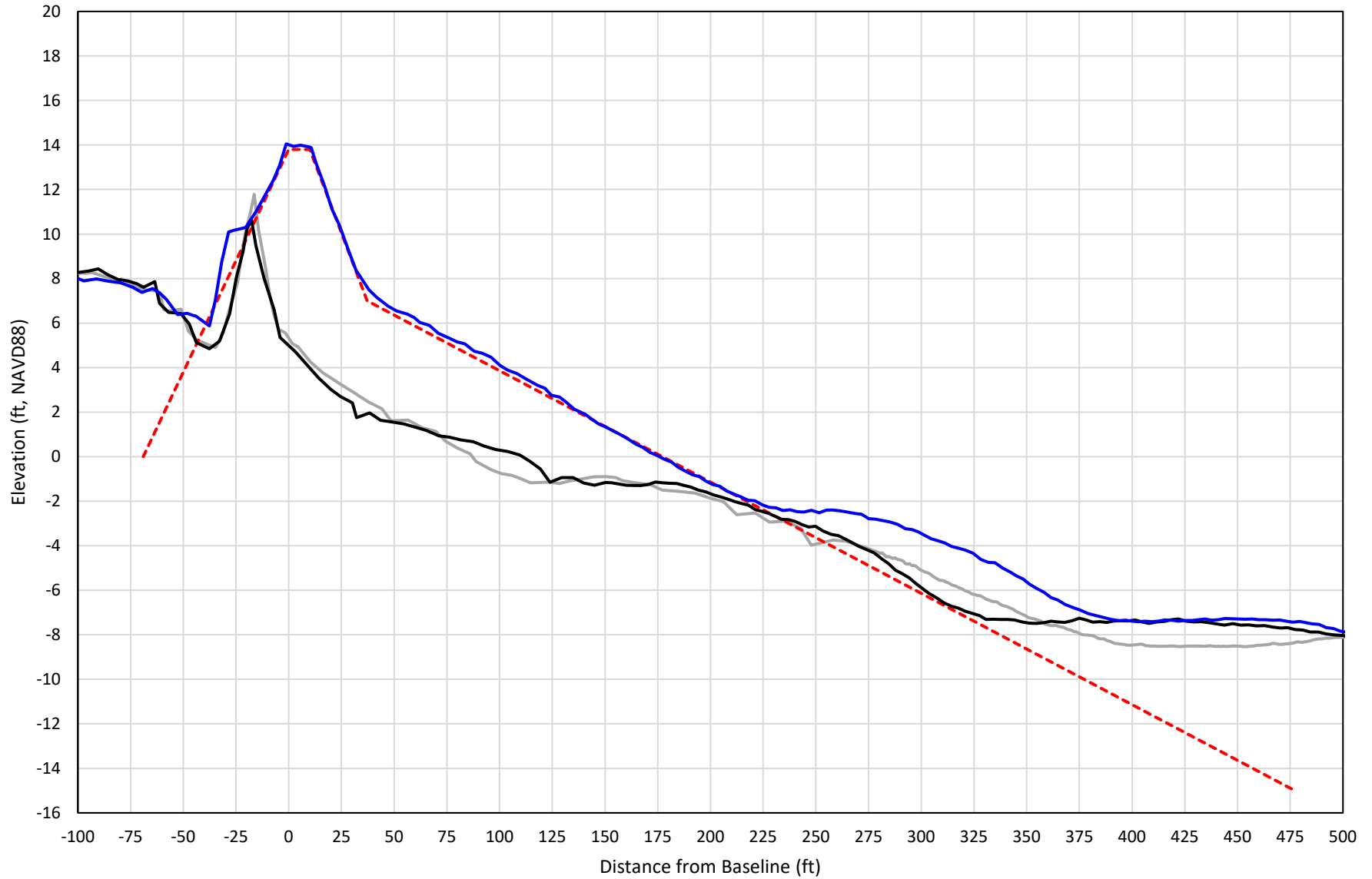
# 396+00



— 396+00 Precon    - - - 396+00 Temp002    — 396+00 BD\_210503    — 396+00 AD\_210512

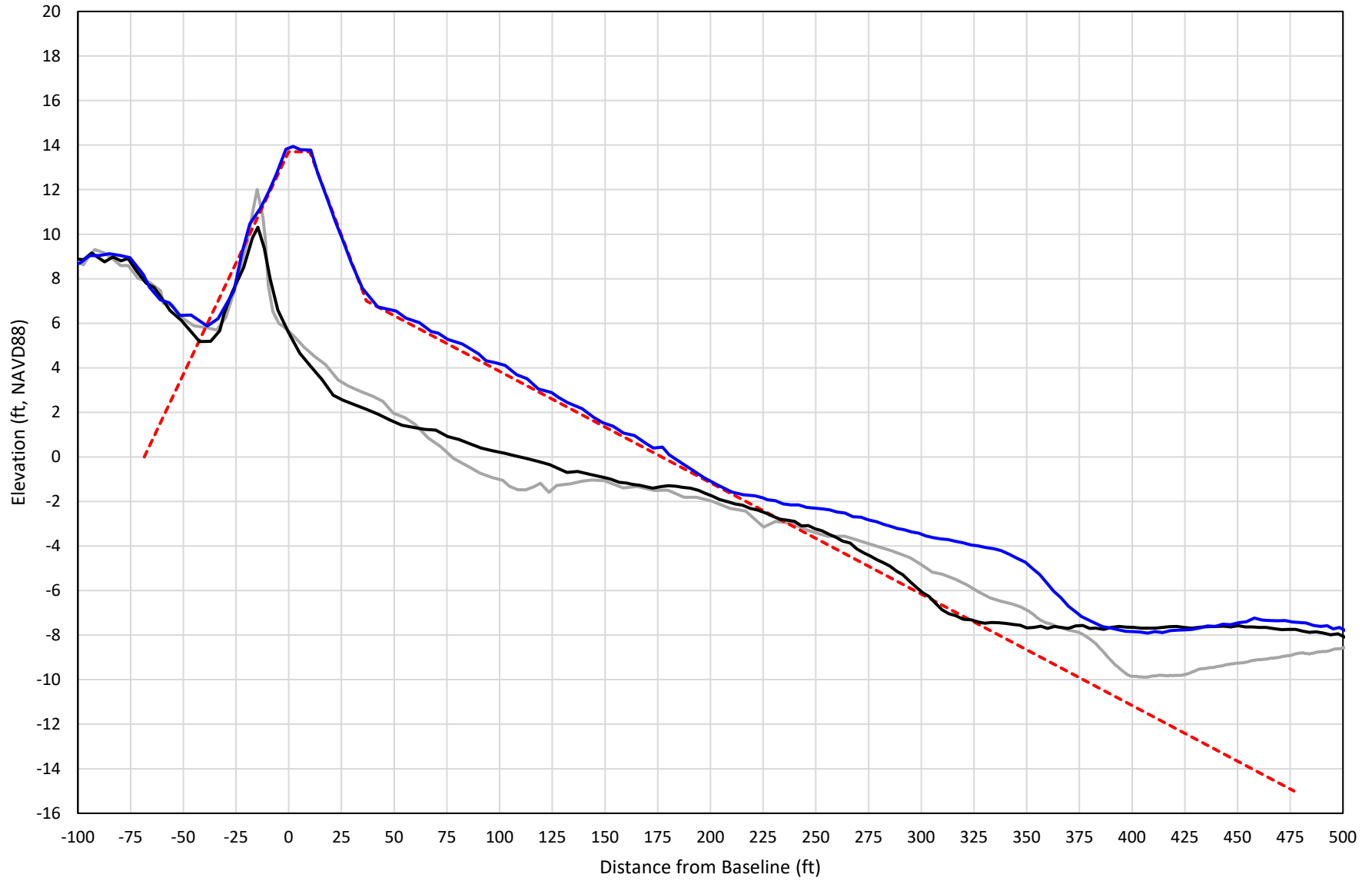


# 397+00



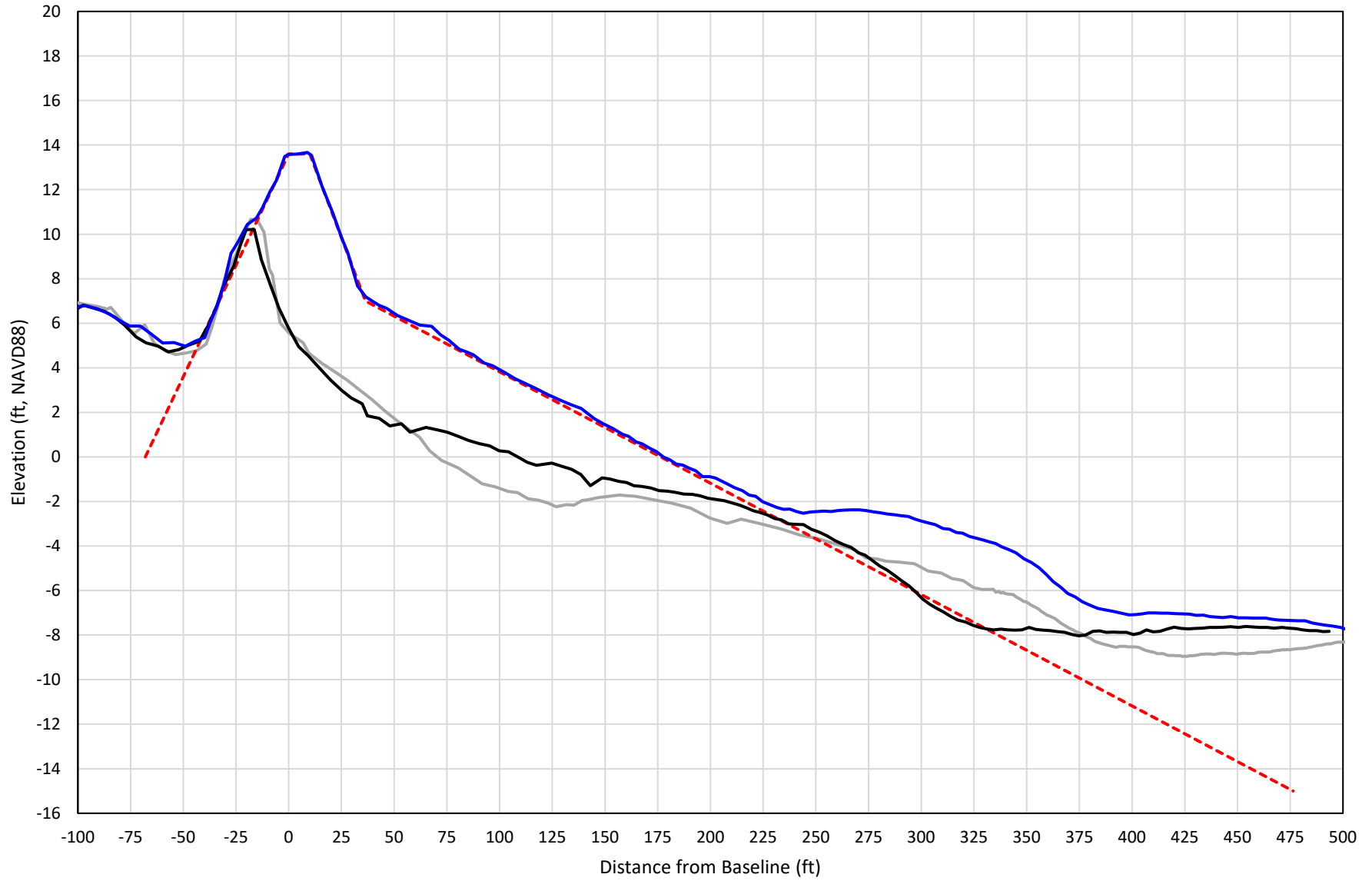
— 397+00 Precon    - - - 397+00 Temp002    — 397+00 BD\_210503    — 397+00 AD\_210512

# 398+00



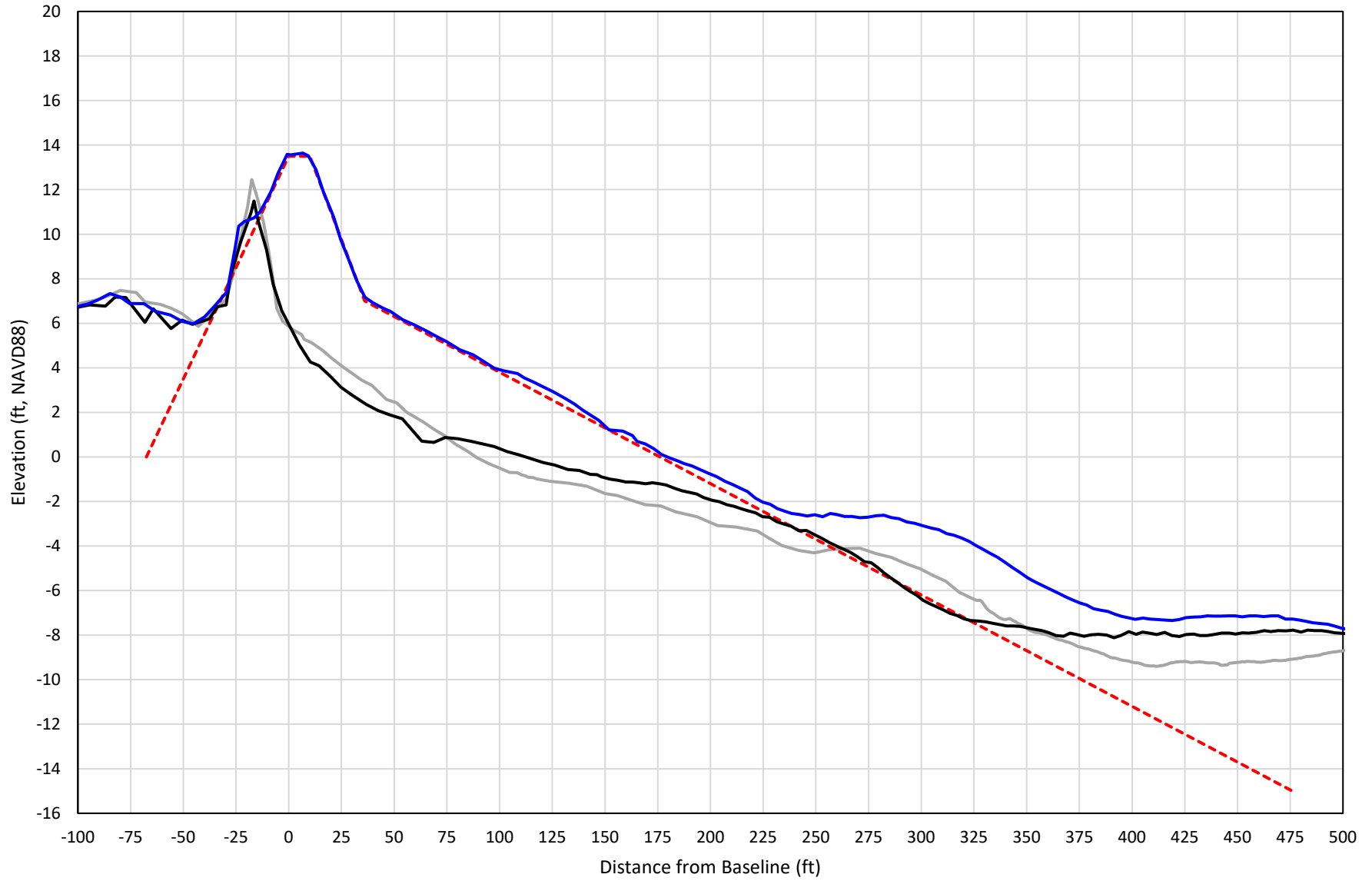
— 398+00 Precon    - - - 398+00 Temp002    — 398+00 BD\_210503    — 398+00 AD\_210512

# 399+00



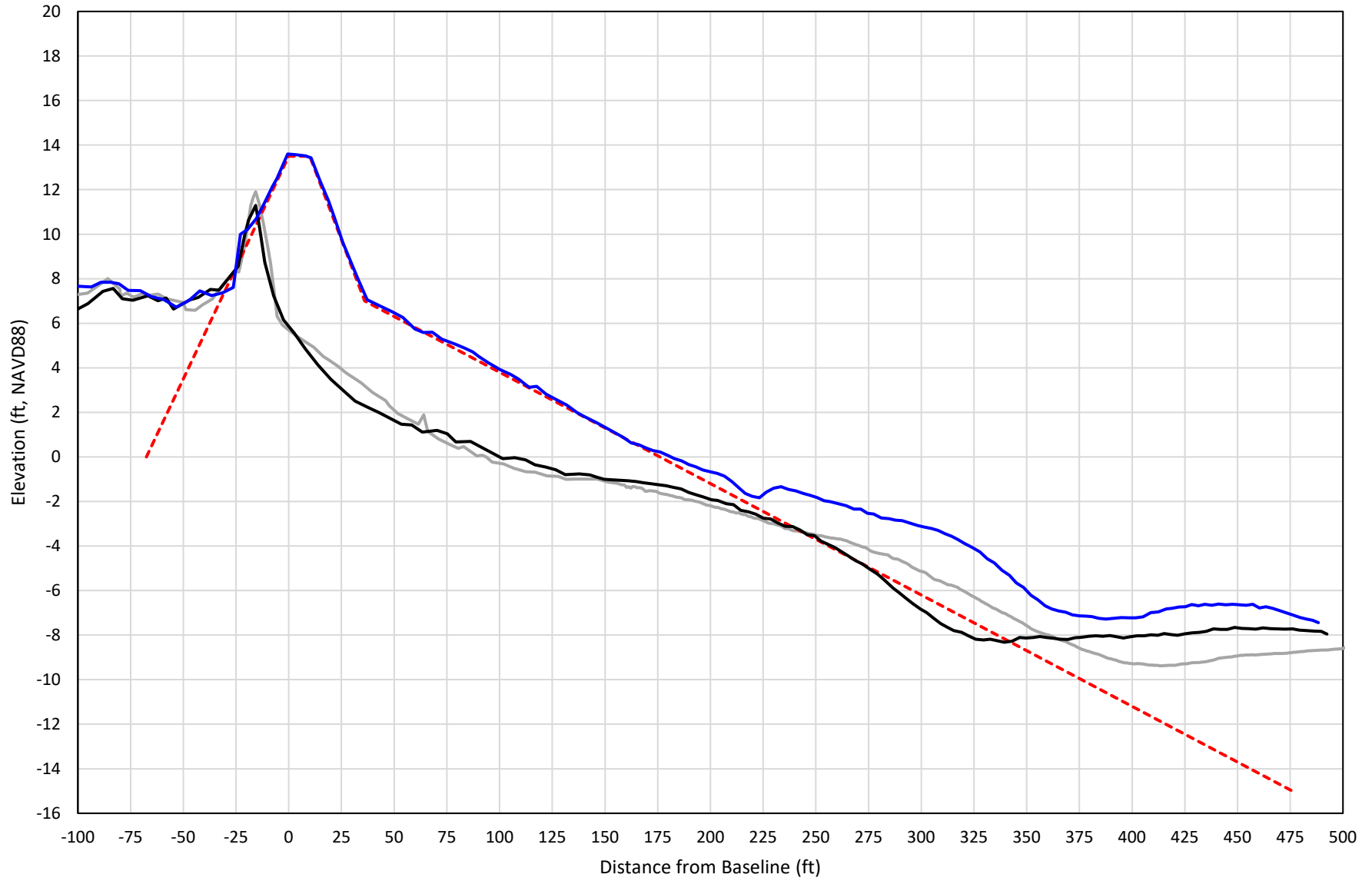
— 399+00 Precon    - - - 399+00 Temp002    — 399+00 BD\_210503    — 399+00 AD\_210514

# 400+00



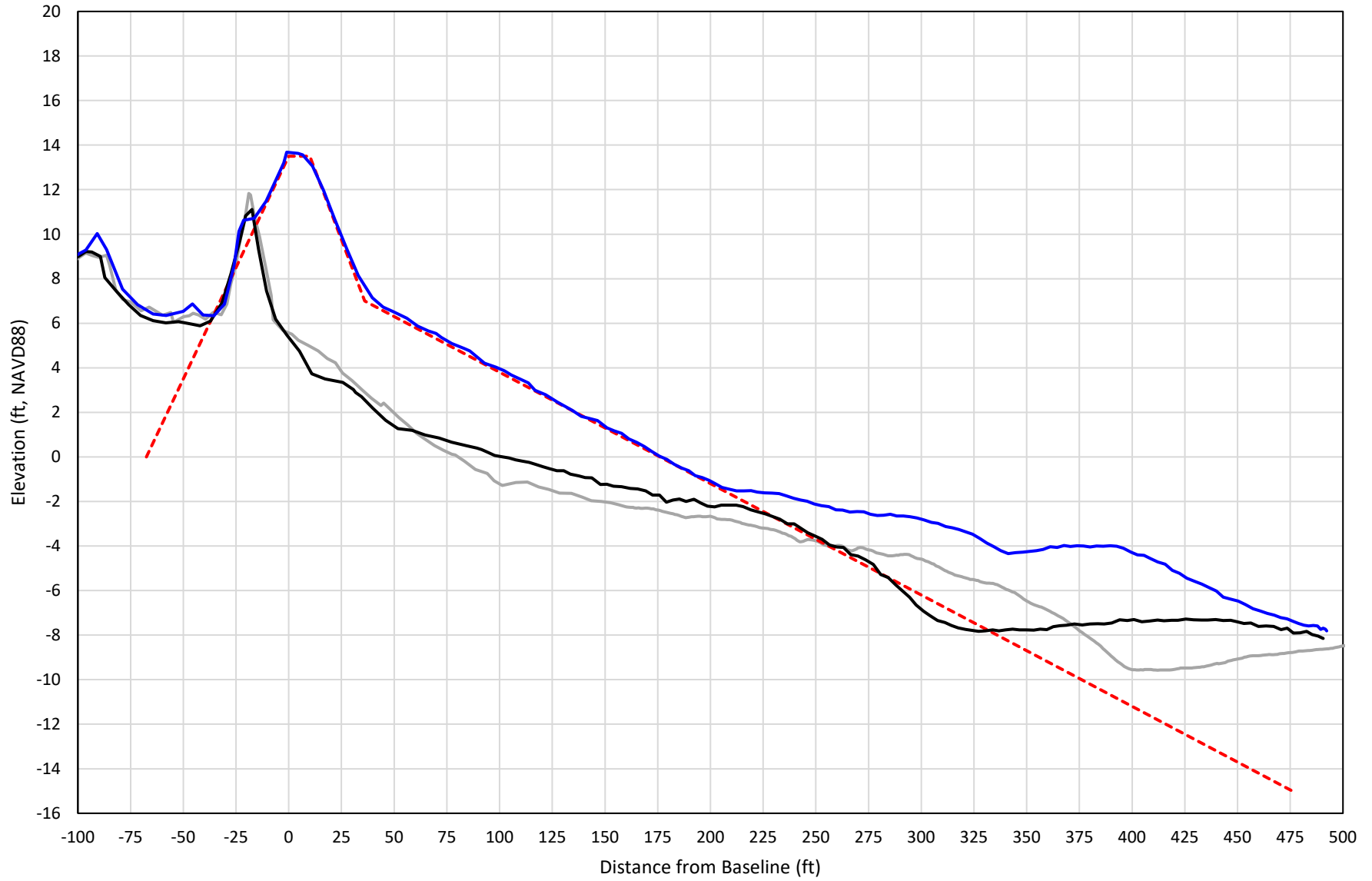
— 400+00 Precon    - - - 400+00 Temp002    — 400+00 BD\_210503    — 400+00 AD\_210514

# 401+00



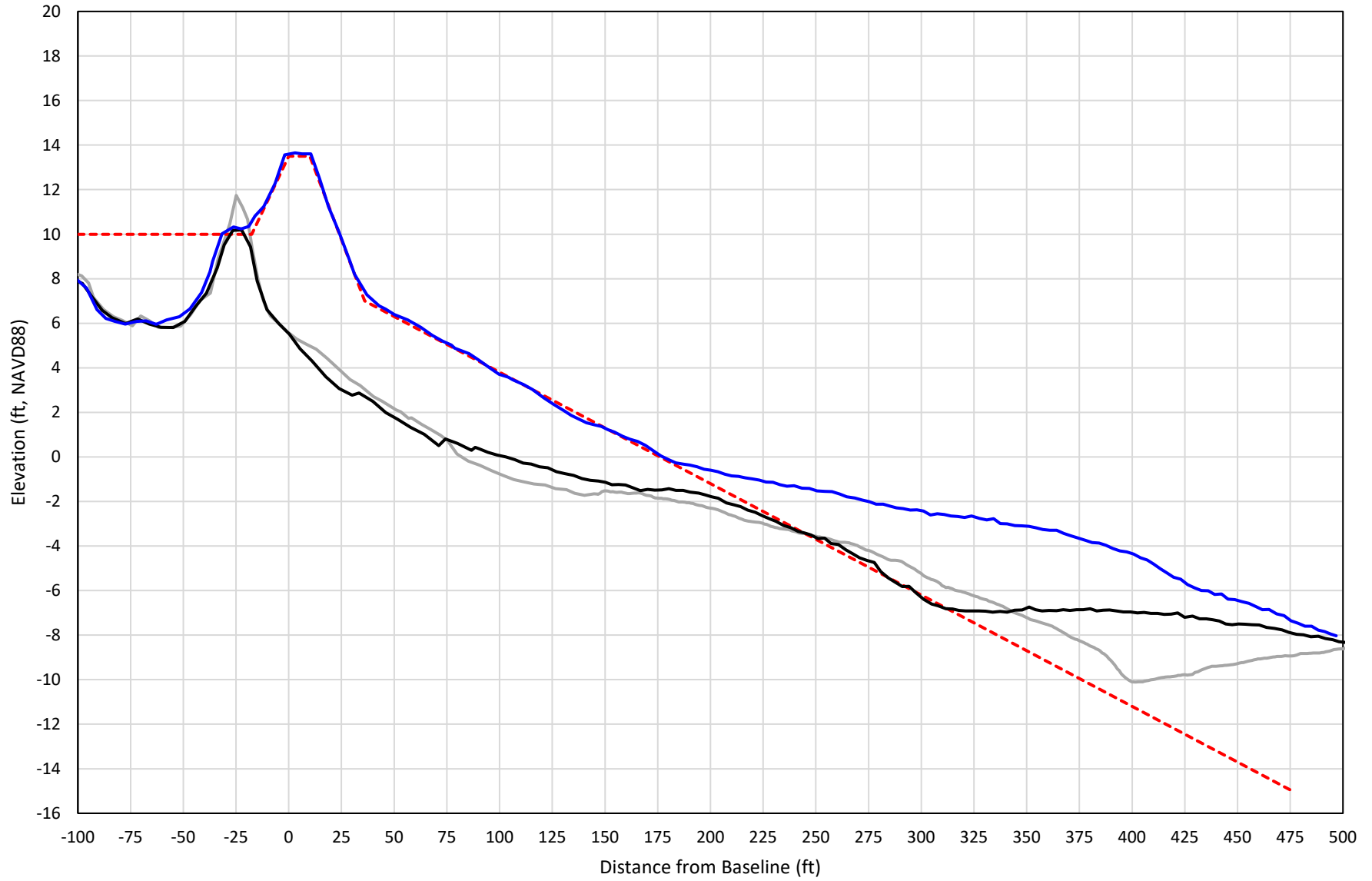
— 401+00 Precon    - - - 401+00 Temp002    — 401+00 BD\_210503    — 401+00 AD\_210514

# 402+00



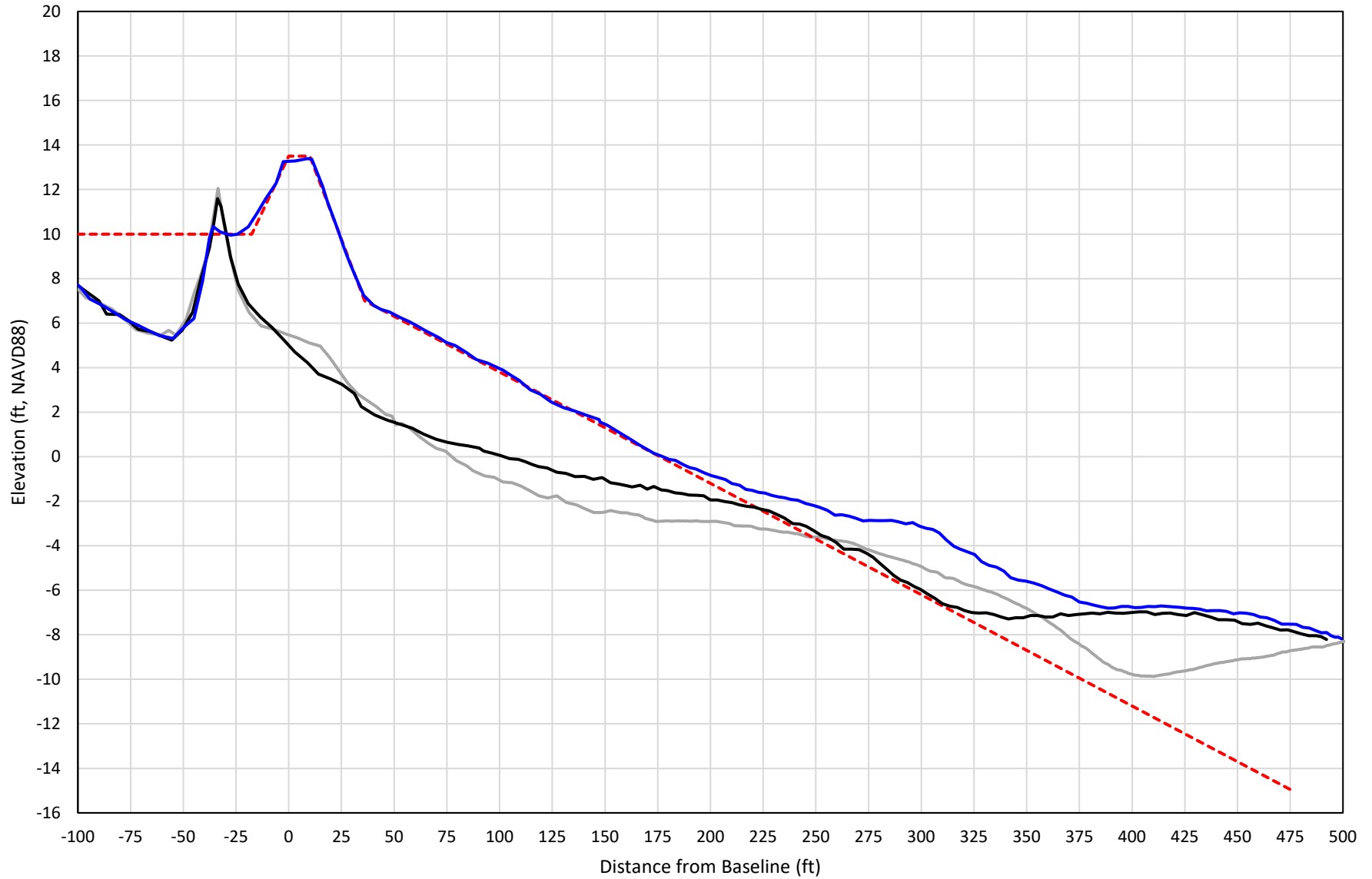
— 402+00 Precon    - - - 402+00 Temp002    — 402+00 BD\_210508    — 402+00 AD\_210514

# 403+00



— 403+00 Precon    - - - 403+00 Temp002    — 403+00 BD\_210508    — 403+00 AD\_210514

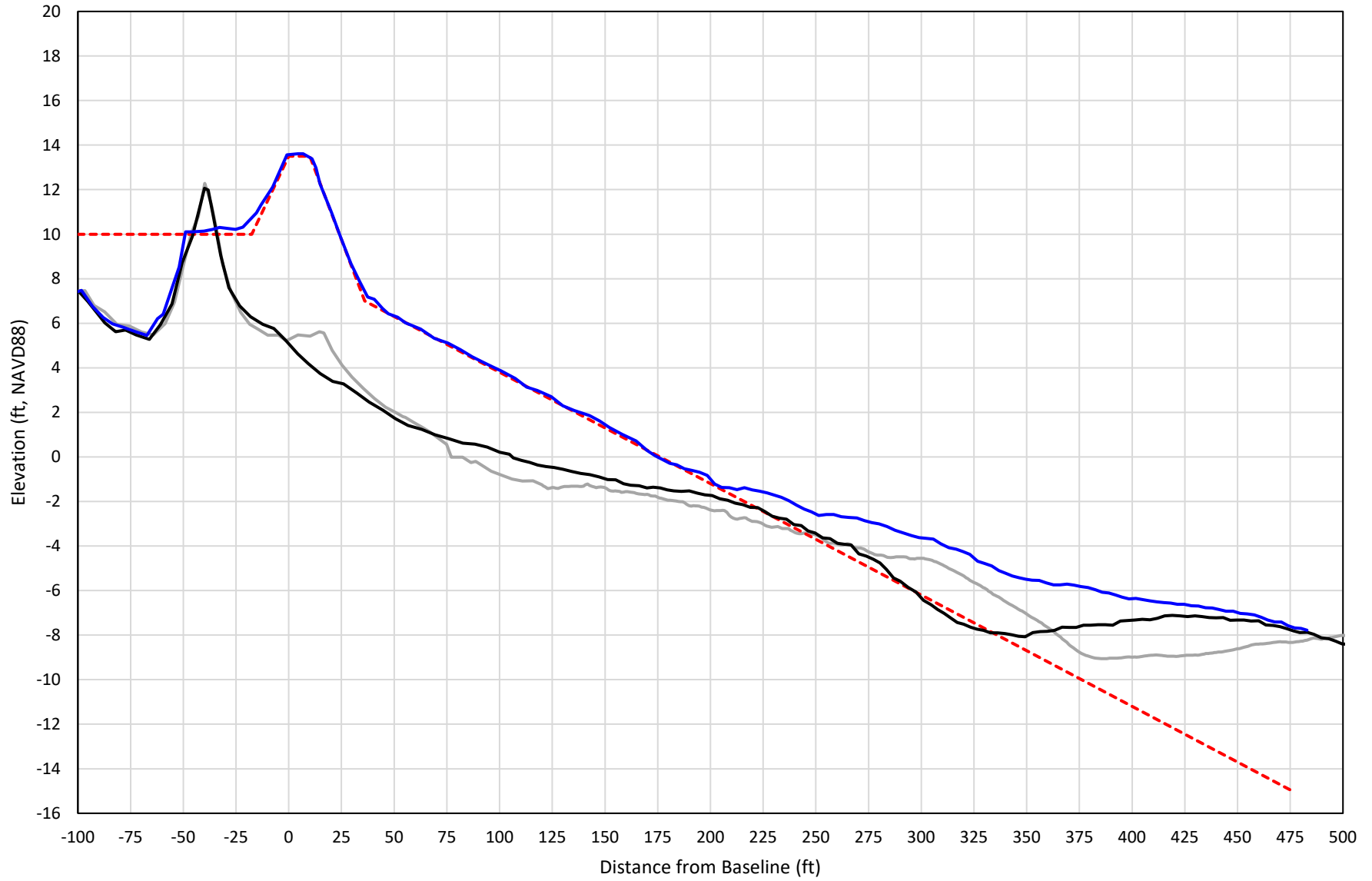
# 404+00



— 404+00 Precon    - - - 404+00 Temp002    — 404+00 BD\_210508    — 404+00 AD\_210514

