



- GENERAL
1. CHARACTERISTIC STRENGTHS :
CONCRETE : 40 MPa
BLINDING LAYER / CONCRETE INFILL : 15 MPa / 19mm
HIGH TENSILE STEEL WITH STRENGTH : 450 MPa
2. THICKNESS OF BLINDING : 50mm
3. CONCRETE COVER : 60mm
4. TOP SURFACE OF TUNNELS ARE TO FOLLOW THE PAVEMENT PROFILE.
5. THE EXISTING PROFILE MUST BE FOLLOWED WHERE NEW TUNNELS CONNECT TO EXISTING.
6. ALL JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
7. INSTALLATION OF WATERBARS MUST BE IN ACCORDANCE WITH THE MANUFACTURERS METHODS AND SHALL ONLY BE UNDERTAKEN BY CERTIFIED CONTRACTORS.
8. WHERE NEW CONCRETE IS CAST ONTO EXISTING, THE EXISTING SURFACE MUST BE ROUGHENED TO EXPOSE THE AGGREGATE, CLEANED AND COATED WITH WET TO DRY EPOXY PRIOR TO CASTING.
9. WHERE THE NEW SERVICE TUNNELS ARE TO BE CAST TO THE EXISTING BLOCK WALL OR TUNNELS, THE REINFORCEMENT USED TO TIE INTO THE EXISTING STRUCTURE SHALL BE THAT OF THE EXISTING TUNNEL/CAPPING BEAM. THE REINFORCEMENT MUST ACHIEVE AN ANCHORAGE OF 40D INTO THE NEW CAST.
10. WHERE THE NEW CAPPING BEAM TIES INTO THE EXISTING CAPPING BEAM AT THE 202 / 203 CORNER, THE REINFORCEMENT USED TO TIE INTO THE EXISTING STRUCTURE SHALL BE THAT OF THE NEW CAPPING BEAM. THE REINFORCEMENT MUST ACHIEVE AN ANCHORAGE OF 40D INTO THE EXISTING CONCRETE.
11. BEFORE CONSTRUCTION COMMENCES THE CONTRACTOR MUST CHECK THAT ALL DIMENSIONS ARE CONSISTENT WITH EACH OTHER AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
12. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.
13. DIMENSIONS MUST NOT BE SCALED OR ASSUMED. AFTER NOTIFICATION, DISCREPANCIES OR MISSING DIMENSIONS WILL BE CORRECTED IN WRITING BY THE ENGINEER.
14. LEVELS SHOWN TO FOUNDATIONS ARE PROVISIONAL AND WILL BE FINALISED BY THE ENGINEER ON SITE.
15. FOUNDATIONS SHALL COMPLY WITH SANS 920 AND BE BENT TO SANS 282.
16. SYMBOLS :
R = MILD STEEL BARS WITH CHARACTERISTIC STRENGTH OF 250 MPa.
Y = HOT ROLLED OR COLD WORKED HIGH YIELD STEEL BARS WITH CHARACTERISTIC STRENGTH OF 450 MPa.
(ONLY REINFORCEMENT FABRICATED UNDER THE SANS MARK SHALL BE DEEMED TO COMPLY WITH 450 MPa.

PAVING

1. CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE CUBE STRENGTH OF 30 MPa AND A MINIMUM MODULUS OF RUPTURE STRENGTH (FLEXURAL STRENGTH) OF 4 MPa.
2. ALL JOINTS FOR FORMWORK SHALL BE ROUNDED TO 3mm RADIUS ON CASTING AND PRIOR TO SAWING. THIS IS TO CLEARLY IDENTIFY JOINT LOCATIONS.
3. THE JOINTS FOR FORMWORK SHALL BE CLOSED OFF WITH 10mm DIA POLYETHYLENE WITH TEAR-OFF COVER STRIP SUCH AS JOINTEX OR SIMILAR. THE JOINT FILLER IS TO EXTEND THE FULL DEPTH OF THE SLAB AND TERMINATE AT SUB-BASE LEVEL. THE JOINT FILLER SHALL COMPLY TO ASPHALT M155 AS PER COLT 7102 FOR PENETRATION.
4. CONCRETE PAYMENT FINISHING: CONCRETE AREAS EXPOSED TO TRAFFIC SHOULD BE BROOM FINISHED.
5. CURING: CONCRETE SHALL BE KEPT MOIST THROUGHOUT THE CURE PERIOD.
6. CONCRETE IS PLACED: NO EXCESSIVE POURING OF WATER IS PERMITTED IN FOUR LOCATIONS AND SHOULD BE KEPT OFF TOP AND OF THE PAVEMENT. ALL DELETERIOUS MATERIALS SHOULD BE REMOVED BEFORE CONCRETE PLACEMENT.

TO ENSURE A UNIFORM SUPPORTING LAYER.

- 6.1. TRANSVERSE CONTRACTION JOINTS SHALL BE SAWN AS PER COLTO 7118 AND SHALL NOT EXCEED 3mm WIDTH. NO INITIAL SAWING SHALL TAKE PLACE LATER THAN 24 HOURS AFTER THE CONCRETE HAS BEEN PLACED. IF A JOINT IS TO BE SEALED THE TOP PORTION MUST ONLY BE REAMED TO DEPTH NO SOONER THAN 7 DAYS AFTER INITIAL SAWING.
- 6.2. CONTRACTOR SHALL DETERMINE THE EXACT TIME AND SEQUENCE OF SAWING WITH CONSIDERATION TO THE RISK OF EXCESSIVE SPALLING AND RAVELLING ASSOCIATED WITH EARLY SAWING.

CONCRETE

(WHERE APPLICABLE THE FOLLOWING SHALL APPLY)

1. ALL CONCRETE WORK SHALL CONFORM WITH THE LATEST AMENDED ISSUE OF: ALLS 1200 : STANDARD SPECIFICATION FOR CONCRETE AND ALLS 3100 : THE STRUCTURAL USE OF CONCRETE.
2. A SET OF SIX CUBES MUST BE MADE FOR EVERY 100 CYCUBIC METRE (OR PORTION THEREOF) OF CONCRETE CAST ON A SPECIFIC DAY. 3 OF THE CUBES MUST BE TESTED AT SEVEN DAYS, AND THE BALANCE MUST BE AVAILABLE FOR TESTING AT 28 DAYS. THE TEST RESULTS ARE TO BE SUBMITTED TO THE ENGINEERS IMMEDIATELY AND SHOULD ANY PROBLEMS BE ANTICIPATED NO SHUTTERING IS TO BE STRIPPED UNTIL FURTHER NOTICE FROM THE ENGINEER.
3. ALL CONCRETE SHALL BE VIBRATED ACCORDING TO SPECIFICATION. ALL CONCRETE MUST BE CURED CONTINUOUSLY FOR SEVEN DAYS AFTER POURING AND EFFECTIVELY PROTECTED AGAINST DEHYDRATION.

GENERAL ARRANGEMENT FOR STILLING BASIN 1-7

1 : 100



1 : 100

[illegible]