PROPOSED DUAL OCCUPANCY

PROJECT DEVELOPER
THEO KOUTSIKAMANIS

PROJECT BUILDER
THEO KOUTSIKAMANIS

PROJECT NUMBER
26-0534

SITE DETAILS
BLOCK 12 SECTION 5 FORREST

SITE ADDRESS
20 TALBOT STREET

PROJECT STAGE
DEVELOPMENT APPLICATION

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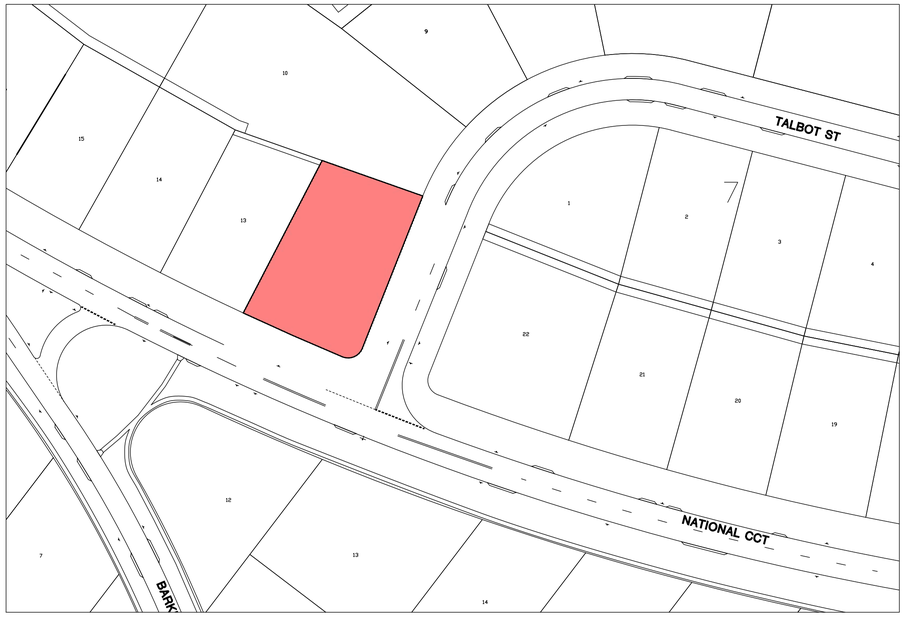
PROJECT LOCATION



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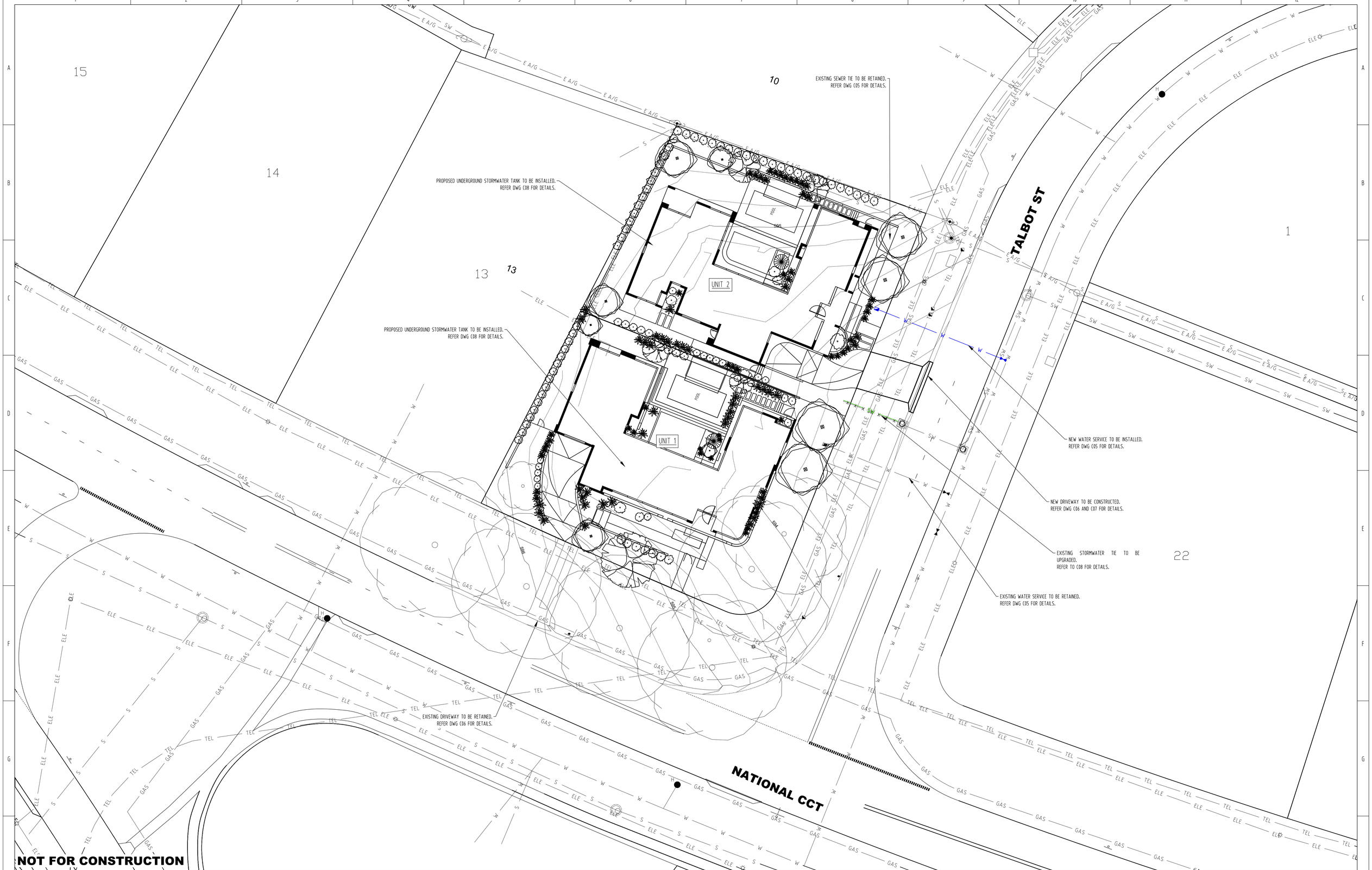

NOT FOR CONSTRUCTION

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A					LK	F					
B						G					
C						H					
D						I					
E						J					

DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE	DATE:	DRAWING No:
AS SHOWN		C01
PROJECT No: 26-0534	REVISION:	

DRAWING TITLE: GENERAL ARRANGEMENTS PLAN

LANDSCAPE MANAGEMENT AND PROTECTION NOTES

1. General

1.1. THESE NOTES MUST BE READ IN CONJUNCTION WITH THE REQUIREMENTS OUTLINED IN TCCS REFERENCE DOCUMENT 04 – LANDSCAPE MANAGEMENT AND PROTECTION PLANS.

