

project check lists road works

use in conjunction with the
current standard specification
for road works

INTRODUCTION

It is difficult during a visit to a construction site to memorise all of the details that need to be checked and while the obvious ones stand out, many other items that should be checked are forgotten. Supervisors may get distracted or over extended due to time constraints and overlook items that may have more serious consequences later in the project.

These Check Lists provide a guide to the inspections that are required on site for a particular project. They are a précis of the full clauses in the project specification and can be referred back to the specification if the full text of the particular item is required. The Check Lists will remind you of virtually every potential problem in materials, workmanship and coordination between trades.

The Check Lists include a list of the Hold Points, Witness Points and Tests that are required to be signed off by the Supervisor on projects that include the Project Control section. The rest of the checks are simply dot points to jog the memory of the Supervisor.

Project specific checks may be added to the Check Lists for individual projects and the experience of Supervisors can be shared by the addition of particular checks on items or operations that are generally of concern on site. In this case less experienced Supervisors can use these Check Lists to provide them with the back up of more experienced officers.

Provide one copy of the Check Lists book to the Supervisor and one copy to the Contractor for the particular project.

HOW TO USE THESE CHECK LISTS

Take photocopies of the relevant Check List sections before going on site and study these. This book of Check Lists is spiral bound to allow pages to be photocopied easily.

Mark any items in the Check List that are of particular concern.

At the project site, check off the work against the Check Lists and make notes of any action required in the space provided.

When the work is completed and the final check has been made sign off and date in the box provided. There is also space to provide comments.

Keep a record of all of the completed Check Lists for future reference if required. These could prove to be valuable if disputes arise on the project.

There is no better way to document actual site conditions or details than by photographs, so don't forget to take a digital camera on site and take images to go with particular items in the Check lists.

FURTHER DEVELOPMENT

If you have any suggestions to improve on these Check Lists or the system in general please contact Lawrie Foscaro, Manager, Specification Services, 3rd Floor Highway House, Palmerston. Tel; 8946 5021 or email DocumentationServices.Dol@nt.gov.au.

Comments from in-house staff, consultants or contractors are most welcome.

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1.05 PCL-SS Roadworks	2016.02	July2016	29/07/2016

Project Title	
RFT Number	

PROJECT CHECKLISTS ROADWORKS

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MISCELLANEOUS PROVISIONS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – MISCELLANEOUS PROVISIONS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
1.9.3	Crushing of 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 Works Safe Bulletin cited above. This evidence is to be provided within 2 weeks of the award of the contract.	
1.12.1	Safety officer – Appoint a Safety Officer and notify the Superintendent of the officer's name	
1.19	Control station check survey – Where results exceed the quoted tolerance, notify the Superintendent and obtain directions	
1.21	As constructed information – Before the work commences, provide a proposed procedure for recording and submitting the amended drawings	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
1.7	Camp site/compound/workshop – Obtain written permission from the owner or lessee of the land.	
1.10	Explosives – Obtain approval from Superintendent before commencing blast operations.	
1.14	Work on railway sites – Do not commence work until the work plan has been approved by the owner and operator of the rail system	
1.15	Work in the vicinity of 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 of Transport, Transport Planning Division, Data Contracts Officer and pay all fees	

 MISCELLANEOUS PROVISIONS

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – refer specification

ESTABLISHMENT

- Demobilisation – site restored

CAMP SITES

- Facilities maintained in good condition
- On completion, remove facilities and restore site

EXTRACTION AREAS AND WATER SOURCES

- Approvals obtained – refer to the EM section
- Comply with all requirements

CRUSHING OR SCREENING

- Certified as fit for use

OPERATION OF EXTRACTION AREAS

- Only one access road
- Adequate drainage maintained
- Extraction requirements complied with
- Excavation limits complied with
- Rehabilitation completed as specified

STREAM SITES

- DLRM contacted before any work commenced
- Excavation limits and conditions complied with
- Allow inspections from DLRM at any time
- Provide records as specified

EXPLOSIVES

- Evidence of licences etc. provided to WorkSafe and DBERD
- Inspection of structures and services recorded

PLANT AND EQUIPMENT

- Inspected and maintained

SAFETY

- Safety Officer capable and available at all times
- Safety equipment etc. provided to employees
- Employees instructed on safety hazards etc
- Compliance with the Const Safety Act – wear helmets etc.

FENCING AND SHORING OF OPEN EXCAVATIONS

- Maintain excavation and shoring
- Support trenches in saturated or unstable ground

WORK ON RAILWAY SITES

Approval of Rail operator has been obtained

- 14 days' notice provided with work plan
- If work within 3m of rail line Superintendent advised

MISCELLANEOUS PROVISIONS

PROJECT NOTICE BOARDS

- Correct design and wording
- Removed as required at completion

LEVEL CHECKING

- Checking carried out as per specification
- Independent Surveyor used
- Audit by Superintendent if required

CYCLE AND PEDESTRIAN SHARED PATHS

- Design complies with AUSTROADS design principles

CONTROL STATION CHECK

- As per Surveys and Setting Out in Preliminaries

AS CONSTRUCTED DRAWINGS

- Ensure that all changes are recorded
- Correct recording format used
- Independent Surveyor used

