



**REPUBLIC OF ALBANIA  
PUBLIC PROCUREMENT AGENCY  
DURRËS PORT AUTHORITY**

**NEW INTEGRATED COMMERCIAL PORT OF DURRËS  
IN PORTO ROMANO - PHASE I**

**Appendix 7.3 Drawings**

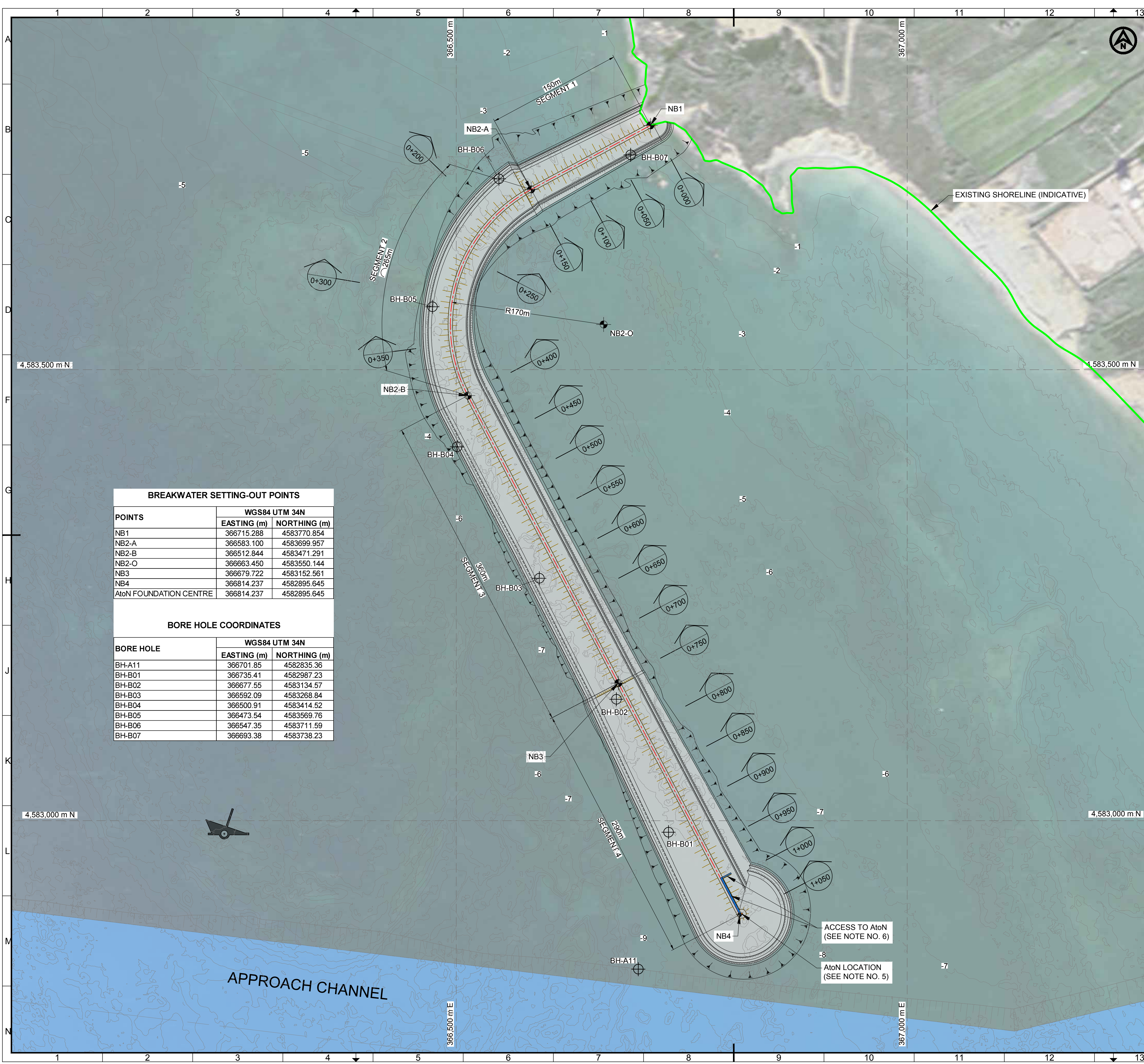
**5.1 Northern Breakwater**

| <b>Nr.</b> | <b>Drawing Number</b>       | <b>Drawing Name</b>                                 |
|------------|-----------------------------|-----------------------------------------------------|
| 1          | BI1884-RHD-02-BW-DR-CM-2011 | Existing situation                                  |
| 2          | BI1884-RHD-02-BW-DR-CM-2012 | Northern BW General Layout                          |
| 3          | BI1884-RHD-02-BW-DR-CM-2013 | Northern BW Detailed Layout - Sheet 1               |
| 4          | BI1884-RHD-02-BW-DR-CM-2013 | Northern BW Detailed Layout - Sheet 2               |
| 5          | BI1884-RHD-02-BW-DR-CM-2013 | Northern BW Detailed Layout - Sheet 3               |
| 6          | BI1884-RHD-02-BW-DR-CM-2013 | Northern BW Detailed Layout - Sheet 4               |
| 7          | BI1884-RHD-02-BW-DR-CM-2014 | Northern BW Dredging Layout                         |
| 8          | BI1884-RHD-02-BW-DR-CM-2015 | Northern BW Typical Design Cross Sections - Sheet 1 |
| 9          | BI1884-RHD-02-BW-DR-CM-2015 | Northern BW Typical Design Cross Sections - Sheet 2 |
| 10         | BI1884-RHD-02-BW-DR-CM-2016 | Northern BW Longitudinal Sections                   |
| 11         | BI1884-RHD-02-BW-DR-CM-2017 | Northern BW Chainage Cross Sections - Sheet 1       |
| 12         | BI1884-RHD-02-BW-DR-CM-2017 | Northern BW Chainage Cross Sections - Sheet 2       |
| 13         | BI1884-RHD-02-BW-DR-CM-2018 | Northern BW Foundation for The Aid to Navigation    |
| 14         | BI1884-RHD-02-BW-DR-CM-2019 | Northern BW Access to AtoN - Sheet 01               |
| 15         | BI1884-RHD-02-BW-DR-CM-2019 | Northern BW Access to AtoN - Sheet 02               |

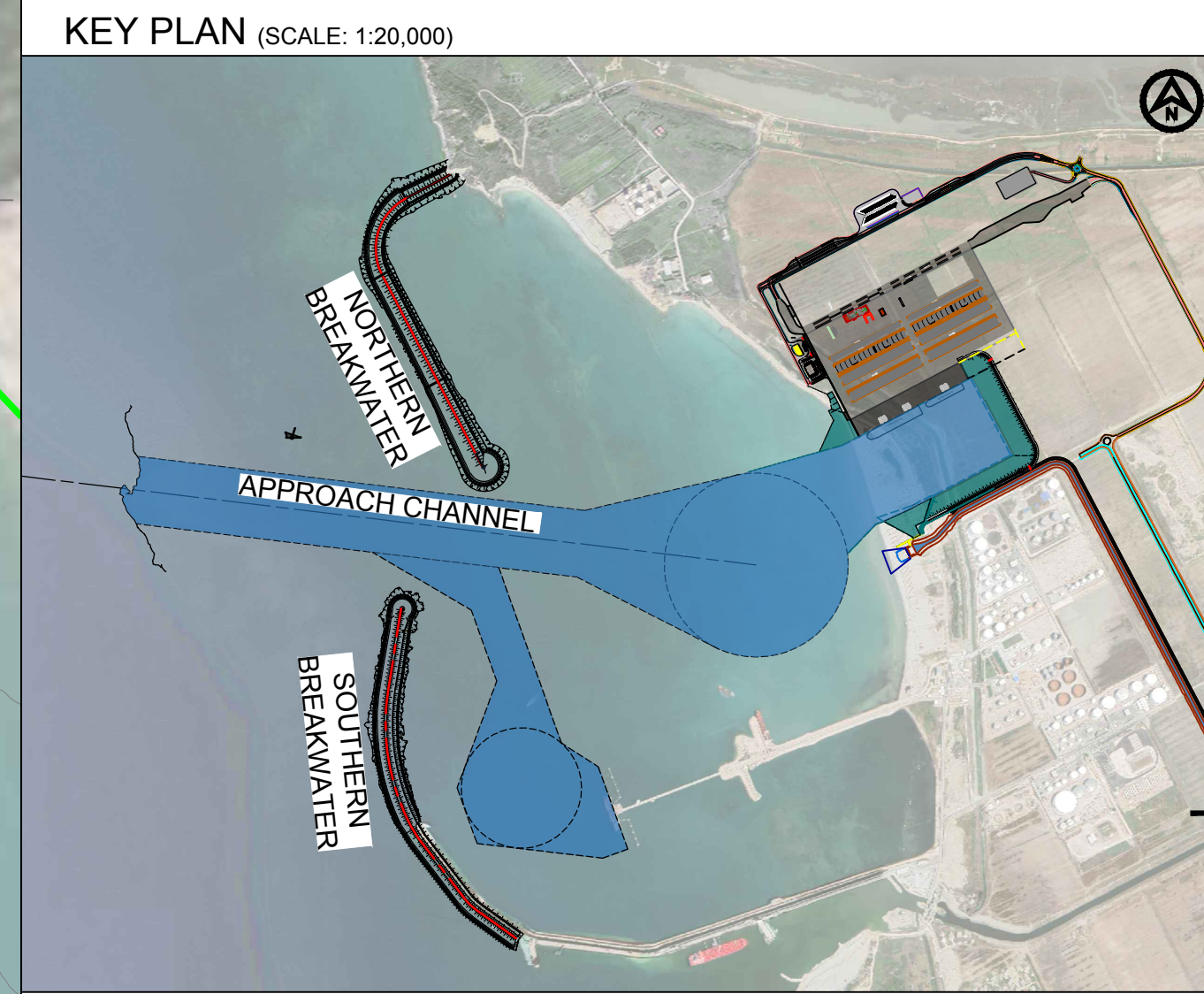








- NOTES**
- ALL DIMENSIONS SHOWN ARE IN METRES (mm), UNLESS OTHERWISE NOTED.
  - BATHYMETRIC DEPTHS ARE REFERRED TO CHART DATUM (CD).
  - THE GEOGRAPHICAL REFERENCE USED IS IN UTM COORDINATES AND IT IS REFERENCED TO THE WORLD GEODETIC SYSTEM OF 1984 (WGS84) ZONE 34 NORTH.
  - THIS DRAWING IS READ IN CONJUNCTION WITH DRAWING NO.:
    - BI1884-RHD-02-BW-DR-CM-2015 (NORTHERN BREAKWATER PHASE 1 INITIAL - TYPICAL DESIGN CROSS SECTIONS)
    - BI1884-RHD-02-BW-DR-CM-2016 (NORTHERN BREAKWATER PHASE 1 INITIAL - LONGITUDINAL SECTION)
    - BI1884-RHD-02-BW-DR-CM-2017 (NORTHERN BREAKWATER PHASE 1 INITIAL - CHAINAGE CROSS SECTIONS)
  - AID TO NAVIGATION STRUCTURE IS PRESENTED IN DRAWING NO.:
    - BI1884-RHD-02-BW-DR-CM-2018 (FOUNDATION FOR THE AID TO NAVIGATION)
  - ACCESS TO THE AID TO NAVIGATION STRUCTURE IS PRESENTED IN DRAWING NO.:
    - BI1884-RHD-02-BW-DR-CM-2019 (ACCESS TO THE AID TO NAVIGATION)



| BREAKWATER SETTING-OUT POINTS |               |              |
|-------------------------------|---------------|--------------|
| POINTS                        | WGS84 UTM 34N |              |
|                               | EASTING (m)   | NORTHING (m) |
| NB1                           | 366715.288    | 4583770.854  |
| NB2-A                         | 366583.100    | 4583699.957  |
| NB2-B                         | 366512.844    | 4583471.291  |
| NB2-O                         | 366663.450    | 4583550.144  |
| NB3                           | 366679.722    | 4583152.561  |
| NB4                           | 366814.237    | 4582895.645  |
| AtoN FOUNDATION CENTRE        | 366814.237    | 4582895.645  |

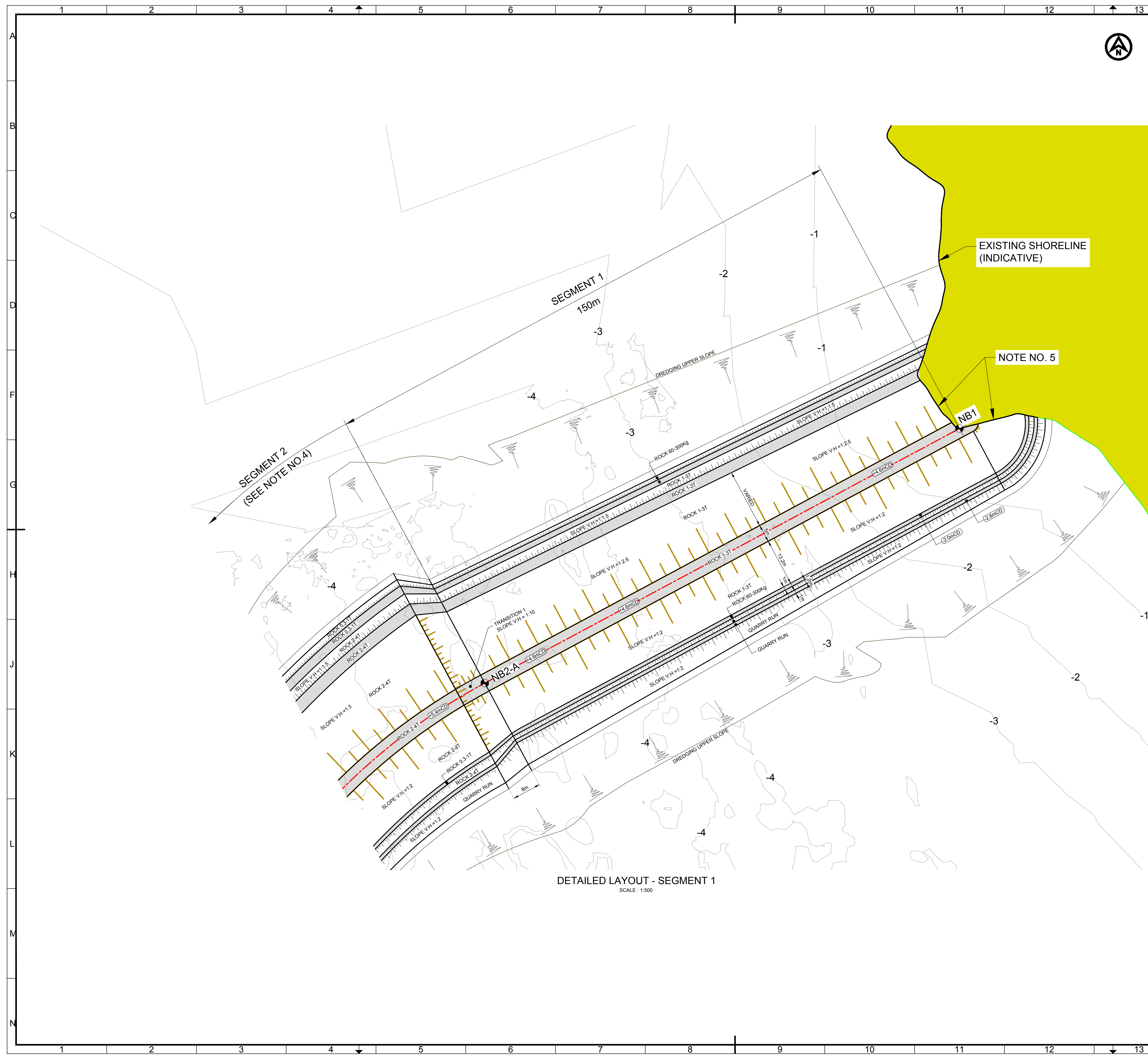
| BORE HOLE COORDINATES |               |              |
|-----------------------|---------------|--------------|
| BORE HOLE             | WGS84 UTM 34N |              |
|                       | EASTING (m)   | NORTHING (m) |
| BH-A11                | 366701.85     | 4582835.36   |
| BH-B01                | 366735.41     | 4582987.23   |
| BH-B02                | 366677.55     | 4583134.57   |
| BH-B03                | 366592.09     | 4583268.84   |
| BH-B04                | 366500.91     | 4583414.52   |
| BH-B05                | 366473.54     | 4583569.76   |
| BH-B06                | 366547.35     | 4583711.59   |
| BH-B07                | 366693.38     | 4583738.23   |

|      |                       |                   |                     |                    |            |
|------|-----------------------|-------------------|---------------------|--------------------|------------|
| P01  | Final Submission      | DJP               | DG                  | ES                 | June 2023  |
| Rev. | Description/Përshkrim | Drawn/Të vizatuar | Checked/Kontrolluar | Approved/ Miratuar | Date/ Data |

|                                                                                                                            |                                                                                                                    |                                                                                                               |                                                                                                               |                                                                                                                     |                                 |
|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <br>LOCAL knowledge. GLOBAL standards | <br>ENGINEERING CONSCIOUSNESS | <br>Design & Supervision | <br>maritime engineering | <br>Enhancing Society Together |                                 |
| Client/Porositësi<br><b>DURRËS PORT AUTHORITY</b> Autoriteti Portual Durrës<br><b>AUTORITETI PORTUAL DURRËS</b>            |                                                                                                                    |                                                                                                               | Design Object/Objekt projekti<br><b>Breakwater</b>                                                            |                                                                                                                     |                                 |
| Project/Projekti<br><b>Porto Romano Detail Design</b>                                                                      |                                                                                                                    |                                                                                                               | Discipline/Disiplina<br><b>Civil Maritime</b>                                                                 |                                                                                                                     |                                 |
| Title/Titull<br><b>Phase 1 - Initial (Northern Breakwater)</b><br><b>General Layout &amp; Chainage Sections</b>            |                                                                                                                    |                                                                                                               |                                                                                                               |                                                                                                                     |                                 |
| Size/Fleta<br><b>A1</b>                                                                                                    | Scale/Shkalla<br><b>1:2000</b>                                                                                     | Phase/Faza<br><b>Detailed Design</b>                                                                          | Sheets/Nr. i fletës<br><b>1</b>                                                                               | of nga<br><b>1</b>                                                                                                  | Revision/Rishkrim<br><b>P01</b> |
|                                                                                                                            |                                                                                                                    |                                                                                                               | Drawing Number/Numri i vizatimit<br><b>BI1884-RHD-02-BW-DR-CM-2012</b>                                        |                                                                                                                     |                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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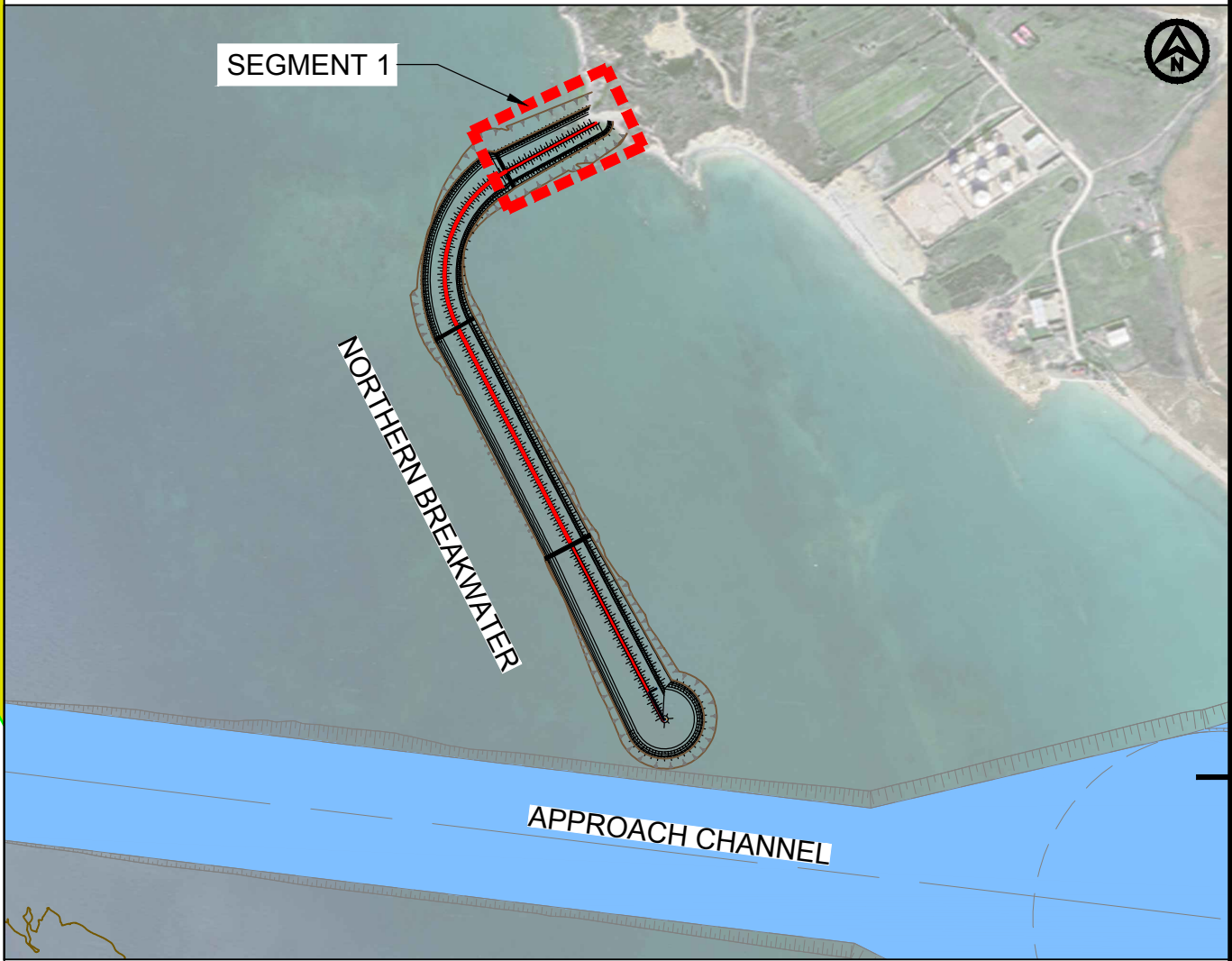


DETAILED LAYOUT - SEGMENT 1  
SCALE : 1:500

#### NOTES

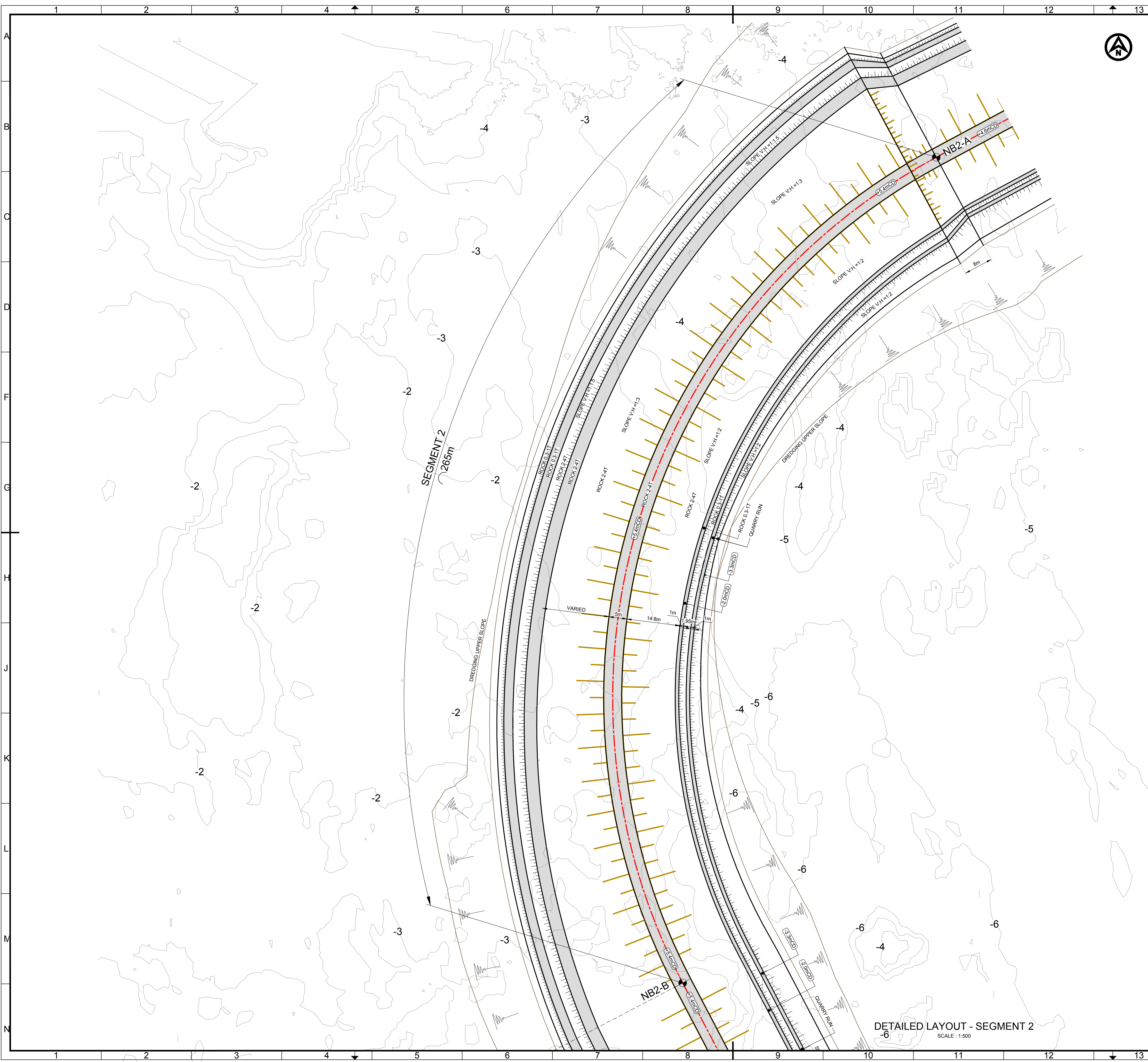
1. ALL DIMENSIONS SHOWN ARE IN METRES (m), UNLESS OTHERWISE NOTED.
2. THIS DRAWING IS READ IN CONJUNCTION WITH DRAWING NO. :
  - BI1884-RHD-02-BW-DR-CM-2012 (NORTHERN BREAKWATER PHASE 1 INITIAL - GENERAL LAYOUT)
  - BI1884-RHD-02-BW-DR-CM-2015 (NORTHERN BREAKWATER PHASE 1 INITIAL - TYPICAL DESIGN CROSS SECTIONS)
  - BI1884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT\_SHEET 2/4)
3. DREDGING SLOPE, VERTICAL : HORIZONTAL = 1 : 6
4. SEE DRAWING NO. BI1884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT\_SHEET 2/4)
5. SEE DRAWING NO. BI1884-RHD-02-BW-DR-CM-2016 (NORTHERN BREAKWATER PHASE 1 INITIAL - LONGITUDINAL SECTION) FOR THE INTERFACE BETWEEN THE BREAKWATER'S ROOT AND THE EXISTING GROUND PROFILE.

