

Contract Administration System Manual: Procedure – CAP006M

Implementation of the Administrator's Surveillance Plan

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1 Introduction

1.1 Purpose

The purpose of this procedure is to provide information to implement the *Administrator's Surveillance Plan* (CAF001M) which is the key document for managing the risk-managed surveillance process. Successful surveillance is essential for the Administrator to be able to exercise their functions under the Contract (including the certification that the Works have been completed to the requirements of the Contract).

The *Administrator's Surveillance Plan* (CAF001M) is not part of the Contract and it is not intended to duplicate the Contractor's contract or quality plans.

NOTE: This procedure does not provide Contract law advice which is outside the scope of the Contract Administration System (CAS) Manual. Also, all the legislations and acts stated in this manual are reference only. Please refer the contact for correct version and the year.

The Contractor can liaise with the Project Manager or Contract Administrator to access the materials which are referred in this document and located in the department's intranet.

1.2 Scope

The scope of this procedure is to provide the necessary framework to allow the surveillance process to be implemented successfully on a risk basis.

1.3 Definitions, Abbreviations and Acronyms

Abbreviation	Description
CAR	Corrective Action Request.
CHA	Cultural Heritage Agreement, is an agreement between an Indigenous group/s and DTMR that addresses a range of matters specific to the management of cultural heritage on the project
CHMP	Cultural Heritage Management Plan is a higher level statutory agreement between an Indigenous group/s and Transport and Main Roads, requires the implementation of certain measures to ensure the management of cultural heritage on the project
COP	Code of Practice
Contractor	Is the person identified as the Contractor in the contract
Department	Department of Transport and Main Roads
EMP / EMP (C)	Environmental Management Plan which may include the EMP - Planning or the EMP – Construction depending on the context of the text
GCoC	General Conditions of Contract – TIC
Lot Register	A register system in which the Contractor records each lot of work
MUTCD	Queensland Manual of Uniform Traffic Control Devices
NCR	Non - conformance Report
PM	Project Manager – appointed by the Principal to manage the overall project of which the TIC may be one of a number of separate contracts under the project
PPE	Personal Protective Equipment

Abbreviation	Description
Principal	The Principal is the person stated in the Annexure (State of Queensland acting through the department)
TIC	Transport Infrastructure Contract
Administrator	The person appointed as the Administrator by the Principal
TCP	Traffic Control Plan
TMC	Traffic Management Centre
WHS	Work, Health and Safety

1.4 General

The prime responsibility for quality control for all products or services specified in the Contract, and to consistently satisfy specified requirements, lies with the Contractor. This includes the management of Subcontractors.

The prime responsibility for verification that a product or service meets specified requirements lies with the Principal. Generally, this responsibility is vested in the Administrator.

In a Transport Infrastructure Contract (TIC), as for all contracts, verification of product quality is paramount in ensuring that value for money is achieved.

Appendix A illustrates the typical model for surveillance planning and implementation. It also shows the need for review of the *Administrator's Surveillance Plan* (CAF001M) as risk to the Contract or the surveillance process changes.

It is recommended the Administrator provide the Project Manager with a copy of the *Administrator's Surveillance Plan* (CAF001M). This will assist in communicating intent and a common understanding early in the Contract.

2 Responsibilities

Responsibilities and functions should have been established in the initial *Administrator's Surveillance Plan* (CAF001M) and whenever there is a change in staff a review is needed.

The Administrator's engineering staff have legal responsibilities beyond those stated specifically in the Contract. These legal responsibilities include but are not limited to showing a duty of care to themselves and others where there is a safety issue in the workplace. The Administrator must give any known hazard and risk information relating to the site to the Contractor.

3 Process

3.1 General

It is important to note that the *Administrator's Surveillance Plan* (CAF001M) is a live document. At the start of implementation, any amendments to the Administrator's and Contractor's staffing, the Contractor's construction program, lot register and any identified changes to risk, the *Administrator's Surveillance Plan* (CAF001M) will need to be reviewed and amended accordingly.

3.2 Contract Familiarisation

Prior to proceeding with the implementation of the *Administrator's Surveillance Plan* (CAF001M), the surveillance team must gain a thorough understanding of:

- Project scope
- Contract and project cumulative risk profile
- Contract documentation and drawings, including the Contractor's contract plans (including program and lot register – when available)
- The Contractor's strengths and weaknesses identified from performance reports, provided as feedback to appropriate prequalification and approved supplier systems, and
- The feedback received from stakeholders of the community consultation.

This research will identify issues which need to be clarified or may highlight risks which should be included in the revised risk assessment.

The review of the Contractor's contract plan (including sub-contract materials/services suppliers when known) should be undertaken at this stage to determine if the plan is contract/site specific and suitable.

This review would also include:

- Organisation structure – do the Contractor's personnel reflect the qualification/experience required by the Contract or the prequalification systems?
- Are the responsibilities/authorities of the Contractor's personnel clear?
- Process Plans including work method statements (work and verification).
- Process Plans (statutory/regulatory requirements – construction safety, traffic, quality, environment including cultural heritage, and community liaison, as required).
 - Are these plans contract/site specific?
 - Are they in accordance with contract, specifications and legislation?
- Inclusion and suitability of program, cash flows, construction procedures, inspections and test plans, work method statements for high risk activities, surveillance plan for subcontractors and internal audit plan.

To undertake this task, the Administrator needs to include all the contract supervisory staff and other appropriate resources and use current risk management techniques to effectively undertake the assessment and review.

3.3 Stakeholder Issues

Once on site, new or additional stakeholder issues may surface which could impact on the level of surveillance assumed in the initial *Administrator's Surveillance Plan* (CAF001M). For example, there may be complaints about environmental or dust matters, the clearing of trees or the location of the Contractor's facilities.

3.4 Risk Assessment

Prior to the commencement of construction, the Administrator, their team and specialist advisors (for example, Work Health and Safety (WHS), environment, geotechnical, structures, blasting and piling) undertook an analysis of the risks associated with the surveillance activities required to allow verification of the Contractor's works. The onsite and external surveillance team may need to review these risks with the knowledge of:

- Actual Contractor's site staff as opposed to those nominated in the tender
- Actual Contractor's plant and equipment on site
- Actual Contractor's Subcontractors and subcontract details
- Contractor's construction plan, and
- Contractor's lot register.