DIVING WORK

- Comply with Work Health and Safety Act and Regulations
- Comply with ADAS Operation Manual or DRDC Diving Manual or NOAA Diving Manual
- Evidence of competency for all diving personnel
- Dive Safety Log
- Dive Plan
- Crocodile Hazard Management Plan

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

PROVISION FOR TRAFFIC

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – PROVISION FOR TRAFFIC

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
2.13	Traffic Control – The Superintendent must appraise all changes to the TMPs and TCDs prior to implementation of any changes, unless there is an urgent need for amendments to mitigate any foreseen or unforeseen hazards. In such a case, the changes may be implemented and the Superintendent advised of the changes as soon as practicable thereafter. Provide amended TMPs which incorporate changes which have been approved by the Superintendent on site within two working days of the authorisation of the change.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
2.5.1	Traffic Management Plan – Submit the Traffic Management Plan, with the Traffic Control Diagrams prior to commencing works	
2.7	Work in rural areas – Undertake work during daylight hours only unless approval has been given by the Superintendent. Approval will only be granted in special circumstances	
2.8.1	Work in Built Up Areas - Working times – See Table 2.1 in Standard Specification for Roadworks and obtain Superintendent's approval if proposing to work inside these hours	
2.10.4	Non-standard signs – Obtain specific approval from the Superintendent before using signs not included in AS 1742.3	
2.10.8	Temporary speed limits – Submit temporary speed limit authorisation applications to alter speed limits to the Superintendent, 2 working days prior to the implementation of temporary speed limits, for approval under the Control of Roads Act.	
2.17	Temporary bridging – Obtain written approval from the Regional Manager, Road Projects prior to commencement of any such works.	

PROVISION FOR TRAFFIC

2.17	Temporary bridging – Provide copies of approvals obtained by Contractor to the Superintendent prior to the commencement of the works.	
2.18	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.	
2.21.1	Temporary speed limits – Work zone speed limits require approval from the Superintendent prior to implementation.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – refer specification**WARNING DEVICES**

- Signage and associated works conform to specified standards
- Works in progress signage
- Positioned correctly
- Correct size and details as specified

NT SPECIFIC REQUIREMENTS FOR ROAD WORK SIGNS

- As specified

EXCAVATIONS, STOCKPILES AND GRADIENTS WITHIN WORK ZONES AND CLEAR ZONES

- Complies with AS 1742.3

TRAFFIC CONTROL

- Appraised by the relevant authority
- Implemented as specified in the traffic management plan
- Traffic controllers have relevant qualifications (e.g. WZ2, WZ3, etc.) and can be proven on site

SIDE TRACKS FOR DETOURS

- Construction is as specified
- Local authorities notified
- Maintenance is as specified

ACCESS TO ADJACENT PROPERTIES AND SIDE ROADS

- Access provided
- Signs in place
-

TEMPORARY PEDESTRIAN ACCESS

- Provided as specified

TEMPORARY BRIDGING

- Provided as specified

PROVISION FOR TRAFFIC

CONTRACTORS PLANT AND EQUIPMENT

- Parking and material storage clear of trafficked areas and clear zones
- Floodlights installed as specified
- Alarms installed as specified
- Rotating beacons installed as specified

RESTORATION

- Warning devices and traffic control measures removed
- Temporary works and detours reinstated as specified
- Areas impacted by the works stabilised
- Complied with the requirements of Environmental Approvals and Clearances issued
- Permanent traffic devices temporarily removed are reinstated

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:	
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Comments

CLEARING, GRUBBING AND REHABILITATION

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – CLEARING GRUBBING AND REHABILITATION

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – refer specification**TREES TO BE RETAINED**

- Trees to be retained clearly marked
- Protection provided

MULCHING

- Mulching is as specified

STRIPPING OF TOP LAYER

- Correct depth
- Stripped material stockpiled at specified site

TREATMENT OF EXISTING SEALED SURFACES

- Conforms to specified requirements

SCARIFYING OF EXISTING ROADS

- Existing seal removed
- Surface prepared as specified

GRUBBING

- Correct depth removed
- Grub holes filled and compacted

REINSTATEMENT

- Is as specified
- Mulch provided as specified
- Detours rehabilitated as specified

CLEARING, GRUBBING AND REHABILITATION

CLEANING UP

- Site is free of excess fill, rubble and other debris

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

EARTHWORKS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – EARTHWORKS

PROJECT		RFT No.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
4.15.1	Existing surface levels - Obtain inspections of any disputed existing surface levels with the Superintendent prior to any stripping or earthworks operations.	
4.15.3	Proof rolling - Give the Superintendent not less than 24 hours' notice of the location and commencement time for the proof rolling.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
4.3.2	Excess material - Obtain approval from Superintendent prior to hauling, dumping and spreading excess material.	
4.3.3	Rock in subgrade - Obtain agreement from the Superintendent to the extent of the excavation. Excavate rock encountered in the subgrade.	
4.3.4	Unsuitable material below subgrade surface other than rock - Obtain directions from the Superintendent before works commence.	
4.4.4	Unsuitable material beneath fill – Obtain directions from the Superintendent before works commence	
4.12.2	Excavation: Preparation - Obtain Superintendent's agreement with inspection record of current conditions.	
4.12.2	Excavation - Obtain the Superintendent's approval for the foundation surface before placing the blinding concrete.	
4.15.3	Conformance: proof rolling - submit a proof rolling procedure to the Superintendent for approval including the proposed method of preparing the areas and the extent of proof rolling.	
4.15.4	Conformance testing - Obtain the Superintendent's approval of subgrade conformance prior to placing further material.	

