


DRAWING INDEX


| DRAWING NUMBER | DRAWING TITLE | REV. |
|-----------------------------|---|------|
| 7061520-INDEX-105-1001 | DRAWING INDEX | A |
| MAJOR BRIDGE AT STN. 17+240 | | |
| 7061520-MJBR-105-1301 | MAJOR BRIDGE AT STN. 17+240 GENERAL ARRANGEMENT SHEET 1 | A |
| 7061520-MJBR-105-1302 | MAJOR BRIDGE AT STN. 17+240 GENERAL ARRANGEMENT SHEET 2 | A |
| CULVERT DRAWINGS | | |
| 7061520-CUL-105-1000 | SCHEDULE FOR CULVERTS | A |
| 7061520-CUL-105-1001 | SINGLE CELL RCC BOX CULVERT GENERAL ARRANGEMENT TYPE 1 | A |
| 7061520-CUL-105-1002 | SINGLE CELL RCC BOX CULVERT GENERAL ARRANGEMENT TYPE 2 | A |
| 7061520-CUL-105-1003 | SINGLE CELL RCC BOX CULVERT GENERAL ARRANGEMENT TYPE 3 | A |
| 7061520-CUL-105-1005 | DOUBLE CELL RCC BOX CULVERT GENERAL ARRANGEMENT TYPE 1 | A |
| 7061520-CUL-105-2001 | SINGLE PIPE CULVERT GENERAL ARRANGEMENT TYPE 1 | A |
| 7061520-CUL-105-2005 | DOUBLE PIPE CULVERT GENERAL ARRANGEMENT TYPE 1 | A |
| 7061520-CUL-105-2010 | THREE PIPE CULVERT GENERAL ARRANGEMENT TYPE 1 | A |

50 mm ON ORIGINAL (A3)

| ISSUE | DATE | AMENDMENT / ISSUE DESCRIPTION | APPROVAL |
|-------|------|-------------------------------|----------|
| A | | FOR TENDER | |
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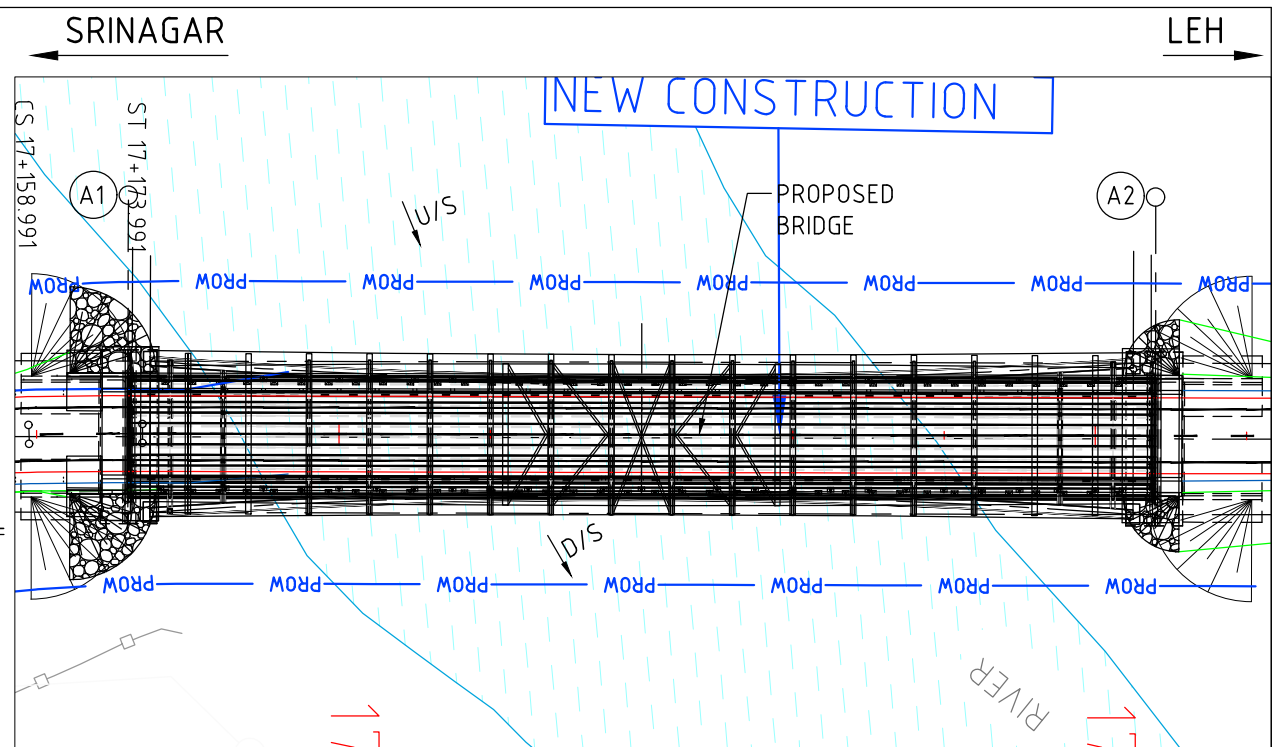
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|-----------------|------|----------------------|
| | | |
| CLIENT APPROVED | DATE | CONSULTANT SIGNATURE |

| | | | |
|--|---|---------|----------|
| DESIGNER |  | | |
| <p>SMEC (India) Pvt Ltd. 1st Floor, Novus Tower, West Wing, Plot Number -18, Sector - 18, Gurgaon - 122015, Haryana</p> | | | |
| DRAWN | DESIGN | CHECKED | APPROVED |
| MS | QN | AP | NA |

| | |
|---|---|
| CLIENT |  |
| NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI BUILDING . 4 PARLIAMENT STREET , SANSAD MARG AREA, NEW DELHI- 110001 | |
| APPROVED | DATE |

| | |
|---------|---|
| PROJECT | CONSTRUCTION OF APPROACH ROADS TO EAST AND WEST PORTAL OF PROPOSED ZOJILA TUNNEL WITH AVALANCHE PROTECTION WORKS IN THE UT OF JAMMU & KASHMIR AND LADAKH |
|---------|---|

| | | | |
|--------------------------|---|---------------|--|
| PROJECT TITLE | | DRAWING INDEX | |
| DRAWING STATUS TENDER | PROJECT / DRAWING No. 7061520-INDEX-105-1001 | ISSUE A | |

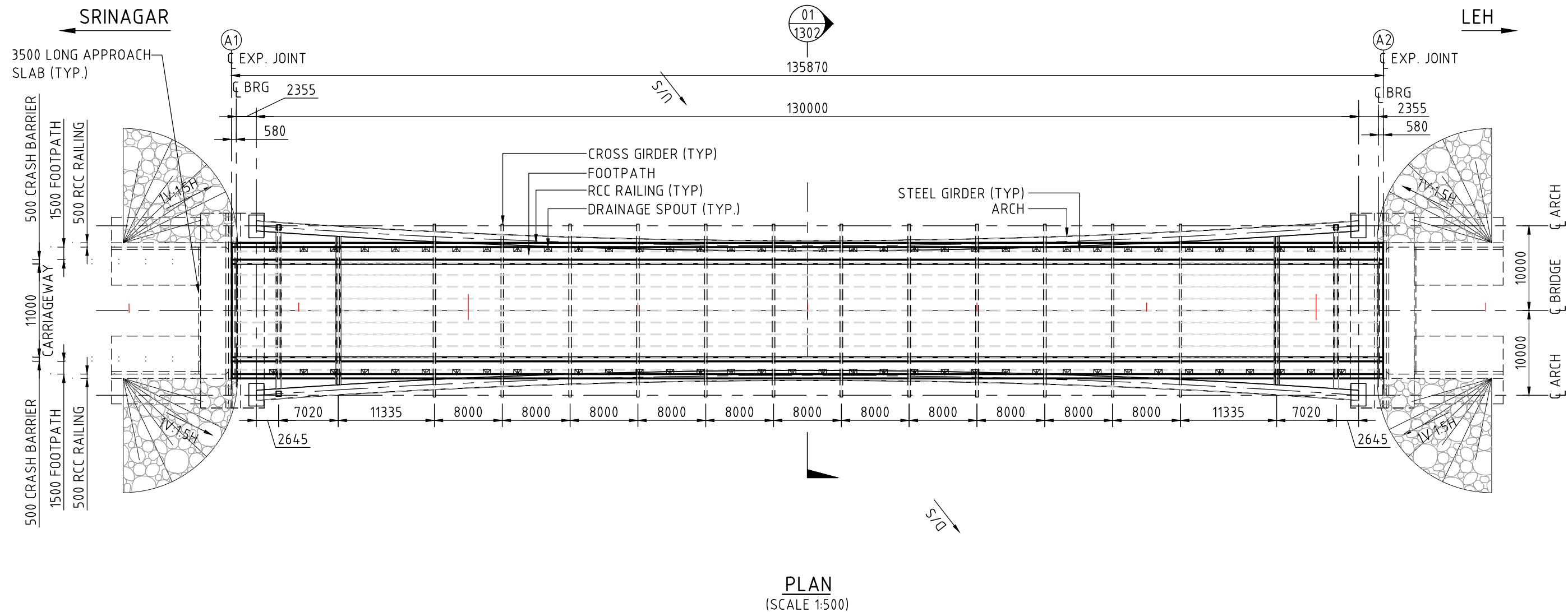


SITE PLAN

(SCALE 1:1000)

| | | | |
|------------------------|------------|------------|------------|
| DESIGN LEVEL (m) | 2884.426 | 2884.426 | 2884.426 |
| EXISTING BED LEVEL (m) | 2875.741 | 2863.032 | 2874.346 |
| STATION (km) | 17+172.500 | 17+240.000 | 17+307.500 |

SECTIONAL ELEVATION
(SCALE 1:500)



PLAN
(SCALE 1:500)

[illegible]


SCALE 1:250



| | | |
|-----------------|------|----------------------|
| CLEINT APPROVED | DATE | CONSULTANT SIGNATURE |
|-----------------|------|----------------------|