As for the initial *Administrator's Surveillance Plan* (CAF001M), the surveillance actions now to be undertaken and the remaining risk profile are significant inputs into the revised *Administrator's Surveillance Plan* (CAF001M).

The Contract may include Principal Supplied Materials/works or services, for example:

- Precast concrete products such as culverts and bridge girders
- Welded products
- Bridge bearings, and
- Relocation of utility services.

These Principal supplied items are to be the responsibility of the Project Manager until completed in accordance with the specific supply or Contract.

It is important to note that the risk register and subsequent related documents are 'live' documents in that as the risk to successful surveillance activities changes, or are perceived to change, the risk register and subsequent documents change, particularly the *Administrator's Surveillance Plan* (CAF001M).

4 Surveillance requirements

There are some special surveillance activities which require some additional guidance such as:

- Testing surveillance
- Survey surveillance
- Specialist activity surveillance

4.1 Frequency of Surveillance

The frequency at which the surveillance is undertaken is an outcome of the risk assessment, nature of the activity (time specific, or frequency based), the requirements of the Contract specifications or defined in ancillary systems such as specialists' suppliers. Surveillance should be carried out at the beginning of all new processes undertaken by the Contractor and then re-assessed dependent on the Contractor's performance.

Reference also needs to be made to the Contractor's construction program and lot register.

The frequency of surveillance may be varied during the Contract depending on the Contractor's performance, changing risk profiles or significant changes to agreed processes.

4.2 Resource Requirements

If surveillance staff resources have changed in number, skill level or availability since the initial *Administrator's Surveillance Plan* (CAF001M), then a reassessment of the responsibility matrix and the impact this change has on both the resource levels for and timing of surveillance may be necessary.

As mentioned in the *Development of the Administrator's Surveillance Plan* (CAP002M), it is also a recommended strategy to schedule surveillance of critical, repetitive and significant activities such that the first work activity in these fields is closely monitored and/or audited. To this must also be added any activity of which the surveillance team as a whole does not have a good practical working knowledge. Having a contractual knowledge of the requirements does not overcome practical experience. External assistance, even for a short time at the commencement of an activity may overcome any initial lack of experience in its monitoring or auditing by the surveillance team.

Details of a sample Contractor's construction program and an Administrator's surveillance activities program overlaid on the former are attached as Figures 2 and 3 as a guide to the process.

4.3 Communication Requirements

The initial *Administrator's Surveillance Plan* (CAF001M) will include details of the communication plan for the Contract and will cover internal and external communications; team, designer and monthly contract conference; internal pre-start conference, contract pre-start conference and post-construction conference as required.

5 Implementation of the Administrator's Surveillance Plan

5.1 Surveillance

5.1.1 General

The *Administrator's Surveillance Plan* (CAF001M) is aligned with the Contractor's Contract Plan and the risk assessment undertaken by the Administrator's team. The Contractor's planning for traffic, environmental, safety and any other specific requirements will be incorporated within the contract plan.

The surveillance schedule will depend on the desired frequency of regular, and timing of specific, surveillance activities. This will include aspects such as product quality, safety, environmental, traffic, cultural heritage and community. It is noted that scheduling activities and resources for surveillance is not seen as separate programs (for example, environment, safety and so on), but rather part of the overall risk management for the project. Targeting specific resources for specialist areas is simply part of the process.

Sample standard checklists have been developed for high risk or repetitive activities. These also include audit checklists for the various plans required in the contract and associated surveillance processes.

5.1.2 Non-conformance Management

Non-conformances are systems, processes, product and materials which do not conform to the Contractor's contract plan (including the quality plan), and the Contract. Non-conformances may be identified through surveillance activities and may include such issues as:

- Systems not being complied with (failure to comply with the component plans of the contract plan)
- Processes not being carried out as per the accepted Contractor's work method statements
- Product not in accordance with the drawings or the specifications, and
- Materials not in accordance with the specifications.

5.1.2.1 Non-Conformances (other than as a result of surveillance)

These types of non-conformances are managed as follows:

- The Contractor issues Non-Conformance Reports (NCR) on their systems, processes, product and materials and logs the NCR in their NCR register
- The NCR register is available to the Administrator at any time and it is not necessary for the Administrator to have a separate copy of the Contractor's NCR register
- The disposition of the NCR has to be acceptable to the Administrator as they have to sign off on the NCR to that effect
- If the NCR is not acceptable, the Administrator may choose to discuss the issue with the Contractor to obtain a resolution acceptable to the Administrator
- Failing to obtain an acceptable resolution, leaves the Administrator no choice but to issue a Corrective Action Request (CAR) to the Contractor which the Contractor now has to deal with to the Administrator's satisfaction (Note that a CAR is an escalation of the issue which may lead to other issues for the Contractor if CARs keep accumulating as this could be considered to be a systems failure with greater consequences for the Contractor), and
- The Administrator may monitor the disposition of the NCR (and the subsequent CAR if applicable).
- The disposition of NCR's involving risks to the Principal (in the short or long term) shall be monitored by the Administrator. These risks may also include repeated process or product non-conformances which by themselves are not an issue, but when looked at collectively become a sign of inherent or systemic problems within the Contractor's quality assurance system.