EARTHWORKS

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
4.15.4	Conformance Testing	

COMPLIANCE CHECKS – refer to specification**EARTHWORKS IN CUT**

- Excess material dumped and spread as specified
- Rock and loose material removed as specified

EARTHWORKS IN FILL

- Compaction prior to filling is complete
- Benching is as specified
- Unsuitable materials have been replaced
- Correct construction method is as specified

FILL MATERIAL

- Fill type is as specified

PREPARATION AND MAINTENANCE OF SUBGRADE SURFACE

- Surface is free draining and free of depressions

EARTHWORKS FOR DRAINAGE

- Stream diversions provided where specified
- Levees constructed as and when specified
- Table drain dimensions are as shown on drawings
- Table drain has been graded to prevent water ponding
- Table drain offlets installed at specified intervals
- Graded to drain water without damaging surface
- Table drain blocks constructed as and when specified
- Catch drains constructed as and when specified

WIDENING OF EXISTING FORMATION

- Is as shown on the drawings

BATTER PROTECTION BY GRASSING

- Grassing is as specified
- Seed mixture and fertiliser is as specified
- Grass seed application is as specified

BRIDGE FOUNDATIONS

- Excavation is to required lines and levels
- Excess material disposed of as specified
- Foundations cut to a firm surface, with loose material removed

COFFER-DAMS SHORING AND SHEETING

- Adequate height and depth
- Excavation backfilled up to natural surface level using
 - correct material and
 - compacted to specified density

ABUTMENTS AND WINGWALLS

- Fill compacted as specified
- Weep holes and drainpipes provided as specified

EARTHWORKS

COMPACTION

- Is free of cracking and compaction planes

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

CONFORMANCE TESTING

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – CONFORMANCE TESTING

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
5.8	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	Notify the Superintendent prior to any rework of failed lots.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
5.4	ITP Submission - Submit: ITPs, detailing all procedures and test plans to be undertaken to complete the project, before commencing work.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
5.4	Inspection and Test Plans	
5.5	Specific Tests	

COMPLIANCE CHECKS - refer specification

PANEL PERIOD CONTRACTORS

- List supplied to Contractor

ORDERING TESTING

- Tests ordered in writing
- Correct rotation of Panel Contractors

TEST FREQUENCIES

- Correct test frequencies
- Reporting and completion times complied with

CONFORMANCE OF COMPACTION OF SOILS

- Lots numbered with logical system
- Lots selected by specified criteria
- Specified testing requirements adhered to

CONFORMANCE TESTING

DRY DENSITY RATIOS FOR CONFORMANCE

- Test results achieved
- Test excavations backfilled with cement stabilised material

CONFORMANCE OF COMPACTION FOR ASPHALT

- Relative compaction calculated as per specified formula

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:	Date:
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Comments

PAVEMENTS AND SHOULDERS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – PAVEMENTS AND SHOULDERS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
6.7.2	Proof rolling - Give the Superintendent not less than 24 hours' notice of the location and commencement time for the proof rolling.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
6.4.1	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.	
6.7.2	Proof rolling - submit a proof rolling procedure to the Superintendent for approval including the method of preparing an area and the extent of proof rolling.	
6.7.3	Conformance testing - obtain the Superintendent's approval for pavement conformance prior to any surfacing work.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
6.4.1	Process Control Testing	
6.7.3	Conformance Testing	

COMPLIANCE CHECKS – REFER SPECIFICATION**MATERIALS**

- Gravel is as specified
- Gravel properties correct
- Fine crushed rock is as specified
- Sand clay is as specified

CONSTRUCTION

- Mixing and placing is as specified
- Compaction is as specified
- Final pavement surface is as specified

PAVEMENTS AND SHOULDERS

RECONSTRUCTION AND REHABILITATION OF EXISTING PAVEMENTS

- Widening is as specified
- Strengthening by granular overlay on existing pavement is as specified
- Strengthening by granular overlay on re-worked existing sealed pavement is as specified

CONFORMANCE

- Final surface conforms with specification requirements

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

STABILISATION

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – STABILISATION

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
7.4.4	Spreading – Assess spread rate based upon test results of materials to be stabilised. Obtain the Superintendent's approval of the spread rate.	
7.5.1	Stabiliser content – Assess the cement content based upon test results of materials to be stabilised. Obtain the Superintendent's approval for the cement content.	
7.6.2	Testing – Superintendent to approve conformance of stabilised layer prior to priming.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
7.6.2	Conformance of stabilised layer	

COMPLIANCE CHECKS – refer to specification**MATERIALS**

- All materials conform to specification requirements

IN SITU STABILISATION

- Preliminary trial complete
- Preparation of layer is as specified
- Spread rate is as specified
- Mixing plant is as specified
- Cement stabilisation is as specified
- Lime stabilisation is as specified
- Compaction is complete
- Final surface is as specified
- Any non-complying areas reconstructed
- Longitudinal joints installed as and where specified
- Transverse joints installed as and where specified

STABILISATION

PLANT MIX STABILISATION

- Preliminary trial provided where specified
- Mixing plant is correct
- Material is uniform and without segregation
- Laying is as specified
- Paving machine is as specified
- Grader laying is as specified