| | | | |
|-------|--------|---------|----------|
| DRAWN | DESIGN | CHECKED | APPROVED |
| SK | ON | AD | NA |

CLIENT

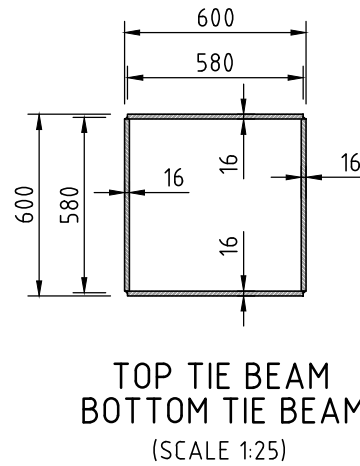
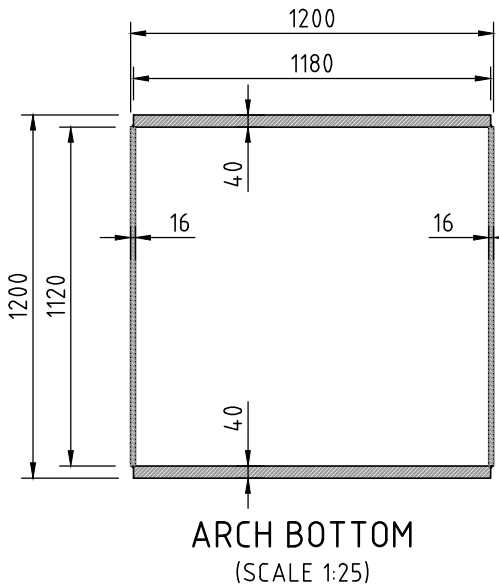
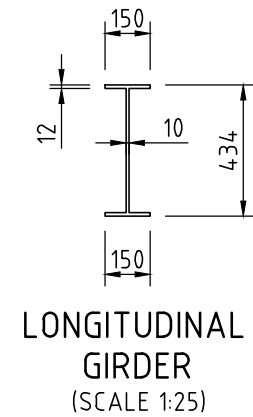
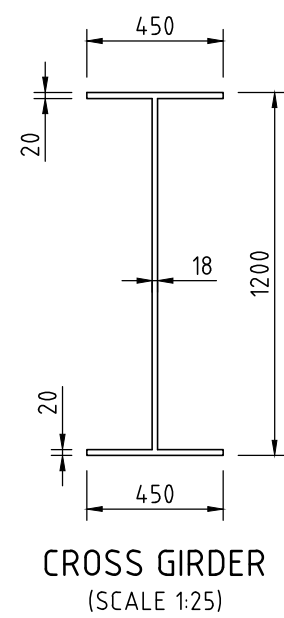
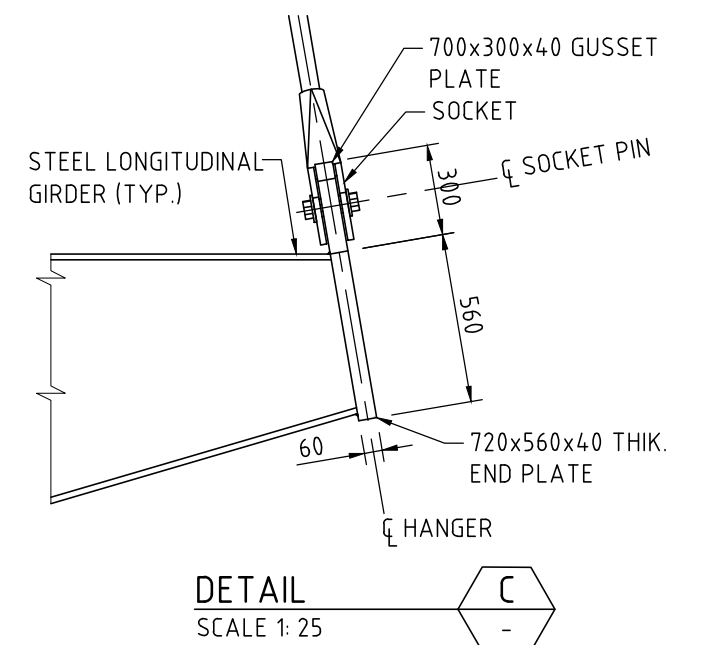
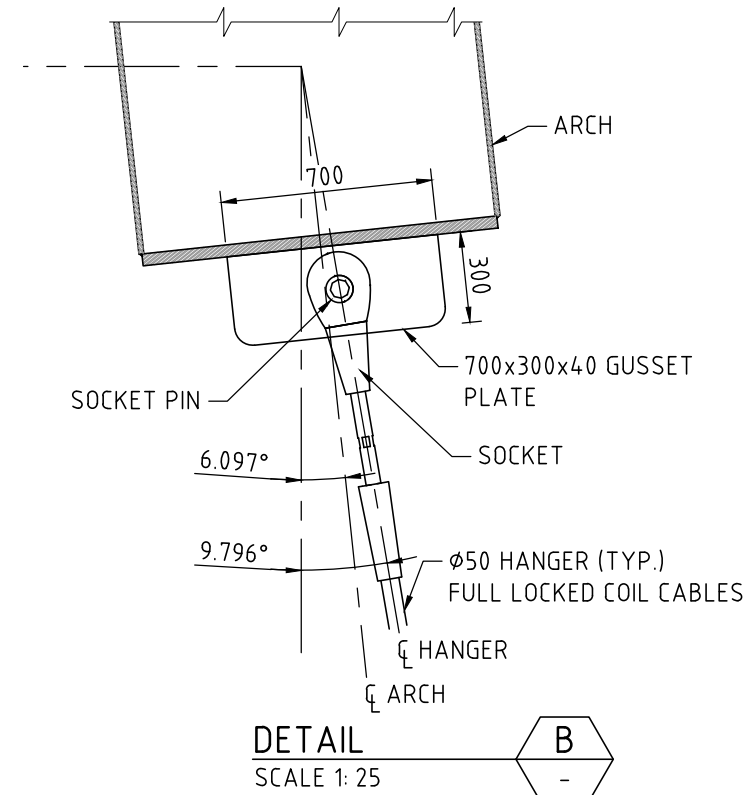
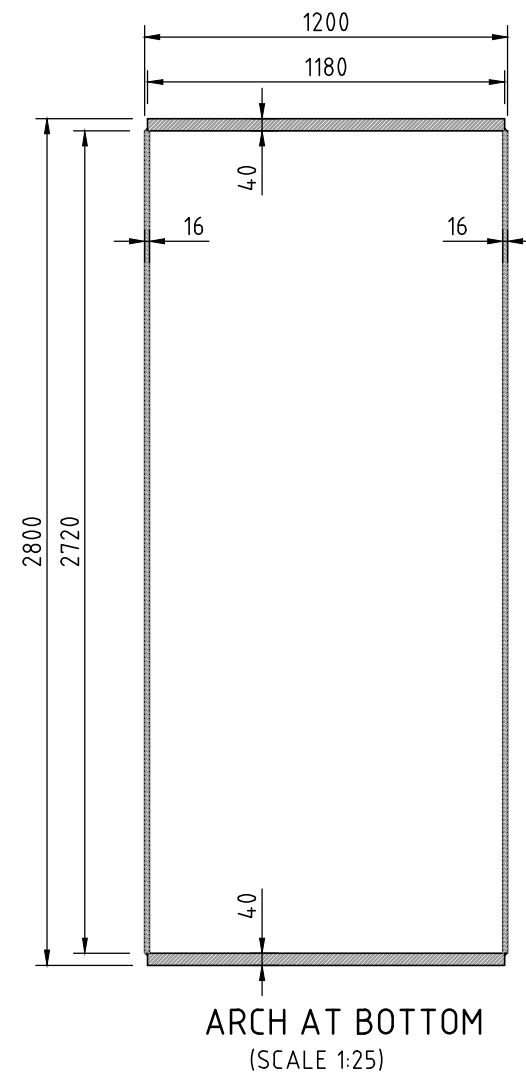
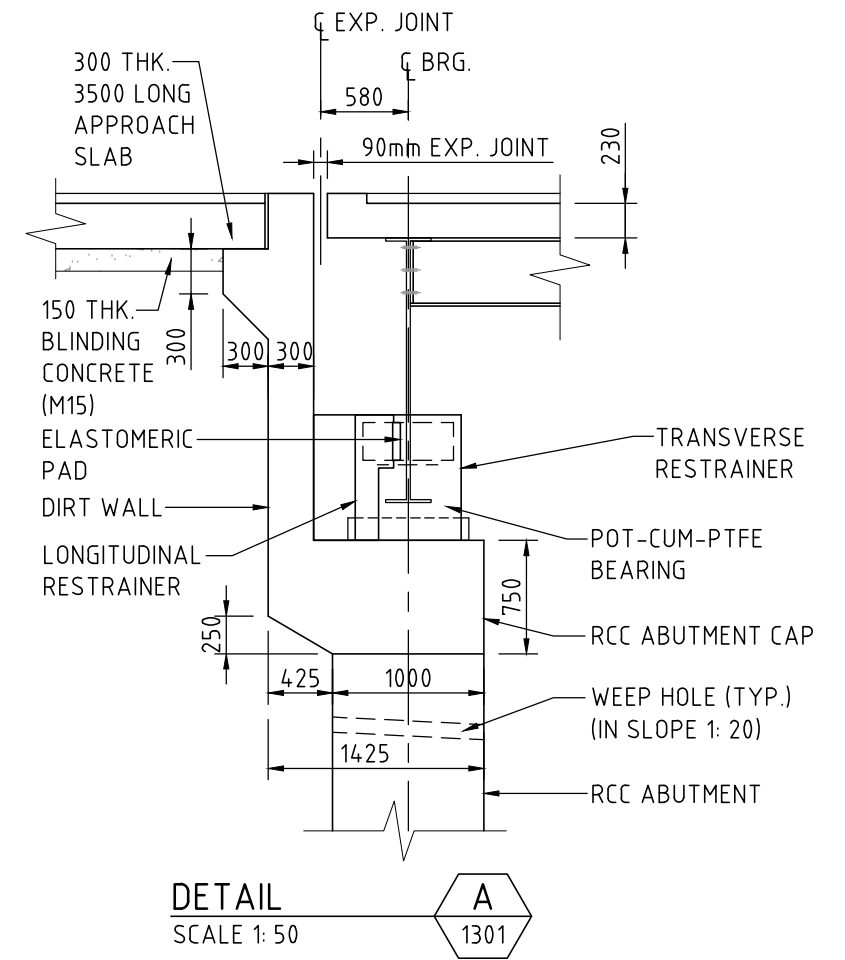
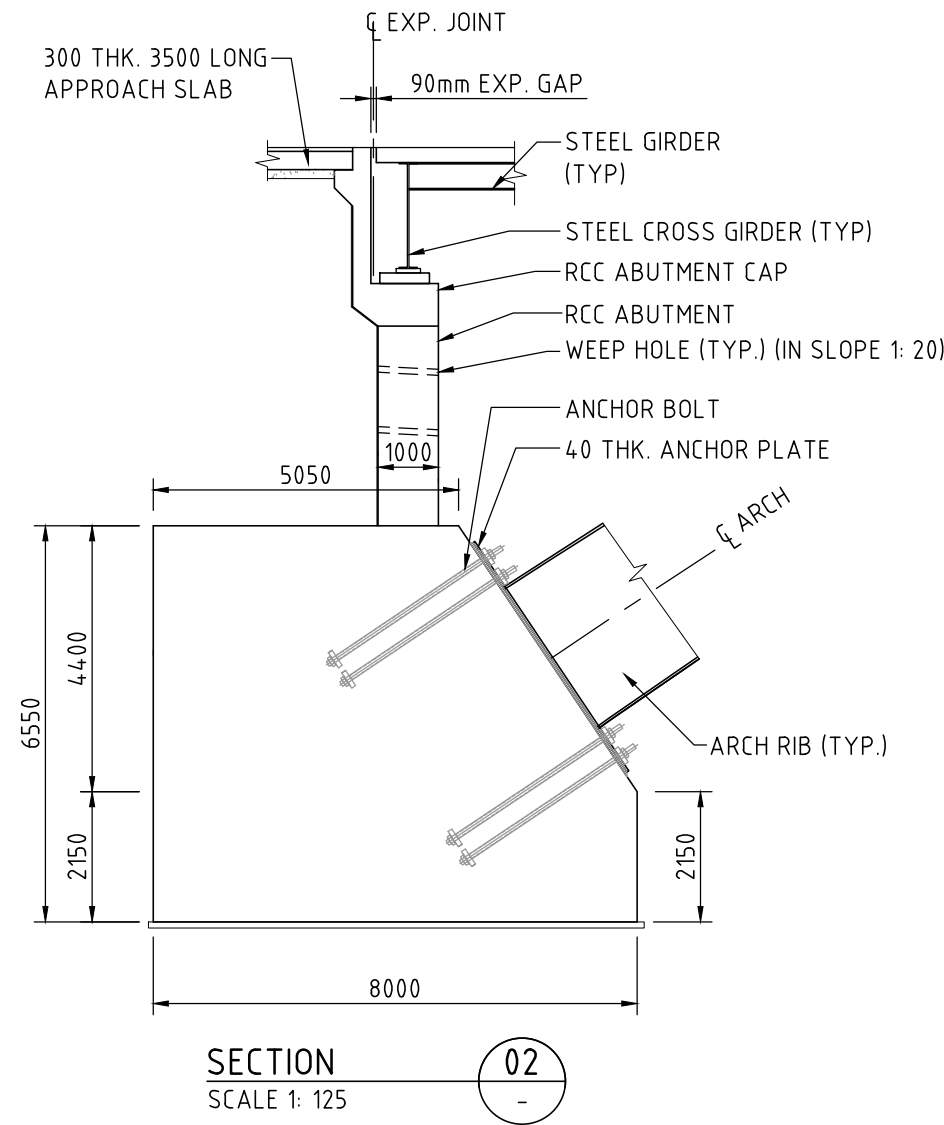
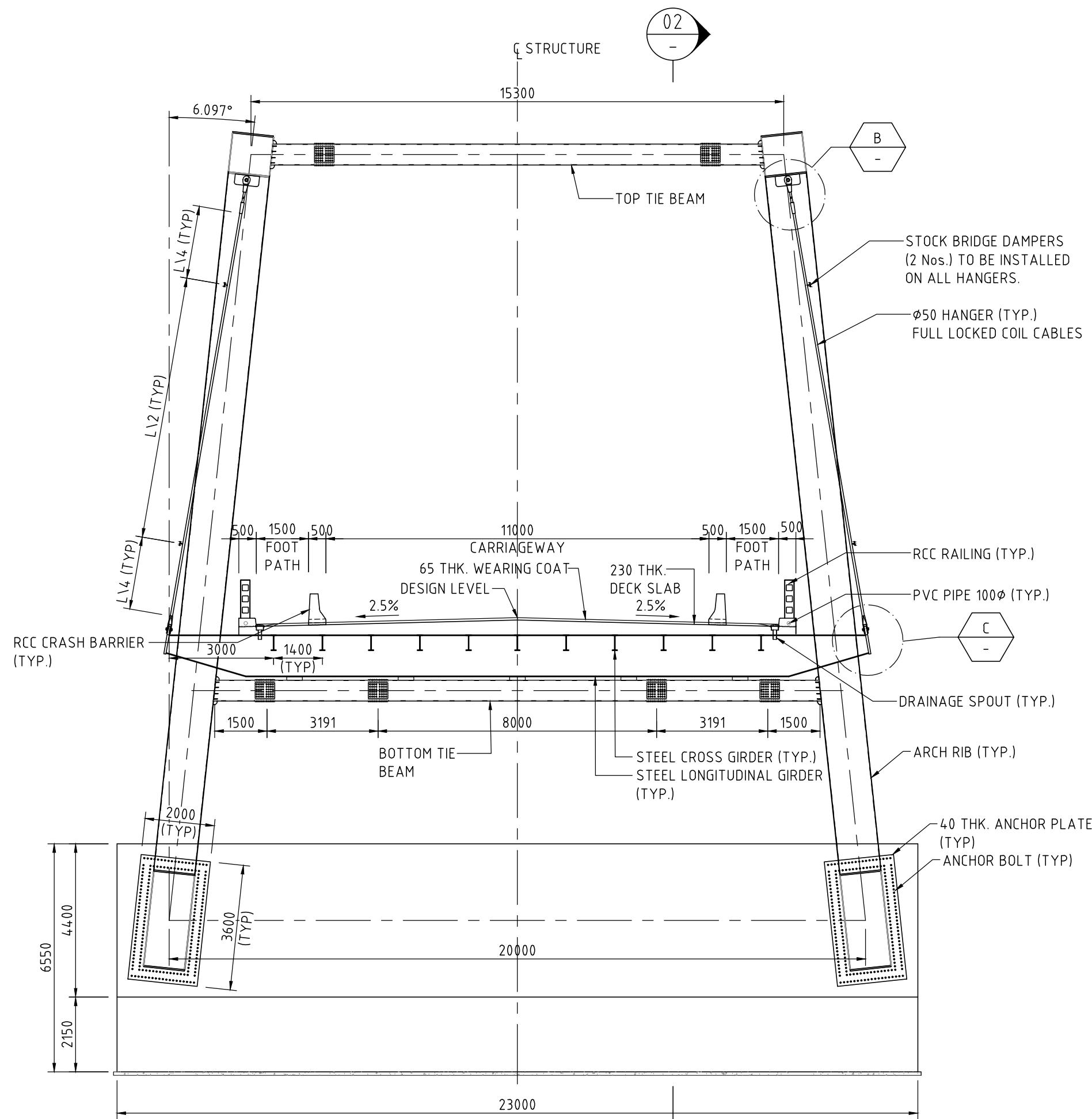


NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI BUILDING . 4 PARLIAMENT STREET ,

| | |
|-------------------------------------|------|
| SANSAD MARG AREA, NEW DELHI- 110001 | |
| 100000150 | 0136 |

PROJECT
PREPARATION OF DETAILED PROJECT REPORT &
PROVIDING PRE-CONSTRUCTION ACTIVITIES IN
RESPECT OF THE APPROACH ROAD WITH AVALANCHE
PROTECTION WORKS IN ZOJILA TUNNEL

| | | |
|---|-----------------------|-------|
| PROJECT TITLE | | |
| <p align="center">MAJOR BRIDGE AT STN. 17+24.0 GENERAL ARRANGEMENT SHEET 1</p> | | |
| DRAWING STATUS | PROJECT / DRAWING No. | ISSUE |
| | 3064520 MBRB 105 1201 | A |



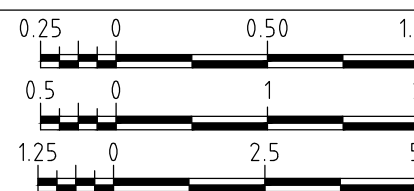
NOTE

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. 7061520-MJBR-105-1301.

