**STANDARD SPECIFICATION FOR ROADWORKS**

**V 4.1 - November 2019**

**SCHEDULES**

**HOLD POINTS**

**WITNESS POINTS**

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**SCHEDULES**

**HOLD POINTS**

**WITNESS POINTS**

**PROJECT INFORMATION**

Project Number; . . . . . . . . . . . . . . . .

RFT Number; . . . . . . . . . . . . . . . . . .

**Project title;**

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**Superintendent;**

Name; . . . . . . . . . . . . . . . . . . . . . . . . . .

Phone number; . . . . . . . . . . . . . . . . . . .

**Contact person** (Project Manager/Officer)

Name; . . . . . . . . . . . . . . . . . . . . . . . .

Phone number; . . . . . . . . . . . . . . . . . . .

# HOLD POINTS AND WITNESS POINTS SCHEDULES

## SCHEDULE 1 - HOLD POINTS

| **SCHEDULE 1 – HOLD POINTS** | | | | |
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| **CLAUSE TITLE** | **SECTION** | **PAGE** | **INITIALS** | **DATE** |
| **01 MISCELLANEOUS PROVISIONS** | | | | |
| VOLATILE SUBSTANCES MANAGEMENT  Provide details of the volatile substances proposed to be brought in to the area(s) subject to Volatile Substance Abuse Management Plan(s) and provide details of the proposed methods for complying with the requirements of any applicable Volatile Substance Abuse Management Plan(s). | 1.7 | 10 & 11 |  |  |
| PERMITS TO ACCESS LAND FOR WORKS ON ROADS  The Contractor must provide documentary evidence of having been granted the required permission(s) to;   * enter the land which is the site(s) of the works, and * to enter any other lands for ancillary activities related to the works, and * carry out the works and works related activities.   Do not enter the land until this evidence has been received by the Superintendent | 1.8 | 11 |  |  |
| PERMITS TO ACCESS LAND FOR WORKS ON ROADS  Provide documented advice on sites to which surplus materials will be taken. Provide documentary evidence of permits, from the entity/entities with jurisdiction over those sites, for the dumping of surplus materials at those sites. | 1.8 | 11 |  |  |
| CAMP SITE/COMPOUND/WORKSHOP  Provide a copy of written permission from the owner or lessee of the land permitting establishment and operation of a camp site, compound and/or workshop, before commencing works. | 1.9 | 12 |  |  |
| FOOD PREPARATION FACILITIES  Provide a copy of proof of registration with DoH of any camp food preparation area in accordance with the Food Act. | 1.9.1 | 12 |  |  |
| EFFLUENT  Provide a copy of written approval from Department of Health (DoH) for any proposed on-site effluent disposal system, before commencing works. | 1.9.3 | 12 |  |  |
| EFFLUENT  Where the use of septic tanks or portable toilets is not reasonable or practical, pit toilets may be used, but this requires the prior written approval of the Superintendent. | 1.9.3 | 12 |  |  |
| REHABILITATION  Obtain approval from the Superintendent for the completed rehabilitation of the camp site/compound/workshop before final demobilisation. | 1.9.4 | 12 |  |  |
| OPERATION OF EXTRACTION AREAS  LIMIT OF EXCAVATION  Obtain Superintendent approval to exceed 1ha pit size. | 1.11.5 | 13 & 14 |  |  |
| EXPLOSIVES  Obtain approval from Superintendent before commencing blasting operations. | 1.12 | 15 |  |  |
| WORK HEALTH AND SAFETY MANAGEMENT PLAN  If the Act requires it, provide a Work Health and Safety Management Plan within 14 calendar days of award of the contract. Do not commence works until the Superintendent has advised that the Work Health and Safety Management Plan may be used. | 1.14.2 | 16 |  |  |
| WORK ON RAILWAY SITES  Do not commence work until the work plan has been approved by the owner and operator of the rail system. | 1.16 | 17 & 18 |  |  |
| WORK NEAR TRAFFIC COUNTING STATIONS  Prior to commencing any excavation, boring of holes, blasting, rock breaking, soil compaction or similar activity in the vicinity of traffic counter station detector loops, obtain the location of the cables from the Department, Transport Planning Division, Data Contracts Officer and pay all fees. | 1.17 | 18 |  |  |
| AS CONSTRUCTED INFORMATION  Provision of As Constructed information is a condition precedent to Practical Completion. | 1.23 | 19 |  |  |
| CONTRACTOR’S SUBMISSIONS  Provide copies of permits, and approvals, for works, and associated activities, proposed to be carried out in areas not in the road reserve before commencing any proposed works, and activities. | 1.27 | 23 |  |  |
| **02 PROVISION FOR TRAFFIC** | | | | |