KEY PLAN (SCALE: 1:10,000)



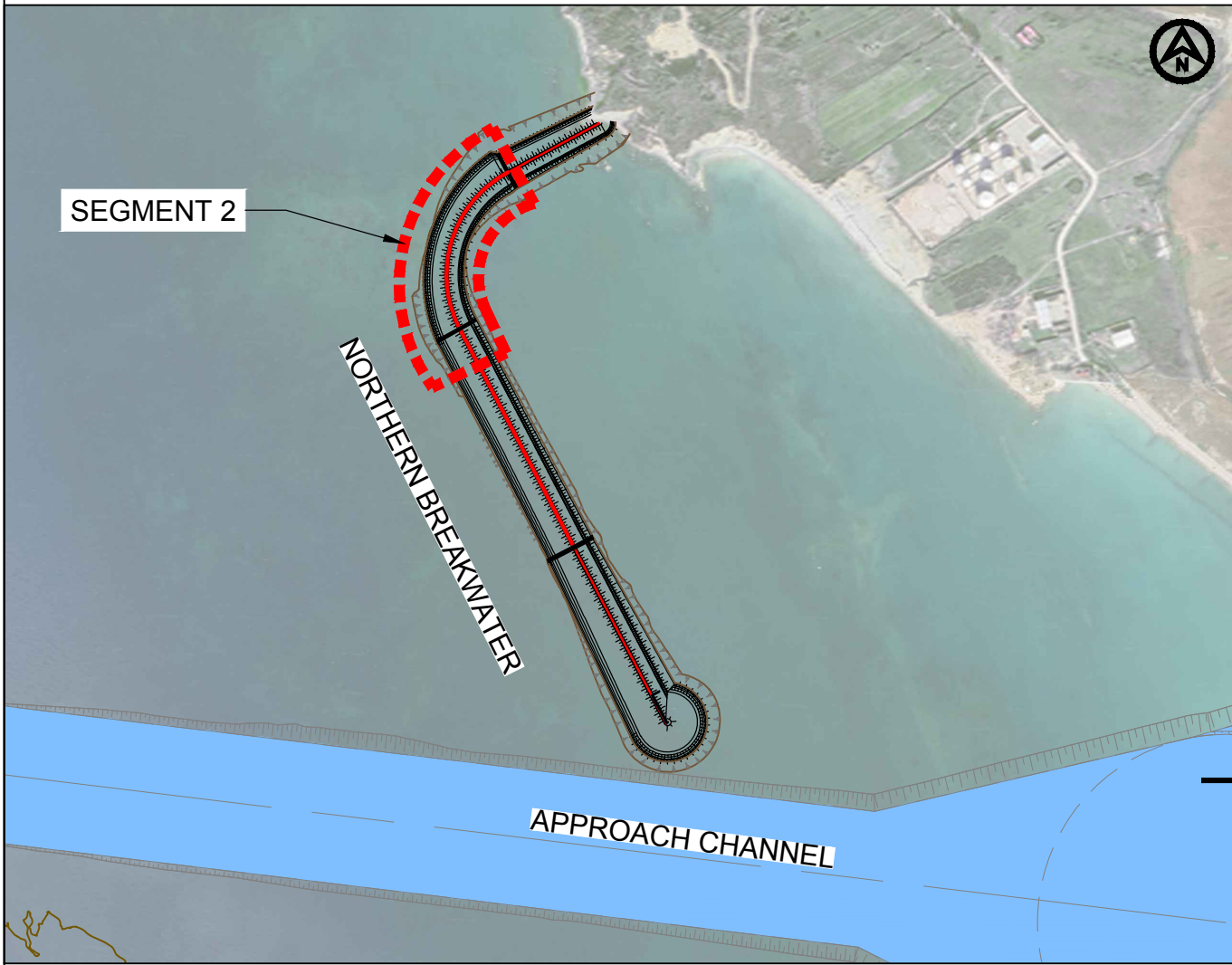
|                   |               |                                                                        |                                               |                     |                                                                 |                          |
|-------------------|---------------|------------------------------------------------------------------------|-----------------------------------------------|---------------------|-----------------------------------------------------------------|--------------------------|
| P01               |               | Final Submission                                                       | DJP                                           | DQ                  | ES                                                              | June 2023                |
| Rev.              |               | Description/Përshkrim                                                  | Drawn/Të vizatuar                             | Checked/Kontrolluar | Approved/ Miratuar                                              | Date/ Data               |
| Client/Porositësi |               | DURRËS PORT AUTHORITY / Autoriteti Portual Durrës                      | Design Object/Objekt projektimi<br>Breakwater |                     |                                                                 |                          |
| Project/Projekti  |               | Porto Romano Detail Design                                             | Discipline/Disipline<br>Civil Maritime        |                     |                                                                 |                          |
| Title/Titulli     |               | Phase 1 - Initial (Northern Breakwater)<br>Detailed layout (Sheet 1/4) |                                               |                     |                                                                 | Revision/Rishkrim<br>P01 |
| Size/Fleta        | Scale/Shkalla | Phase/Faza                                                             | Sheet no./<br>Nr. i fletës                    | of<br>nga           | Drawing Number/Numri i vizatimit<br>BI1884-RHD-02-BW-DR-CM-2013 |                          |
| A1                | 1:500         | Detailed Design                                                        | 1                                             | 4                   |                                                                 |                          |





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    - B11884-RHD-02-BW-DR-CM-2015 (NORTHERN BREAKWATER PHASE 1 INITIAL - TYPICAL DESIGN CROSS SECTIONS)
    - B11884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT\_SHEET 1/4)
    - B11884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT\_SHEET 3/4)
  3. DREDGING SLOPE, VERTICAL : HORIZONTAL = 1 : 6

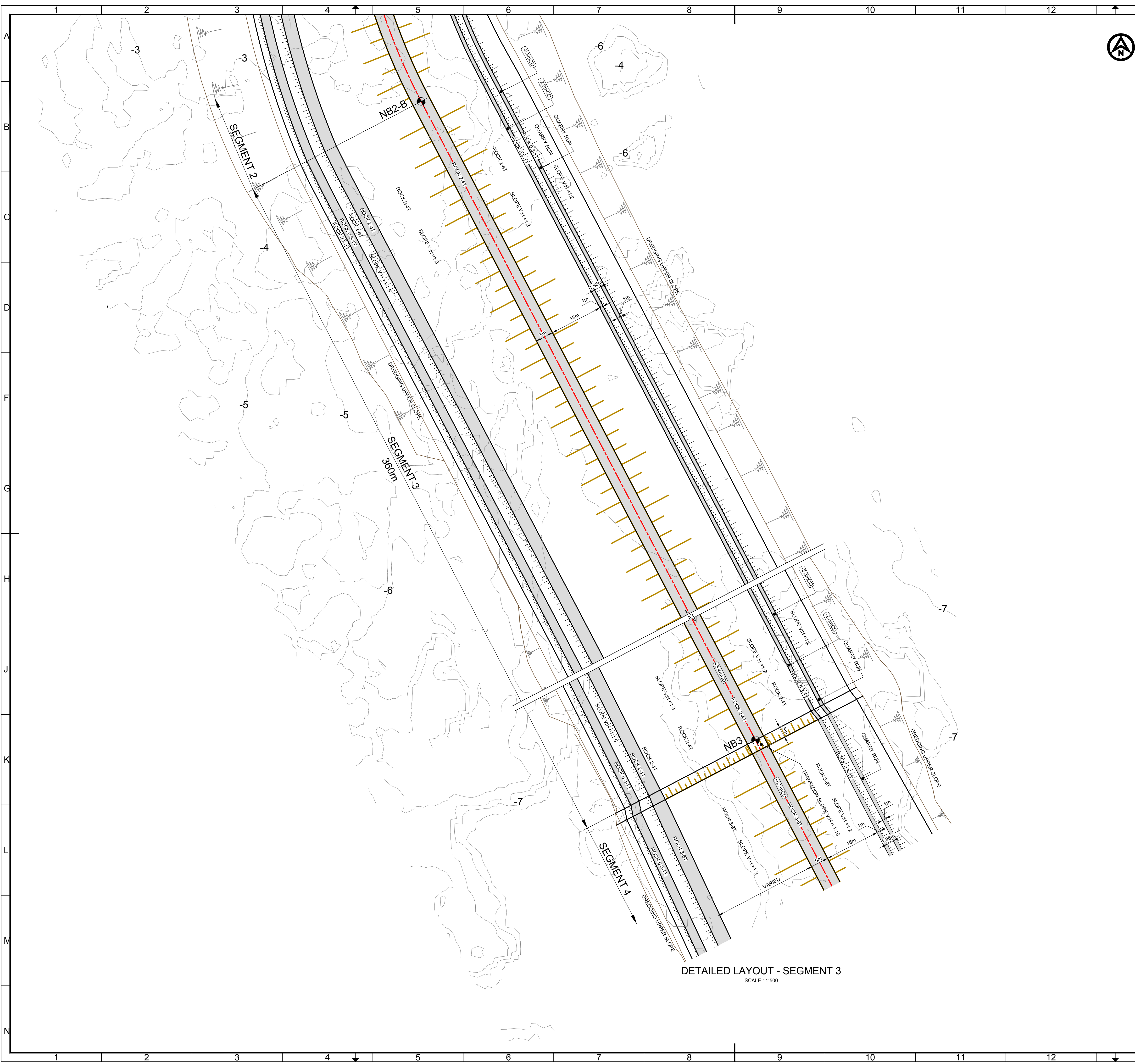
**KEY PLAN (SCALE: 1:10,000)**



**DETAILED LAYOUT - SEGMENT 2**  
SCALE: 1:500

|                                                                                                                 |                        |                                                             |                                             |                                            |                                                                 |
|-----------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------|---------------------------------------------|--------------------------------------------|-----------------------------------------------------------------|
| P01                                                                                                             | Final Submission       | DJP                                                         | DQ                                          | ES                                         | June 2023                                                       |
| Rev.                                                                                                            | Description/Përshkrim  | Drawn/Të vizatuar                                           | Checked/Kontrolluar                         | Approved/ Miratuar                         | Date/ Data                                                      |
| <b>abkons</b><br>LOCAL KNOWLEDGE, GLOBAL STRATEGIES                                                             |                        | <b>ADEC</b><br>ARCHITECTURAL DESIGN ENGINEERING CONSULTANTS | <b>TAULANT shpk</b><br>Design & Supervision | <b>GEO ENG</b><br>Geotechnical Engineering | <b>Royal HaskoningDHV</b><br>Enhancing Society Together         |
| Client/Porositësi<br><b>DURRËS PORT AUTHORITY</b> Autoriteti Portual Durrës<br><b>AUTORITETI PORTUAL DURRËS</b> |                        | Design Object/Objekt projektimi<br>Breakwater               |                                             |                                            |                                                                 |
| Project/Projekti<br>Porto Romano Detail Design                                                                  |                        | Discipline/Disipline<br>Civil Maritime                      |                                             |                                            |                                                                 |
| Title/Titulli<br>Phase 1 - Initial (Northern Breakwater)<br>Detailed layout (Sheet 2/4)                         |                        | Revision/Rishkrim<br>P01                                    |                                             |                                            |                                                                 |
| Size/Fleta<br>A1                                                                                                | Scale/Shkalla<br>1:500 | Phase/Faza<br>Detailed Design                               | Sheet no./ Nr. i fletës<br>2                | of nga<br>4                                | Drawing Number/Numri i vizatimit<br>B11884-RHD-02-BW-DR-CM-2013 |

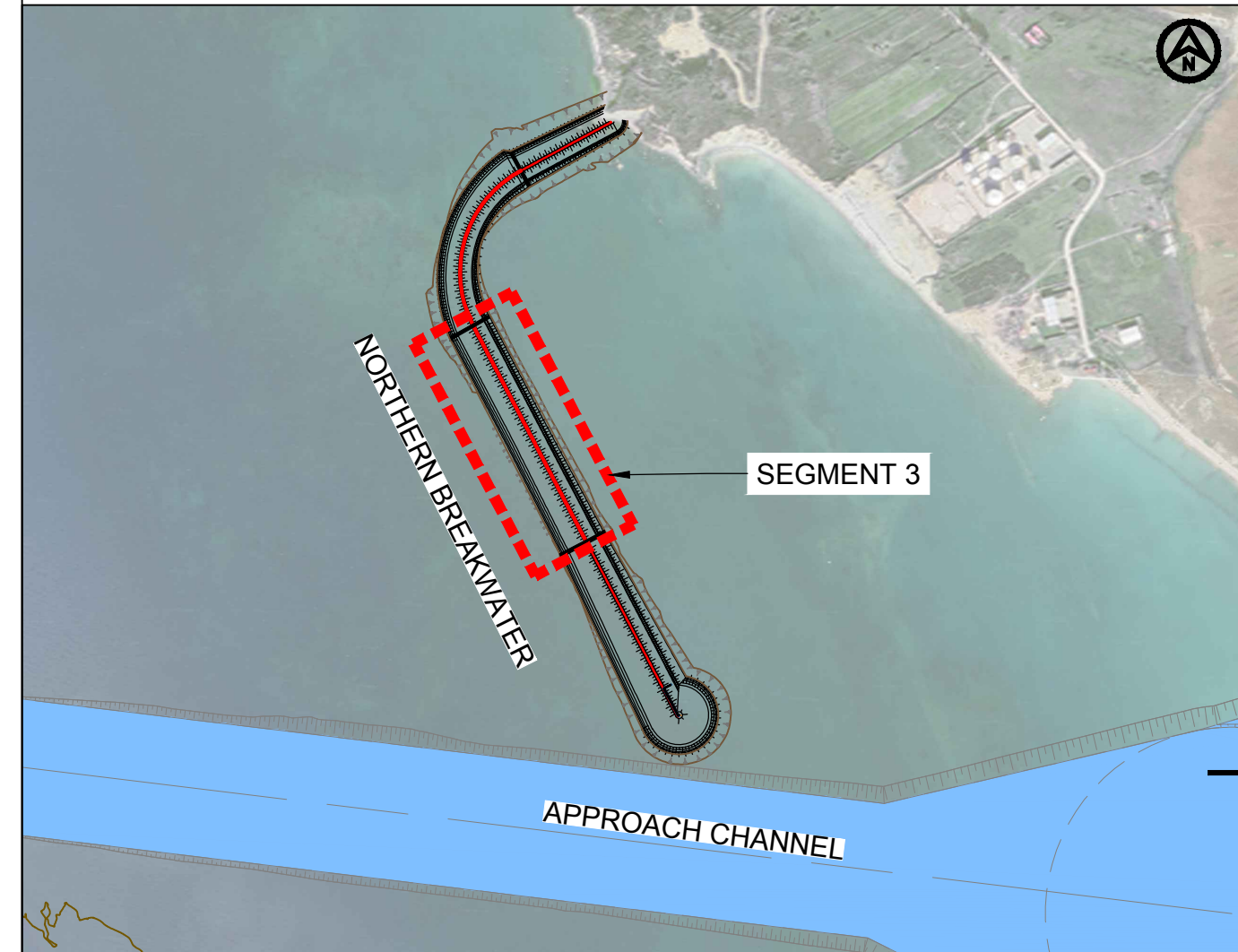




## NOTES

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2. THIS DRAWING IS READ IN CONJUNCTION WITH DRAWING NO. :
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  - B11884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT\_SHEET 2/4)
  - B11884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT\_SHEET 4/4)
3. DREDGING SLOPE, VERTICAL : HORIZONTAL = 1 : 6

## KEY PLAN (SCALE: 1:10,000)



|                           |                       |                                                   |                     |                                  |                    |
|---------------------------|-----------------------|---------------------------------------------------|---------------------|----------------------------------|--------------------|
| P01                       | Final Submission      | DJP                                               | DQ                  | ES                               | June 2023          |
| Rev.                      | Description/Përshkrim | Drawn/Të vizatuar                                 | Checked/Kontrolluar | Approved/ Miratuar               | Date/ Data         |
| abkons                    |                       | ADEC                                              | TAULANT shpk        | GEO ENG                          | Royal HaskoningDHV |
| Client/Porositësi         |                       | Durrës Port Authority / Autoriteti Portual Durrës |                     | Design Object/Objekt projektimi  |                    |
| AUTORITETI PORTUAL DURRËS |                       |                                                   |                     | Breakwater                       |                    |
| Project/Projekti          |                       | Porto Romano Detail Design                        |                     | Discipline/Disipline             |                    |
|                           |                       |                                                   |                     | Civil Maritime                   |                    |
| Title/Titulli             |                       | Phase 1 - Initial (Northern Breakwater)           |                     |                                  |                    |
|                           |                       | Detailed layout (Sheet 3/4)                       |                     |                                  |                    |
| Size/Fleta                |                       | Scale/Shkalla                                     | Phase/Faza          | Sheet no./ Nr. i fletës          | Revision/Rahkim    |
| A1                        |                       | 1:500                                             | Detailed Design     | 3 of 4                           | P01                |
|                           |                       |                                                   |                     | Drawing Number/Numri i vizatimit |                    |
|                           |                       |                                                   |                     | B11884-RHD-02-BW-DR-CM-2013      |                    |



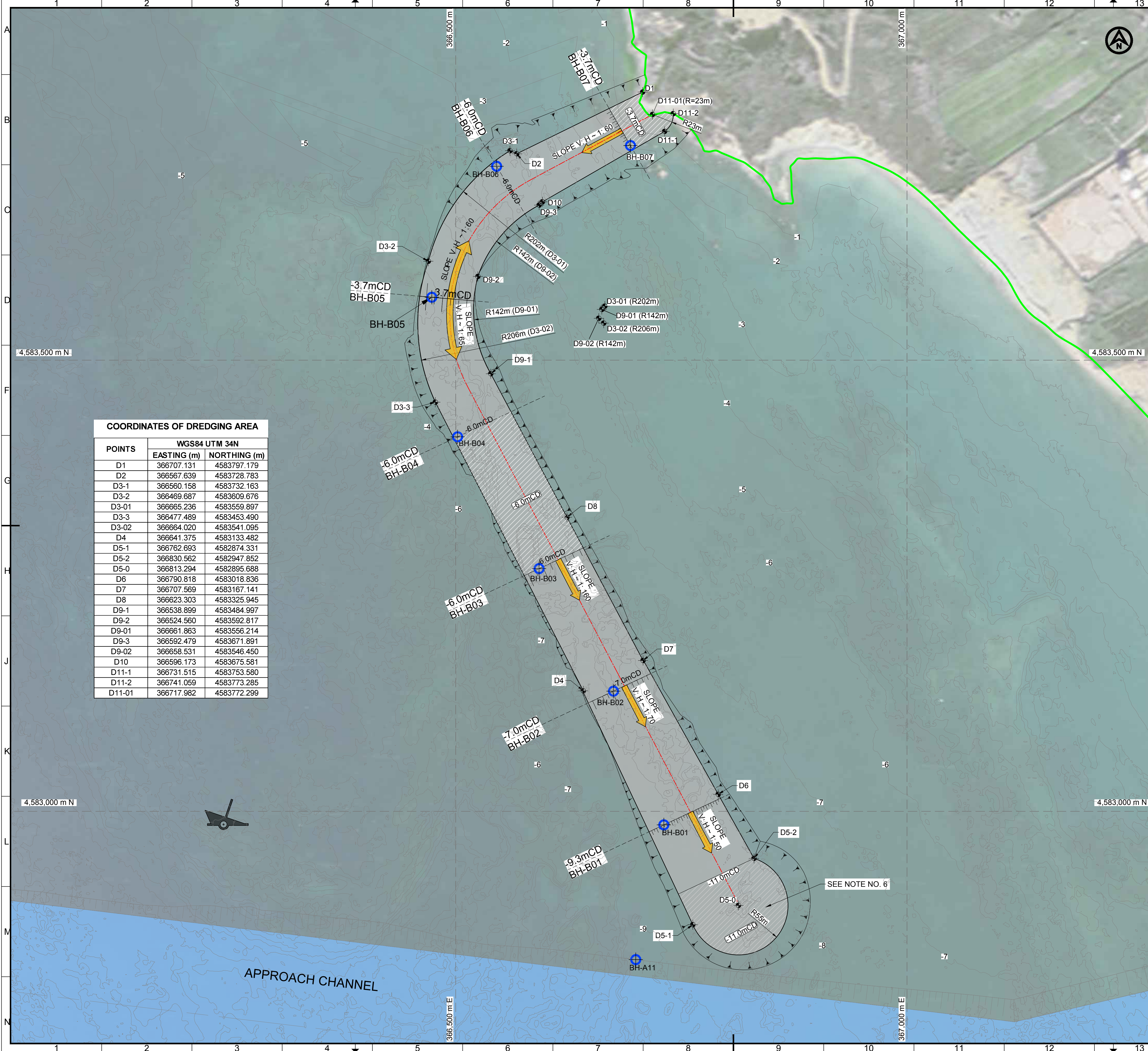


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  - BI1884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT SHEET 3/4)
3. DREDGING SLOPE, VERTICAL : HORIZONTAL = 1 : 6
4. AID TO NAVIGATION STRUCTURE IS PRESENTED IN DRAWING NO.:
  - BI1884-RHD-02-BW-DR-CM-2018 (FOUNDATION FOR THE AID TO NAVIGATION)
5. ACCESS TO THE AID TO NAVIGATION STRUCTURE IS PRESENTED IN DRAWING NO.:
  - BI1884-RHD-02-BW-DR-CM-2019 (ACCESS TO THE AID TO NAVIGATION)

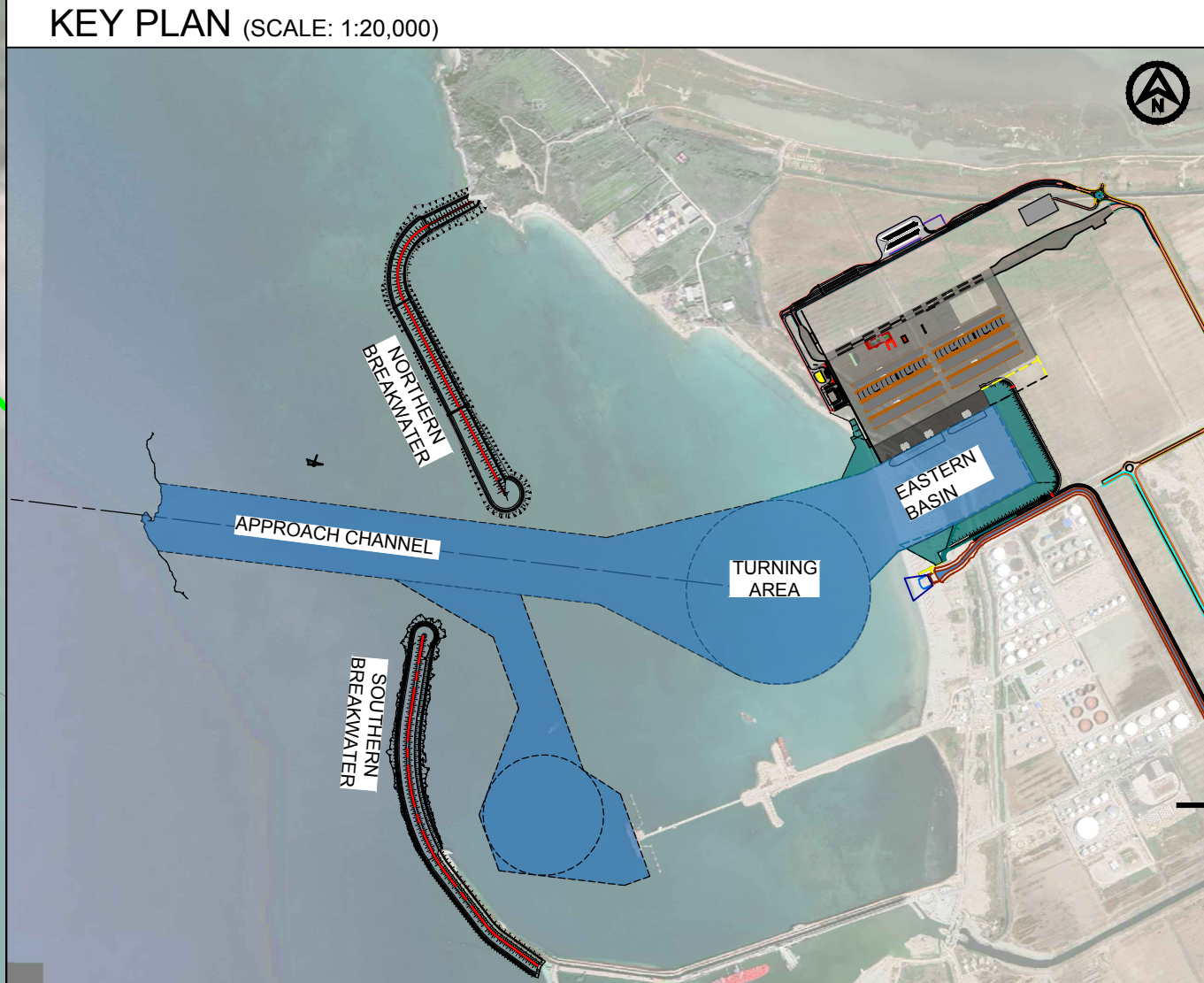
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|------|-----------------------|-------------------|---------------------|--------------------|------------|
| P01  | Final Submission      | DJP               | DQ                  | ES                 | June 2023  |
| Rev. | Description/Përshkrim | Drawn/Të vizatuar | Checked/Kontrolluar | Approved/ Miratuar | Date/ Datë |

|                                                                                                                                                                                                                                                                                                                                                               |       |                                         |                          |                                |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------|--------------------------|--------------------------------|----|
| <div><div><div>abkons</div><div>LOCAL KNOWLEDGE, GLOBAL STANDARDS</div></div><div><div>ADEC</div><div>ENGINEERING CONSULTANCY</div></div><div><div>TAULANT shpk</div><div>Design &amp; Supervision</div></div><div><div>GEO ENG</div><div>geotech Engineering</div></div><div><div>Royal Haskoning DHV</div><div>Enhancing Society Together</div></div></div> |       |                                         |                          |                                |    |
| Client/Parashteti                                                                                                                                                                                                                                                                                                                                             |       | Autoriteti Portual Durrës               |                          | Design Object/Objekt projekti  |    |
| DURRËS PORT AUTHORITY                                                                                                                                                                                                                                                                                                                                         |       | AUTORITETI PORTAL DURRËS                |                          | Breakwater                     |    |
| Project/Projekti                                                                                                                                                                                                                                                                                                                                              |       | Porto Romano Detail Design              |                          | Discipline/Disiplina           |    |
|                                                                                                                                                                                                                                                                                                                                                               |       |                                         |                          | Civil Maritime                 |    |
| Title/Titulli                                                                                                                                                                                                                                                                                                                                                 |       | Phase 1 - Initial (Northern Breakwater) |                          |                                |    |
| Detailed layout (Sheet 4/4)                                                                                                                                                                                                                                                                                                                                   |       |                                         |                          | Revision/Rishkrim              |    |
|                                                                                                                                                                                                                                                                                                                                                               |       |                                         |                          | P01                            |    |
| Size/Fleta                                                                                                                                                                                                                                                                                                                                                    |       | Scale/Shkallë                           | Phase/Faza               | Brawing Number/Numri i vizimit |    |
| A1                                                                                                                                                                                                                                                                                                                                                            | 1:500 | Detailed Design                         | Sheet/no. / Nr. i fletës | BI1884-RHD-02-BW-DR-CM-2013    |    |
|                                                                                                                                                                                                                                                                                                                                                               | 14    |                                         | 4                        |                                |    |
|                                                                                                                                                                                                                                                                                                                                                               |       |                                         | 15                       |                                |    |
|                                                                                                                                                                                                                                                                                                                                                               |       |                                         |                          |                                | 16 |