50 mm ON ORIGINAL (A3)

| ISSUE | DATE | AMENDMENT / ISSUE DESCRIPTION | APPROVAL |
|-------|------------|-------------------------------|----------|
| A | 27.08.2019 | DRAFT DPR REPORT | NA |
| | | | |
| | | | |
| | | | |
| | | | |

SCALE 1:25
SCALE 1:50
SCALE 1:125



CLIENT APPROVED DATE CONSULTANT SIGNATURE

DESIGNER
SMC
Member of the Surbana Jurong Group
SMC (India) Pvt Ltd. 1st Floor,
Novus Tower, West Wing, Plot Number -18,
Sector - 18, Gurgaon - 122015, Haryana

CLIENT
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. P11 BUILDING, 4 PARLIAMENT STREET, SANSAD MARG AREA, NEW DELHI-110001

PROJECT
PREPARATION OF DETAILED PROJECT REPORT & PROVIDING PRE-CONSTRUCTION ACTIVITIES IN RESPECT OF THE APPROACH ROAD WITH AVALANCHE PROTECTION WORKS IN ZOJILA TUNNEL

PROJECT TITLE
MAJOR BRIDGE AT STN. 17+240
GENERAL ARRANGEMENT
SHEET 2
DRAWING STATUS
TENDER
PROJECT / DRAWING NO.
7061520-MJBR-105-1302
ISSUE
A

SCHEDULE OF BOX CULVERT

| S.No | Design Ch. (KM) | Proposed Structure type | Proposed Arranmgement | | | | Proposed Box detail | | | Invert Level (U/S) | Cross slope (%) | Proposed FRL | Height of Fill | Proposed Treatment | Drawing Reference |
|------|-----------------|-------------------------|-----------------------|-------------------|---------------------|------|---------------------|------------------|-------------------------|--------------------|-----------------|--------------|----------------|--------------------|-----------------------------|
| | | | No. of cell | Clear span (s), m | Clear height (h), m | Skew | Top slab (mm) | Bottom slab (mm) | Wall (Outer/Inner) (mm) | | | | | | General Arrangement Drawing |
| 1 | 10+586 | Box | 1 | 3 | 3 | | 300 | 300 | 300 | 2776.775 | 2.5 | 2780.34 | 0.0 | New Construction | 7061520-CUL-105-1001 |
| 2 | 10+735 | Box | 1 | 5 | 6.5 | | 800 | 800 | 800 | 2769.01 | 2.5 | 2783.045 | 6.5 | New Construction | 7061520-CUL-105-1002 |
| 3 | 11+906 | Box | 1 | 5 | 6.5 | | 800 | 800 | 800 | 2776.72 | 2.5 | 2788.95 | 4.7 | New Construction | 7061520-CUL-105-1002 |
| 4 | 12+481 | Box | 2 | 3 | 6 | | 300 | 350 | 600 | 2791.98 | 2.5 | 2798.642 | 0.1 | New Construction | 7061520-CUL-105-1005 |
| 5 | 12+676 | Box | 1 | 2 | 2 | | 300 | 300 | 250 | 2806.367 | 2.5 | 2808.932 | 0.0 | New Construction | 7061520-CUL-105-1003 |
| 6 | 13+886 | Box | 1 | 2 | 2 | | 300 | 300 | 250 | 2830.55 | 2.5 | 2833.997 | 0.9 | New Construction | 7061520-CUL-105-1003 |
| 7 | 14+996 | Box | 1 | 2 | 2 | | 300 | 300 | 250 | 2858.47 | 2.5 | 2861.126 | 0.1 | New Construction | 7061520-CUL-105-1003 |
| 8 | 15+186 | Box | 1 | 2 | 2 | | 300 | 300 | 250 | 2859.824 | 2.5 | 2862.389 | 0.0 | New Construction | 7061520-CUL-105-1003 |
| 9 | 15+986 | Box | 1 | 2 | 2 | | 300 | 300 | 250 | 2861.008 | 2.5 | 2863.573 | 0.0 | New Construction | 7061520-CUL-105-1003 |
| 10 | 16+196 | Box | 1 | 2 | 2 | | 300 | 300 | 250 | 2865.21 | 2.5 | 2868.837 | 1.1 | New Construction | 7061520-CUL-105-1003 |
| 11 | 17+106 | Box | 1 | 2 | 2 | | 300 | 300 | 250 | 2882.177 | 2.5 | 2884.742 | 0.0 | New Construction | 7061520-CUL-105-1003 |

SCHEDULE OF PIPE CULVERT


| S.No | Design Ch. (KM) | Proposed Structure Type | Proposed Arranmgement No. x Span (m) | Invert Level (U/S) (n/e) | Cross slope (%) | Proposed FRL | Height of fill | Total Width Of Prposed Culvert | Proposed Treatment | Drawing Reference |
|------|-----------------|-------------------------|--------------------------------------|--------------------------|-----------------|--------------|----------------|--------------------------------|--------------------|-----------------------------|
| | | | | | | | | | | General Arrangement Drawing |
| 1 | 0+110 | Pipe | 3x1.2 ∅ | 3286.16 | 2.5 | 3296.738 | 8.993 | 13.5 | New Construction | 7061520-CUL-105-2010 |
| 2 | 0+400 | Pipe | 2x1.2 ∅ | 3281.88 | 2.5 | 3288.136 | 4.871 | 13.5 | New Construction | 7061520-CUL-105-2005 |
| 3 | 10+196 | Pipe | 3x1.2 ∅ | 2753.77 | 2.5 | 2774.486 | 19.131 | 13.5 | New Construction | 7061520-CUL-105-2010 |
| 4 | 10+656 | Pipe | 1x1.2 ∅ | 2770.93 | 2.5 | 2780.979 | 8.464 | 13.5 | New Construction | 7061520-CUL-105-2001 |
| 5 | 12+216 | Pipe | 2x1.2 ∅ | 2784.7 | 2.5 | 2792.815 | 6.53 | 13.5 | New Construction | 7061520-CUL-105-2005 |
| 6 | 13+584 | Pipe | 3x1.2 ∅ | 2808.732 | 2.5 | 2818.971 | 8.654 | 13.5 | New Construction | 7061520-CUL-105-2010 |
| 7 | 13+694 | Pipe | 2x1.2 ∅ | 2813.77 | 2.5 | 2824.397 | 8.242 | 13.5 | New Construction | 7061520-CUL-105-2005 |
| 8 | 15+076 | Pipe | 2x1.2 ∅ | 2855.09 | 2.5 | 2861.781 | 5.106 | 13.5 | New Construction | 7061520-CUL-105-2005 |
| 9 | 17+746 | Pipe | 3x1.2 ∅ | 2881.46 | 2.5 | 2897.495 | 14.45 | 13.5 | New Construction | 7061520-CUL-105-2010 |

50 mm ON ORIGINAL (A3)

| ISSUE | DATE | AMENDMENT / ISSUE DESCRIPTION | APPROVAL |
|-------|------|-------------------------------|----------|
| A | | FOR TENDER | |
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CLIENT APPROVED DATE CONSULTANT SIGNATURE

DESIGNER



SMEC (India) Pvt Ltd. 1st Floor,
Novus Tower, West Wing, Plot Number -18,
Sector - 18, Gurgaon - 122015, Haryana

DRAWN

DESIGN

CHECKED

APPROVED


SK

AM

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CLIENT



NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI BUILDING . 4 PARLIAMENT STREET ,
SANSAD MARG AREA, NEW DELHI - 110003

APPROVED

DATE

PROJECT

CONSTRUCTION OF APPROACH ROADS TO EAST AND WEST PORTAL OF PROPOSED ZOJILA TUNNEL
WITH AVALANCHE PROTECTION WORKS
IN THE UT OF JAMMU & KASHMIR AND LADAKH