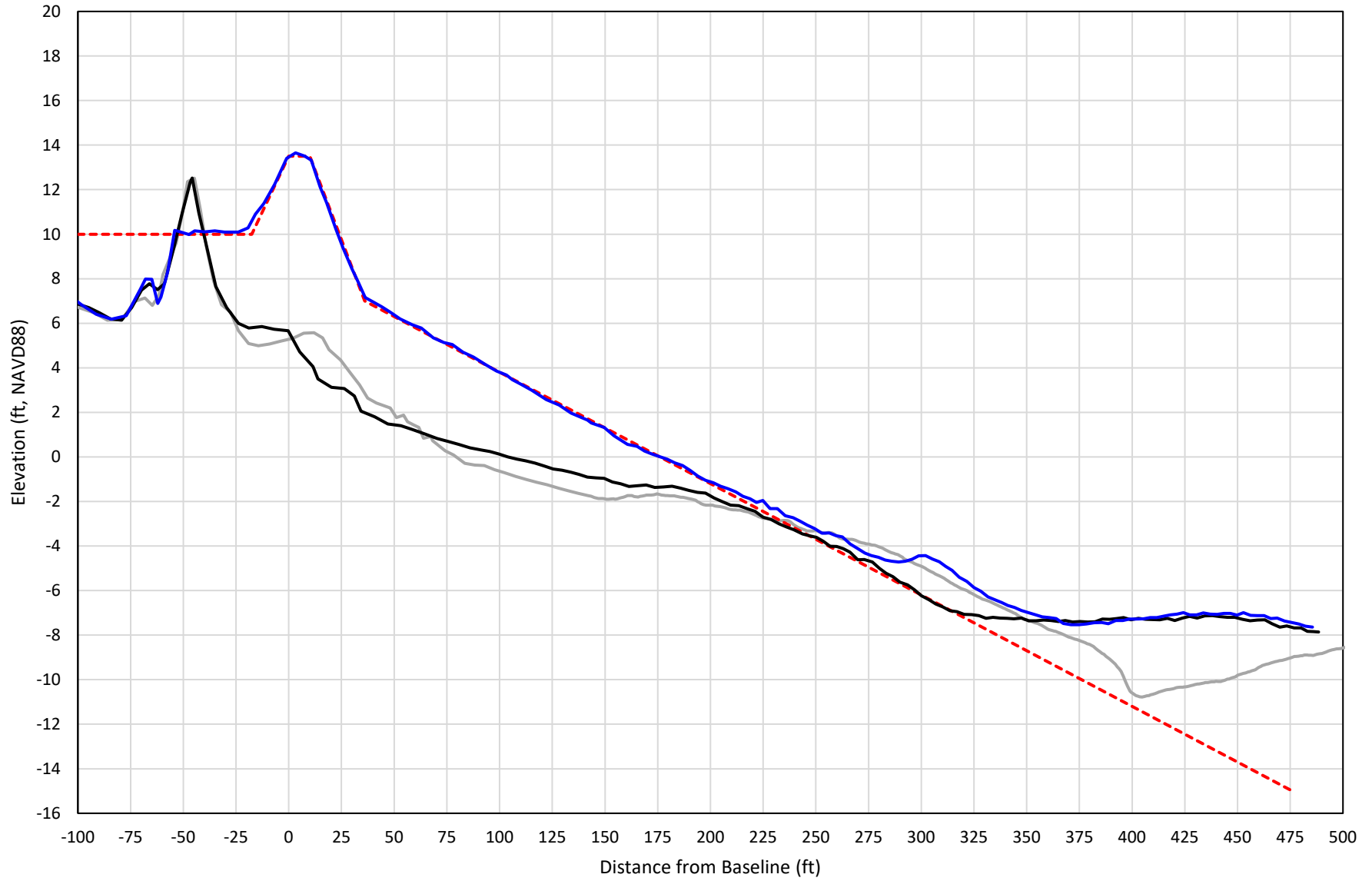


# 405+00



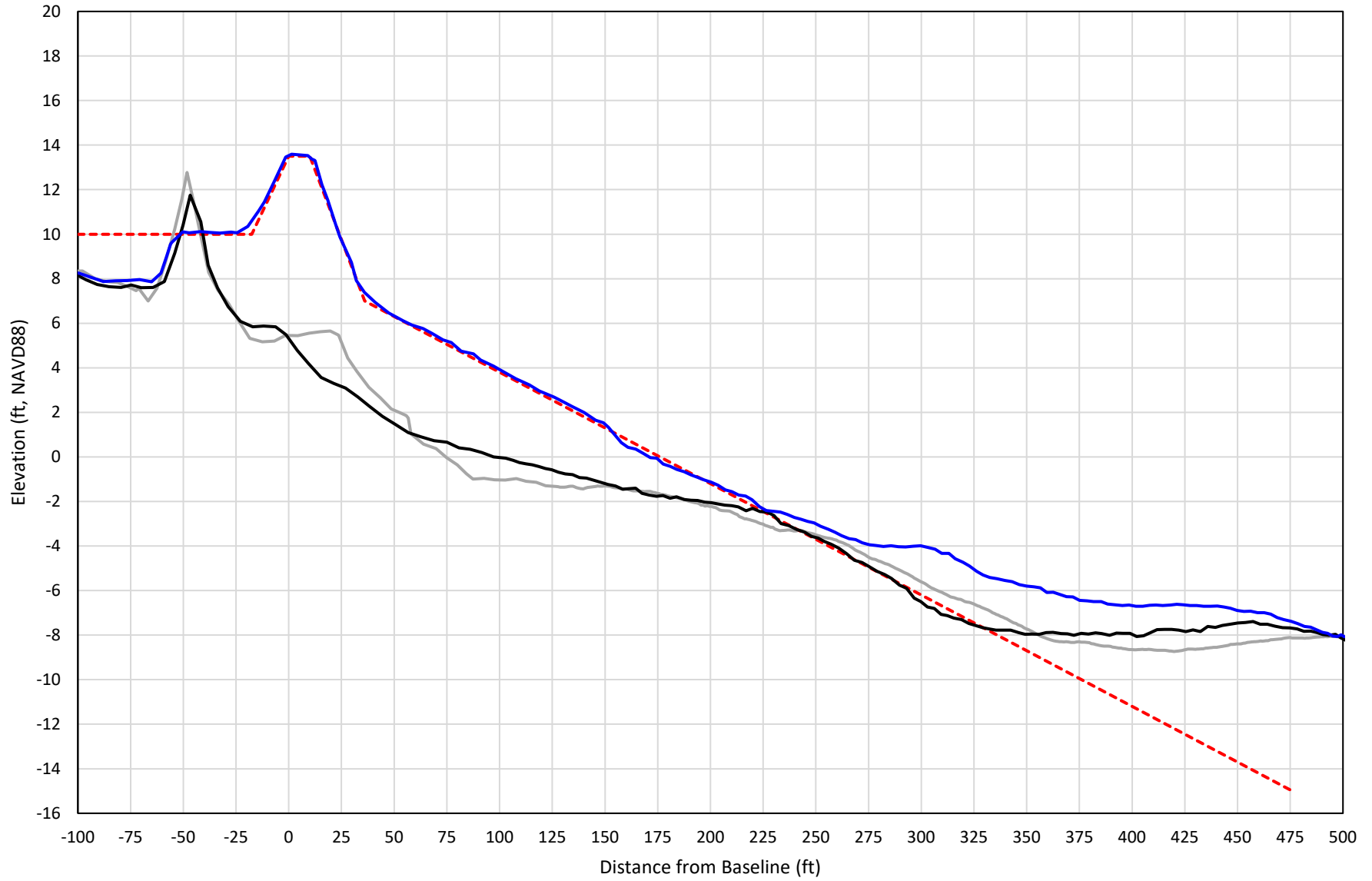
— 405+00 Precon    - - - 405+00 Temp002    — 405+00 BD\_210508    — 405+00 AD\_210514

# 406+00



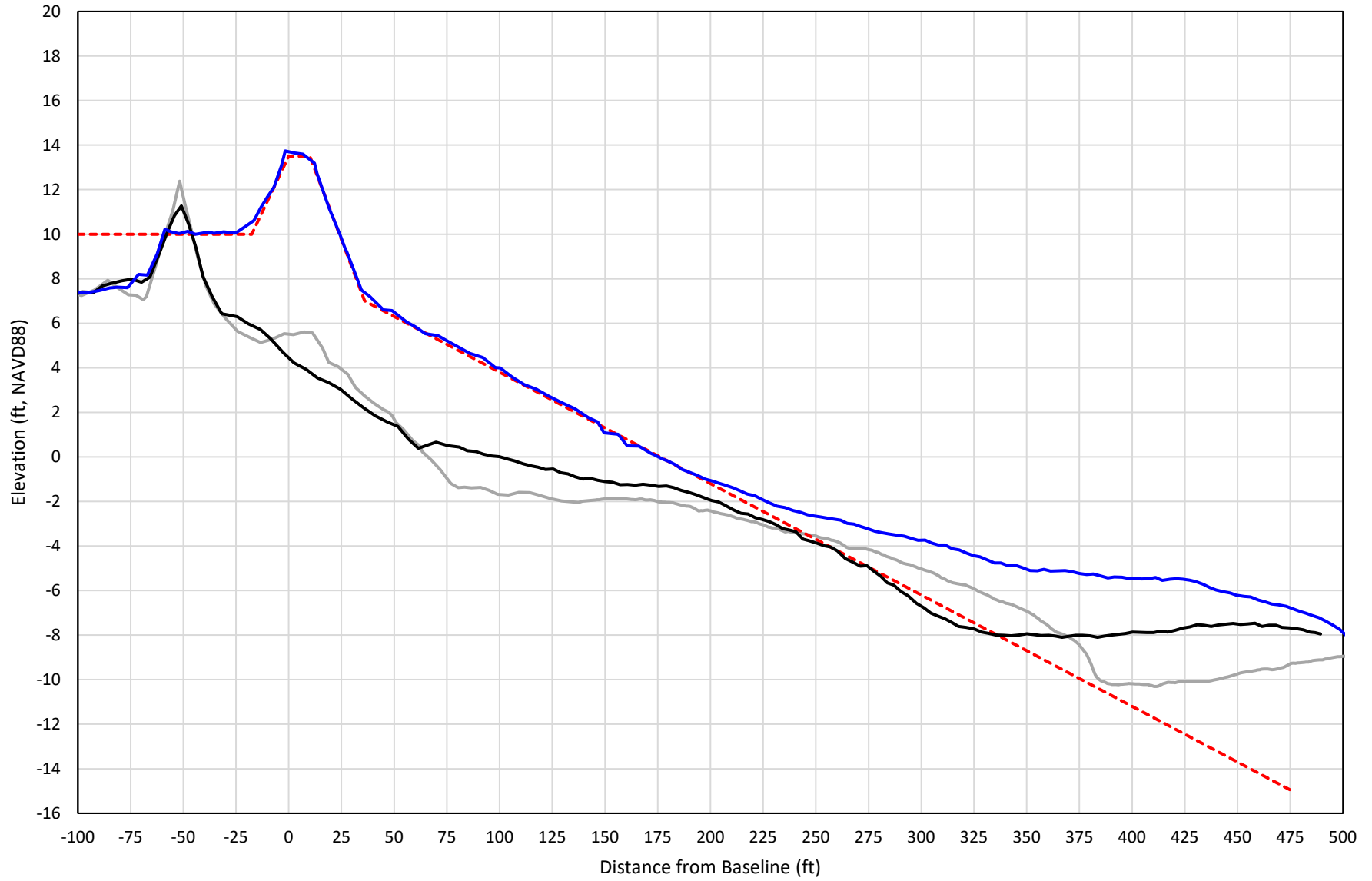
— 406+00 Precon    - - - 406+00 Temp002    — 406+00 BD\_210508    — 406+00 AD\_210514

# 407+00



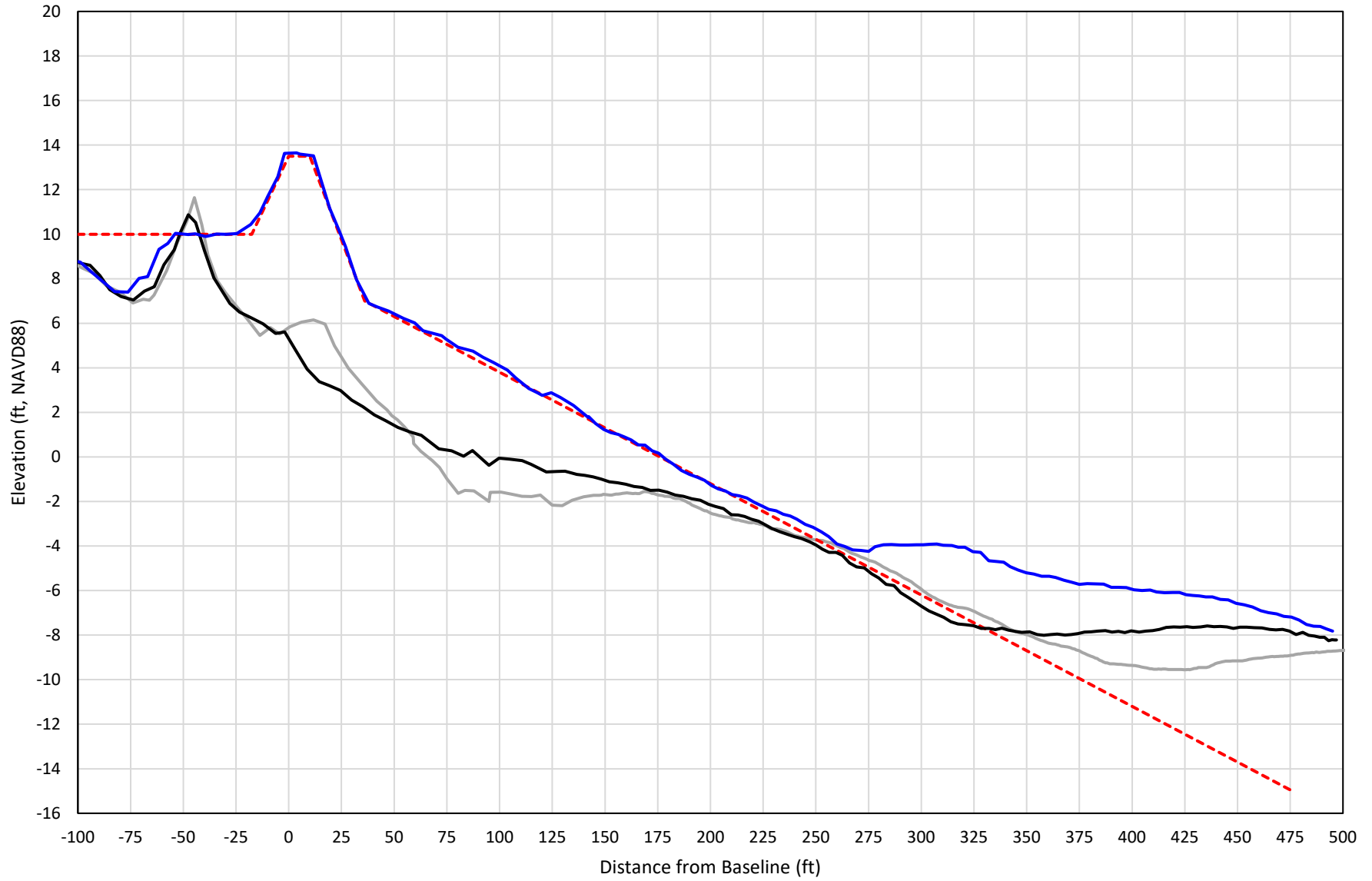
— 407+00 Precon    - - - 407+00 Temp002    — 407+00 BD\_210508    — 407+00 AD\_210514

# 408+00



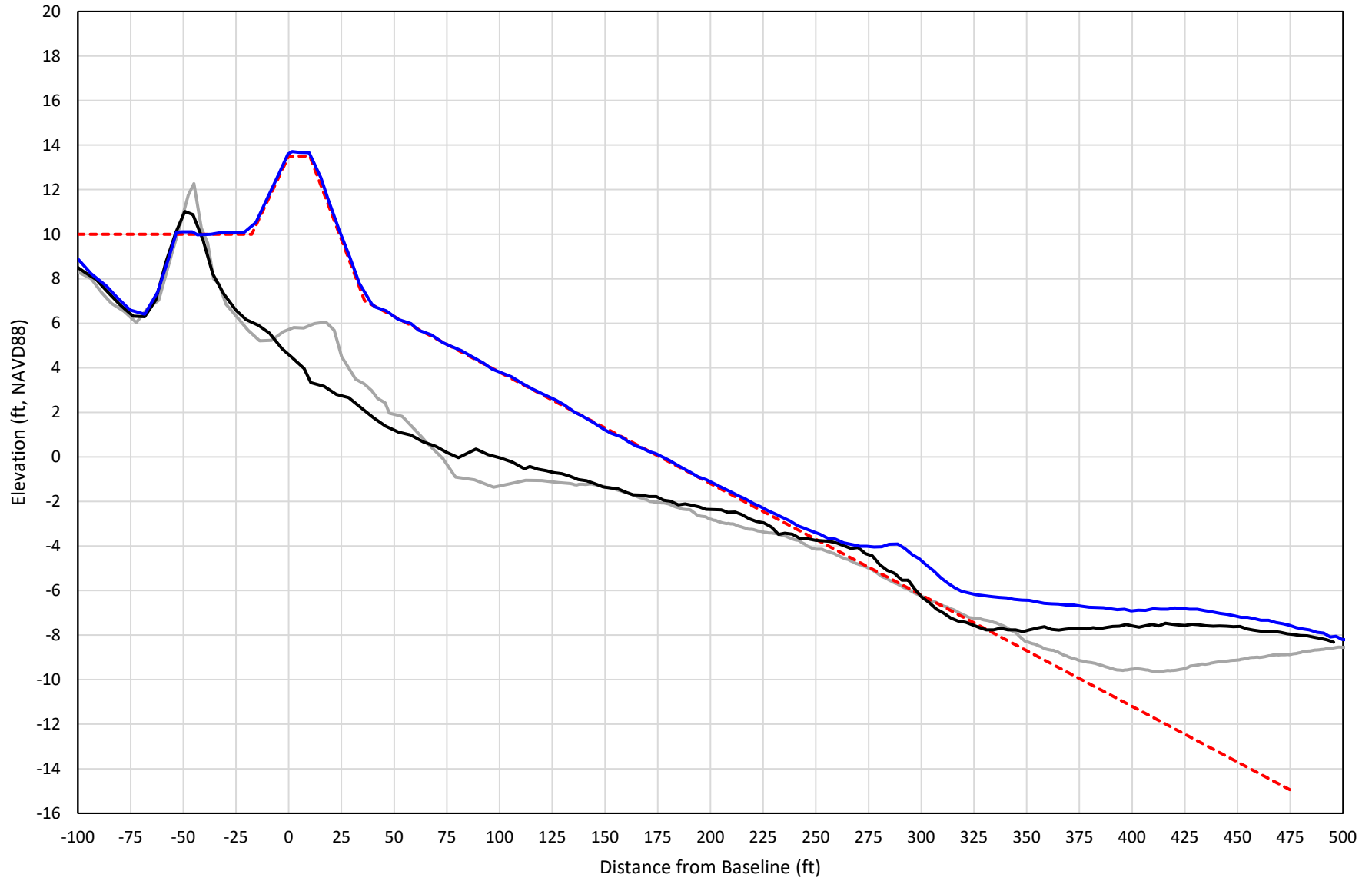
— 408+00 Precon    - - - 408+00 Temp002    — 408+00 BD\_210508    — 408+00 AD\_210518

# 409+00



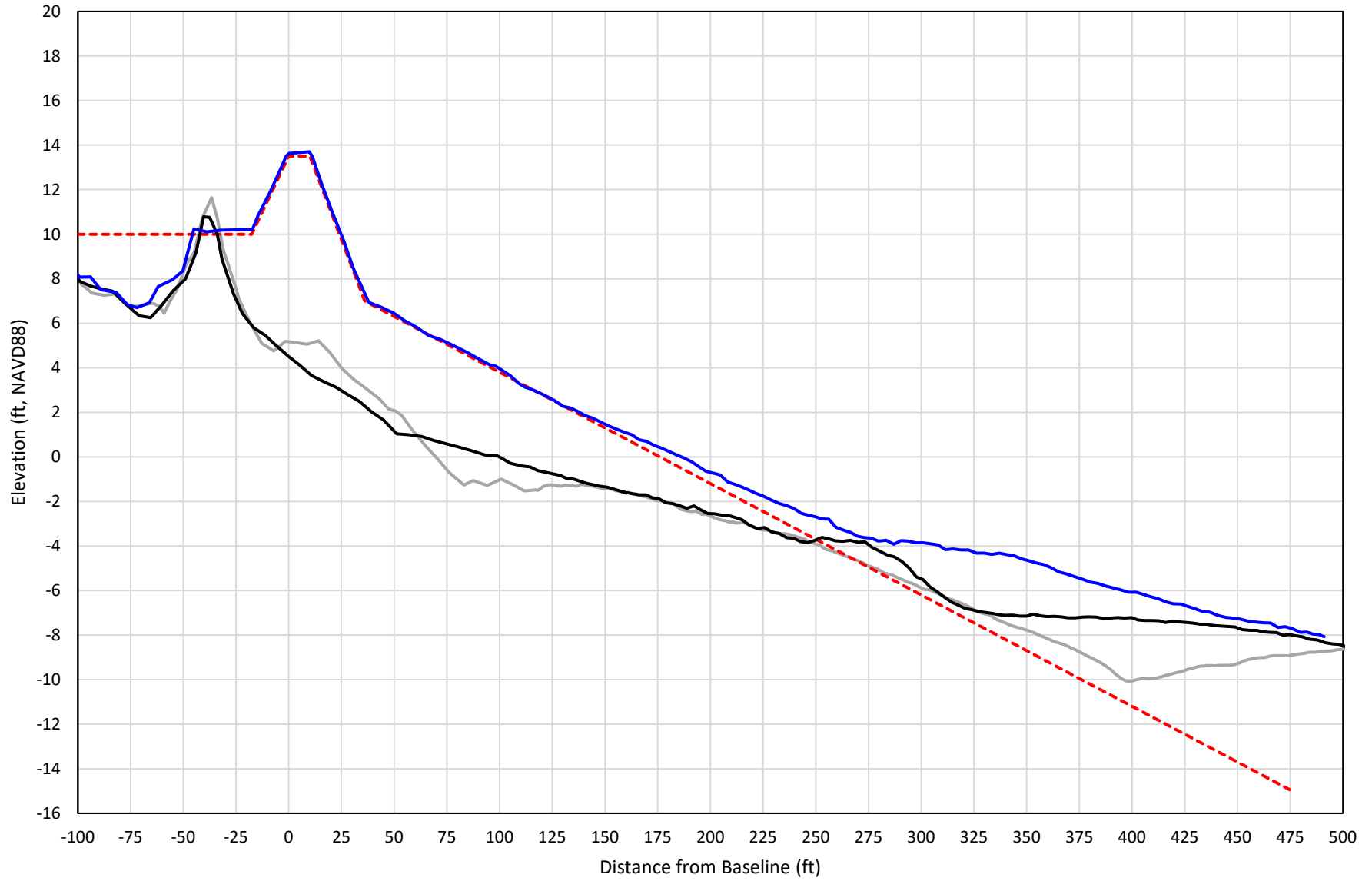
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# 410+00



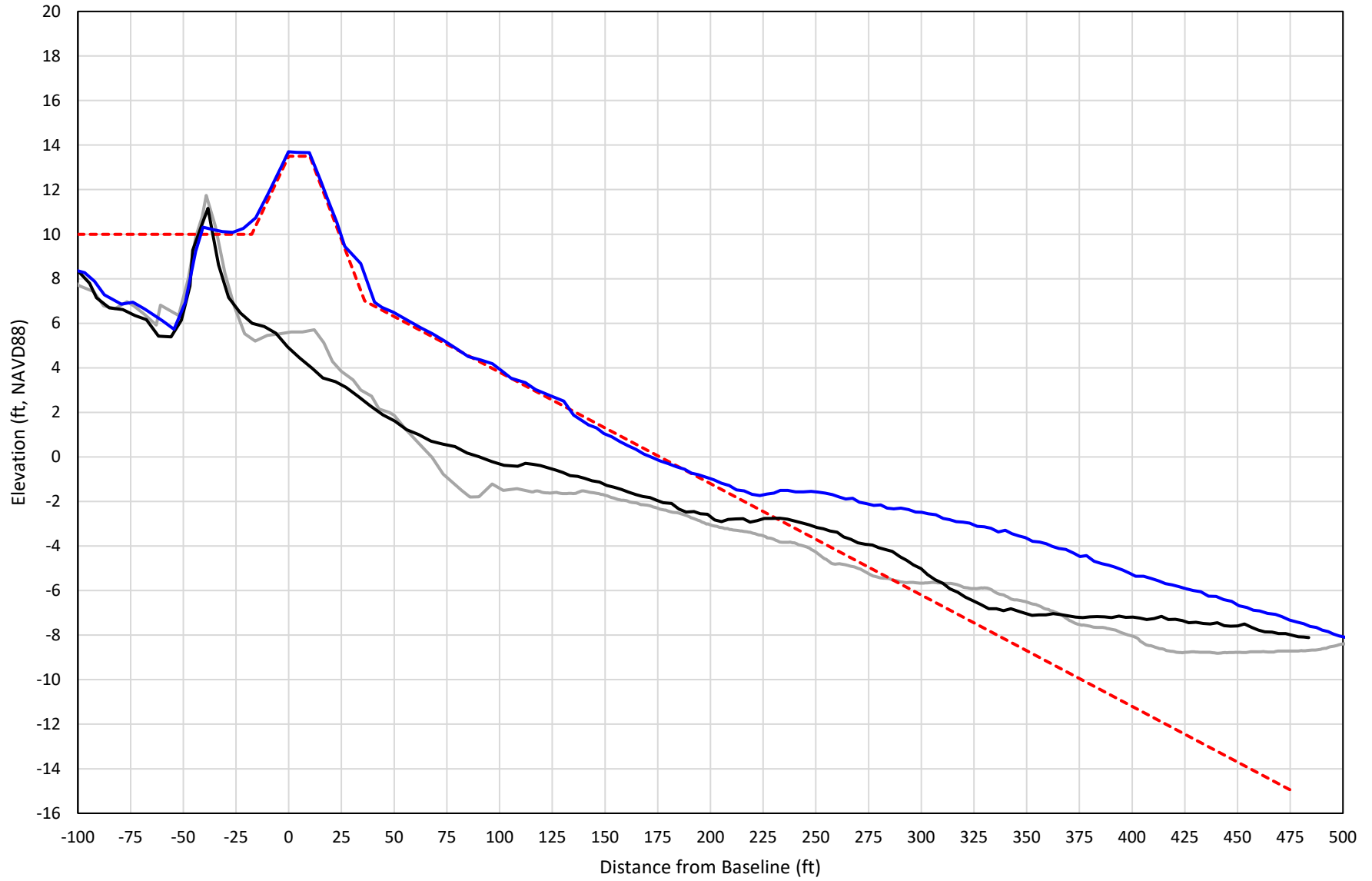
— 410+00 Precon    - - - 410+00 Temp002    — 410+00 BD\_210508    — 410+00 AD\_210518

# 411+00



— 411+00 Precon    - - - 411+00 Temp002    — 411+00 BD\_210508    — 411+00 AD\_210518

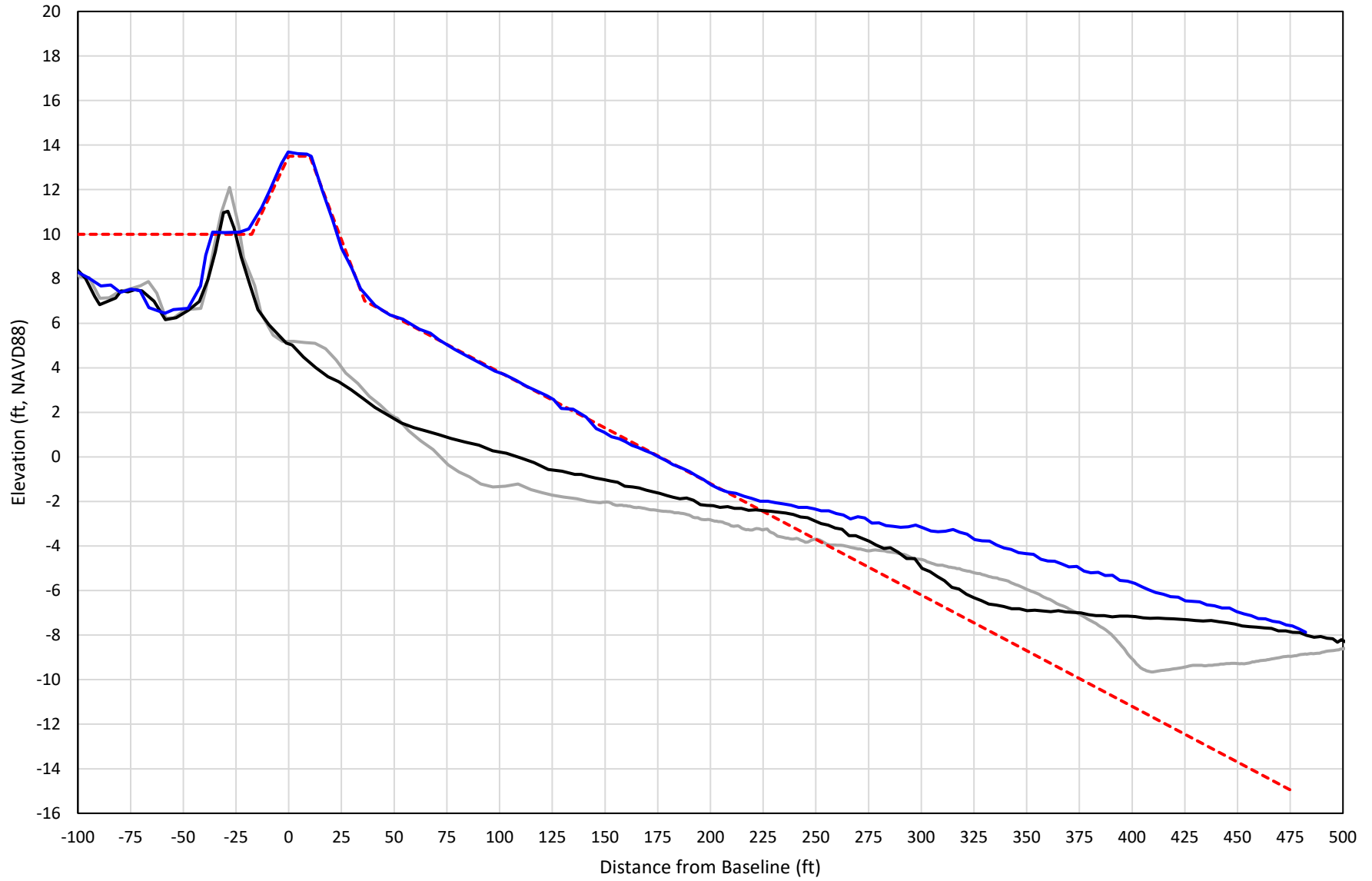
# 412+00



— 412+00 Precon    - - - 412+00 Temp002    — 412+00 BD\_210508    — 412+00 AD\_210518

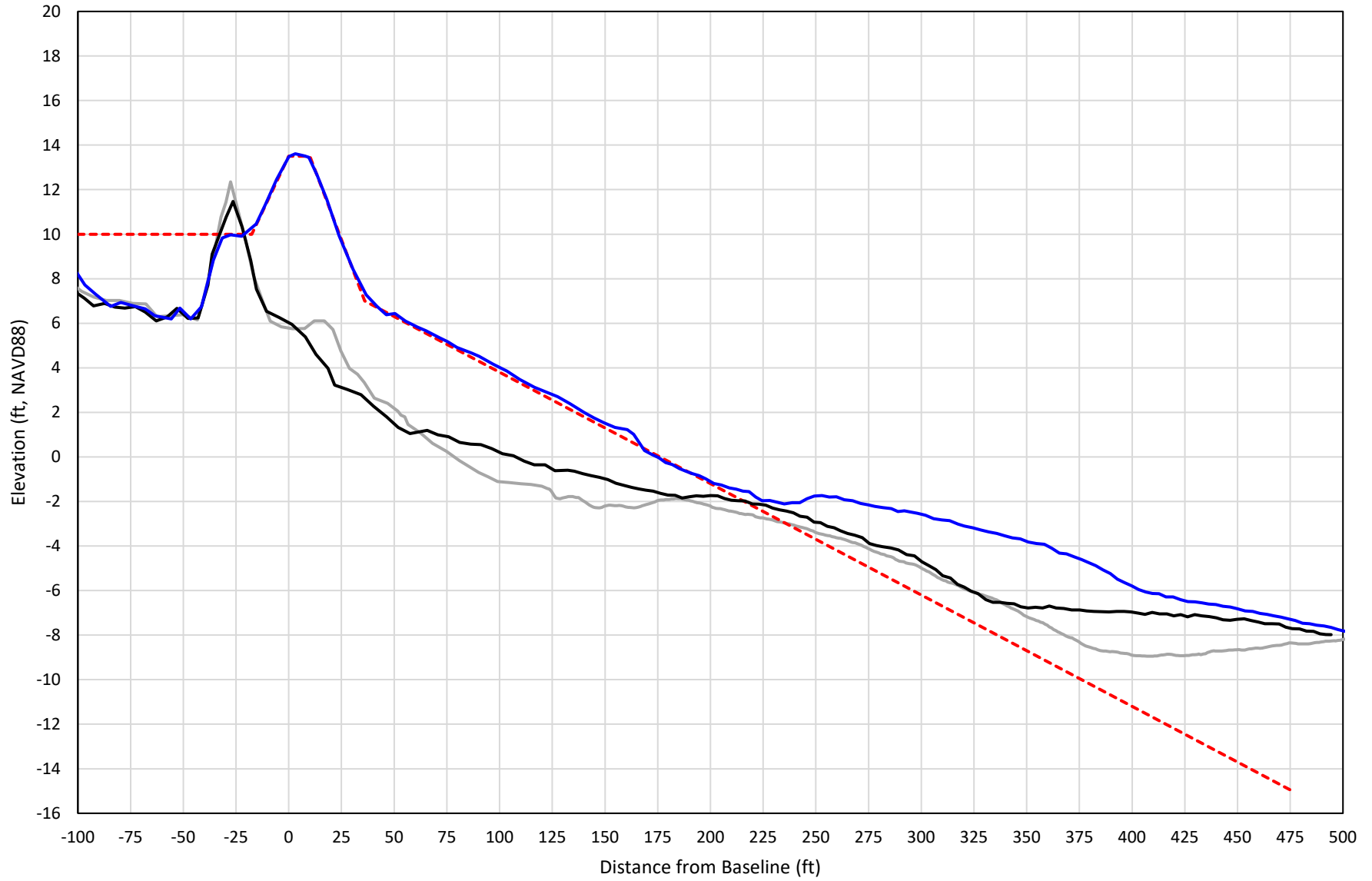


# 413+00



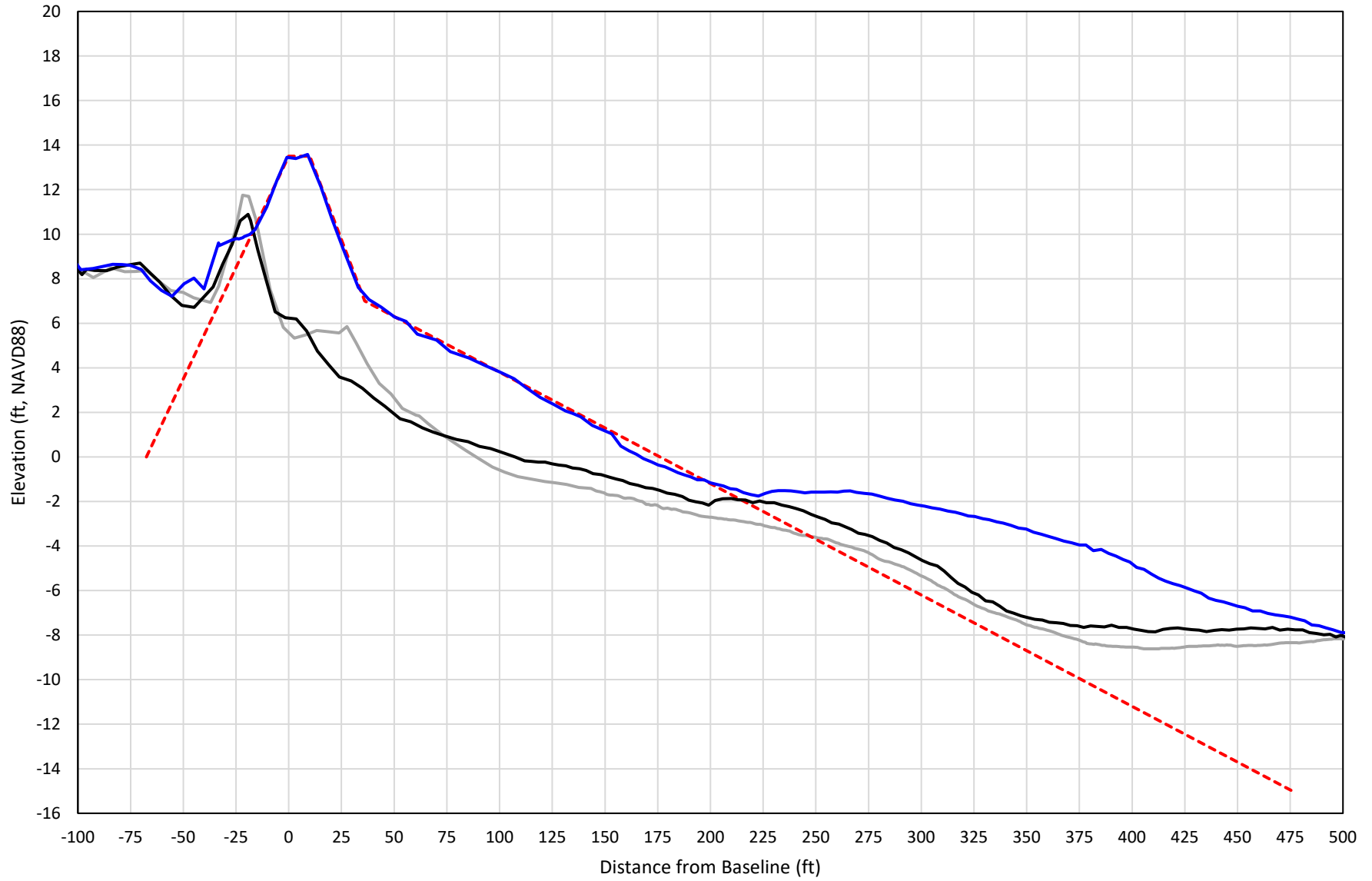
— 413+00 Precon    - - - 413+00 Temp002    — 413+00 BD\_210508    — 413+00 AD\_210518

# 414+00



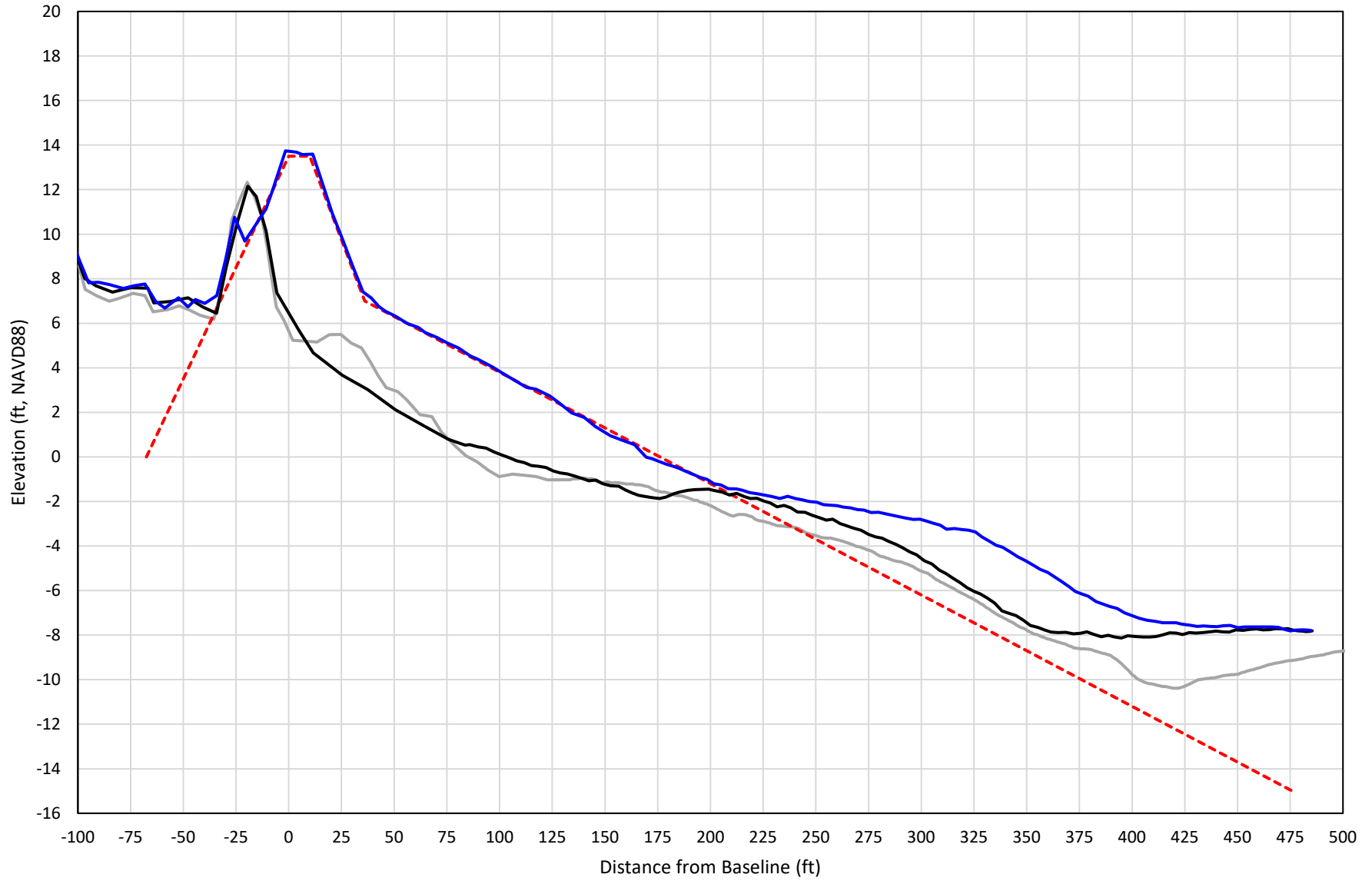
— 414+00 Precon    - - - 414+00 Temp002    — 414+00 BD\_210508    — 414+00 AD\_210518