1.2. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO ENSURE THAT ALL TERRITORY ASSETS ARE PROTECTED FROM DAMAGE.

1.3. NO WORKS OTHER THAN THOSE IDENTIFIED ON THE APPROVED LMPP ARE TO TAKE PLACE WITHIN THE TREE PROTECTION ZONE (TPZ) OF AN EXISTING TREE. NO CONSTRUCTION ACTIVITIES SUCH AS STORAGE, PARKING, STOCKPILING, SITE SHEDS, CONSTRUCTION ACCESS, WASHDOWN, EXCAVATION, ETC. ARE ACCEPTED WITHOUT APPROVAL.

1.4. PRIOR TO CONSTRUCTION ALL PROTECTION MEASURES INDICATED ON THE APPROVED LMPP MUST BE IMPLEMENTED THE PROJECT TEAM MUST NOTIFY TCCS URBAN TREESCAPES IN WRITING ONCE THE PROTECTION MEASURES HAVE BEEN INSTALLED (VIA TCCS_CPUTDCOORD@ACT.GOV.AU).

2. SITE ACCESS – ALSO REFER TO VEHICLE ACCESS WITHIN THE TREE PROTECTION ZONE

THIS SECTION OF NOTES IS APPLICABLE FOR ALL DEVELOPMENTS.

2.1. SITE ACCESS MUST BE STRICTLY THROUGH THE ACCESS POINTS IDENTIFIED ON THIS PLAN. ACCESS THROUGH UNLEASED LAND THAT IS NOT IDENTIFIED ON THE APPROVED LMPP IS STRICTLY PROHIBITED.

3. STORAGE OF MATERIALS

THIS SECTION OF NOTES IS APPLICABLE FOR ALL DEVELOPMENTS.

3.1. THE STORAGE OF CONSTRUCTION MATERIALS AND THE PARKING OF VEHICLES OR EQUIPMENT ON VERGES OR ADJACENT PUBLIC OPEN SPACES IS NOT PERMITTED WITHOUT PRIOR APPROVAL FROM TCCS.

3.1.1. ONLY STORAGE AND PARKING LOCATIONS ON UNLEASED LAND IDENTIFIED ON THIS LMPP ARE APPROVED.

4. SITE ACCOMMODATION

THIS SECTION OF NOTES IS APPLICABLE FOR ALL DEVELOPMENTS.

4.1. SITE SHEDS, SITE AMENITIES, STORAGE SHEDS, SKIPS, BILLBOARDS, OR CONTAINERS ARE STRICTLY PROHIBITED FROM BEING PLACED ON UNLEASED LAND UNLESS IDENTIFIED ON THE APPROVED LMPP, AND PUBLIC UNLEASED LAND PERMIT.

4.1.1. ONLY SITE AMENITIES ON UNLEASED LAND IDENTIFIED ON THIS LMPP ARE APPROVED.

5. FENCING

THIS SECTION IS APPLICABLE FOR ALL DEVELOPMENT SITES ADJACENT TO UNLEASED LAND. PROTECTION FENCING MUST BE IDENTIFIED ON THE LMPP TO PROTECT TERRITORY ASSETS ADJACENT THE DEVELOPMENT SITE.

5.1. PROTECTION FENCING

5.1.1. FENCING MUST BE ERECTED BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES ON SITE, THIS INCLUDES BUT IS NOT LIMITED TO STARTING OF DEMOLITION WORKS, DELIVERY OF MACHINERY OR MATERIALS, STOCKPILING, STORAGE, ETC.

5.1.2. FENCING MUST BE ERECTED IN THE LOCATION, ALIGNMENTS AND MATERIAL INDICATED ON THE APPROVED LMPP AND MUST STOP ACCESS THROUGHOUT CONSTRUCTION.

5.1.3. FENCING MUST REMAIN IN PLACE FOR THE ENTIRETY OF THE PROJECT DURATION, AND MAINTAINED IN GOOD, SAFE WORKING ORDER UNTIL OPERATIONAL ACCEPTANCE (OA) IS GRANTED. REMOVAL BEFORE OA IS GRANTED MUST BE APPROVED BY TCCS IN WRITING.

5.1.4. FENCING MUST BE 1,800 MM RIGID MESH TEMPORARY FENCE PANELS SUPPORTED BY STEEL POSTS AND CONCRETE BASES. SUPPORT POSTS DRIVEN INTO THE GROUND ARE STRICTLY PROHIBITED.

5.1.5. ALL CONNECTING FIXTURES/HARDWARE MUST BE SECURELY MOUNTED SO FENCING CANNOT BE DISMANTLED AND REMOVED BY THE PUBLIC.

5.1.6. THE USE OF ALTERNATIVE FENCING MATERIALS MUST BE DISCUSSED WITH, AND APPROVED BY, TCCS.

5.1.7. FENCING MUST BE SETBACK FROM FOOTPATHS AND CIVIL INFRASTRUCTURE AS PER TCCS REFERENCE DOCUMENT 04 – LANDSCAPE MANAGEMENT AND PROTECTION PLANS REQUIREMENTS, UNLESS OTHERWISE NOTED ON THE APPROVED LMPP.

6. CANOPY PROTECTION

THIS SECTION OF NOTES IS APPLICABLE WHERE THE EXISTING CANOPY OF A TREE ON UNLEASED LAND IS LIKELY TO BE IMPACTED BY CONSTRUCTION WORKS. THE FOLLOWING CANOPY PROTECTION REQUIREMENTS ARE MANDATORY.

6.1. THE DEVELOPER IS RESPONSIBLE TO PREVENT DAMAGE TO TREE CANOPIES AND PROTECT ALL EXISTING TREE CANOPIES FROM CONSTRUCTION ACTIVITIES.