| SUBMISSION OF TRAFFIC MANAGEMENT PLAN  Submit the Traffic Management Plan (TMP), with the Traffic Guidance Schemes.  For contracts where audits of traffic control measures are required:   * Do not commence implementing traffic control measures until the TMP has been audited by a Panel Period Audit Consultant and found to be suitable. * Do not commence the works until the TMP has been audited by a Panel Period Audit Consultant and found to be suitable.   For contracts where audits of traffic control measures are not required:   * Do not commence implementing traffic control measures until the TMP has been appraised by DIPL Road Operations and found to be suitable for use. * Do not commence the works until the TMP has been appraised by DIPL Road Operations and found to be suitable for use. | 2.6.2 | 29 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – SUITABILITY AUDIT REQUIREMENTS  The Traffic Management Plan must not be implemented before it is audited for suitability and found to be suitable. | 2.8.2 | 33 & 34 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – SUITABILITY AUDIT REQUIREMENTS  Works must not commence before the Traffic Management Plan is audited for suitability and found to be suitable. | 2.8.2 | 33 & 34 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF IMPLEMENTATION  Provide the Superintendent with a copies of all audit reports confirming conformance, or indicating non-conformance, with specifications, Standards, and requirements for each implemented TGS within 24 hours of implementation. | 2.8.6 | 35 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF IMPLEMENTATION  Provide the Superintendent with a copies of all audit reports confirming conformance, or non-conformance, with specifications, Standards, and requirements for each significant change within 24 hours of implementation. | 2.8.6 | 35 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF IMPLEMENTATION  The Contractor shall rectify the significant/urgent non-conformance in the time instructed by the Superintendent. If the Contractor fails to rectify the non-conformance the Superintendent may engage others to rectify the non-conformance, and the associated costs shall become a debt due and payable to the Principal. | 2.8.6 | 35 |  |  |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF INDEPENDENT THIRD PARTY AUDITS  Notify Superintendent and submit revised TGSs & TMPs to DIPL Road Operations for appraisal. | 2.8.7 | 35 |  |  |
| AMENDMENTS TO TRAFFIC MANAGEMENT PLANS  Modified TMPs must be audited for suitability by a Panel Period Audit Consultant, or appraised by DIPL Road Operations if Traffic Management audits are not required under the contract, before implementation of the modified TMP. | 2.10 | 38 |  |  |
| AMENDMENTS TO TRAFFIC MANAGEMENT PLANS  Modified traffic management control measures must be audited for compliance by a Panel Period Audit Consultant, or appraised by DIPL Road Operations if Traffic Management audits are not required under the contract, before works resume. | 2.10 | 38 |  |  |
| WORK IN RURAL AREAS  Undertake work during daylight hours only unless approval is given by the Superintendent. Approval will only be granted in exceptional circumstances. | 2.11 | 38 |  |  |
| WORK IN BUILT UP AREAS – WORKING TIMES  Obtain Superintendent approval if proposing to work inside the restricted work hours. | 2.12.1 | 38 |  |  |
| TRAFFIC LANES  Obtain prior written approval from the relevant Local Government or Council if traffic is to be detoured onto their road network or the proposed works affects their network/assets accordingly.  Provide a copy of all relevant approvals with the Traffic Management Plan. | 2.12.2 | 39 |  |  |
| LANE CLOSURES  Do not use bullnose or V type barriers unless no other option is available. Obtain permission from the Superintendent to use bullnose or V type barriers before placing them on site. | 2.12.3 | 39 |  |  |
| NIGHT ILLUMINATION  Sections of the roadway, including detours and side tracks, affected by Work Zone Traffic Management, must be illuminated at night to AS 1742.3, if night works are in progress, and/or if signage left on site overnight is not illuminated by the headlights of vehicles approaching the signs. Illumination to be 10 lux minimum at ground level. | 2.13 | 39 |  |  |
| NON-STANDARD SIGNS  Obtain specific approval from the Superintendent before using signs not included in AS 1742.3. | 2.15.4 | 41 |  |  |
| VARIABLE MESSAGE SIGNS (VMS)  Provide details of the messages to be displayed and the locations of the variable message signs. Provide wording for advance warning message(s) and wording for message(s) to be displayed during the works. Do not use any VMS until the messages to be displayed have been approved. Do not use any VMS until the proposed location and orientation of the VMS has been approved. Provide this information not less than 5 working days before the VMSs are to be put in to service for the project. | 2.15.5 | 41 & 42 |  |  |
| TEMPORARY SPEED LIMITS  Submit temporary speed limit authorisation applications to alter speed limits to the Superintendent, 5 working days prior to the implementation of temporary speed limits, for approval under the Control of Roads Act. | 2.15.7 | 43 |  |  |
| ROAD SAFETY BARRIERS  Provide a statement, signed by your engineer, and signed by the author of the Traffic Management Plan, which states that the Road Safety Barriers proposal complies with AS 1742.3, and with AS/NZS 3845.1, and with AS/NZS 3845.2, and with the specifications and installation manuals from the manufacturers of the components proposed to be used in the Road Safety Barriers system. Provide the Traffic Management Plan with this statement. | 2.15.8 | 43 & 44 |  |  |
| DETOURS, SIDE TRACKS, AND CROSSOVERS  Obtain written approval from the Superintendent before commencing any works. | 2.18 | 45 |  |  |