5.1.2.2 Non-conformance as a result of surveillance audit

These types of non-conformances are managed as follows:

- Non-conformances are recorded by means of systems, process and product audit reports, diary notes, photographs, videos, or a combination of these (Note that system audits other than those from the contract plan are internal to the Contractor's quality assurance system but the results should be made available for the Administrator)
- Storage of audit reports should be in chronological order and linked to the lot number or the system or process to which they refer

- Non-conformances are brought to the Contractor's attention for their action in various ways depending on the level of non-conformance which are discussed below
- Non-conformances are categorised and dealt with as:
 - A CAR is issued by the Administrator if in the opinion of the Administrator a non-conforming activity is significant (for example, non-compliance with an approved Traffic Control Plan (TCP), non-compliance with an approved work method statement for a high risk activity, non-compliance with the environmental management plan by spoiling unsuitable material into an environmentally sensitive area)
 - The Contractor's failure to provide a conforming product, through either substandard materials, or quality control, will result in the issue of a CAR (unless the Contractor has already identified it with a NCR)
 - The Contractor's disposition of the CAR is to be to the Administrator's satisfaction and the Administrator may monitor its disposition
 - The closed-out CAR is filed in the Administrator's CAR register
 - It should be noted that where a non-conformance is also an incident significant enough to report, then the incident shall be placed on the *Issue and Complaints Register (CAF016M)* as a record in case the matter is raised again or has later consequences, and
 - If the non-conformance is considered not to be a CAR but still requiring attention and a follow-up, then it may be dealt with as an issue. Examples could include a non-conformance due to a sediment fence being damaged but required to be put back into place, a non-conformance due to a graffiti covered traffic sign and some litter around the site offices. These issues may need to be tracked to confirm they are closed out.

5.1.2.3 Non-conformance as a result of surveillance monitoring

During monitoring by observations and information received during the course of the Contractor's works by the surveillance team, non-conformances are likely to be noted. The actions taken can include:

- For low risk non-conformances under a partnering process, speak with the relevant Contractor's representative to correct and record the outcome.
- For a low risk non-conformance not under a partnering process, the attention of the relevant Contractor's representative should be drawn to the matter with a NCR the likely outcome.
- For higher risk or repetitive non-conformances, either an audit by the Administrator with the likely outcome being a CAR or a NCR from the Contractor is required if the Administrator is able to raise the matter with the Contractor.
- For any breach of safety issues (including traffic matters), an instruction to cease the unsafe action should be made followed by the immediate issuing of a CAR. This action shall precede any advice to the Contractor on the basis that the Administrator's staff have an immediate obligation to prevent any unsafe action from continuing.

On the confirmation of the occurrence of a non-conformance by the Contractor, the Administrator shall advise the Contractor by using *Corrective Action Request (CAF031M)*. The resultant CAR will be sequentially numbered and recorded on the *Corrective Action Request Register (CAF022M)*.

The non-conformances may result from any source of audit or from on-site monitoring where for example, an unsafe work practice is being performed and an audit of the process is subsequently made.

The issuing of a CAR or a series of CARs on the same subject can, under certain circumstances, be a serious breach of the Contract which will have important consequences for the Contractor under the Contract. Other examples of serious breaches under the Contract are listed in the General Conditions of Contract.

While not ignoring the contractual obligation of the Administrator, in some circumstances, the successful resolution of the problem causing a potential breach of contract may be a more desirable outcome. If the CAR-related matter can be resolved quickly and effectively by a letter requiring a resolution by a set deadline, failing which, the CAR or CARs shall be issued, then pressure can be applied to the Contractor to deliver. Under these circumstances, the Contractor has the obligation to conform to the Contractor's own quality plan or face the likelihood of being placed in breach of the contract. If used on site, this approach should have the specific approval of the Administrator as consistency in application of the Contract within the particular Contract under similar conditions is paramount.

In some special cases where materials or the finished works are found to be non-complying / defective, the Principal may decide to accept the materials or work under certain conditions (which may include at a reduced cost or by means of compensating the Principal in some other agreed way). This issue is the responsibility of the Principal who may take action as a result of a report from the Administrator on the matter at hand.

5.1.3 Systems Audits of the Contractor's Contract Plan

Systems audits are conducted to confirm the various components of the contract plan are in accordance with the Contract requirements.

A set of relevant checklists is found under '*Contract Administration System- Checklists - Systems*' on departmental website.

5.1.3.1 Quality Plan

An initial desktop audit of the Contractor's quality plan shall be carried out for compliance with the Contract using review of *Contractor's Quality Plan* (CAC001M). Advice to the Contractor as to the suitability of the plan may be given using *Direction as to Suitability* (CAL004M).

Subsequent audits are to ensure that the Contractor is implementing the procedures included in the accepted quality plan using *Quality Plan Implementation* (CAC002M). Audits of the quality plan should be scheduled on a risk management basis. At least one audit should be programmed for each contract.

5.1.3.2 Environmental Management Plan (Construction)

The Contractor is required to submit an environmental management plan (construction) and this plan is to be reviewed and deemed suitable by the Administrator prior to proceeding with any relevant work under the Contract. Failure to provide or implement a conforming environmental management plan (construction) will result in the issuing of a CAR.

An initial desktop audit of the Contractor's submitted environmental management plan (construction) shall be carried out for compliance with the Contract. The regional environmental advisors shall be involved in the process. Review of Contractor's *Environmental Management Plan - Construction* (CAC003M) can be used. Advice to the Contractor as to the suitability of the plan can be given using *Direction as to Suitability* (CAL004M).

Subsequent systems audits are to ensure that the Contractor is implementing the procedures in the accepted environmental management plan (construction) and shall be risk based. Implementation of the Contractor's *Environmental Management Plan – (Construction) Implementation* (CAC004M) can be used. At least one formal environmental systems audit should be carried out on each project.

Further to the above, it should be noted that the Contractor is required to undertake rigorous environmental inspections and reporting for compliance reasons by MRTS51 *Environmental Management*. The Administrator needs to be aware of this requirement and take appropriate action to ensure compliance with the Contract. *Erosion and Sediment Control (Site Inspection)* (CAC005M) can be used.

5.1.3.3 Workplace Health and Safety Management Plan

An initial desktop review using the *Workplace Health and Safety Management Plan Review Checklist* (CAC006M) should be carried out for compliance with the Contract. Advice to the Contractor as to the suitability of the plan can be given using *Direction that the Quality Plan is Suitable / Not Suitable* (CAL004M).

The system audit on the implementation of the Contractor's WHS plan shall be carried out on each project and shall be risk based. The Contractor's actual performance on site may also impact on the number of system audits conducted.