6.2. PRUNING OF EXISTING CANOPIES IS STRICTLY PROHIBITED UNLESS IDENTIFIED ON THE APPROVED LMPP.

6.3. WHERE ADDITIONAL CANOPY IMPACTS TO THE APPROVED LMPP ARE IDENTIFIED, THE FOLLOWING REQUIREMENTS ARE MANDATORY:

6.3.1. IDENTIFY ANY PRUNING REQUIREMENTS BY NOTIONALLY INDICATING ON A PHOTOGRAPH WHERE THE LIMBS MAY NEED TO BE PRUNED OR TIED BACK AND SUBMIT THIS TO TCCS URBAN TREESCAPES.

6.3.2. WHERE DIRECTED BY TCCS, A SUITABLY QUALIFIED ARBORIST WITH A MINIMUM CERTIFICATE 5 QUALIFICATION MUST BE ENGAGED TO IDENTIFY THE CANOPY IMPACTS AND PROPOSE THE PREFERRED TIE BACK OF LIMBS OR EXTENT OF PRUNING REQUIRED.

6.3.3. WHERE ROOT PRUNING IS IDENTIFIED, REFER TO TREE ROOT PROTECTION OF THESE NOTES.

6.4. BRANCH PRUNING OF TREES ON UNLEASED LAND.
THIS SECTION OF NOTES IS APPLICABLE WHEREVER PRUNING IS REQUIRED TO TREES ON UNLEASED LAND. ALL PRUNING ACTIVITIES MUST BE INDICATED ON THE APPROVED LMPP.

6.4.1. ALL PRUNING AND TYING OF BRANCHES MUST BE UNDERTAKEN BY SUITABLY QUALIFIED ARBORISTS WITH A MINIMUM CERTIFICATE 3 QUALIFICATION, AND AS PER BEST PRACTICES AS DEFINED IN AS 4373.

6.4.2. WHERE PRACTICAL BRANCHES SHOULD BE TIED BACK, CLEAR OF THE WORK, AND PRUNING SHOULD ONLY BE USED AS LAST RESORT.

6.4.3. A PRUNING REPORT FROM THE ARBORIST MUST BE COMPLETED AND ISSUED TO TCCS URBAN TREESCAPES WITH THE LMPP AND LETTER OF DESIGN REVIEW (LODR) FOR APPROVAL BEFORE PRUNING ACTIVITIES CAN COMMENCE.

6.4.4. ONCE THE PRUNING REPORT HAS BEEN ENDORSED BY TCCS URBAN TREESCAPES, THE PROJECT REPRESENTATIVE MUST NOTIFY TCCS URBAN TREESCAPES OF WHEN THE PRUNING IS PLANNED TO TAKE PLACE (VIA TCCS_CPUTDCOORD@ACT.GOV.AU).

7. TRUNK/BRANCH PROTECTION

THIS SECTION IS APPLICABLE WHERE WORK IS REQUIRED WITHIN THE TREE PROTECTION ZONE (TPZ) OF AN EXISTING TREE. TRUNK PROTECTION MUST BE INSTALLED WHEN WORK IS REQUIRED WITHIN THE TPZ OF A TREE.

7.1. PROTECTION BATTENS MUST BE PUT IN PLACE BEFORE COMMENCING THE WORKS AND MAINTAINED IN GOOD CONDITION THROUGHOUT THE WORK PERIOD. PROTECTION BATTENS CAN ONLY BE REMOVED AT THE COMPLETION OF THE WORKS.

7.2. TRUNK PROTECTION (AS PER CURRENT AS 4970 REQUIREMENTS)

7.2.1. LOOSELY WRAP THE TRUNK REQUIRING PROTECTION IN A THICK LAYER OF HESSIAN.

7.2.2. USE MINIMUM 2 M LENGTHS OF TIMBER FOR THE TRUNK PROTECTION AND INSTALL AT BASE OF TRUNK FOR FULL CIRCUMFERENCE OF TREE. SPACE BATTENS SO GAPS BETWEEN BATTENS ARE NO GREATER THAN 20 MM. BATTENS MUST BE UNTREATED TIMBER, FREE OF NAILS, SCREWS OR BOLTS.

7.2.3. LASH BATTENS TO TREE USING STRAPS, ROPE OR HESSIAN WEBBING ENSURING THE BATTENS ARE SECURE AGAINST THE TREE, BUT NOT TOO TIGHT ON THE TRUNK. BATTENS MUST BE LASHED AT THE TOP, BOTTOM AND MIDDLE AS A MINIMUM.

7.3. BRANCH PROTECTION (AS PER CURRENT AS 4970 REQUIREMENTS)

7.3.1. WHERE LOW HANGING BRANCHES GREATER THAN 100 MM IN DIAMETER WILL BE DAMAGED BY THE WORKS, THEY WILL REQUIRE ADDITIONAL PROTECTION.

7.3.2. LOOSELY WRAP THE BRANCHES REQUIRING PROTECTION IN A THICK LAYER OF HESSIAN.

7.3.3. USE TIMBER CUT TO LENGTH TO SUIT THE BRANCH REQUIRING PROTECTION AND INSTALL TO FULL CIRCUMFERENCE OF BRANCH. SPACE BATTENS SO GAPS BETWEEN BATTENS ARE NO GREATER THAN 20 MM. BATTENS MUST BE UNTREATED TIMBER, FREE OF NAILS, SCREWS OF BOLTS.

7.3.4. LASH BATTENS TO TREE USING STRAPS, ROPE OR HESSIAN WEBBING ENSURING THE BATTENS ARE SECURE AGAINST THE TREE, BUT NOT TOO TIGHT ON THE TRUNK. BATTENS MUST BE LASHED AT THE TOP, BOTTOM AND MIDDLE AS A MINIMUM.

8. DEMOLITION WITHIN THE TREE PROTECTION ZONE – ALSO REFER TO CANOPY PROTECTION, TRUNK/BRANCH PROTECTION AND ROOT PROTECTION NOTES

THIS SECTION OF NOTES IS APPLICABLE WHERE EXISTING INFRASTRUCTURE IS REQUIRED TO BE DEMOLISHED WITHIN THE TREE PROTECTION ZONE (TPZ) OF AN EXISTING TREE.

