

WIDENING METHODOLOGY:

FOR SUPERSTRUCTURE:

- EXISTING BRIDGE SHALL BE WIDENED ON LEFT SIDE.
- EXISTING SOLID SLAB SHALL BE WIDENED BY SOLID SLAB.
- DISMANTLE THE WIDENED SIDE 600mm MINIMUM OF EXISTING SLAB.
- SURFACE OF EXISTING CONCRETE SHALL BE CLEANED WITH MECHANICAL/HAND TOOLS. BEFORE FURTHER CONCRETE IS CAST, THE SURFACE SHOULD BE THOROUGHLY CLEANED TO REMOVE DEBRIS AND ACCUMULATED RUBBISH BY AIR JET.
- THE REINFORCEMENT PROTRUDING FROM OLD CONCRETE SHALL BE CLEANED OF RUST, LOOSE MORTAR OR ANY OTHER CONTAMINATION BEFORE PLACING OF FRESH CONCRETE, OLD SURFACE SHALL BE THOROUGHLY CLEANED.
- APPLY EPOXY COAT ON OLD CONCRETE.
- PLACE THE REINFORCEMENT AS PER EXISTING BRIDGE DETAILS AND TIE IT WITH EXISTING EXPOSED REINFORCEMENT.
- CAST THE WIDENED PORTION OF SLAB.

FOR ABUTMENT:

- DISMANTLE THE PARAPET/RAILING ON TOP OF WING WALL OF THE SIDE OF PROPOSED WIDENING.
- DISMANTLE 600 mm EXISTING ABUTMENT ON WIDENED SIDE.
- EXCAVATE THE SIDE OF ABUTMENT UP TO THE FOUNDING LEVEL DEPTH TO EXPOSE THE FOUNDATION FACE ON WIDENED SIDE.
- CLEAN & APPLY EPOXY COAT IN BETWEEN OLD AND NEW CONCRETE.
- THE ABUTMENT SHALL BE WIDENED TO THE REQUIRED WIDTH AS SHOWN UP TO THE SOFFIT OF THE ABUTMENT CAPS.
- MAKE HOLES OF 32mm BOTH HORIZONTALLY AND VERTICALLY IN THE OUTER FACE OF ABUTMENT AND FOUNDATION TO TAKE 25mm BAR. HACK & ROUGHEN THE REMAINING SURFACE. FIX THE 25mm BAR IN HOLES SO CREATED & GROUT WITH NON SHRINK MORTAR. CLEAN THE ENTIRE SURFACE AFTER ROUGHENING. THE SURFACE SHALL BE WETTED BEFORE WIDENING.

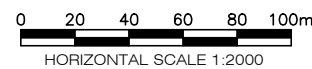
FOR ABUTMENT CAP

- DISMANTLE 600mm WIDTH OF EXISTING ABUTMENT.
- SURFACE OF EXISTING CONCRETE SHALL BE CLEANED WITH MECHANICAL/HAND TOOLS. BEFORE FURTHER CONCRETE IS CAST, THE SURFACE SHOULD BE THOROUGHLY CLEANED TO REMOVE DEBRIS AND ACCUMULATED RUBBISH BY AIR JET. THE REINFORCEMENT PROTRUDING FROM OLD CONCRETE SHALL BE CLEANED OF RUST, LOOSE MORTAR OR ANY OTHER CONTAMINATION BEFORE PLACING OF FRESH CONCRETE, OLD SURFACE SHALL BE THOROUGHLY CLEANED AND SOAKED WITH WATER.
- APPLY EPOXY COAT ON OLD CONCRETE.
- PLACE THE REINFORCEMENT AS SHOWN AND TIE IT WITH EXISTING REINF.
- CAST THE WIDENED PORTION OF ABUTMENT CAP WITH CAMBER OF DECK SLAB.