CONFORMANCE

- Tolerances for stabilised layers are as specified
- Stabiliser application rate is correct
- Stabiliser content is correct

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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COMMENTS

Comments

 SPRAY SEALING

DEPARTMENT OF INFRASTRUCTURE**CHECK LIST – SPRAY SEALING**

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
8.9.5	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.	
8.12	Spraying - give the Superintendent 48 hours' notice of intention to spray bitumen.	
8.12.4	Preparation for Sprayer Run – Allow visual inspection when requested	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
8.12.3	Application spray rates - Do not commence spraying until the spray rates are advised by the Superintendent.	
8.13	Application of geofabric - Submit details of proposed machinery and method of application.	
8.14	Application of Aggregate – Obtain approval from the Superintendent for use of the proposed aggregate loader before commencing loading operations	

TESTS

Give sufficient notice so that the Superintendent may witness testing'

Spec.Ref.	Item	Checked – Initial and date
8.9.1	Sampling of binder	

SPRAY SEALING

COMPLIANCE CHECKS – refer to specification

MATERIAL REQUIREMENTS

- Aggregates conform to required grade and properties
- Pre-coat and adhesion agents conform to specified requirements
- Cutter properties are as specified
- Bitumen is as specified
- Cutback bitumen properties are as specified
- Bitumen emulsion conforms to requirements
- Polymer modified binder properties are as specified
- Geofabric conforms to required properties

SPRAYERS AND PERSONNEL

- Sprayer is calibrated as specified
- Qualified personnel operating sprayer

PREPARATION OF PAVEMENT

- Loose stones, dust and foreign matter removed
- Surface dampened prior to spraying

SETTING OUT

- Is as specified

PRIME PRIMER SEALS AND ENRICHMENT COATS

- Material is as specified
- Correct temperature prior to spraying

STRAIGHT RUN BINDER COATS

- Material is as specified

POLYMER MODIFIED BINDER COATS

- Material is as specified

SUPPLY OF AGGREGATE

- Stockpile sites are as specified

PRECOATING AGGREGATE

- Is as specified

SPRAYING

- Correct conditions for spraying
- Sprayer preparation to specified requirements
- Spray bar clean and aligned correctly
- Spray bar at correct height
- Application spray rates are as specified
- Protective paper strips used at start and finish of each run

APPLICATION OF GEOFABRIC

- Geofabric placed to specifications

APPLICATION OF AGGREGATE

- Aggregate is clean and ready for application
- Aggregate spread even and uniformly over primed surface
- Rolling rate is as specified

WASTE MATERIAL

- Waste material removed from site

SPRAY SEALING

CONFORMANCE

- Final surface conforms to specification requirements

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

DENSE GRADED ASPHALT

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – DENSE GRADED ASPHALT

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
9.7.1	New construction - Give the Superintendent not less than 24 hours' notice of the location and scheduled commencement time of surface preparation works.	
9.10.4	Laying pattern – Supply construction program plans 7 working days prior to commencement of works. Confirm paving plan prior to the commencement of each shift.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
9.6.2	Design mix requirements – No asphalt shall be supplied until the mix has been registered and the Superintendent approves the mix for use.	
9.6.2	Notify the Superintendent of any proposed changes to the components or proportions of components used in the registered mix. Do not use the changed mix until the mix has been registered and the Superintendent approves the mix for use.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
9.12.1	Conformance Testing	
9.12.2	Process Testing	

COMPLIANCE CHECKS – refer specification

TRAFFIC CATEGORIES

- Relevant binder type is used for relevant traffic category

MATERIALS

- Course aggregates are to specified requirements
- Fine aggregates are to specified requirements
- Mineral Filler are to specified requirements
- Bituminous binder are to specified requirements
- Bitumen emulsion conforming to AS 1160

DENSE GRADED ASPHALT

ASPHALT MIX DESIGN

- Mix type is as specified
- Design mix tested as specified

SURFACE PREPARATION

- Surface swept clean
- Foreign matter removed
- Existing bitumen and concrete surfaces
- Surface prepared as specified
- Tack coat evenly placed over entire area

MIXING

- Job mix is as specified
- Correct temperature

TRANSPORT AND SUPPLY

- Truck size is as specified
- Rate of supply is as specified

SPREADING

- Minimum laying and initial rolling temperatures correct
- Mechanical spreading is as specified
- Laying pattern is as specified
- Trial areas provided where specified
- Joints installed where specified

COMPACTION

- Correct method
- Roller type is correct
- Initial rolling complete
- Intermediate rolling is as specified
- Joint compaction is as specified

CONFORMANCE

- Finished pavement properties;
 - true to shape
 - to specified tolerances
- Compaction conforms to specified requirements

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

SLURRY SURFACING

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – SLURRY SURFACING

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINT

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
10.3	Commencement of work - give the Superintendent at least 7 days' notice of the actual date and time of the commencement of work.	
10.13	Records - forward the original copy of the slurry surfacing daily record sheet to the Superintendent daily.	