PROJECT TITLE

SCHEDULE FOR CULVERTS

DRAWING STATUS

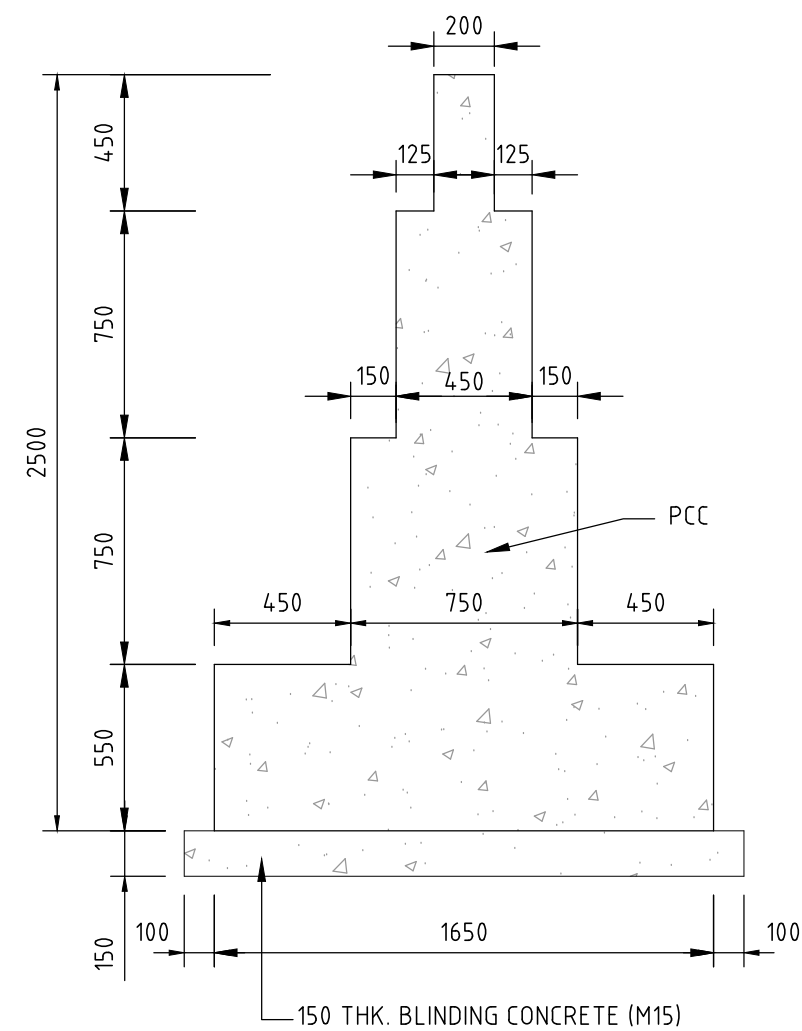
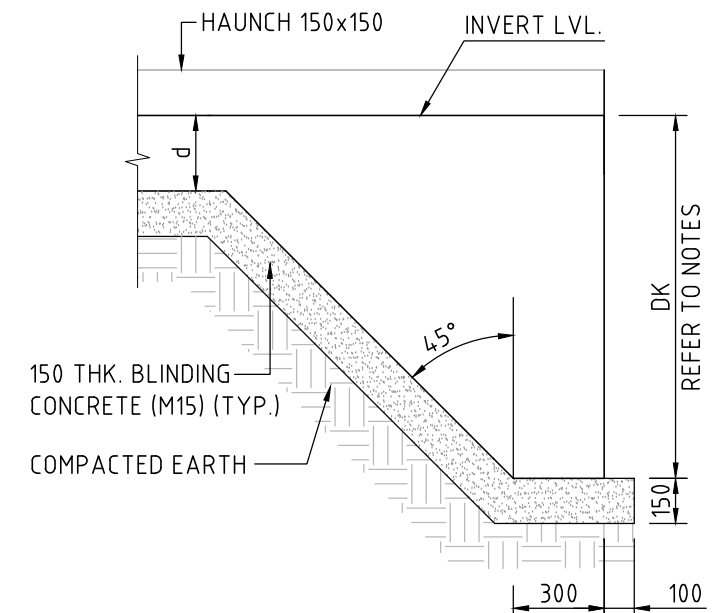
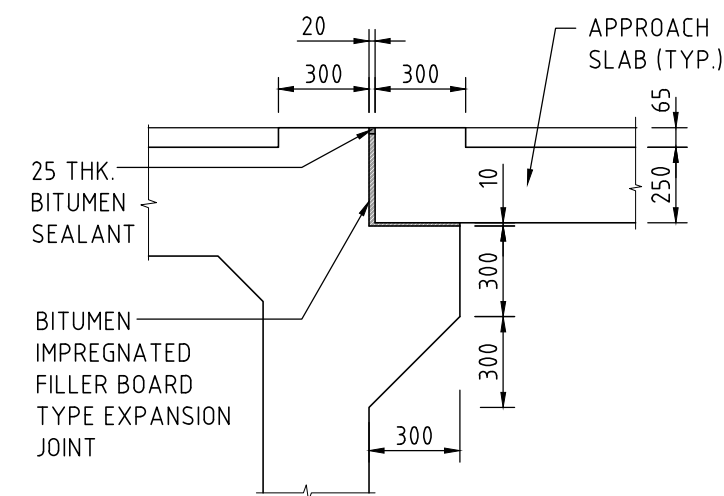
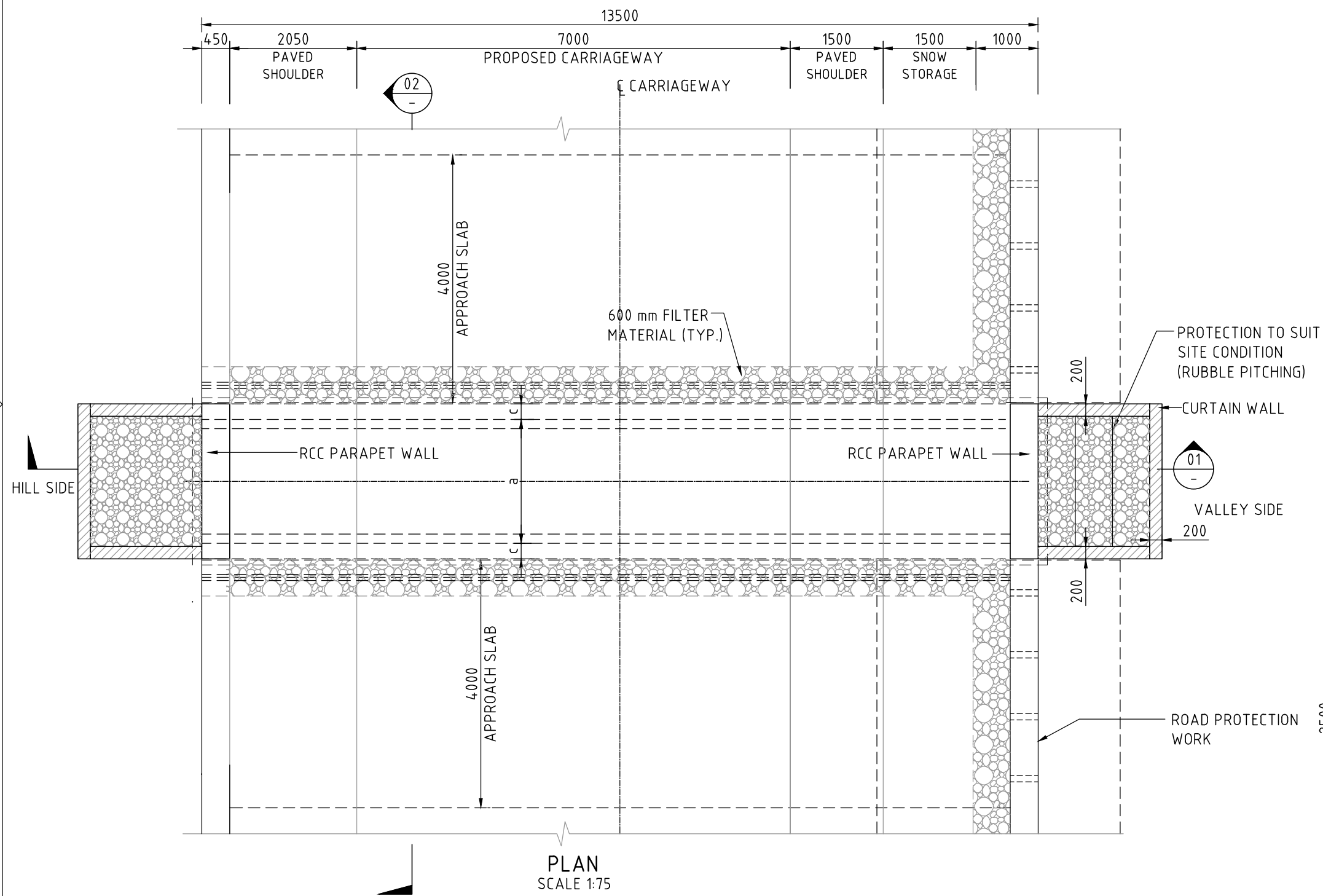
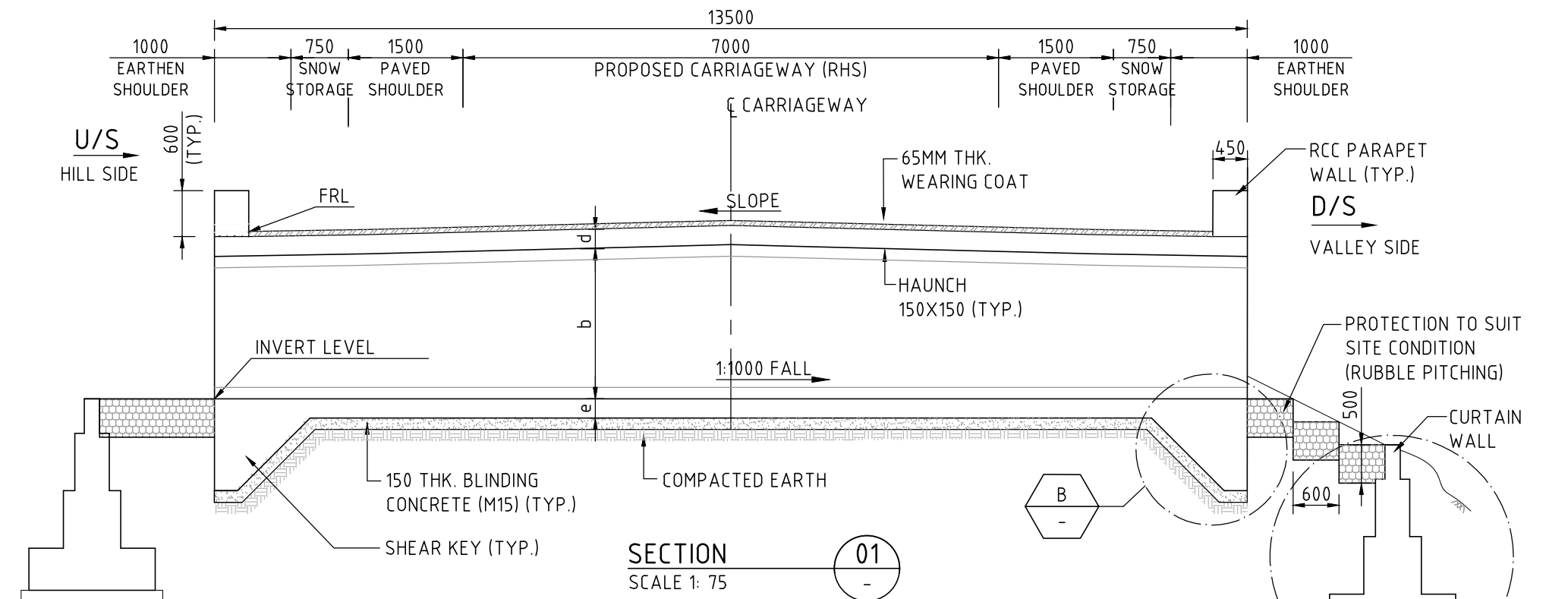
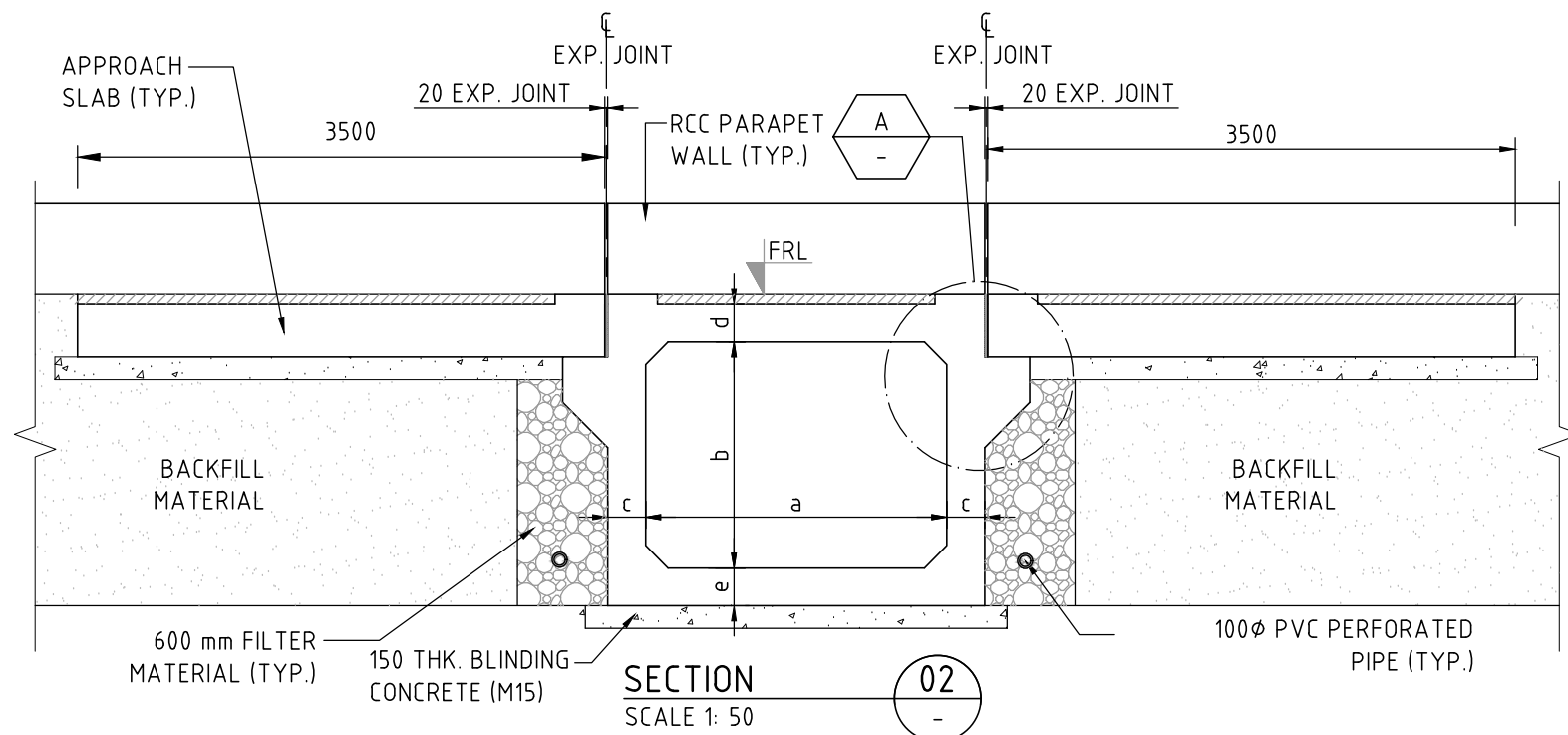
TENDER

PROJECT / DRAWING No.

7061520-CUL-105-1000

ISSUE

A



* FOR SIDE DRAIN REFER TO DRAINAGE DETAIL DRAWING.

NOTES

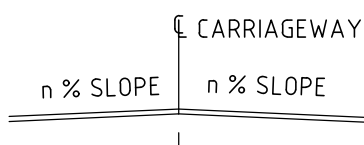
- ALL DIMENSIONS ARE IN MM AND REDUCED LEVELS ARE IN METRE, UNLESS NOTED OTHERWISE. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. NO DIMENSION SHALL BE SCALED.
- THE CONCRETE SHALL BE DESIGN MIX AND GRADE, EXPOSURE CONDITION, CHARACTERISTIC STRENGTH (28 DAYS) FOR VARIOUS COMPONENTS SHALL BE AS UNDER:

| | GRADE (MPa) | EXPOSURE CONDITION |
|----------------------|-------------|--------------------|
| a. BOX STRUCTURE | M30 | MODERATE |
| b. RCC PARAPET WALL | M30 | MODERATE |
| c. BLINDING CONCRETE | M15 | SEVERE |
- ANY LOOSE POCKETS/VOIDS AT FOUNDING LEVEL WILL BE REMOVED, COMPACTED AND FILLED WITH GRANULAR MATERIAL/PCC M15 AS DIRECTED BY THE ENGINEER IN CHARGE.
- WEARING COAT SHALL COMPRISE OF 40MM BITUMINOUS CONCRETE OVER 25MM THICK BITUMEN MASTIC LAYER.
- 'DK' IS DEPTH OF KEY AT BASE SLAB

| FOR BASE SLAB THICKNESS | VALUE OF 'DK' |
|-------------------------|---------------|
| UPTO 900mm | 1200mm |
| GREATER THAN 900mm | d+300mm |
- REINFORCEMENT GRADE SHALL BE Fe 500D.
- MINIMUM CONCRETE COVER TO REINFORCEMENT NEAREST TO THE EARTH SURFACE SHALL BE 75mm IN BASE SLAB, TOP SLAB AND OUTER FACE OF WALLS AND 40mm IN INNER SIDE OF BASE SLAB, TOP SLAB AND INNER FACE OF WALLS.
- MINIMUM VALUE OF SAFE BEARING CAPACITY (SBC) 150 kN/Sq m, SHALL BE ENSURED BEFORE EXECUTION IN CONSULTATION WITH ENGINEER IN CHARGE.
- THE FILTER MATERIAL BEHIND BARREL LENGTH SHALL NOT BE LESS THAN 600mm AS PER IRC SP:13.
- BACK FILLING BEHIND SIDE WALL OF BOX SHALL CONSIST OF SELECTED EARTH CONFORMING TO FOLLOWING PROPERTIES $C=0$, $\phi=30^\circ$, & $\gamma = 20 \text{ KN/m}^3$
- WEEP HOLES, SPACED AT 1000 c/c BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN A STAGGERED MANNER IN RETURN WALLS/ROAD PROTECTION WORK.
- FOR RCC RETURN WALL REFER DRAWING NO. -----
- THE RETURN WALL SHALL BE PROVIDED AS PER THE ROAD PROTECTION WORK, IN CASE NOT AVAILABLE AT SPECIFIC LOCATION, THEN RR MASONRY WALL TO BE PROVIDED FOR AT LEAST A WIDTH OF 1.5xHEIGHT FROM BASE OF CULVERT.