8.1. ANY DEMOLITION WORK WITHIN TPZ AREAS, THAT IS NOT INDICATED ON THE ENDORSED PLAN, IS NOT APPROVED BY TCCS URBAN TREESCAPES.

8.2. IF DEMOLITION WORKS ADDITIONAL TO THE APPROVAL ARE REQUIRED, AN UPDATED LMPP MUST BE PROVIDED TO TCCS FOR RE-ENDORSEMENT BEFORE COMMENCING THE WORKS.

8.3. DEMOLITION OF OLD PAVEMENT WITHIN TPZ

8.3.1. WHERE AN EXISTING DRIVEWAY IS TO BE USED FOR CONSTRUCTION ACCESS, AND IS PROPOSED TO BE REPLACED, ALL CONSTRUCTION WORK IS TO BE COMPLETED PRIOR TO REMOVAL OF THE DRIVEWAY. THIS IS TO ENSURE THE TREE ROOTS DO NOT DRY OUT BEFORE WORK IS COMPLETED.

8.3.2. TO MINIMISE ROOT DAMAGE, THE REMOVAL OF THE EXISTING PAVEMENT SHALL BE CAREFULLY DONE IN SMALL, STAGED SECTIONS AND ONLY TO THE DEPTH OF THE EXISTING CONSTRUCTED PAVEMENT PROFILE (SURFACE LAYER AND BASE LAYER), SO AS TO NOT CAUSE DAMAGE TO TREE ROOTS.

8.3.3. NO VEHICLES OR MACHINERY ARE ALLOWED WITHIN THE TPZ, AND VEHICLES AND MACHINERY MUST ALWAYS STAY OUTSIDE OF THIS ZONE DURING THE REMOVAL OF THE OLD PAVEMENT MATERIAL.

9. EXCAVATION WITHIN THE TREE PROTECTION ZONE – ALSO REFER TO DEMOLITION WITHIN THE TREE PROTECTION ZONE AND TREE ROOT PROTECTION

THIS SECTION OF NOTES IS APPLICABLE WHERE EXCAVATION WITHIN THE TREE PROTECTION ZONE (TPZ) OF A TREE ON UNLEASED LAND IS APPROVED BY TCCS. ALL EXCAVATIONS WITHIN THE TPZ MUST BE SHOWN ON THE LMPP, OTHERWISE IF EXCAVATION IS NOT SHOWN ON THE LMPP THE IMPACT ON THE TREES CAUSED BY THE EXCAVATION IS CONSIDERED UNAPPROVED.

9.1. THE TERM 'EXCAVATION' IN RELATION TO THIS SECTION MEANS ANY EARTHWORKS GREATER THAN 50 MM IN DEPTH FROM THE EXISTING SURFACE LEVEL, INCLUDING TRENCHING FOR SERVICES.

9.2. ONLY THE EXCAVATIONS IDENTIFIED ON THIS LMPP ARE APPROVED WITHIN THE TPZ.

9.3. EXCAVATION WITHIN THE STRUCTURAL ROOT ZONE (SRZ) OF A TREE AS OUTLINED IN AS 4970, IS STRICTLY PROHIBITED.

9.4. EXCAVATION WITHIN THE TPZ MUST BE EXECUTED USING EITHER UNDER-BORING, HYDRO-EXCAVATION OR HAND DIGGING TECHNIQUES, UNLESS AN ALTERNATIVE METHOD HAS BEEN DOCUMENTED AND ENDORSED BY TCCS URBAN TREESCAPES.

9.5. WHERE IDENTIFIED BY TCCS URBAN TREESCAPES, EXCAVATION TO EXPOSE ROOTS MAY BE REQUIRED TO BE UNDERTAKEN BY LOW-PRESSURE HYDRO-EXCAVATION USING A FAN SHAPED NOZZLE HEAD THAT IS KEPT 150MM FROM SOIL PROFILE.

9.6. A SUITABLY QUALIFIED ARBORIST MUST BE PRESENT WHEN EXCAVATIONS THROUGH THE TPZ OF A TREE ARE BEING EXECUTED.

9.7. NO ROOTS GREATER THAN 30 MM IN DIAMETER ARE TO BE CUT, REFER TO TREE ROOT PROTECTION OF THESE NOTES.

9.8. IF ADDITIONAL EXCAVATION WITHIN THE TPZ IS IDENTIFIED TO BE REQUIRED THROUGH THE CONSTRUCTION PERIOD, THE DEVELOPER/CONTRACTOR MUST SEEK APPROVAL FOR THIS EXCAVATION FROM TCCS BEFORE STARTING THE WORKS.

10. TREE ROOT PROTECTION – ALSO REFER TO DEMOLITION WITHIN THE TREE PROTECTION ZONE AND EXCAVATION WITHIN THE TREE PROTECTION ZONE

THIS SECTION IS APPLICABLE WHERE EXISTING TREE ROOTS ARE FOUND IN EXCAVATION LOCATIONS.

10.1. MOST TREE ROOTS ARE FOUND WITHIN THE TOP 300 MM DEPTH OF SOIL.

10.2. MAINTAIN THE GOOD HEALTH OF THE TREES THAT HAVE HAD DISTURBANCE IN THEIR ROOT ZONE BY CONTINUAL WATERING. AT NO TIME SHALL THE DISTURBED AREA BE ALLOWED TO DRY OUT TO THE DETRIMENT OF THE TREE HEALTH.

10.3. WHERE ROOT DAMAGE HAS BEEN CAUSED, THE DEVELOPER MUST SEEK ADVICE FROM AN ARBORIST ABOUT MEASURES TO MINIMISE THE IMPACT OF THE DAMAGE ON THE TREE HEALTH (I.E. ADDITIONAL WATERING, FERTILISING, ETC.).

10.4. ALL EXPOSED ROOTS MUST BE BACKFILLED/COVERED WITH SOIL IMMEDIATELY.

10.4.1. BACKFILL AROUND TREE ROOTS MUST BE IN ACCORDANCE WITH AS 4970 TO MATCH FINISHED LEVELS. WHERE SITE SOIL IS UNABLE TO BE RE-USED, SOIL MEETING MITS 09A TOPSOIL SOIL REQUIREMENTS MUST BE USED UNLESS OTHERWISE APPROVED.