| TEMPORARY BRIDGING  Obtain written approval from the Regional Manager, Road Projects prior to commencement of any such works. | 2.21 | 47 |  |  |
| TEMPORARY BRIDGING  Provide copies of approvals obtained by Contractor to the Superintendent prior to the commencement of the works | 2.21 | 47 |  |  |
| CONTRACTOR'S PLANT AND EQUIPMENT  On roads carrying significant traffic, floodlight the road and area within 50 m of the site when working at night, if approved by the Superintendent, to a ground level luminance of 10 lux minimum. | 2.22 | 48 |  |  |
| TRAFFIC SIGNALS  Obtain clearances from the Department’s Traffic Section, ph. 8999 4402, prior to commencement of the works.  Co-ordinate your works activities with the Department's Traffic Section for the duration of the works. | 2.24.1 | 49 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURS  Provide copies of the endorsed TGSs, and contact the Traffic Section, by phone on 8999 4402, not less than one working day prior to the commencement of work. | 2.24.1.1 | 49 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURS  If the traffic signals need to be re-mapped, advise the Traffic Section not less than one working day prior to the commencement of work.  Contact should be made by email to [traffic.NTG@nt.gov.au](mailto:traffic.NTG@nt.gov.au) or by phone. | 2.24.1.1 | 49 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURS  Contact the Traffic Section by phone immediately before installing traffic control on the day the works are to be carried out to advise the Traffic Section about the planned lane closures.  Contact the Traffic Section immediately if unacceptable traffic congestion occurs during the works so that the Traffic Section can assist by adjusting traffic signal timings. If traffic congestion cannot be relieved by adjusting traffic signal timings it may be necessary to remove lane closures. | 2.24.1.1 | 49 & 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT DURING WORKING HOURS  Advise the Traffic Section immediately before traffic control is removed | 2.24.1.1 | 49 & 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT OUTSIDE WORKING HOURS  Provide copies of the endorsed TGSs, and contact the Traffic Section, not less than one working day prior to the commencement of work. | 2.24.1.2 | 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT OUTSIDE WORKING HOURS  If the traffic signals need to be re-mapped, advise the Traffic Section not less than one working day prior to the commencement of work. | 2.24.1.2 | 50 |  |  |
| REQUIREMENTS FOR WORKS CARRIED OUT OUTSIDE WORKING HOURS  Advise the Traffic Section after-hours contact officer, on the after-hours phone number provided, immediately before traffic control is removed. | 2.24.1.2 | 50 |  |  |
| VARIABLE SPEED LIMIT ZONES  Obtain clearances from the Department’s Traffic Section, ph. 8999 4402, not less than five working days prior to commencing works. | 2.24.2 | 50 |  |  |
| TRAFFIC COUNT STATIONS  Prior to the commencement of work within the trafficked lanes and within 50 m of traffic signals or within 20 m, in any direction, of any component of the traffic count equipment, whether located in or on the trafficked lanes, shoulders, nature strips, and/or medians, or located in another type of area, obtain a clearance to commence the works from Department's Traffic Section for the region in which the works are located, and with either the Superintendent or with the Maintenance Manager (phone 8999 4660).  Co-ordinate works activities, with the Department's Traffic Section for the region in which the works are located, for the duration of the works. | 2.24.3 | 50 & 51 |  |  |
| PORTABLE TRAFFIC SIGNALS  Complete and provide the Portable Traffic Signal Authorisation (PTSA) form, included in the application for a Permit to Work in the Road Reserve document, to seek formal approval from the Superintendent to use the proposed portable traffic signals and the proposed time settings, not less than 5 working days prior to the intended use of the portable traffic signals. Do not use any PTSs on site until an authorised Departmental Officer has signed off the PTSA form. | 2.25 | 51 |  |  |
| TEMPORARY SPEED LIMITS  Work zone speed limits require approval from the Superintendent prior to implementation. | 2.25.1 | 52 |  |  |
| **04 EARTHWORKS** | | | | |
| EXCESS MATERIAL  Obtain approval from Superintendent prior to hauling, dumping and spreading excess material. | 4.4.2 | 57 |  |  |
| ROCK IN SUBGRADE  Obtain agreement from the Superintendent to the extent of the excavation. | 4.4.3 | 57 |  |  |
| UNSUITABLE MATERIAL BELOW SUBGRADE SURFACE OTHER THAN ROCK  Obtain directions from the Superintendent before works commence. | 4.4.4 | 57 |  |  |
| PREPARATION PRIOR TO FILLING  Once moisture conditioned and compacted, subject each lot to a proof roll, with the Superintendent in attendance, as specified in the Proof Rolling sub-clause of the Conformance clause in this work section | 4.5.2 | 58 |  |  |
| UNSUITABLE MATERIAL BENEATH FILL  Obtain directions from the Superintendent before works commence. | 4.5.4 | 58 |  |  |