* NOTE:-

FOR NORMAL CROSS SLOPE 'n'



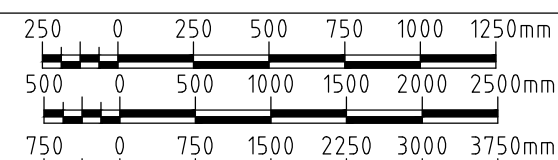
FOR SUPER ELEVATION 'e'



FOR 'n' AND 'e' REFER LATEST SCHEDULED/P&P DRAWING

| ISSUE | DATE | AMENDMENT / ISSUE DESCRIPTION | APPROVAL |
|-------|------|-------------------------------|----------|
| A | | FOR TENDER | |
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SCALE 1:25 @ A1
SCALE 1:50 @ A1
SCALE 1:75 @ A2



CLIENT APPROVED DATE CONSULTANT SIGNATURE

DESIGNER
SMEC (India) Pvt Ltd. 1st Floor,
Novus Tower, West Wing, Plot Number -18,
Sector - 18, Gurgaon - 122015, Haryana

CLIENT
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. P11 BUILDING, 4 PARLIAMENT STREET, SANSAD MARG AREA, NEW DELHI-110003

PROJECT
CONSTRUCTION OF APPROACH ROADS TO EAST AND WEST PORTAL OF PROPOSED ZOJILA TUNNEL WITH AVALANCHE PROTECTION WORKS IN THE UT OF JAMMU & KASHMIR AND LADAKH

PROJECT TITLE
SINGLE CELL RCC BOX CULVERT GENERAL ARRANGEMENT TYPE 1
DRAWING STATUS
TENDER
PROJECT / DRAWING NO.
7061520-CUL-105-1001
ISSUE
A

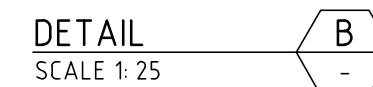
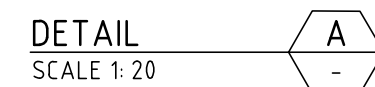
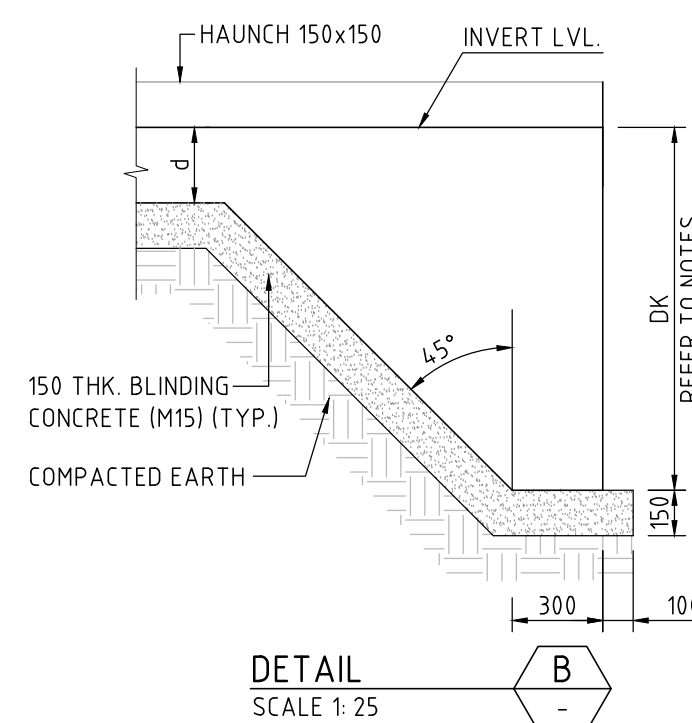
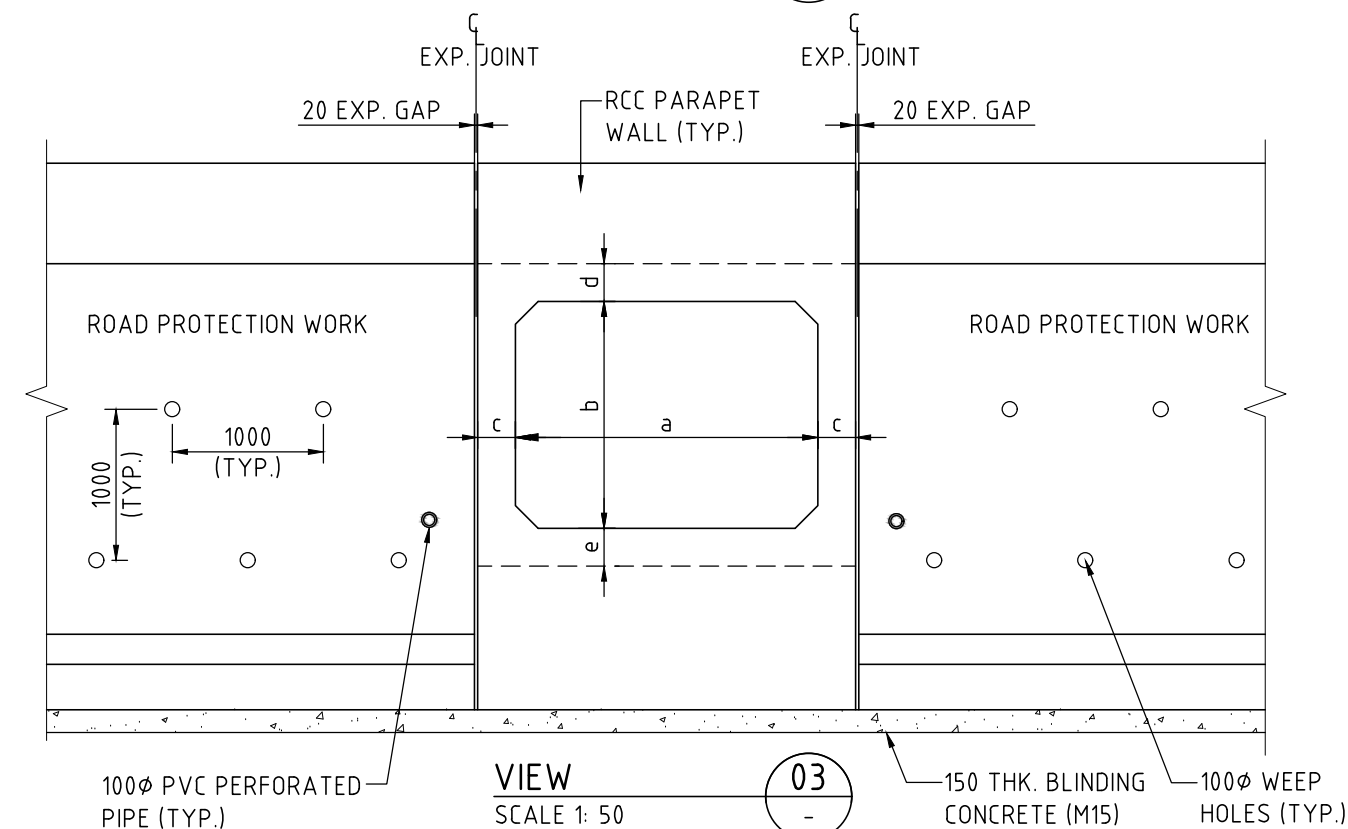
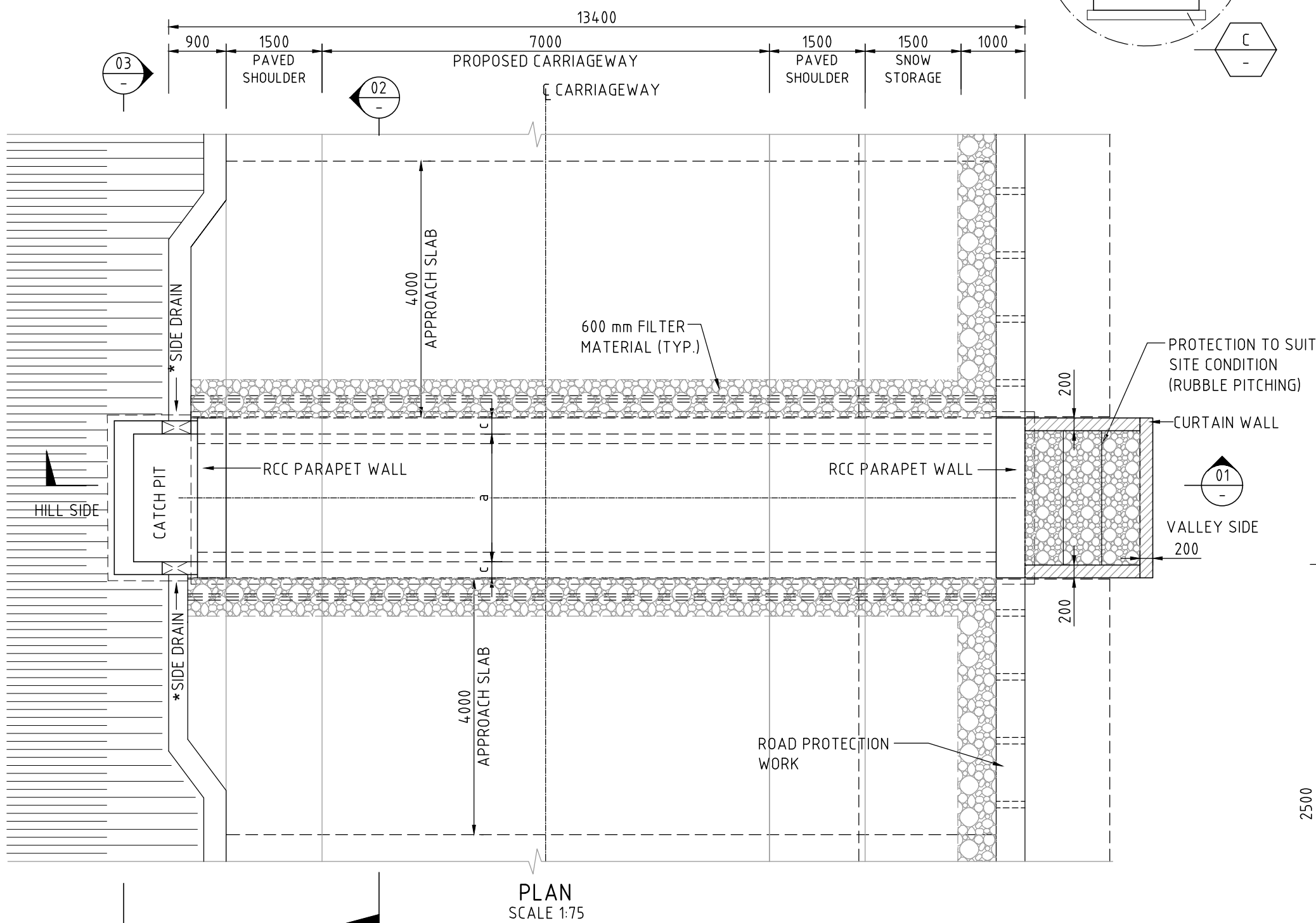
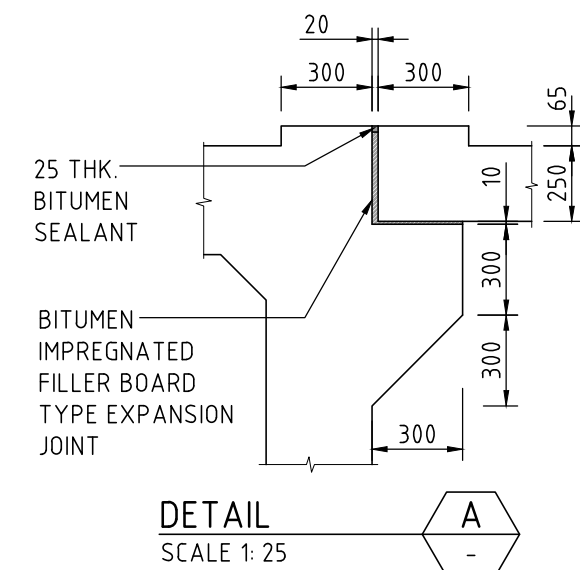
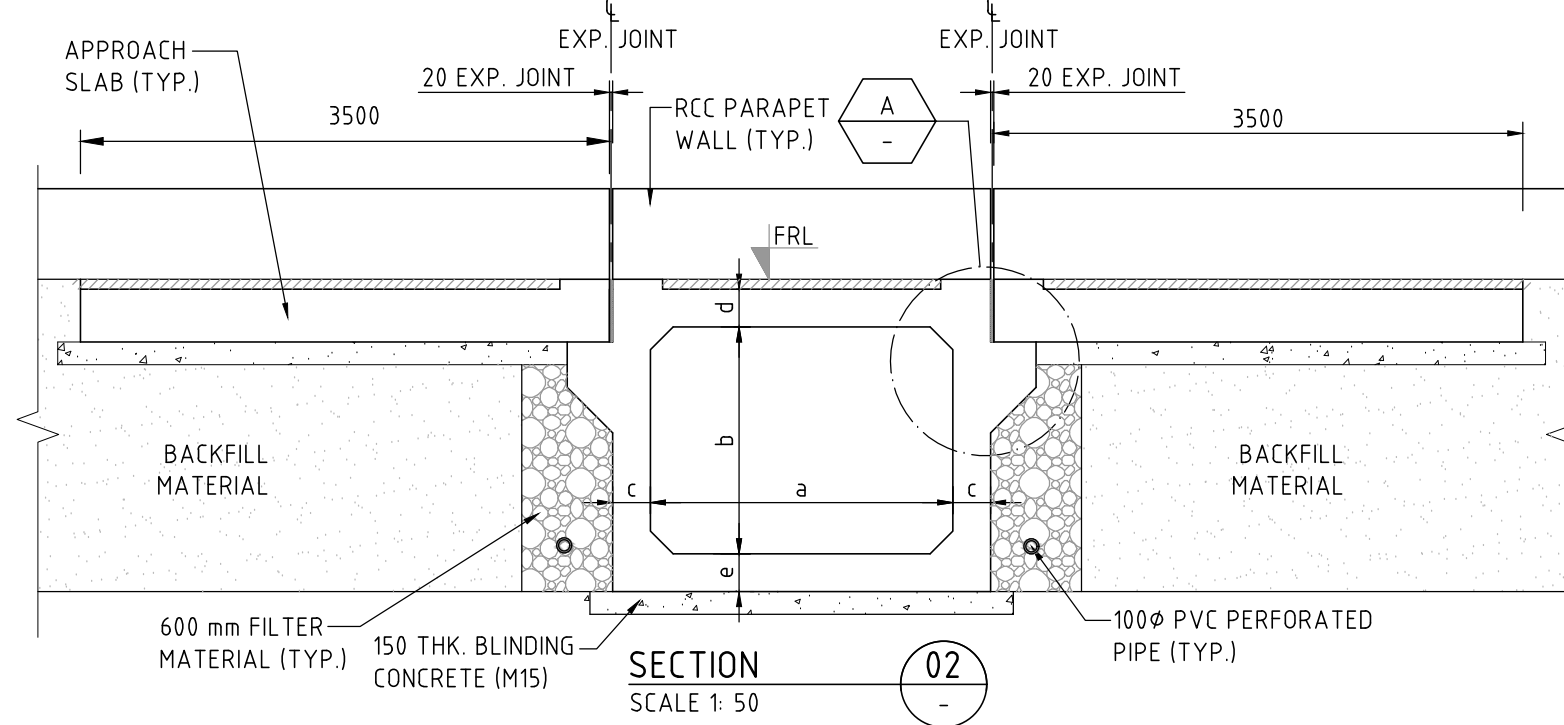
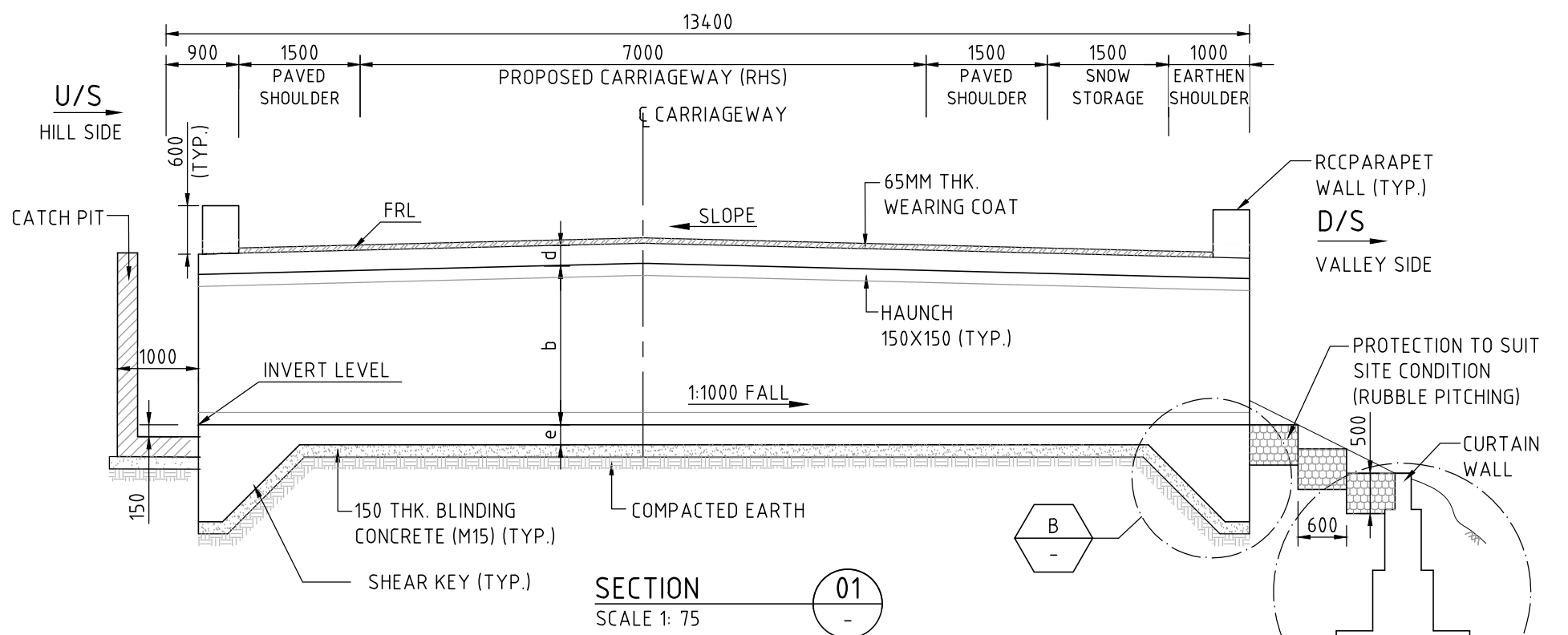