# 415+00



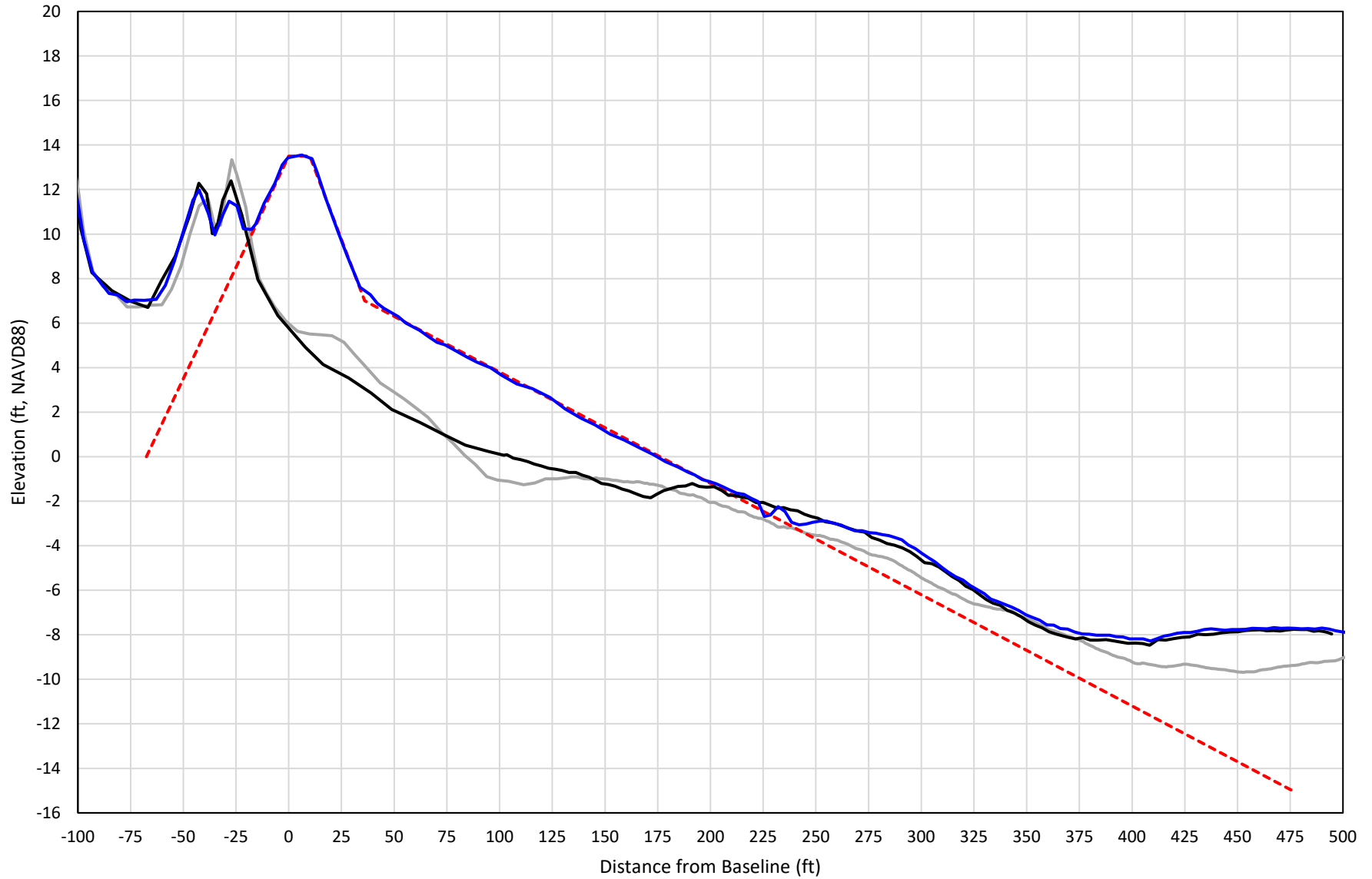
— 415+00 Precon    - - - 415+00 Temp002    — 415+00 BD\_210508    — 415+00 AD\_210518

# 416+00



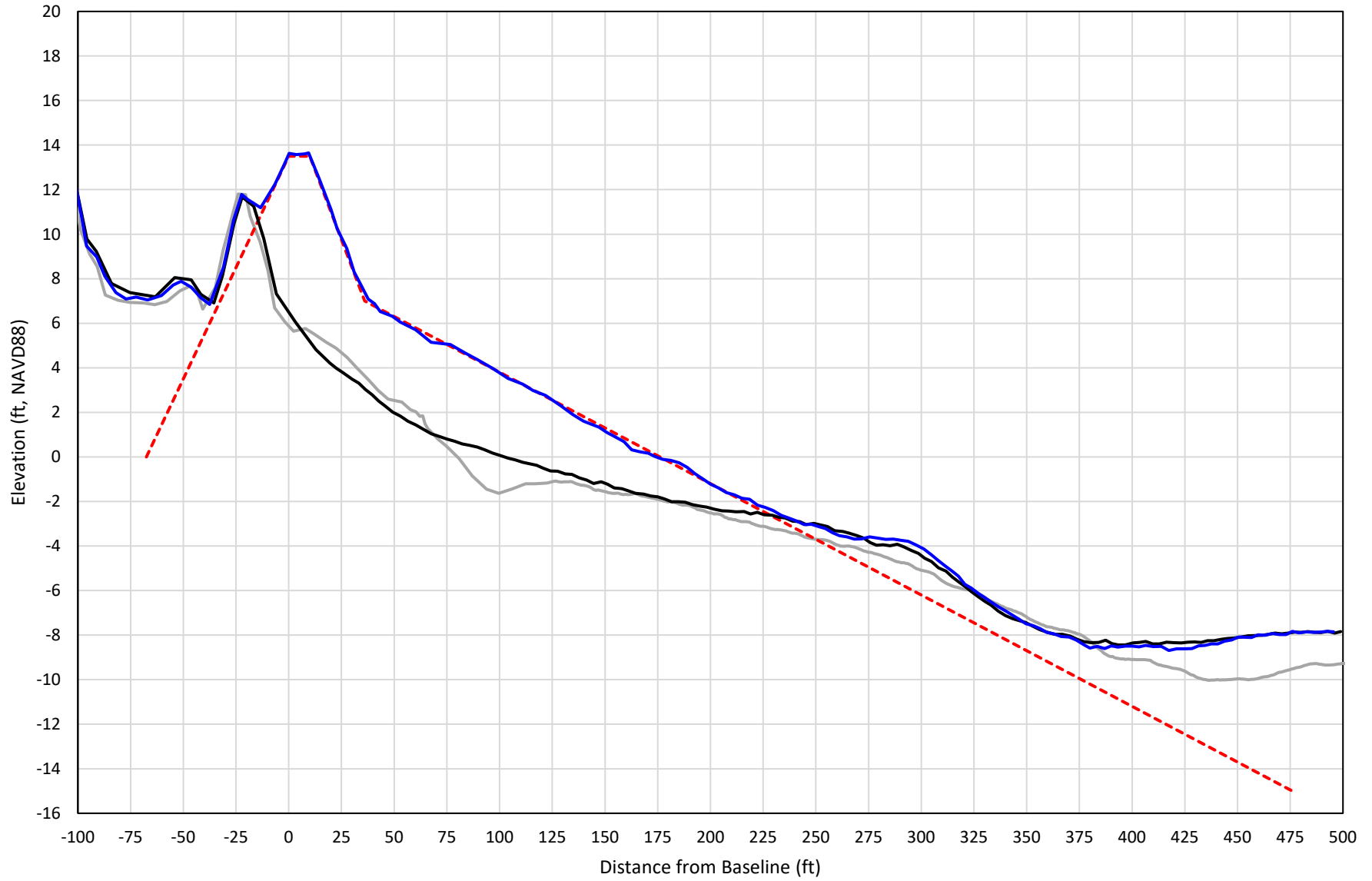
— 416+00 Precon    - - - 416+00 Temp002    — 416+00 BD\_210512    — 416+00 AD\_210518

# 417+00



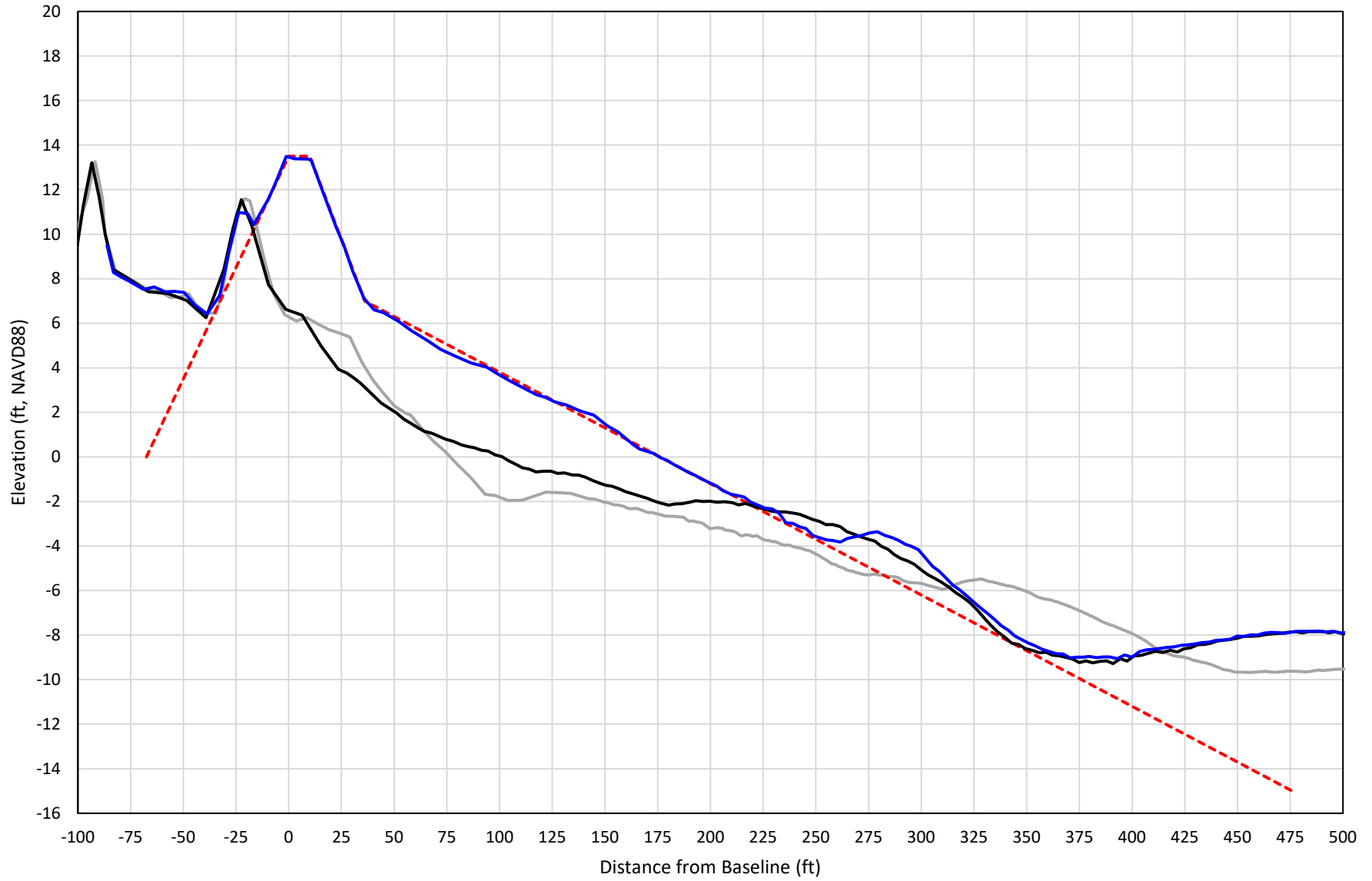
— 417+00 Precon    - - - 417+00 Temp002    — 417+00 BD\_210512    — 417+00 AD\_210518

# 418+00



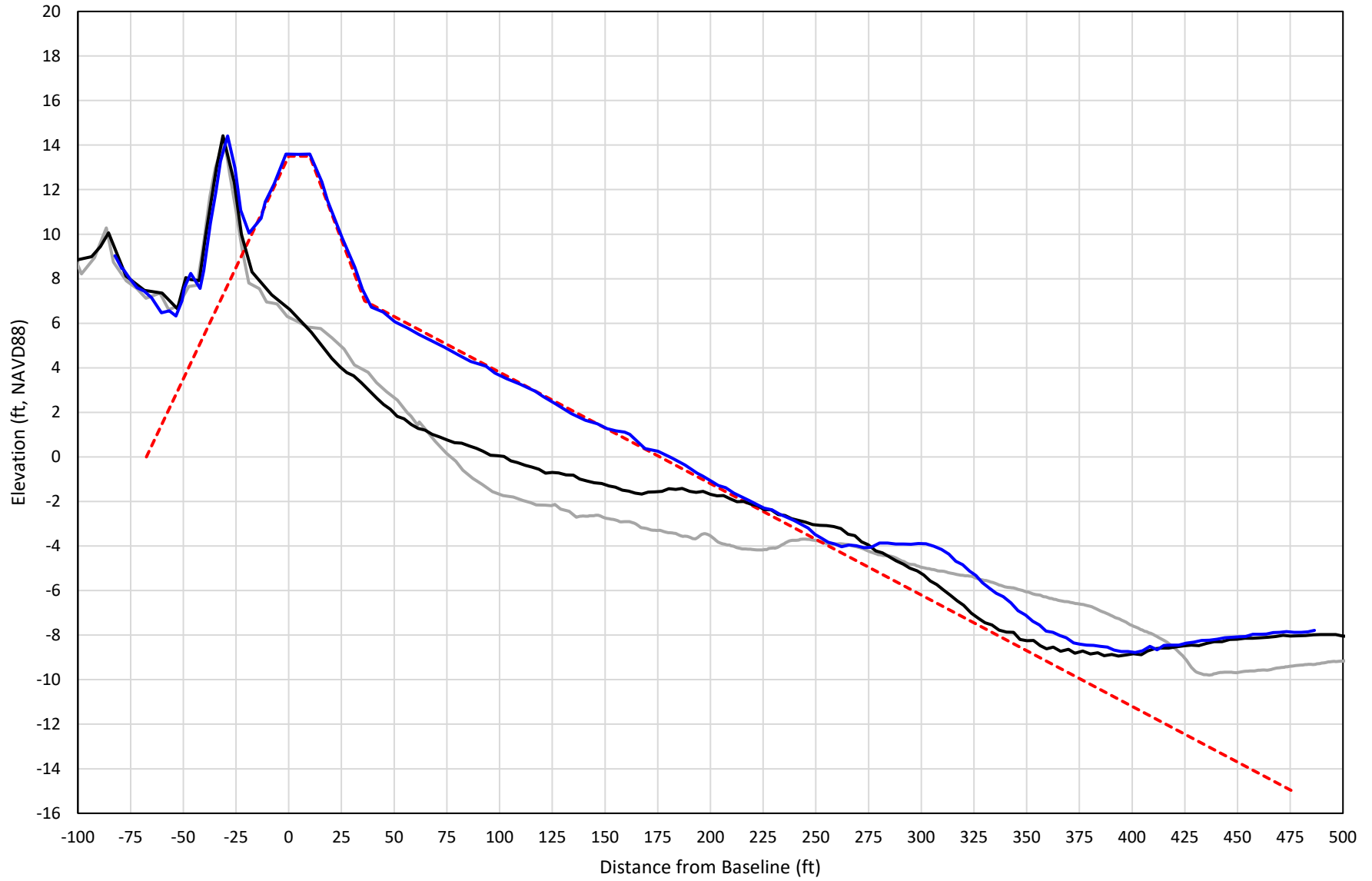
— 418+00 Precon    - - - 418+00 Temp002    — 418+00 BD\_210512    — 418+00 AD\_210518

# 419+00



— 419+00 Precon    - - - 419+00 Temp002    — 419+00 BD\_210512    — 419+00 AD\_210518

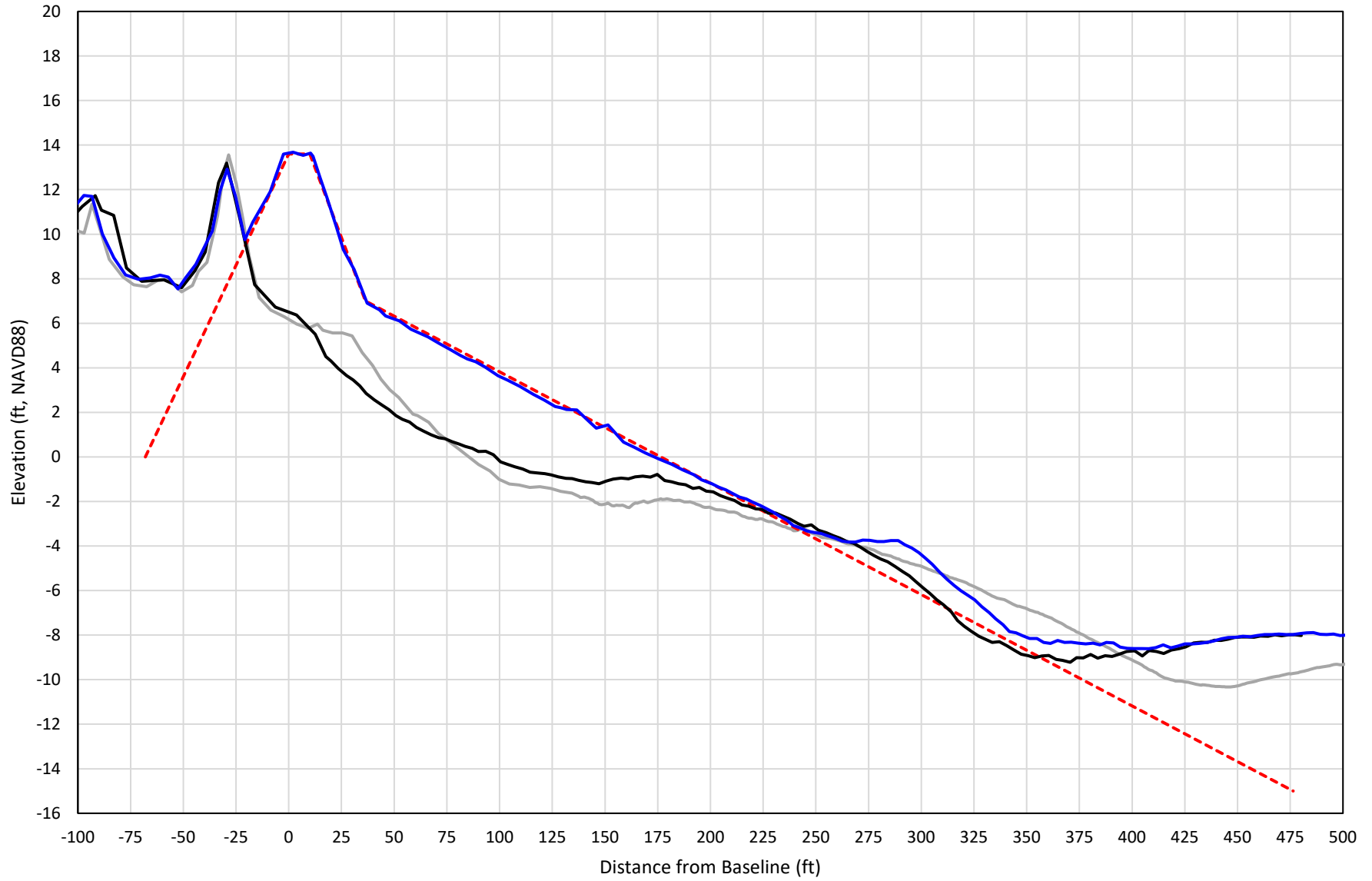
# 420+00



— 420+00 Precon    - - - 420+00 Temp002    — 420+00 BD\_210512    — 420+00 AD\_210518

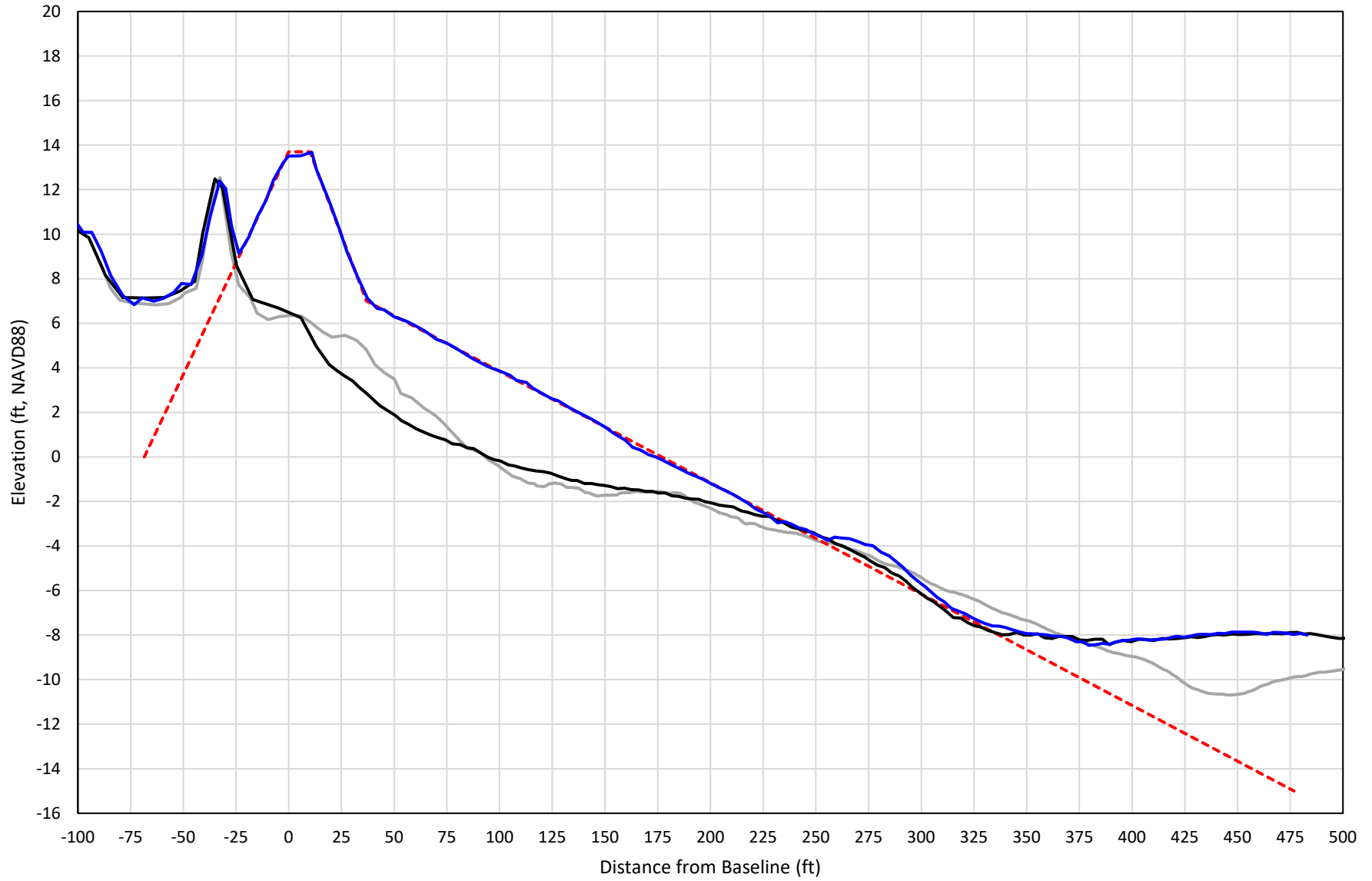


# 421+00



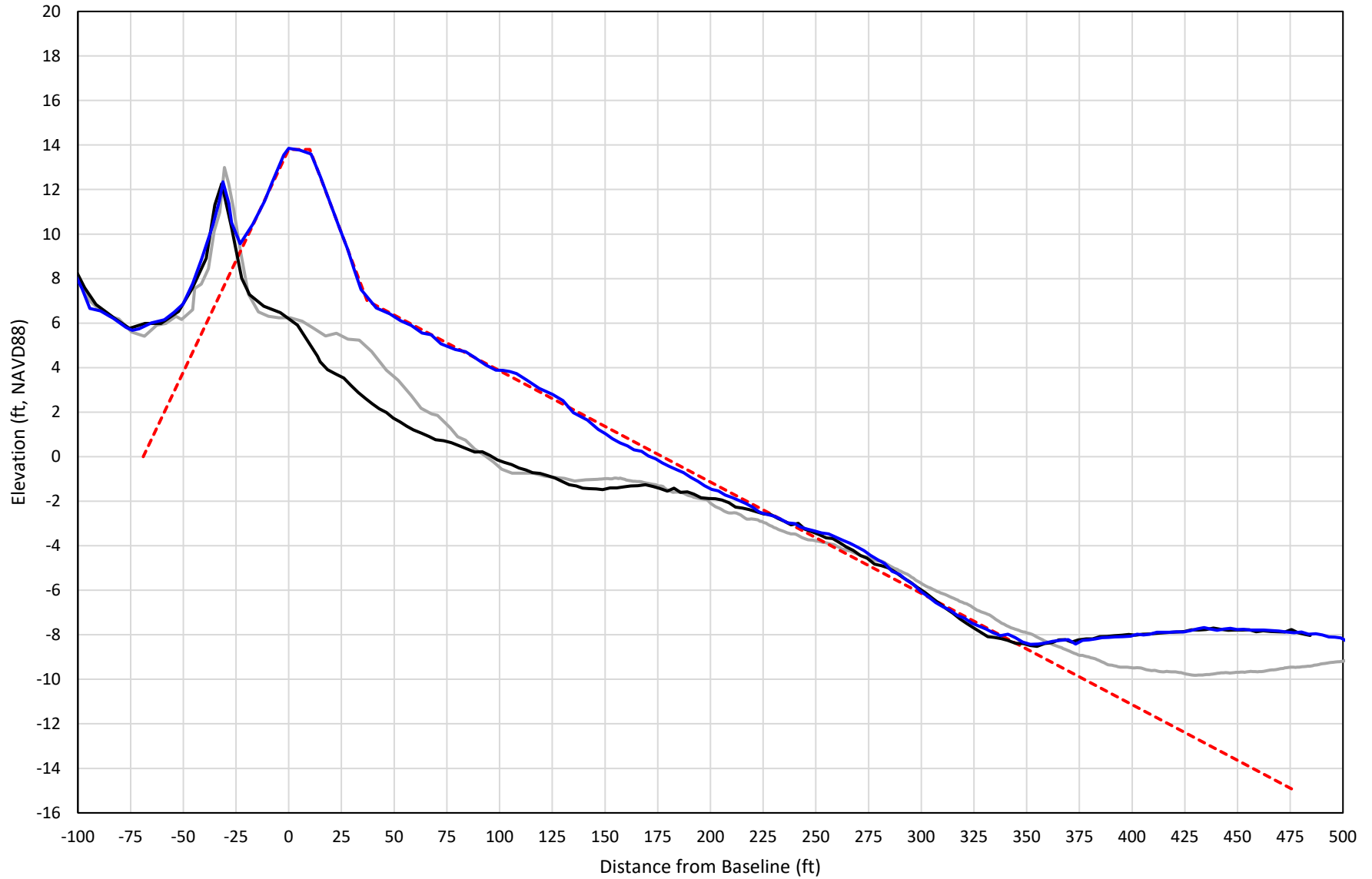
— 421+00 Precon    - - - 421+00 Temp002    — 421+00 BD\_210512    — 421+00 AD\_210518

# 422+00



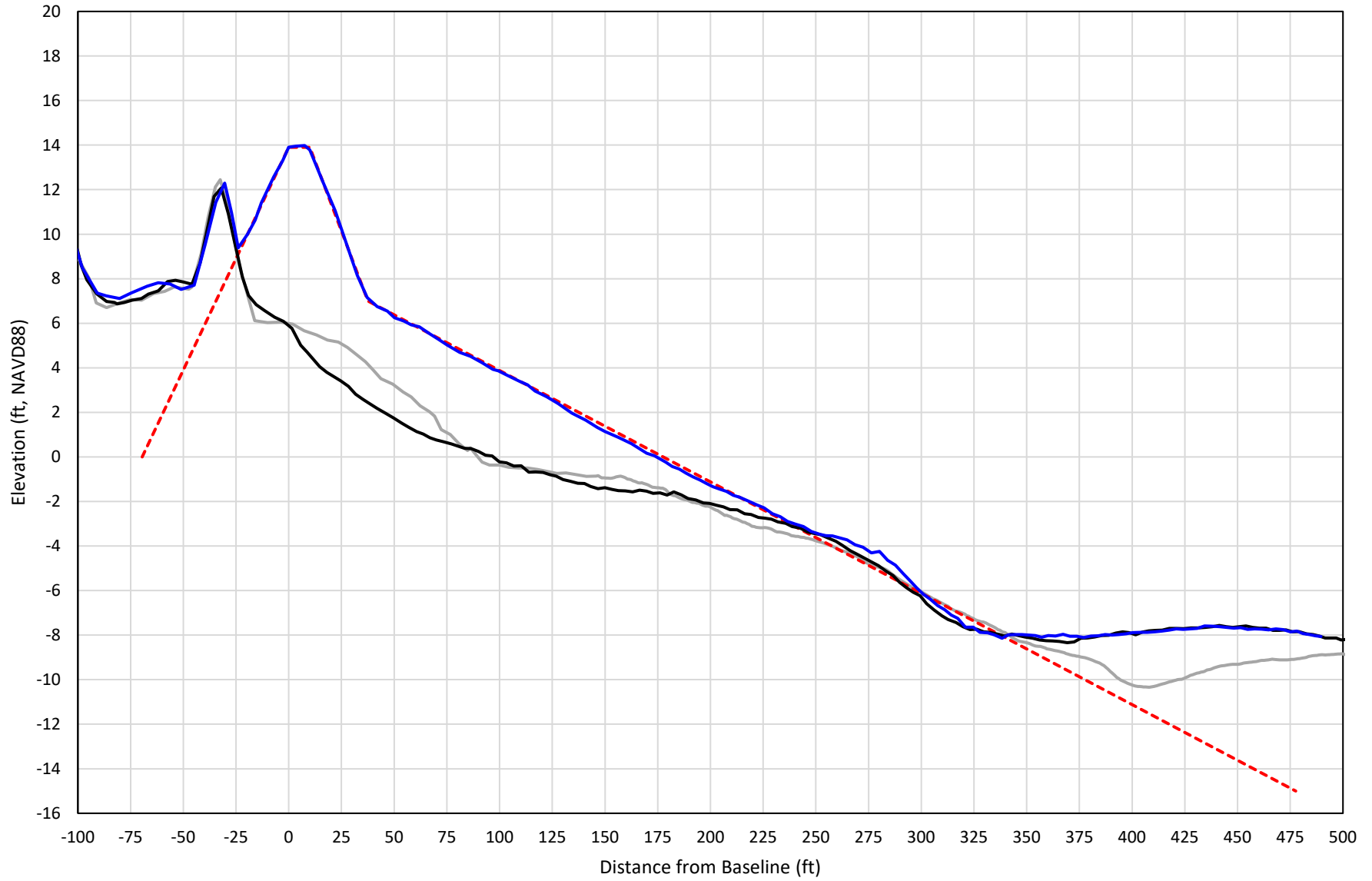
— 422+00 Precon    - - - 422+00 Temp002    — 422+00 BD\_210512    — 422+00 AD\_210518

# 423+00



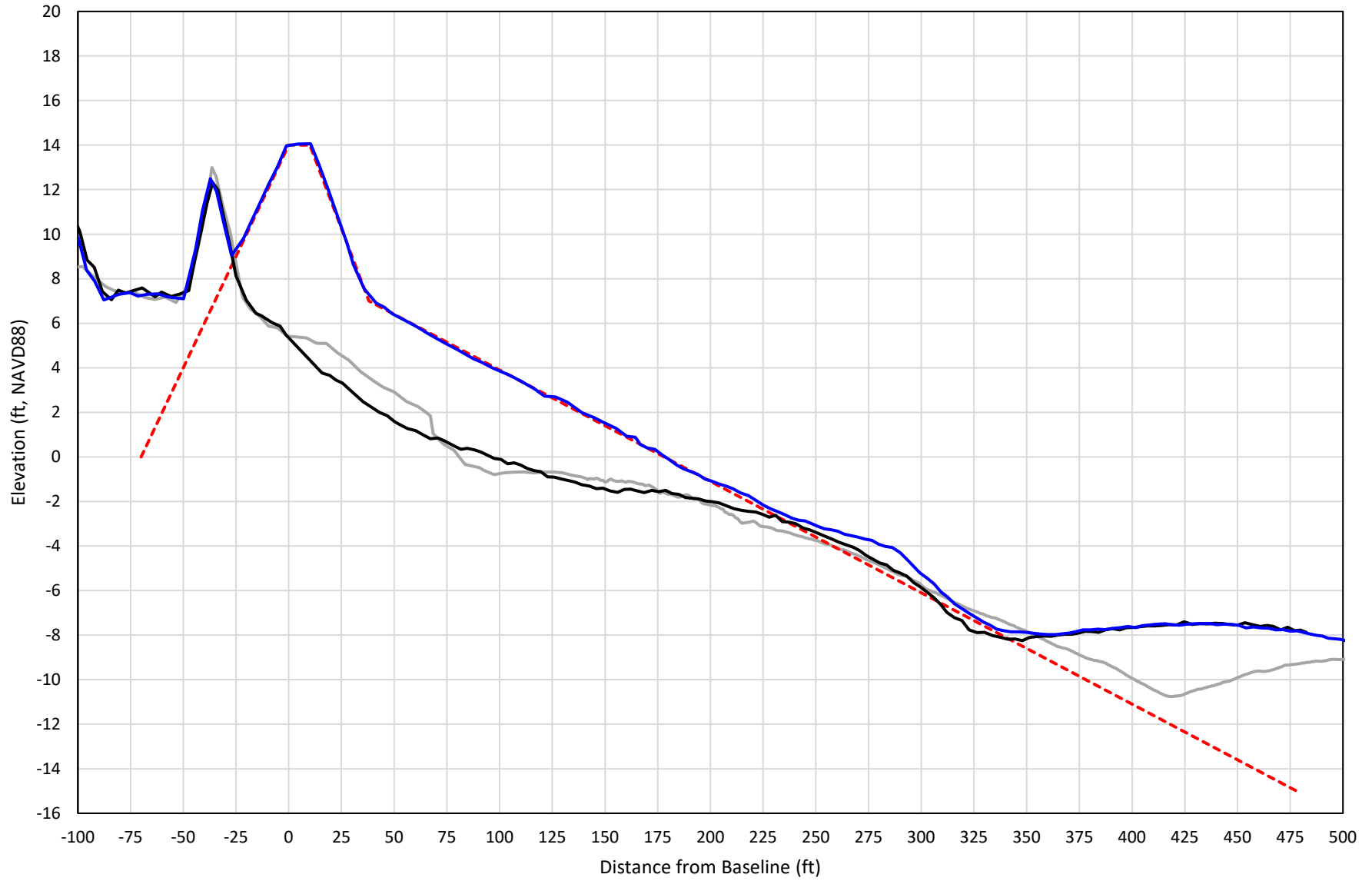
— 423+00 Precon    - - - 423+00 Temp002    — 423+00 BD\_210512    — 423+00 AD\_210518

# 424+00



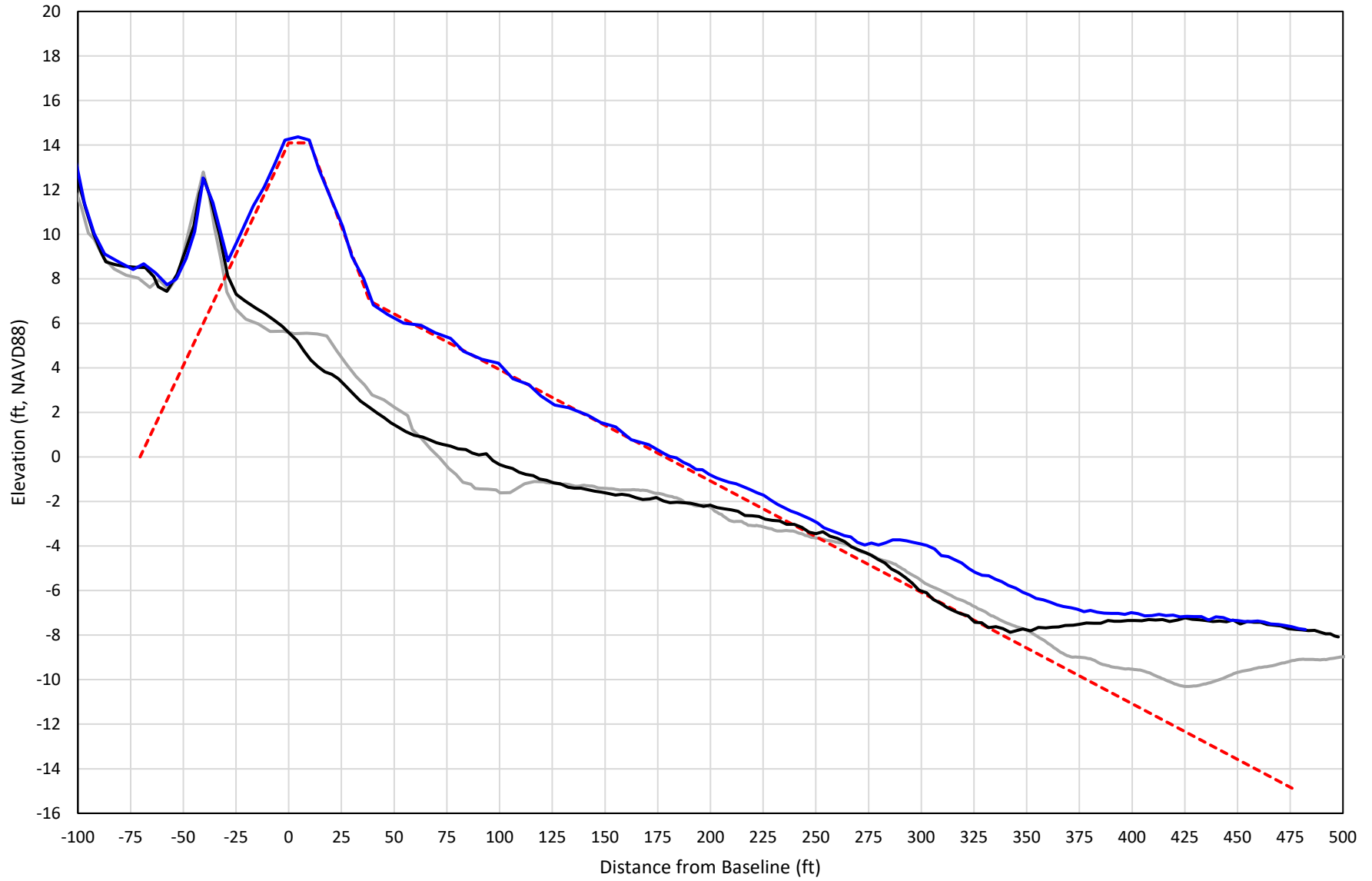
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# 425+00