| EXCAVATION - PREPARATION  Obtain Superintendent’s agreement with inspection record of current conditions. | 4.13.2.2 | 64 |  |  |
| EXCAVATION - PREPARATION  Obtain the Superintendent’s approval for the foundation surface before placing the blinding concrete. | 4.13.2.2 | 64 |  |  |
| PROOF ROLLING  Submit a proof rolling procedure to the Superintendent for approval including the proposed method of preparing the areas, the extent of proof rolling, and details of the plant and / or equipment proposed to be used. | 4.16.3 | 66 |  |  |
| CONFORMANCE TESTING  Obtain the Superintendent’s approval of subgrade conformance prior to placing further material. | 4.16.4 | 66 |  |  |
| **05 CONFORMANCE TESTING** | | | | |
| ITP SUBMISSION  Submit: ITPs, detailing all procedures and test plans to be undertaken to complete the project, before commencing work. | 5.4 | 69 |  |  |
| **06 PAVEMENTS AND SHOULDERS** | | | | |
| PROCESS CONTROL TESTING  Provide the Superintendent with a program and procedure for process control testing for the project within 14 days of the awarding of the contract and before work is commenced on site. Base the process control testing on lots and comply with the clause Conformance of Compaction of Soils in CONFORMANCE TESTING. | 6.4.1 | 86 |  |  |
| PAVEMENT ACCEPTANCE REQUIREMENTS  Obtain the Superintendent’s approval for pavement and shoulders acceptance prior to any surfacing work, including satisfying all requirements for:   * Final Pavement Layer Integrity * Dry back * Proof Rolling * Conformance testing * Surface Roughness * Other Tolerances   For unsealed pavements, obtain the Superintendent’s approval for pavement conformance at conclusion of pavement works. | 6.7.1 | 88 |  |  |
| **07 STABILISATION AND MODIFICATION** | | | | |
| BINDER FIELD APPLICATION RATES  Determine field application rate for spreading based on laboratory testing of materials. Obtain the Superintendent's approval of the field application rate for each source material for the project. | 7.4.4.1 | 93 |  |  |
| GRANULAR MODIFICATION  Determine blending ratios based on laboratory testing of materials. Obtain the Superintendent's approval. | 7.4.6 | 94 |  |  |
| PLANT MIX STABILIZATION - BINDER CONTENT  Assess the cement content based upon test results of materials to be stabilised. Obtain the Superintendent's approval for the cement content. | 7.5.1 | 95 |  |  |
| CONFORMANCE TESTING  Superintendent to approve conformance of stabilised layer prior to commencing surfacing work. | 7.6.2 | 97 |  |  |
| **08 SPRAY SEALING** | | | | |
| APPLICATION SPRAY RATES  Do not commence spraying until the spray rates are advised by the Superintendent. | 8.13.3 | 113 |  |  |
| APPLICATION OF GEOFABRIC  Submit details of proposed machinery and method of application. | 8.14 | 114 |  |  |
| APPLICATION OF AGGREGATE  Obtain approval from the Superintendent for use of the proposed aggregate loader before commencing loading operations. | 8.15 | 114 |  |  |
| SELF-PROPELLED MULTI RUBBER TYRED VIBRATING ROLLERS  Obtain Superintendent’s approval for the use of self-propelled multi rubber tyred vibrating rollers before using them. | 8.15.4 | 116 |  |  |
| WASTE MATERIAL  Obtain written approval from the Superintendent for use of rotary type brooms to windrow the loose aggregate in the urban area. Suction type brooms are still to be used to remove the waste aggregate. | 8.17 | 116 & 117 |  |  |
| **09 DENSE GRADED ASPHALT** | | | | |
| DESIGN MIX REQUIREMENTS  No asphalt shall be supplied until the mix has been registered and the Superintendent has approved the mix for use | 9.6.2 | 123 |  |  |
| DESIGN MIX REQUIREMENTS  Where it is proposed to change the source grading or nature of the components or binders, new mix designs must be carried out in accordance with the Department’s Code of Practice for Registration of Asphalt Mix Designs. | 9.6.2 | 123 |  |  |
| TEMPORARY WORKS  This work must be approved by the Superintendent before the section is opened to traffic. | 9.7.5 | 125 |  |  |
| LONGITUDINAL JOINTS  Provide a plan showing all proposed longitudinal joints. The plan must be approved by the Superintendent prior to works depicted commencing. | 9.10.7 | 127 |  |  |
| **10 SLURRY SURFACING** | | | | |
| BINDER  Additives to improve the workability of the mix, or to accelerate or retard setting of the mix may be used with the approval of the Superintendent. | 10.5.1 | 132 |  |  |
| MIX DESIGN – PROCESS TESTING AND ENDORSEMENT  At least 14 days before commencing work, forward the details of the mix design, and copies of test reports to the Superintendent.  Testing is to be carried out in a NATA accredited laboratory and at is to be carried out at no cost to the Principal. Once the mix design is endorsed by the Superintendent it becomes the specified job mix. | 10.7.2 | 134 |  |  |
| SWEEPING PAVEMENT  Do not commence spreading of the slurry surfacing mix until the prepared pavement has been endorsed by the Superintendent. | 10.8.1 | 135 |  |  |
| **11 MISCELLANEOUS CONCRETE WORKS** | | | | |
| CHEMICAL ADMIXTURES  Do not use admixtures without obtaining prior written approval from the Superintendent. | 11.3.5 | 138 |  |  |
| REINFORCEMENT  Do not place concrete until the reinforcement has been inspected by the Superintendent. | 11.3.6 | 139 |  |  |