5.1.3.4 Traffic Management Plan

The Contractor is required to submit a traffic management plan prior to its implementation on site. This plan is to be reviewed by the Administrator's team prior to works commencing. Failure to provide and implement a conforming (safe) traffic management plan will result in the issuing of a CAR by the Administrator.

The Contractor's traffic management plan must be compiled by a suitably trained person who must have received training as detailed in *Traffic Management for Construction or Maintenance Code of Practice*. The traffic management plan includes traffic guidance schemes which are typical signage layouts and demonstrate the Contractor has adequately identified the risks associated with the site. These traffic guidance schemes may be amended to suit actual site conditions following commencement of the Works.

An initial audit of the Contractor's submitted traffic management plan shall be carried out for compliance with the Contract and Queensland *Manual of Uniform Traffic Control Devices*.

Traffic Management Plan Implementation (CAC008M) can be used for the audit of the traffic management plan. Advice to the Contractor as to the suitability of the plan can be given using *Direction that the Quality Plan is Suitable / Not Suitable* (CAL004M).

Subsequent systems audits are used to assist in determining that the Contractor is implementing the procedures in the accepted traffic management plan and shall be risk based. *Traffic Management Plan Implementation* (CAC009M) can be used. At least one such audit should be carried out on each project.

5.1.3.5 Incident Management Plan

In some projects where incidents (for example, safety, traffic, environment or community liaison) are likely to require a high level of risk management, then a separate incident management plan may be required under the Contract to focus attention on the issues. This matter is not dealt with further but may be added in future revisions.

5.1.3.6 Cultural Heritage Management Plan

On a Contract where cultural heritage responsibilities have been identified, the usual deliverable will be a cultural heritage agreement or a cultural heritage management plan prepared by the Principal in advance of the Contract. The cultural heritage agreement or cultural heritage management plan will generally involve a third party comprising Indigenous personnel for Indigenous issues being employed as Nominated Subcontractors to the Contractor to carry out the stipulated requirements. The surveillance requirements for the Administrator will revolve around safety matters as Indigenous personnel will be working closely to construction plant and ensuring the requirements of the cultural heritage agreement or cultural heritage management plan are complied with. As for the whole site, the Contractor's workplace plan prevails.

Where cultural heritage issues arise during a Contract, the development of a cultural heritage agreement or cultural heritage management plan is dependent on the site conditions and may involve instructions from the Administrator for exclusion zones to isolate the affected areas while assessments are made as to determine the extent of cultural heritage works required. Obviously, the risk of a claim from the Contractor for delays and associated costs increases under this situation, so good communications with all parties and expedient decisions are needed to minimise the impact. The work will most likely be carried out by a third party but in this instance, they will be working as agents of the Principal under Clause 10 *Selected and Nominated Subcontractors, of the General Conditions of Contract*. Surveillance activities related to site safety and the requirements of the cultural heritage agreement or cultural heritage management plan should be carried out as appropriate.

5.1.3.7 Community Liaison Plan

For some contracts, the community liaison plan is passed to the Contractor under specific conditions and for others, the liaison role stays with the Administrator. In either case, the involvement of the department's communications personnel is generally written into the contract as the Principal is ultimately responsible for the successful delivery of the project. If a Community Liaison Plan is required to be submitted by the Contractor, an initial desktop audit of the Contractor submitted Community Liaison Plan should be carried out for compliance with the contract documents. *Community Liaison Plan* (CAC010M) can be used. Advice to the Contractor as to the suitability of the plan may be given using *Direction as to Suitability* (CAL004M).

5.1.3.8 Construction Program

A desktop audit of the Contractor's construction program (when submitted) should be carried out for compliance with the Contract. *Construction Program* (CAC011M) may be used. Advice to the Contractor as to the suitability of the plan can be given using *Construction Program* (CAL005M).

Subsequent systems audits to ensure the Contractor is complying with the Contract may be necessary if it is considered that the updated versions of the construction program are no longer complying.

Construction Program (CAC011M) can also be used for this audit.

All construction program audits require skilled and careful consideration to avoid issues which can arise with “creative programming”. A comparison with the tender program and meticulous updating of the Contractor’s progress and reasons for delays if they do occur are also essential to provide data in the event of claims arising.

5.1.4 Process Audits

Process audits are conducted to confirm compliance with the accepted contract plan.

A set of relevant checklists are attached as for Systems, Process and Product Audits.

5.1.4.1 Compaction Audits

Audits on the conformance of the process for material compaction shall be ordered as required, with consideration given to the following circumstances:

- Visual inspection of lot leaving quality in doubt
- New material type
- New material source
- Site monitoring indicates possible non-conformance
- Material handling and/or compaction identified as having a significant risk to the project and
- Contractor’s test results appear to be compromised.

Compaction Audits can be ordered using *Test Request for Concrete and Compaction* (CAF034M).

5.1.4.2 Survey Audits

Audits on the conformance of survey control by the Contractor may also be ordered. The use of parallel auditing using one set of instruments being read by both parties is recommended to reduce disagreements.

5.1.4.3 Testing Audits

Testing audits may include testing procedures for soils, embankment material, pavement, concrete and sealing aggregates for grading, Atterberg Limits, Los Angeles Abrasion test, shear strength and so on. The *Materials Testing Manual* (MTM) provides methods for sampling and testing of soils, aggregates, rocks, bituminous materials, asphalt, cement, concrete, road marking materials and pavements. This manual is available in the departmental website.

The sampling and testing of concrete samples can also be audited by ordering through *Test Request for Concrete and Compactions* (CAF034M).

However, parallel or check testing may be a preferable alternative which gives more certainty about whether the process is correct, with minimum disagreement as both parties are reading the same instruments.

5.1.4.4 Other Process Audits

Where not part of Principal Supplied Materials, works or services, the Administrator is responsible for the surveillance of various specialist activities and processes, for example pre-casting for bridge work, steel fabrication, pile driving, sealing, asphalt works or blasting. Such surveillance requires specialist skills and often requires the use of a specialist surveillance team.