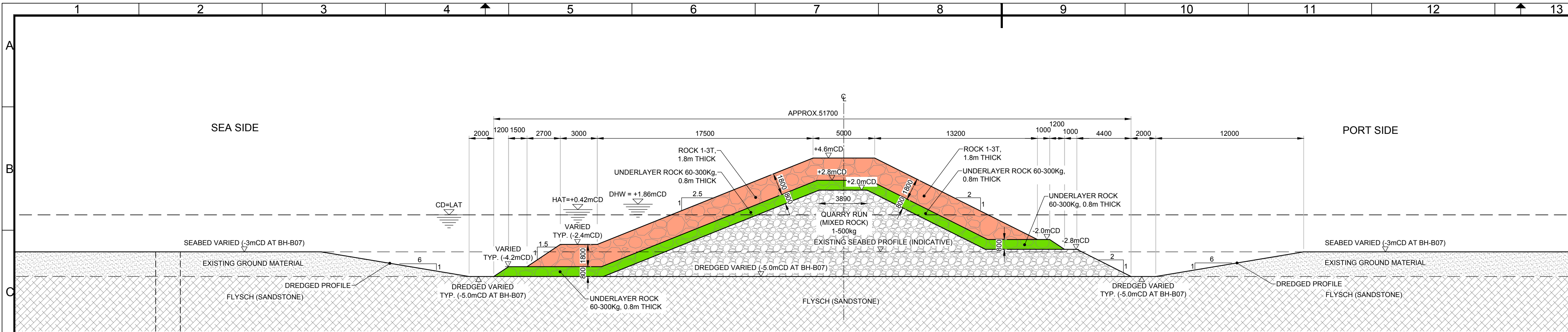
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  - THE GEOGRAPHICAL REFERENCE USED IS IN UTM COORDINATES AND IT IS REFERENCED TO THE WORLD GEODETIC SYSTEM OF 1984 (WGS84) ZONE 34 NORTH.
  - THIS DRAWING IS READ IN CONJUNCTION WITH DRAWING NO. B11884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - GENERAL LAYOUT).
  - DREDGING SLOPE V:H = 1:6, DREDGED LEVELS FOLLOW SOIL PROFILE ALONG THE NORTHERN BREAKWATER AT FLYSCH LEVELS.
  - ASSUME SOIL PROFILE AT THE BREAKWATER ROUND HEAD THE SAME AS AT BOREHOLE BH-A11 (TO BE VERIFIED DURING THE CONSTRUCTION).



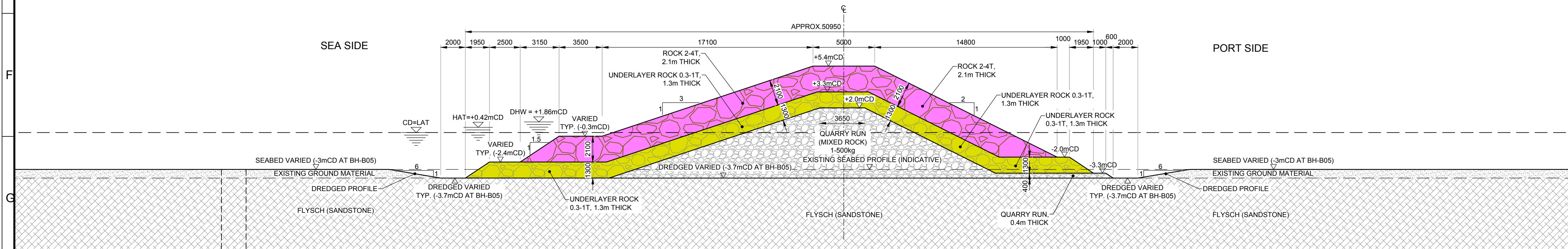
| COORDINATES OF DREDGING AREA |               |              |
|------------------------------|---------------|--------------|
| POINTS                       | WGS84 UTM 34N |              |
|                              | EASTING (m)   | NORTHING (m) |
| D1                           | 366707.131    | 4583797.179  |
| D2                           | 366567.639    | 4583728.783  |
| D3-1                         | 366560.158    | 4583732.163  |
| D3-2                         | 366469.687    | 4583609.676  |
| D3-01                        | 366665.236    | 4583559.897  |
| D3-3                         | 366477.489    | 4583453.490  |
| D3-02                        | 366664.020    | 4583541.095  |
| D4                           | 366641.375    | 4583133.482  |
| D5-1                         | 366762.693    | 4582874.331  |
| D5-2                         | 366830.562    | 4582947.852  |
| D5-0                         | 366813.294    | 4582895.688  |
| D6                           | 366790.818    | 4583018.836  |
| D7                           | 366707.569    | 4583167.141  |
| D8                           | 366623.303    | 4583325.945  |
| D9-1                         | 366538.899    | 4583484.997  |
| D9-2                         | 366524.560    | 4583592.817  |
| D9-01                        | 366661.863    | 4583556.214  |
| D9-3                         | 366592.479    | 4583671.891  |
| D9-02                        | 366658.531    | 4583546.450  |
| D10                          | 366596.173    | 4583675.581  |
| D11-1                        | 366731.515    | 4583753.580  |
| D11-2                        | 366741.059    | 4583773.285  |
| D11-01                       | 366717.982    | 4583772.299  |

|                                         |                       |                                         |                        |                                 |                                |
|-----------------------------------------|-----------------------|-----------------------------------------|------------------------|---------------------------------|--------------------------------|
| P01                                     | Final Submission      | DJP                                     | DQ                     | ES                              | June 2023                      |
| Rev.                                    | Description/Përshkrim | Drawn/Të vizatuar                       | Checked/Kontrolluar    | Approved/ Miratuar              | Date/ Data                     |
| Client/Porositësi                       |                       | DURRËS PORT AUTHORITY                   |                        | Design Object/Objekt projektimi |                                |
| DURRËS PORT AUTHORITY                   |                       | AUTORITETI PORTUAL DURRËS               |                        | Breakwater                      |                                |
| Project/Projekti                        |                       | Porto Romano Detail Design              |                        | Discipline/Disiplina            |                                |
| Porto Romano Detail Design              |                       |                                         |                        | Civil Maritime                  |                                |
| Title/Titulli                           |                       | Phase 1 - Initial (Northern Breakwater) |                        | Revision/Rishkrim               |                                |
| Phase 1 - Initial (Northern Breakwater) |                       | Dredging layout                         |                        | P01                             |                                |
| Size/Fleta                              | Scale/Shkalla         | Phase/Faza                              | Sheetno / Nr. i fletës | of nga                          | Drawing Number/Nr. i vizatimit |
| A1                                      | 1:2000                | Detailed Design                         | 1                      | 1                               | B11884-RHD-02-BW-DR-CM-2014    |

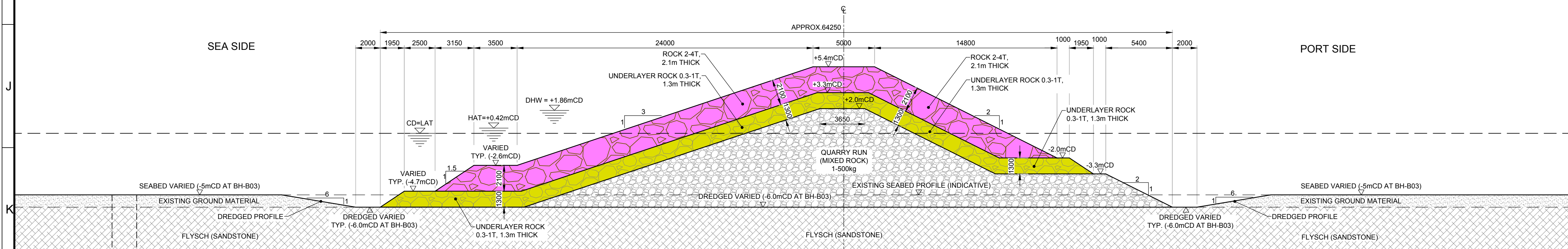




NORTHERN BREAKWATER PHASE 1 INITIAL - SEGMENT 1  
TYPICAL CROSS SECTION (SECTION 1-1)  
SCALE: 1:200



NORTHERN BREAKWATER PHASE 1 INITIAL - SEGMENT 2  
TYPICAL CROSS SECTION (SECTION 2-2)  
SCALE: 1:200



NORTHERN BREAKWATER PHASE 1 INITIAL - SEGMENT 3  
TYPICAL CROSS SECTION (SECTION 3-3)  
SCALE: 1:200

GRADING REQUIREMENTS SHALL COMPLY WITH THE FOLLOWING:

| NAME          | CLASS<br>(kg) | RHO (MIN)<br>(kg/m <sup>3</sup> ) | ELL<br>(<5%)<br>(kg) | NLL<br>(<10%)<br>(kg) | NUL<br>(>70%)<br>(kg) | EUL<br>(>97%)<br>(kg) | M <sub>em</sub>     |                     |
|---------------|---------------|-----------------------------------|----------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
|               |               |                                   |                      |                       |                       |                       | LOWER LIMIT<br>(kg) | UPPER LIMIT<br>(kg) |
| HEAVY GRADING | 3,000-6,000   | 2,650                             | 2,000                | 3,000                 | 6,000                 | 9,000                 | 4,200               | 4,800               |
|               | 2,000-4,000   | 2,650                             | 1,300                | 2,000                 | 4,000                 | 6,000                 | 2,850               | 3,150               |
|               | 1,000-3,000   | 2,650                             | 700                  | 1,000                 | 3,000                 | 4,500                 | 1,700               | 2,100               |
|               | 300-1,000     | 2,650                             | 200                  | 300                   | 1,000                 | 1,500                 | 541                 | 690                 |
| LIGHT GRADING | CLASS<br>(kg) | RHO (MIN)<br>(kg/m <sup>3</sup> ) | ELL<br>(<2%)<br>(kg) | NLL<br>(<10%)<br>(kg) | NUL<br>(>70%)<br>(kg) | EUL<br>(>97%)<br>(kg) | M <sub>em</sub>     |                     |
|               |               |                                   |                      |                       |                       |                       | LOWER LIMIT<br>(kg) | UPPER LIMIT<br>(kg) |
|               | 60-300        | 2,650                             | 30                   | 60                    | 300                   | 450                   | 130                 | 190                 |
|               | 1-500         | 2,650                             | 1.0                  | N/A                   | N/A                   | 500                   | N/A                 | N/A                 |

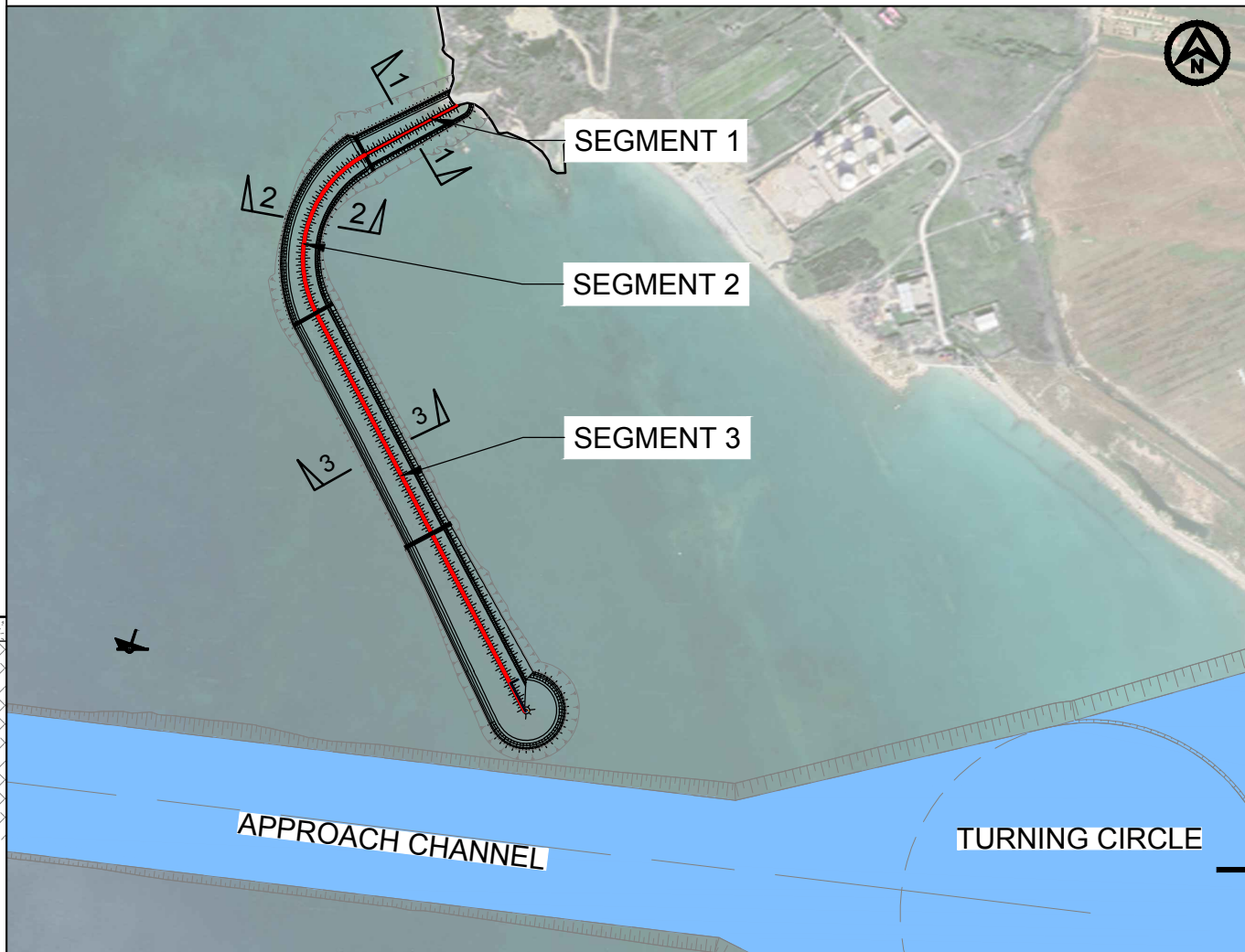
SCALE 1:200 (A1 PAPER SIZE)



#### NOTES

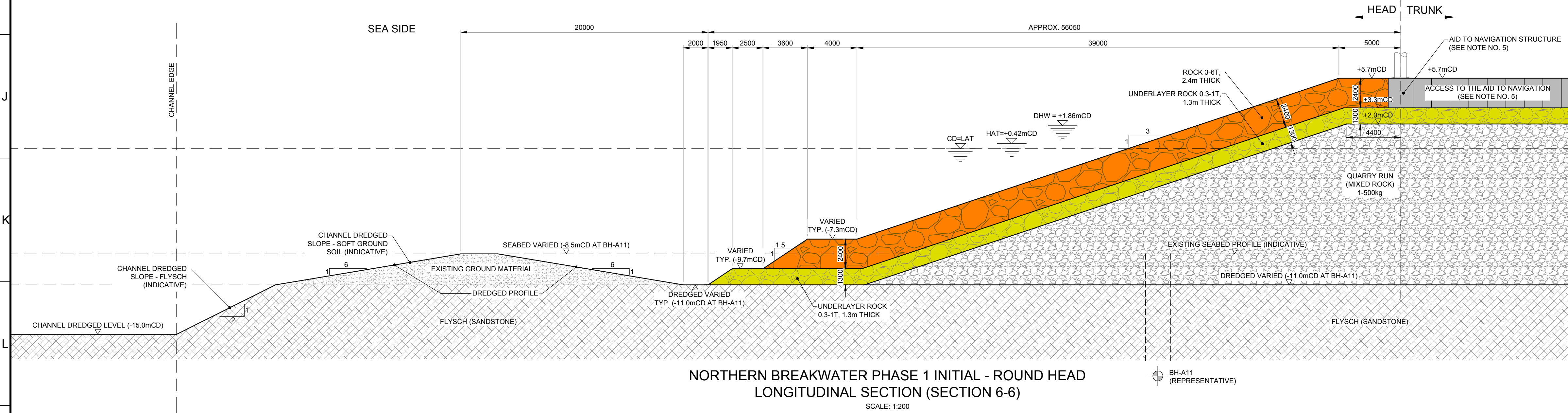
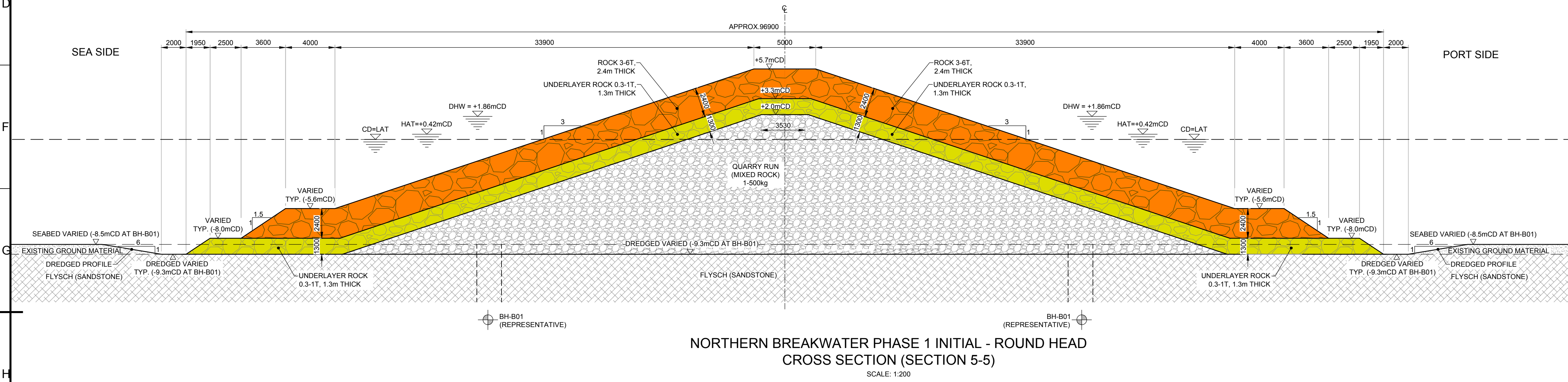
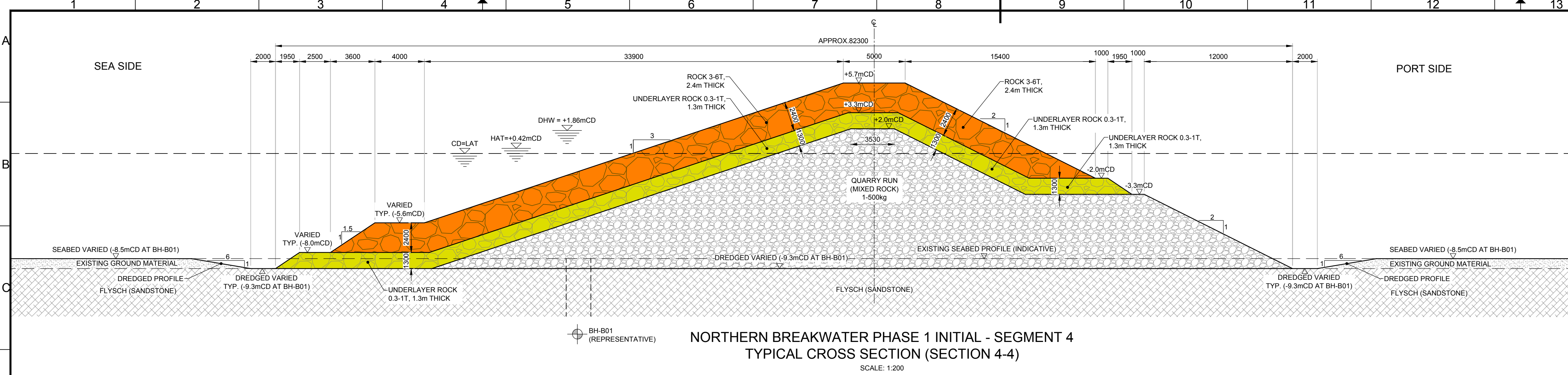
- ALL DIMENSIONS SHOWN ARE IN MILLIMETRES (mm), UNLESS OTHERWISE NOTED.
- ALL LEVELS ARE IN METRES RELATIVE TO CHART DATUM (CD) UNLESS OTHERWISE NOTED.
- THIS DRAWING IS READ IN CONJUNCTION WITH DRAWING NO.:
  - BI1884-RHD-02-BW-DR-CM-2012 (NORTHERN BREAKWATER PHASE 1 INITIAL - GENERAL LAYOUT)
  - BI1884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT)
  - BI1884-RHD-02-BW-DR-CM-2017 (NORTHERN BREAKWATER PHASE 1 INITIAL - CHAINAGE CROSS SECTIONS) .
- THE ELEVATIONS/ CREST LEVELS INDICATED IN THIS DRAWING ARE THE REQUIRED VALUES AT HANDOVER.