| PLACING OF CONCRETE  Provide verification that all constituent materials, formwork, falsework, reinforcement, and environmental conditions comply with all requirements. Do not cast any concrete without that verification. | 11.6.3 | 140 |  |  |
| EXISTING SERVICES  Obtain the Superintendent's approval before altering the line or level of existing services. | 11.8 | 142 |  |  |
| **12 DRAINAGE WORKS** | | | | |
| PRECAST REINFORCED CONCRETE BOX CULVERTS  Provide drawings showing complete reinforcement and dimensions with tolerances and obtain the Superintendent’s approval prior to fabricating any units. Provide manufacturer’s certification that the provided culverts comply with the applicable sections of AS 5100.5 and with AS 1597. Certify that the design is reflected accurately by the shop drawings and that the design is adequate to resist all specified loads and the soil loads pertaining to the site.  Provide a table of construction axle loads versus minimum required cover for each box culvert size. | 12.5.3 | 146 |  |  |
| CONSTRUCTION OF CULVERTS AND STRUCTURES - SETTING OUT  Obtain the Superintendent's approval for the setting out before construction. | 12.6.1 | 147 |  |  |
| CONSTRUCTION OF CULVERTS AND STRUCTURES - BACKFILL  Do not place backfill against any in‑situ concrete structure until the concrete has attained 80% characteristic strength and approval has been given. | 12.6.10 | 149 |  |  |
| INLET AND OUTLET STRUCTURES AND MAINTENANCE HOLES - LAYING AND BACKFILLING  Obtain Superintendent's approval of the pipe installation before backfilling. | 12.11.5 | 150 |  |  |
| **13 PROTECTION WORKS** | | | | |
| GROUTED STONE PITCHING  Obtain Superintendent's approval before grouting. | 13.5.2 | 155 |  |  |
| **14 ROAD FURNITURE AND TRAFFIC CONTROL DEVICES** | | | | |
| CERTIFICATION OF GUIDE POSTS  Provide certification that guide posts conform to the following:   * Where installed in normal working conditions, guide posts are capable of self erecting after 10 impacts head on, from an average sedan travelling at 60 kilometres per hour. * After 2,000 hours of exposure in an Atlas Weatherometer the guide posts do not change colour by more than 10 points on a Delta E colour chart. * The guide post material has a minimum vicat softening point of 120 °C. * Physical testing as specified. * Resistant to termites. | 14.6.2 | 163 |  |  |
| GUIDE POST CHARACTERISTICS  Provide a sample guide post from each batch purchased for this contract for approval before installing any guide posts. | 14.6.3 | 164 |  |  |
| ROAD SIGNS - MATERIALS  Obtain Superintendent’s approval for the use of anti-graffiti film or coating products. Apply anti-graffiti products only to the new road signs specified by the Superintendent. | 14.7.3 | 165 |  |  |
| ROAD SAFETY BARRIERS – WIRE ROPE SYSTEMS  Obtain Superintendent’s approval for any proposed Steel Wire Rope Road Safety Barrier System before ordering any components. | 14.11 | 170 |  |  |
| **15 PAVEMENT MARKING** | | | | |
| PAVEMENT MARKING PAINT  Submit Certificates of Compliance, issued by an accredited testing authority, stating that all paints being used comply with, the relevant Australian Standards and/or APAS specifications. | 15.5 | 173 |  |  |
| GLASS BEADS  Submit Certificates of Compliance, issued by an accredited testing authority, stating that the glass beads being used comply with, the relevant Australian Standards and APAS specifications. | 15.6 | 174 |  |  |
| PAVEMENT MARKING CONFORMANCE TOLERANCES  Provide evidence that the pavement marking complies with the requirements of this specification. | 15.9 | 175 |  |  |
| THERMOPLASTIC MATERIALS  Approval from Director of Engineering and Environment Services is required before thermoplastic materials are used. | 15.11 | 177 |  |  |
| COLD APPLIED PLASTIC MATERIALS  Approval from Director of Engineering and Environment Services is required before cold applied plastic materials are used. | 15.12 | 178 |  |  |
| AUDIO TACTILE LINE MARKING  Approval from Director of Engineering and Environment Services is required before audio tactile line marking materials are used. | 15.13 | 178 |  |  |
| RAISED RETROREFLECTIVE PAVEMENT MARKERS  Submit details in relation the manufacturer’s warranties, performance, durability and maintenance of the raised retroreflective pavement markers | 15.14.1 | 179 |  |  |
| REMOVAL OF PAVEMENT MARKINGS  Obtain approval from the Superintendent on the method used for pavement marking removal before commencing removal operations. | 15.15 | 180 |  |  |
| PAINT BLACKOUT  Obtain Superintendent’s approval before using this methodology. | 15.15.4 | 180 |  |  |
| REPORTING  Submit to the Superintendent the following information, in Microsoft Excel spreadsheet format, every quarter, for all works carried out under this contract:   * CSR number (for panel contract works) * Contract number (for new works) * Date * Road number * Chainages – start point and finish point of each section of works * PRP numbers - start point and finish point of each section of works * GPS coordinates in Decimal Degrees - start point and finish point of each section of works * Type of carriageway – inbound outbound (for duel carriageways) and full width (for two way carriageway) and * Bead size used and Paint application rate. | 15.17 | 182 |  |  |