The need for specialist assistance should have been identified in the initial *Administrator's Surveillance Plan* (CAF001M). However, if conditions have since changed, then arrangements should be made for specialists to either provide the surveillance activities (preferably with site staff in attendance and being trained) or train the site staff prior to the process.

Failing to identify the site staff shortcomings, particularly in specialist areas, is more than likely to lead to a significant issue later on.

There may be a need for other process audits related to specialised work method statements, the success of which are critical to the success of the Works (placing concrete under standing water through a trammie or concrete pump into a pile; pre-split blasting techniques for the final face of a bulk excavation; placing mass concrete under temperature control to prevent cracking; the installation of wick drains or stone columns in foundations; placing embankments over soft ground using settlement controls).

The risks for these more critical works are often related to the fact that recovery from a failure of a process is either not possible, grossly expensive or produces a totally unacceptable product either technically or aesthetically. Identifying these risks early and mitigating them by managing proper surveillance through the *Administrator's Surveillance Plan* (CAF001M) is therefore essential.

Special consideration needs to be given to process audits where work method statements are required for high risk work activities (working in confined spaces, working at heights, working over and under water). By their very nature, these activities demand attention from the surveillance teams and the advice of the specialist regional WHS advisors is a necessity.

5.1.4.5 Environmental Surveillance

Site environmental audits based on a contract risk assessment are usually conducted by the regional environmental staff. However, an early audit during clearing works is likely to be advantageous as the standards of environmental awareness can be set early in the life of the Contract.

Surveillance activities may include:

- Reviewing identified activities
- Monitoring site activities with the greatest risk
- Identifying current and potential environmental issues
- Flagging potential environmental issues
- Audit reports for all issues, and
- Assessing the overall job site and work in accordance with the environmental management plan (construction).

Any environmental non-conformances are dealt with in the same way as all other non-conformances: the non-conformances are classified into issues, incidents and reportable matters requiring a CAR. A separate environmental issues, incident and CAR register may be raised if the project warrants this.

5.1.4.6 Cultural Heritage Management

Cultural heritage management is very complex and requires the skills and knowledge of the appropriate community representatives (Indigenous and non-Indigenous). The Administrator and their staff are to assist the contract's nominated external specialists to enable them the best chance of preserving any artefacts, sites and values.

To assist with cultural heritage preservation the Administrator may want to conduct the following surveillance activities:

- Monitoring construction activities to check compliance with the project specific requirements given in the Annexure MRTS51.1.
- Monitoring construction activities to check appropriate protection measures are used to protect identified areas of significance.
- Checking the Contractor's records to check all staff working on activities which disturb the natural ground surface have attended the department's Indigenous cultural heritage induction or a cultural heritage induction course nominated by the Principal.
- Monitoring works to check the Contractor stops work at the appropriate times.
- Auditing the Contractor's site inspection records to check they have at minimum a daily record of a visual assessment of the exclusion zone/s.

Where the department has entered into an cultural heritage agreement, the Administrator should check that the Contractor complies with the provisions of the agreement as stated in the Annexure MRTS51.1. A copy of the agreement should be available from the location given in the Annexure MRTS51.1.

5.1.4.7 Work Health and Safety

5.1.4.7.1 General

Everyone, including the Administrator and their team, has a duty of care to all persons working on-site or in the office. It is everyone's responsibility to assist in WHS to safeguard all persons in the workplace are free from death, injury or illness caused by the work environment; or free from the risk of any of these events occurring. Ultimately, the Contractor is responsible for safety on the construction site under the WHS legislation.

However, under the Contract, the Contractor is required to notify the Administrator of all WHS issues and the degree of severity of the issue will determine the outcome as discussed below.

All persons working on the construction site must attend a site safety induction prior to entry. This induction is conducted by the Contractor and persons attending the site safety induction must have successfully undertaken a general safety induction course and have been issued with a "Blue Card" or "White Card".

All site visitors must attend a site specific induction on the condition the visitors are accompanied to site by a fully inducted person. A visitor is defined as a person not currently carrying out work at that particular site. A "Blue Card" or "White Card" is not mandatory for all visitors.

All persons undergoing the site specific induction must sign the Contractor's induction register. The person accompanying the visitors must be fully inducted and also have to have their credentials and signature recorded in the register.

All persons going on-site, including visitors, must wear the personal protection equipment required for the site, as specified by the Contractor.

The surveillance team should audit the Contractor's register to confirm that the Contractor is inducting persons as above and that the "Blue Card" and "White Card" numbers are being recorded.

5.1.4.7.2 Responsibilities

The Contractor shall be responsible for providing a safe work site and for the reporting of all incidents. Under the Contract, the Contractor also has obligations to keep the Administrator advised of all WHS issues.

The Administrator is required to provide the Principal with up-to-date information on the status of WHS matters.

5.1.4.7.3 Reporting Notifiable Injuries and Dangerous Events

It is essential that the Administrator and site staff are made aware of these requirements which are detailed in the *WHS Act 2011* and associated regulations. Details are available in the WHS Portal through the *WHSS017 - Incident Classification and Reporting* standard.

The *WHSS017 - Incident Classification and Reporting* standard provides definitions of accidents, incidents, injuries and near-misses. Incidents are further categorised into those that are notifiable and various levels of safety incidents. The incidents range from low to high potential for causing or nearly causing fatalities, injuries and damages over a range of escalating costs. The escalation of the reporting process is totally dependent on the severity of the incident with reports on fatalities going directly to the Director-General of the department.

Incidents and Issues (CAP005M) procedure provides guidelines for the consistent reporting and notification of the following accidents/incidents:

- Improvement and prohibition notices issued by WHS Queensland;
- All work-related injuries, particularly notifiable work related injuries and lost-time injuries; and
- Workplace illness and dangerous events.

Any improvement or prohibition notice issued by WHS Queensland to the Contractor shall be complied with. As an infringement of legislation is a non-conformance the Contractor is required to notify the Administrator about any improvement or prohibition notice issued. The matter shall be resolved by the Contractor to the satisfaction of WHS Queensland.

Assistance should be sought from the regional WHS advisor on the reporting process as appropriate.