#### KEY PLAN (SCALE: 1:10,000)



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                   |                     |                   |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|---------------------|-------------------|------------|
| P01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Submission      | DUP               | DQ                  | ES                | June 2023  |
| Rev.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Description/Përshkrim | Drawn/Të vizatuar | Checked/Kontrolluar | Approved/Miratuar | Date/ Data |
| <div>abkonsADECITAUTANT shipkGEO ENCRoyal HaskoningDHV</div> <div>Client/Porositësi: Durrës Port Authority, Autoriteti Portual Durrës</div> <div>Design Object/Objekt projektimi: Breakwater</div> <div>Project/Projekti: Porto Romano Detail Design</div> <div>Discipline/Disiplina: Civil Maritime</div> <div>Title/Titulli: Phase 1 - Initial (Northern Breakwater) Typical design cross sections (Sheet 1/2)</div> <div>Revision/Revizimi: P01</div> <div>Size/Fleta: A1</div> <div>Scale/Shkalla: 1:200</div> <div>Phase/Faza: Detailed Design</div> <div>Sheetno./Nr. i fletës: 1 of 2</div> <div>Drawing Number/Numri i vizatimit: BI1884-RHD-02-BW-DR-CM-2015</div> |                       |                   |                     |                   |            |



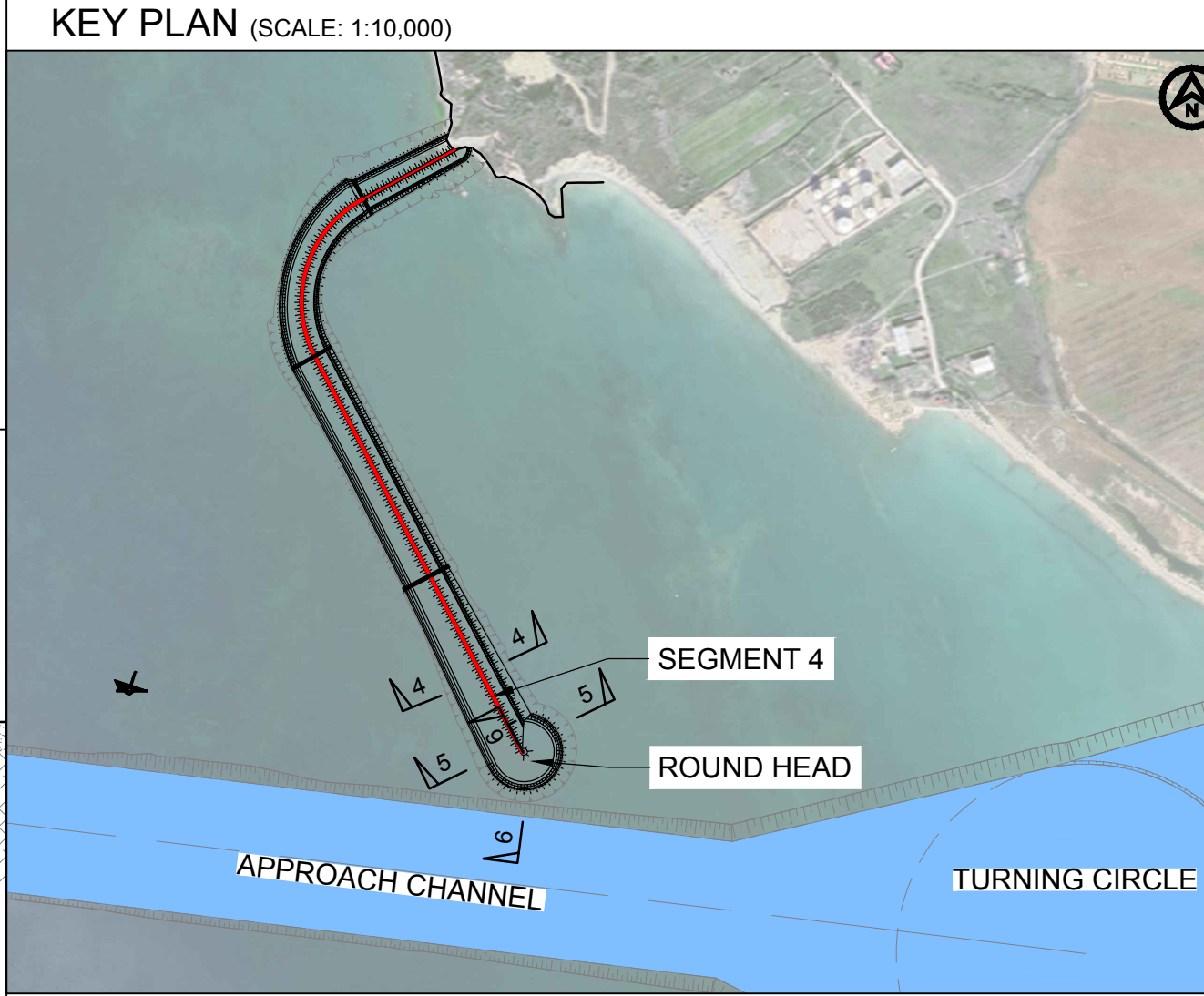


| GRADING REQUIREMENTS SHALL COMPLY WITH THE FOLLOWING: |             |                   |                |                 |                 |                 |                  |                  |
|-------------------------------------------------------|-------------|-------------------|----------------|-----------------|-----------------|-----------------|------------------|------------------|
| NAME                                                  | CLASS (kg)  | RHO (MIN) (kg/m³) | ELL (<5%) (kg) | NLL (<10%) (kg) | NUL (>70%) (kg) | EUL (>97%) (kg) | M <sub>em</sub>  |                  |
| HEAVY GRADING                                         | 3,000-6,000 | 2,650             | 2,000          | 3,000           | 6,000           | 9,000           | LOWER LIMIT (kg) | UPPER LIMIT (kg) |
|                                                       | 2,000-4,000 | 2,650             | 1,300          | 2,000           | 4,000           | 6,000           | 4,200            | 4,800            |
|                                                       | 1,000-3,000 | 2,650             | 700            | 1,000           | 3,000           | 4,500           | 2,850            | 3,150            |
|                                                       | 300-1,000   | 2,650             | 200            | 300             | 1,000           | 1,500           | 1,700            | 2,100            |
| LIGHT GRADING                                         | 60-300      | 2,650             | 30             | 60              | 300             | 450             | 541              | 690              |
|                                                       | 1-500       | 2,650             | 1,0            | N/A             | N/A             | 500             | 130              | 190              |
|                                                       |             |                   |                |                 |                 |                 | N/A              | N/A              |
|                                                       |             |                   |                |                 |                 |                 |                  |                  |

SCALE 1:200 (A1 PAPER SIZE)

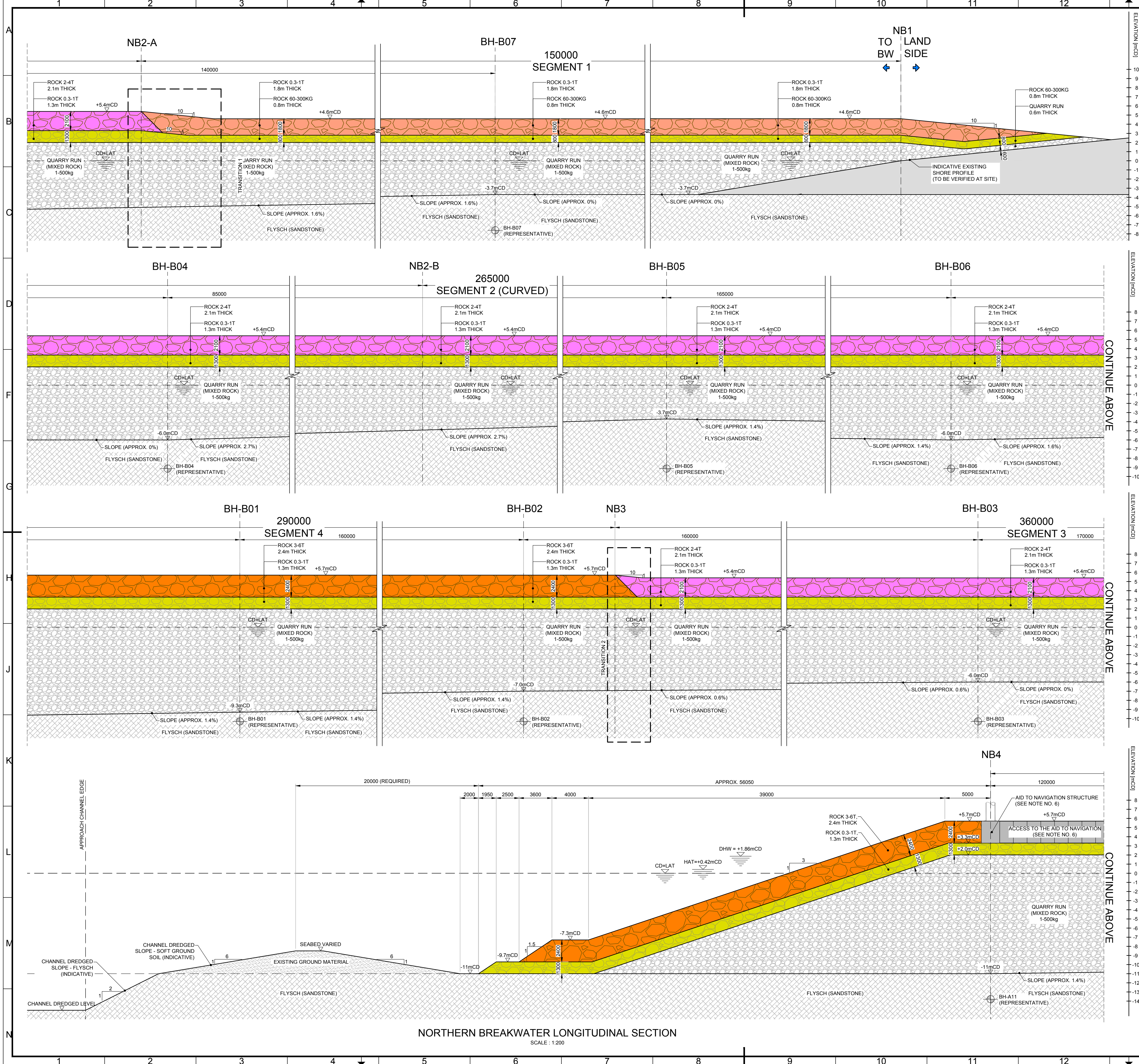


- NOTES
- ALL DIMENSIONS SHOWN ARE IN MILLIMETRES (mm), UNLESS OTHERWISE NOTED.
  - ALL LEVELS ARE IN METRES RELATIVE TO CHART DATUM (CD) UNLESS OTHERWISE NOTED.
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    - B11884-RHD-02-BW-DR-CM-2012 (NORTHERN BREAKWATER PHASE 1 INITIAL - GENERAL LAYOUT)
    - B11884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT)
    - B11884-RHD-02-BW-DR-CM-2017 (NORTHERN BREAKWATER PHASE 1 INITIAL - CHAINAGE CROSS SECTIONS).
  - THE ELEVATIONS/ CREST LEVELS INDICATED IN THIS DRAWING ARE THE REQUIRED VALUES AT HANDOVER.
  - AID TO NAVIGATION STRUCTURE AND ACCESS TO THE AID TO NAVIGATION STRUCTURE ARE PRESENTED IN THE FOLLOWING DRAWINGS:
    - B11884-RHD-02-BW-DR-CM-2018 (NORTHERN BREAKWATER PHASE 1 INITIAL - FOUNDATION FOR THE AID TO NAVIGATION)
    - B11884-RHD-02-BW-DR-CM-2019 (NORTHERN BREAKWATER PHASE 1 INITIAL - ACCESS TO THE AID TO NAVIGATION)

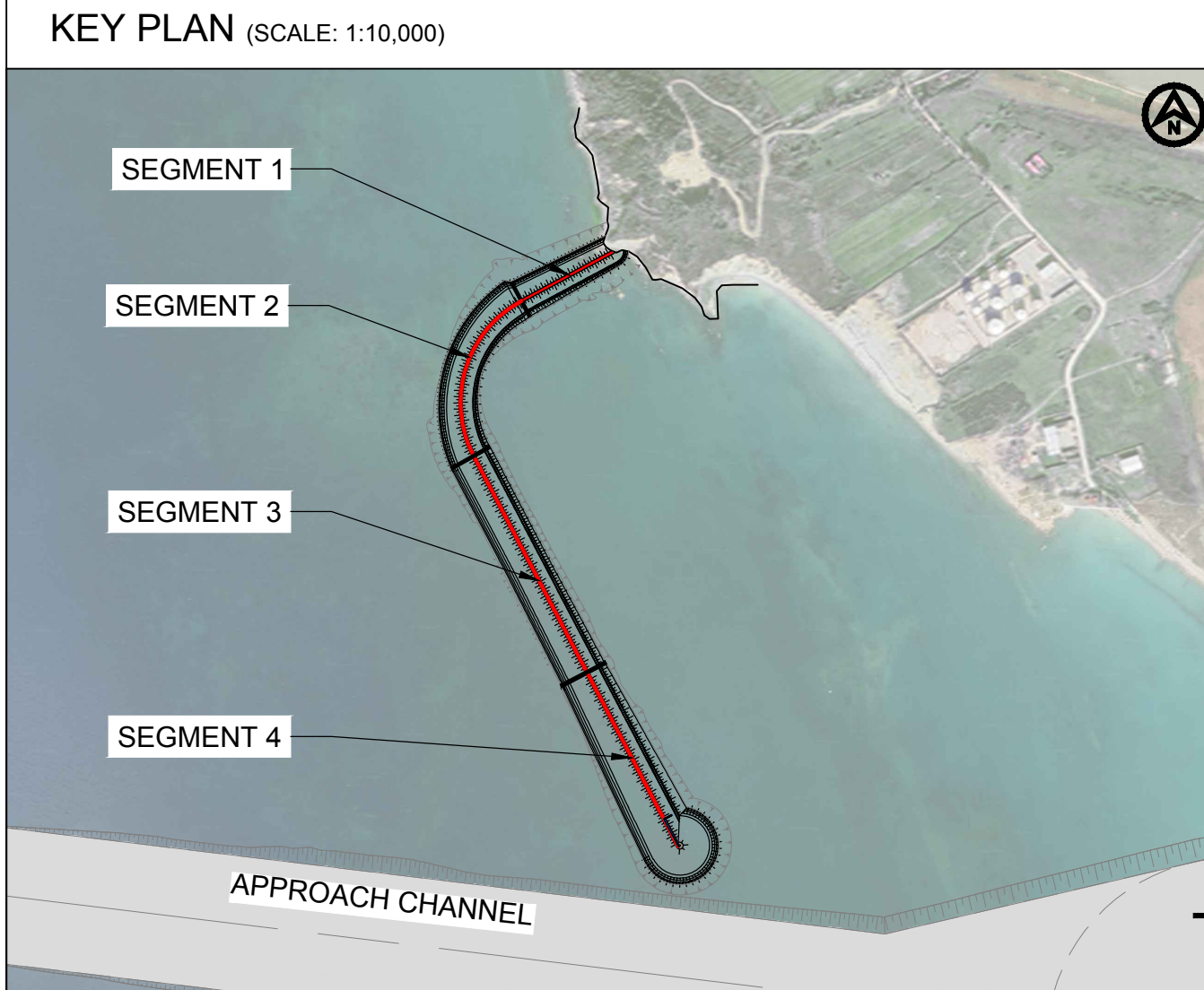


|                                                                                                                   |                       |                   |                                  |                   |                                  |
|-------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|----------------------------------|-------------------|----------------------------------|
| P01                                                                                                               | Final Submission      | DUP               | DQ                               | ES                | June 2023                        |
| Rev.                                                                                                              | Description/Përkirimi | Drawn/Të vizatuar | Checked/Kontrolluar              | Approved/Miratuar | Date/ Data                       |
| <div><div>abkons</div><div>ADEC</div><div>TAULANT ship</div><div>GEO ENG</div><div>Royal HaskoningDHV</div></div> |                       |                   |                                  |                   |                                  |
| Client/Porositësi                                                                                                 |                       |                   | Design Object/Objekti projektimi |                   |                                  |
| DURRËS PORT AUTHORITY                                                                                             |                       |                   | Breakwater                       |                   |                                  |
| AUTORITETI PORTUAL DURRËS                                                                                         |                       |                   |                                  |                   |                                  |
| Project/Projekti                                                                                                  |                       |                   | Discipline/Disiplina             |                   |                                  |
| Porto Romano Detail Design                                                                                        |                       |                   | Civil Maritime                   |                   |                                  |
| Title/Titulli                                                                                                     |                       |                   | Revision/Revizimi                |                   |                                  |
| Phase 1 - Initial (Northern Breakwater)                                                                           |                       |                   | P01                              |                   |                                  |
| Typical design cross sections (Sheet 2/2)                                                                         |                       |                   |                                  |                   |                                  |
| Size/Fleta                                                                                                        | Scale/Shkallë         | Phase/Faza        | Sheetno./Nr. i fletës            | of nga            | Drawing Number/Numri i vizatimit |
| A1                                                                                                                | 1:200                 | Detailed Design   | 2                                | 2                 | B11884-RHD-02-BW-DR-CM-2015      |



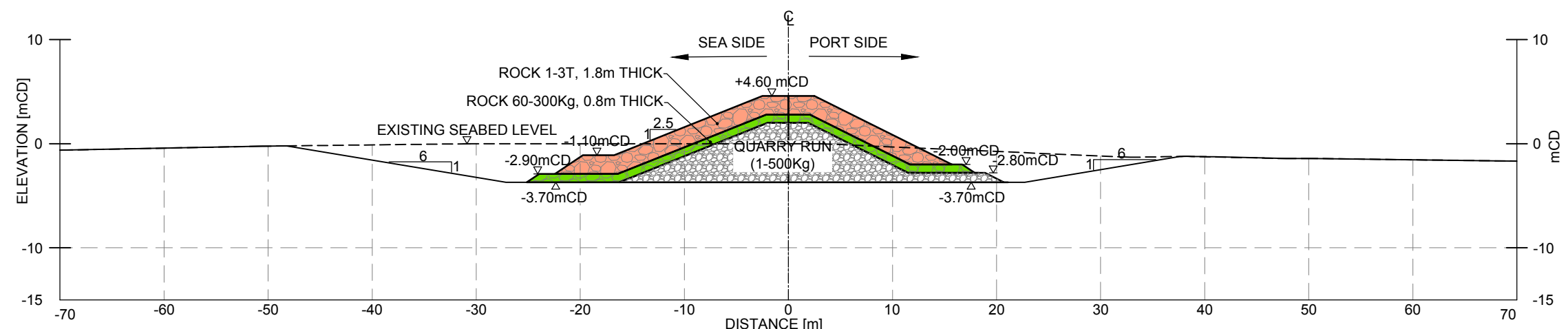


- NOTES**
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  - ALL LEVELS ARE IN METRES RELATIVE TO CHART DATUM (CD) UNLESS OTHERWISE NOTED.
  - THIS DRAWING IS READ IN CONJUNCTION WITH DRAWING NO.:
    - BI1884-RHD-02-BW-DR-CM-2012 (NORTHERN BREAKWATER PHASE 1 INITIAL - GENERAL LAYOUT)
    - BI1884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT)
    - BI1884-RHD-02-BW-DR-CM-2015 (NORTHERN BREAKWATER PHASE 1 INITIAL - TYPICAL CROSS SECTIONS)
  - THE ELEVATIONS/ CREST LEVELS INDICATED IN THIS DRAWING ARE THE REQUIRED VALUES AT HANDOVER.
  - DREDGING SLOPE V:H = 1:6. DREDGED LEVELS FOLLOW SOIL PROFILE ALONG THE NORTHERN BREAKWATER AT FLYSCH LEVELS.
  - AID TO NAVIGATION STRUCTURE AND ACCESS TO THE AID TO NAVIGATION STRUCTURE ARE PRESENTED IN THE FOLLOWING DRAWINGS:
    - BI1884-RHD-02-BW-DR-CM-2018 (NORTHERN BREAKWATER PHASE 1 INITIAL - FOUNDATION FOR THE AID TO NAVIGATION)
    - BI1884-RHD-02-BW-DR-CM-2019 (NORTHERN BREAKWATER PHASE 1 INITIAL - ACCESS TO THE AID TO NAVIGATION)

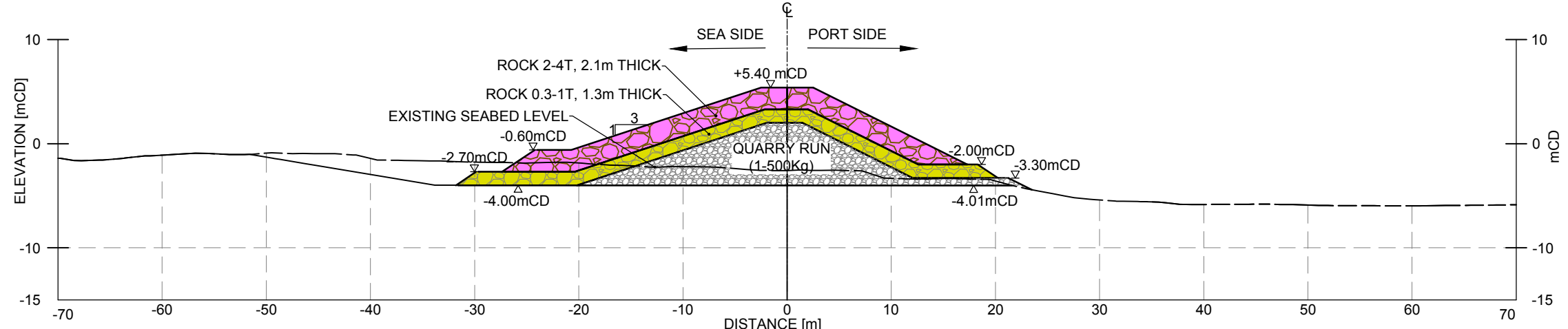


|                                                                                          |                               |                                                         |                                   |                                             |                                                                      |
|------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------------------------------|
| P01                                                                                      | Final Submission              | DUP                                                     | DQ                                | ES                                          | June 2023                                                            |
| Rev.                                                                                     | Description/Periskim          | Drawn/Te vizituar                                       | Checked/Kontrolluar               | Approved/ Miratuar                          | Date/ Data                                                           |
| <b>abkons</b><br>LOCAL KNOWLEDGE, GLOBAL STANDARDS                                       |                               | <b>ADEC</b><br>DESIGN & SUPERVISORY                     |                                   | <b>TAULANT SHIP</b><br>DESIGN & SUPERVISORY |                                                                      |
| <b>GEO ENC</b><br>ENGINEERING CONSULTANCY                                                |                               | <b>Royal HaskoningDHV</b><br>Enhancing Society Together |                                   |                                             |                                                                      |
| Client/Portshiti<br><b>DURRËS PORT AUTHORITY</b><br>AUTORITETI PORTAL DURRËS             |                               | Design Object/Objekti projektimi<br><b>Breakwater</b>   |                                   |                                             |                                                                      |
| Project/Projekti<br><b>Porto Romano Detail Design</b>                                    |                               | Discipline/Disiplina<br><b>Civil Maritime</b>           |                                   |                                             |                                                                      |
| Title/Titulli<br><b>Phase 1 - Initial (Northern Breakwater)<br/>Longitudinal Section</b> |                               |                                                         |                                   | Revision/Rishkrim<br><b>P01</b>             |                                                                      |
| Size/Plota<br><b>A1</b>                                                                  | Scale/Shkalla<br><b>1:200</b> | Phase/Faza<br><b>Detailed Design</b>                    | Sheetno./Nr. i fletës<br><b>1</b> | of nga<br><b>1</b>                          | Drawing Number/Nr. i vizatimit<br><b>BI1884-RHD-02-BW-DR-CM-2016</b> |