| **16 LANDSCAPE** | | | | |
| IMPORTED SOILS  Advise the name of the proposed supplier. Do not order soils without Superintendent’s approval of the supplier. | 16.3.4 | 185 |  |  |
| MULCH  Advise the name of the proposed supplier. Do not order mulch without Superintendent’s approval of the supplier. | 16.3.6 | 185 |  |  |
| SETTING OUT OF HOLES  Obtain approval of the set out from the Superintendent before commencing any planting. | 16.5.1 | 187 |  |  |
| IRRIGATION SYSTEM  Backfill trenches only after inspection and approval of wiring. | 16.8.1 | 197 & 198 |  |  |
| DESIGN PLANS  Submit drawings to Superintendent for approval indicating design proposals showing all pipework, sprinklers, valves and control systems. | 16.8.2 | 198 |  |  |
| TESTING  Obtain Superintendent's approval to proceed with backfilling other than spot filling to retain pipework from movement during pressure testing. | 16.8.7 | 200 |  |  |
| **18 TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRANSPORT SYSTEMS** | | | | |
| TRAFFIC SIGNAL CABLING  Submit documentation of proposed cable layout for approval prior to commencing installation of cabling. | 18.5 | 207 |  |  |
| CONNECTION TO TELSTRA PIT FROM COMMUNICATIONS ISOLATION PILLAR  Provide documentary evidence that the installation is approved by Telstra. | 18.8.3 | 209 |  |  |
| DOCUMENTS AND PLANS  Submit to the Superintendent one complete set of As Constructed Drawings and completed Cable Layout and Connection Chart before the issue of the Certificate of Practical Completion. | 18.9 | 209 |  |  |
| **20 STREET LIGHTING** | | | | |
| TEMPORARY LIGHTING  Submit plans of the proposed temporary street lighting to the Superintendent for approval prior to removal of existing street lights. | 20.10.2 | 218 |  |  |
| **21 DIRECTIONAL BORING** | | | | |
| PROPOSED METHOD  Submit details of the proposed method of directional boring not less than 14 days prior to commencement of construction using that method. Include details of proposed filling of cavities. No disruption or excavation of the surface is to take place over the length nominated. | 21.4 | 219 |  |  |
| DIRECTIONAL BORING WITHOUT PIPE CASING  Obtain written permission from the Superintendent to use directional boring without pipe casing. | 21.4.2 | 220 |  |  |
| **22 PROTECTIVE COATINGS** | | | | |
| PROTECTIVE COATINGS  Surface Preparation: To AS 1627. | 22.3 | 223 |  |  |
| PROTECTIVE COATINGS  Complete and submitSite testing of protective coatings: To AS 3894.10 and AS 3894.11 and AS 3894.12. | 22.3 | 223 |  |  |
| ABRASIVE BLASTING  At the completion of the final blast and prior to coating application, the surface profile of each item shall be measured according to Method A, Profile Replicating Tape, of AS 3894.5. Provide documentary confirmation that the surface is suitable for the application of the specified coatings. This shall be identified as a Hold Point in the contractor’s ITP. | 22.12.2 | 226 & 227 |  |  |
| ALTERNATE SURFACE PREPARATION  Do not use forms of surface preparation other than abrasive blasting, such as bristle blaster, needle guns, power tool cleaning and hand tool cleaning, without written permission from the Superintendent. Alternate methods of surface preparation must be included in the Contractor’s ITP. | 22.12.4 | 227 |  |  |
| COATING  Provide coating manufacturers’ written approval for use before using any other additives (eg promoters, accelerators etc). | 22.13.2 | 228 |  |  |
| ALTERNATE COATING  Do not use coating materials other than specified, without written permission from the Superintendent. Alternate coating materials must be included in the Contractor’s ITP. | 22.13.6 | 229 |  |  |
| COATING DEFECTS  Provide details of repairs required and procedures and processes proposed for making the repairs to the Superintendent prior to making any repairs. Any requirements for the repair of protective coatings shall be identified as a Hold Point in the contractor's ITP. | 22.13.7 | 229 |  |  |
| ITP, JSA AND SWMS  Provide ITPs, JSAs, a SWMS and other quality control procedures and documents to be used during protective coating systems application. These must be approved prior to commencement of work. | 22.15 | 229 |  |  |
| CONTRACTOR RECORDS  Provide copies of all NCRs (Non Conformance Reports) immediately they are completed or received. The NCRs must detail the non-conformance and be accompanied by a Corrective Action Report (CAR) which is to detail the action proposed to be undertaken to rectify the non-conformance. | 22.16 | 230 |  |  |
| FILM THICKNESS  Final acceptance of each increment of work will not be made until the dry film thickness meets or exceeds the specified thickness. Regardless of the number of coats specified, additional coats shall be applied as may be necessary to achieve the specified thickness, at the contractor's expense. | 22.16.1 | 230 |  |  |
| INSPECTOR  Provide the name and qualifications of the inspector prior to commencement of work. | 22.16.2 | 230 |  |  |