The *Issue and Complaints Register (CAF016M)* shall be used to record all accidents and incidents.

The *Issue and Complaints Register (CAF016M)* shall be tabled at the monthly site conference and current events recorded and actioned as part of the minutes.

In some cases, this will involve obtaining feedback and advice from other sources outside the Contract such as communications officers or WHS advisors.

5.1.5 Traffic Management

5.1.5.1 General

The process audits of the traffic control plan are essential on a risk management basis. This needs to take into account issues such as traffic and pedestrian volumes; make-up of traffic (numbers of heavy vehicles) and pedestrians (school children, elderly people); actual speed and posted speed of traffic; prior accident history of the area; day and night works; street lighting; natural or man-made obstructions and so on.

The requirements of the *Traffic Management for Construction or Maintenance Code of Practice* in respect to auditors being “relevant persons” must be complied with.

It should be noted that engineers and non-engineers responsible for WHS under *Traffic Management for Construction or Maintenance Code of Practice* are liable for prosecution under an adverse WHS situation. WHS advisors cannot be prosecuted under the *Traffic Management for Construction or Maintenance Code of Practice* legislation unless they do not act when a safety issue is known to them.

5.1.5.2 Surveillance

For those activities identified as requiring traffic control, the Contractor's first lot (and subsequently as required based on the assessed risks) for that activity should be monitored for implementation of their traffic management plan to confirm:

- Traffic control plan submitted and accepted
- Location of regulatory devices
- Conformance with the Queensland *Manual of Uniform Traffic Control Devices* (MUTCD)
- Safety of through traffic and pedestrians
- Safety of site staff and especially traffic controllers who commonly are at the forefront of potential conflict with traffic
- Traffic delay times
- Notification of lane closures to the Traffic Management Centre (TMC) where appropriate, and
- Documentation of all the times daily controls and the traffic control plan are in place.

Using a hard copy of the Contractor's traffic control plan and marking off every sign, distance and location on the plan is recommended for the audit. The Contractor is advised of the results of the traffic control plan audit by *Prescribed Notice* (CAL006M).

Audit results are to be filed as part of the site records management process.

5.1.5.3 Dangerous Incidents

If an audit shows that the traffic management plan, traffic control plan or any work activity is identified as unsafe and endangering life, the following actions are required:

- That activity will be stopped immediately by the Administrator under the Contract
- Advise key personnel
 - Contractor notified
 - Administrator's Representative notified
 - Regional WHS advisor contacted, and
 - Other persons contacted as detailed in the WHS Portal. A CAR shall be issued
- Details are to be recorded as per Incidents and Issues (CAP005M), and
- Occurrences should be included in the site conference agenda, discussed and processes reviewed.

Subsequent systems audits are to ensure the Contractor is implementing the revised procedures in the accepted traffic management plan and/or traffic control plan and shall be risk based. *Traffic Management Plan* (CAC009M) can be used. At least one such audit should be carried out on each project.

Additional audits, and/or night-time systems audits of the work site shall be conducted if the risk management assessment indicates unacceptable risks exist.

5.1.5.4 Traffic Management Issues Register

A separate traffic issues register (for general items) may be warranted depending on the separation of duties and reporting. This, together with the incident report, will be tabled at the monthly site conference and recorded as part of the minutes.

5.1.6 Product Audits

Product audits are conducted on finished products to confirm compliance with the Contract.

A set of relevant checklists for many products required in road and bridge construction is found in '*Contract Administration System - Standard Checklists*' on departmental website. As the Administrator's staff is involved in the auditing of the Contractor's quality assurance process, it is mandatory that a traceable and transparent process of audit reports and associated checklists are used to establish the issues on which the audit findings are based. The reports and checklists can be hardcopy or electronic (read only once completed).

The need for audits are to be assessed on the basis of the risk to the Principal but in general, at least one of each significant lot types listed below should be programmed for audit on each contract:

- Ground surface treatment
- Roadway excavation
- Roadway embankment
- Culvert construction
- Erosion sediment control measures and devices

- Fauna structures
- Landscaping
- Noise barriers
- Subgrade
- Pavement layers
- Asphalt pavement
- Bridge substructure
- Bridge superstructure
- Precast concrete components
- Road lighting, and
- Traffic signals.

All critical compliance testing specified in the relevant specification should be audited on each significant lot type. A risk-based assessment is required.

Alternatively, the Administrator may arrange for a similar level of auditing in the form of independent measurements and tests by the Administrator to confirm the works comply with the requirements of the Contract.

Consider monitoring the Contractor's first lot from start to finish in determining:

- Adherence to approved processes;
- Conformance of material quality; and
- Adequacy of the approved processes to provide a conforming product.

The extent/duration of this activity will depend on the changing risk of the process with repetition of the activity.

5.1.7 Material Quality

5.1.7.1 Mix Designs

Consider acceptance of all mix designs prior to their use in the Works.

5.1.7.2 Material Audits

Audits on the conformance of material quality shall be ordered as required, with consideration given to the following circumstances:

- Visual inspection leaving material quality in doubt
- New material type or source
- Material quality identified as having a potentially adverse risk to the project, and
- Contractor's test results appearing to be compromised.

Off-site materials supply (for example, quarries and specialist suppliers) may be included in the audit/surveillance program unless the materials supply is Principal supplied in which case, the Project Manager will audit the supply. Where registered suppliers to the department are involved, in a separate process controlled by the department, those responsible for the registration need to be kept informed if there are any concerns at site as to any quality related matters.

5.1.8 Records Management

Project surveillance records can be managed using software, paper systems, photo database or a combination of the above.

On site records may include:

- Lot registers (supplied by the Contractor)
- *Inspector Daily Sheet* (CAF018M)
- *Contractor Surveillance Audit Report* (CAF019M)
- *Surveillance Register* (CAF020M)
- Formal audit and test records
- *Incidents and Complaints Register* (CAF016M)
- *Photo Register* (CAF021M) and
- *Corrective Action Request Register* (CAF022M).

Linking the surveillance (and contract administration) records identification system to the Contractor's lot numbers may be beneficial in tracking and future traceability.