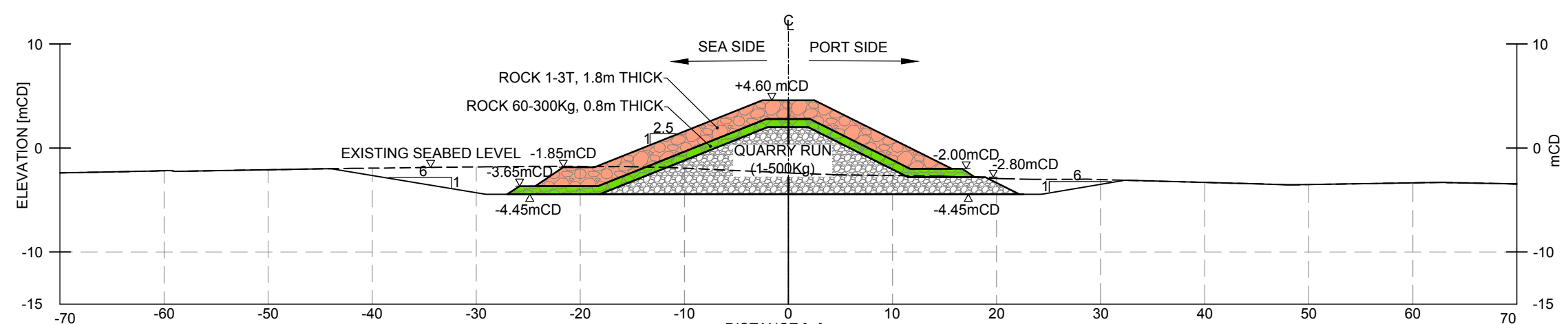




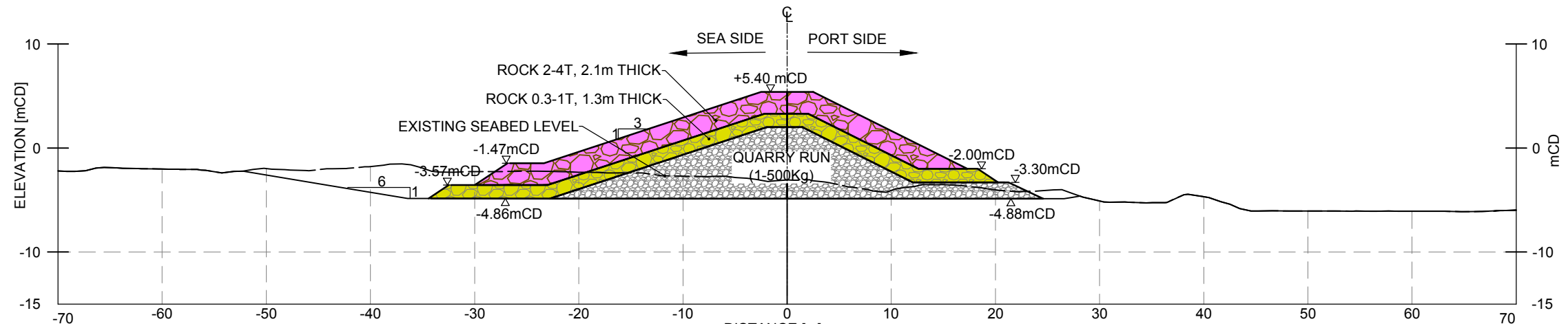
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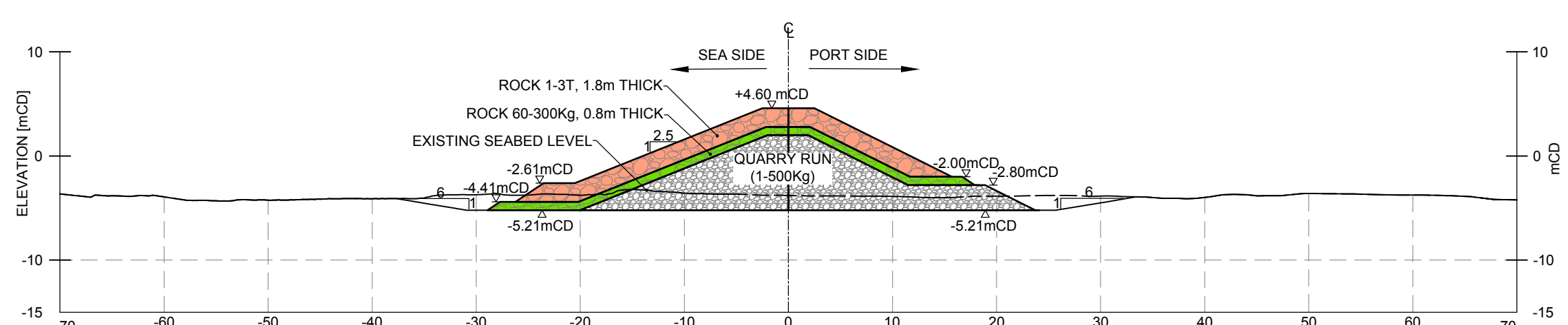
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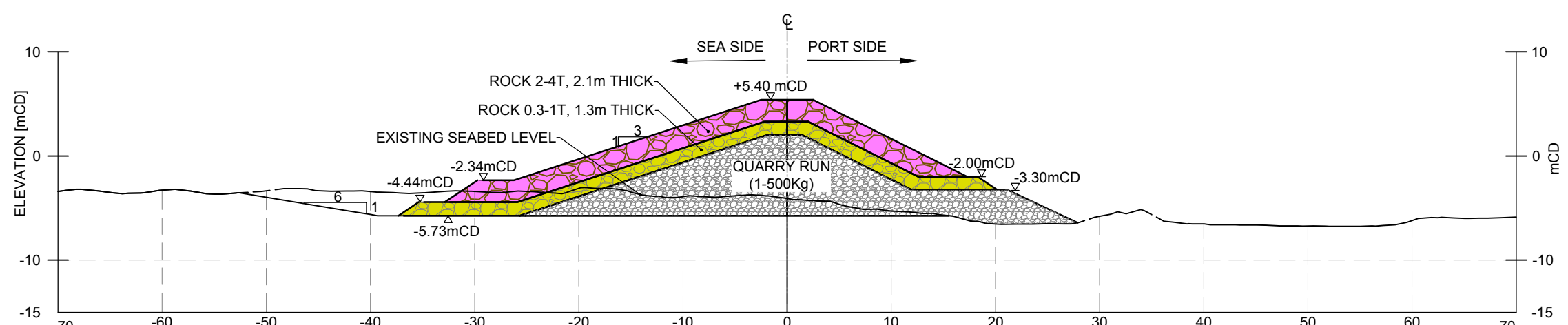
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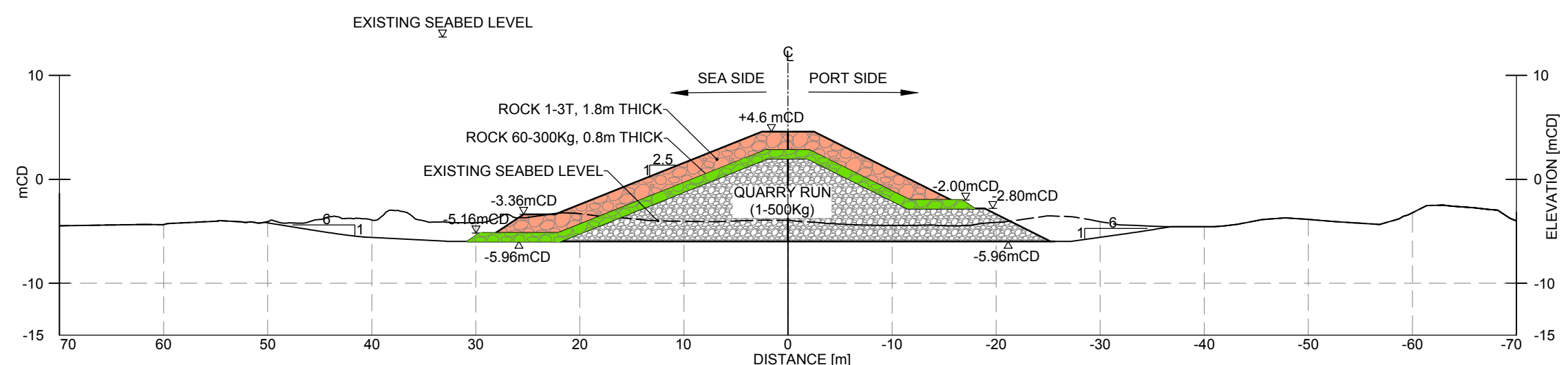
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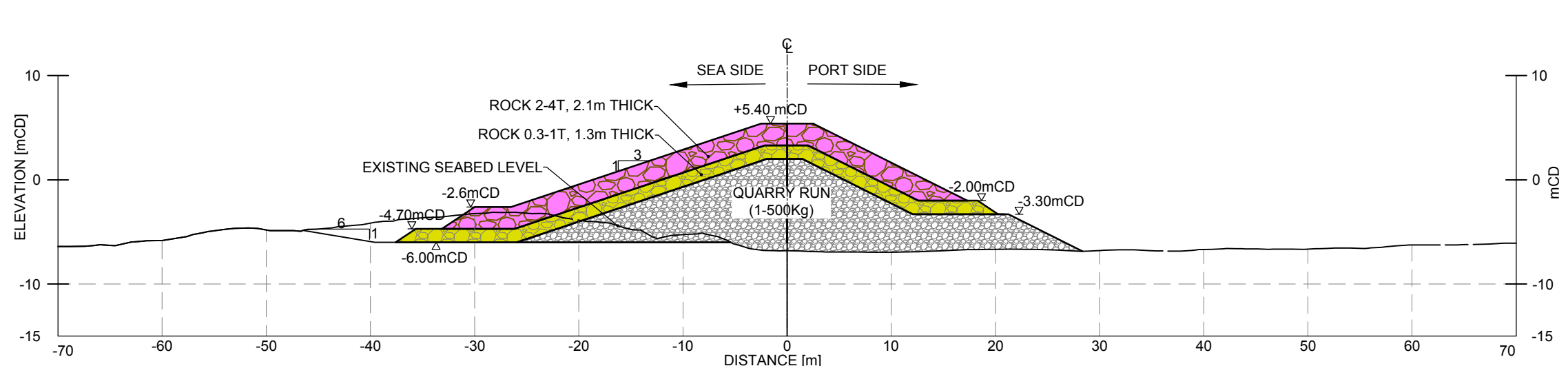
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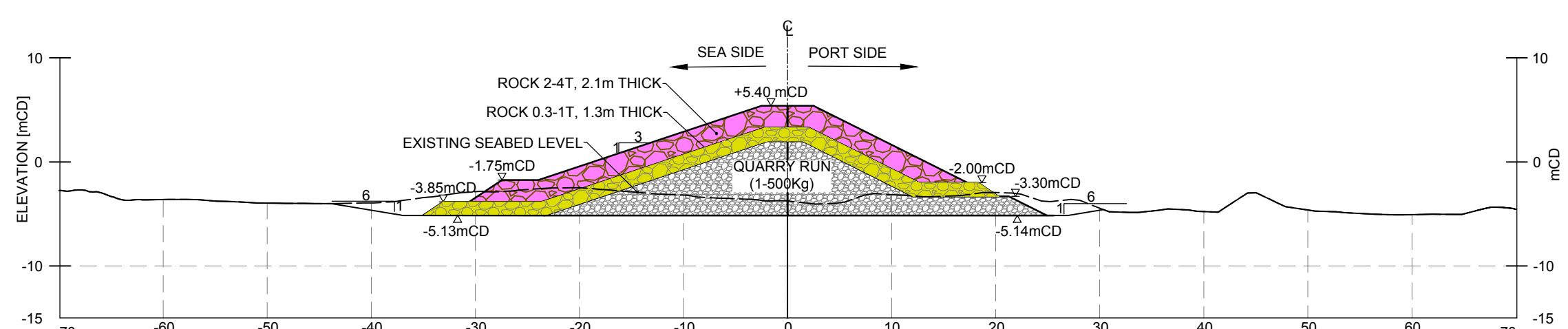
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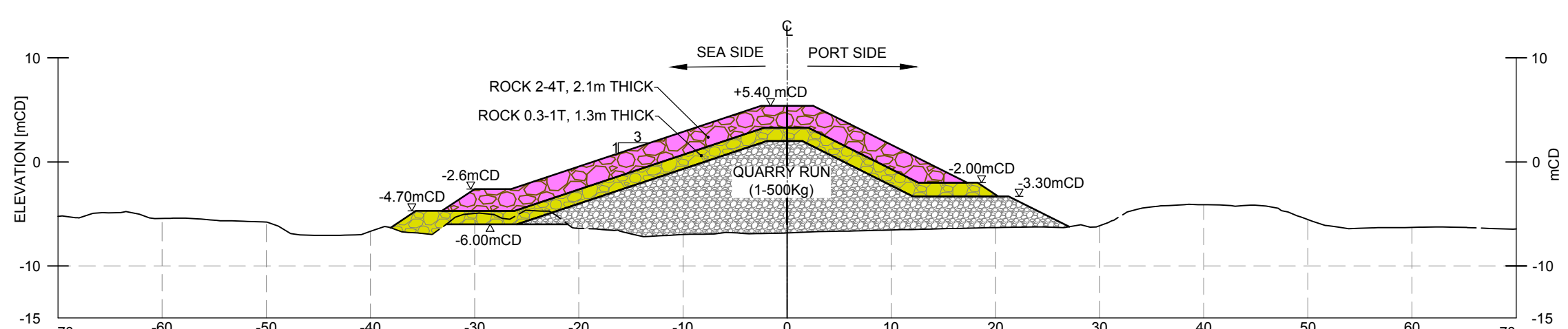
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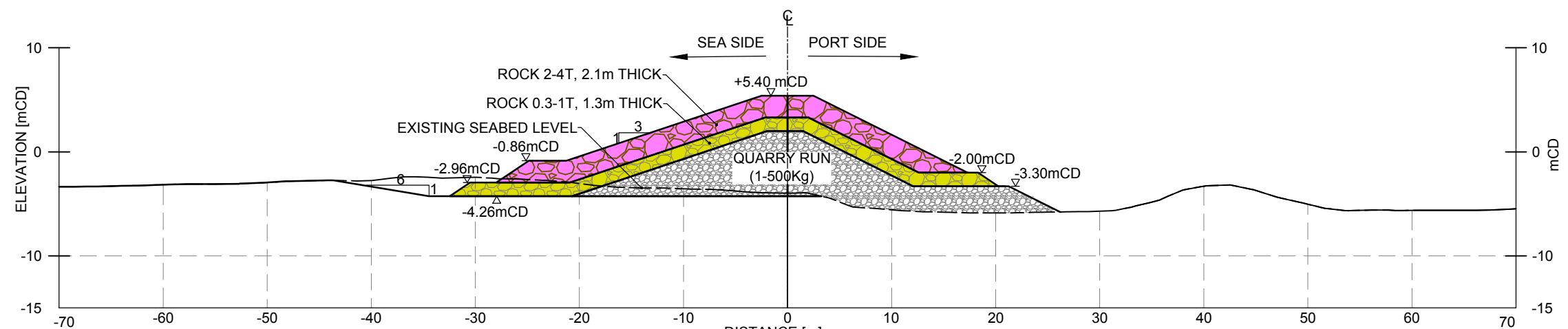
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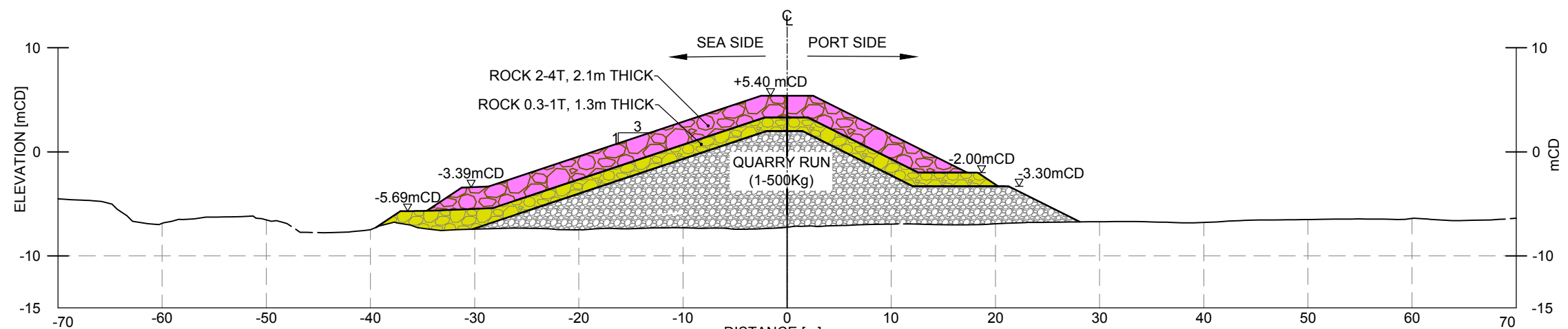
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CHAINAGE 0+500.00



CHAINAGE 0+250.00

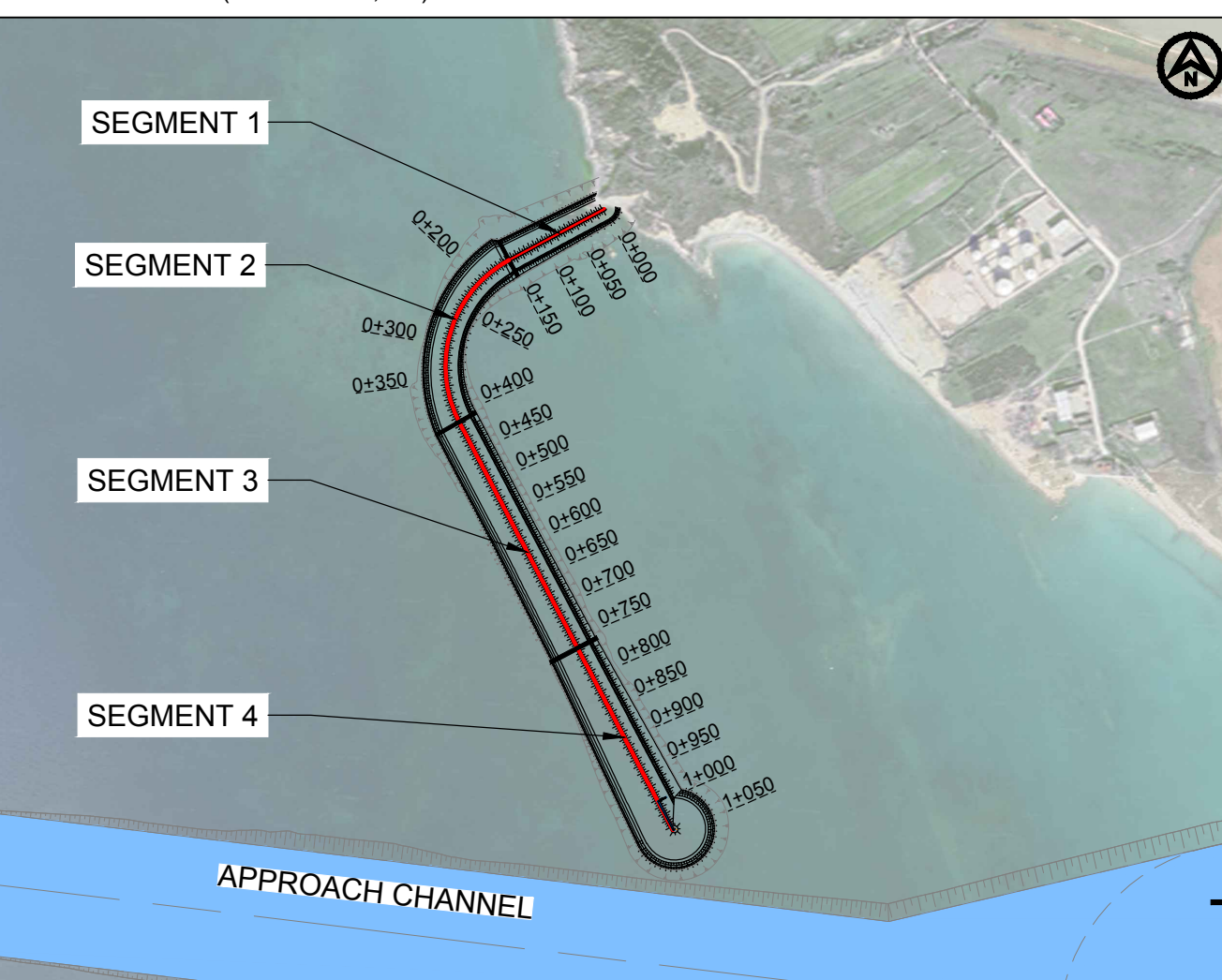


CHAINAGE 0+550.00

## NOTES

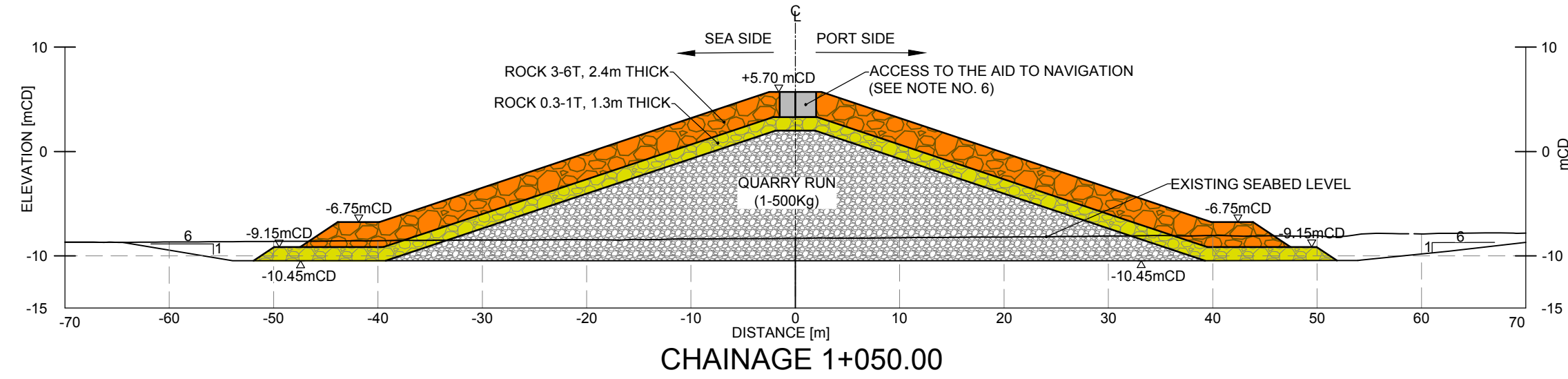
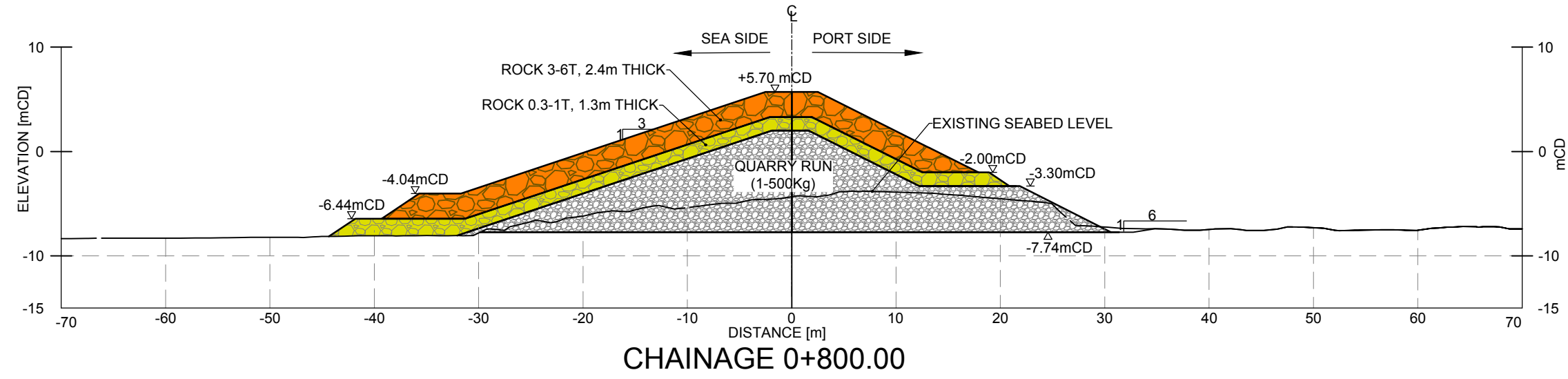
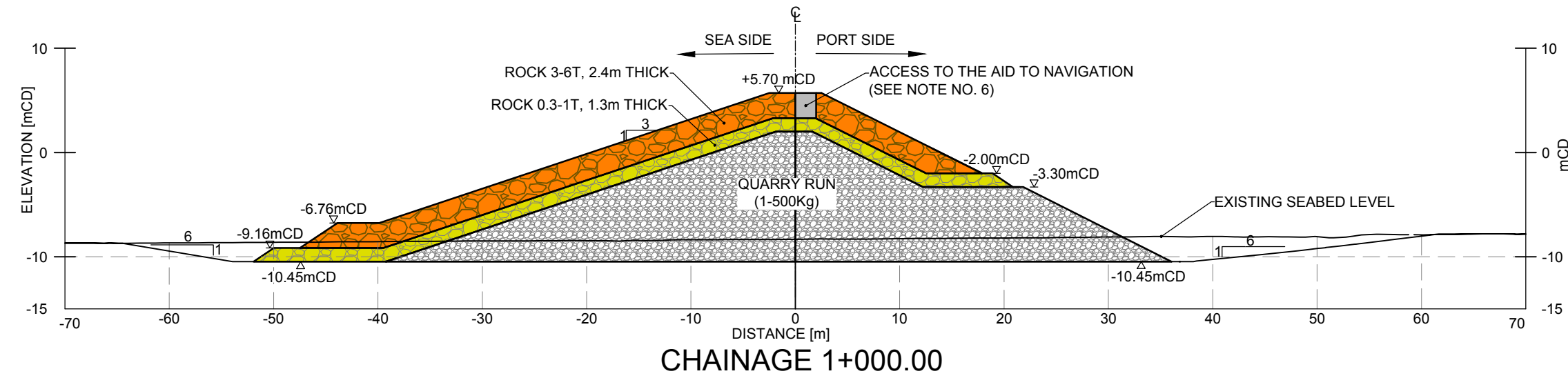
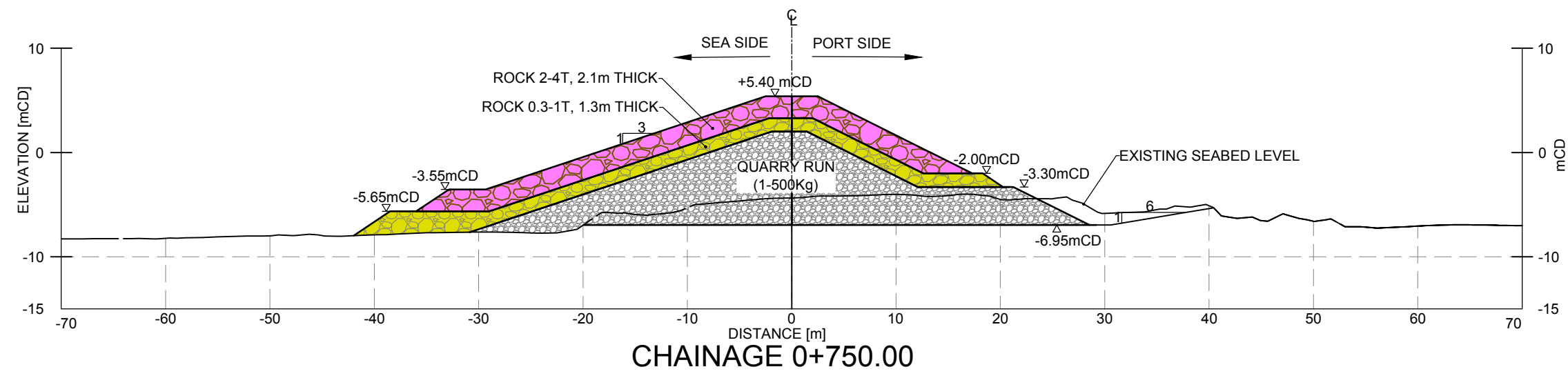
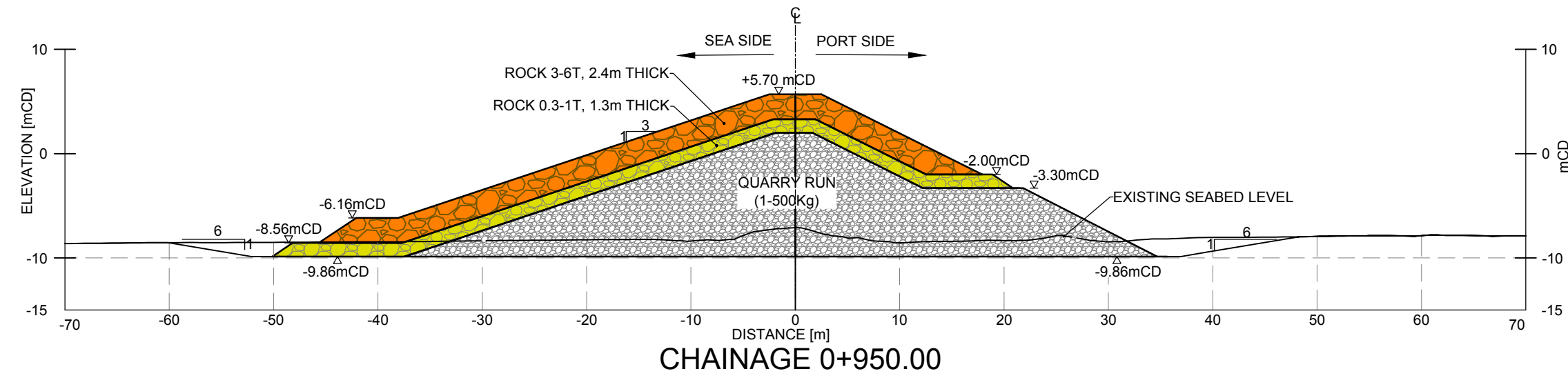
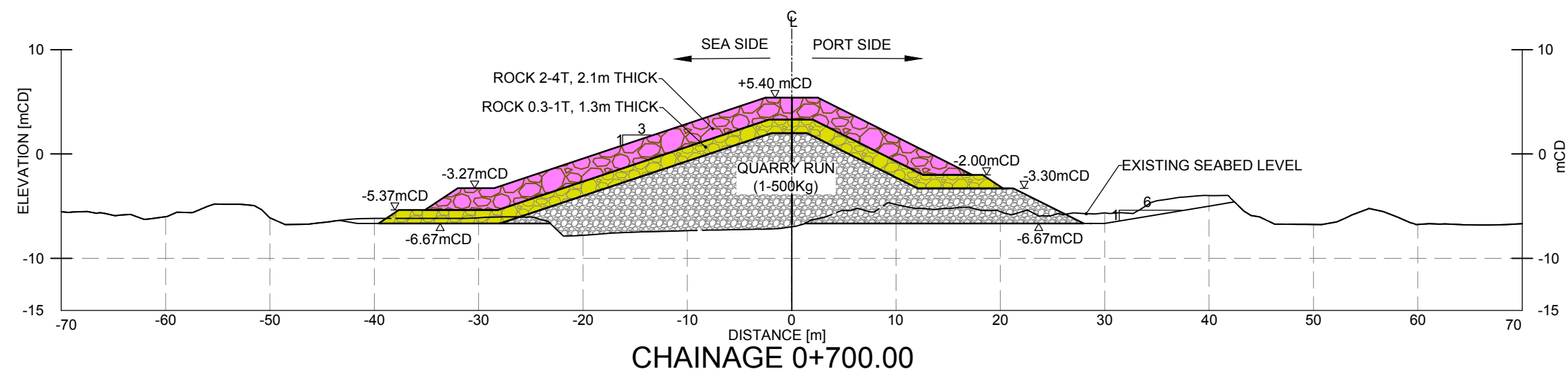
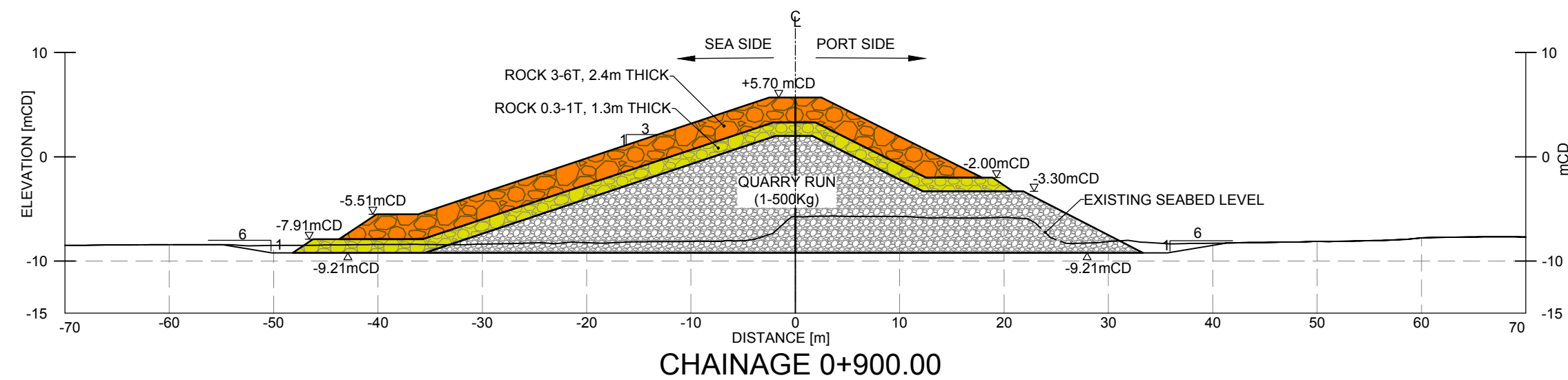
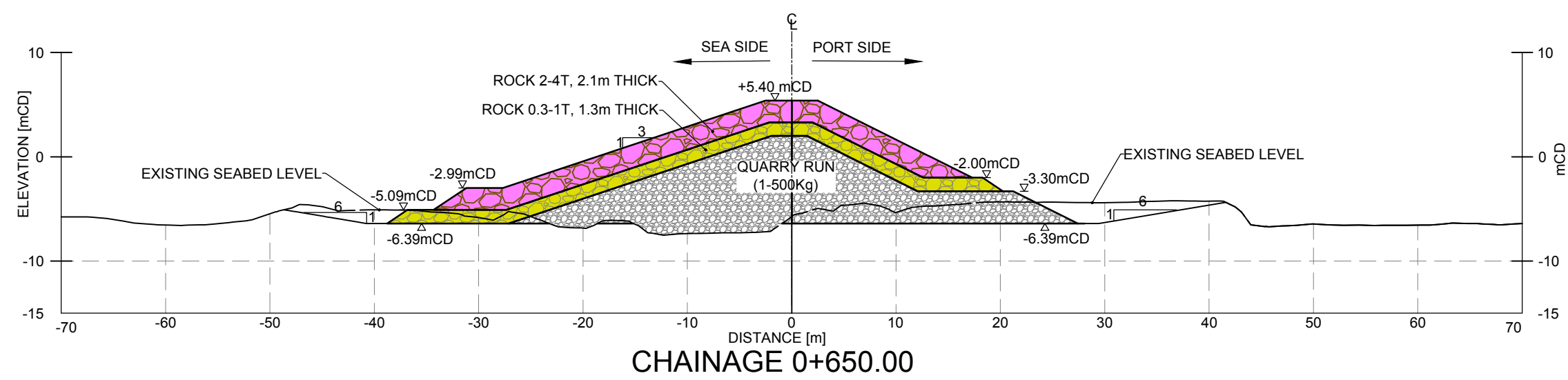
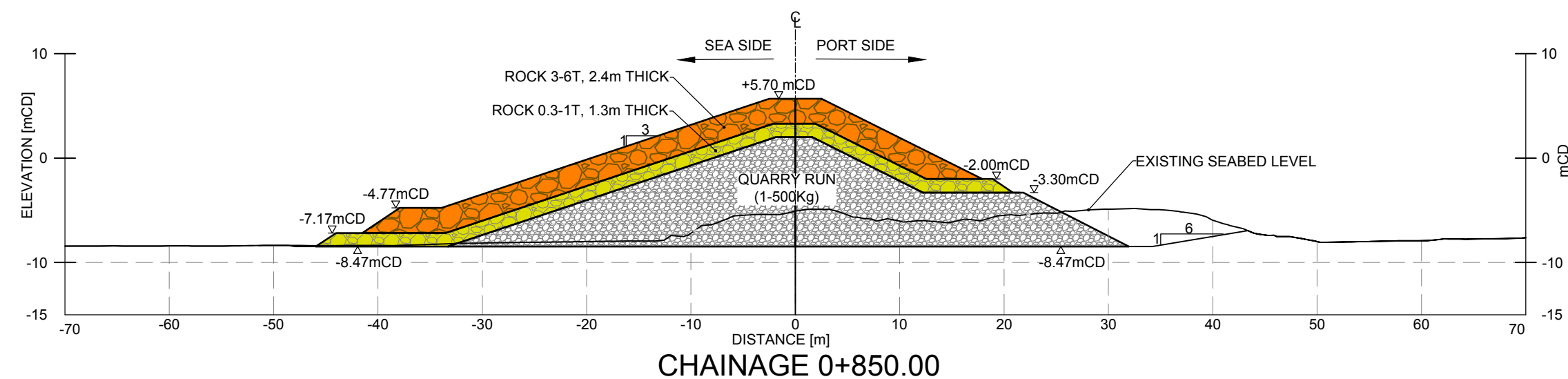
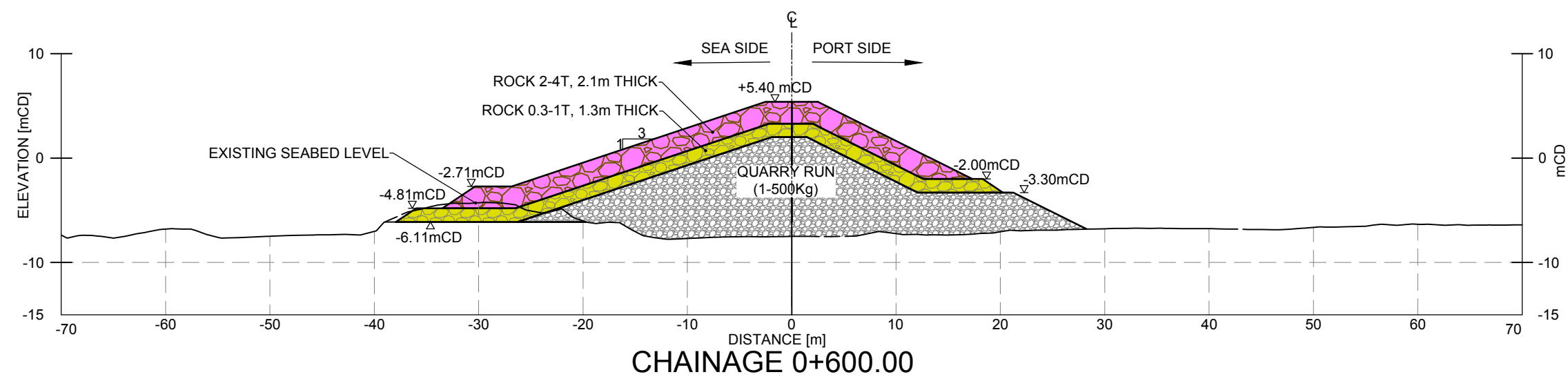
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  - B11884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT)
  - B11884-RHD-02-BW-DR-CM-2015 (NORTHERN BREAKWATER PHASE 1 INITIAL - TYPICAL CROSS SECTIONS).
- THE ELEVATIONS/ CREST LEVELS INDICATED IN THIS DRAWING ARE THE REQUIRED VALUES AT HANDOVER.
- DREDGING SLOPE V:H = 1:6, DREDGED LEVELS FOLLOW SOIL PROFILE ALONG THE NORTHERN BREAKWATER AT FLYSCH LEVELS.