## SCHEDULE 2 - WITNESS POINTS

| **SCHEDULE 2 – WITNESS POINTS** | | | | |
| --- | --- | --- | --- | --- |
| **CLAUSE TITLE** | **SECTION** | **PAGE** | **INITIALS** | **DATE** |
| **01 MISCELLANEOUS PROVISIONS** | | | | |
| CRUSHING OR SCREENING  Provide documentary evidence of the certification that the plant is fit for use issued by a competent person. Provide documentary evidence of that person’s skills and qualifications which indicate their competence as defined in the NT Work Safe Bulletin cited above. This evidence is to be provided within 2 weeks of the award of the contract. | 1.11.3 | 13 |  |  |
| SAFETY OFFICER  Appoint a Safety Officer and notify the Superintendent of the Safety Officer’s name, and contact details, including an after-hours contact phone number.  Ensure the Safety Officer is capable and available at all times as required. | 1.14.1 | 16 |  |  |
| CONTROL STATION CHECK SURVEY  Where results exceed the quoted tolerance notify the Superintendent and obtain directions. | 1.21 | 19 |  |  |
| AS CONSTRUCTED INFORMATION  Provide As Constructed drawings for all of the works.   * Show co-ordinate dimensions where applicable. * Show design levels and as constructed levels on the as constructed drawings. Clearly identify on the as constructed drawings which levels are design levels and which levels are as constructed levels. * Clearly show set-out on the as constructed drawings. Show both design set-out and as constructed set-out. Show clearly which is design and which is as constructed. * Refer to the specific deliverables in the NTG Technical Drawings Part 1 - Requirements for Technical Records Management document, which is accessible via <https://dipl.nt.gov.au/infrastructure/technical-standards-guidelines-and-specifications/technical-records> .   Drawings without changes shall be described as "As Constructed - No Changes" in the amendment description column. | 1.23 | 19 & 20 |  |  |
| AS CONSTRUCTED INFORMATION  Before the work commences provide a proposed procedure for recording and submitting the amended drawings. | 1.23 | 19 & 20 |  |  |
| **02 PROVISION FOR TRAFFIC** | | | | |
| TRAFFIC MANAGEMENT AUDIT REQUIREMENTS – NOTICE OF INDEPENDENT THIRD PARTY AUDITS  Notify the Superintendent prior to rework arising due to failed audits. | 2.8.7 | 35 |  |  |
| DETOURS, SIDETRACKS, AND CROSSOVERS - CONSTRUCTION  Obtain advice from the Superintendent that all requirements for the construction of the detours, side tracks, and/or crossovers have been met on completion | 2.18.1 | 45 |  |  |
| DETOURS, SIDETRACKS, AND CROSSOVERS - CONSTRUCTION  Provide not less than 5 days notice before opening any side track, detour, or crossover, to traffic. | 2.18.1 | 45 |  |  |
| **04 EARTHWORKS** | | | | |
| EXISTING SURFACE LEVELS  Obtain inspections of any disputed existing surface levels with the Superintendent prior to any stripping or earthworks operations. | 4.16.1 | 65 |  |  |
| PROOF ROLLING  Give the Superintendent not less than 24 hours notice of the location and commencement time for the proof rolling. | 4.16.3 | 66 |  |  |
| **05 CONFORMANCE TESTING** | | | | |
| NOTICE OF TESTING  Provide the Superintendent with a copy of the order for testing simultaneously with the order being sent to the Panel Period Contractor. | 5.8 | 70 |  |  |
| NOTICE OF TESTING  Notify the Superintendent prior to any rework of failed lots. | 5.8 | 70 |  |  |
| **06 PAVEMENTS AND SHOULDERS** | | | | |
| PAVEMENT ACCEPTANCE – PROOF ROLLING REQUIREMENT  Give the Superintendent not less than 24 hours notice of the location and commencement time for the proof rolling. Give 48hrs notice for remote work (greater than 5hrs travel one way from regional centre). | 6.7.2 | 88 |  |  |
| PAVEMENT ACCEPTANCE - FINAL PAVEMENT LAYER INTEGRITY REQUIREMENT  Give the Superintendent not less than 24 hours notice of the location and commencement time for the inspection of the prepared layer. Give 48hrs notice for remote work (greater than 5hrs travel one way from regional centre). | 6.7.5 | 89 |  |  |
| **08 SPRAY SEALING** | | | | |
| SAMPLING OF BINDER - COLLECTION OF SAMPLES  Take samples from the point of delivery on transfer from the bulker to the sprayer or as directed. Where transfer is for works in the urban area or for small works ensure that conformance testing is ordered and samples are taken at the point of transfer from bulker to sprayer. | 8.9.5 | 110 |  |  |
| SPRAYING  Give the Superintendent 48 hours notice of intention to spray bitumen. | 8.13 | 112 |  |  |
| PREPARATION FOR SPRAYER RUN  Record the volume and temperature of the sprayer contents before each run, while sprayer is on level ground. Dip Sprayer Tank before and after each sprayer run. Record the dip readings, and the temperature of the sprayer contents at the time the dip was done. Provide copies of records of Sprayer Tank dips and temperatures of tank contents within one day of the completion of a day’s work. | 8.13.4 | 113 |  |  |
| PREPARATION FOR SPRAYER RUN  Allow visual inspection when requested. | 8.13.4 | 113 |  |  |
| PREPARATION FOR SPRAYER RUN  Check that the spray bar is at the correct height before spraying begins. | 8.13.4 | 113 |  |  |
| SPRAYSHEETS  Supply spraysheets (paper or electronic formats are acceptable) to the Superintendent at the end of each day’s production. | 8.18.1 | 117 |  |  |
| **09 DENSE GRADED ASPHALT** | | | | |
| BITUMINOUS BINDER  Demonstrate that the binder used for asphalt manufacture has been handled according to these requirements. | 9.5.4 | 122 |  |  |
| SURFACE PREPARATION - NEW CONSTRUCTION  Give the Superintendent not less than 24 hours notice of the location and scheduled commencement time of surface preparation works. | 9.7.1 | 124 |  |  |
| SPREADING - GENERAL  Give at least 24 hours notice before commencement of asphalt material spreading. | 9.10.1 | 126 |  |  |
| LAYING PATTERN  Provide a construction program and paving plan at least 7 working days prior to commencement of works. Paving plans must be confirmed prior to the commencement of each shift. | 9.10.4 | 127 |  |  |
| COMPACTION TEMPERATURES  The Contractor must advise the Superintendent of temperature limits relating to compaction. | 9.11.2 | 128 |  |  |
| **10 SLURRY SURFACING** | | | | |
| COMMENCEMENT OF WORK  Give the Superintendent at least 7 days notice of the date and time of the commencement of work. | 10.3 | 132 |  |  |
| RECORDS  Forward a copy of the slurry surfacing Daily Record Sheet to the Superintendent daily. | 10.13 | 137 |  |  |
| **11 MISCELLANEOUS CONCRETE WORKS** | | | | |