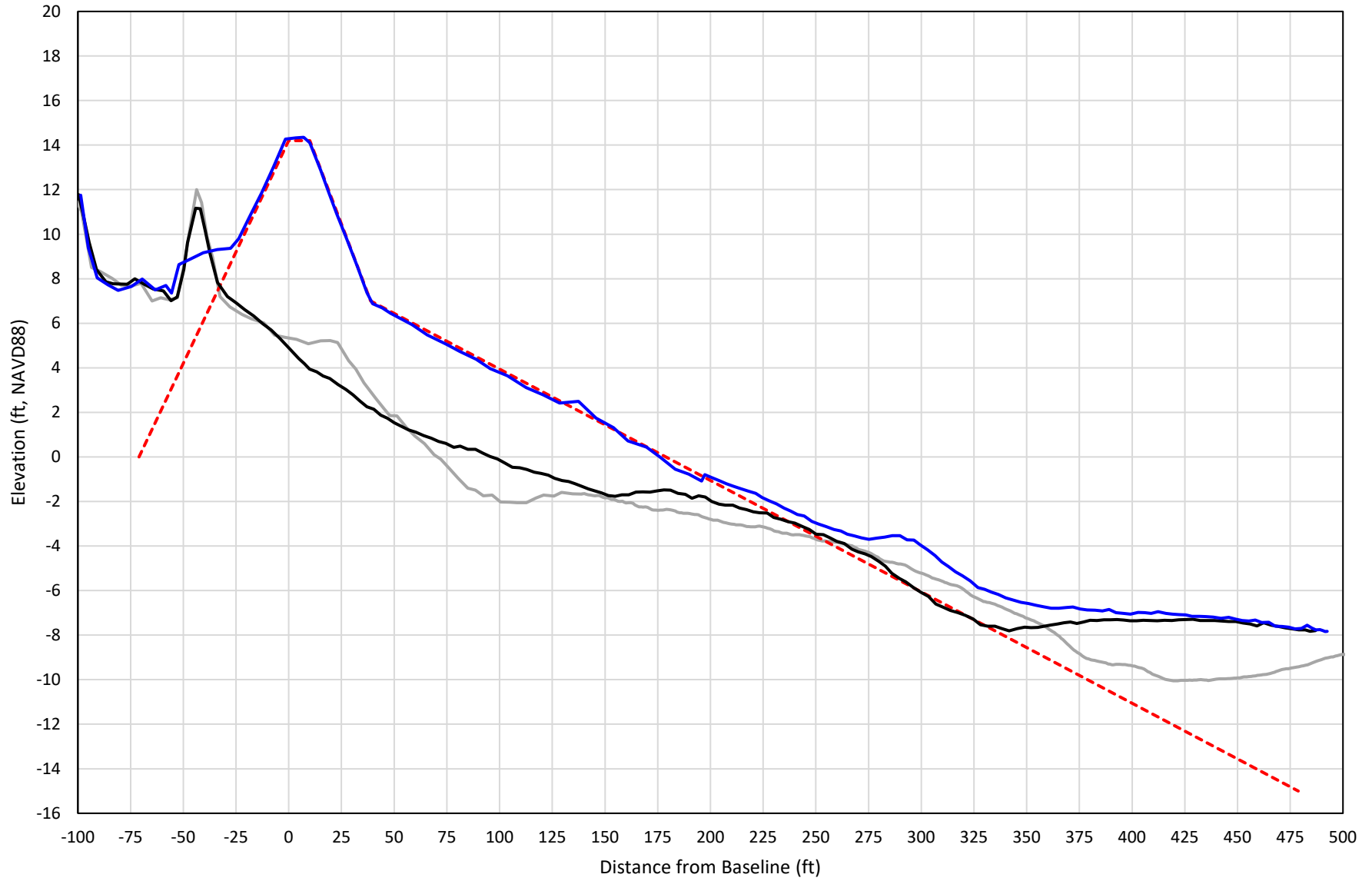
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# 426+00



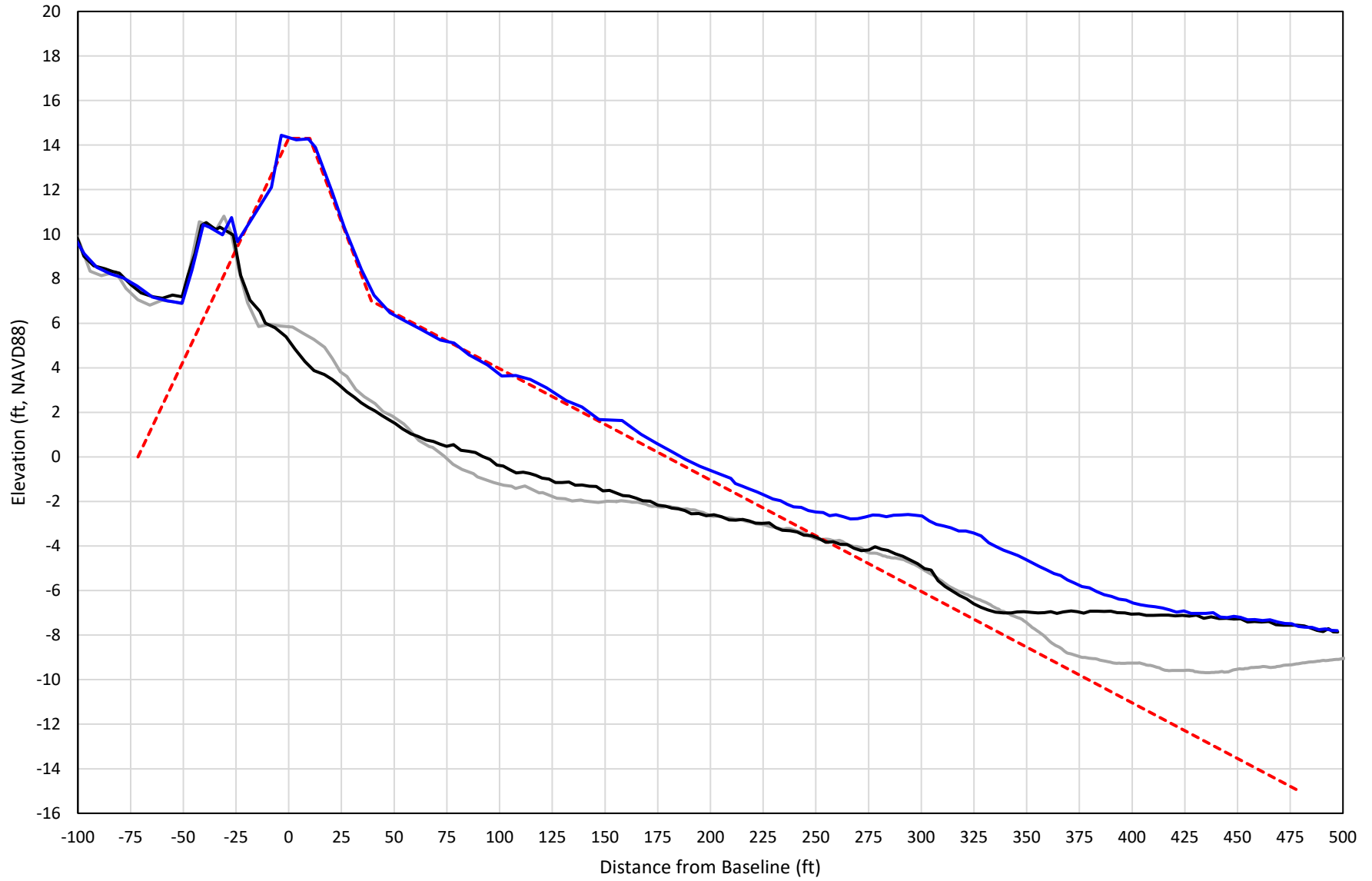
— 426+00 Precon    - - - 426+00 Temp002    — 426+00 BD\_210512    — 426+00 AD\_210518

# 427+00



— 427+00 Precon    - - - 427+00 Temp002    — 427+00 BD\_210512    — 427+00 AD\_210518

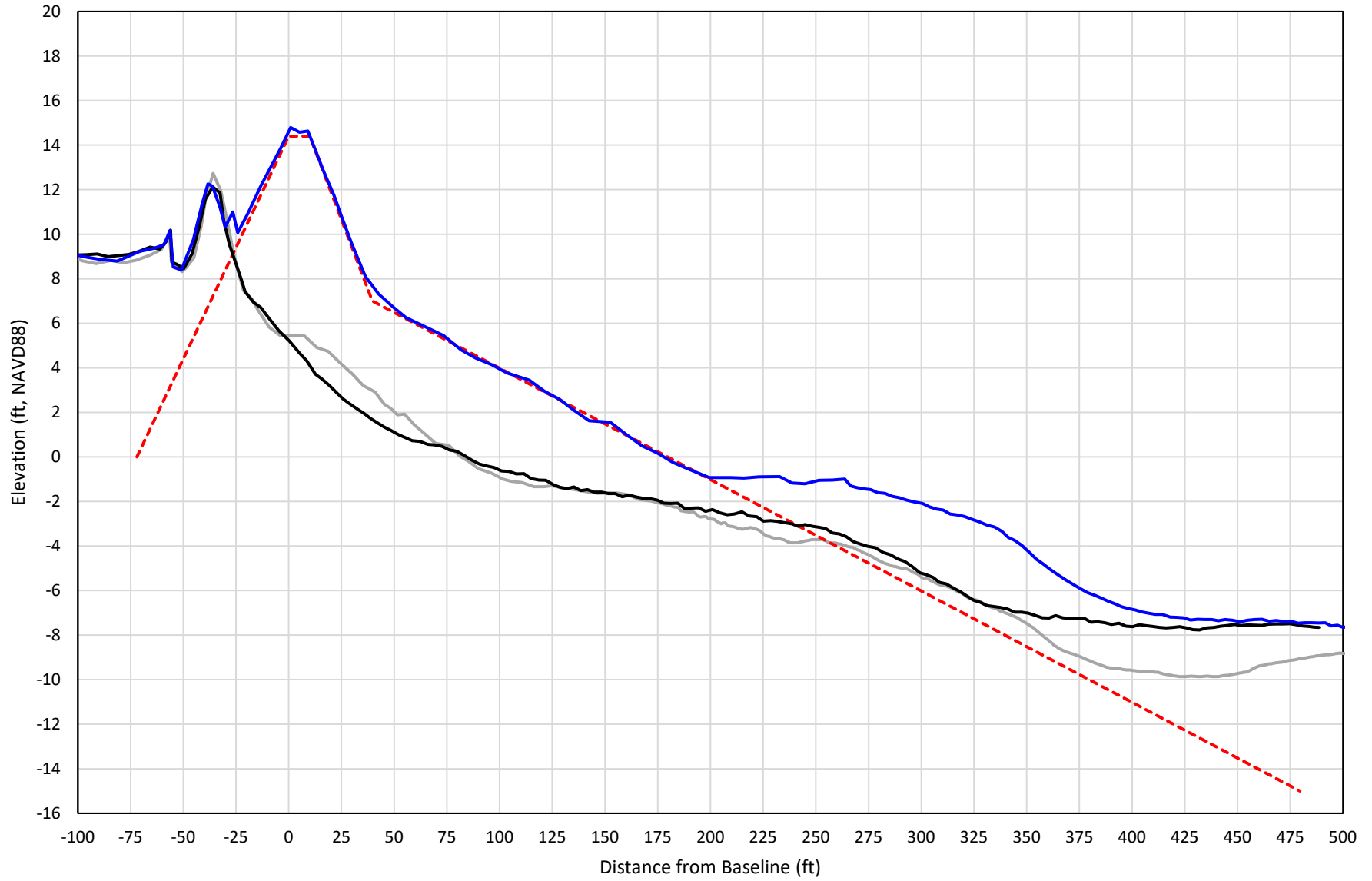
# 428+00



— 428+00 Precon    - - - 428+00 Temp002    — 428+00 BD\_210512    — 428+00 AD\_210518

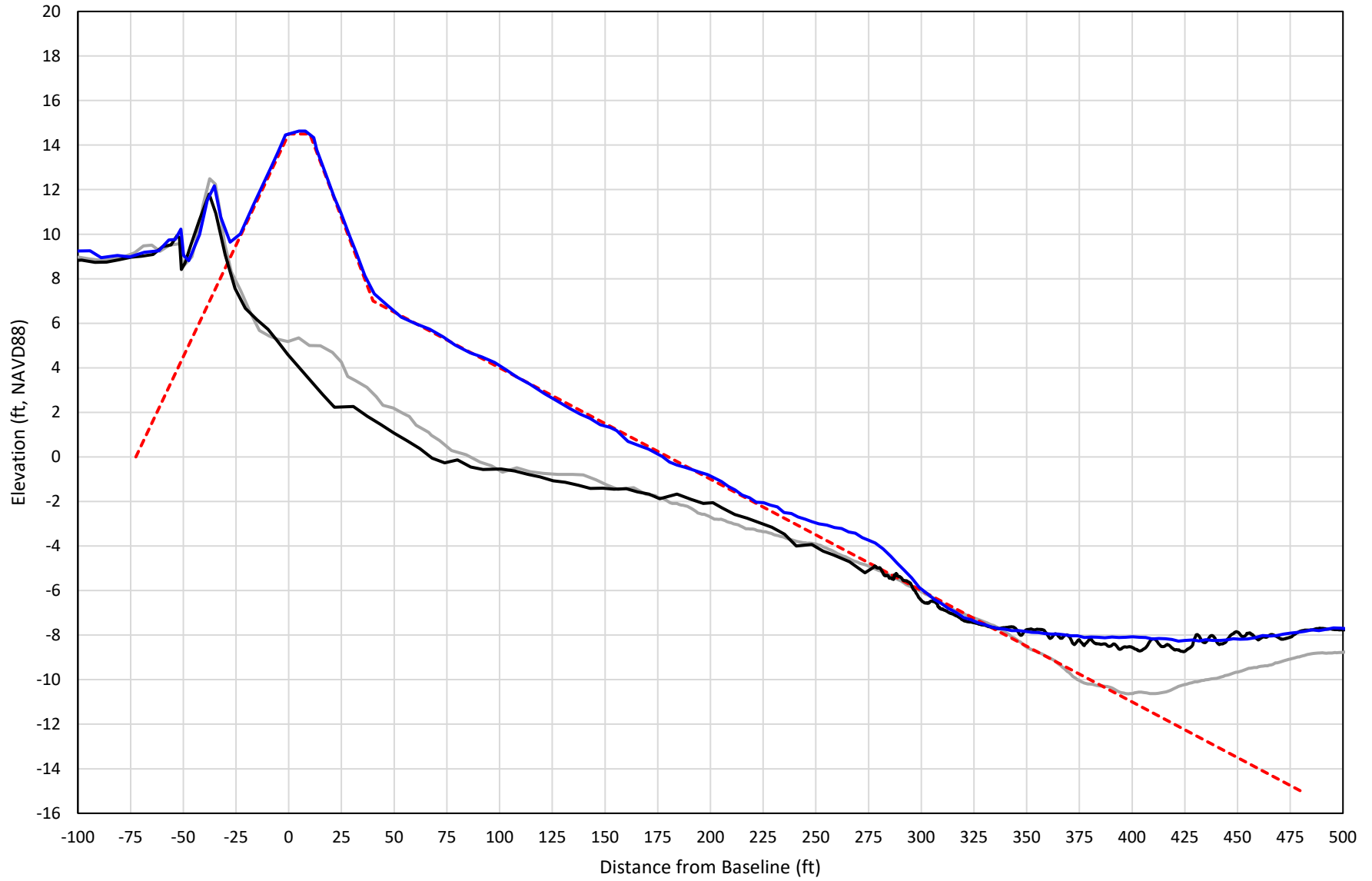


# 429+00



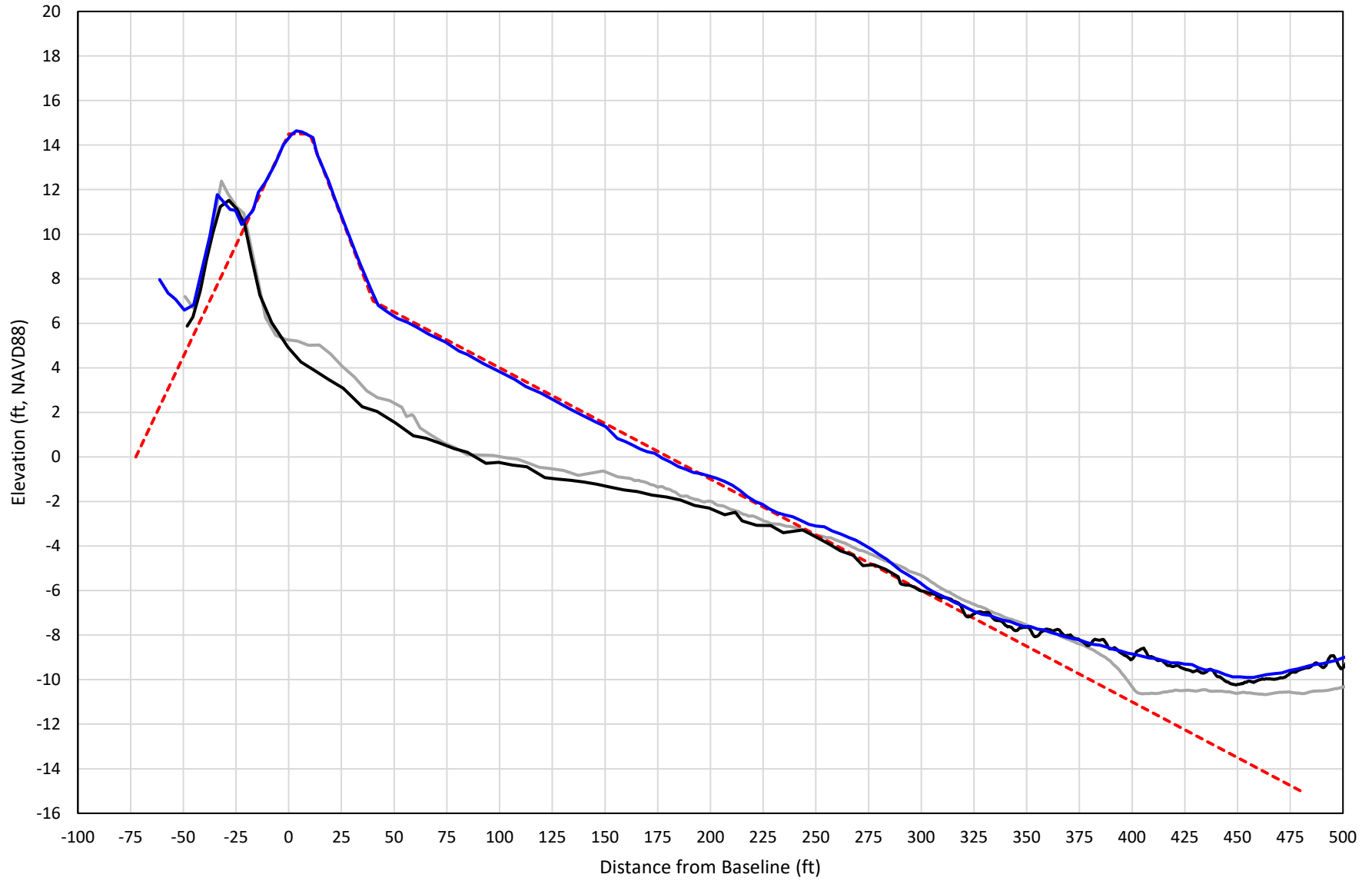
— 429+00 Precon    - - - 429+00 Temp002    — 429+00 BD\_210512    — 429+00 AD\_210518

# 430+00



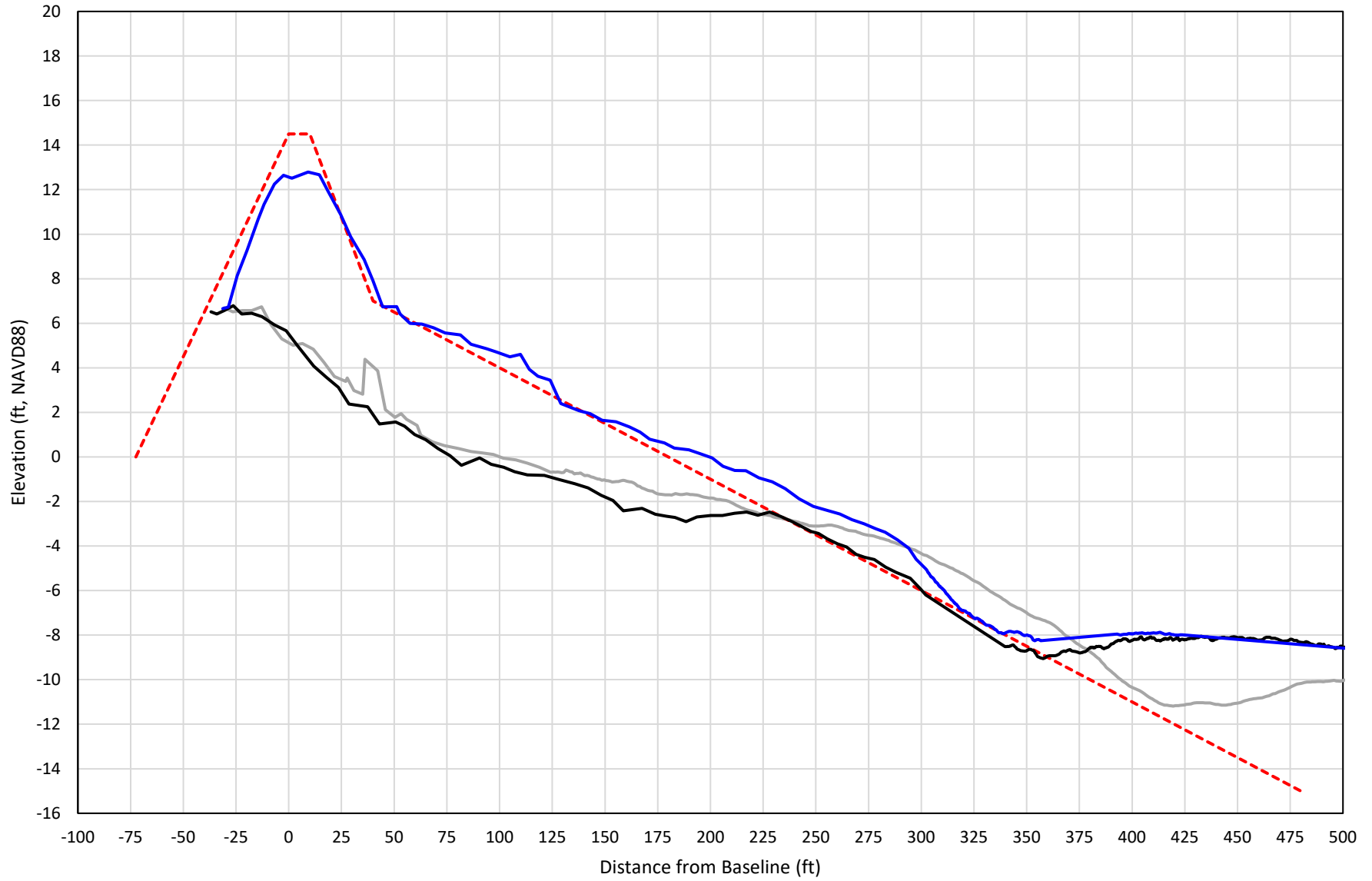
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# 431+00



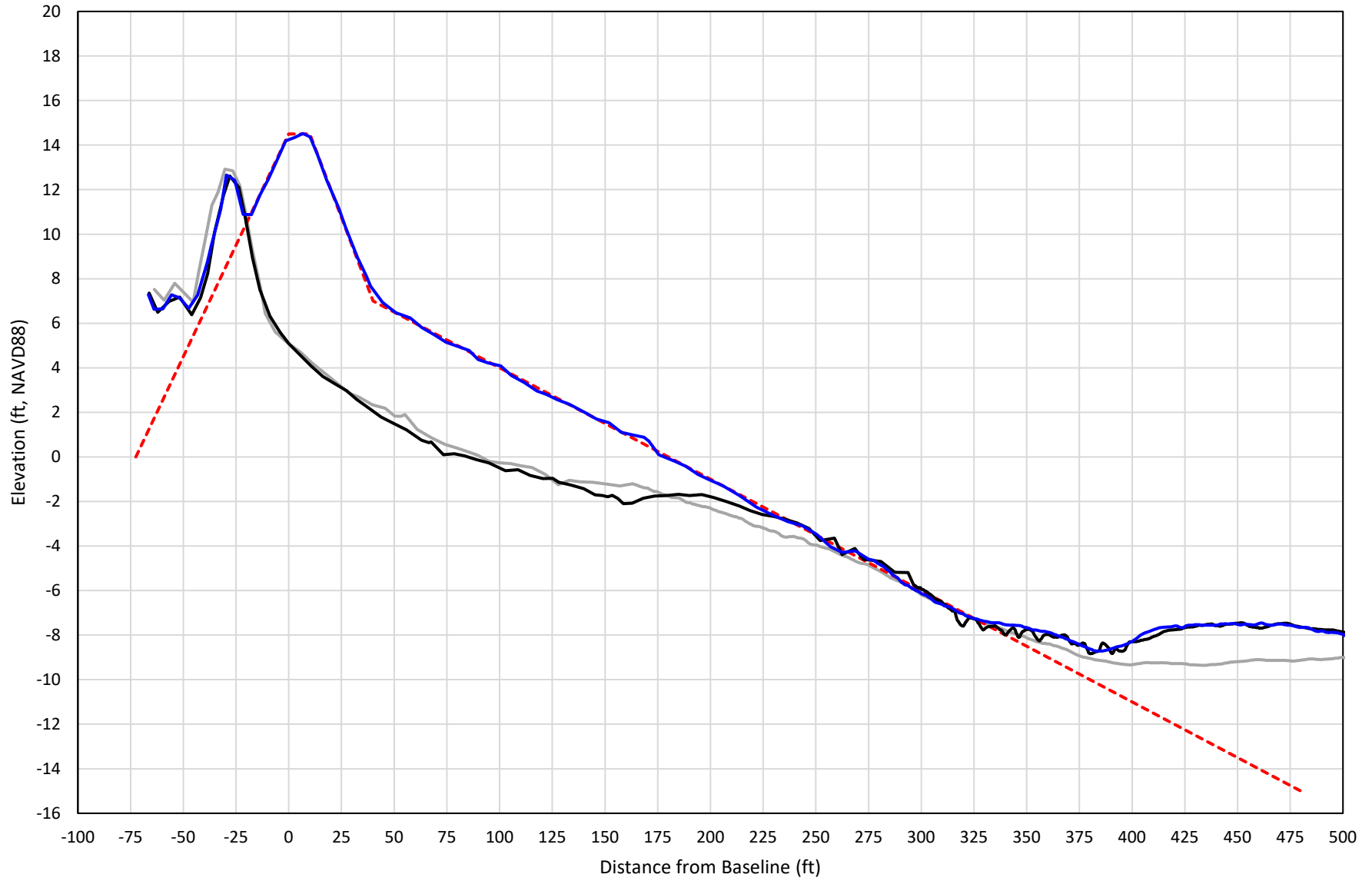
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# 432+00



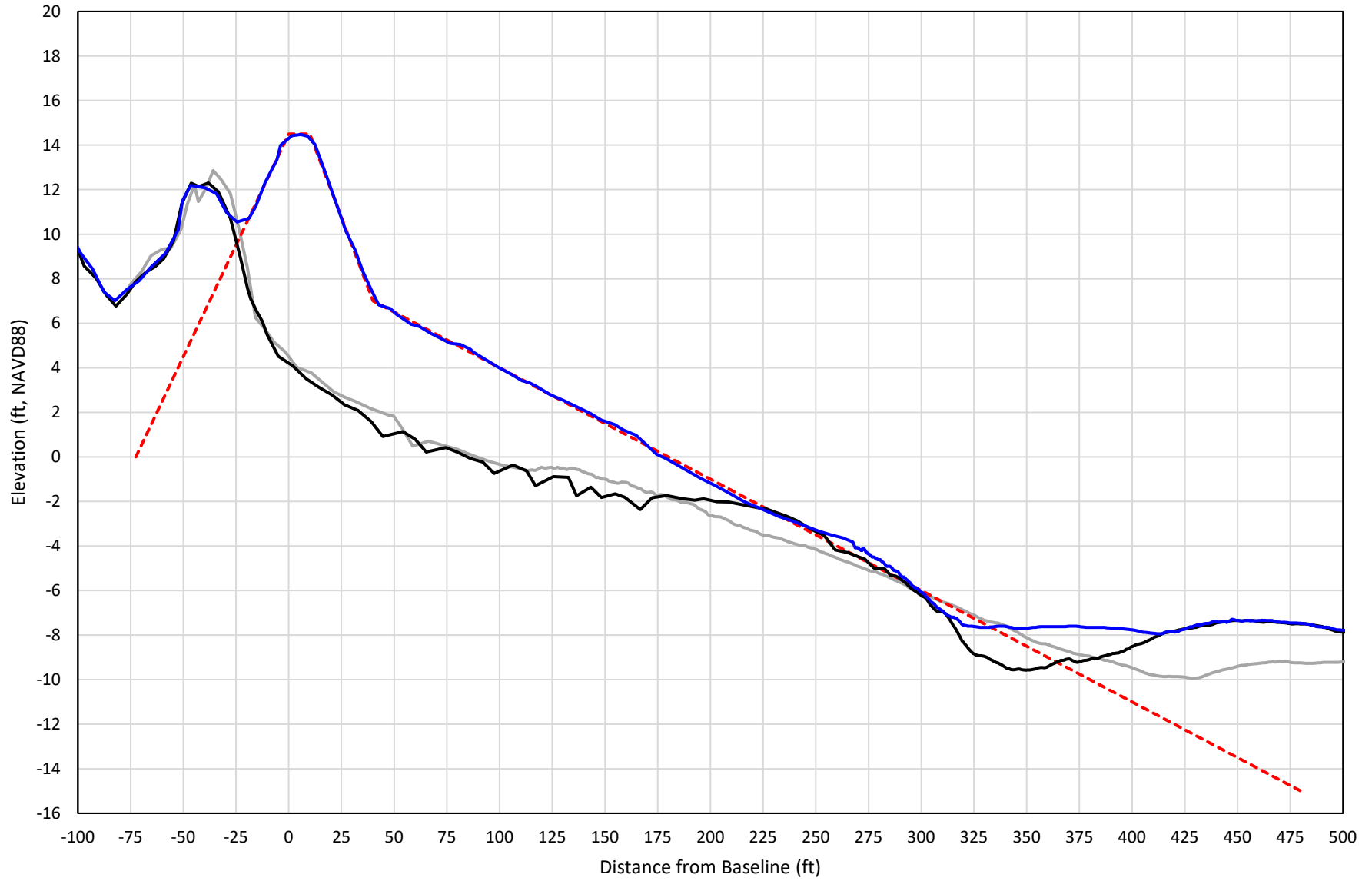
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# 433+00



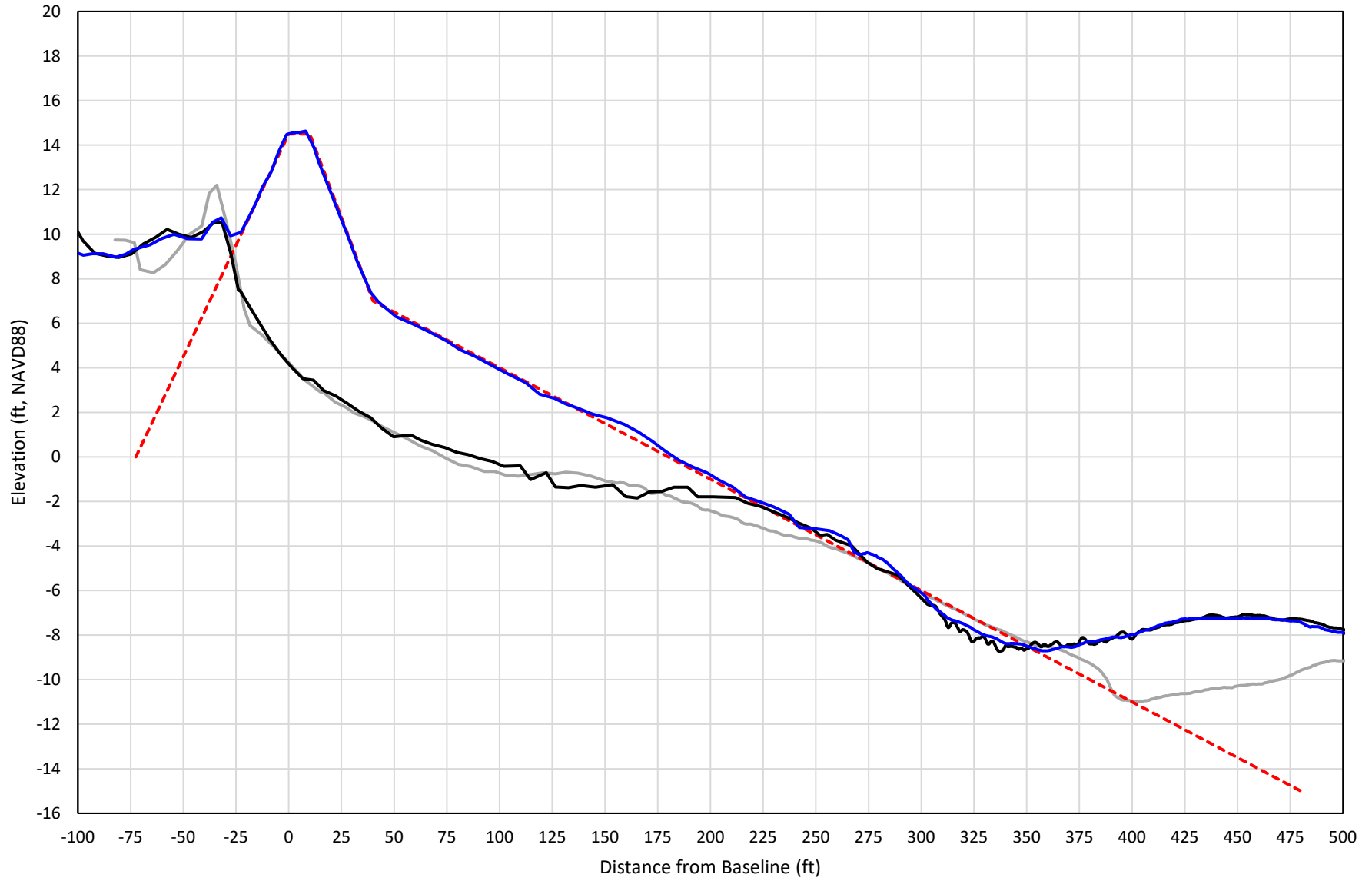
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# 434+00



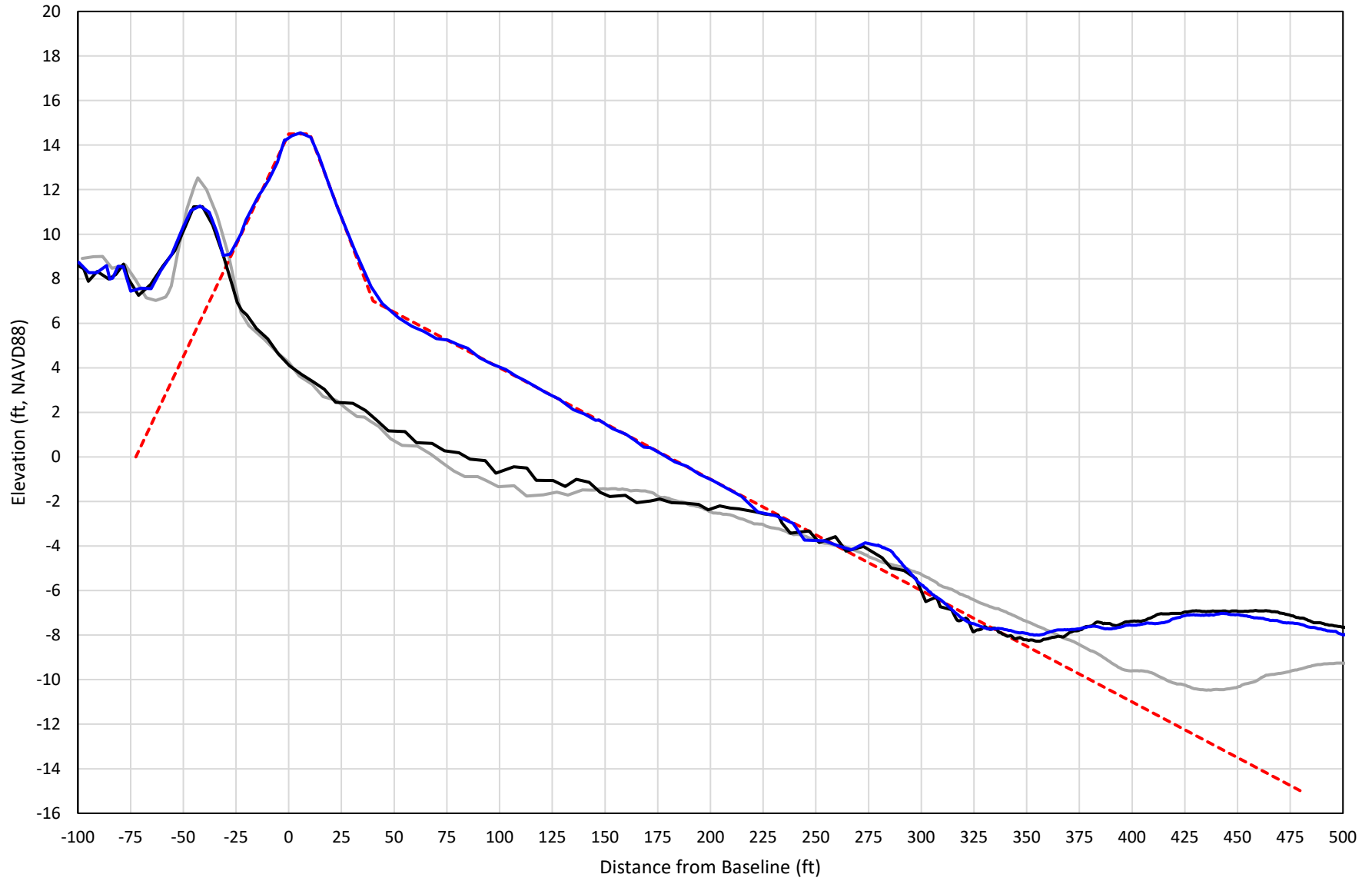
— 434+00 Precon    - - - 434+00 Temp002    — 434+00 BD\_210512    — 434+00 AD\_210518