HOLD POINT

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
10.5.1	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.	
10.7.2	Sample mixes - At least 14 days before commencing work, forward the details of the mix design, carried out in a NATA registered laboratory and performed by a NATA accredited technician, to the Superintendent for endorsement. Once the mix design is endorsed by the Superintendent it becomes the specified job mix.	
10.8.1	Sweeping pavement - Do not commence spreading of the slurry surfacing mix until the prepared pavement has been endorsed by the Superintendent.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
10.10	Materials Testing	

COMPLIANCE CHECKS – refer specification

TRAFFIC CONTROL

- Traffic control requirements are as specified

SLURRY SURFACING

MATERIALS

- Binder material is as specified
- Aggregates
 - material is as specified
 - Clean and free of organic matter
- Water potable and free from impurities
- Mineral filler is as specified
- Stockpiles are as specified

PLANT AND EQUIPMENT

- Mixing machine conforms to specification requirements
- Spreader box provided

MIX REQUIREMENTS

- Mix requirements are as specified
- Sample mixes submitted

PREPARATION AND SETOUT

- Pavement swept clean
- Previously sealed areas prepared as specified
- Foreign material removed

APPLICATION

- Is as specified

TESTING

- Materials testing is as specified

SURPLUS WASTE AND DEFECTIVE MATERIAL

- Surplus material removed from site
- Waste is correctly disposed of

MAINTENANCE

- Keep the completed work in a satisfactory condition for 1 month after completion
- Maintenance will be limited to failures as a result of the operations of the contractor

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

MISCELLANEOUS CONCRETE

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – MISCELLANEOUS CONCRETE WORKS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
11.6.2	Formwork - Do not place concrete until the formwork has been inspected by the Superintendent.	
11.6.3	Placing of concrete - Give the Superintendent sufficient notice so that inspection may be made before and during pouring concrete.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
11.3.5	Chemical Admixtures – do not use admixtures without obtaining prior written approval from the Superintendent.	
11.3.6	Reinforcement - Do not place concrete until the reinforcement has been inspected by the Superintendent.	
11.6.3	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.	
11.8	Existing services - Obtain the Superintendent's approval before altering the line or level of existing services.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
11.4.1	Concrete slump testing	

MISCELLANEOUS CONCRETE

COMPLIANCE CHECKS – refer specification

MATERIALS

- All materials conform to specification requirements
- Cement
- Fine aggregate
- Coarse aggregate
- Water
- Chemical admixtures
- Reinforcement
- Recycled crushed glass

CONCRETE

- Ready mix concrete is as specified
- Job mixed concrete is as specified
- Gauges provided for measurement as specified

FOUNDATIONS

- Provided as specified

CONSTRUCTION

- Formwork installed
- Placing of concrete is as specified
- Construction joints installed as specified
- Expansion/contraction joints installed where specified
- Tooled joints are as specified
- Finished surface is smooth and even in colour
- Exposed edges rounded off
- Conforms with the specified requirements
- Exposed surfaces protected until fully cured
- Backfilling material is as specified
- Backfill compacted

DEFECTIVE CONCRETE AND MATERIALS

- Remove the concrete as required by the Superintendent

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

DRAINAGE WORKS**DEPARTMENT OF INFRASTRUCTURE****CHECK LIST – DRAINAGE WORKS**

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable)

Spec.Ref.	Item	Checked – Initial and date
12.5.2	Precast reinforced concrete box culverts - give the Superintendent notice prior to casting concrete.	
12.6.2	Excavation - excavate unsuitable material below specified level if directed by the Superintendent.	
12.6.9	Connection to existing systems - Advise Superintendent within two days when clean out is completed	
12.6.10	Backfill - notify the Superintendent before backfilling where holes or fissures occur in rock trenches.	
12.8	Inlet and outlet channels - Advise Superintendent within two days when clean out is completed.	
12.11.6	End walls - Advise Superintendent within two days when clean out is completed.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
12.5.2	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.	
12.6.1	Construction of culverts and structures: Setting out – Obtain the Superintendent's approval for the setting out before construction	

DRAINAGE WORKS

12.6.10	Backfill - Do not place backfill against any in-situ concrete structure until the concrete has attained 80% characteristic strength and approval has been given.	
12.11.5	Subsoils and drains: laying and backfilling - Obtain Superintendent's approval of the pipe installation before backfilling.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – refer specification**MATERIALS**

- Pipes and box culverts provided with an “as conformance” stamp
- Pre cast reinforced concrete pipes
 - Correct type
 - Class is as specified
- Precast reinforced concrete box culverts are as specified
- Corrugated steel pipes, pipe arches and arches all installed as specified
- Bedding material size is as specified

CONSTRUCTION OF CULVERTS AND STRUCTURES

- Setting out is as specified
- Excavation is as specified
- Laying is as specified
- Bedding and Backfill is as specified

INLET AND OUTLET STRUCTURES AND MAINTENANCE HOLES

- Are to specification requirements

INLET AND OUTLET CHANNELS

- Conforms to specification requirements

OPEN UNLINED DRAINS

- Drains trimmed to form neat levees
- Allowance for natural surface run-off provided

SUBSOIL DRAINS

- Impervious material excavation is as specified
- Pervious excavated specified
- Filter materials are as specified
- Material grading is as specified
- Geotextile fabric
 - Correct type
 - Installed as specified
- Subsoil drain pipe installed as specified
- Pipe laying and backfilling is as specified
- End walls marked with guide posts
- Galvanised wire mesh installed at opening

CONFORMANCE

- Tolerances conform to Table 12.5 in Standard Specifications for Roadworks

DRAINAGE WORKS

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

PROTECTION WORKS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – PROTECTION WORKS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
13.5.2	Grouted stone pitching – Obtain Superintendent's approval before grouting.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
13.3.6	Conformance Testing	

