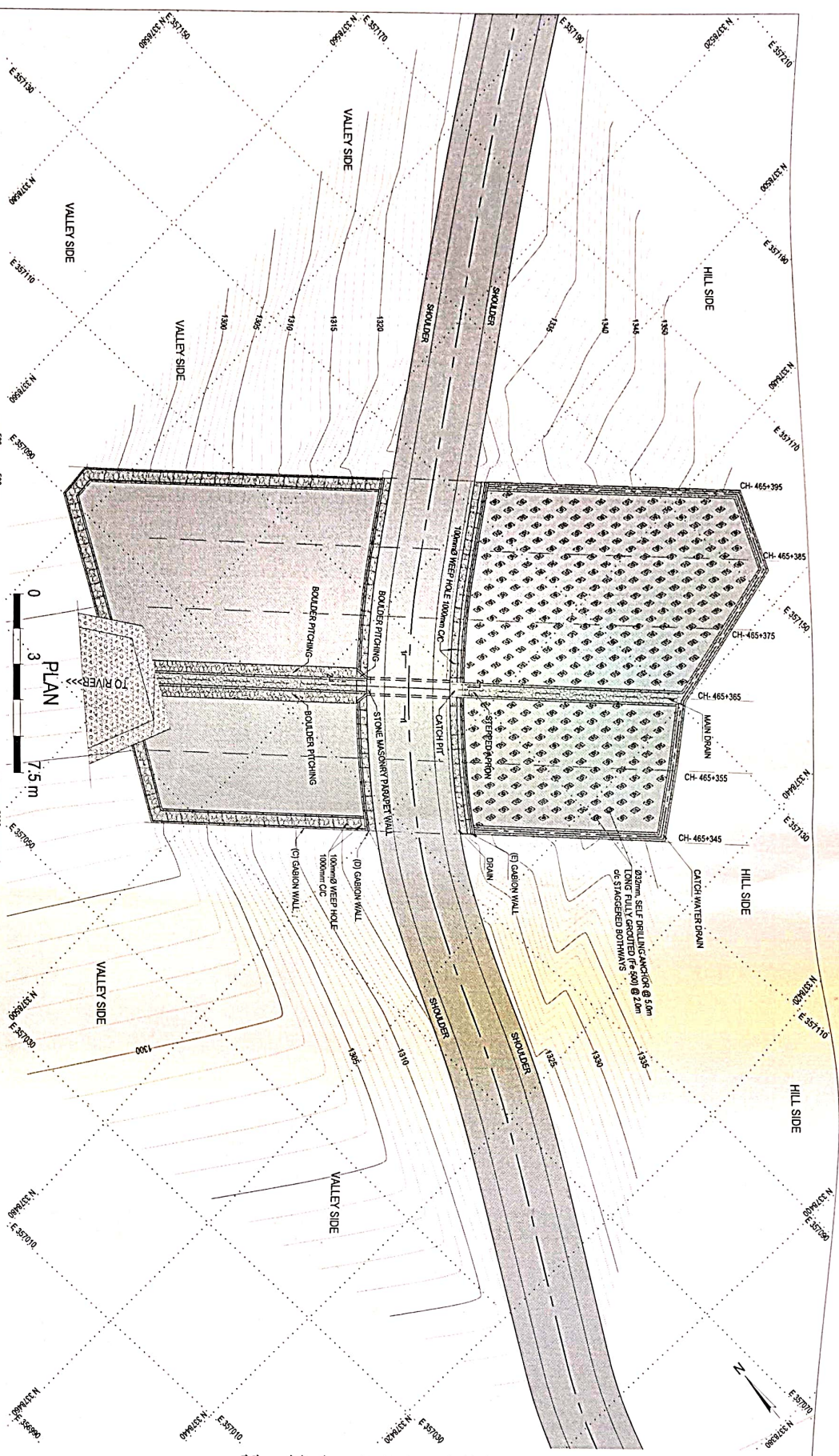


- NOTES:**
1. All dimensions are in meters unless otherwise specified.
  2. Backfill should be compacted in layers of 150mm.
  3. High resistance steel wire mesh type B-10 with steel wire dia 2.7/3.0mm with Zinc + PVC Coating.
  4. Hexagonal double twisted wire mesh type B-10 with steel wire dia 2.7/3.0mm with Zinc + PVC Coating.
  5. Hexagonal double twisted wire mesh type B-10 with steel wire dia 2.7/3.0mm with Zinc + PVC Coating.
  6. Surface top anchors shall be of 32 mm. Continuously threaded anchor, (CTA) yield stress > 500MPa, for rocky strata.
  7. Surface top anchors shall be of 32 mm. Self-Drilling Anchor (SDA) yield stress > 500MPa, for soil + boulder mix strata.
  8. Drain pipes (50mm dia, PVC) perforated pipes wrapped with non-woven geotextile.
  9. The front face shall be neatly packed with good local rock for facing of Gabion Wall.
  10. Top anchoring shall be done utilizing anchor trench method where soil is encountered on the crest side. Top anchoring using steel nail is to be employed when the crest is of hard rocky strata.
  11. Proper grading with reduced rainfall should be done to consolidate the soil.