## KEY PLAN (SCALE: 1:10,000)



|                   |                      |                                         |                     |                                  |            |
|-------------------|----------------------|-----------------------------------------|---------------------|----------------------------------|------------|
| P01               | Final Submission     | DUP                                     | DQ                  | ES                               | June 2023  |
| Rev.              | Description/Periskim | Drawn/Të vizuar                         | Checked/Kontrolluar | Approved/ Miratuar               | Date/ Data |
| Client/Porositësi |                      | Durres Port Authority                   |                     | Durres Port Authority            |            |
| Project/Projekti  |                      | Porto Romano Detail Design              |                     | Discipline/Disiplina             |            |
| Title/Titulli     |                      | Phase 1 - Initial (Northern Breakwater) |                     | Revision/Revizimi                |            |
| Size/Shekulli     |                      | Scale/Shkalla                           |                     | Drawing Number/Numri i vizatimit |            |
| A1                |                      | 1:500                                   |                     | B11884-RHD-02-BW-DR-CM-2017      |            |
| Phase/Faza        |                      | Detailed Design                         |                     | Revision/Revizimi                |            |
| Sheet/foja        |                      | 1                                       |                     | P01                              |            |
| of nga            |                      | 2                                       |                     |                                  |            |

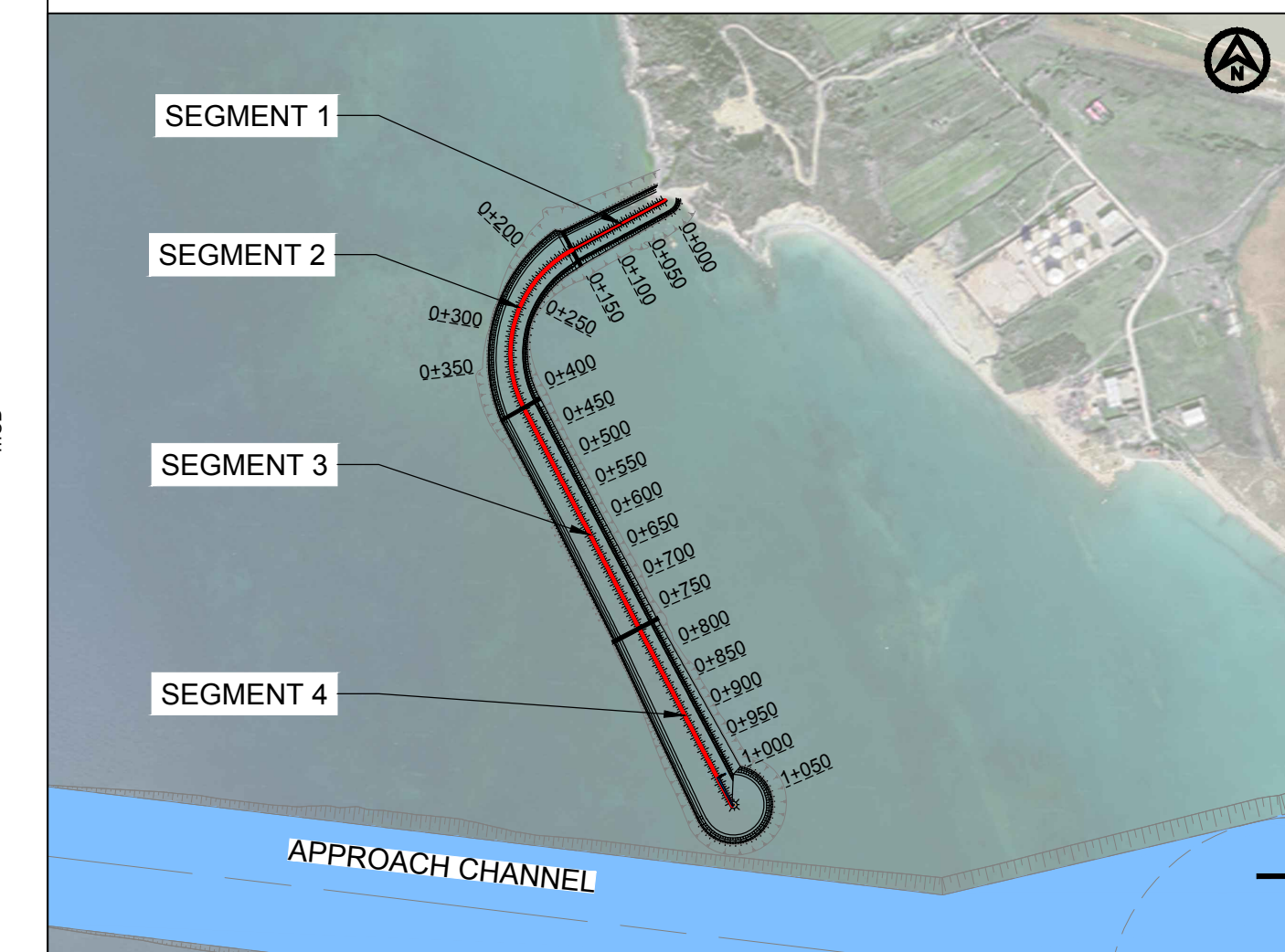




## NOTES

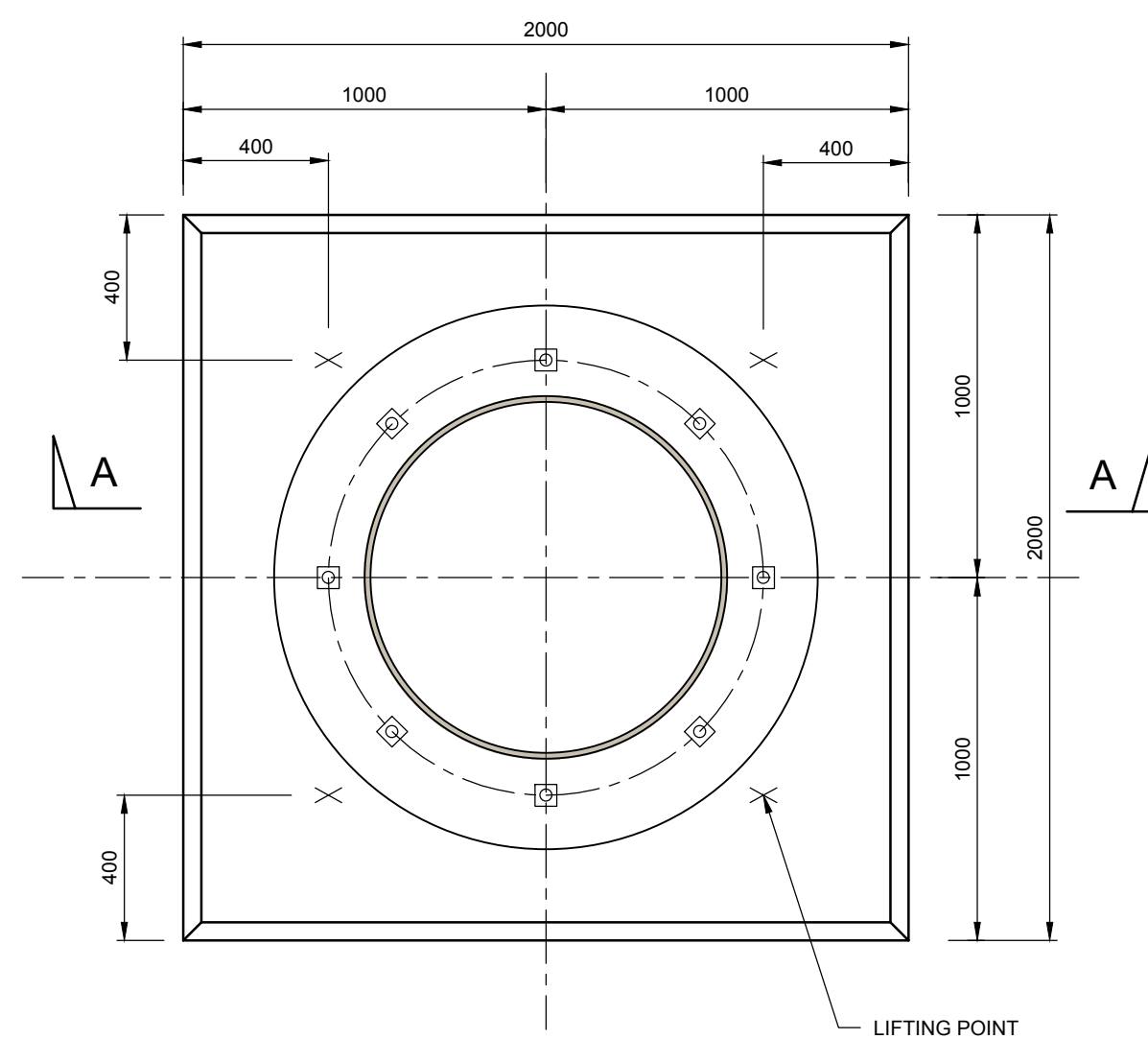
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- ALL LEVELS ARE IN METRES RELATIVE TO CHART DATUM (CD) UNLESS OTHERWISE NOTED.
- THIS DRAWING IS READ IN CONJUNCTION WITH DRAWING NO.:
  - BI1884-RHD-02-BW-DR-CM-2012 (NORTHERN BREAKWATER PHASE 1 INITIAL - GENERAL LAYOUT)
  - BI1884-RHD-02-BW-DR-CM-2013 (NORTHERN BREAKWATER PHASE 1 INITIAL - DETAILED LAYOUT)
  - BI1884-RHD-02-BW-DR-CM-2015 (NORTHERN BREAKWATER PHASE 1 INITIAL - TYPICAL CROSS SECTIONS).
- THE ELEVATIONS/ CREST LEVELS INDICATED IN THIS DRAWING ARE THE REQUIRED VALUES AT HANDOVER.
- DREDGING SLOPE V:H = 1:6, DREDGED LEVELS FOLLOW SOIL PROFILE ALONG THE NORTHERN BREAKWATER AT FLYSCH LEVELS.
- ACCESS TO THE AID TO NAVIGATION STRUCTURE IS PRESENTED IN DRAWING NO.:
  - BI1884-RHD-02-BW-DR-CM-2019 (NORTHERN BREAKWATER PHASE 1 INITIAL - ACCESS TO THE AID TO NAVIGATION)

## KEY PLAN (SCALE: 1:10,000)

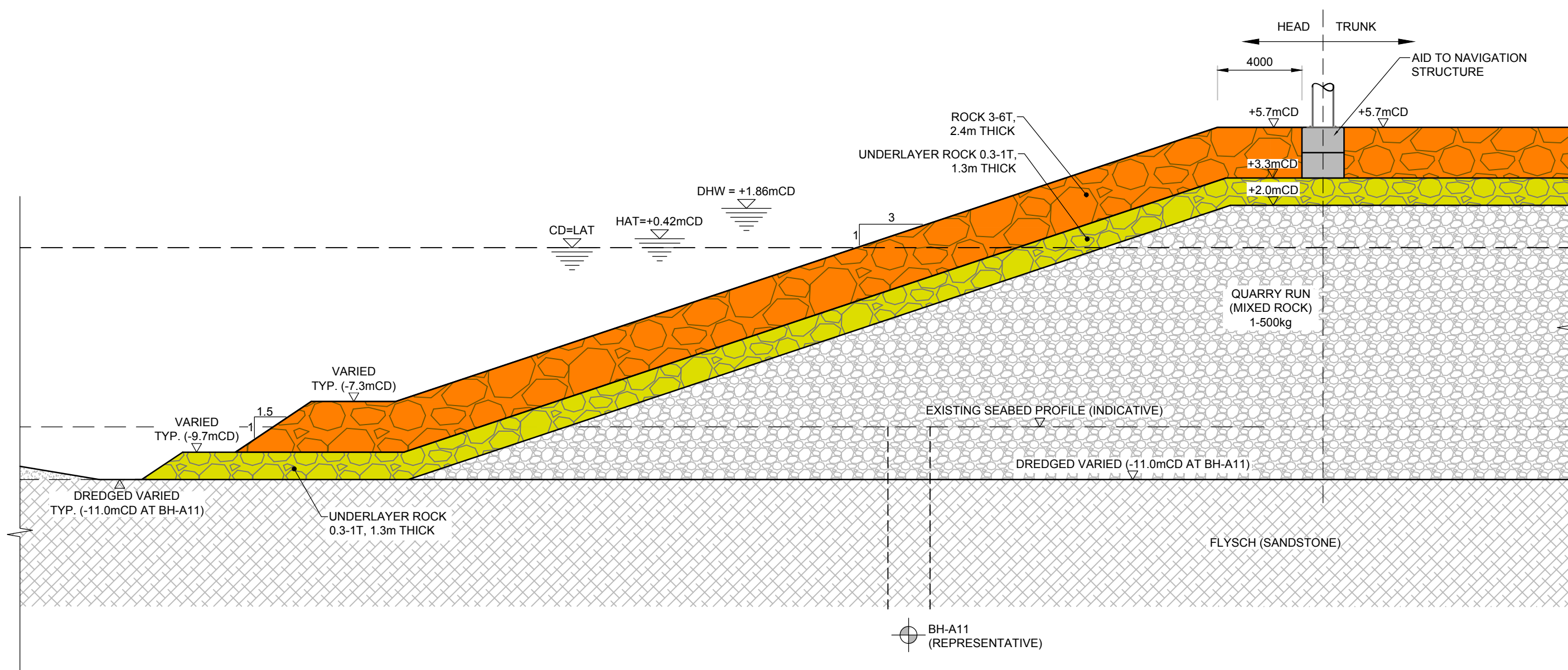


|                                                                                                                                                                                                                                                                                                                                                              |                      |                   |                                  |                   |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|----------------------------------|-------------------|----------------------------------|
| P01                                                                                                                                                                                                                                                                                                                                                          | Final Submission     | DUP               | DQ                               | ES                | June 2023                        |
| Rev.                                                                                                                                                                                                                                                                                                                                                         | Description/Përkirim | Drawn/Të vizatuar | Checked/Kontrolluar              | Approved/Miratuar | Date/ Data                       |
| <div><div><div>abkons</div><div>LOCAL KNOWLEDGE, GLOBAL STANDARDS</div></div><div><div>ADEC</div><div>Design &amp; Supervision</div></div><div><div>TAULANT SHIP</div><div>Design &amp; Supervision</div></div><div><div>GEO ENG</div><div>Design Engineering</div></div><div><div>Royal HaskoningDHV</div><div>Enhancing Society Together</div></div></div> |                      |                   |                                  |                   |                                  |
| Client/Porositësi                                                                                                                                                                                                                                                                                                                                            |                      |                   | Design Object/Objekti projektimi |                   |                                  |
| DURRËS PORT AUTHORITY<br>AUTORITETI PORTUAL DURRËS                                                                                                                                                                                                                                                                                                           |                      |                   | Breakwater                       |                   |                                  |
| Project/Projekti                                                                                                                                                                                                                                                                                                                                             |                      |                   | Discipline/Disiplina             |                   |                                  |
| Porto Romano Detail Design                                                                                                                                                                                                                                                                                                                                   |                      |                   | Civil Maritime                   |                   |                                  |
| Title/Titulli                                                                                                                                                                                                                                                                                                                                                |                      |                   | Revision/Rishkrim                |                   |                                  |
| Phase 1 - Initial (Northern Breakwater)<br>Chainage cross sections (Sheet 2/2)                                                                                                                                                                                                                                                                               |                      |                   | P01                              |                   |                                  |
| Size/Fleta                                                                                                                                                                                                                                                                                                                                                   | Scale/Shkalla        | Phase/Faza        | Sheetno./Nr. i fletës            | of nga            | Drawing Number/Numri i vizatimit |
| A1                                                                                                                                                                                                                                                                                                                                                           | 1:500                | Detailed Design   | 2                                | 2                 | BI1884-RHD-02-BW-DR-CM-2017      |