10.4.2. WHERE ROOTS CANNOT BE COVERED IMMEDIATELY THE ROOTS MUST BE PROTECTED FROM DESICCATION BY LIGHTLY WATERING OR COVERING WITH HESSIAN WHICH MUST BE KEPT MOIST.

10.4.3. WHERE PROPOSED WORKS COME IN CONTACT WITH TREE ROOTS, A LAYER OF GEOTEXTILE FABRIC MUST BE PLACED OVER THE ROOTS AND UNDERNEATH ANY NEW PAVEMENT OR INFRASTRUCTURE (DRIVEWAYS AND FOOTPATHS FOR EXAMPLE).

10.5. ROOT PRUNING

10.5.1. CUTTING OF ROOTS SHOULD BE THE LAST RESORT AND ONLY UNDERTAKEN IF NO OTHER OPTION IS AVAILABLE.

10.5.2. ROOTS GREATER THAN 30 MM IN DIAMETER MUST NOT BE CUT. IF ROOTS GREATER THAN 30 MM IN DIAMETER ARE REQUIRED TO BE CUT, APPROVAL FROM TCCS URBAN TREESCAPES MUST BE SOUGHT BEFORE CUTTING.

10.5.3. ALL ROOTS SHALL BE CUT WITH SUITABLE PROFESSIONAL EQUIPMENT AND BY SUITABLY QUALIFIED ARBORISTS WITH A MINIMUM CERTIFICATE 3 QUALIFICATION.

10.5.4. ANY ROOTS THAT ARE REQUIRED TO BE REMOVED MUST BE CUT CLEANLY WITH CLEAN AND SHARP ARBORIST TOOLS. TREE ROOTS ARE NOT TO BE RIPPED, TORN, OR PULLED AWAY FROM THE ROOT MASS.

11. VEHICLE ACCESS WITHIN THE TREE PROTECTION ZONE

THIS SECTION OF NOTES IS APPLICABLE WHERE ANY VEHICLE MOVEMENT IS REQUIRED THROUGH THE TREE PROTECTION ZONE (TPZ) OF AN EXISTING TREE. ALL ACCESS THROUGH THE TPZ OF AN EXISTING TREE MUST BE INDICATED ON THE APPROVED LMPP.

11.1. VEHICLE ACCESS THROUGH THE TPZ OF AN EXISTING TREE IS STRICTLY PROHIBITED UNLESS INDICATED AND APPROVED ON THE PROJECT LMPP.

11.2. VEHICLE ACCESS WITHIN THE STRUCTURAL ROOTS ZONE (REFER TO CURRENT AS 4970) IS STRICTLY PROHIBITED.

11.3. VEHICLE ACCESS THROUGH A LOW HANGING CANOPY (LESS THAN 3.5 M CLEARANCE FROM EXISTING GROUND TO THE LOWEST MAJOR LIMB) IS STRICTLY PROHIBITED.

11.4. CLEARLY MARK OUT THE APPROVED ACCESS ROUTE ONSITE SO VEHICLES DO NOT DEVIATE FROM THE APPROVED ROUTE.

11.5. ACCESS ROUTE STABILISATION WITHIN THE TPZ

11.5.1. PLACE A MINIMUM 200 MM LAYER OF ORGANIC 25 MM WOOD CHIP MULCH ON THE AREA OF THE TPZ THE VEHICLE ROUTE PASSES THROUGH. THE MULCH LAYER IS TO BE MAINTAINED AT THIS THICKNESS UNDER VEHICLE ROUTES AS LONG AS ACCESS IS REQUIRED.

11.5.2. PLACE A PROTECTIVE BOARD (RUMBLE BOARD) OVER THE MULCH ENSURING EACH BOARD IS SECURELY CONNECTED TO THE NEXT BOARD (AS REQUIRED) WITH GAPS NO GREATER THAN 30 MM BETWEEN BOARDS.

11.5.3. BOARDS MUST BE KEPT IN PLACE AND IN GOOD CONDITION FOR AS LONG AS ACCESS IS REQUIREMENTS.

11.5.4. ALTERNATIVE STABILISATION METHODOLOGY FOR AN ACCESS ROUTE, SUCH AS TO ENABLE ACCESS FOR HEAVY VEHICLES, MUST BE BASED ON A DESIGN BY A SUITABLY QUALIFIED DESIGNER AND MUST BE APPROVED FOR USE BY TCCS.

11.6. WHERE VEHICLES ARE LIKELY TO CONFLICT WITH BRANCHES, BRANCH PROTECTION MUST BE IMPLEMENTED. REFER TO CANOPY PROTECTION AND TRUNK/BRANCH PROTECTION FOR LIMB PROTECTION REQUIREMENTS.

11.7. IF PRUNING OF A TREE IS REQUIRED TO FACILITATE ACCESS, REFER TO CANOPY PROTECTION FOR PRUNING REQUIREMENTS.

11.8. VEHICLE ACCESS THROUGH THE TPZ OF AN EXISTING TREE MUST NOT BE CLOSER THAN 3 M TO THE TRUNK OF THE TREE (UNLESS OTHERWISE AGREED WITH TCCS).

12. RECTIFICATION OF UNLEASED LAND

THIS SECTION OF NOTES IS APPLICABLE TO ALL DEVELOPMENTS.

12.1. AT THE FINALISATION OF THE DEVELOPMENT WORKS, THE TERRITORY ASSETS IN UNLEASED LAND ADJACENT THE DEVELOPMENT MUST BE UNALTERED AND IN THE SAME OR BETTER CONDITION THAN BEFORE THE DEVELOPMENT WORKS COMMENCED, UNLESS ADJUSTMENTS TO THESE ASSETS HAVE BEEN APPROVED BY TCCS.

12.2. WHERE TERRITORY ASSETS ON UNLEASED LAND HAVE BEEN DAMAGED BY THE DEVELOPMENT, THESE ASSETS MUST BE FULLY RECTIFIED AT THE COST OF THE DEVELOPER TO THE REQUIREMENTS IN THE TCCS MUNICIPAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS, OR THE REQUIREMENTS IN THE COMPOSITE VERGE LANDSCAPE PLAN, AS APPROVED BY TCCS.