COMPLIANCE CHECKS – refer specification

FOUNDATIONS

- Complies with the specifications

GEOTEXTILE FABRICS

- Complies with the specifications
- Certificate of compliance received

ROCK PROPERTIES

- Complies with the specifications

STONE PITCHING

- Correct materials
- Stones firmly bedded in layers
- Grouted stone pitching
 - Mortar type correct
 - Weep holes provided

DUMPED ROCK PROTECTION

- Rocks are correct size
- Materials type is correct
- Rocks dumped in specified area

QUARTER TONNE CLASS DUMPED ROCK PROTECTION

- Boulder size correct
- Dumped in specified area

PROTECTION WORKS

RUBBLE

- Material type correct
- Material dumped in specified area without segregation
- Compacted to produce a tight even finish

GABIONS

- Steel wire mesh is as specified
- Tensile strength is as specified
- Galvanizing is as specified
- Construction
 - As per manufacturers instructions
 - Wire framework pretension is as specified
 - Spreaders provided
 - Stone as specified
 - Mesh and wiring tightness is as specified

RENO MATRESSES

- Steel wire mesh is as specified
- Tensile strength is as specified
- Galvanizing is as specified
- Construction
 - As per manufacturer's instructions
 - Wire framework pretension is as specified
 - Spreaders provided
 - Stone as specified
 - Mesh and wiring tightness is as specified

REVTMENT MATTRESSES

- Mortar mix proportions are as specified
- Stitching and seams are as specified
- Openings provided
- Openings sealed on completion of mortar pumping

EMBANKMENT PROTECTION

- Construction is as specified
- Drainage holes provided where specified

MARGINS

- Construction joints installed
- Finish is flush with top of pavement

Action Required - ITC issued on items that do not comply

Reported to:	Date:

PROTECTION WORKS

Final Check

Made by:		Date:
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Comments

ROAD FURNITURE AND TRAFFIC CONTROL DEVICES

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – ROAD FURNITURE AND TRAFFIC CONTROL DEVICES

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
14.4.2	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 km/h – 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.	
14.4.3	Guide post - Provide a sample guide post from each batch purchased for this contract for approval before installing any guide posts.	
14.5.2	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.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – refer specification

FENCING

- Fence type correct
- Fence line cleared
- Fence erected as specified
- Gates provided where specified

ROAD FURNITURE AND TRAFFIC CONTROL DEVICES

GUIDE POSTS

- Posts conform to specification requirements
- Guide posts certification received
- Delineators
- Rectangular retroreflectors are as specified
- Installation is as specified

ROAD SIGNS

- Non reflective materials are as specified
- Reflective material is as specified
- Blanks material is as specified
- Posts conform to specification requirements
- Lateral placement is as shown on drawings
- Height is as specified
- Installation is to specification requirements

FLOOD GAUGE POSTS

- Posts and gauges are as specified
- Installation
- Post in correct position
- Concrete anchor installed
- Galvanised sleeve installed
- Gauge secured to post
- Gauge in correct position

CATTLE GRIDS

- Installed as specified

STEEL BEAM GUARDRAIL

- Materials are as specified
- Installation is as specified

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

PAVEMENT MARKING

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – PAVEMENT MARKING

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
15.5	Road marking paint – Submit a 'Certificate of Compliance' of the paint with the relevant Australian Standards of APAS specification	
15.7.2	Cold applied thermoplastic materials: 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 (3) years	
15.7.3	Application - Provide evidence that it has been applied in accordance with the Manufacturer's instructions	
15.8	Glass beads - Submit a 'Certificate of Compliance' of the glass beads with the relevant Australian Standard and APAS specification.	
15.10	Application - Obtain approval from the Superintendent for the type of equipment to be used for applying pavement marking materials	
15.10	Application - Produce documented evidence to show that the spraying equipment has been calibrated in accordance with NTTM 405.1	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
15.12	Workmanship - Remove defective marking by sand blasting, or other approved methods, make good the surface in a manner approved by the Superintendent.	
15.17	Removal of existing markings - Obtain approval from the Superintendent on the method used for line marking removal.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
15.3	Wet film thickness	

PAVEMENT MARKING

COMPLIANCE CHECKS – refer specification

CONTRACTOR ACCREDITATION

- All work must be carried out by those with the relevant PCCP accreditation

ROAD MARKING PAINT

- Road marking paint is as specified
- Application is as specified

THERMOPLASTIC MATERIALS

- Thermoplastic road marking material is as specified

GLASS BEADS

- Glass beads are as specified

SETTING OUT

- Is as specified

TOLERANCE

- Line marking is within the specified tolerances

WORKMANSHIP

- Damaged markings reinstated

AUDIO TACTILE LINE MARKING

- Tolerances are as specified

RAISED RETROREFLECTIVE PAVEMENT MARKERS

- Materials are as specified
- Pavement preparation is as specified
- Marker positions are as specified
- Reflectors face oncoming traffic