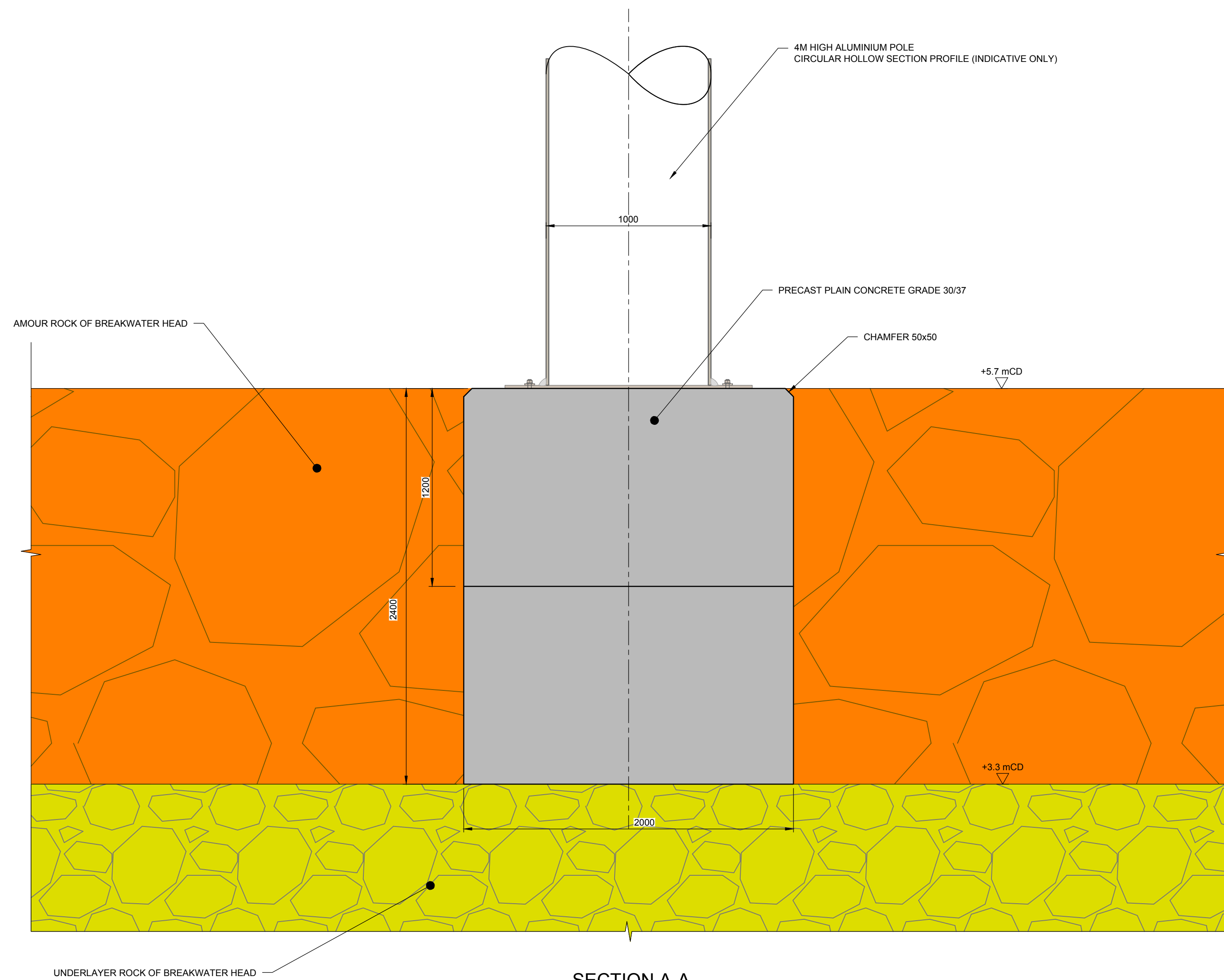




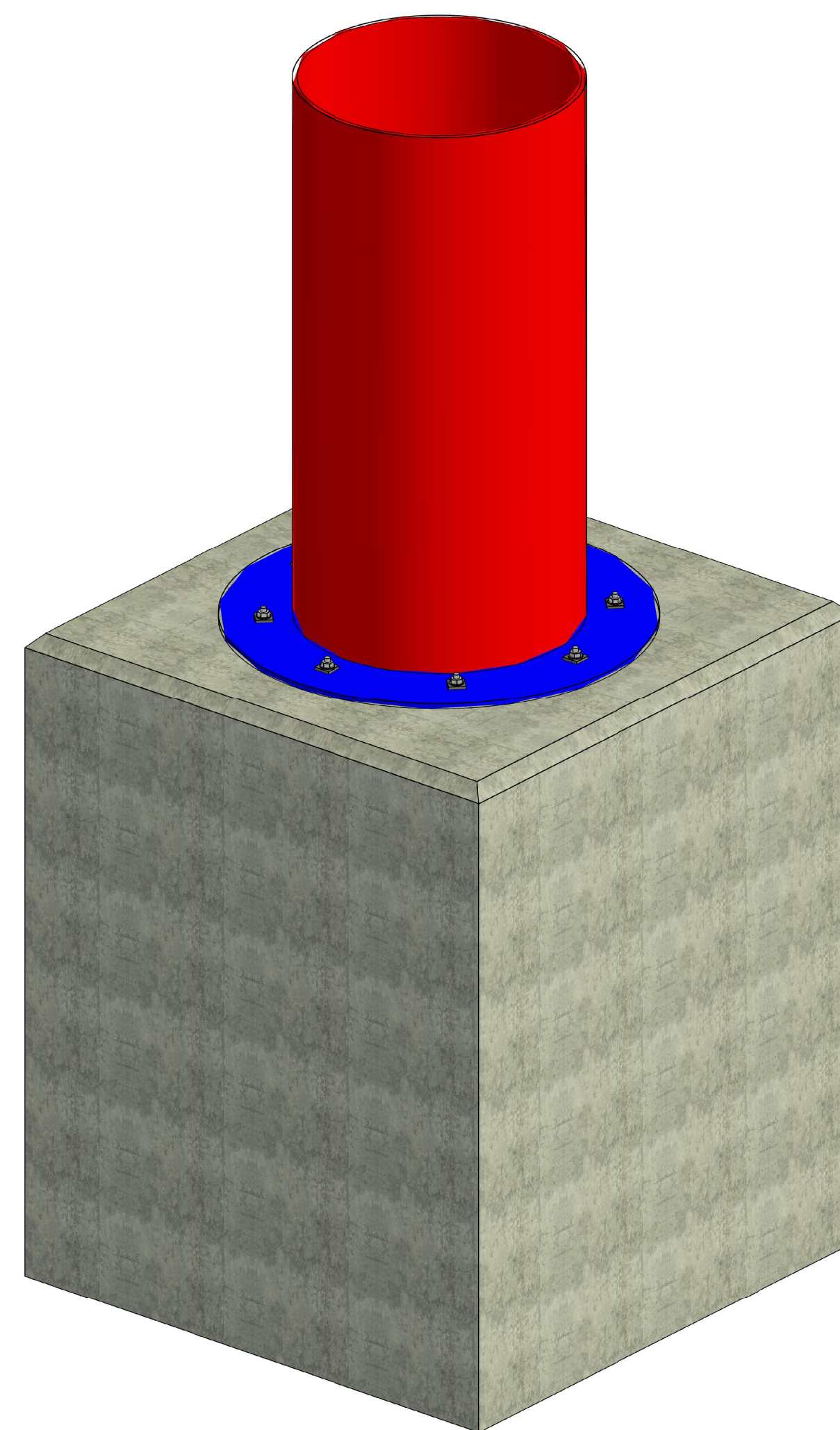
FOUNDATION LAYOUT PLAN  
SCALE 1:20



NORTHERN BREAKWATER LONGITUDINAL SECTION  
INCLUDING A To N STRUCTURE  
SCALE: 1:200



SECTION A-A  
SCALE 1:20



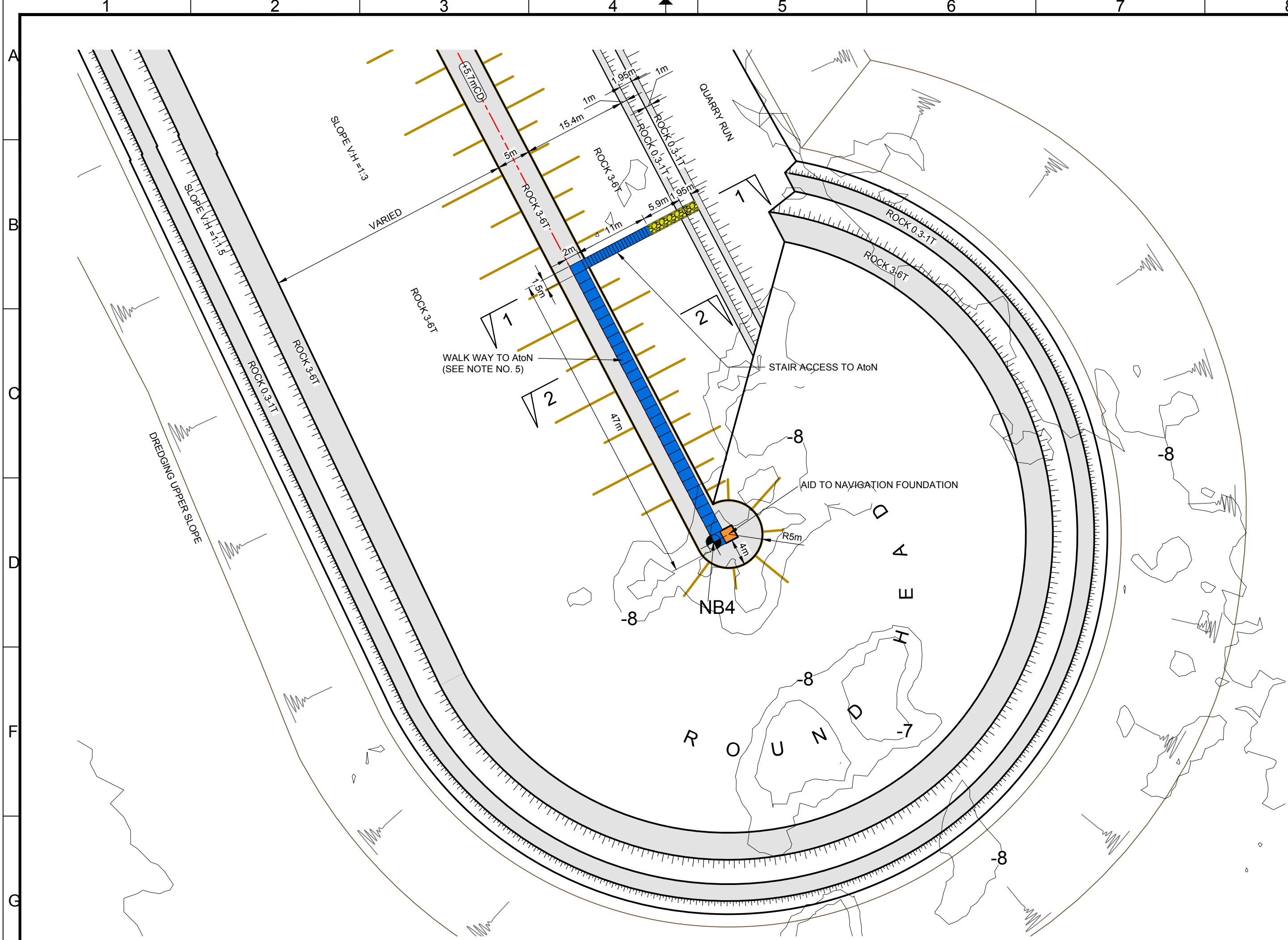
3D VIEW OF FOUNDATION BLOCK

## NOTES

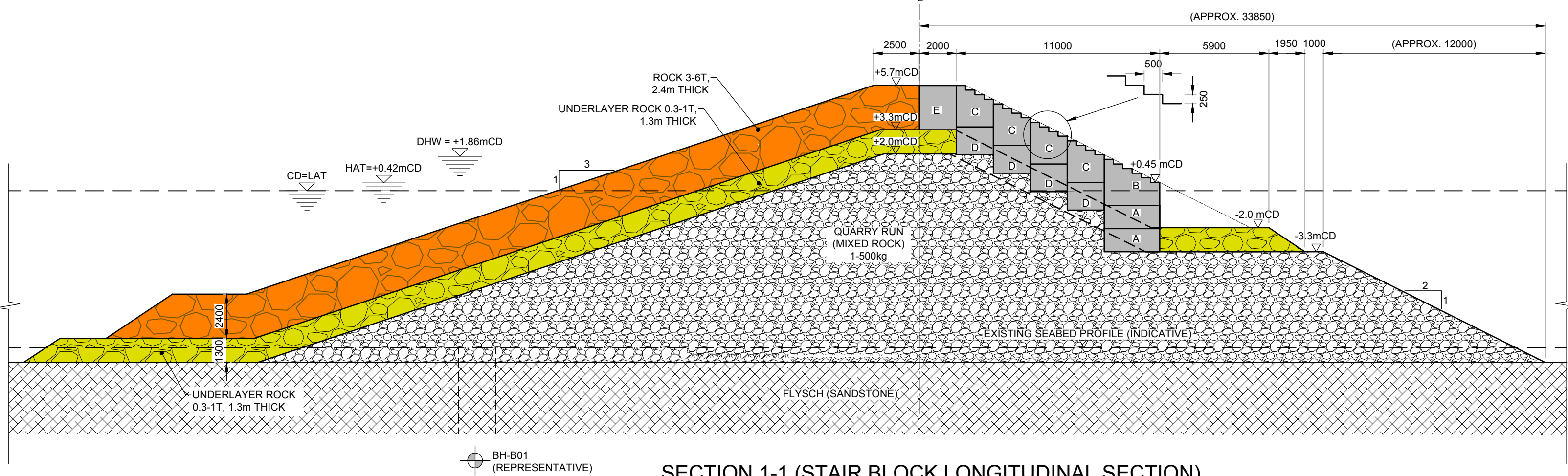
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES (m) AND RELATED TO CHART DATUM (mCD) UNLESS NOTED OTHERWISE.
3. IT IS ASSUMED THAT A SPREADER BEAM WILL BE USED DURING THE LIFTING OF THE FOUNDATION BLOCK. LIFTING POINT DESIGN & TYPE SHALL BE DESIGNED BY CONTRACTOR. CONTRACTOR TO ENSURE SAFETY DURING THE LIFTING.
4. CONCRETE OF THE FOUNDATION TO BE PLAIN CONCRETE GRADE C30/37 (30MPa CYLINDER STRENGTH). FULL STRENGTH OF CONCRETE IS REQUIRED FOR THE LIFTING.
5. THE SUPERSTRUCTURE AND THE CONNECTIONS BETWEEN THE SUPERSTRUCTURE AND THE FOUNDATION SHOWN IN THIS DRAWING ARE INDICATIVE ONLY. THEY SHALL BE DESIGN BY CONTRACTOR / SUPPLIER.
6. IN ORDER TO AVOID VOIDS AND INSTABLE ROCK ARMOUR JUST ADJACENT TO THE FOUNDATION, THE ARMOUR WILL BE MANUALLY FIXED IN PLACE WITH ENCLOSED SMALL, WEDGED ROCK, ENSURING CLAMPING AND HOLDING FORCES BETWEEN THE FOUNDATION AND THE ARMOUR.
7. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BI1884 - RHD-02-BW-DR-CM-2013 NORTHERN BW DETAILED LAYOUT SHEET 4/4

|                                                                                                                    |                       |                   |                                 |                   |                                |
|--------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|---------------------------------|-------------------|--------------------------------|
| P01                                                                                                                | Final Submission      | DJP               | DQ                              | ES                | June 2023                      |
| Rev                                                                                                                | Description/Përkirimi | Drawn/Të vizatuar | Checked/Kontrolluar             | Approved/Miratuar | Date/ Data                     |
| <div><div>abkons</div><div>ADEC</div><div>TAULANT shipk</div><div>GEO ENG</div><div>Royal HaskoningDHV</div></div> |                       |                   |                                 |                   |                                |
| Client/Porositësi                                                                                                  |                       |                   | Design Object/Objekt projektimi |                   |                                |
| DURRËS PORT AUTHORITY                                                                                              |                       |                   | Breakwater                      |                   |                                |
| AUTORITETI PORTAL DURRËS                                                                                           |                       |                   |                                 |                   |                                |
| Project/Projekti                                                                                                   |                       |                   | Discipline/Disiplina            |                   |                                |
| Porto Romano Detail Design                                                                                         |                       |                   | Civil Maritime                  |                   |                                |
| Title/Titulli                                                                                                      |                       |                   | Revision/Rishikimi              |                   |                                |
| Phase 1 - Initial (Northern Breakwater)                                                                            |                       |                   | P01                             |                   |                                |
| FOUNDATION FOR THE AID TO NAVIGATION                                                                               |                       |                   |                                 |                   |                                |
| Size/Fleta                                                                                                         | Scale/Shkalla         | Phase/Faza        | Sheetno / Nr. i fletës          | of nga            | Drawing Number/Nr. i vizatimit |
| A1                                                                                                                 | 1:20                  | Detailed Design   | 1                               | 1                 | BI1884-RHD-02-BW-DR-CM-2018    |