| FORMWORK  Do not place concrete until the formwork has been inspected by the Superintendent. | 11.6.2 | 140 |  |  |
| PLACING OF CONCRETE  Give the Superintendent sufficient notice so that inspection may be made before and during pouring concrete. | 11.6.3 | 140 |  |  |
| **12 DRAINAGE WORKS** | | | | |
| PRECAST REINFORCED CONCRETE BOX CULVERTS  Give the Superintendent notice prior to casting concrete. | 12.5.3 | 146 |  |  |
| EXCAVATION  Excavate unsuitable material below specified level if directed by the Superintendent. | 12.6.2 | 147 |  |  |
| CONNECTION TO EXISTING SYSTEMS  Advise the Superintendent within 2 days when cleaning out is completed. | 12.6.9 | 148 |  |  |
| BACKFILL  Notify the Superintendent before backfilling where holes or fissures occur in rock trenches. | 12.6.10 | 149 |  |  |
| INLET AND OUTLET CHANNELS  Advise the Superintendent within 2 days when cleaning out is completed. | 12.8 | 149 |  |  |
| END WALLS  Advise the Superintendent within 2 days of when cleaning out is completed. | 12.11.6 | 150 |  |  |
| **14 ROAD FURNITURE AND TRAFFIC CONTROL DEVICES** | | | | |
| TACTILE GROUND SURFACE INDICATORS  Provide a 5 year warranty for the materials used, and for the devices installed as tactile ground surface indicators. Provide a 5 year warranty for the workmanship for the installation of the tactile ground surface indicators. Both warranties to be in the name of the Principal. | 14.4 | 161 |  |  |
| **15 PAVEMENT MARKING** | | | | |
| PAVEMENT MARKING APPLICATION  Obtain approval from the Superintendent for the type of equipment to be used for applying pavement marking materials. | 15.8 | 174 |  |  |
| PAVEMENT MARKING APPLICATION  Produce documented evidence to show that the spraying equipment has been calibrated in accordance with PCCP requirements and is certified by PCCP as being suitable for the works to be carried out under this contract. | 15.8 | 174 |  |  |
| PAVEMENT MARKING APPLICATION  Obtain Superintendent’s approval for variation to the any of the above requirements. | 15.8 | 174 |  |  |
| COLD APPLIED PLASTIC MATERIALS  Provide evidence that all proprietary products such as epoxy or plastic products have demonstrated satisfactory field performance for a period of at least three years. | 15.12 | 178 |  |  |
| **16 LANDSCAPE** | | | | |
| IMPORTED SOILS  Provide a 5 kg sample of topsoil proposed for the works. Do not order soils without Superintendent’s approval of the sample. Provide copies of delivery dockets for the topsoil delivered to site for the works. | 16.3.4 | 185 |  |  |
| MULCH  Provide a 5 kg sample of mulch proposed for the works. Do not order mulch without Superintendent’s approval of the sample. Provide copies of delivery dockets for the mulch delivered to site for the works. | 16.3.6 | 185 |  |  |
| BATTER PROTECTION BY HYDROSEEDING - CONTRACTOR SUBMISSIONS  Product Data: Submit manufacturer’s product data and installation instructions. Include required substrate preparation, list of materials and application rates | 16.7.2 | 192 |  |  |
| BATTER PROTECTION BY HYDROSEEDING – SOIL TESTING  Obtain Superintendent’s approval before using additives not listed above in Composition sub-clause. Approved additives are to be applied with the hydroseeding slurry at Manufacturer recommended rates based on soil test results. | 16.7.7 | 194 |  |  |
| **18 TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRAFFIC SYSTEMS** | | | | |
| INSPECTIONS  Give 24 hours notice to the Superintendent for inspection of excavations for pedestals, bases and conduits. | 18.5.8 | 208 |  |  |
| CHECKING AND TESTING  Give 24 hours notice for checking and testing signal controller, cabling and lanterns. | 18.10 | 209 |  |  |
| **19 TRAFFIC COUNTING STATIONS** | | | | |
| DETECTOR LOOP  Provide 24 hours notice to the Superintendent prior to installation of vehicle detector loops. | 19.8.1 | 212 & 213 |  |  |
| TESTING AND INSPECTION - GENERAL  Test the installation in the presence of the Superintendent. | 19.10.1 | 214 |  |  |
| TESTING AND INSPECTION - INSPECTION  Provide 24 hours notice to the Superintendent for inspection of excavations for foundations and conduits. | 19.10.3 | 214 |  |  |
| **20 STREET LIGHTING** | | | | |
| EXCAVATION - TRENCHES  Notify the Superintendent when trench excavation is complete and before backfilling has commenced. | 20.5.2 | 216 |  |  |
| **21 DIRECTIONAL BORING** | | | | |
| DIRECTIONAL BORING WITH PIPE CASING  Provide documentary evidence of the certification that the pipe jacking equipment is fit for use issued by a competent person. Provide documentary evidence of that person’s skills and qualifications which indicate their competence as defined in the NT Work Safe Bulletin cited above. This evidence is to be provided within 2 weeks of the award of the contract. | 21.4.1 | 219 & 220 |  |  |
| **22 PROTECTIVE COATINGS** | | | | |
| CONTRACTOR’S RESPONSIBILITIES  Provide documentary evidence of PCCP accreditation before commencing protective coatings work. | 22.5 | 224 |  |  |
| EQUIPMENT  Give notice so that the oil carry-over tests may be witnessed by the Superintendent or their nominated representative. | 22.9.2 | 226 |  |  |
| COATING  Provide copies of specifications for application of protective coatings from the manufacturers of the products used. Provide copies of manufacturers’ product technical data sheets for all products used. | 22.13.2 | 228 |  |  |
| COATING DEFECTS  This compatibility between marker and coating is to be confirmed by the coating manufacturer. Provide written evidence of this compatibility if requested by the Superintendent. | 22.13.7 | 229 |  |  |
| CONTRACTOR RECORDS  Maintain written records of the work so that complete traceability of all work and materials provided under this Specification is maintained. Use the relevant sections of AS 3894.10, AS 3894.11 & AS 3894.12 QA report forms as a basis of this record keeping format for all protective coating work under this contract. Use AS 3894.13 and AS 3894.14, in addition to the preceding Australian Standards, for structural steel work coated under this contract.  Maintain these reports on a daily basis. Submit them to the Superintendent when requested, or, if not specifically requested, at least weekly. | 22.16 | 230 |  |  |
| FILM THICKNESS  Provide and operate wet film and dry film thickness gauges of approved types to ensure the correct thickness of each coat and the full system is achieved. Provide details of the gauges proposed for use. | 22.16.1 | 230 |  |  |