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

LANDSCAPE

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – LANDSCAPE

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINT

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

HOLD POINT

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
16.5.1	Setting out holes - Obtain approval of the set out from the Superintendent before commencing any planting.	
16.7.1	Irrigation system - Backfill trenches only after inspection and approval of wiring. Minimum size active 1.5 mm ² .	
16.7.2	Design plans - Submit drawings to Superintendent for approval indicating design proposals showing all pipework, sprinklers, valves and control systems.	
16.7.7	Testing - Obtain Superintendent's approval to proceed with backfilling other than spot filling to retain pipework from movement during pressure testing.	
16.7.10	As constructed drawings – Provide as constructed drawings of the irrigation system in electronic CAD format (AutoCad or Microstation) to the Superintendent within two weeks of practical completion	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
16.7.7	Pressure test	

LANDSCAPE

COMPLIANCE CHECKS – refer specification

MATERIALS

- Trees, shrubs and groundcovers conform to specified characteristics
- Grass seed conforms to specification requirements
- Fertilisers supplied as specified
- Imported soils conform to requirements
- Insecticide used in accordance with manufacturer's instructions
- Mulch is as specified

SITE PREPARATION

- Set out is in accordance with the drawings
- Existing vegetation is protected as specified

PLANTING

- Preparation and treatment of holes as per specification

GRASSING

- Ground preparation is as specified
- Fertilisers applied as specified

IRRIGATION

- Excavation carried out as specified
- Installation:
 - Approval from PowerWater before connecting
 - Backflow prevention device installed
 - 50mm compacted sand bedding provided
 - Pressure testing carried out
 - Backfilling carried out as per specification

MAINTENANCE PERIOD – DEFECTS LIABILITY PERIOD

- Site kept neat and tidy
- Site is weed free
- Damaged, dying or dead plants replaced within 14 days
- All plantings free from insects, pests and diseases

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

DUCTING AND CONDUITS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – DUCTING AND CONDUITS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date

COMPLIANCE CHECKS – refer specification

SUPPLY AND INSTALLATION

- Comply with the standard specification

MARKINGS

- Kerbed areas marked to identify ducts
- Star pickets and identification plate provided

CONDUIT MARKERS

- Installed as specified

ELECTRICAL DUCTING

- Correct type
- Earth strap installed
- Installation done in liaison with PowerWater

WATER DUCTING

- Correct type
- Installation done in liaison with PowerWater

TELSTRA DUCTING

- Liaison with Telstra

DUCTING AND CONDUITS

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRANSPORT SYSTEMS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – TRAFFIC CONTROL SIGNALS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
18.4.8	Inspections - Give 24 hours' notice to the Superintendent for inspection of excavations for pedestals, bases and conduits.	
18.9	Checking and testing - Give 24 hours' notice to the Superintendent for inspection of excavations for pedestals, bases and conduits.	
18.9	Checking and testing - Give 24 hours' notice for checking and testing signal controller, cabling and lanterns.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
18.4	Traffic signal cabling - Submit documentation of proposed cable layout for approval prior to commencing installation of cabling.	
18.7.3	Connection to Telstra pit from communications isolation pillar - Provide documentary evidence that the installation is approved by Telstra.	
18.8	Documents and plans - Submit to the Superintendent one complete set of CAAD as Constructed Drawings and completed Cable Layout and Connection Chart before the issue of the Certificate of Practical Completion.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
18.9	Signal controller, cabling and lanterns	

TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRANSPORT SYSTEMS

COMPLIANCE CHECKS – refer specification

GENERAL EQUIPMENT AND INSTALLATION

- Surge filter installed
- Posts and fittings are galvanised
- Footing installed as specified
- Footways reinstated
- Vehicle signal lanterns
 - Correct positioning
 - Target board installed
 - Temporary covers provided
- Pedestrian signal lanterns
 - Correct type
 - Correct positioning
- Traffic signal controller
 - Location is as specified
 - Foundation block installed
 - Earth stake installed

TRAFFIC SIGNAL CABLING

- Multicore connecting cable
 - 51 core multicore to AS/NZS 2276.1
- Loop detector feeder cables
 - Correct type
 - Installed as specified
- Loop cable for vehicle detectors
 - Correct type
 - Saw cut in pavement cleaned out
 - Cable installed
 - Backfill is as specified
- Power supply cable
 - Correct type
 - Connection is as specified
- Cable conduit
 - Draw wire provided
 - Installed as specified
- Conduit junction pit
 - Installed as specified
 - Lids are level with adjacent surface
- Detector pits
 - Installed as specified

PEDESTRIAN PUSH BUTTON ASSEMBLIES

- Model number is as specified
- Units installed as specified

AUDIO-TACTILE TRAFFIC SIGNAL EQUIPMENT

- Provided as specified

SCATS FACILITIES

- Communications isolation pillar installed
- Connection completed

INDUCTIVE LOOP VEHICLE DETECTOR EQUIPMENT

- Units provided
- Installed as specified

TRAFFIC CONTROL SIGNALS AND INTELLIGENT TRANSPORT SYSTEMS

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

TRAFFIC COUNTING STATIONS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – TRAFFIC COUNTING STATIONS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
19.7.1	Installation: detector loop - Provide 24 hours' notice to the Superintendent prior to installation of vehicle detector loops. Refer to standard drawing CS 1551 and CS 1552	
19.9.1	Testing and Inspection: general - Test the installation in the presence of the Superintendent.	
19.9.3	Testing and Inspection: Inspection - Provide 24 hours' notice to the Superintendent for inspection of excavations for foundations and conduits.	