13 SITE SPECIFIC TREE PROTECTION MEASURES

13.1 THIS SECTION IS WHERE THE PROPONENT OR TCCS CAN INSERT ADDITIONAL SITE-SPECIFIC PROTECTION REQUIREMENTS TO THE ABOVE - DELETE IF NOT APPLICABLE

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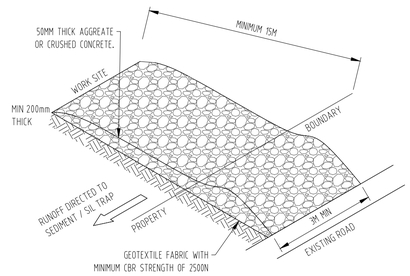
LEGEND

EXISTING		PROPOSED	
TEL		COMMS / TEL	TEL
SW		STORMWATER	SW
ELE		ELEC	ELE
E A/G		ELEC ABOVE GROUND	E A/G
E HV		ELEC HV	E HV
E LV		ELEC LV	E LV
GAS		GAS	GAS
S		SEWER	S
S R/M		SEWER RISING MAIN	S R/M
W		WATER	W
W (P)		WATER - PRIVATE	W (P)
		DISCONNECT	— X · X · X · X · X · X · X —
		SW MANHOLE	
		SW PIT	
		SW SUMP	
		SERVICE ENDCAP	
		SCOUR STOP	
		TANK - ABOVE GROUND	
		TANK - BELOW GROUND	
H		WATER HYDRANT	H
		WATER METER	
		WATER VALVE	
		WATER THRUST BLOCK	
		SEWER MANHOLE	
		SEWER ENDCAP	
RP		SEWER RODDING POINT	RP
		SCOUR STOP	
		STREET LIGHT	
		ELECTRICTY POLE	
		STREET TREE	



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DEVELOPER: THEO KOUTSIKAMANIS

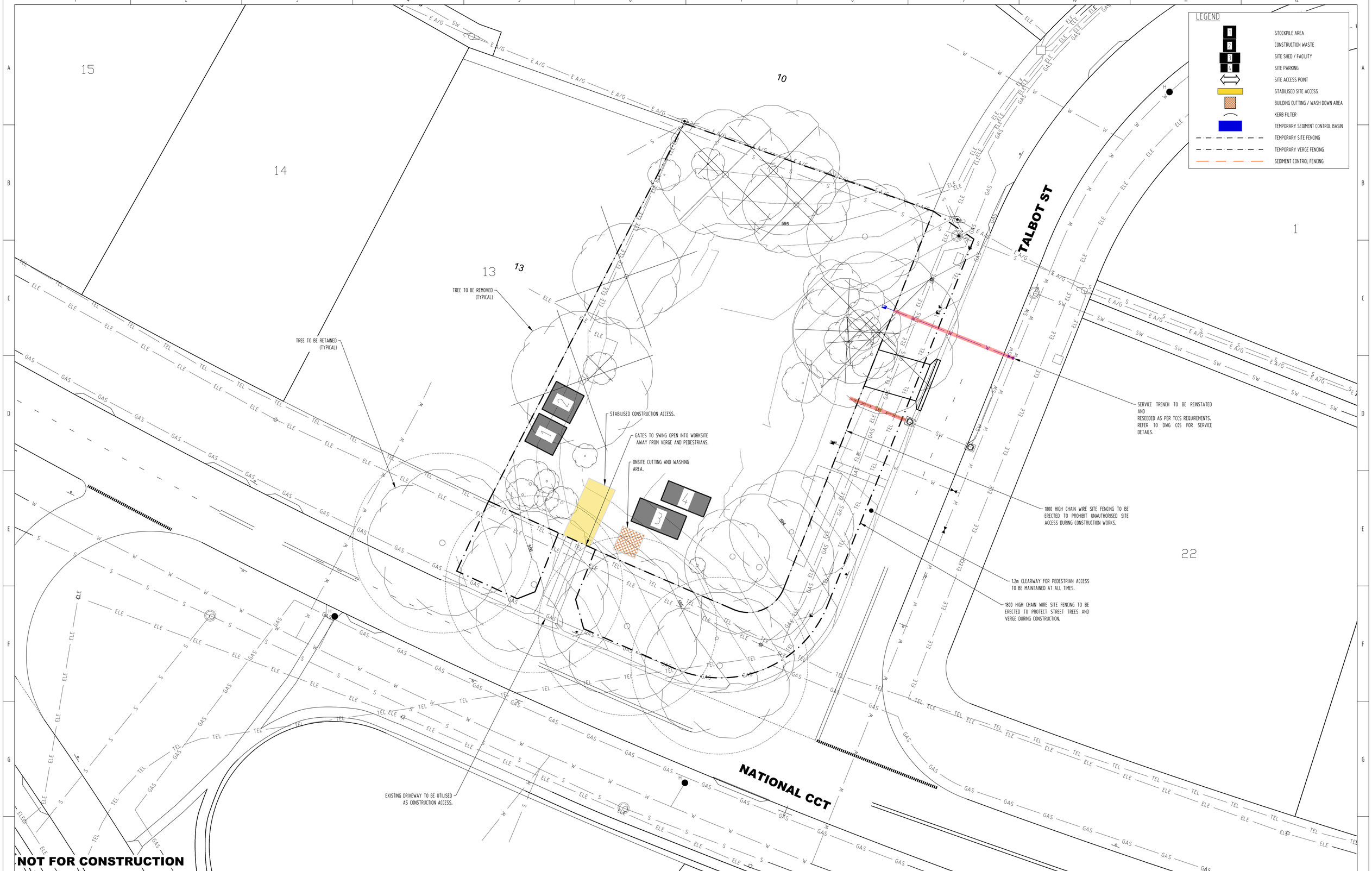
BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE	DATE:	DRAWING No:
AS SHOWN		C02
PROJECT No: 26-0534	REVISION:	

DRAWING TITLE: CONSTRUCTION MANAGEMENT NOTES AND DETAILS



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DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE: AS SHOWN

DATE:

DRAWING No: C03

PROJECT No: 26-0534

REVISION:

DRAWING TITLE: TREE / LANDSCAPE MANAGEMENT AND PROTECTION PLAN

ENVIRONMENTAL PROTECTION NOTES

1. INDUCTION AND TRAINING
- 1.1. THE PERSON RESPONSIBLE FOR THE SITE SHOULD ENSURE THEIR EMPLOYEES AND SUBCONTRACTORS ARE APPROPRIATELY INDUCTED/TRAINED TO IMPLEMENT AND MONITOR THE APPROVED ESC PLAN AND OTHER POLLUTION CONTROL MEASURES.
- 1.2. THE TRAINING SHOULD INCLUDE:
  - 1.2.1. OVERVIEW OF THE APPROVED ESC PLAN AND OTHER POLLUTION CONTROL MEASURES (E.G. NOISE, AIR AND WASTE CONTROLS)
  - 1.2.2. ANY SITE-SPECIFIC CONSTRAINTS (E.G. HERITAGE SITES, ECOLOGICAL COMMUNITIES)
  - 1.2.3. THE LOCATION AND TYPE OF EROSION AND SEDIMENT CONTROLS
  - 1.2.4. SPILL PREVENTION AND CLEAN UP MEASURES
  - 1.2.5. MAINTENANCE PROCEDURES FOR EACH OF THE EROSION AND SEDIMENT CONTROLS (AND COMPLETION OF THE DAILY ENVIRONMENTAL CHECKLIST, FOUND AT SCHEDULE 2)
  - 1.2.6. INSPECTION AND MAINTENANCE RECORD KEEPING REQUIREMENTS
  - 1.2.7. THEIR LEGAL RESPONSIBILITIES AND DUTY TO PROTECT THE ENVIRONMENT.

2. INSTALLATION OF CONTROLS
- 2.1. INSTALL EROSION AND SEDIMENT CONTROLS PRIOR TO COMMENCING ANY EARTHWORKS OR CONSTRUCTION WORK.
- 2.2. PROTECT AREAS THAT ARE TO REMAIN UNDISTURBED (E.G., FENCING).
- 2.3. REGARDLESS OF WHETHER THE MEASURES ARE TEMPORARY OR PERMANENT, EROSION AND SEDIMENT CONTROL MEASURES ARE THE FIRST ITEMS CONSTRUCTED PRIOR TO WORK COMMENCING AND MUST BE COMPLETELY FUNCTIONAL BEFORE LAND DISTURBANCE TAKES PLACE.

3. INSPECTION AND MONITORING
- 3.1. THE PERSON RESPONSIBLE FOR THE SITE APPOINTS A STAFF MEMBER TO:
  - 3.1.1. BE RESPONSIBLE FOR INSPECTING AND MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES
  - 3.1.2. INSPECT THE CONTROLS AT THE END OF EACH DAY AND AFTER ANY RAINFALL EVENT
  - 3.1.3. MONITOR CONTROLS AND COMPLETE THE DAILY ENVIRONMENTAL CHECKLIST
  - 3.1.4. MAINTAIN AND STORE THESE RECORDS UNTIL THE CONCLUSION OF THE PROJECT AND PROVIDE THEM WHEN REQUESTED BY EPA OFFICERS.

4. MAINTENANCE
- 4.1. MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES UNTIL THE SITE IS FULLY STABILISED.
- 4.2. MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES FOR EACH STAGE OF THE DEVELOPMENT UNTIL THE ENTIRE SITE IS FULLY STABILISED.
- 4.3. IF EROSION AND SEDIMENT CONTROL MEASURES ARE DESIGNED FOR MULTIPLE STAGES THEY MUST BE MAINTAINED UNTIL THE WHOLE AREA THEY WERE DESIGNED TO MANAGE IS FULLY STABILISED.
- 4.4. IF CONTROLS ARE DAMAGED OR NOT FUNCTIONAL, REPAIR THEM IMMEDIATELY.

5. SITE HANDOVER
- 5.1. THE TIMING OF SITE HANDOVER IS A KEY FEATURE IN EFFECTIVE EROSION AND SEDIMENT CONTROL.
- 5.2. HAND RESPONSIBILITY FOR EROSION AND SEDIMENT CONTROL TO THE RELEVANT PARTIES WHEN RESPONSIBILITY FOR A SITE (OR STAGE OF DEVELOPMENT) IS TRANSFERRED.
- 5.3. ENSURE THE SITE IS PROGRESSIVELY STABILISED AND ALL CONTROLS ARE FULLY FUNCTIONAL AT TIME OF HANDOVER.
- 5.4. MAKE THE NEW RESPONSIBLE PARTY (WHETHER THEY ARE LANDOWNERS, INDIVIDUAL BUILDERS OR A GOVERNMENT AGENCY) FULLY AWARE OF THEIR OBLIGATIONS TO MAINTAIN EROSION AND SEDIMENT CONTROLS UNTIL THE SITE IS FULLY STABILISED.
- 5.5. WHERE THE PUBLIC LAND ASSETS ARE TRANSFERRED FROM THE LAND DEVELOPER TO THE TERRITORY, THE RELEVANT TERRITORY LAND CUSTODIAN IS RESPONSIBLE FOR MAINTAINING THE CONTROLS UNTIL THE SITE IS FULLY STABILISED.
- 5.6. FOR INDIVIDUAL BUILDING SITES WITHIN A LARGER DEVELOPMENT SITE, THE OWNER/BUILDER IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS UNTIL THE INDIVIDUAL SITE IS FULLY STABILISED.