Diagram illustrating the relationship between the original ground profile, the parabolic curve, and the grade lines. The diagram shows a parabolic curve with a central vertical curve length L . The original ground profile is shown as a dashed line. The parabolic curve is shown as a solid line. The grade lines are shown as straight lines with slopes $n\%$ and $e\%$. The vertical curve length L is divided into two equal parts of $L/2$.



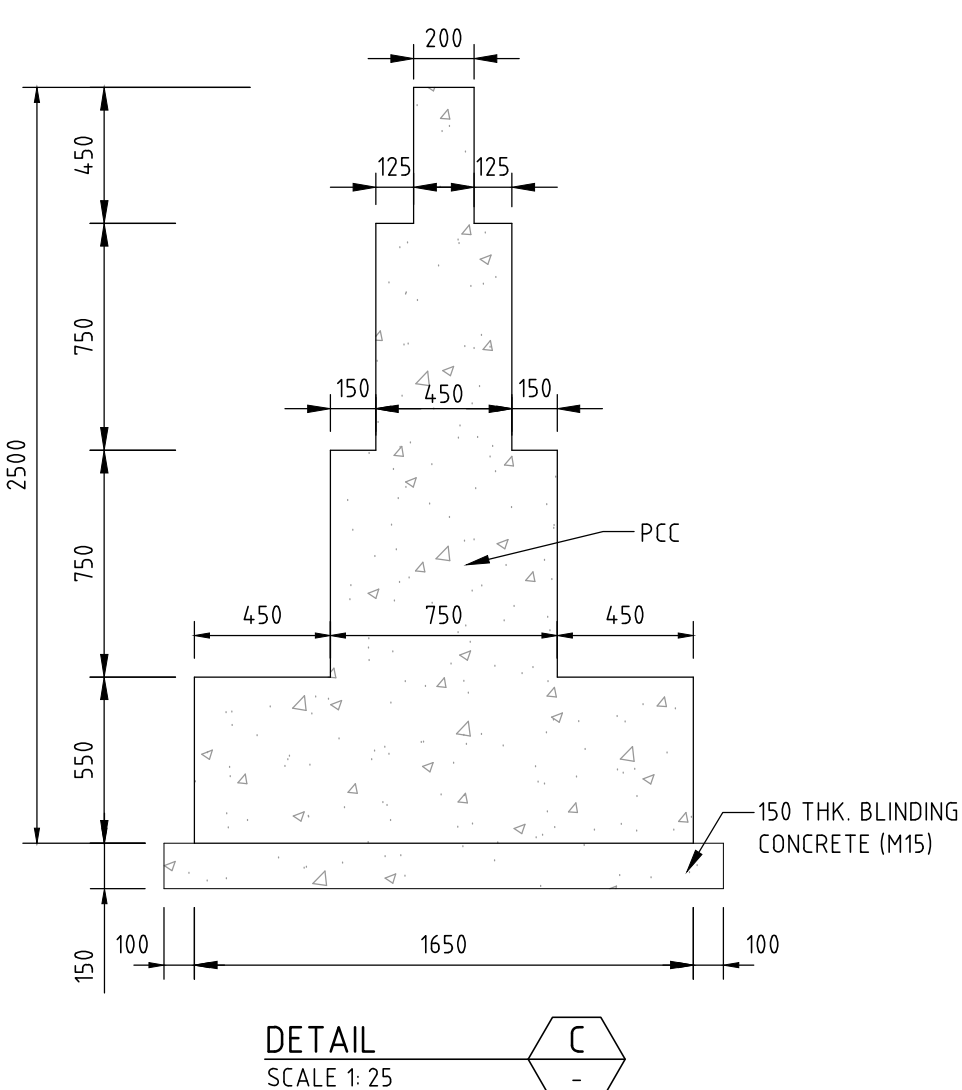
* FOR SIDE DRAIN REFER TO DRAINAGE DETAIL DRAWING.

NOTES

- ALL DIMENSIONS ARE IN MM AND REDUCED LEVELS ARE IN METRE, UNLESS NOTED OTHERWISE. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. NO DIMENSION SHALL BE SCALED.
- THE CONCRETE SHALL BE DESIGN MIX AND GRADE, EXPOSURE CONDITION, CHARACTERISTIC STRENGTH (28 DAYS) FOR VARIOUS COMPONENTS SHALL BE AS UNDER:

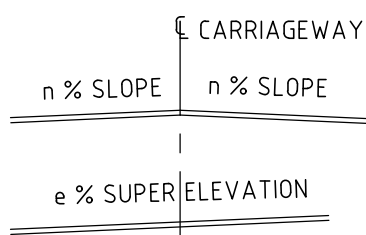
| | GRADE (MPa) | EXPOSURE CONDITION |
|----------------------|-------------|--------------------|
| a. BOX STRUCTURE | M30 | MODERATE |
| b. RCC PARAPET WALL | M30 | MODERATE |
| c. BLINDING CONCRETE | M15 | SEVERE |
- ANY LOOSE POCKETS/VOIDS AT FOUNDING LEVEL WILL BE REMOVED, COMPACTED AND FILLED WITH GRANULAR MATERIAL/PCC M15 AS DIRECTED BY THE ENGINEER IN CHARGE.
- WEARING COAT SHALL COMPRISE OF 40MM BITUMINOUS CONCRETE OVER 25MM THICK BITUMEN MASTIC LAYER.
- 'DK' IS DEPTH OF KEY AT BASE SLAB FOR BASE SLAB THICKNESS

| FOR BASE SLAB THICKNESS | VALUE OF 'DK' |
|-------------------------|---------------|
| UPTO 900mm | 1200mm |
| GREATER THAN 900mm | d+300mm |
- REINFORCEMENT GRADE SHALL BE Fe 500D.
- MINIMUM CONCRETE COVER TO REINFORCEMENT NEAREST TO THE EARTH SURFACE SHALL BE 75mm IN BASE SLAB, TOP SLAB AND OUTER FACE OF WALLS AND 40mm IN INNER SIDE OF BASE SLAB, TOP SLAB, AND INNER FACE OF WALLS.
- MINIMUM VALUE OF SAFE BEARING CAPACITY (SBC) 150 kN/Sq m, SHALL BE ENSURED BEFORE EXECUTION IN CONSULTATION WITH ENGINEER IN CHARGE.
- THE FILTER MATERIAL BEHIND BARREL LENGTH SHALL NOT BE LESS THAN 600mm AS PER IRC SP:13.
- BACK FILLING BEHIND SIDE WALL OF BOX SHALL CONSIST OF SELECTED EARTH CONFORMING TO FOLLOWING PROPERTIES $C=0$, $\phi \geq 30^\circ$, & $\gamma = 20 \text{ KN/m}^3$
- WEEP HOLES, SPACED AT 1000 c/c BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN A STAGGERED MANNER IN RETURN WALLS/ROAD PROTECTION WORK.
- FOR RCC RETURN WALL REFER DRAWING NO. -----
- THE RETURN WALL SHALL BE PROVIDED AS PER THE ROAD PROTECTION WORK, IN CASE NOT AVAILABLE AT SPECIFIC LOCATION, THEN RR MASONRY WALL TO BE PROVIDED FOR AT LEAST A WIDTH OF 1.5xHEIGHT FROM BASE OF CULVERT.