# 435+00



— 435+00 Precon    - - - 435+00 Temp002    — 435+00 BD\_210512    — 435+00 AD\_210514

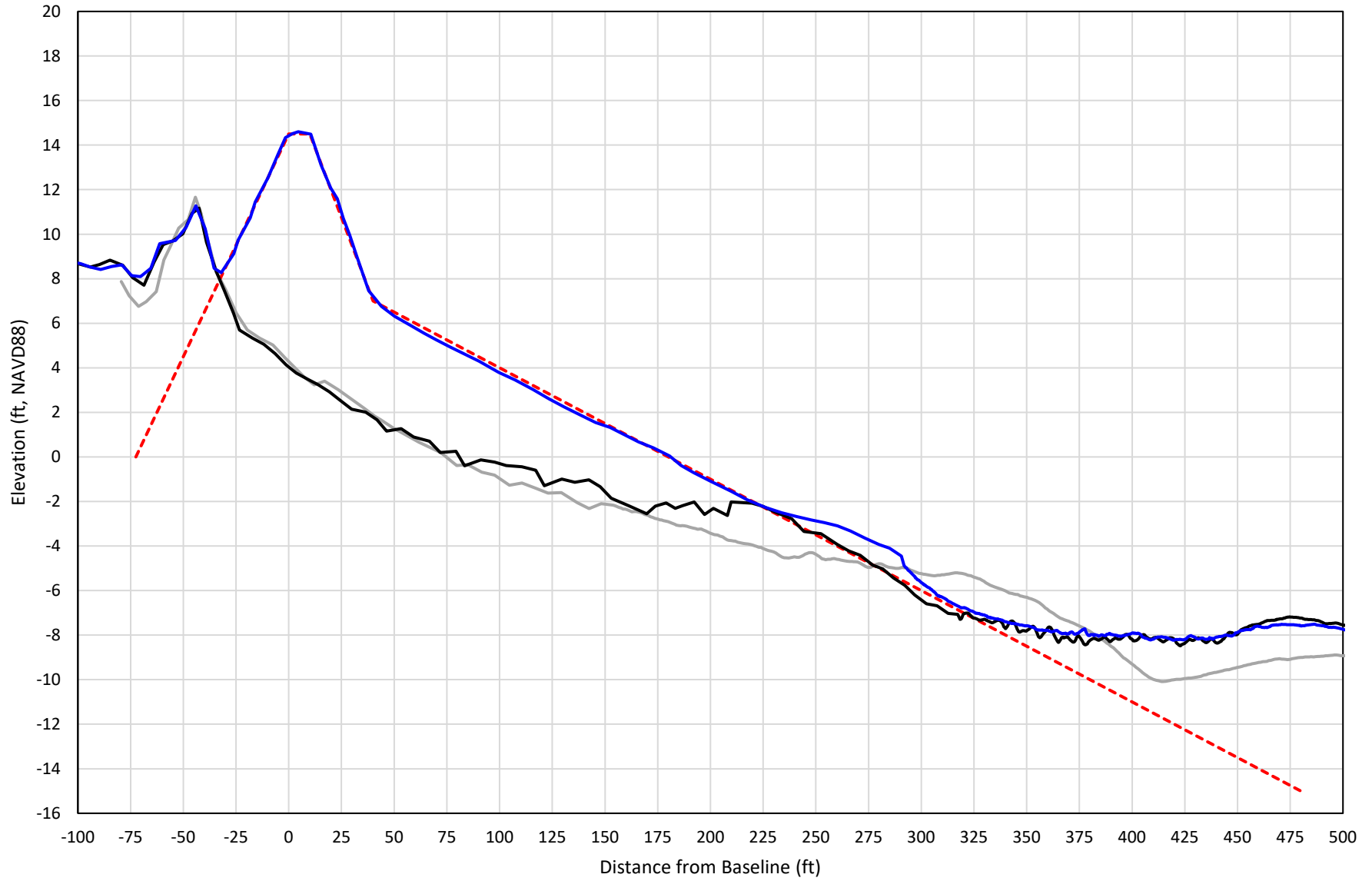
# 436+00



— 436+00 Precon    - - - 436+00 Temp002    — 436+00 BD\_210512    — 436+00 AD\_210514

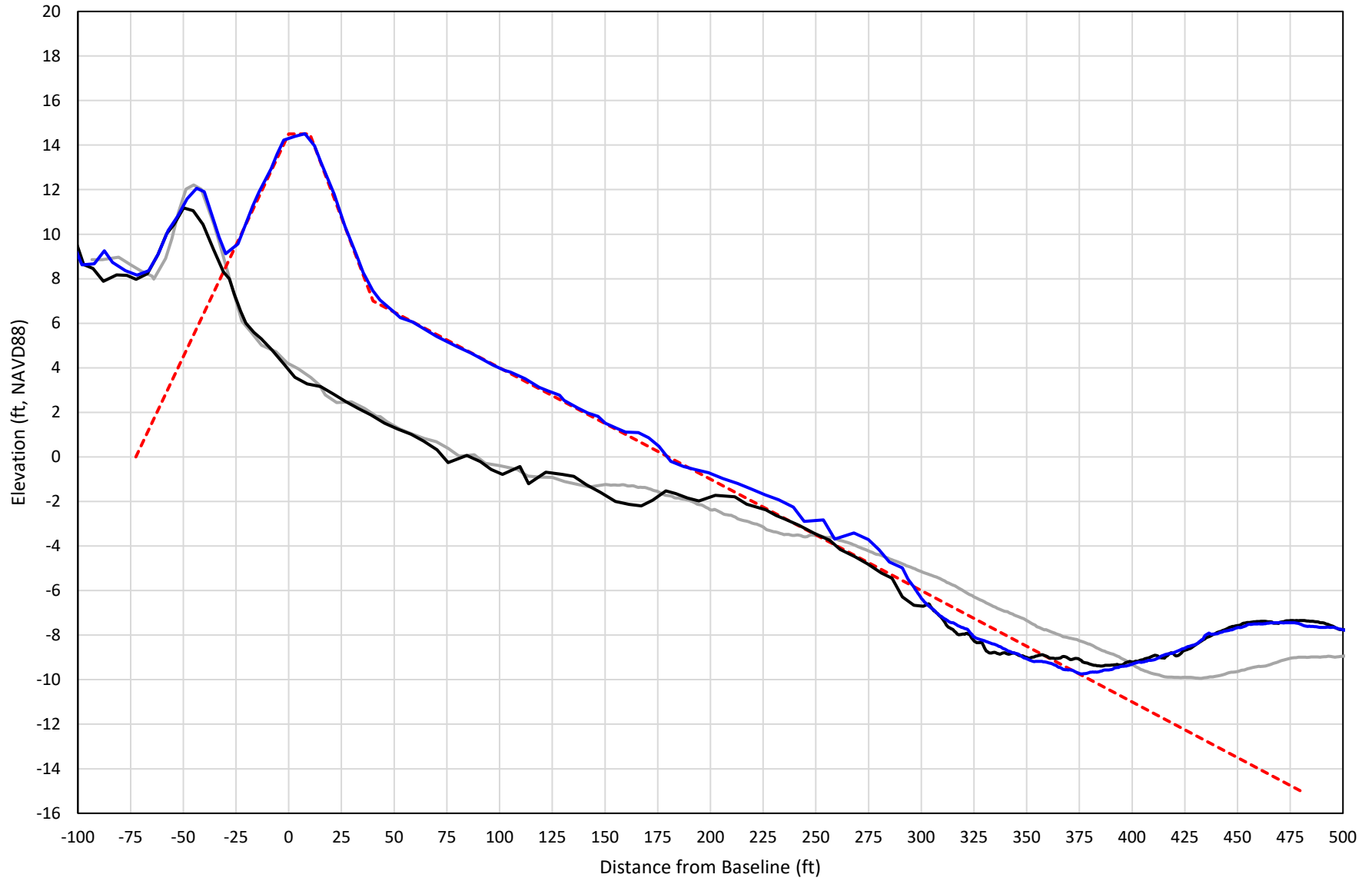


# 437+00



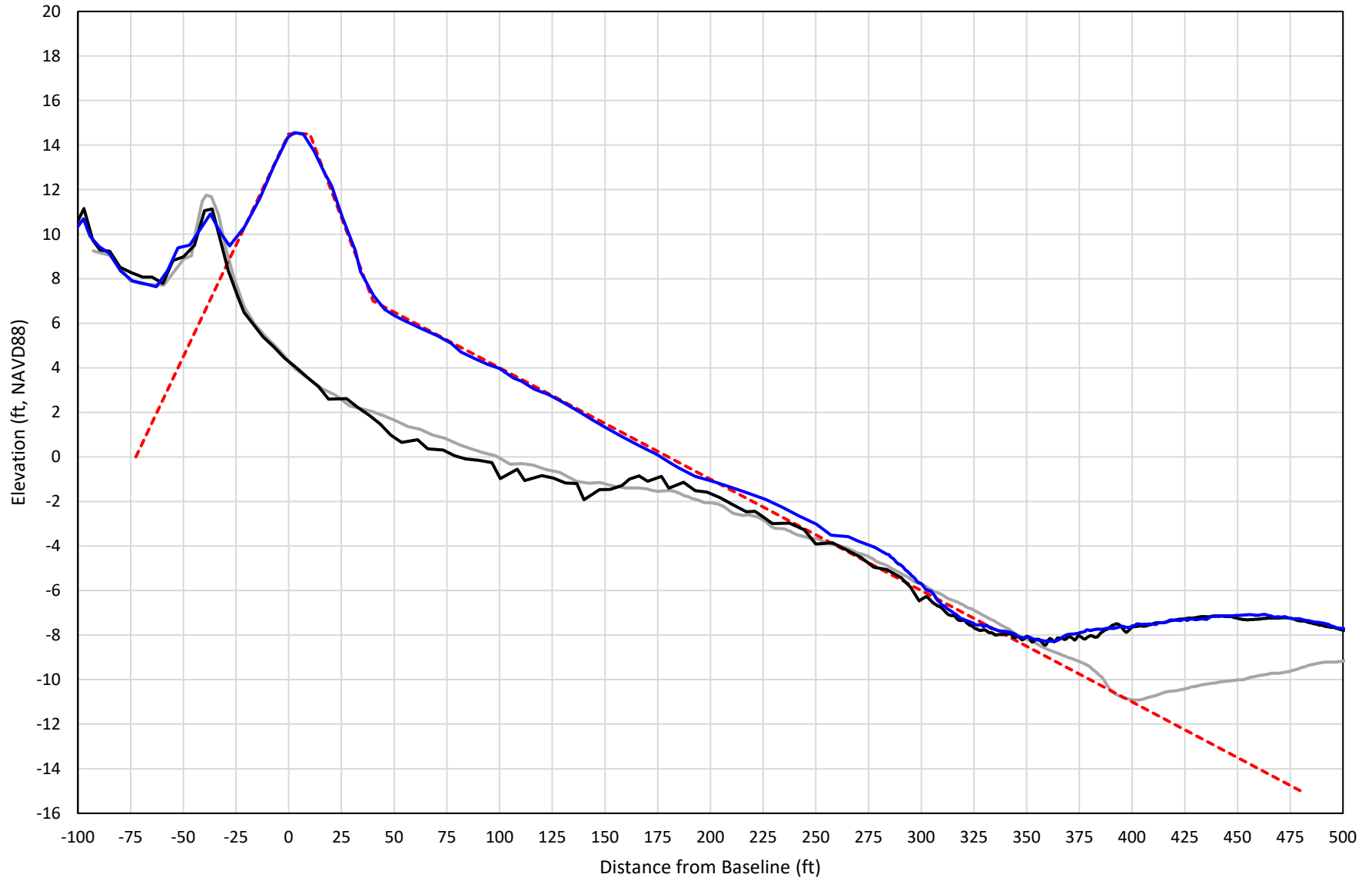
— 437+00 Precon    - - - 437+00 Temp002    — 437+00 BD\_210512    — 437+00 AD\_210514

# 438+00



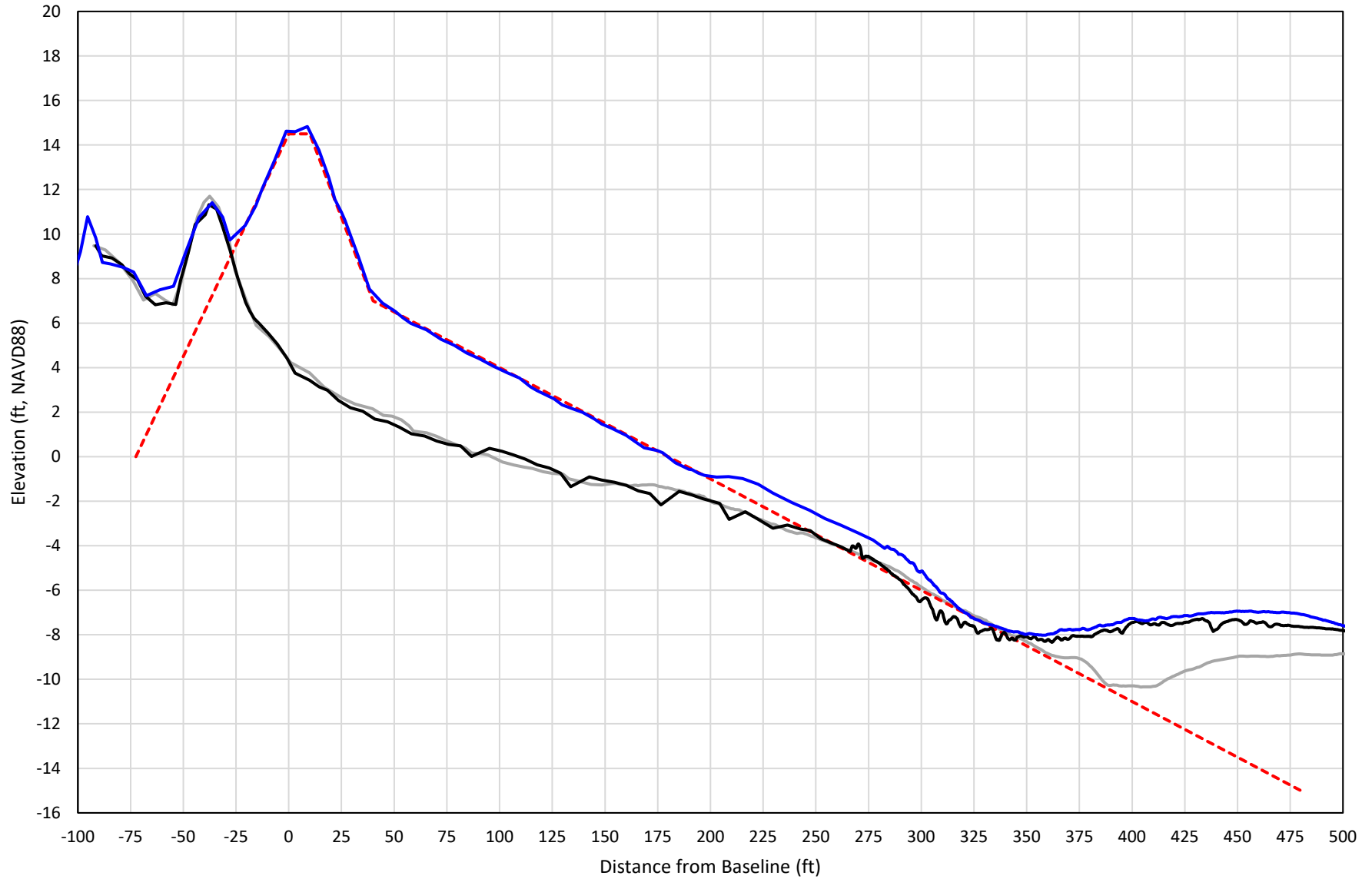
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# 439+00



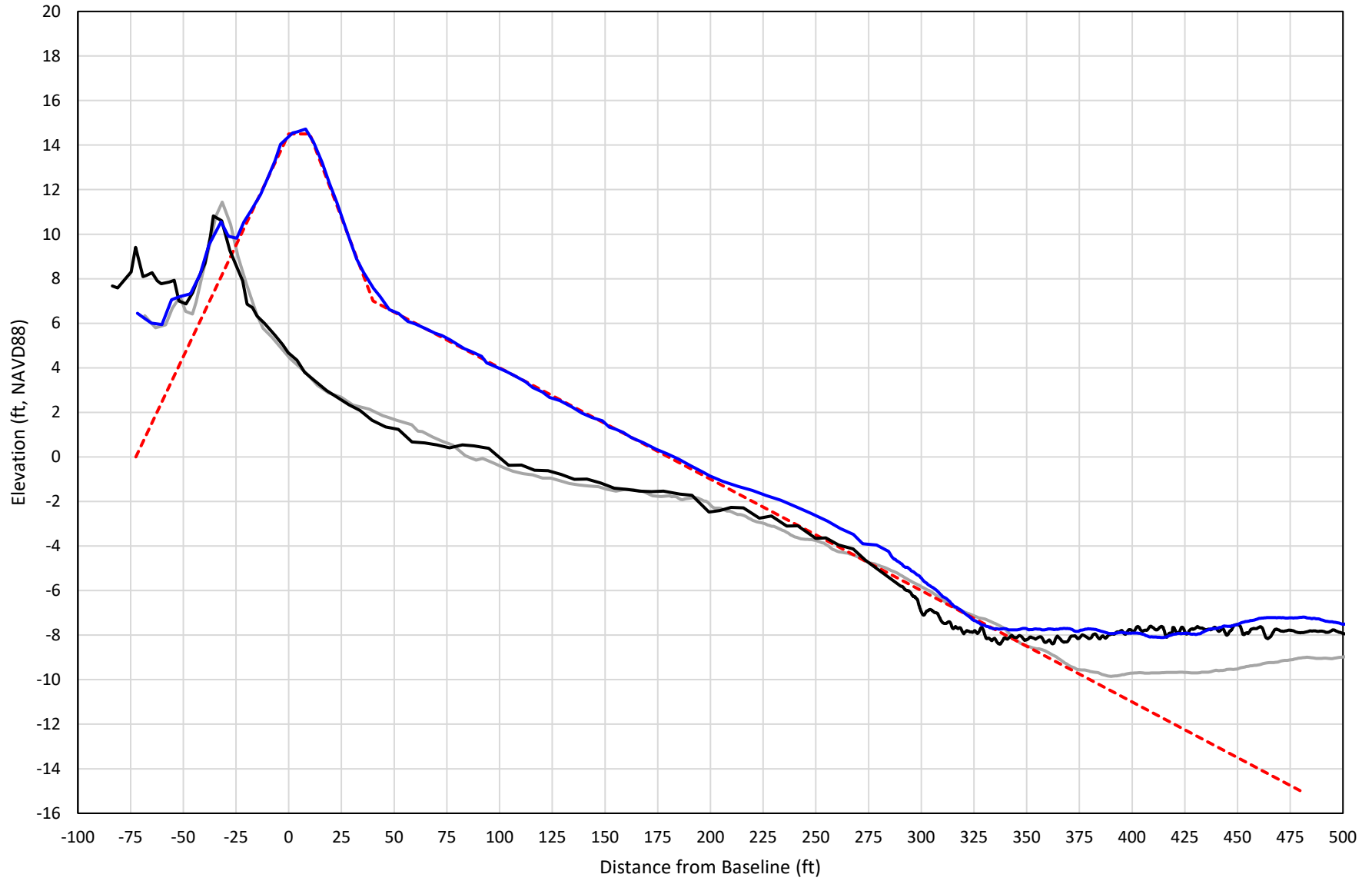
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# 440+00



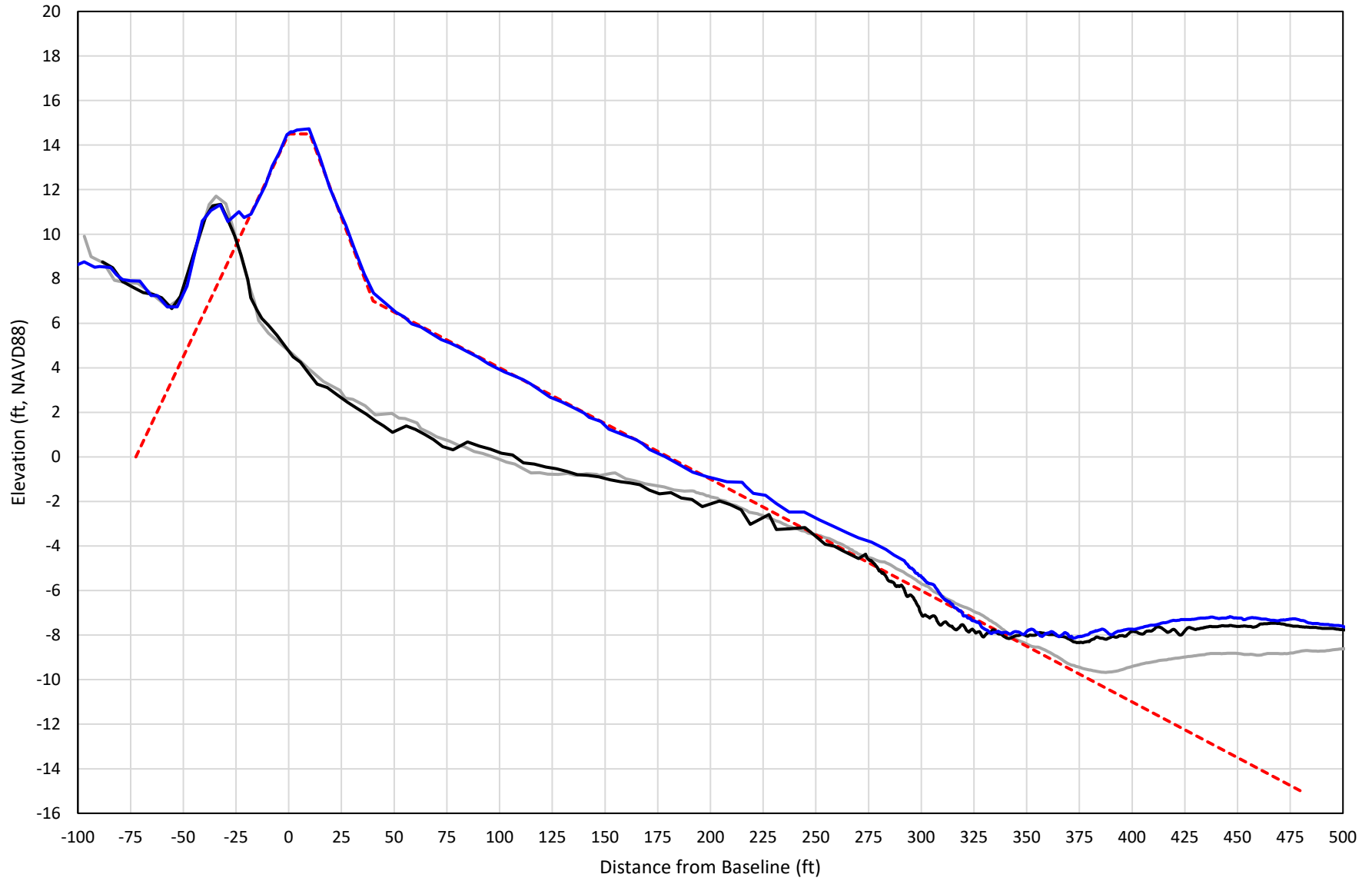
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# 441+00



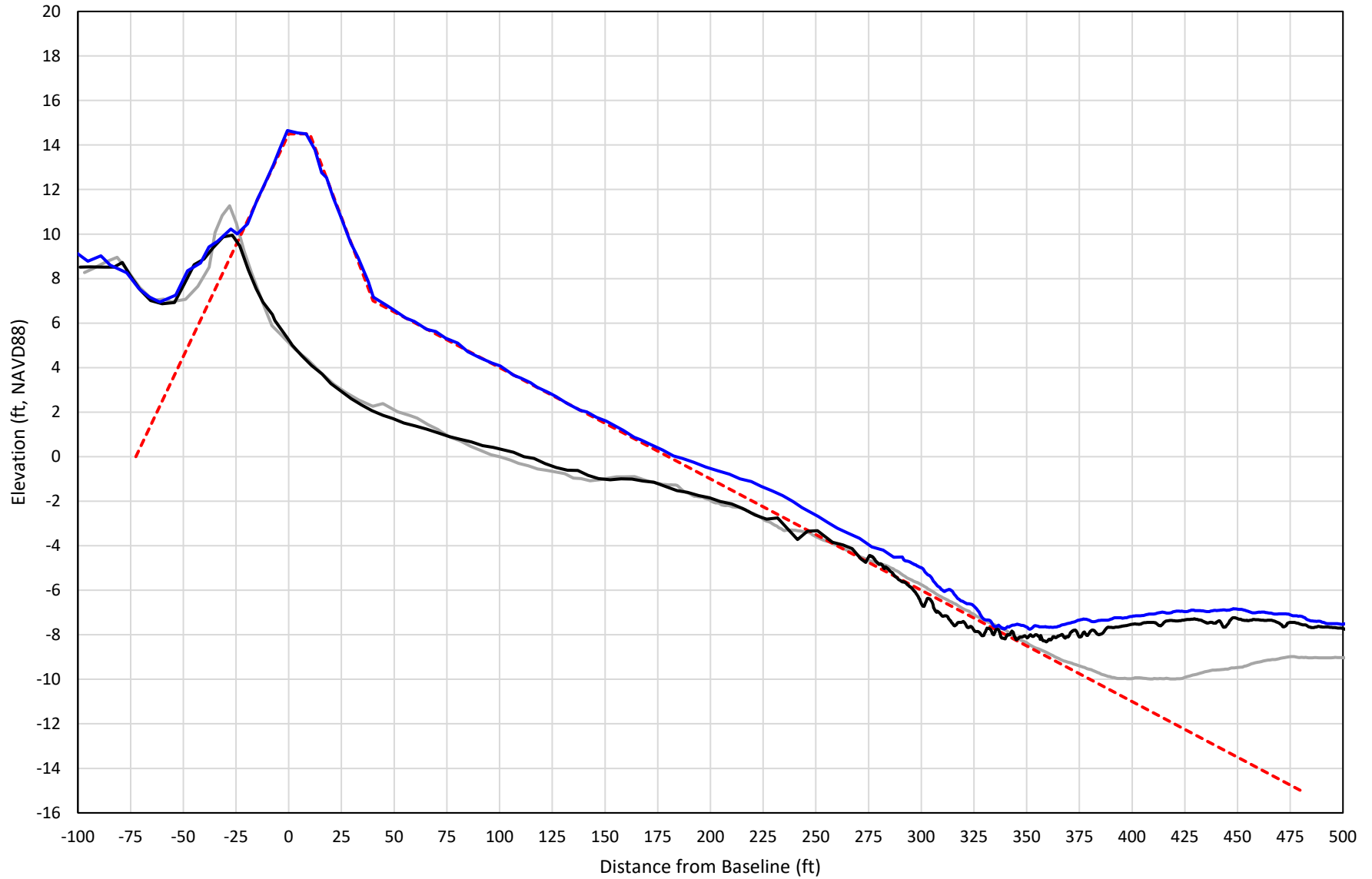
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# 442+00



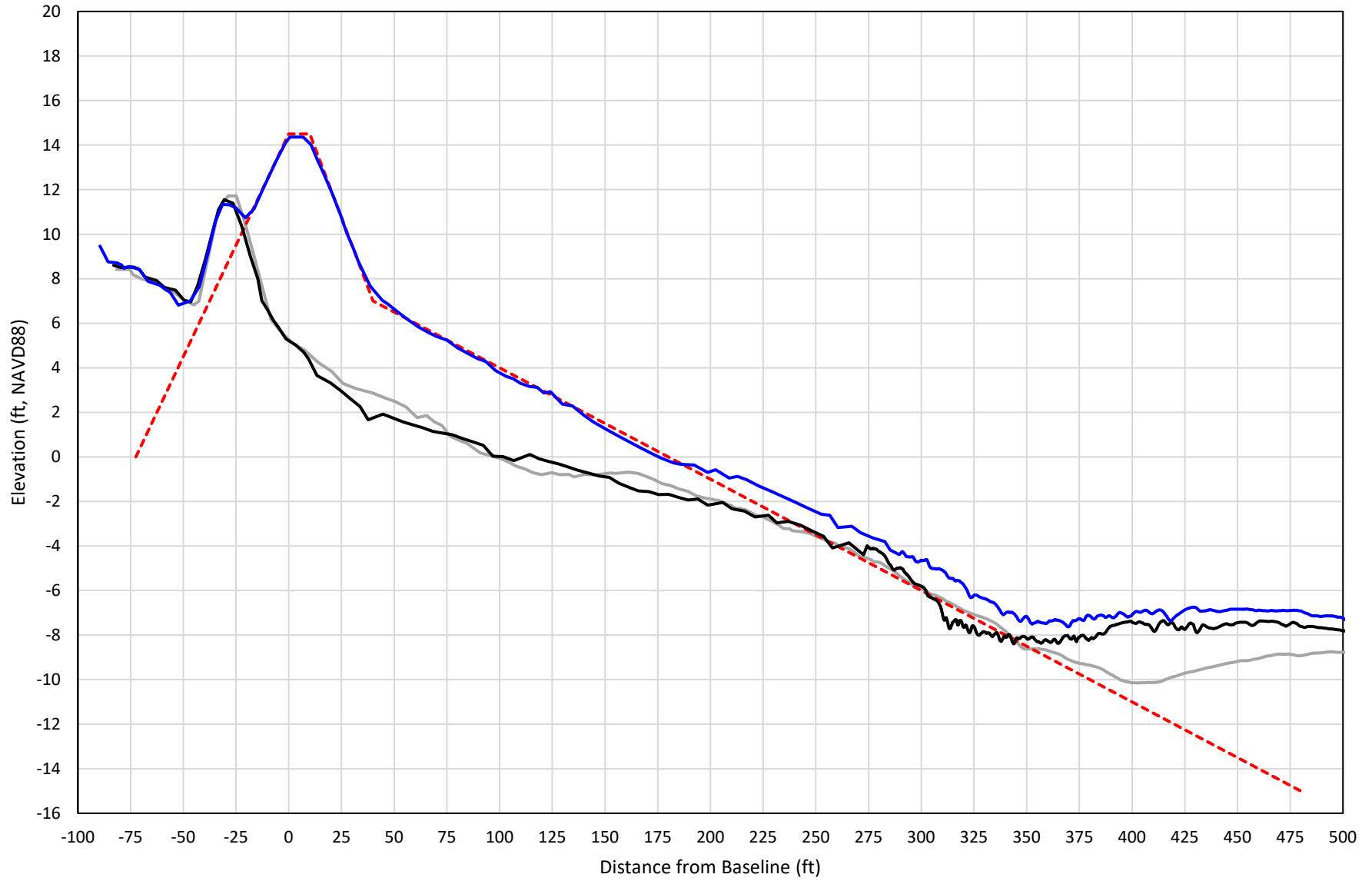
— 442+00 Precon    - - - 442+00 Temp002    — 442+00 BD\_210503    — 442+00 AD\_210512

# 443+00



— 443+00 Precon    - - - 443+00 Temp002    — 443+00 BD\_210503    — 443+00 AD\_210512

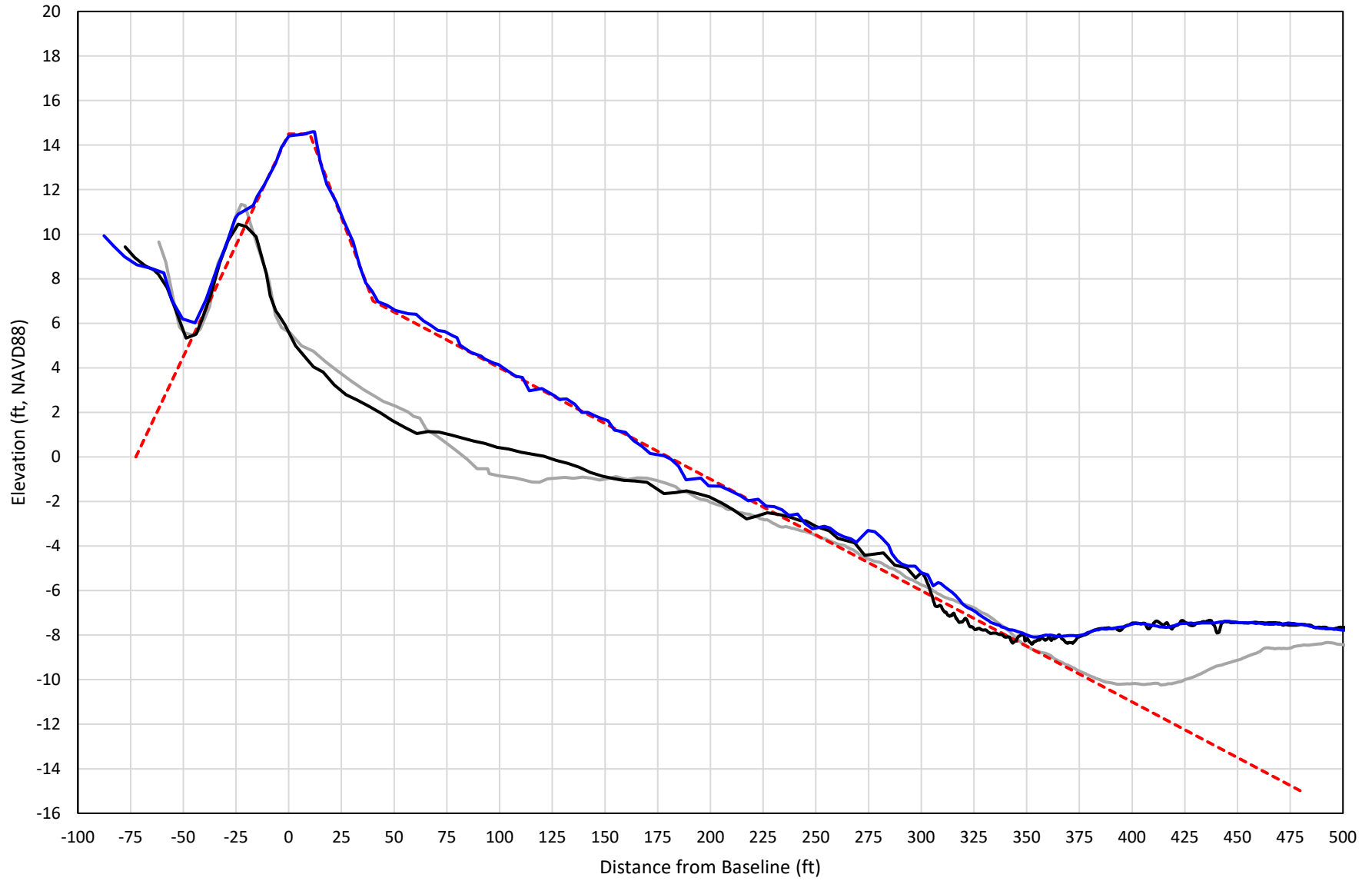
# 444+00



— 444+00 Precon    - - - 444+00 Temp002    — 444+00 BD\_210503    — 444+00 AD\_210512