5.1.9 Procurement Management

The surveillance of Principal Supplied Materials and works will be by the Project Manager. Liaison between the Administrator and the Project Manager regarding supply time and quality of the materials and work is necessary to keep the Contractor informed. In the event there are issues raised by the Contractor about the timing or quality of Principal Supplied Materials, the Administrator will need to make a decision based on the Clause 29.7 *Material supplied by the Principal*.

6 Surveillance reporting

6.1 Review and Reporting – General

Refer to *Reports* (CAP004M) for details of surveillance based reports, including those to the Principal.

The *Contractor Surveillance Audit Report* (CAF019M) and *Surveillance Register* (CAF020M) are mandatory and will assist in tracking surveillance activities.

Reviews to assess performance include:

- Performance of the Contractor – Refer *Transport Infrastructure Project Delivery System* (TIPDS), Volume 3
- Performance of the Administrator's team – Refer *Transport Infrastructure Project Delivery System* (TIPDS), Volume 3
- Costs of surveillance

- Progress of project against the Contract, and
- An evaluation of the Contractor's NCR and Administrator's CAR registers.

6.2 Performance Measurement of Surveillance

While Contractor assessments are carried out as part of the department's requirements, it is also recommended to undertake a review of the performance of the surveillance project. Measurement of performance is listed in the *Administrator's Surveillance Plan* (CAF001M).

Success criteria listed in the template target the roles of the Administrator in relation to development of a surveillance plan and its effective implementation. Additional criteria may include:

- Timely review of the Contract and variations
- Timely and appropriate responses to the Contractor's correspondence and variations, and
- Community (or other) project specific items.

7 Contract closeout

Closure of the Contract in regard to surveillance provides for:

- Closure of all NCR and CAR issues on the respective registers
- Assessment of project outputs
- Capture and analysis of project learnings.

Refer to *Contract Closeout* (CAP010M) for surveillance and contract close-out details.

8 Reference documents

- [CAS Standard Checklists \(CAC prefix\)](#)
- [CAS TIC Procedures \(CAP prefix\)](#)
- [CAS TIC Standard Forms \(CAF and SF prefix\)](#)
- [CAS TIC Standard Letters \(CAL prefix\)](#)
- [Transport Infrastructure Contract](#)