* NOTE:-

FOR NORMAL CROSS SLOPE 'n'

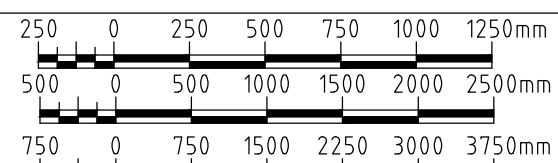


FOR SUPER ELEVATION 'e'

FOR 'n' AND 'e' REFER LATEST SCHEDULED/P&P DRAWING

| ISSUE | DATE | AMENDMENT / ISSUE DESCRIPTION | APPROVAL |
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| A | | FOR TENDER | |

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SCALE 1:75 @ A2



CLIENT APPROVED DATE CONSULTANT SIGNATURE

DESIGNER
SMEC
Member of the Surbana Jurong Group
SMEC (India) Pvt Ltd. 1st Floor,
Novus Tower, West Wing, Plot Number -18,
Sector - 18, Gurgaon - 122015, Haryana

CLIENT
NHIDCL
NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. P11 BUILDING, 4 PARLIAMENT STREET, SANSAD MARG AREA, NEW DELHI-110003

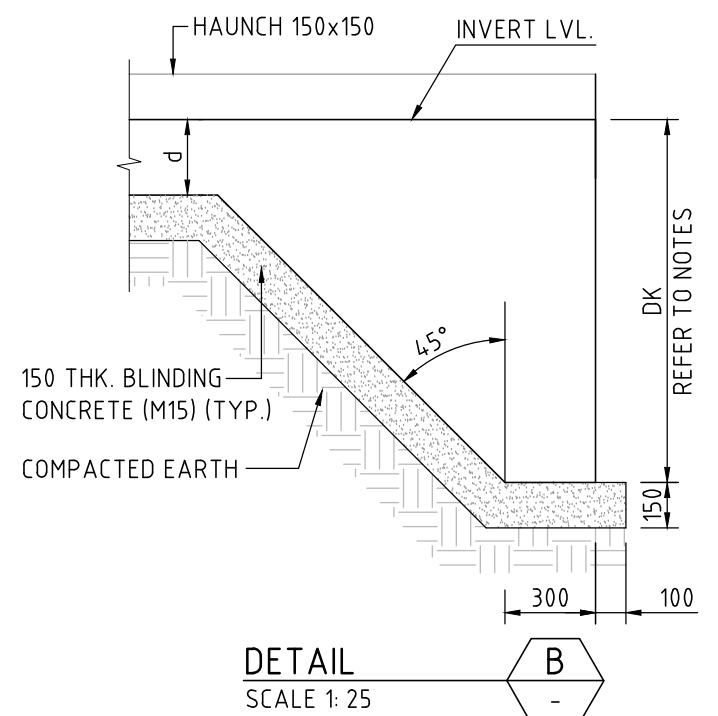
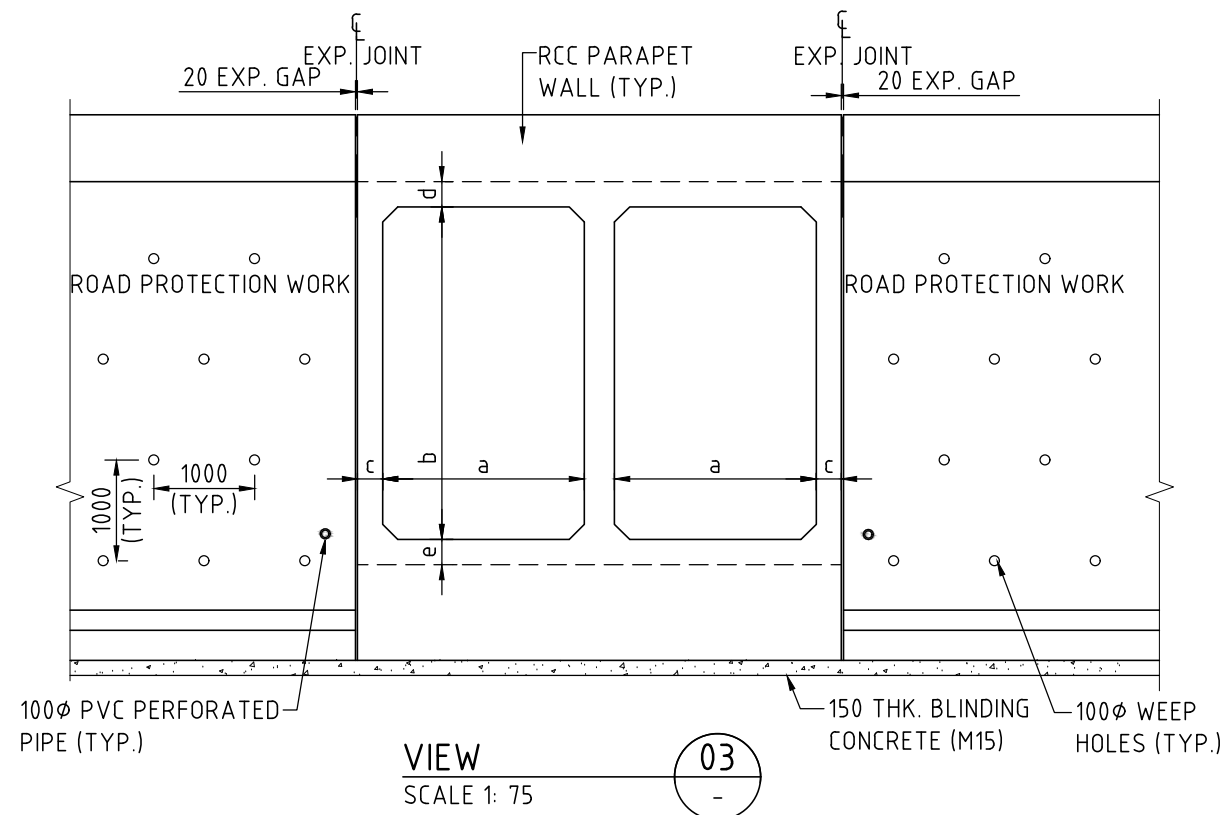
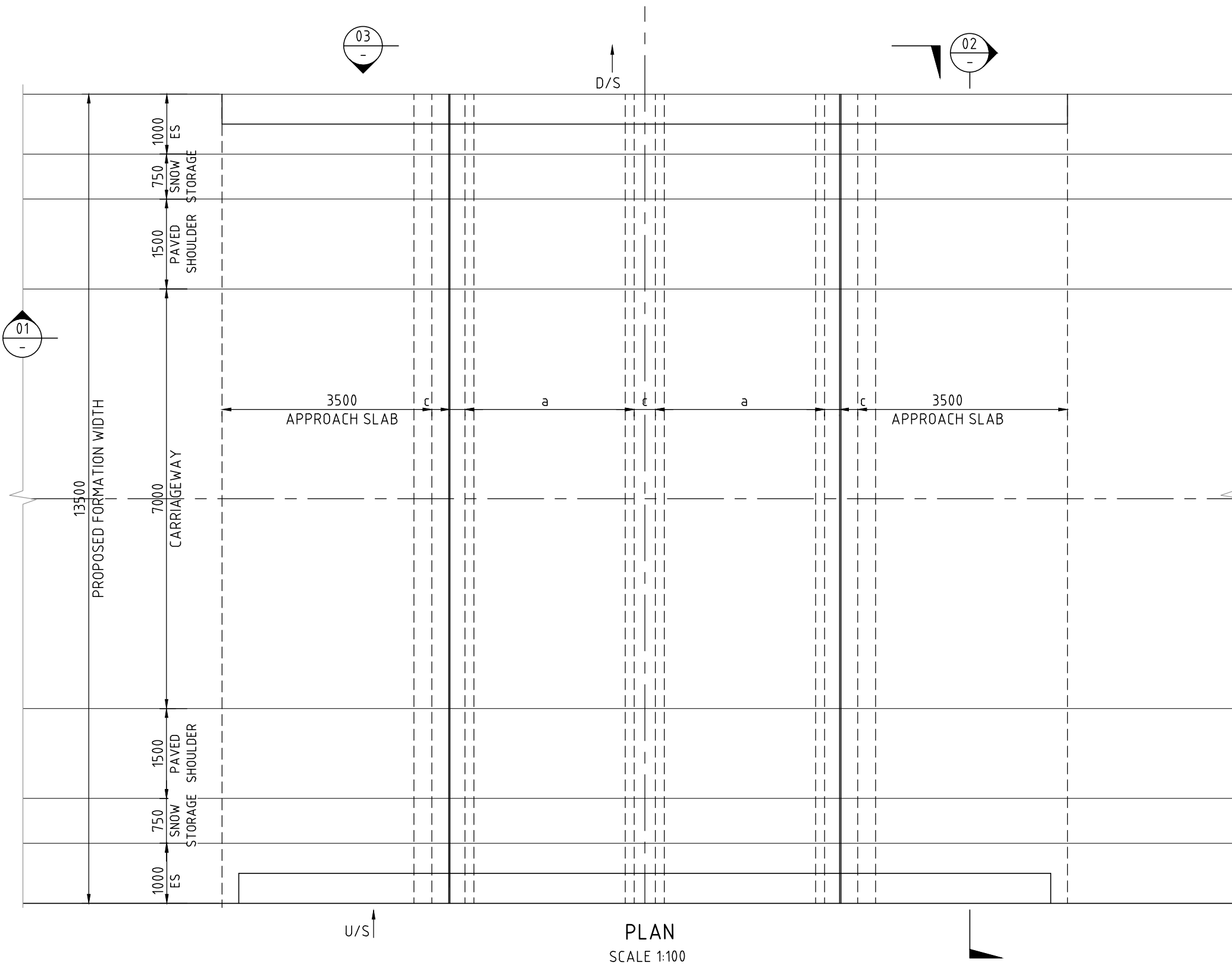
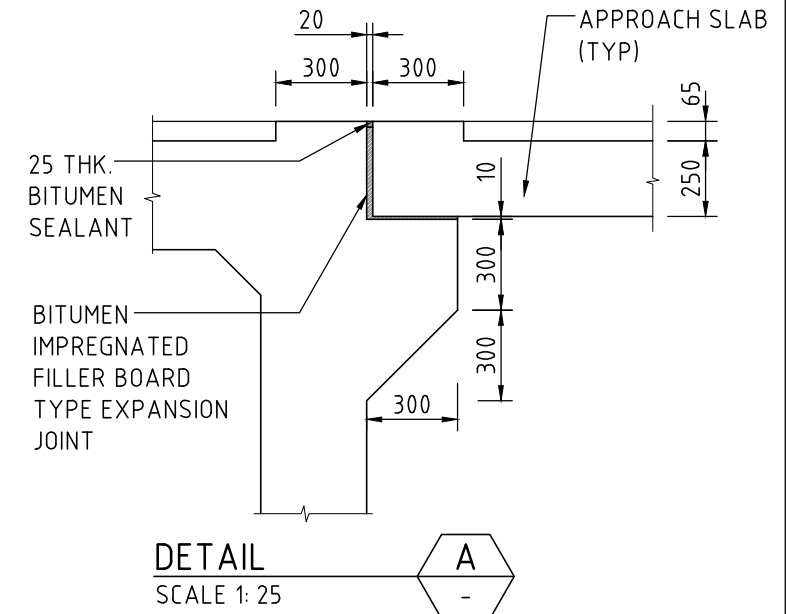
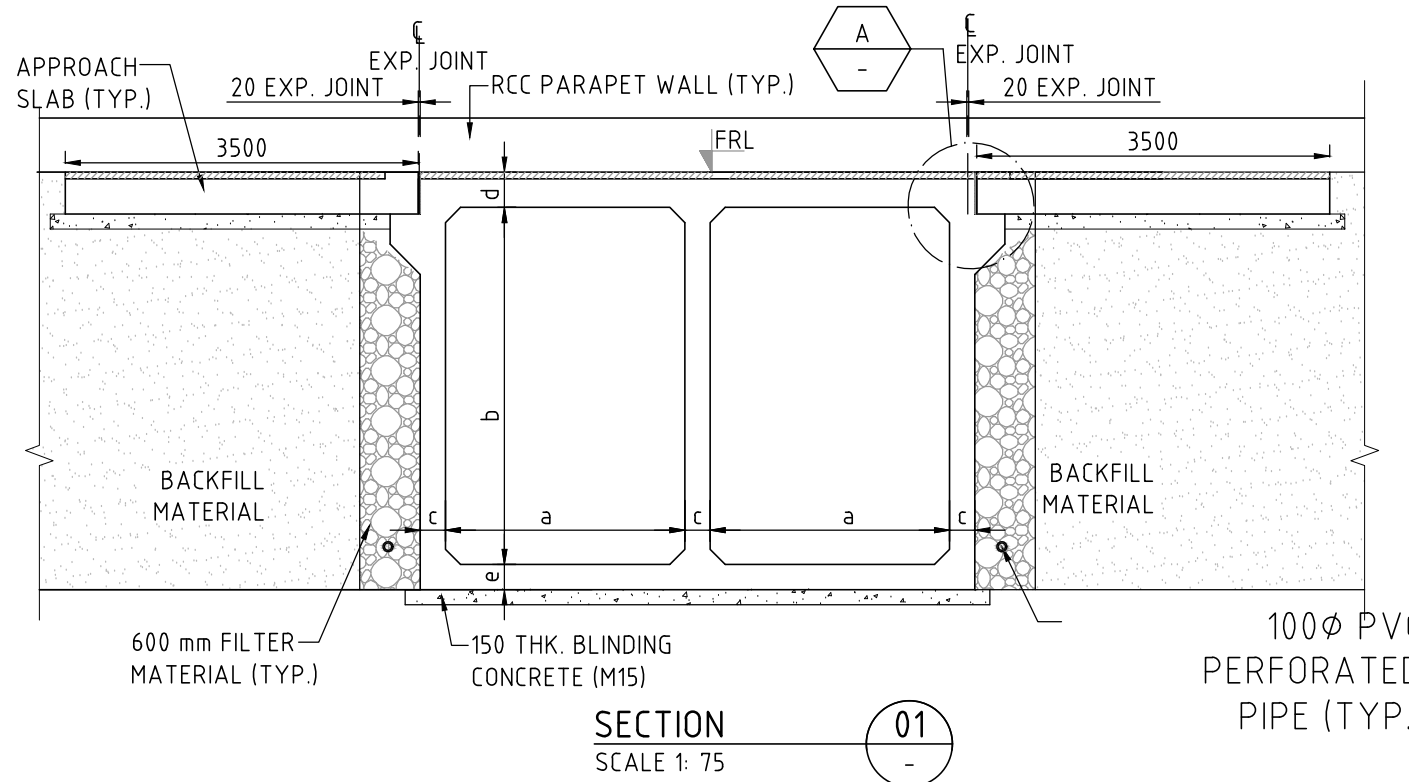
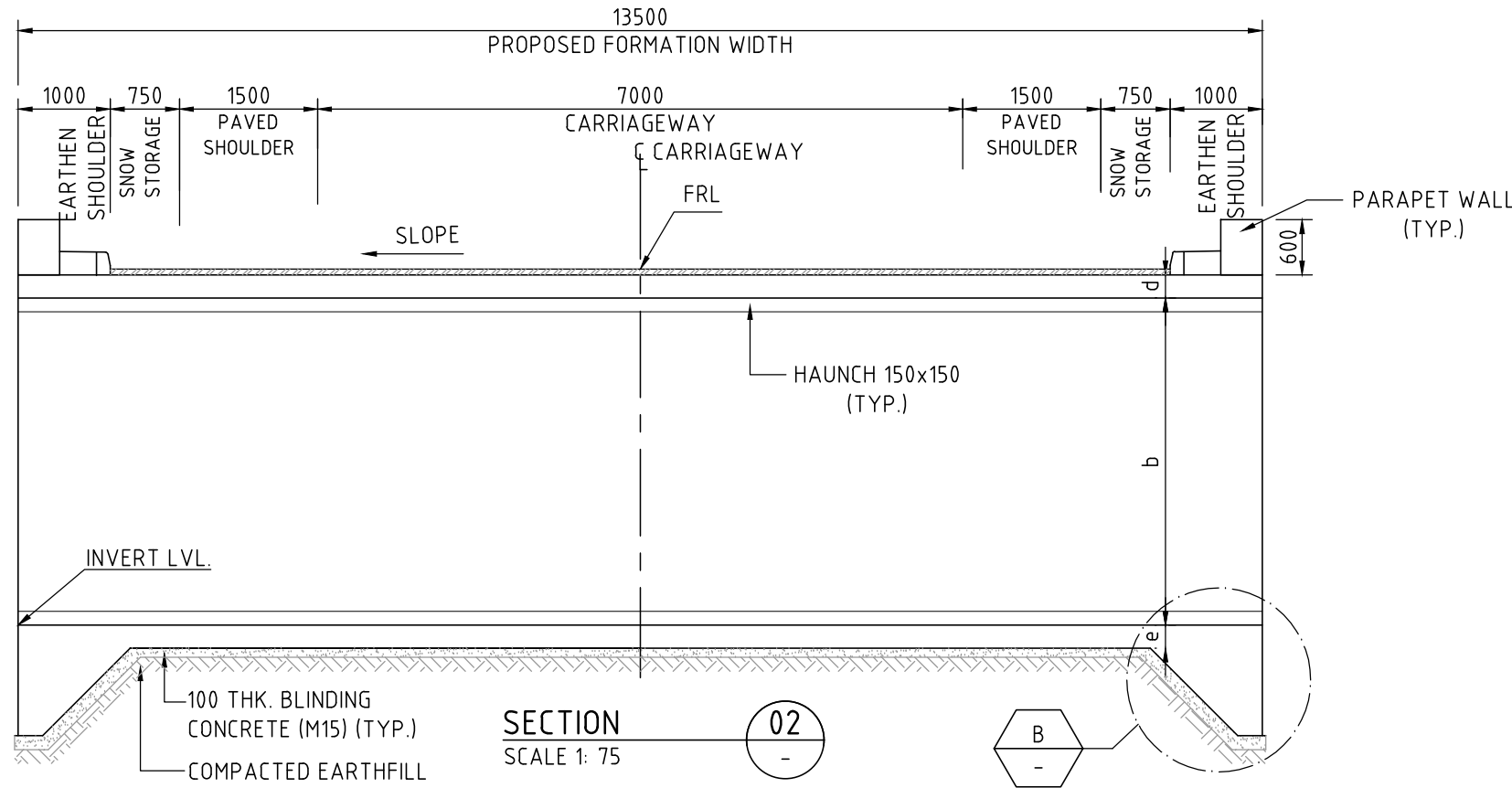
PROJECT
CONSTRUCTION OF APPROACH ROADS TO EAST AND WEST PORTAL OF PROPOSED ZOJILA TUNNEL WITH AVALANCHE PROTECTION WORKS IN THE UT OF JAMMU & KASHMIR AND LADAKH