  12. Fill and compact the soil in layers at site and result should be checked with the design consideration.
  13. Before carrying out the installation of the solutions proposed, it is recommended that those scaling/trimming of the slope be done so as to remove the rock blocks which can be easily dislodged from the surface.
  14. Suitable surface drainage measures shall be adopted as per site.
  15. Design of the slope shall be 7m deep at any site.
  16. Weathered Rock Properties: Weathered Rock (Mumbai) Cohesion (Minimum)  $\phi$  (Degree) Friction Angle (Minimum)  $\gamma$  (kN/m<sup>3</sup>) Unit Weight (kN/m<sup>3</sup>) Strata 69/3/25
  17. Earthquake coefficients - dh-18, a V=0.12.
  18. Any variation of above-mentioned design parameters and strata at site shall result in change of design & same should be intimated to Engineer-in-charge.

OWNER ENGINEERING :



National Highways & Infrastructure Development Corporation Ltd (NHIDCL)

SPRINT CONSULTANTS



SPRINT CONSULTANTS

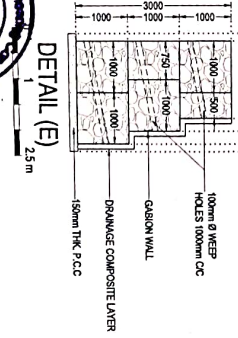
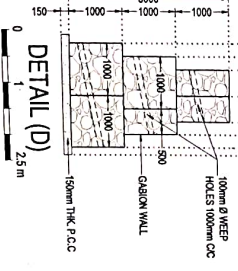
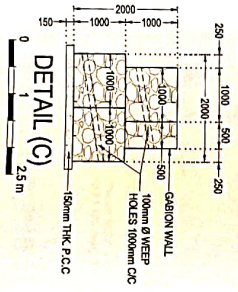
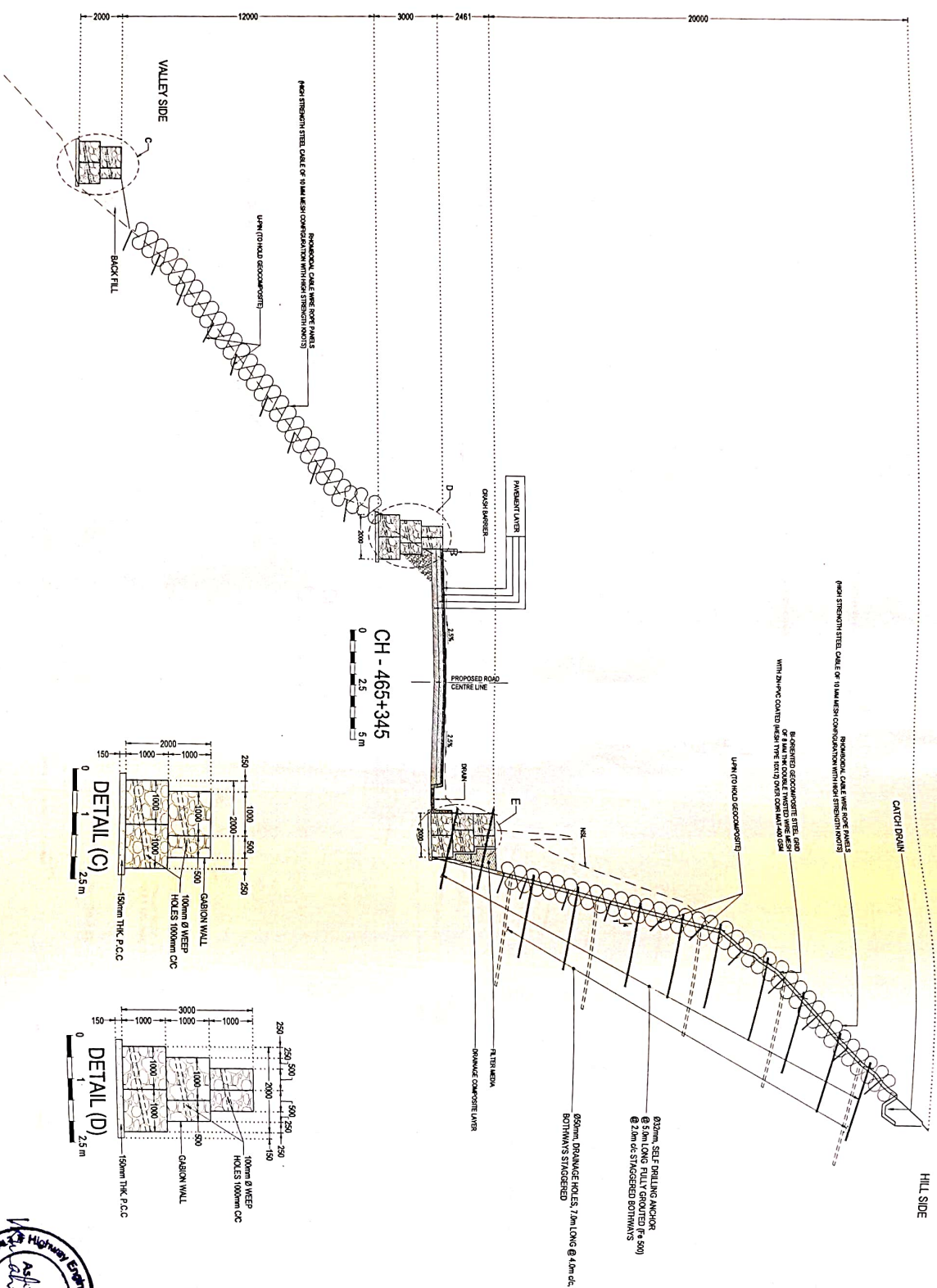
PROOF CONSULTANT