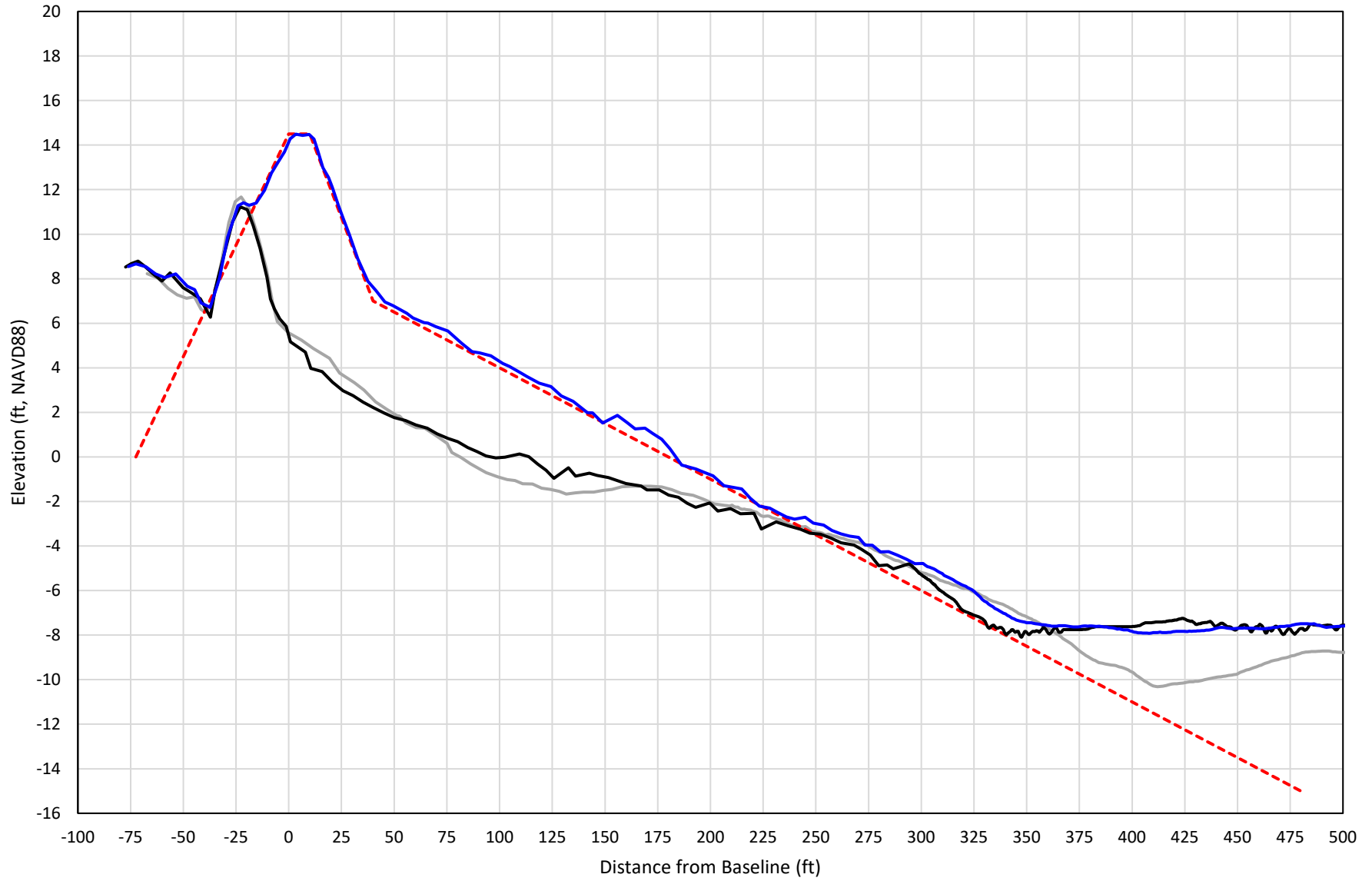


# 445+00



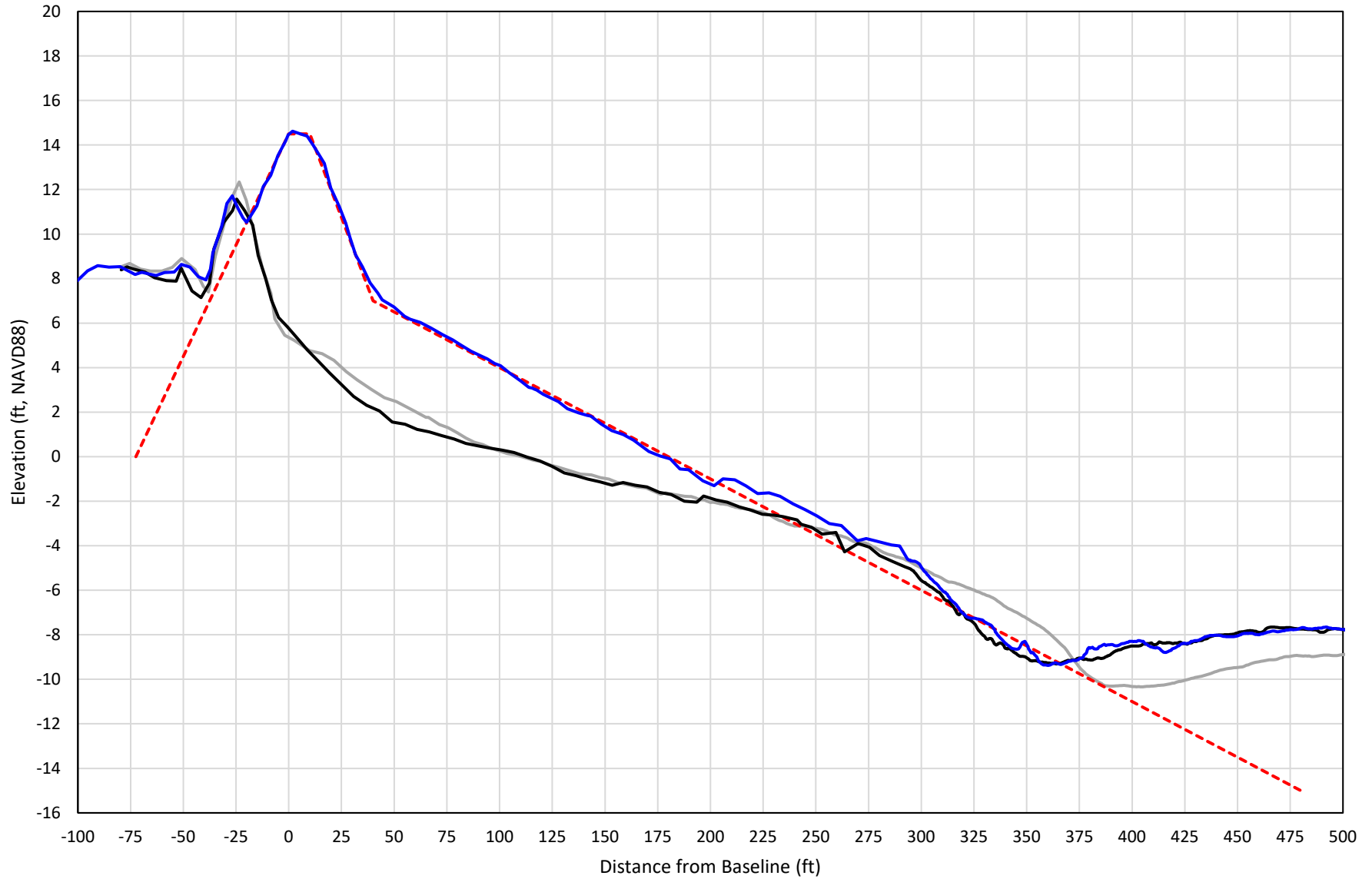
— 445+00 Precon    - - - 445+00 Temp002    — 445+00 BD\_210503    — 445+00 AD\_210507

# 446+00



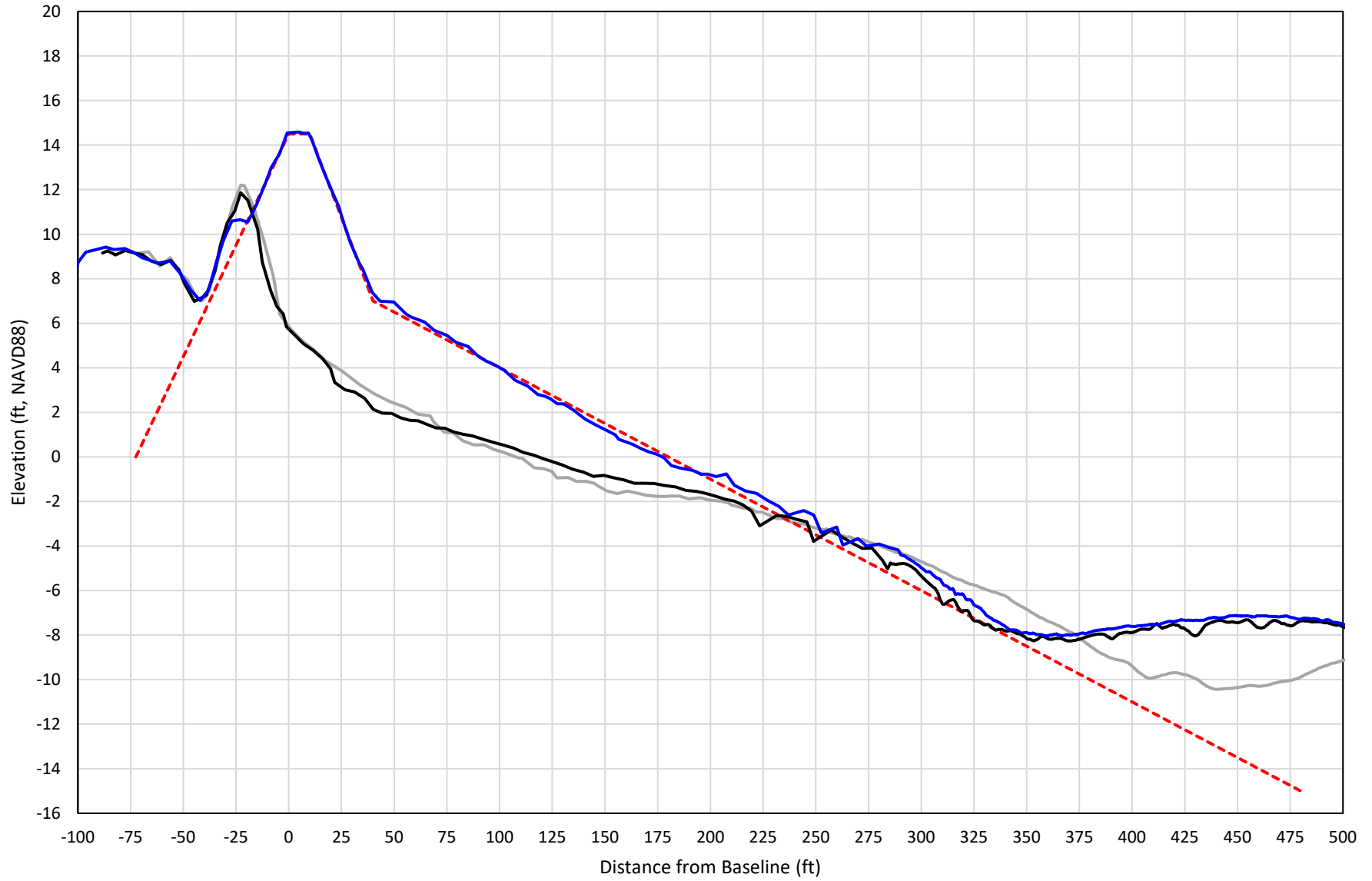
— 446+00 Precon    - - - 446+00 Temp002    — 446+00 BD\_210503    — 446+00 AD\_210507

# 447+00



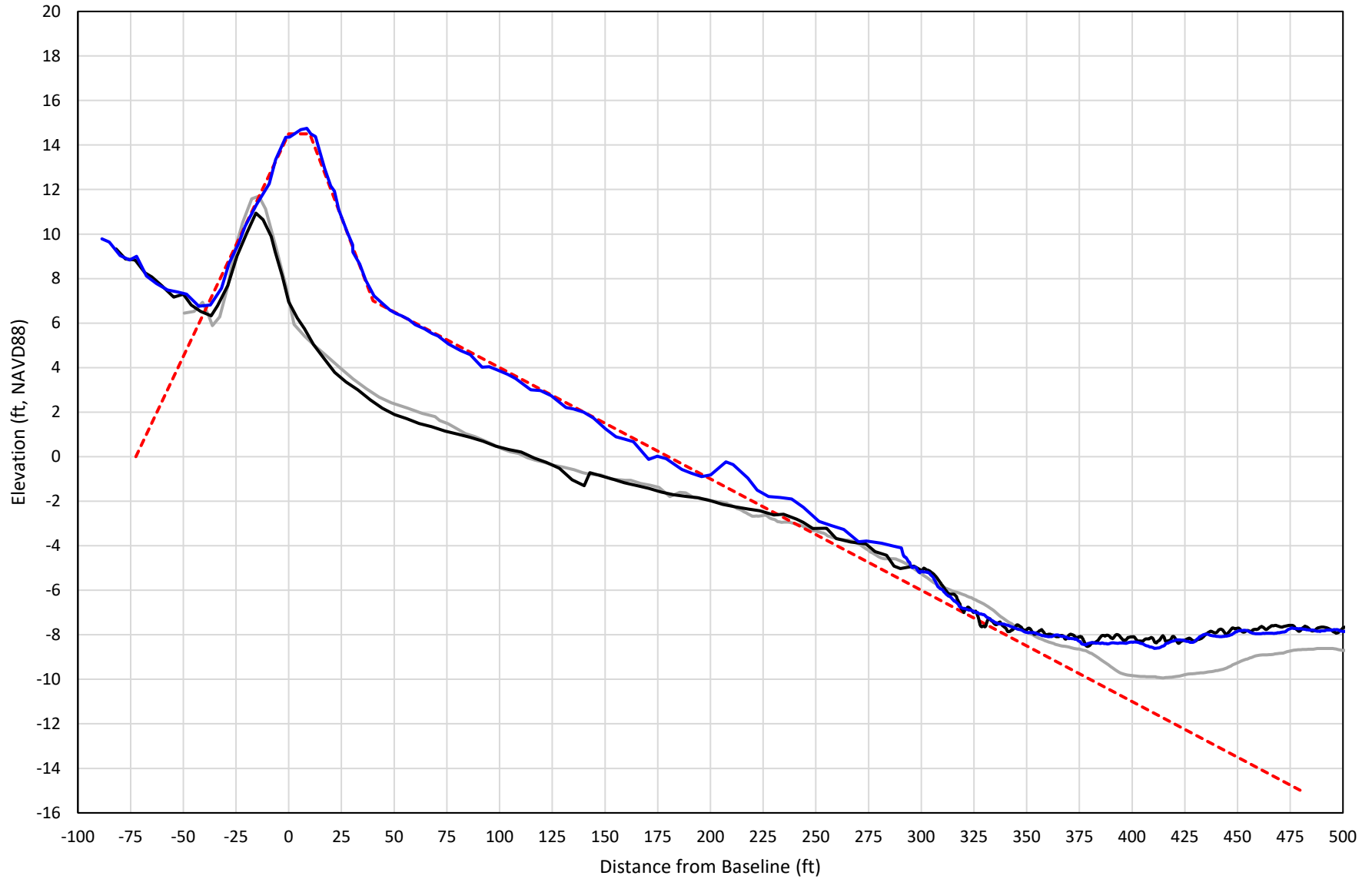
— 447+00 Precon    - - - 447+00 Temp002    — 447+00 BD\_210503    — 447+00 AD\_210512

# 448+00



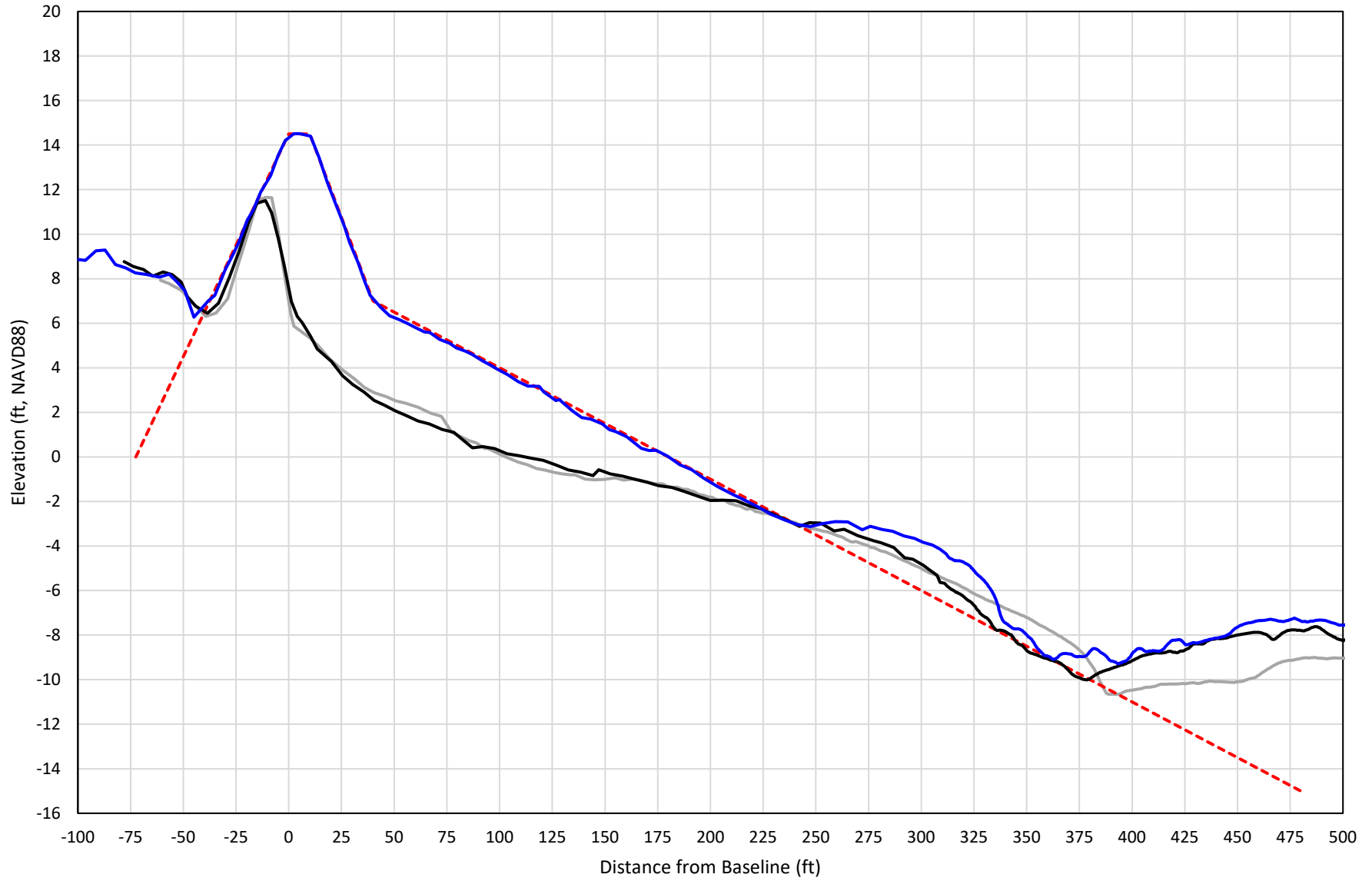
— 448+00 Precon    - - - 448+00 Temp002    — 448+00 BD\_210503    — 448+00 AD\_210512

# 449+00



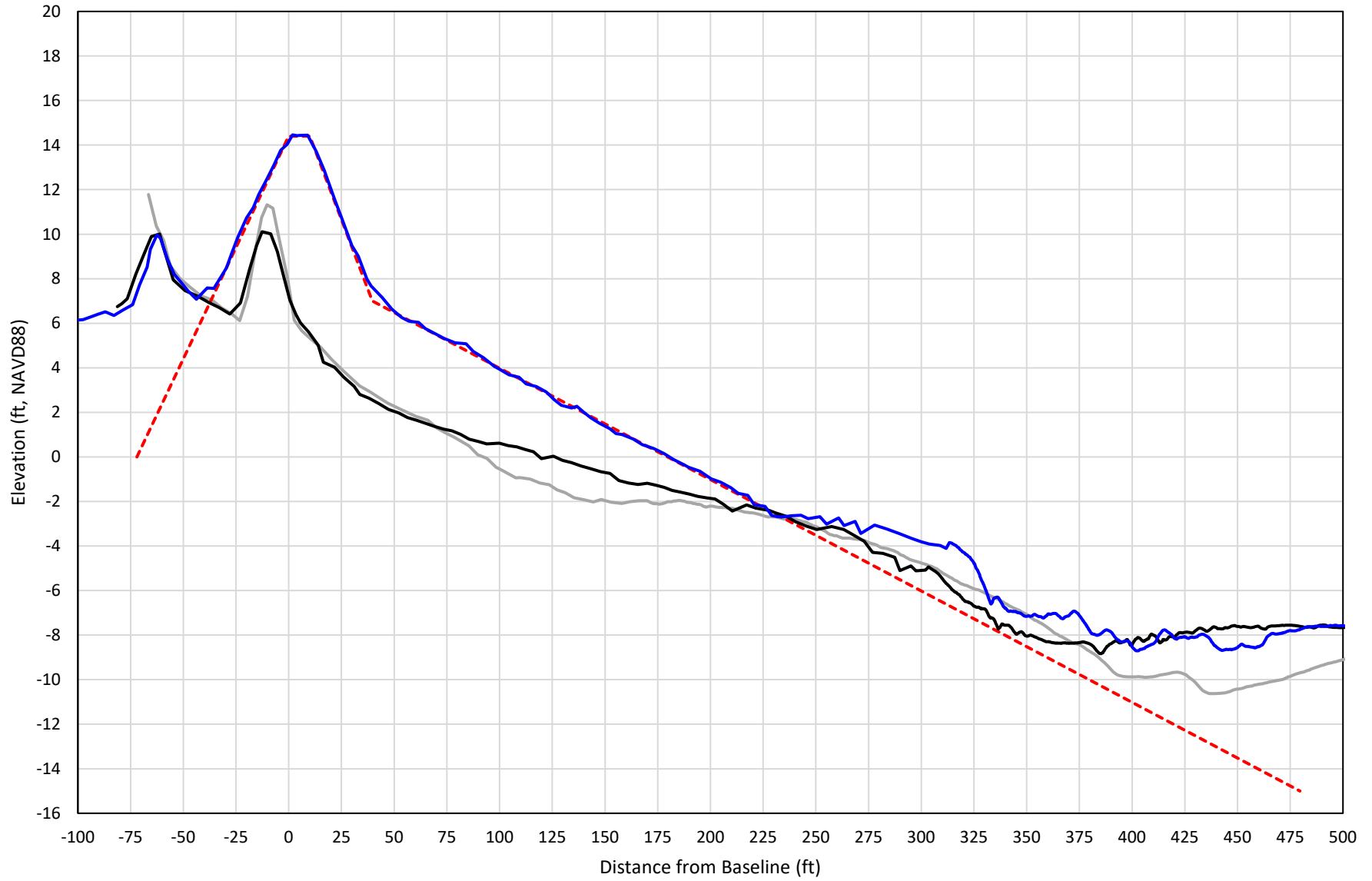
— 449+00 Precon    - - - 449+00 Temp002    — 449+00 BD\_210503    — 449+00 AD\_210508

# 450+00



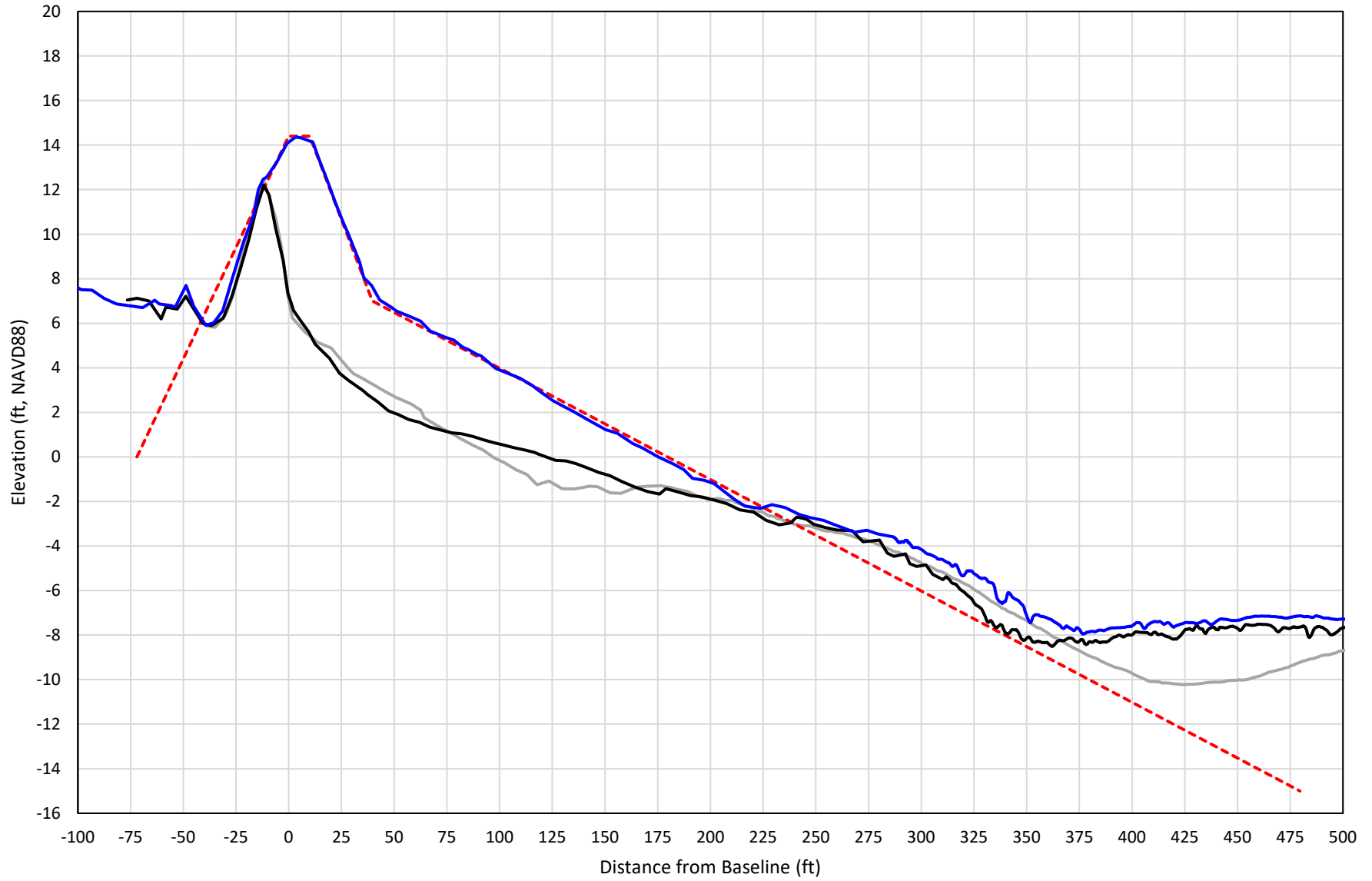
— 450+00 Precon    - - - 450+00 Temp002    — 450+00 BD\_210503    — 450+00 AD\_210510

# 451+00



— 451+00 Precon    - - - 451+00 Temp002    — 451+00 BD\_210503    — 451+00 AD\_210510

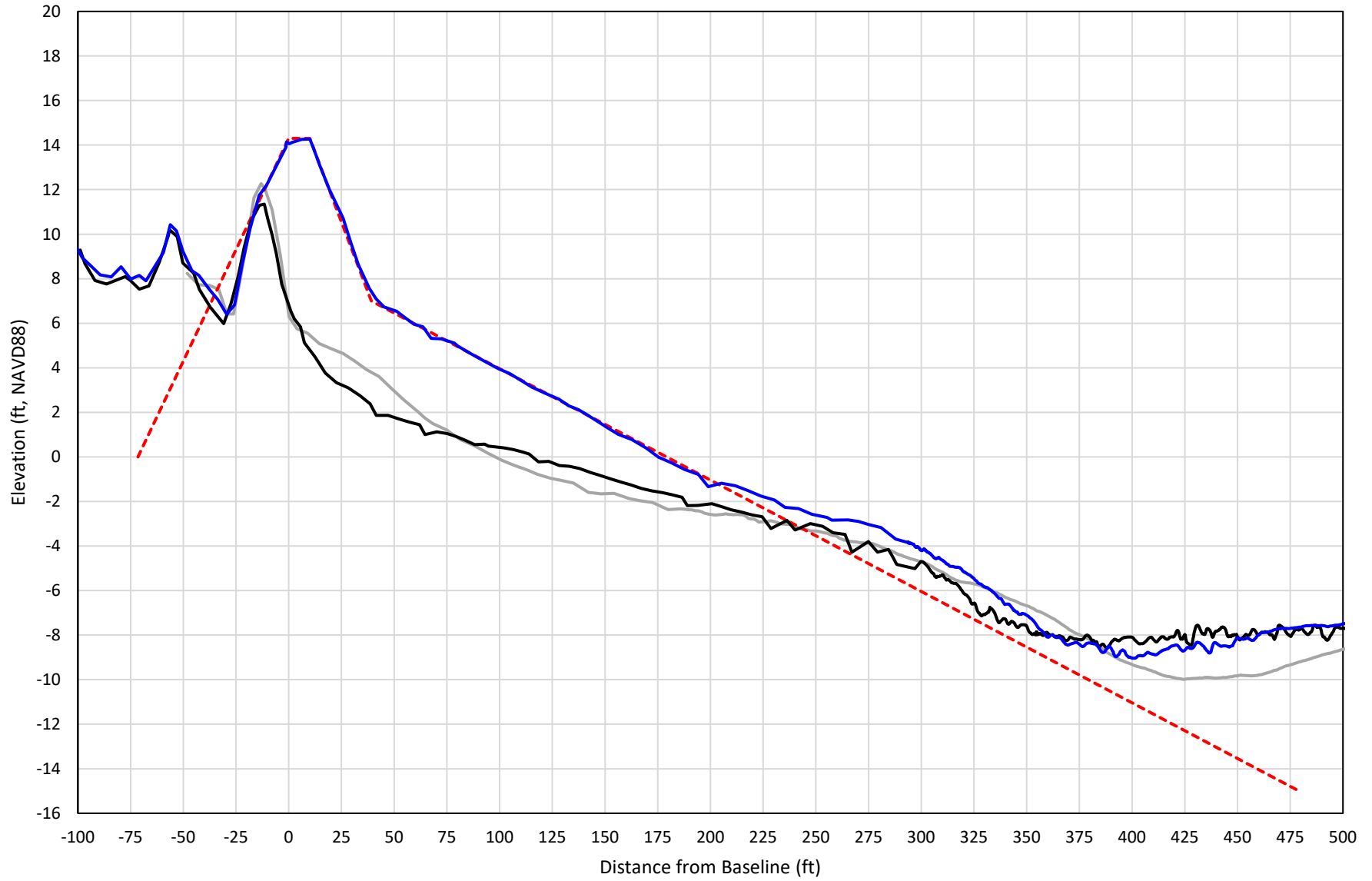
# 452+00



— 452+00 Precon    - - - 452+00 Temp002    — 452+00 BD\_210503    — 452+00 AD\_210512

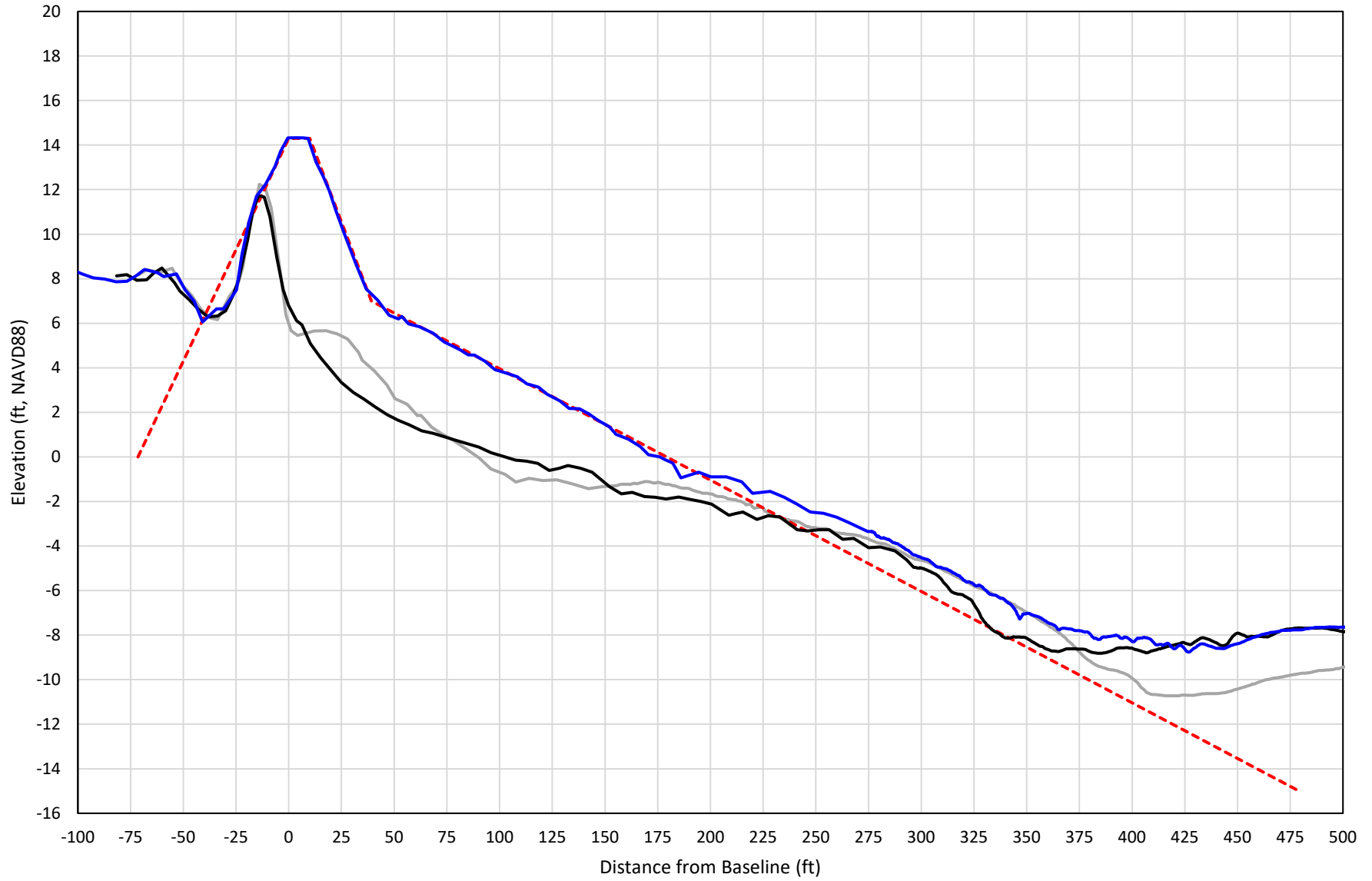


# 453+00



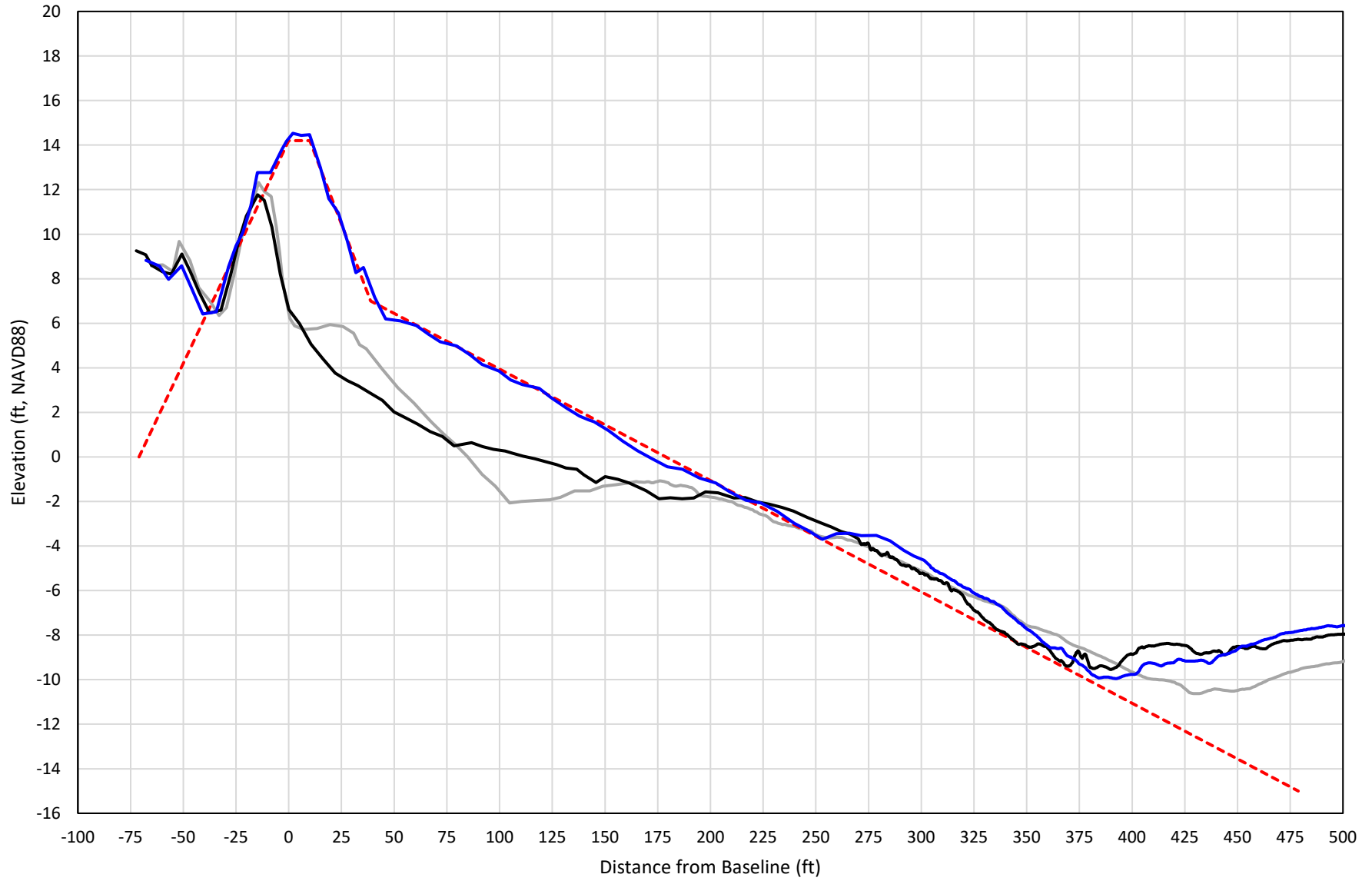
— 453+00 Precon    - - - 453+00 Temp002    — 453+00 BD\_210503    — 453+00 AD\_210512