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETRES AND CHAINAGE ARE IN METERS UNLESS NOTED OTHERWISE.
- DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
- WIDENING SHALL BE CARRIED OUT AS PER THE CROSS SECTION & REINFORCEMENT DETAILS OF THE EXISTING STRUCTURE. DETAILS OF STRUCTURE AS SHOWN ARE INDICATIVE. TYPE & SECTION OF WING WALLS / RETURN WALLS SHALL ALSO BE KEPT SAME AS THAT OF EXISTING WALLS.
- DURING 600MM DISMANTLING THE OBSERVED EXISTING CROSS SECTION & REINFORCEMENT DETAILS SHOULD BE FOLLOWED FOR WIDENING PORTION OF STRUCTURE.
- THE PROPOSED FOUNDING LEVEL SHALL BE MATCHED WITH EXISTING FOUNDING LEVEL.
- FOR LOCATION OF THE BRIDGE REFER HIGHWAY DRAWING.
- CONCRETE SHALL BE OF DESIGN MIX AND SHALL HAVE MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH AS FOLLOWS:
 - RCC SOLID SLAB.....M25
 - PCC LEVELLING COURSE.....M15
 - PCC CURTAIN WALL.....M15
 - ABUTMENT.....M25
- GRADE OF UNTENSIONED STEEL SHALL BE Fe-500D CONFORMING TO IS:1786-2008.
- WEARING COAT SHALL BE SAME AS THAT OF EXISTING BRIDGE.
- 600 THK. FILTER MEDIA SHALL BE PROVIDED BEHIND ABUTMENT/WING WALL.
- THE BACKFILL MATERIAL BEHIND ABUTMENT/WING WALL SHALL HAVE FOLLOWING PROPERTIES, $C=0$, $\phi>30$, $\gamma=2.00 \text{ t/m}^3$
- IN CASE EXISTING STRUCTURE HAS BED PROTECTION WORKS, BED PROTECTION WORKS (CUT OFF WALLS, RIGID FLOOR ETC.) SHALL BE PROVIDED FOR WIDENED STRUCTURE ALSO.
- IN CASE EXISTING CULVERT HAS APPROACH SLAB, PROVIDE APPROACH SLAB FOR PROPOSED WIDENING PORTION ALSO.
- STONE PITCHING WORK SHALL BE AS MENTIONED IN IRC-89.
- ABUTMENT FACE OF THE WIDENED PORTION SHALL MATCH WITH THE FACE OF THE EXISTING ABUTMENTS UP TO (GL/ BED PROTECTION LEVEL)
- REFER TO RESPECTIVE DRAWING TABLE FOR DIMENSION DETAILS.
- EXISTING WEARING COURSE SHALL BE SCRAPPED AND RELAID TO A NEW THICKNESS AND SLOPE.
- REFER SEPARATE DRAWINGS FOR DETAILS OF ABUTMENT AND REINFORCEMENT OF SOLID SLAB
- REFER SEPARATE DRAWINGS FOR DETAILS OF WING WALL.
- ALL STRUCTURAL DIMENSION AND REINFORCEMENT WILL BE SAME AS EXISTING BRIDGE.
- WIDENING PORTION WILL BE SAME AS IN EXISTING STRUCTURE.

SCALE :-



PROJECT :-

REHABILITATION AND UP-GRADATION OF SECTION FROM KM 206 TO 239.425 (NIMBUTALA TO AUSTIN CREEK) OF NH-223 TO 2-LANE WITH HARD SHOULDER IN THE UNION TERRITORY OF ANDAMAN & NICOBAR ISLAND (PACKAGE-4)

DWG TITLE :-

GENERAL ARRANGEMENT DRAWING
RCC SOLID SLAB SPAN 1x7.9M
AT KM. 232+000

Scale: AS SHOWN

DRAWING No : CPC/P-70/NH-223/GAD/232+000/1

DATE : NOVEMBER 2017 Revision: **R-0**

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REV	DATE	DESCRIPTION OF REVISIONS	INITIALS