PROJECT TITLE
SINGLE CELL RCC BOX CULVERT GENERAL ARRANGEMENT TYPE 3

DRAWING STATUS
TENDER

PROJECT / DRAWING NO.
7061520-CUL-105-1003

ISSUE
A

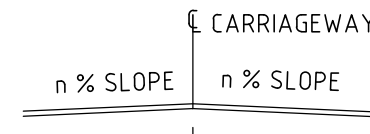


GENERAL NOTES

- ALL DIMENSIONS ARE IN MM AND REDUCED LEVELS ARE IN METRES, UNLESS NOTED OTHERWISE. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. NO DIMENSION SHALL BE SCALED.
- THE CONCRETE SHALL BE DESIGN MIX AND MINIMUM 28 DAYS CHARACTERISTIC COMPRESSIVE CUBE STRENGTH FOR VARIOUS COMPONENTS SHALL BE AS BELOW.
 - a. BOX STRUCTURE - M30
 - b. BLINDING CONCRETE - M15
 - c. APPROACH SLAB - M30
 - d. PARAPET WALL - M30
- ANY LOOSE POCKETS/VOIDS AT FOUNDING LEVEL WILL BE REMOVED, COMPACTED AND FILLED WITH GRANULAR MATERIAL/ PCC M15 AS DIRECTED BY THE ENGINEER IN CHARGE.
- THE BOX STRUCTURE HAS BEEN DESIGNED FOR SAFE BEARING CAPACITY OF SOIL OF 100 KN/SQM MINIMUM.
- FILLER TYPE EXPANSION JOINT WITH SPECIAL GRADE OF BITUMEN IMPREGNATED FILLER BOARD SHALL BE PROVIDED.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NO. 1002.
- APPROACH SLAB CAN BE DISPENSED IN CASE OF CULVERT AS PER IRC-SP-13-CLAUSE 13.5.3
- FOR DRAINAGE SYSTEM REFER DRAINAGE DRAWING.

* NOTE:-

FOR NORMAL CROSS SLOPE 'n'



FOR SUPER ELEVATION 'e'

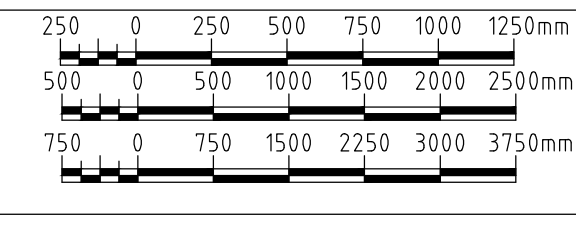


FOR 'n' AND 'e' REFER LATEST SCHEDULED/P&P DRAWING

50 mm ON ORIGINAL (A3)

| ISSUE | DATE | AMENDMENT / ISSUE DESCRIPTION | APPROVAL |
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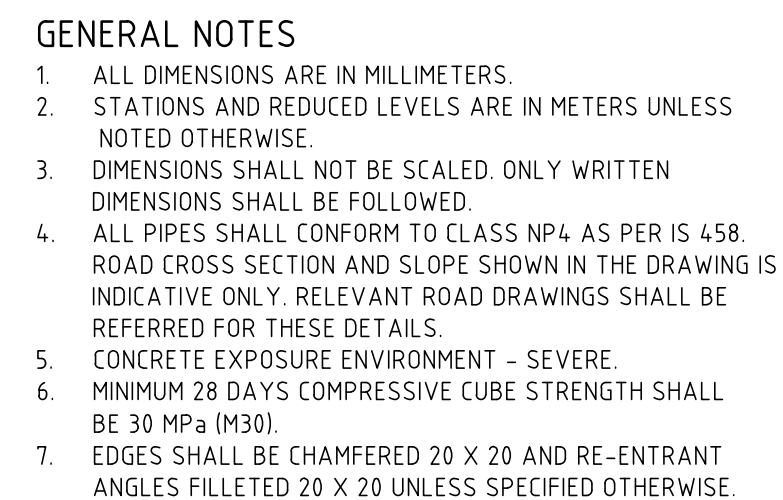
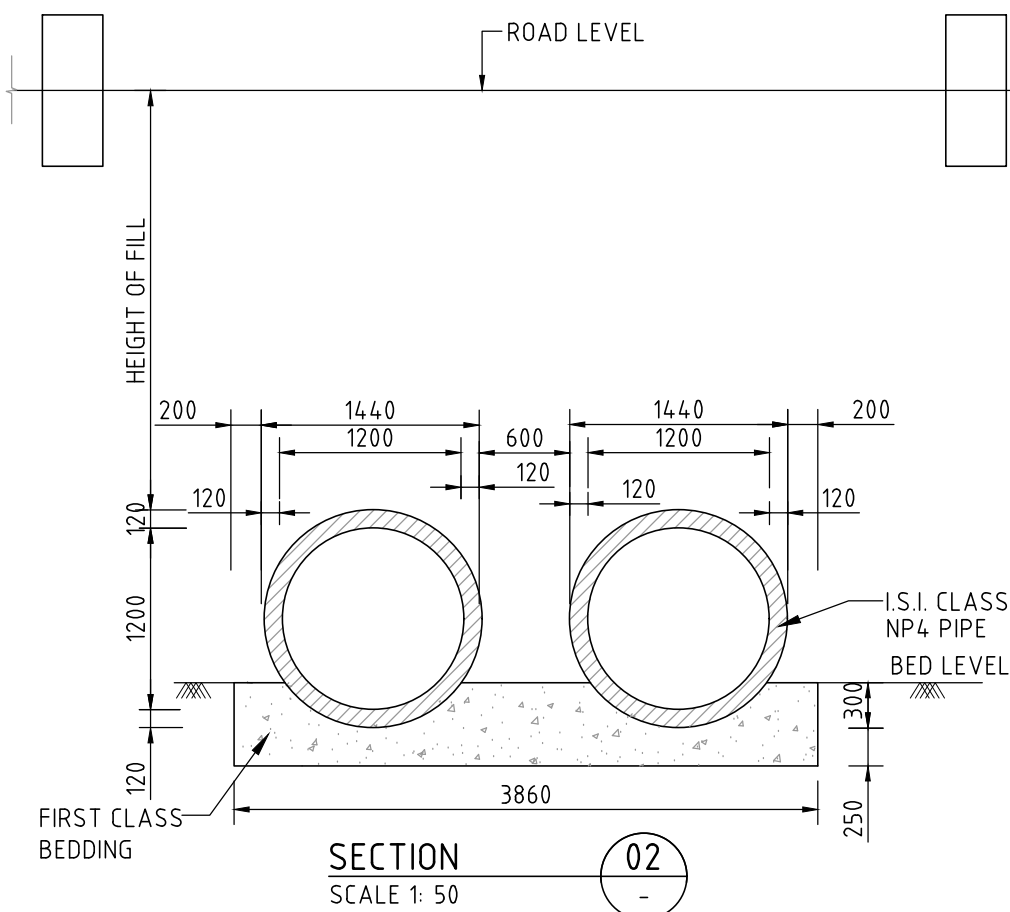
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| CLIENT APPROVED | DATE | CONSULTANT SIGNATURE |
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|----------|--------|---------|----------|
| DESIGNER | DESIGN | CHECKED | APPROVED |
| SK | AM | AP | NA |

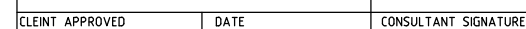
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| CLIENT | APPROVED | DATE |
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| PROJECT | CONSTRUCTION OF APPROACH ROADS TO EAST AND WEST PORTAL OF PROPOSED ZOJILA TUNNEL WITH AVALANCHE PROTECTION WORKS IN THE UT OF JAMMU & KASHMIR AND LADAKH |
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| PROJECT TITLE | DOUBLE CELL RCC BOX CULVERT GENERAL ARRANGEMENT TYPE 1 |
| DRAWING STATUS | TENDER |
| PROJECT / DRAWING NO. | 7061520-CUL-105-1005 |
| ISSUE | A |

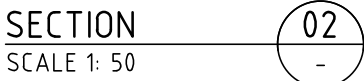


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SCALE 1:75
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| CLIENT |  <p>NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI BUILDING, 4 PARLIAMENT STREET, SANSAD MARG AREA, NEW DELHI- 110001</p> |
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| PROJECT TITLE | | DOUBLE PIPE CULVERT GENERAL ARRANGEMENT TYPE 1 | |
| DRAWING STATUS | PROJECT / DRAWING NO. | 306520 CUL 105 2005 | ISSUE |



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| PROJECT TITLE | <p>TRIPLE PIPE CULVERT</p> <p>GENERAL ARRANGEMENT</p> <p>TYPE 1</p> |
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| PROJECT TITLE | | | |
| TRIPLE PIPE CULVERT GENERAL ARRANGEMENT TYPE 1 | | | |
| DRAWING STATUS | PROJECT / DRAWING No. | | ISSUE |
| TENDER | 7061520-CUL-105-2010 | | A |