# 454+00



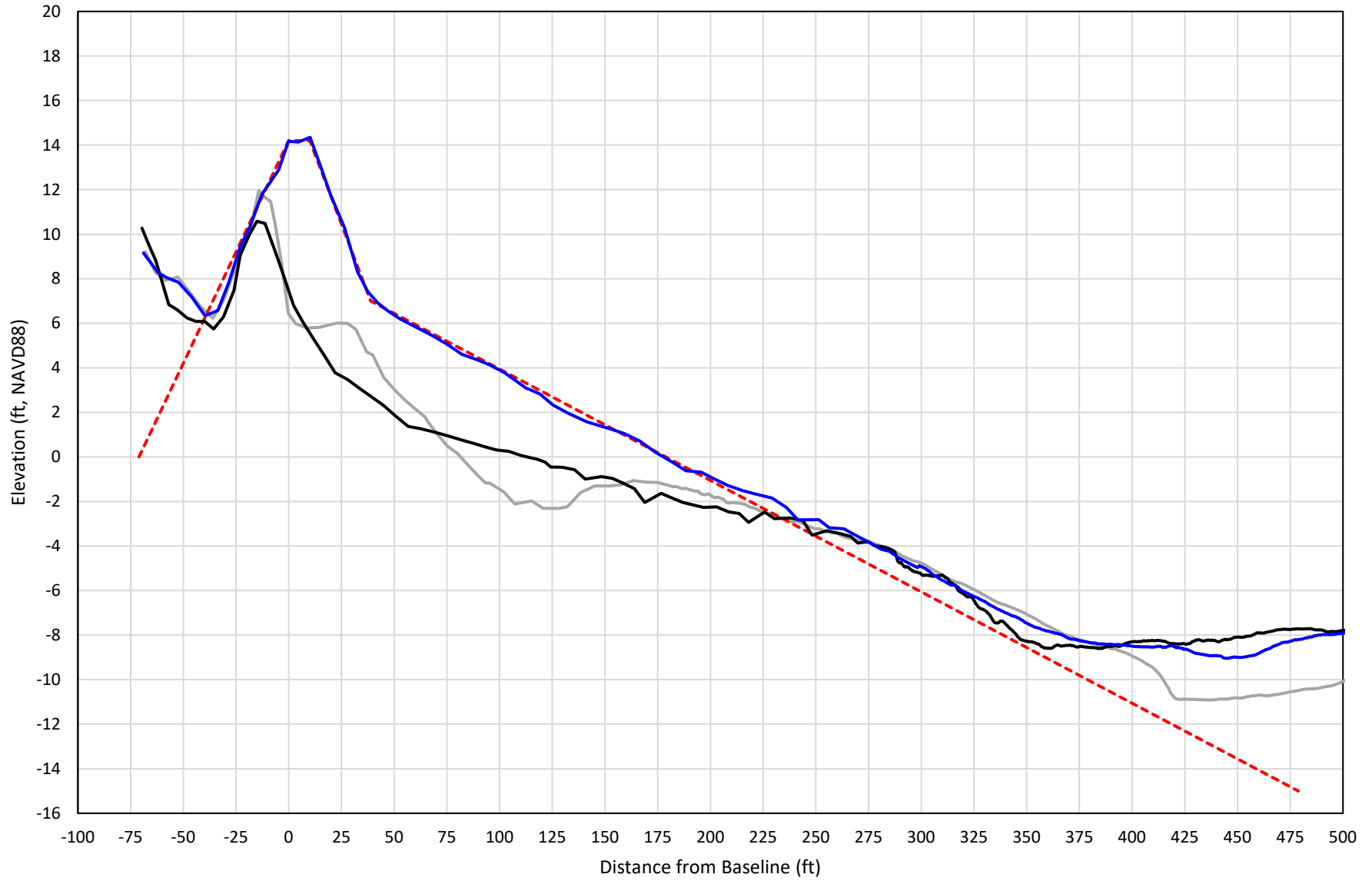
— 454+00 Precon    - - - 454+00 Temp002    — 454+00 BD\_210503    — 454+00 AD\_210512

# 455+00



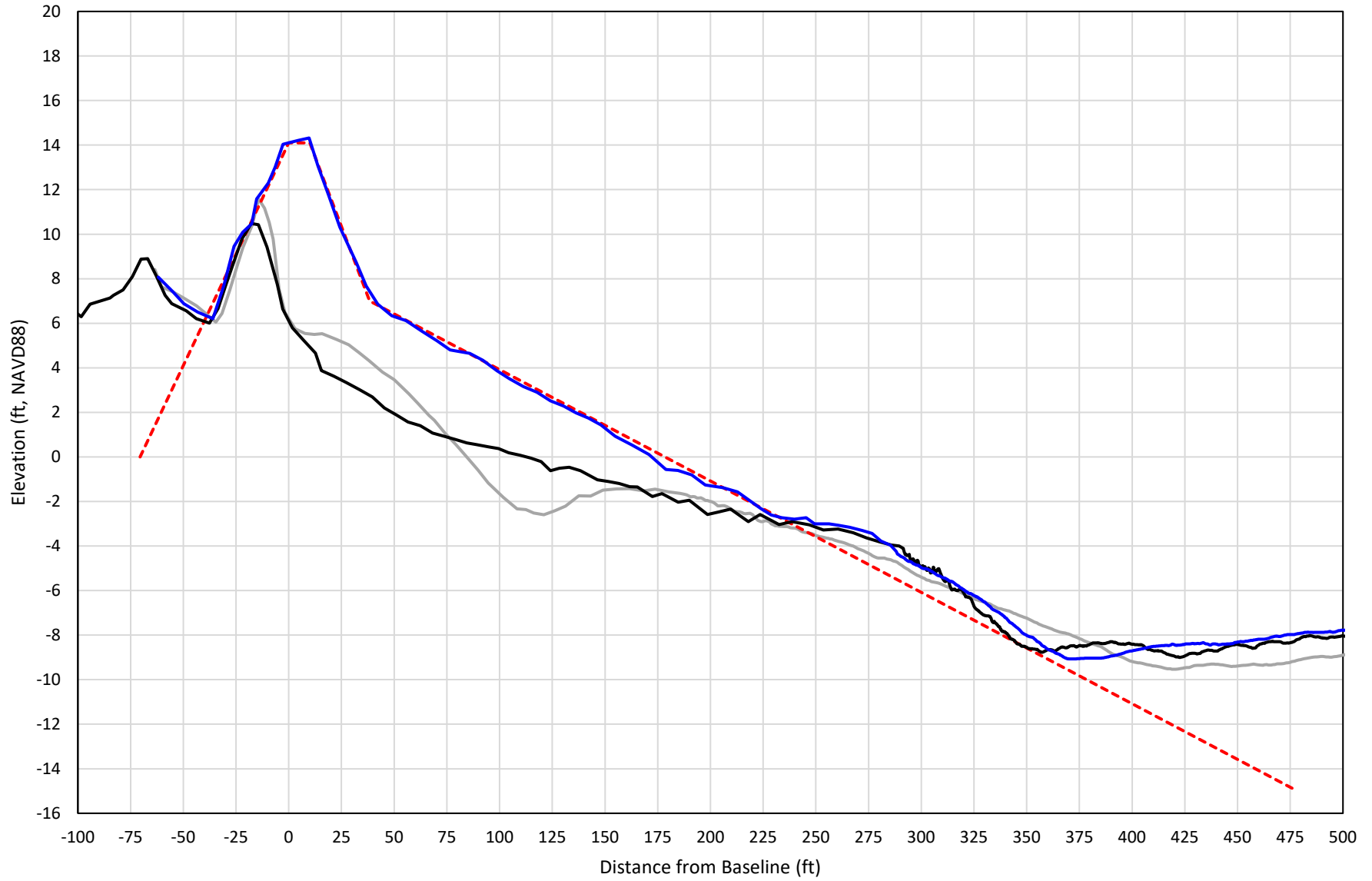
— 455+00 Precon    - - - 455+00 Temp002    — 455+00 BD\_210508    — 455+00 AD\_210518

# 456+00



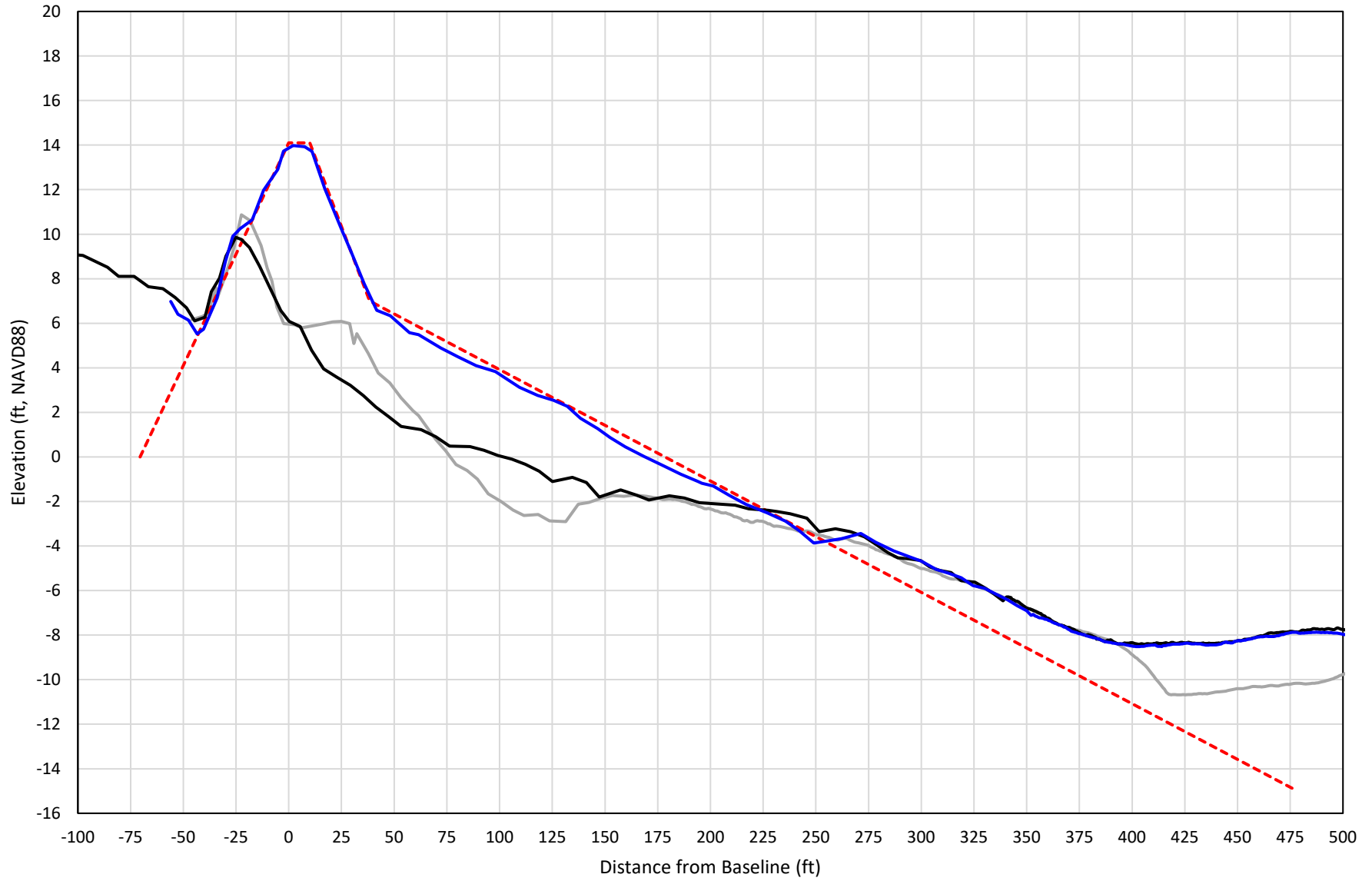
— 456+00 Precon    - - - 456+00 Temp002    — 456+00 BD\_210508    — 456+00 AD\_210518

# 457+00



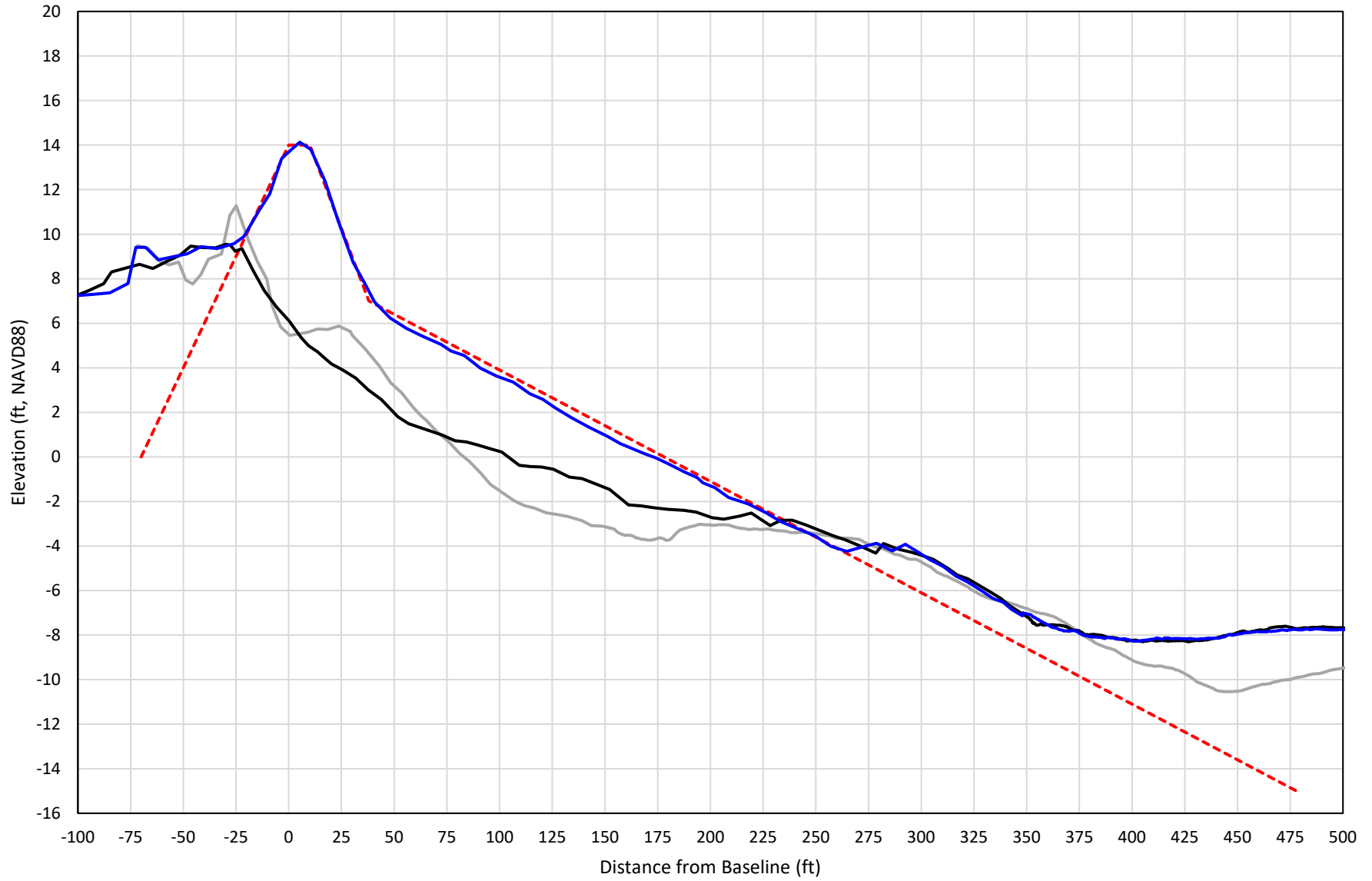
— 457+00 Precon    - - - 457+00 Temp002    — 457+00 BD\_210508    — 457+00 AD\_210518

# 458+00



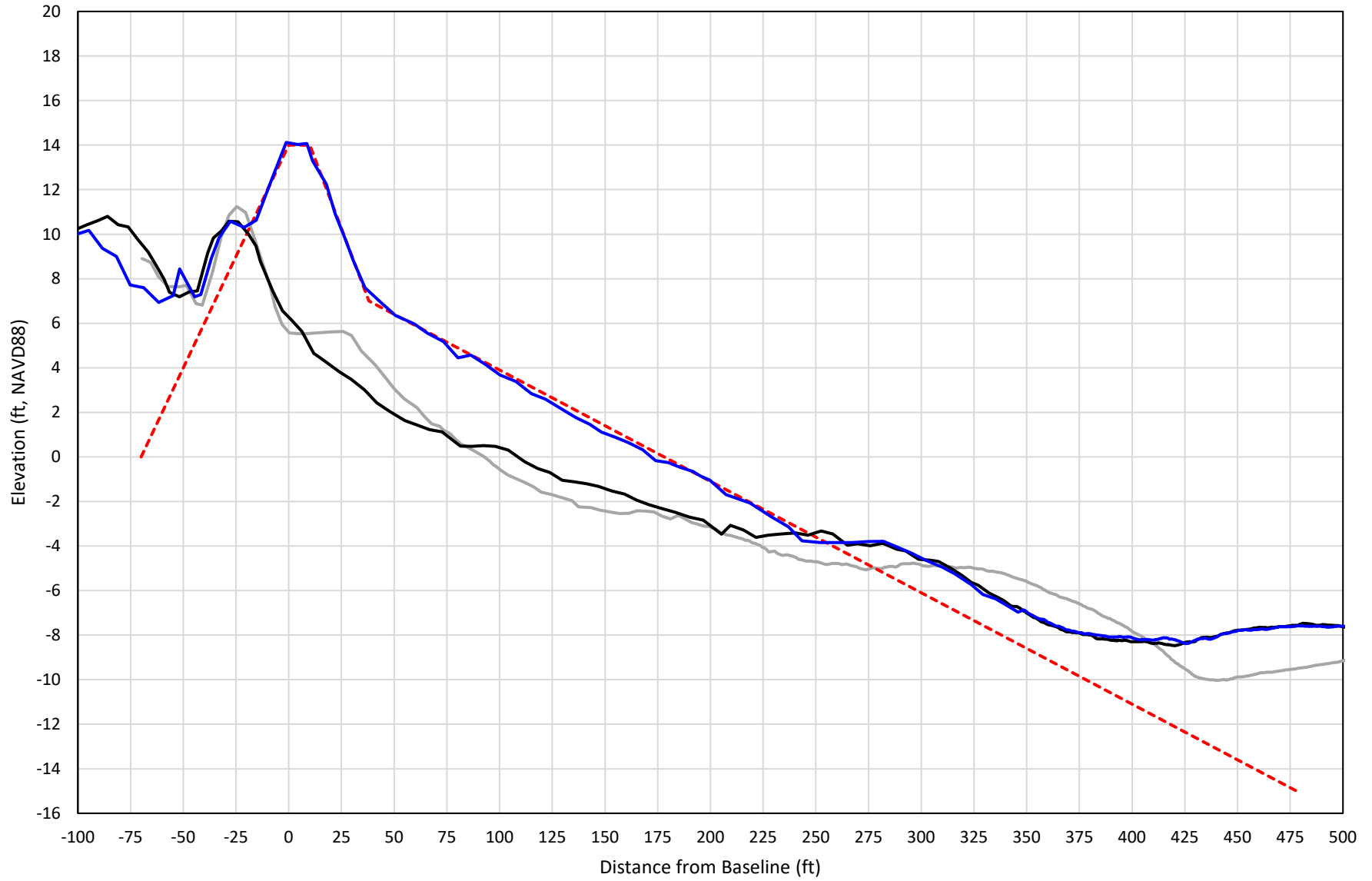
— 458+00 Precon    - - - 458+00 Temp002    — 458+00 BD\_210516    — 458+00 AD\_210518

# 459+00



— 459+00 Precon    - - - 459+00 Temp002    — 459+00 BD\_210516    — 459+00 AD\_210518

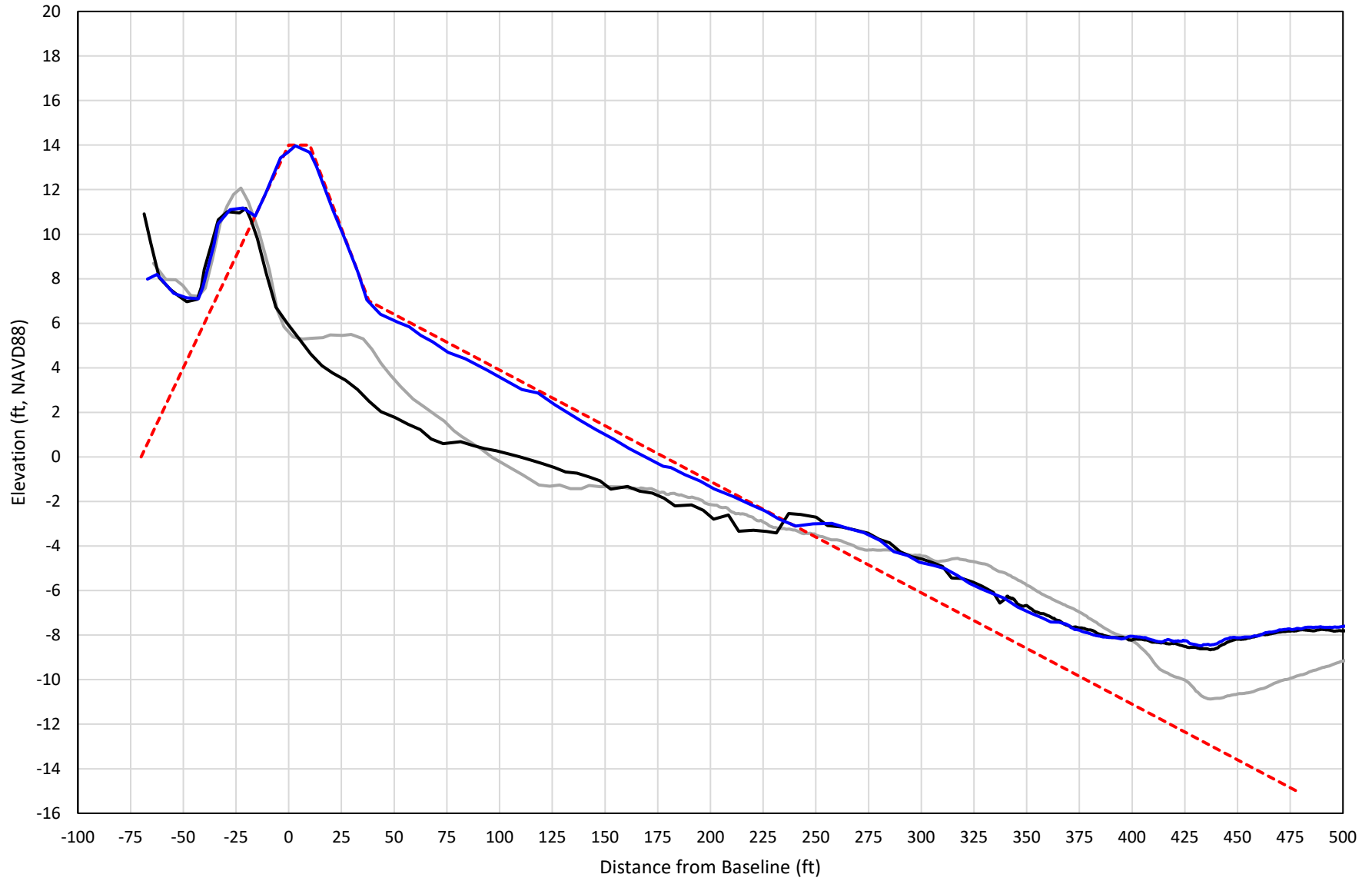
# 460+00



— 460+00 Precon    - - - 460+00 Temp002    — 460+00 BD\_210516    — 460+00 AD\_210518

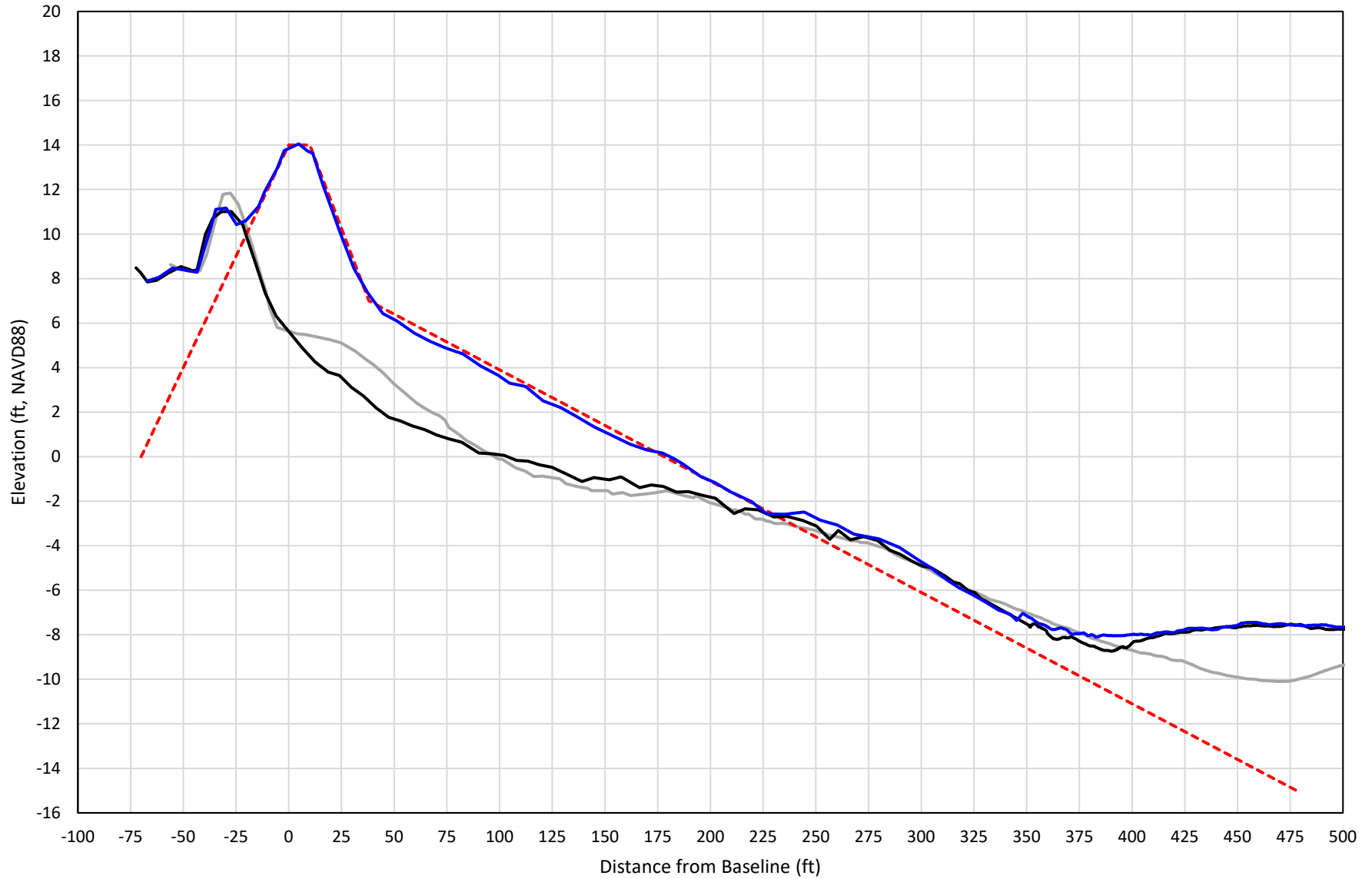


# 461+00



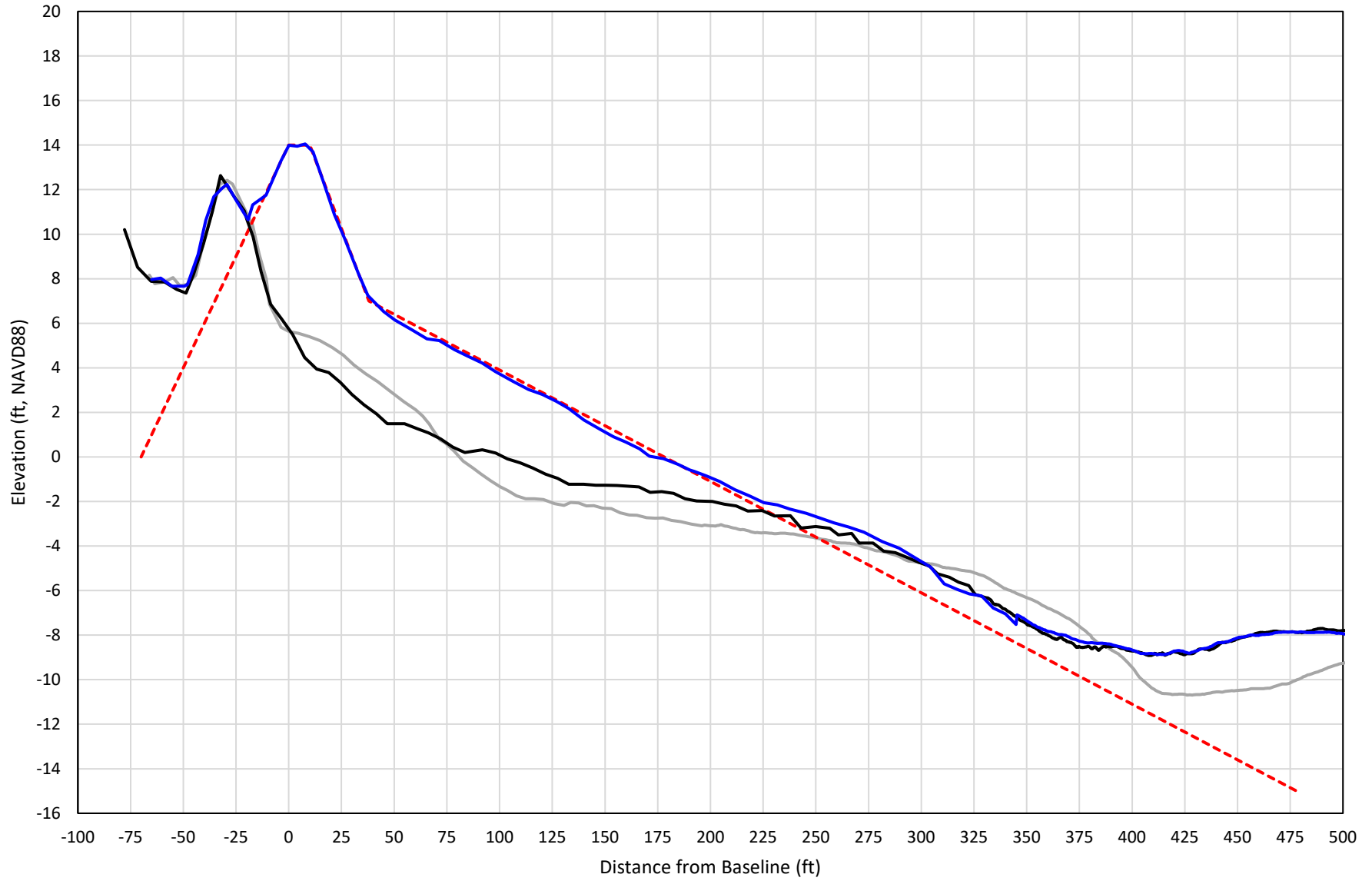
— 461+00 Precon    - - - 461+00 Temp002    — 461+00 BD\_210516    — 461+00 AD\_210520

# 462+00



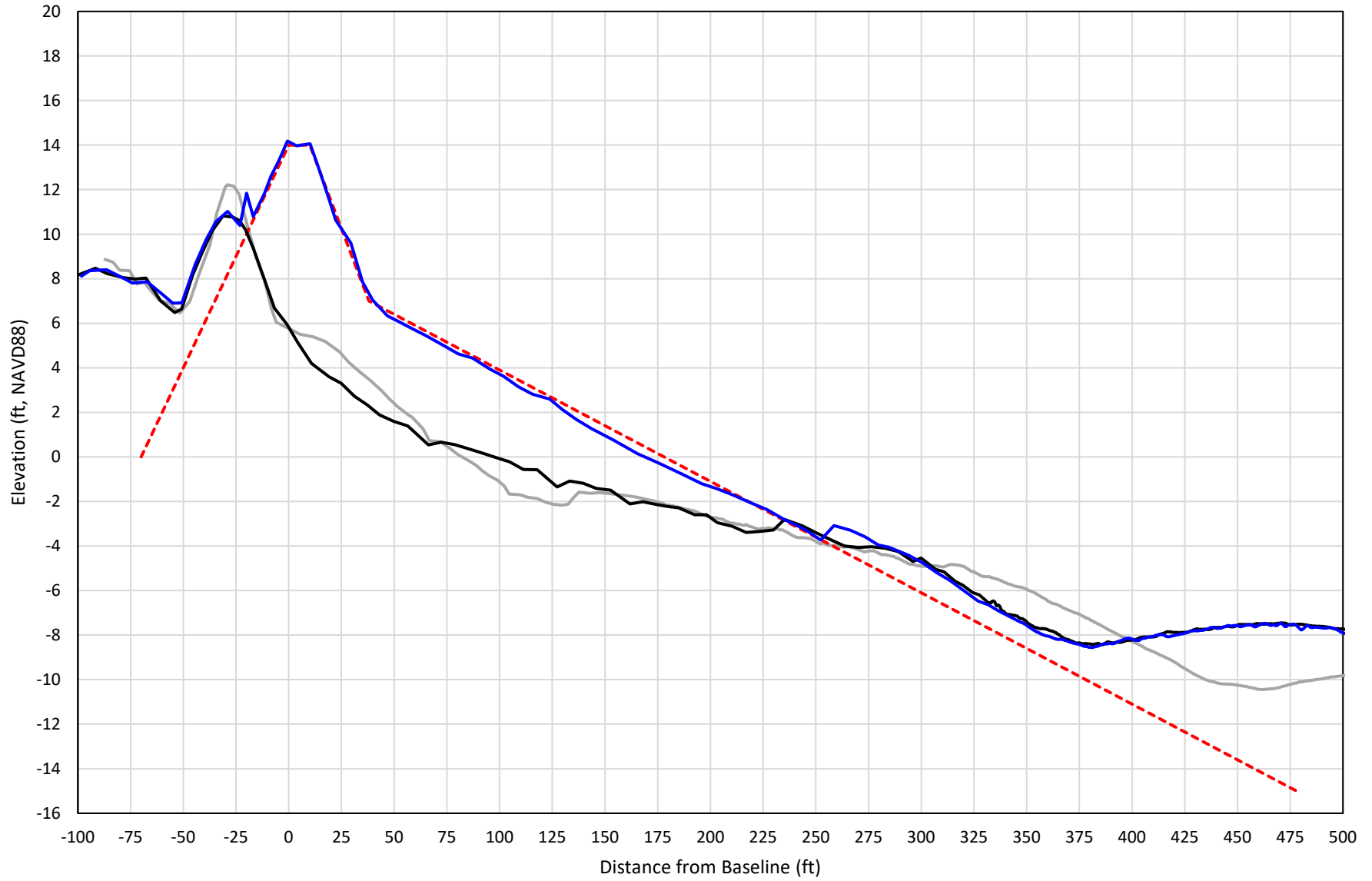
— 462+00 Precon    - - - 462+00 Temp002    — 462+00 BD\_210516    — 462+00 AD\_210520

# 463+00



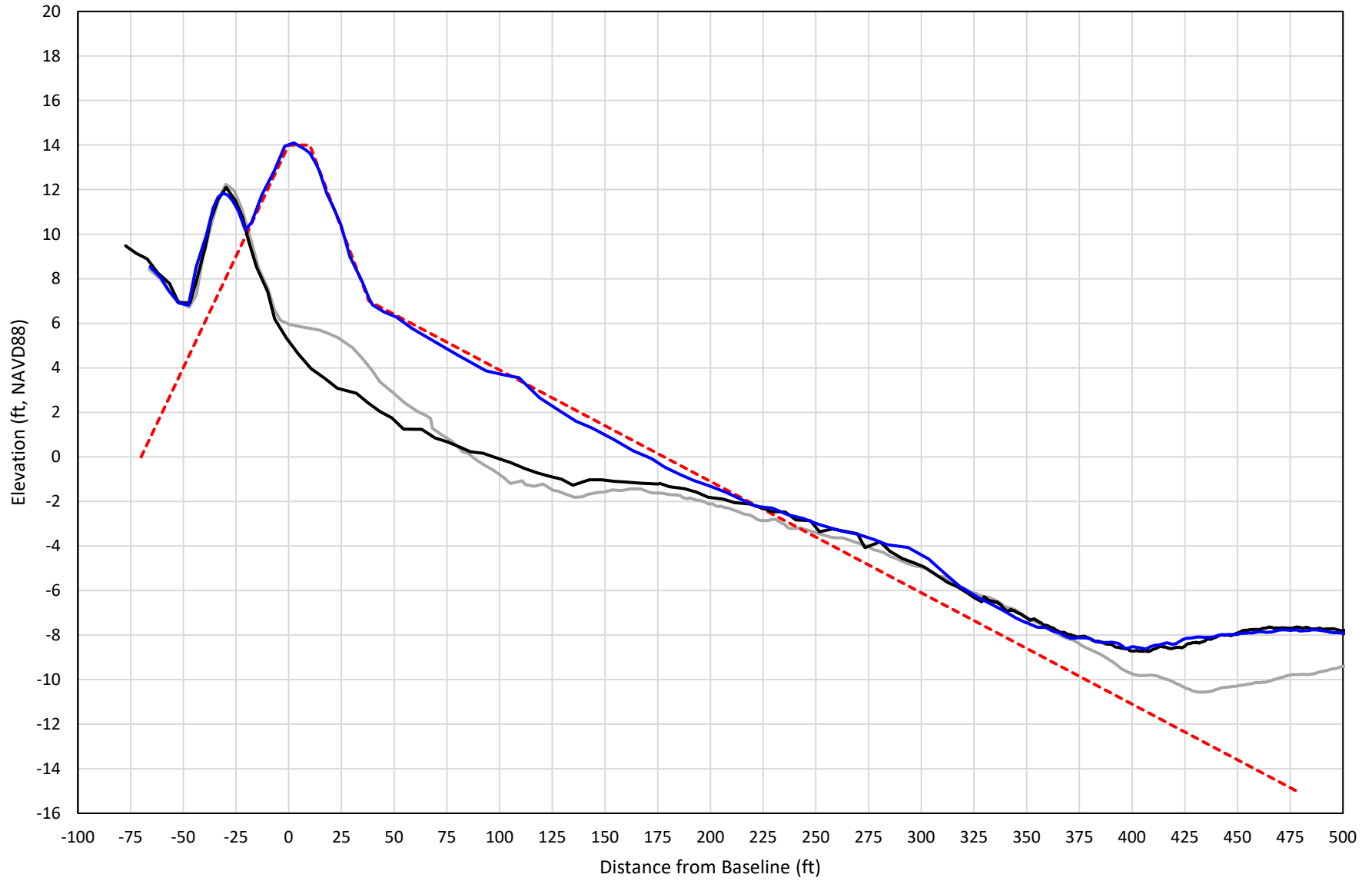
— 463+00 Precon    - - - 463+00 Temp002    — 463+00 BD\_210516    — 463+00 AD\_210520