HOLD POINTS

Obtain the Superintendents approval for the following stages (if applicable):

Spec.Ref.	Item	Checked – Initial and date

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
19.9	Testing and inspection	

COMPLIANCE CHECKS – refer specification**CABINETS**

- Provided
- Installed as specified
- Terminal blocks provided as specified
- Drawings received
- Switchboard for Solar power site installed as specified

CABLING

- Is as specified
- Insulation is as specified

CONDUIT

- Correct type
- Marker tape provided
- Conduits covered as specified

TRAFFIC COUNTING STATIONS

INSTALLATION

- Excavation is as specified
- Backfilling is as specified
- Backfill compacted
- Detector pits provided where specified

INSTALLATION – VEHICLE DETECTION

- Cable type correct
- Saw cut is as specified
- Saw cut backfilled as specified
- Axle sensor guide is as specified
- Axle sensor installation is as specified

SOLAR POWER SUPPLY

- Solar panel secured to mounting plate
- Wiring provided as specified
- Solar panel facing North as specified

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

STREET LIGHTING

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – STREET LIGHTING

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
20.5	Excavation - Notify the Superintendent when trench excavation is complete and before backfilling has commenced.	

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
20.10.2	Temporary Lighting - Submit plans of the proposed temporary street lighting to the Superintendent for approval prior to removal of existing street lights.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
20.11	Testing and commissioning	

COMPLIANCE CHECKS – refer specification**MATERIALS**

- Comply with PowerWater Corporation Street Lighting Manual Volume 3
- Comply with PowerWater Corporation standard drawings
-

EXCAVATION

- Trench width is as specified
- Trench depth is as specified

FOOTINGS

- Installed to required standards

BACKFILLING

- Material is as specified
- Cable installation
- Backfilling is as specified
- Cable marker tapes provided as specified

INSTALLATION OF LIGHT COLUMNS

- Is as shown on the drawings
- Comply with PowerWater Corporation standard drawings

CONNECTION

- Service cables connected

STREET LIGHTING

EXISTING STREET LIGHTING

- Dismantled and removed as specified

TESTING AND COMMISSIONING

- Testing is complete
- PowerWater arranged to live up new works

REINSTATEMENT

- Reinstate any damage to original condition

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

DIRECTIONAL BORING

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – DIRECTIONAL BORING

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date

HOLD POINTS

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
21.3	Proposed Method – Submit details of the proposed method of thrust 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.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
21.3.3	Pressure testing of pipes	

COMPLIANCE CHECKS – refer specification

STANDARDS

- Pipes and fittings to comply with AS 1579

DIRECTIONAL BORING WITH PIPI CASTING

- Minimum pit dimensions
- Equipment approved by WorkSafe
- Casing is as specified
- Casing inside diameter is as specified

DIRECTIONAL BORING WITHOUT PIPE CASING

- Bore hole is as specified
- Plastic skids used
- Joints not stresses or separated

DIRECTIONAL BORING

FILLING OF CAVITIES

- Pressure pipes
 - Grout is as specified
 - Pipe full of water at correct pressure

- Non-pressure pipes
 - Bedding is as specified
 - Bedding thoroughly watered in

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments

PROTECTIVE COATINGS

DEPARTMENT OF INFRASTRUCTURE

CHECK LIST – PROTECTIVE COATINGS

PROJECT		SPEC.NO.	
Checked by		Title	
Work lot		Date	

WITNESS POINTS

Give sufficient notice so that inspection may be made at the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
22.13	Equipment - Give notice so that this test may be witnessed by the Superintendent or their nominated representative.	
22.21	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.	
22.26	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.	
22.32	Contractor Records - Maintain these reports on a daily basis. Submit them to the Superintendent when requested, or, if not specifically requested, at least weekly.	
22.33	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.	

HOLD POINTs

Obtain the Superintendent's approval for the following stages (if applicable);

Spec.Ref.	Item	Checked – Initial and date
22.2	Protective coatings - Complete and submit Site testing of protective coatings: To AS 3894.10 and AS 3894.11 and AS 3894.12	
22.17	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.	

PROTECTIVE COATINGS

22.19	Alternate surface protection - 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.	
22.21	Coating - Provide coating manufacturers' written approval for use before using any other additives (eg promoters, accelerators etc).	
22.25	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.	
22.26	Coating defects - Any requirements for the repair of protective coatings shall be identified as a Hold Point in the contractor's ITP.	
22.31	Inspection Test Plans (ITPs), Job Safety Analysis (JSAs) and Safe Work Method Statements (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.	
22.32	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.	
22.33	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.	
22.34	Inspector - Provide the name and qualifications of the inspector prior to commencement of work.	

TESTS

Give sufficient notice so that the Superintendent may witness testing;

Spec.Ref.	Item	Checked – Initial and date
22.31	ITPs, JSAs, & SWMS	

PROTECTIVE COATINGS

COMPLIANCE CHECKS – refer specification

PROTECTIVE COATING SPECIFICATIONS

- Is as specification tables 22.37

CONTRACTOR RESPONSIBILITIES

- Details of plant and equipment
- Written details of experience
- ITPs
- Environmental Policy
- Warranties

TRAFFIC MANAGEMENT PLAN

- Permit to Work in a Road Reserve
- Traffic Management Plan

ENVIRONMENTAL CONDITIONS

- Environmental Test Reports

Action Required - ITC issued on items that do not comply

Reported to:	Date:

Final Check

Made by:		Date:
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Comments