Surveillance Planning

Contract Programme: NOWHERE Bridge

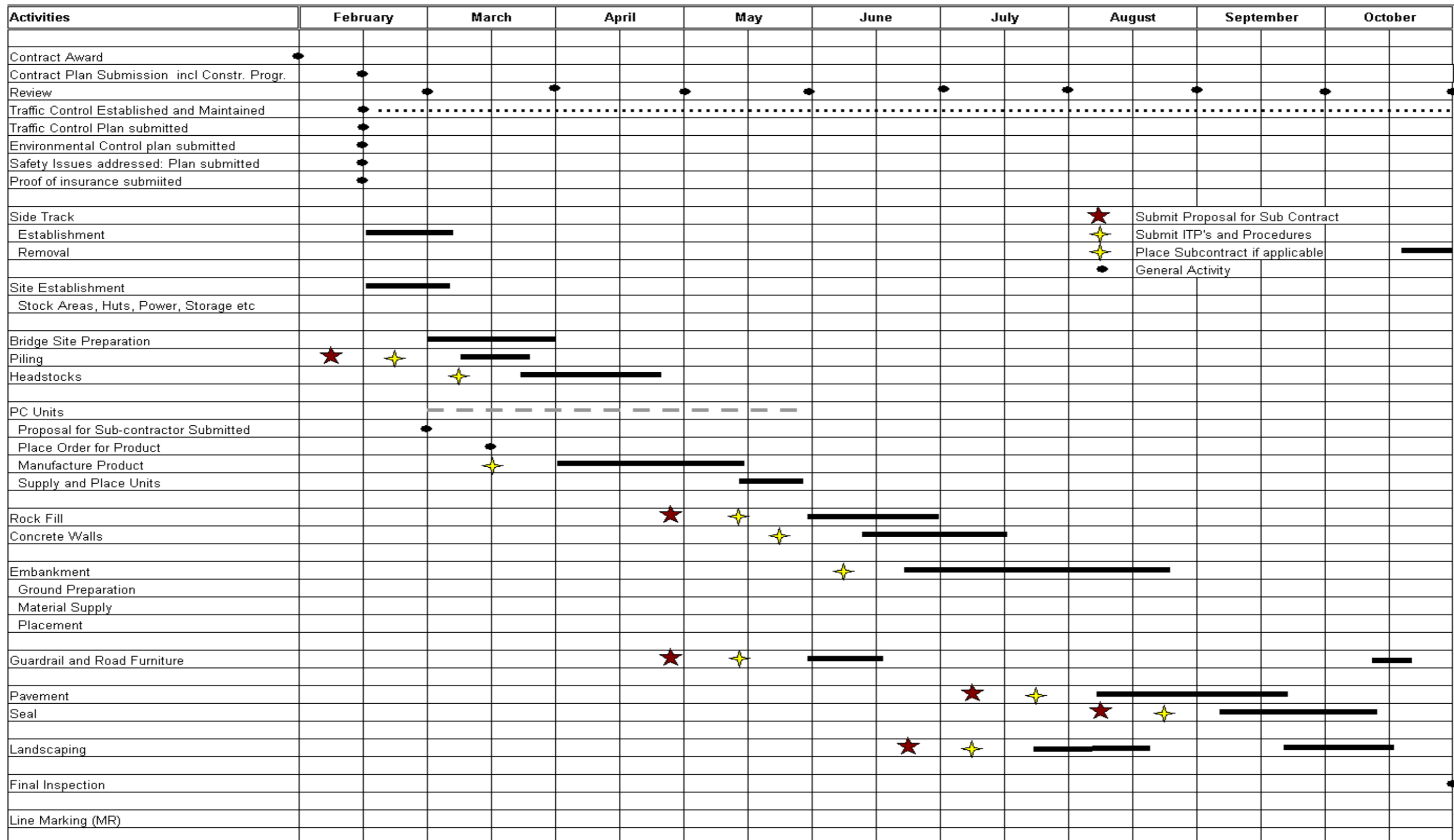


Figure 2 – Sample Contractor's Construction Program

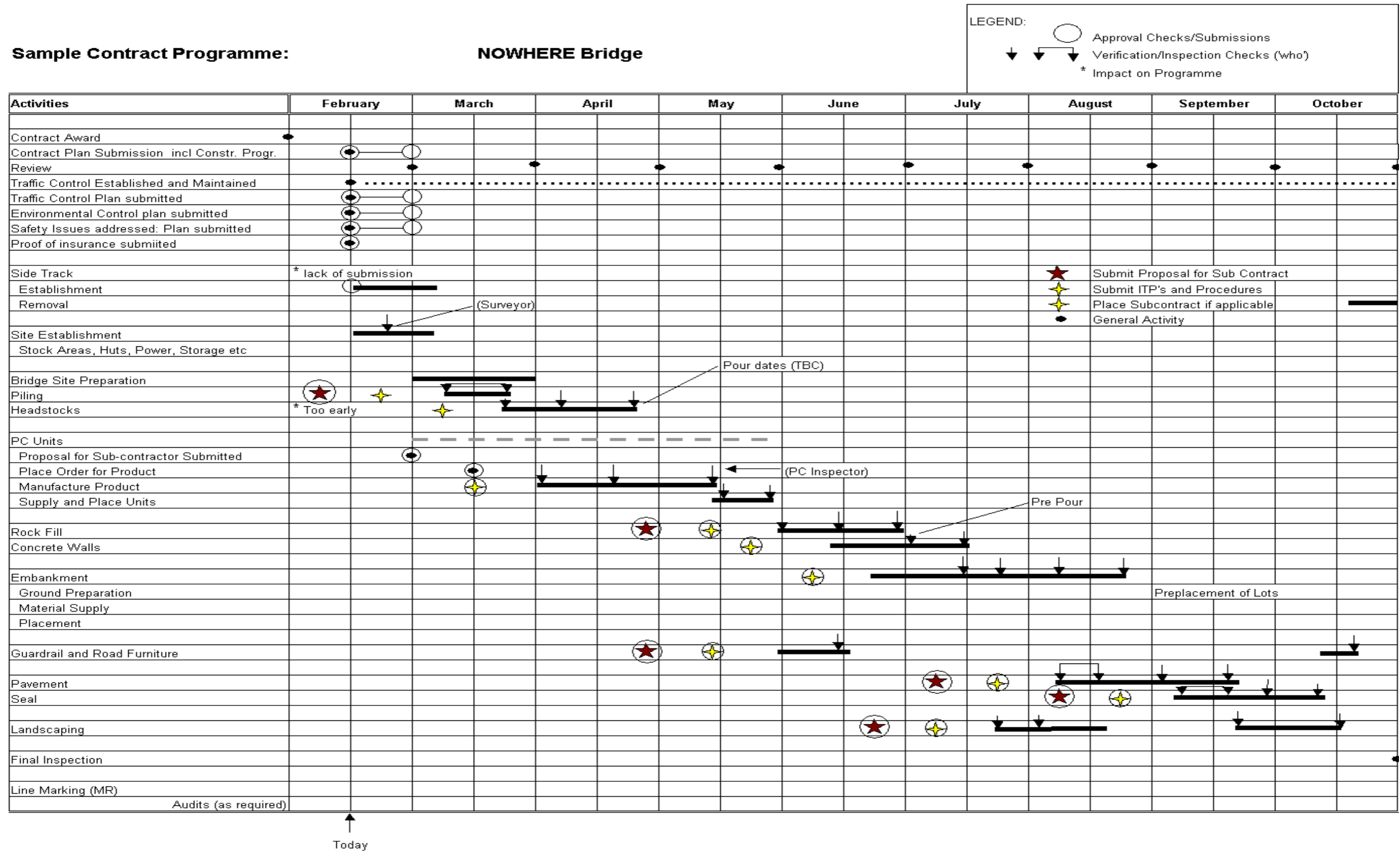


Figure 3 – First Pass Look at Surveillance Activities

Note: Only one hold point is shown on this diagram but many more can be added to assist the Surveillance team to plan their work.

Appendix A: Surveillance Planning and Implementation Model

Planning	Define Scope and Current Situation	<ul style="list-style-type: none"> • Contract Familiarisation • Scope Clarity
	Who are Prime Persons – Stakeholders?	<p>Consider:</p> <ul style="list-style-type: none"> • Principle, Contractor, Administrator • Others who could impact on project/outcomes (Inspectors, other Specialists)
	Undertake Risk Analysis	<p>A function of Contractor's Contract Plan.</p> <p>Consider:</p> <ul style="list-style-type: none"> • Hold Points/Stakeholders • Special processes/Suppliers • High risk practices/Project Environment
	Determine Surveillance Requirements	<p>Consider:</p> <ul style="list-style-type: none"> • Risk Assessment • Specifics for safety, environment, community, traffic and so on
	Determine Resource Requirements for Surveillance	<p>Consider:</p> <ul style="list-style-type: none"> • Resource availability and timing • Specialist Surveillance Officers • Persons from other Regions, organisations • Skill set of Surveillance Officers
	Determine Communication and Admin Support needs	<p>Link to:</p> <ul style="list-style-type: none"> • Key Stakeholders • Risk assessment • Internal and external requirements • Record and support requirements
Implementation / Finalisation	Complete the Surveillance Plan	
	Monitor Activities in accord with Surveillance Plan	<p><i>Monitor</i> with Administrator and Contractor's team. Include:</p> <ul style="list-style-type: none"> • Contractor's Performance • Identify additional risks
	Report on Progress	<p><i>Reviews</i> to ensure alignment. Include:</p> <ul style="list-style-type: none"> • Cost of Surveillance • Effectiveness of Surveillance • Finalisation/Closure/Learnings capture <p>Surveillance and Post Construction Reports</p>

Appendix C: Contract Plan Submissions (GCoC Clause 33.3)