# 464+00



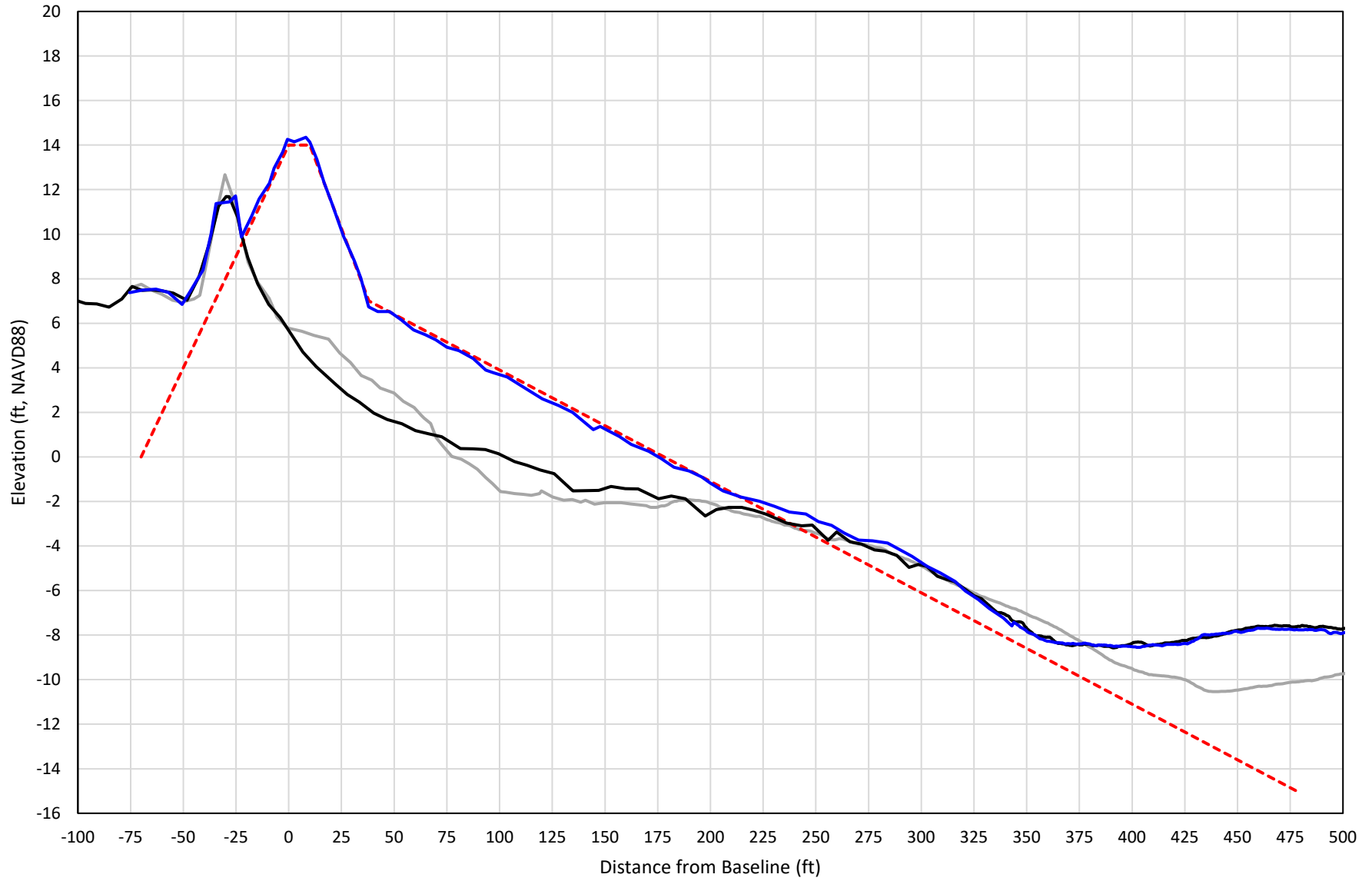
— 464+00 Precon    - - - 464+00 Temp002    — 464+00 BD\_210516    — 464+00 AD\_210520

# 465+00



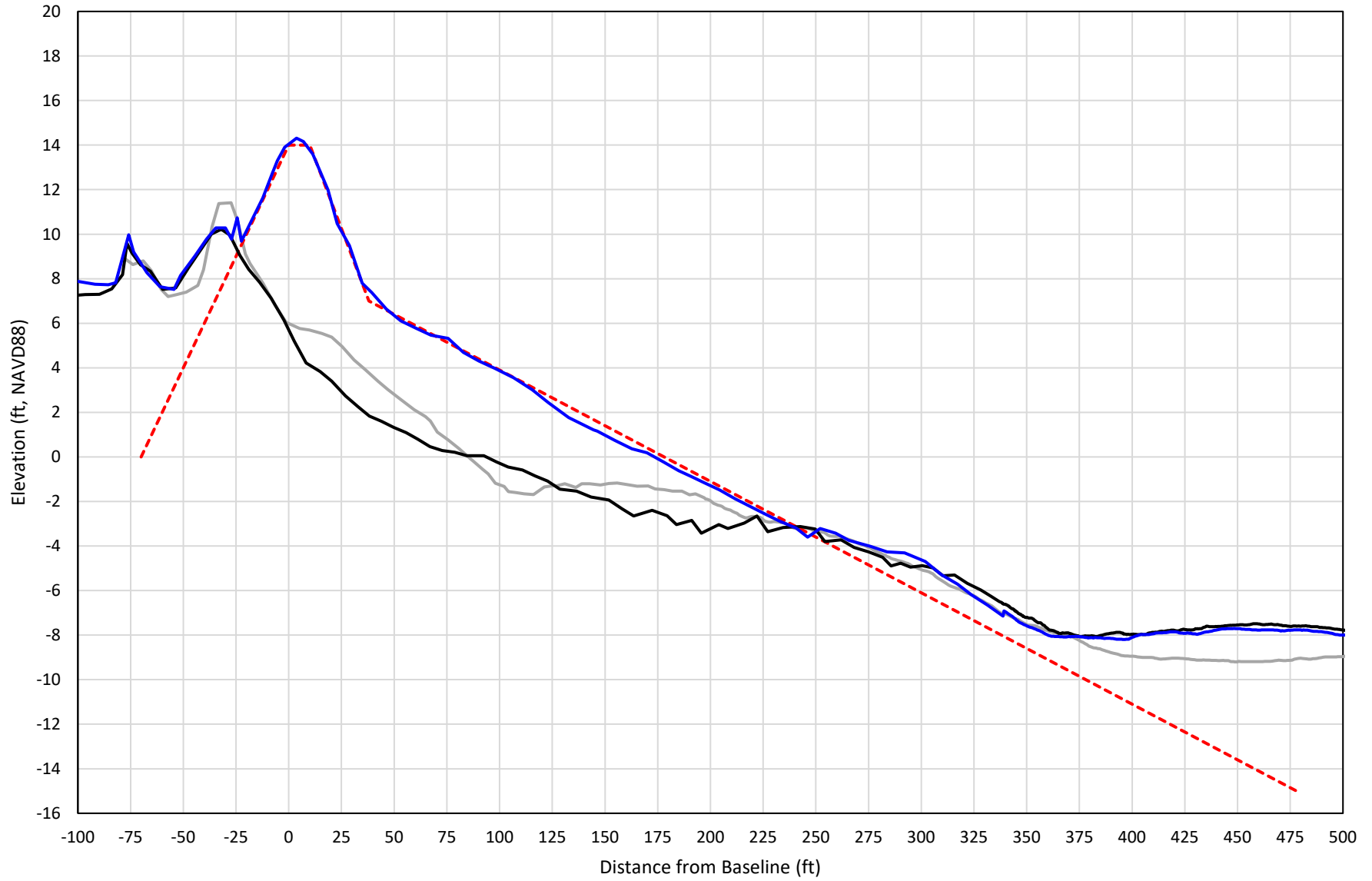
— 465+00 Precon    - - - 465+00 Temp002    — 465+00 BD\_210516    — 465+00 AD\_210521

# 466+00



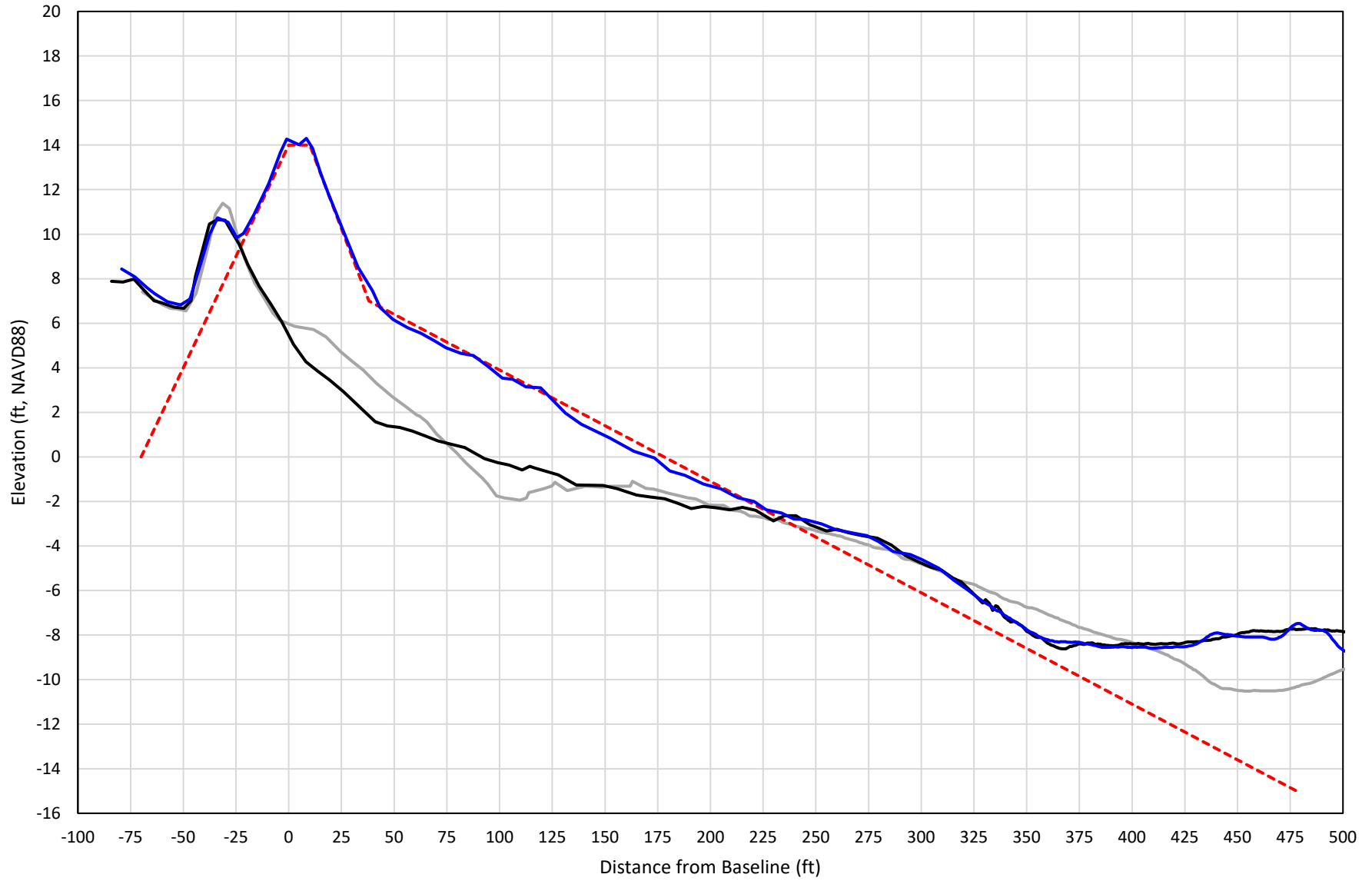
— 466+00 Precon    - - - 466+00 Temp002    — 466+00 BD\_210516    — 466+00 AD\_210521

# 467+00



— 467+00 Precon    - - - 467+00 Temp002    — 467+00 BD\_210516    — 467+00 AD\_210523

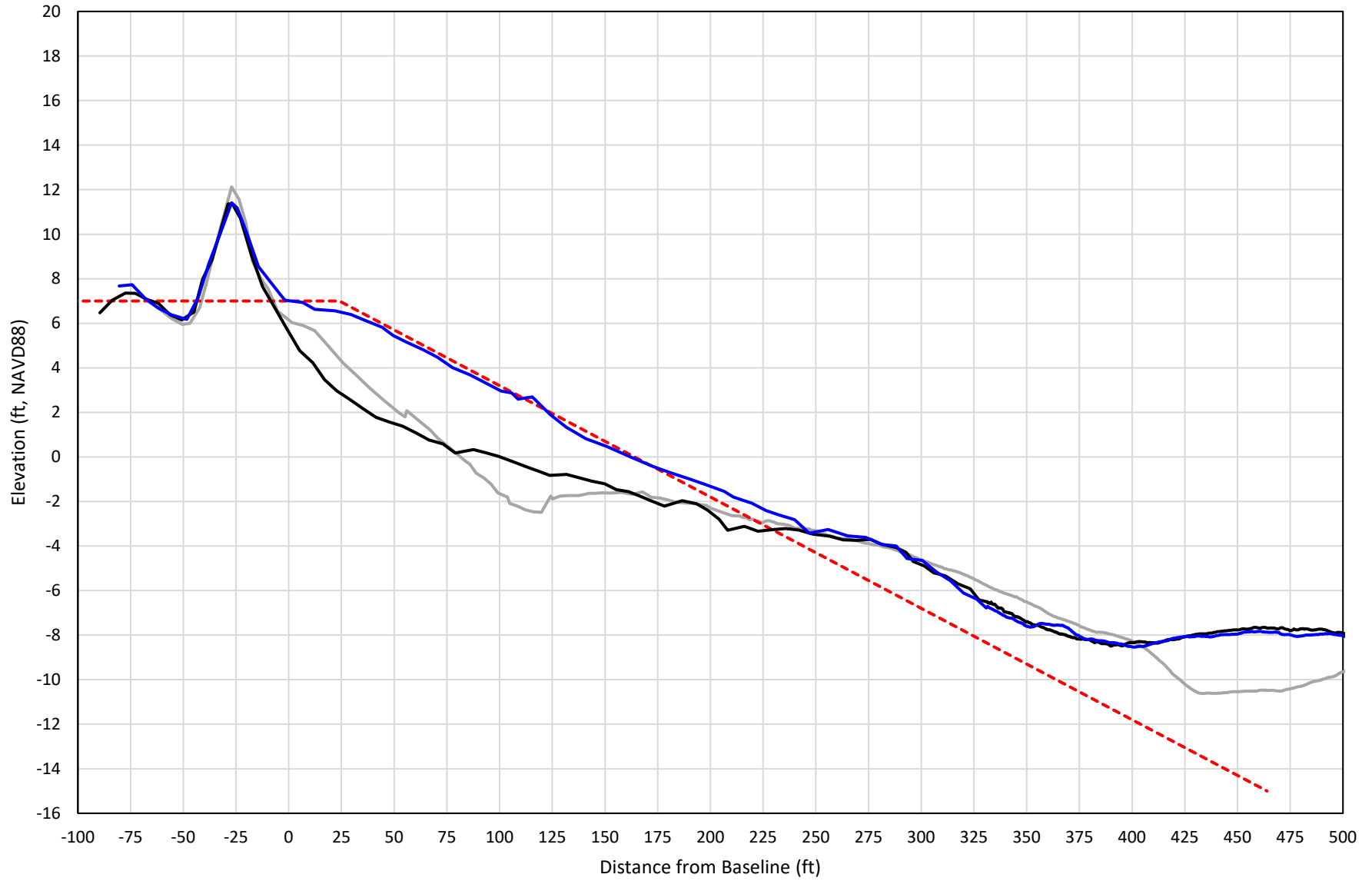
# 468+00



— 468+00 Precon    - - - 468+00 Temp003    — 468+00 BD\_210516    — 468+00 AD\_210523

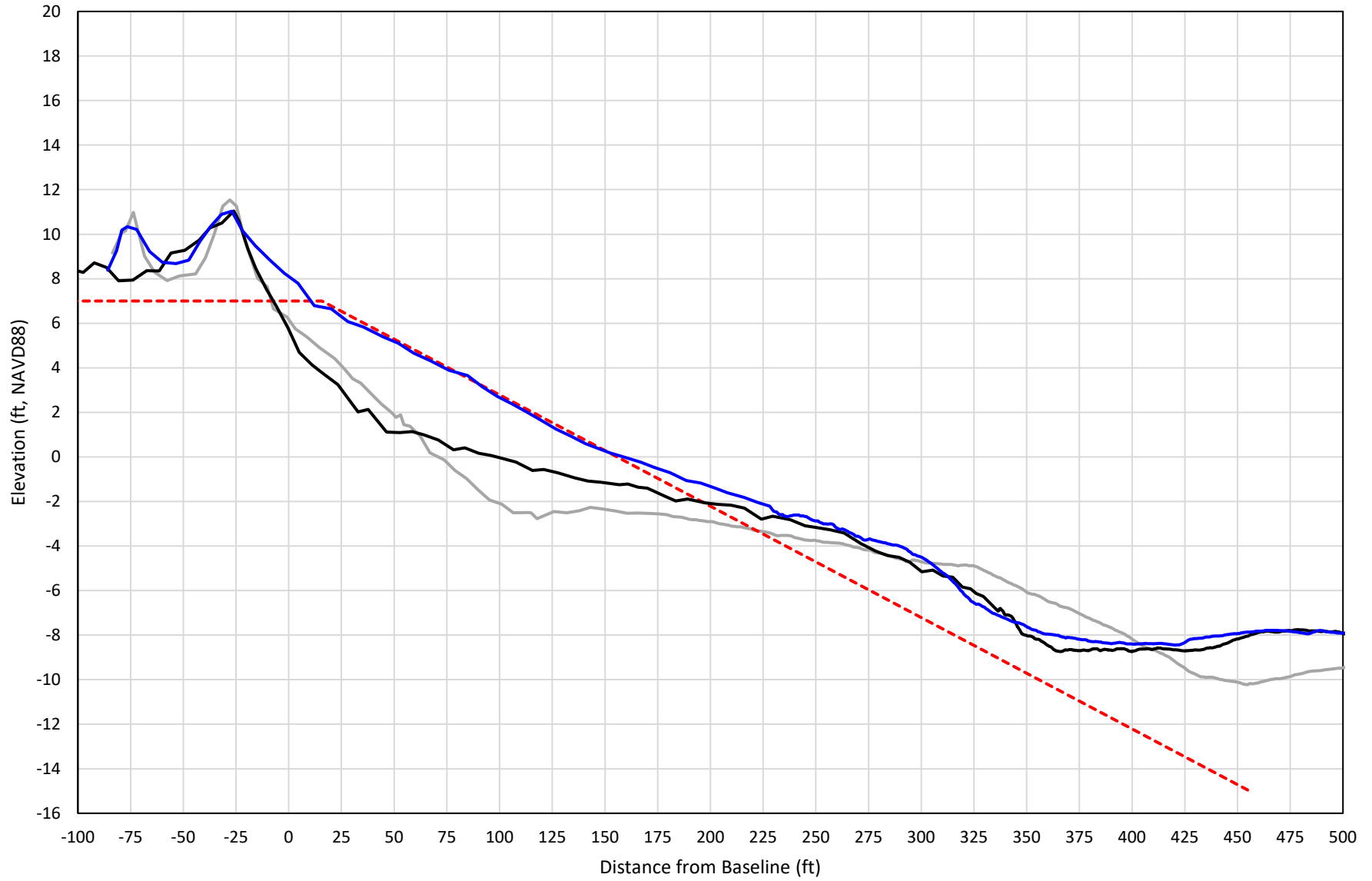


# 469+00



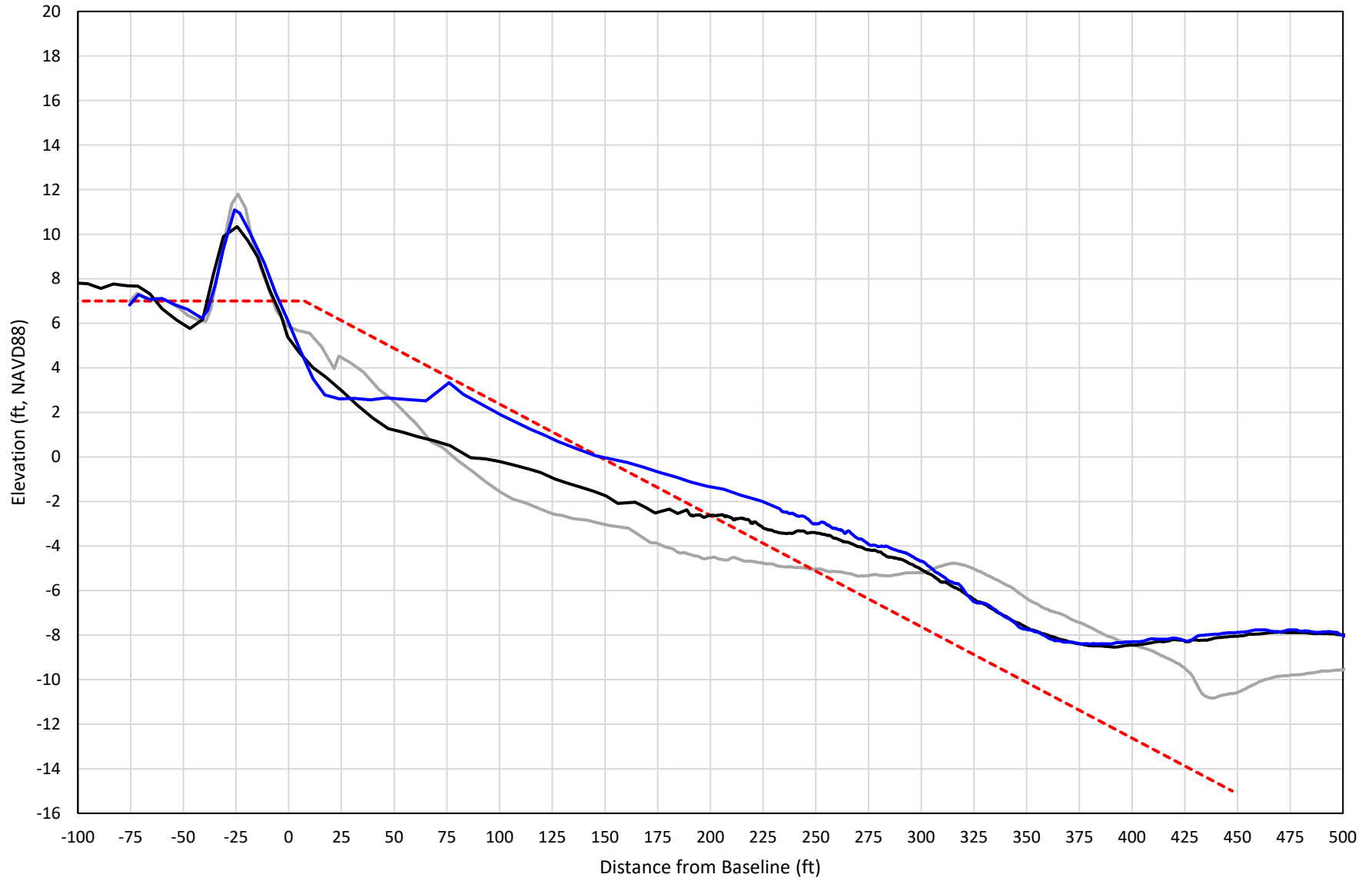
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# 470+00



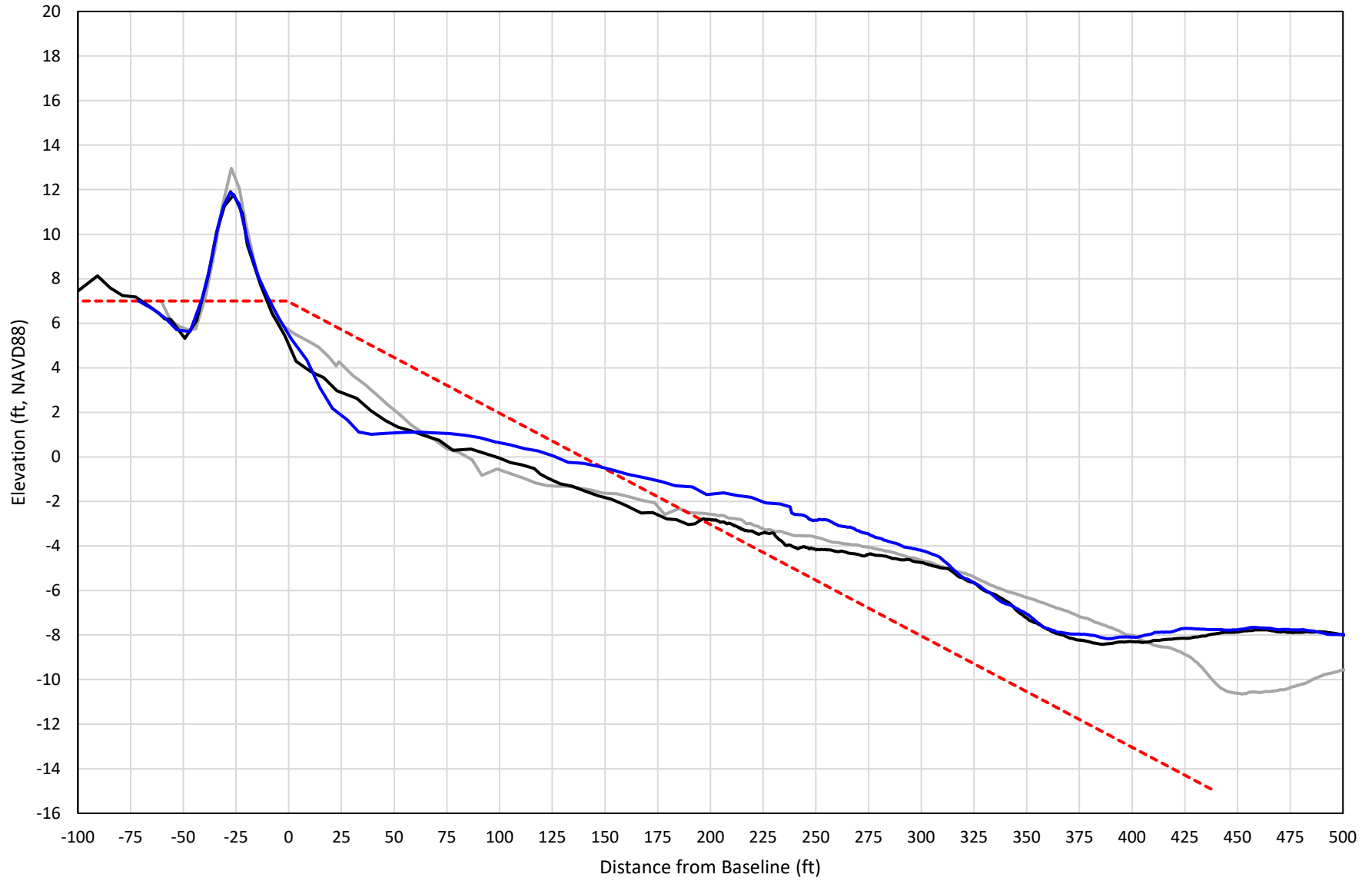
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# 471+00



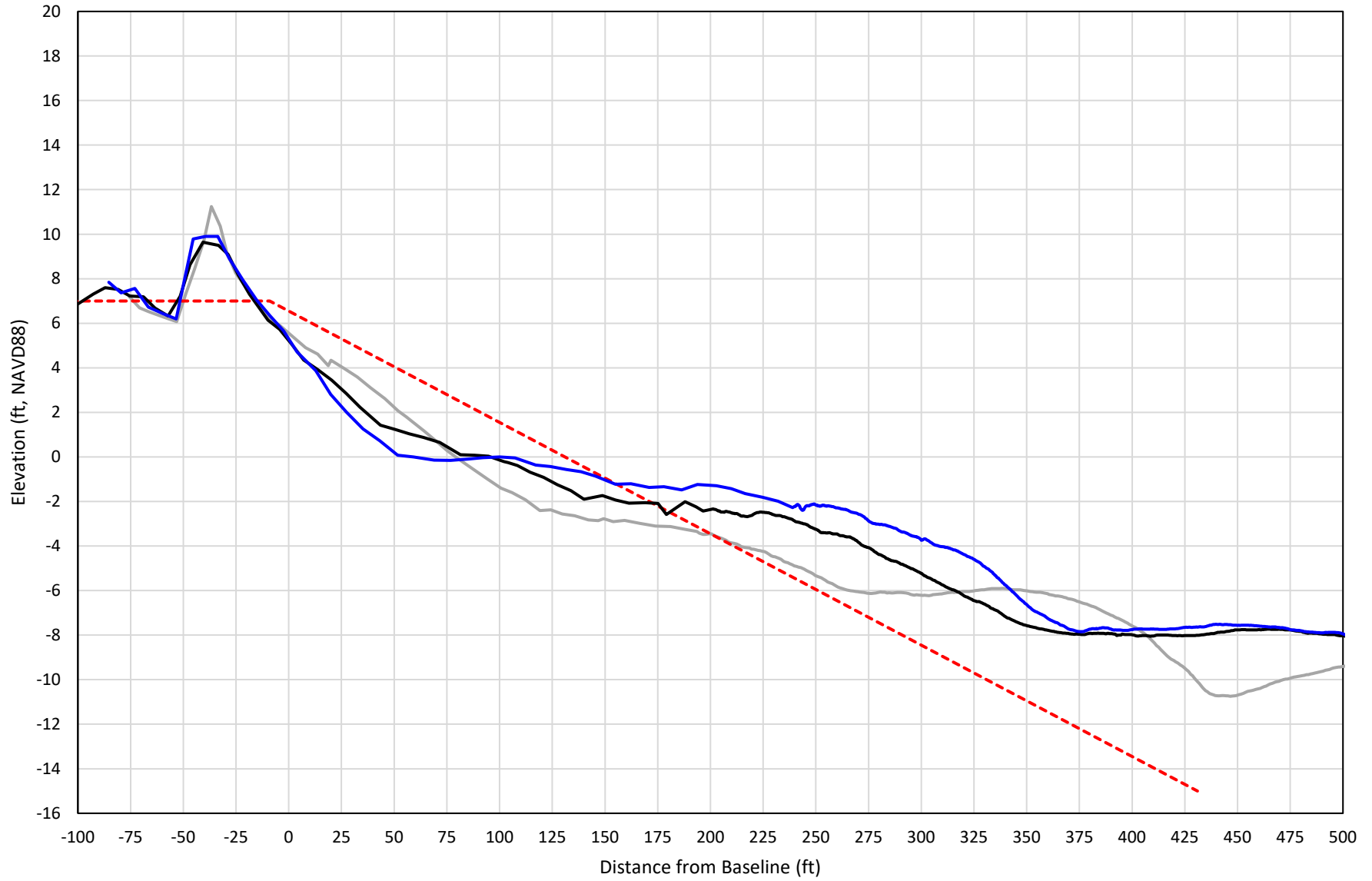
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# 472+00



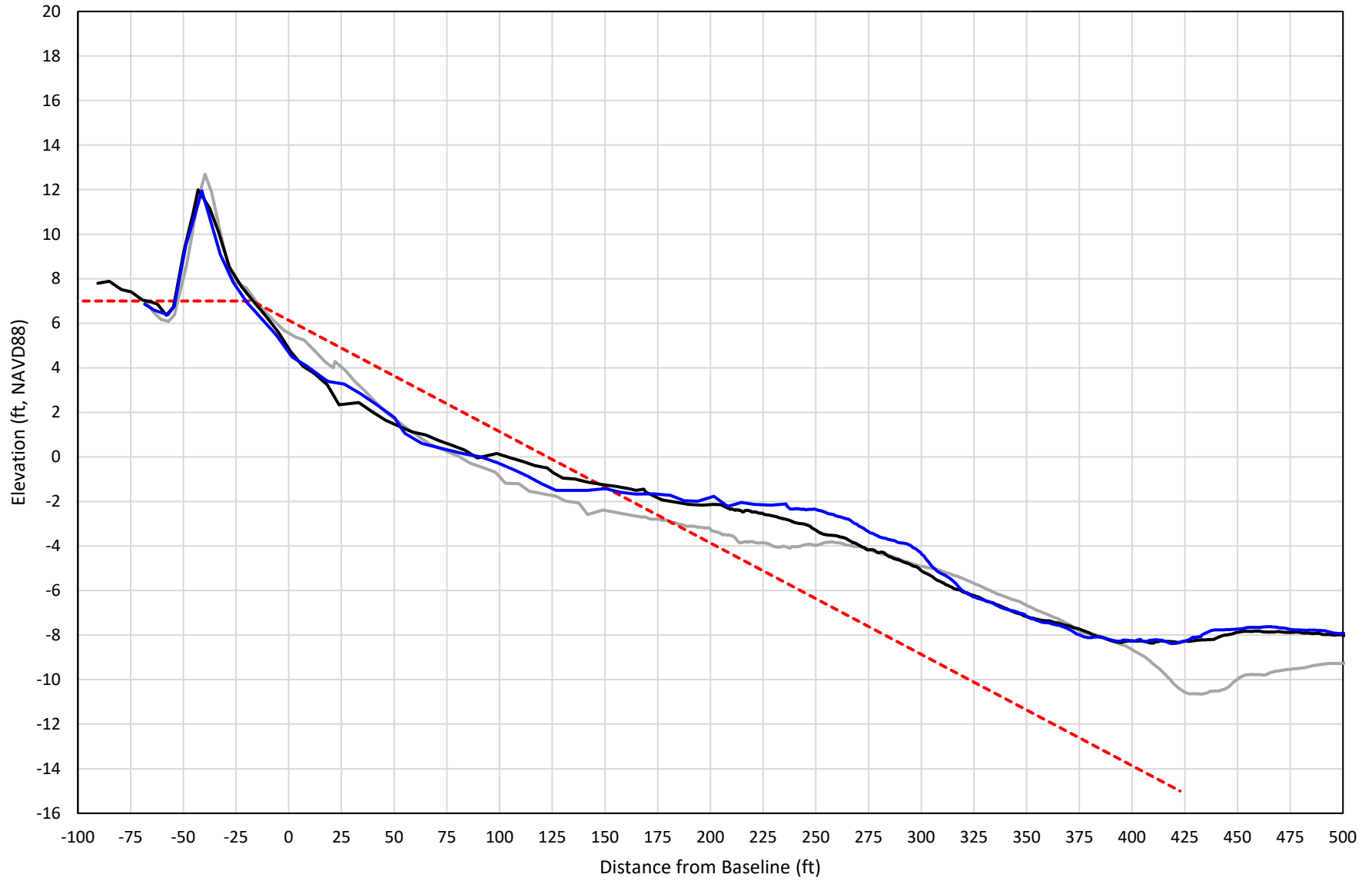
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# 473+00



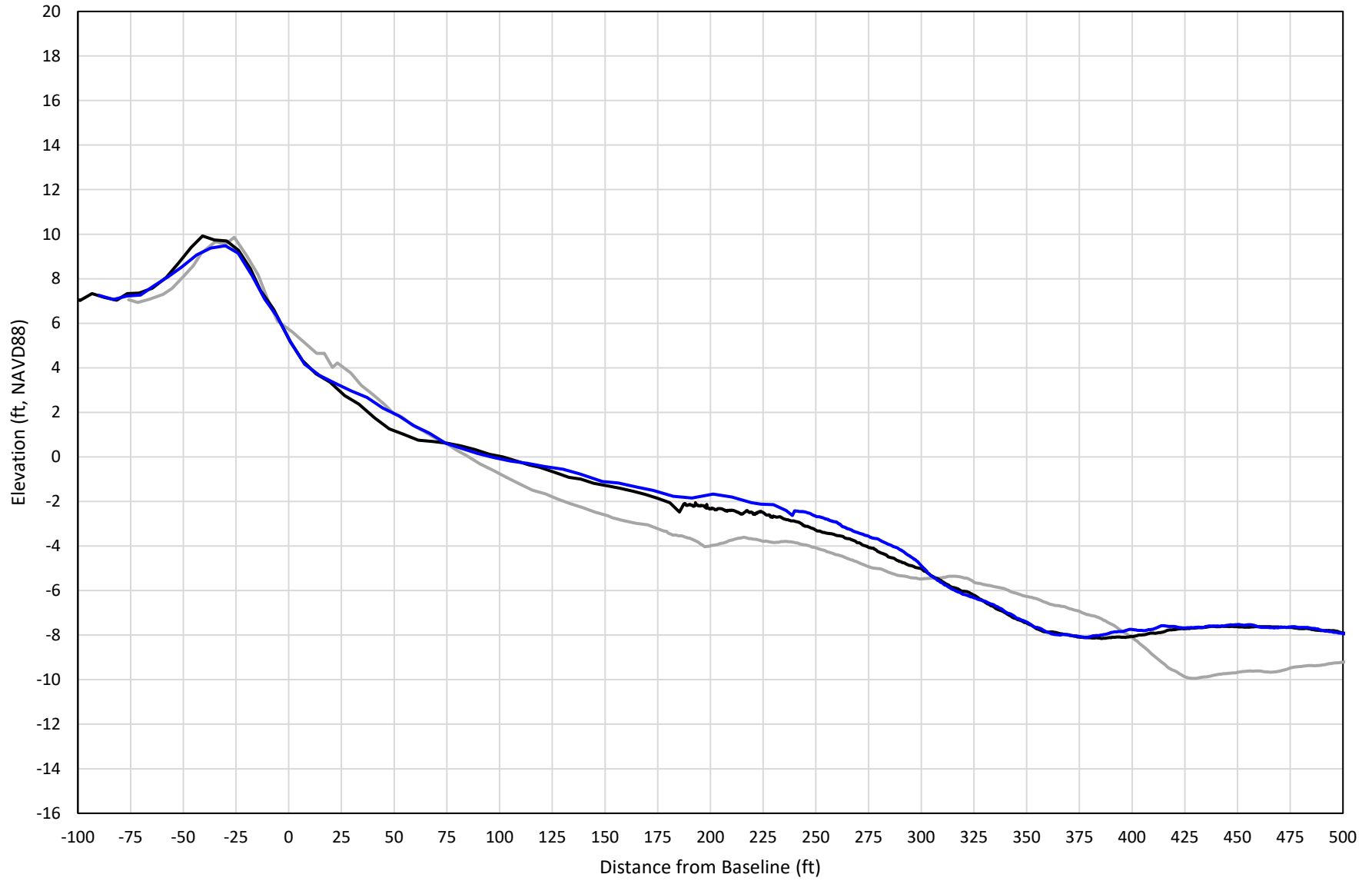
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# 474+00



— 474+00 Precon    - - - 474+00 Temp003    — 474+00 BD\_210516    — 474+00 AD\_210523

# 475+00



— 475+00 Precon    - - - 475+00 Temp003    — 475+00 BD\_210516    — 475+00 AD\_210523