PROJECT: CONSTRUCTION & UPGRADATION OF EXISTING ROAD TO 2-LANE WITH PAVED SHOULDERS FROM KM 430.000 TO KM 468.000 OF CHANOLI TO PAUNI (EXCLUDING KM 437.825 TO KM 437.775, KM 458.900 TO KM 459.475 AND KM 464.425 TO KM 464.525) OF NH-07 UNDER CHAKRAHARI PARYAYANA ON EPC BASIS IN THE STATE OF UTTARAKHAND (PRG-III)

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
|      |      |             |
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|              |                   |             |                           |
|--------------|-------------------|-------------|---------------------------|
| DRAWN BY:    | DEEPAK            | TITLE:      | SLOPE PROTECTION MEASURES |
| DESIGNED BY: | SK                | SCHEME NO.: | KM-465-345 TO 465-395     |
| APPROVED BY: | DK                | DRG. NO.:   | KQC_SP_101                |
| SCALE:       | 1:50, 1:300 (A1)  | REVISION:   | R-0                       |
|              | 1:100, 1:500 (A3) |             | JAN-2021                  |



OWNER ENGINEERING :

PROOF CONSULTANT :

EPC CONTRACTOR :

PROJECT :

CONSTRUCTION & UPGRADATION OF EXISTING ROAD TO 2-LANE WITH PAVED SHOULDERS FROM KM 430.000 TO KM 465.000 OF NH-07 (EXCLUDING KM 437.625 TO KM 437.775, KM 458.900 TO KM 459.475 AND KM 464.425 TO KM 464.525) OF NH-07 UNDER CHARGED KM PARVATIYA ON EPC BASIS IN THE STATE OF UTTARAKHAND (PK-III)

REV. DATE DESCRIPTION

DRAWN BY : DEEPAK  
DESIGNED BY : SK  
APPROVED BY : DK

TITLE : SLOPE PROTECTION MEASURES  
SCHEME KM 465+345  
DRG NO. : KQC\_SP\_102  
REVISION : R-0  
SCALE : 1:50, 1:100 (A1)  
1:100, 1:200 (A3)  
JAN-2021











REVISION: 1.00