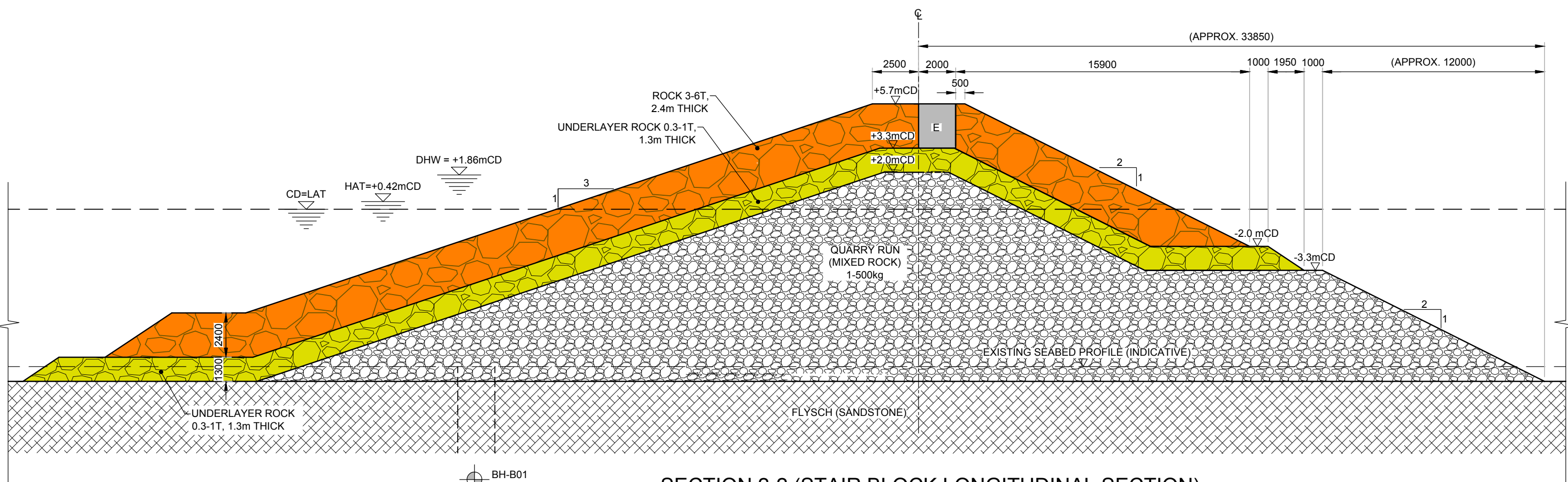




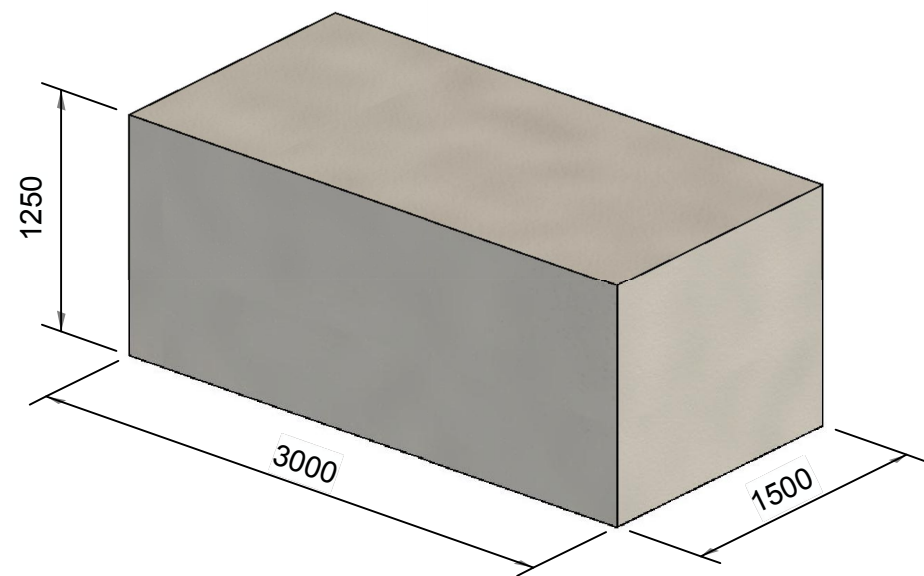
STAIR BLOCK PLAN  
SCALE 1:500



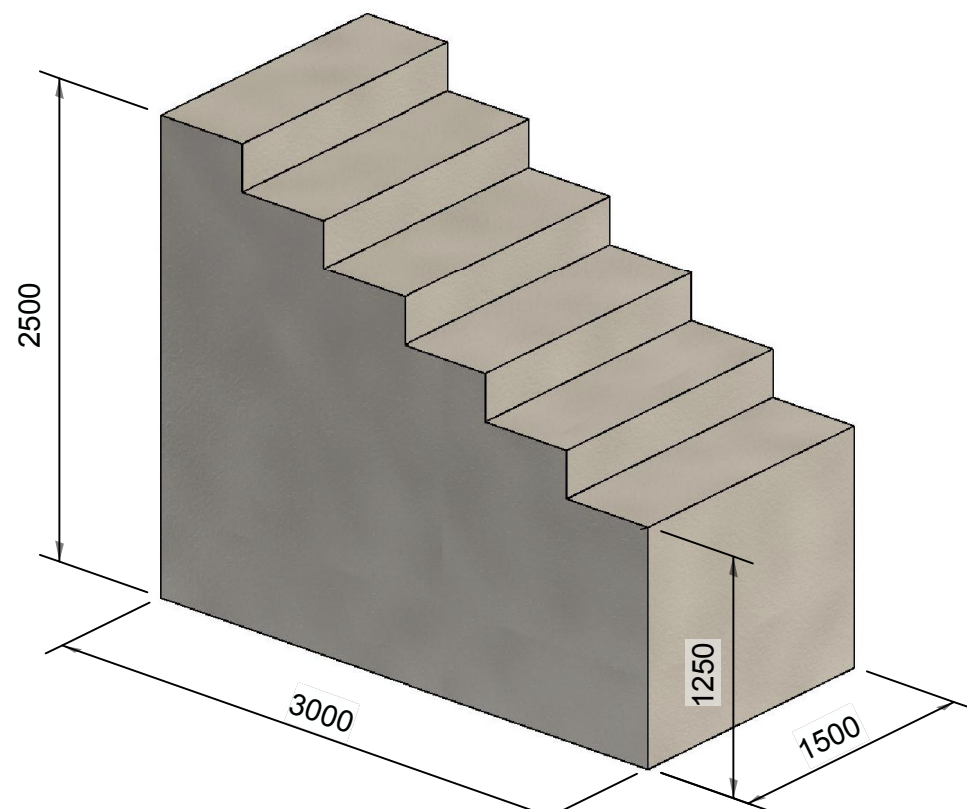
SECTION 1-1 (STAIR BLOCK LONGITUDINAL SECTION)  
SCALE 1:200



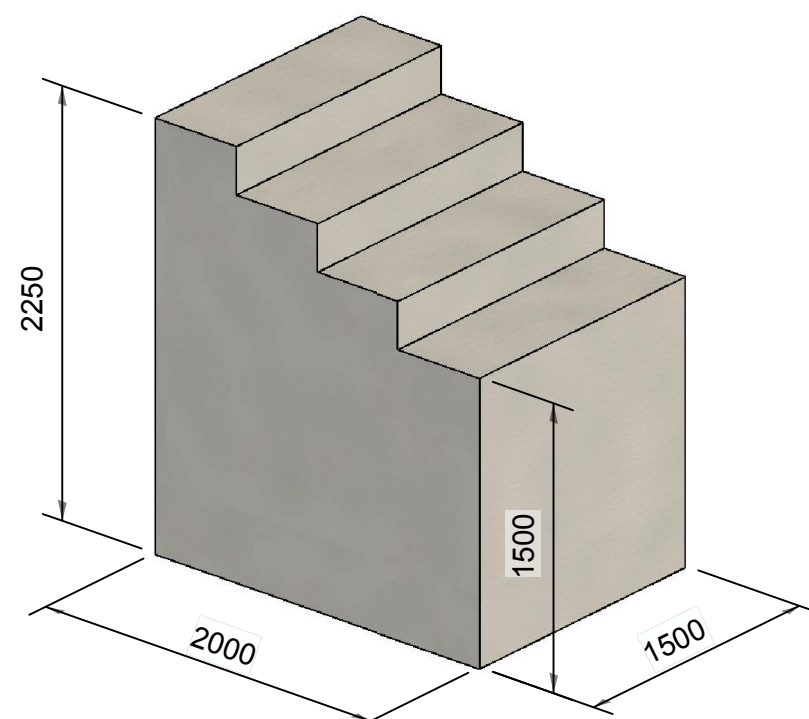
SECTION 2-2 (STAIR BLOCK LONGITUDINAL SECTION)  
SCALE 1:200



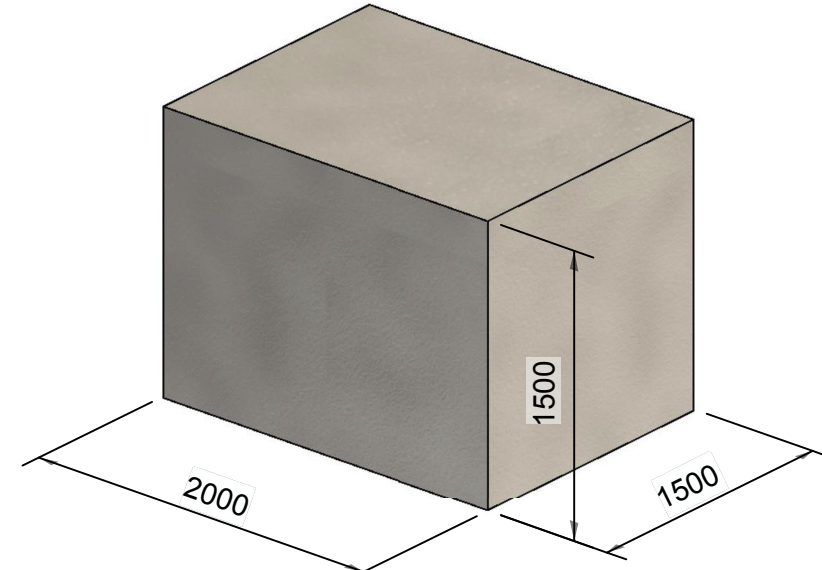
STAIR BLOCK A



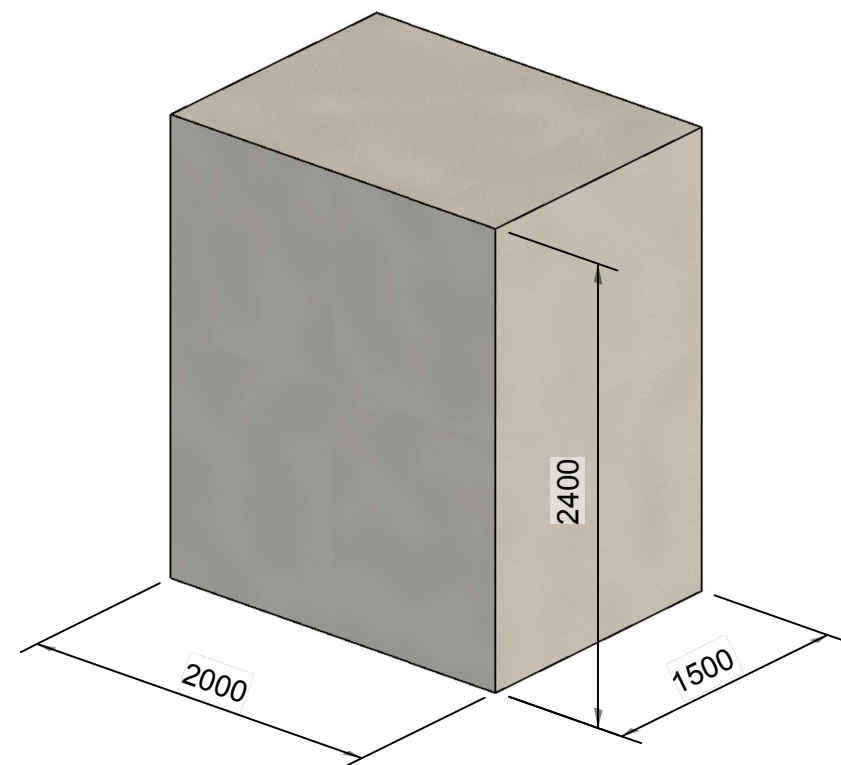
STAIR BLOCK B



STAIR BLOCK C



STAIR BLOCK D

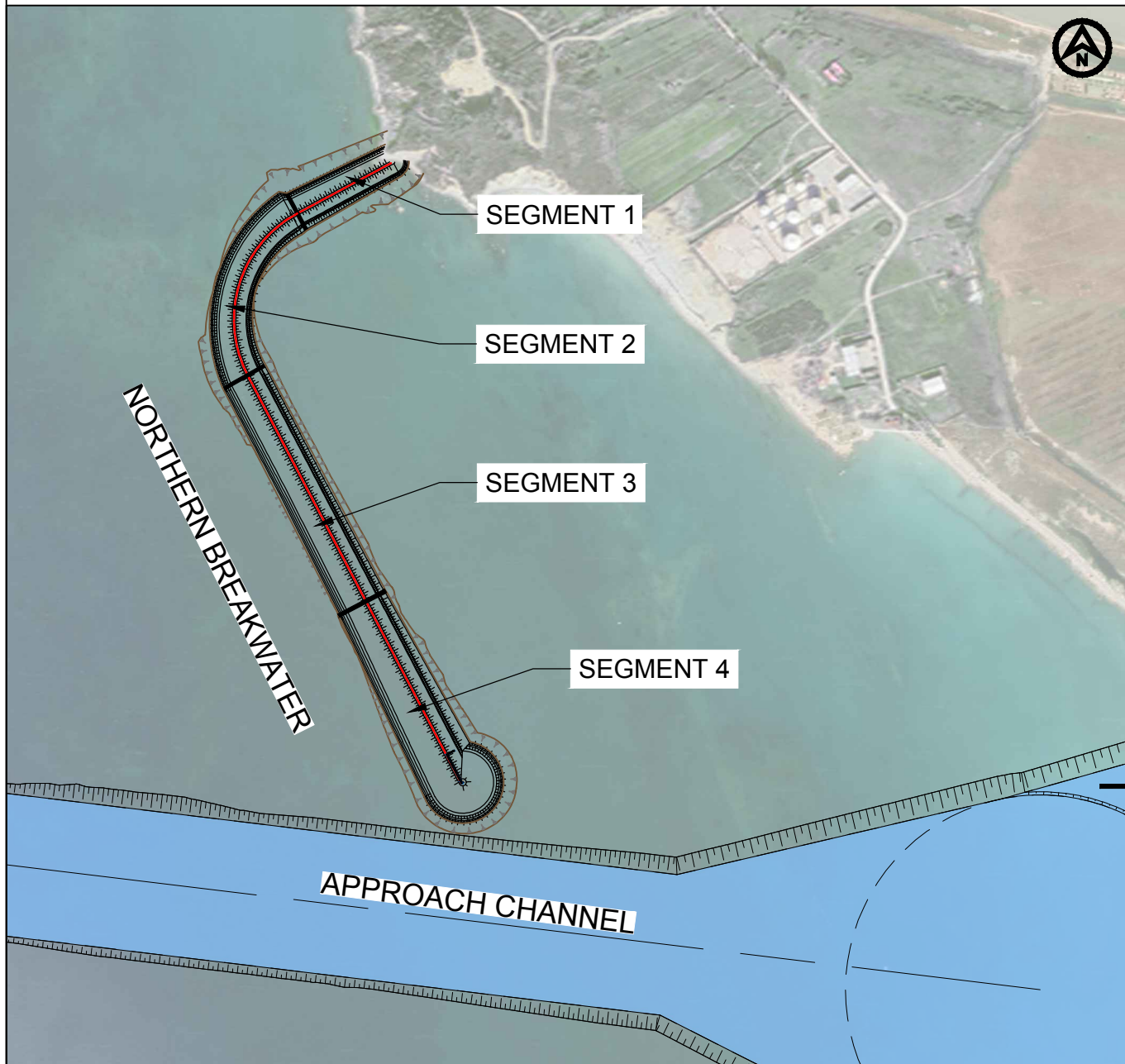


STAIR BLOCK E

NOTES

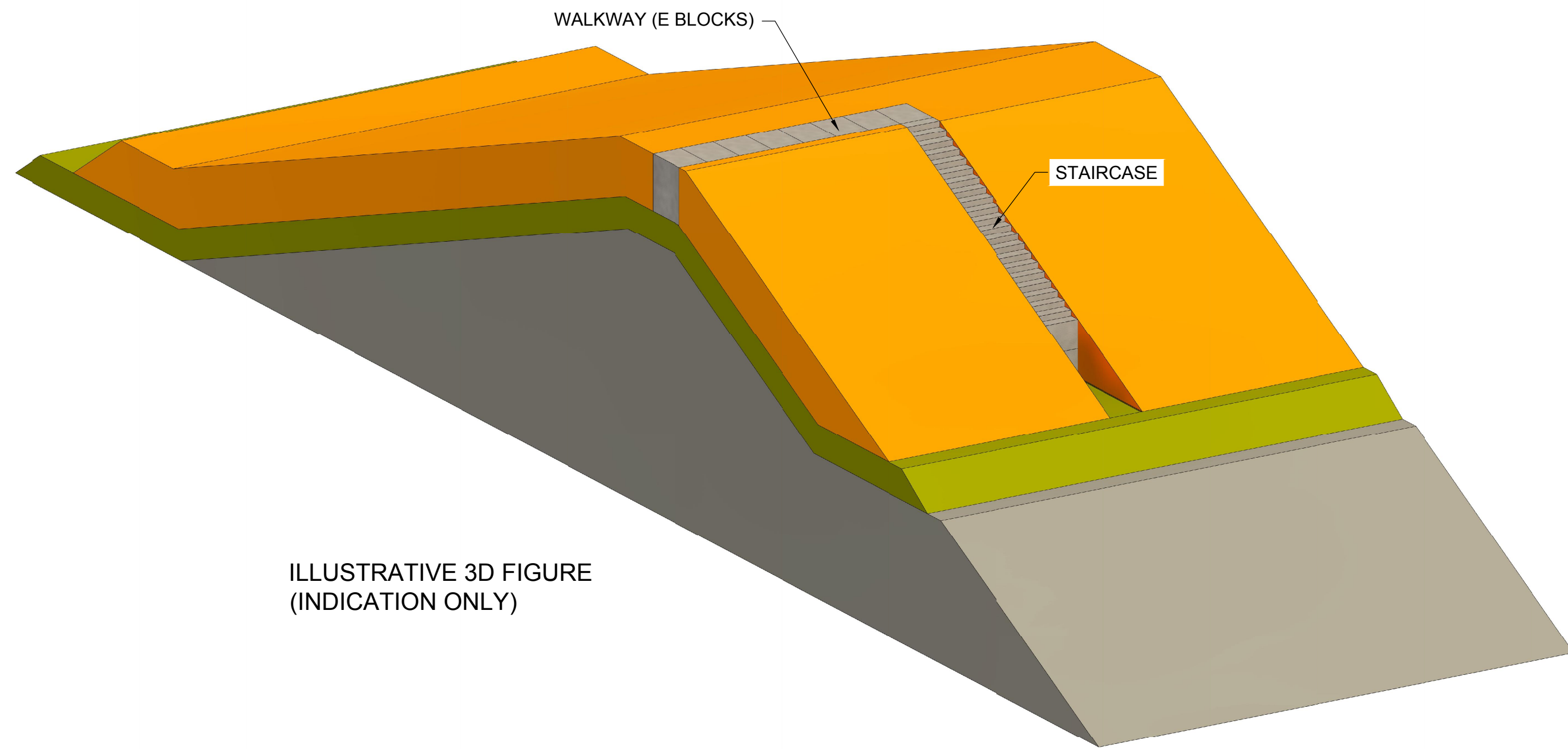
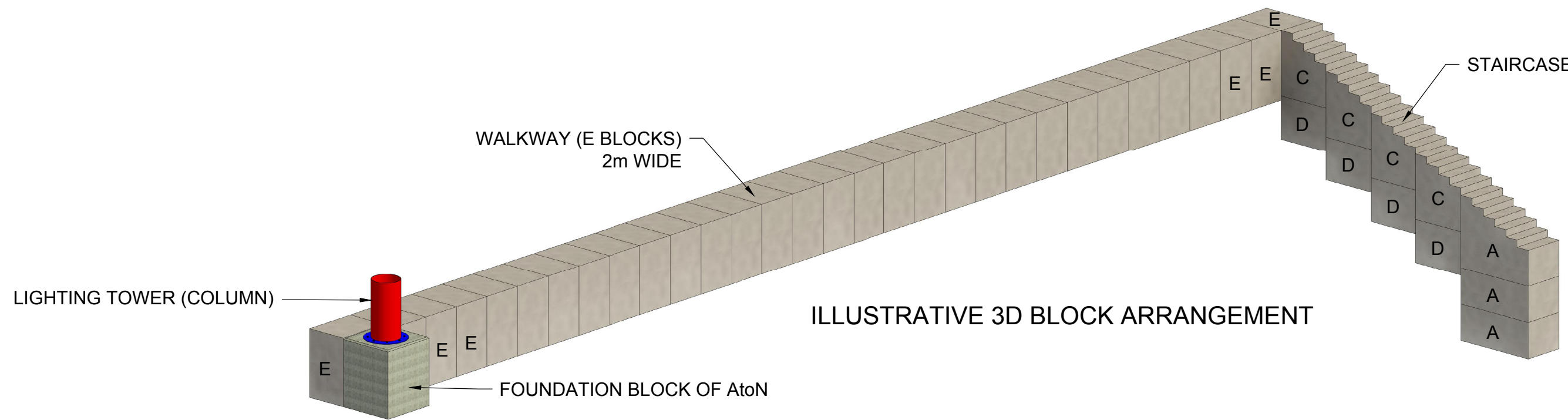
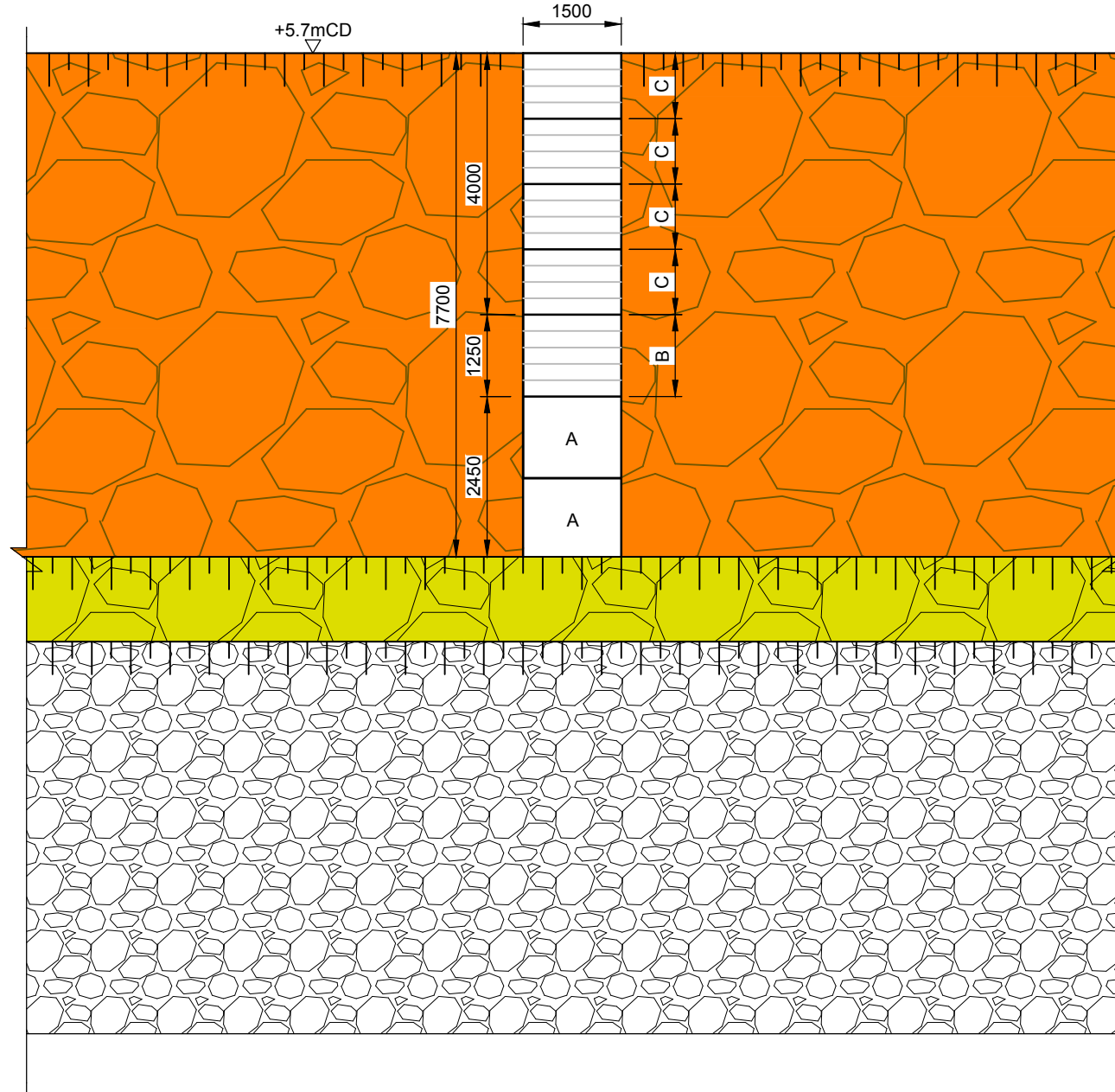
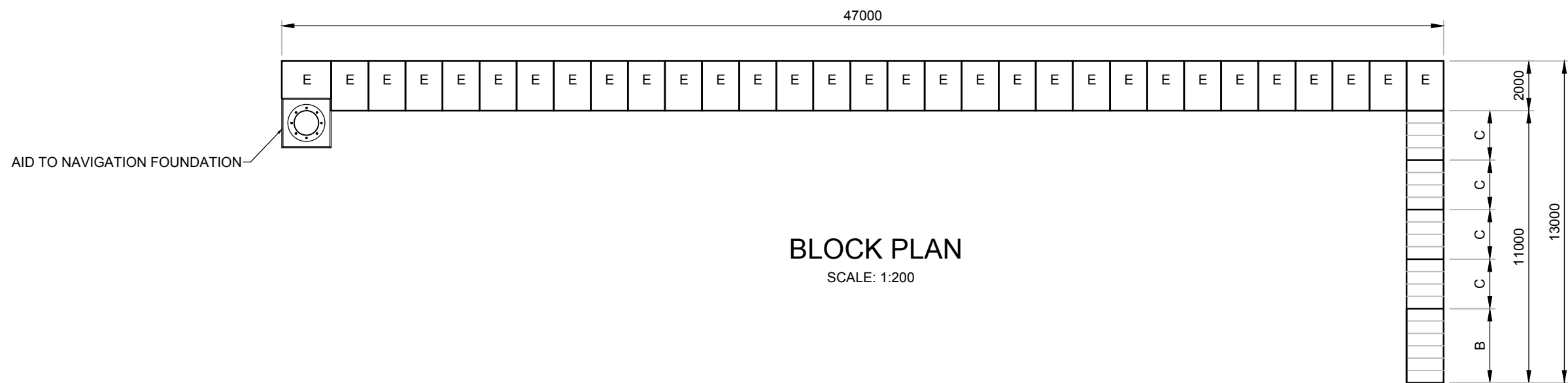
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3. IT IS ASSUMED THAT A SPREADER BEAM WILL BE USED DURING THE LIFTING OF THE STAIR BLOCKS. LIFTING POINT DESIGN & TYPE SHALL BE DESIGNED BY CONTRACTOR. CONTRACTOR TO ENSURE SAFETY DURING THE LIFTING.
4. CONCRETE OF THE STAIR BLOCKS IS PLAIN CONCRETE, GRADE C30/37 (30MPa CYLINDER STRENGTH), FULL STRENGTH OF CONCRETE IS REQUIRED FOR THE LIFTING.
5. IN ORDER TO AVOID VOIDS AND INSTABLE ROCK LAYERS JUST ADJACENT TO THE STAIR BLOCKS, THE ROCK LAYERS WILL BE 'MANUALLY' FIXED IN PLACE WITH ENCLOSED SMALL, WEDGED ROCK, ENSURING CLAMPING AND HOLDING FORCES BETWEEN THE STAIR BLOCKS AND THE ROCK LAYERS.
6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH
  - BI1884 - RHD-02-BW-DR-CM-2013 NORTHERN BW DETAILED LAYOUT SHEET 4/4
  - BI1884-RHD-02-BW-DR-CM-2018 FOUNDATION FOR THE AID TO NAVIGATION

KEY PLAN (SCALE: 1:10,000)



|                                                                                                                                                                                                |                       |                   |                                |                   |                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|--------------------------------|-------------------|--------------------------------|
| P01                                                                                                                                                                                            | Final Submission      | DJP               | DQ                             | ES                | June 2023                      |
| Rev                                                                                                                                                                                            | Description/Përkrahim | Drawn/Të vizatuar | Checked/Kontrolluar            | Approved/Miratuar | Date/ Data                     |
| <div>abkonsLOCAL Knowledge, GLOBAL Standards</div> <div>ADEC</div> <div>TAULANT shipkDesign &amp; Engineering</div> <div>GEO ENG</div> <div>Royal HaskoningDHVEnhancing Society Together</div> |                       |                   |                                |                   |                                |
| Client/Porositësi                                                                                                                                                                              |                       |                   | Design Object/Objekt projektit |                   |                                |
| DURRËS PORT AUTHORITY                                                                                                                                                                          |                       |                   | Breakwater                     |                   |                                |
| AUTORITETI PORTUAL DURRËS                                                                                                                                                                      |                       |                   |                                |                   |                                |
| Project/Projekt                                                                                                                                                                                |                       |                   | Discipline/Disiplinë           |                   |                                |
| Porto Romano Detail Design                                                                                                                                                                     |                       |                   | Civil Maritime                 |                   |                                |
| Title/Titull                                                                                                                                                                                   |                       |                   | Revision/Përkrahim             |                   |                                |
| Phase 1 - Initial (Northern Breakwater)                                                                                                                                                        |                       |                   | P01                            |                   |                                |
| STAIR BLOCKS ACCESS TO AtoN (Sheet 1/2)                                                                                                                                                        |                       |                   |                                |                   |                                |
| Size/Fleta                                                                                                                                                                                     | Scale/Shkallë         | Phase/Faza        | Sheetno./Nr. i fletës          | of nga            | Drawing Number/Nr. i vizatimit |
| A1                                                                                                                                                                                             | As Shown              | Detailed Design   | 1                              | 2                 | BI1884-RHD-02-BW-DR-CM-2019    |

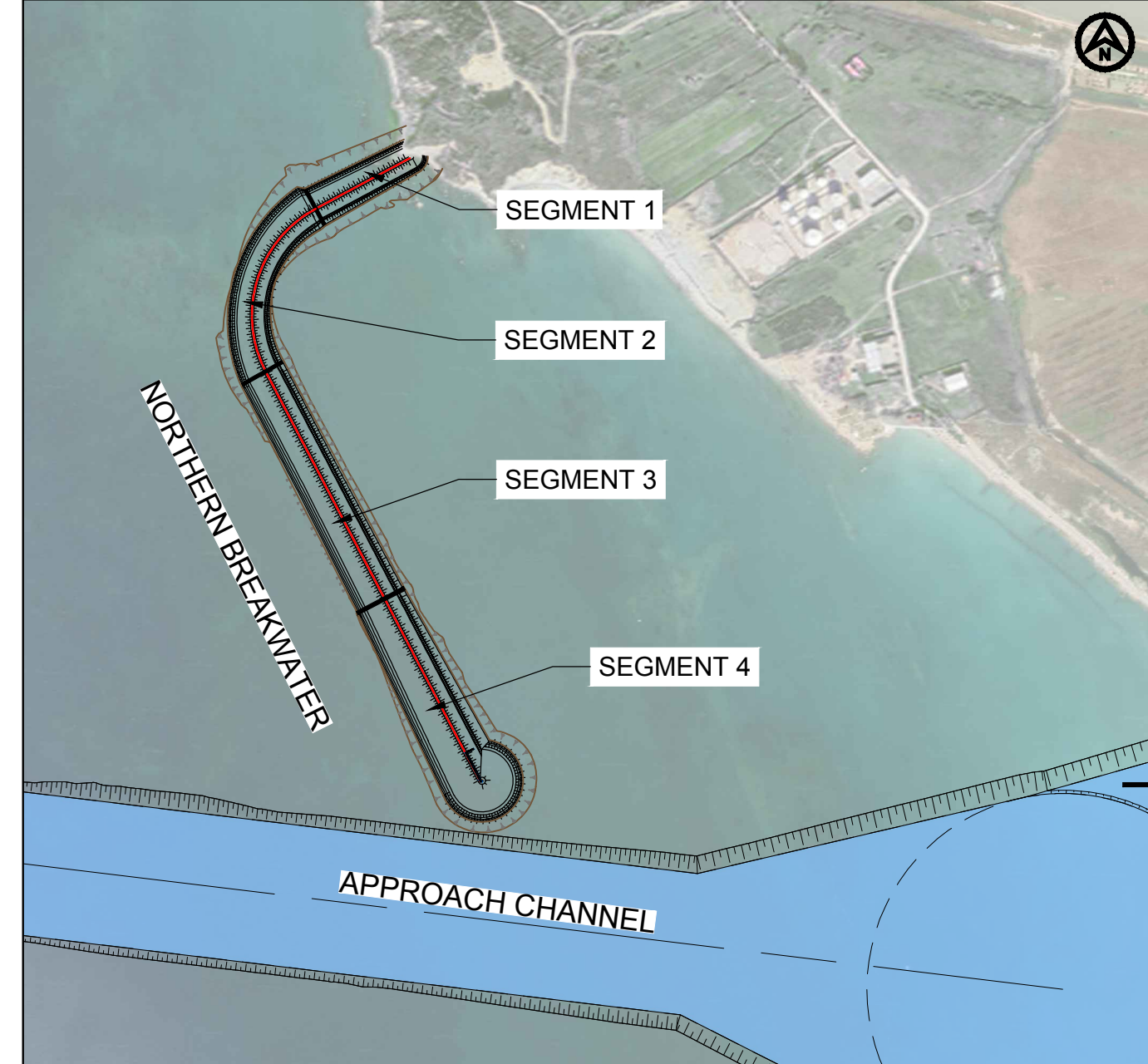




## NOTES

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6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH
  - BI1884 - RHD-02-BW-DR-CM-2013 NORTHERN BW DETAILED LAYOUT SHEET 1
  - BI1884-RHD-02-BW-DR-CM-2018 FOUNDATION FOR THE AID TO NAVIGATION

## KEY PLAN (SCALE: 1:10,000)



|                                                                                                                                                                                                                                       |                       |                   |                                 |                    |                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|---------------------------------|--------------------|----------------------------------|
| P01                                                                                                                                                                                                                                   | Final Submission      | DJP               | DQ                              | ES                 | June 2023                        |
| Rev                                                                                                                                                                                                                                   | Description/Përshkrim | Drawn/Të vizatuar | Checked/Kontrolluar             | Approved/ Miratuar | Date/ Data                       |
| <div><div>abkons</div><div>LOCAL Knowledge, GLOBAL Standards</div><div>ADEC</div><div>TAULANT shpk</div><div>Design &amp; Supervision</div><div>GEO ENG</div><div>Royal HaskoningDHV</div><div>Enhancing Society Together</div></div> |                       |                   |                                 |                    |                                  |
| Client/Porositës                                                                                                                                                                                                                      |                       |                   | Design Object/Objekt projektimi |                    |                                  |
| DURRËS PORT AUTHORITY                                                                                                                                                                                                                 |                       |                   | Breakwater                      |                    |                                  |
| AUTORITETI PORTAL DURRËS                                                                                                                                                                                                              |                       |                   |                                 |                    |                                  |
| Project/Projekt                                                                                                                                                                                                                       |                       |                   | Discipline/Disiplinë            |                    |                                  |
| Porto Romano Detail Design                                                                                                                                                                                                            |                       |                   | Civil Maritime                  |                    |                                  |
| Title/Titull                                                                                                                                                                                                                          |                       |                   | Revision/Rishkrim               |                    |                                  |
| Phase 1 - Initial (Northern Breakwater)                                                                                                                                                                                               |                       |                   | P01                             |                    |                                  |
| STAIR BLOCKS ACCESS TO AtoN (Sheet 2/2)                                                                                                                                                                                               |                       |                   |                                 |                    |                                  |
| Size/Fleta                                                                                                                                                                                                                            | Scale/Shkalla         | Phase/Faza        | Sheetno / Nr. i fletës          | of nga             | Drawing Number/Numri i vizatimit |
| A1                                                                                                                                                                                                                                    | As Shown              | Detailed Design   | 2                               | 2                  | BI1884-RHD-02-BW-DR-CM-2019      |