6. SITE STABILISATION
- 6.1. SITE STABILISATION MEASURES INCLUDE:
  - 6.1.1. STABILISATION PLANNING
  - 6.1.2. STABILISED ACCESS POINTS AND GRID/VEHICLE WASH BAYS
  - 6.1.3. VEGETATIVE COVER
  - 6.1.4. OTHER STABILISATION MEASURES, SUCH AS THE USE OF STABILISING POLYMERS, BINDING AGENTS, STRAW MULCH ETC.
- 6.2. REQUIREMENTS
  - 6.2.1. ALL SITES ARE TO HAVE A FUNCTIONAL STABILISED ACCESS POINT.
  - 6.2.2. STABILISATION MEASURES SHOULD BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, ESTIMATED DURATION OF USE AND POTENTIAL WATER QUALITY IMPACTS THAT STABILISATION AGENTS MAY HAVE ON DOWNSTREAM WATERS OR GROUND WATER.
  - 6.2.3. FOLLOWING EARTHWORKS, LEAVE SOIL SURFACES ON DISTURBED SLOPES IN A ROUGHENED CONDITION (CONTOURED STRIATIONS OR FURROWS) AND CONSTRUCT A WATER DIVERSION AT THE TOP OF THE SLOPE. ROUGH SOIL SURFACES DO NOT ERODE AS EASILY AS SMOOTH SOIL SURFACES.
  - 6.2.4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO REMAIN IN PLACE UNTIL THE SITE IS FULLY STABILISED.
- 6.3. STABILISATION PLANNING
  - 6.3.1. ASSESS THE PHYSICAL CHARACTERISTICS OF THE SITE TO DETERMINE HOW IT CAN BE DEVELOPED WITH THE SMALLEST RISK OF ENVIRONMENTAL HARM. MINIMISE LAND RESHAPING BY USING EXISTING TOPOGRAPHY WHERE POSSIBLE.
  - 6.3.2. WHEN UNDERTAKING SITE LAYOUT PLANNING, ENSURE APPROPRIATE PLACEMENT OF SITE COMPOUNDS AND SHEDS, STABILISED ACCESS POINTS AND MATERIAL LAY DOWN AREAS, WASH AREAS, CUTTING AREAS, STOCKPILE PLACEMENT AND WASTE ENCLOSURE AREAS.
  - 6.3.3. LIMIT THE EXTENT OF EXPOSED AND UNPROTECTED AREAS BY PRESERVING EXISTING GROUNDCOVER WHERE POSSIBLE.
  - 6.3.4. BEFORE COMMENCING WORK, PROTECT ALL AREAS TO REMAIN UNDISTURBED (E.G FENCING OR OTHER BARRIER CONTROLS IF REQUIRED)
  - 6.3.5. USE PROGRESSIVE/STAGED CLEARING AND CONSTRUCTION IN PREFERENCE TO MASS CLEARING AND CONSTRUCTION PARTICULARLY FOR GREENFIELD LAND DEVELOPMENTS.
- 6.4. STABILISED ACCESS POINTS AND GRID/VEHICLE WASH BAYS
  - 6.4.1. A STABILISED ACCESS POINT CONSISTS OF A STABILISED PAD OF COARSE AGGREGATE, ROCK OR RECYCLED CONCRETE (MIN 40MM IN SIZE) UNDERLAIN WITH GEOTEXTILE FABRIC LOCATED AT ANY POINT WHERE TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE, INCLUDING A PUBLIC ROAD, STREET, OPEN SPACE OR PARKING AREA.
  - 6.4.2. REQUIREMENTS
    - 6.4.2.1. LIMIT TO ONE SITE ENTRY/EXIT POINT WHERE POSSIBLE.
    - 6.4.2.2. WHERE THERE IS HEAVY TRAFFIC, A GRID OR VEHICLE WASH BAY MAY BE NECESSARY.
    - 6.4.2.3. EARTHMOVING EQUIPMENT AND TRAFFICKING BY HEAVY EQUIPMENT EXPOSES THE SOIL AND SUBJECTS IT TO HIGH EROSIVE POTENTIAL. ALL ACCESS MUST BE CONTROLLED ON THE SITE AND VEHICLES AND PLANT MUST KEEP TO WELL-DEFINED HAUL ROADS TO MINIMISE GROUND DISTURBANCE AND COMPACTION.
    - 6.4.2.4. A STABILISED ACCESS POINT IS TEMPORARY AND MUST BE DECOMMISSIONED AT THE CONCLUSION OF CONSTRUCTION.
- 6.5. DESIGN CRITERIA- STABILISED ACCESS POINT
  - 6.5.1. WHERE POSSIBLE, CHOOSE AN ACCESS POINT IN AN ELEVATED POSITION WITH LITTLE OR NO WATER RUN-OFF FROM UPSLOPE.
  - 6.5.2. THE APPROPRIATE LOCATION FOR CONSTRUCTION ACCESS MAY NOT ALWAYS BE THE PROPOSED DRIVEWAY LOCATION.
  - 6.5.3. REMOVE TOP LAYER OF SOIL AT LEAST 3 METRES WIDE FROM THE ROAD TO THE CONSTRUCTION SITE.
  - 6.5.4. USE MINIMUM 40MM AGGREGATE OR RECYCLED CONCRETE OR EQUIVALENT TO A DEPTH OF 200MM WITH AN UNDERLAY OF HEAVY-DUTY GEOTEXTILE FABRIC CLOTH.
  - 6.5.5. WHERE THE PAD SLOPES TOWARD THE ROAD, INSTALL A 300MM HIGH BUND (HUMP) ACROSS THE PAD TO DIVERT STORMWATER RUN-OFF TO A SEDIMENT FENCE FOR FILTERING.
  - 6.5.6. ACCESS ARRANGEMENTS ARE TO HAVE A MINIMUM LENGTH OF APPROXIMATELY 15 METRES OR FOUR TO FIVE VEHICLE WHEEL REVOLUTIONS OVER THE ROCK.
- 6.6. REQUIREMENTS
  - 6.6.1. THE STABILISED ACCESS POINT IS TO BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO ROADS.
  - 6.6.2. IF SEDIMENT DOES TRACK ONTO THE ROAD FOR ANY REASON, REMOVE IT IMMEDIATELY.
  - 6.6.3. MONITOR FOR COMPACTION FROM VEHICLES AND ADD AGGREGATE OR EQUIVALENT AS REQUIRED.
  - 6.6.4. CHECK THE STABILISED ACCESS AT THE END OF EACH DAY AND BEFORE AND AFTER A RAIN EVENT.
- 6.7. DESIGN CRITERIA - GRID/VEHICLE WASH BAY
  - 6.7.1. WHERE THERE IS HEAVY TRAFFIC, A GRID OR VEHICLE WASH BAY MAY BE NECESSARY.
  - 6.7.2. DESIGN THE GRID OR VEHICLE WASH BAY SO WATER LEAVING THE AREA DOES NOT ENTER THE STORMWATER SYSTEM.
  - 6.7.3. PERIODICALLY LIFT AND CLEAR OUT THE GRID OR VEHICLE WASH BAY.
  - 6.7.4. GRIDS AND VEHICLE WASH BAYS SHOULD BE PRECEDED AND FOLLOWED BY STABILISED MATERIAL TO REDUCE MATERIAL LOAD ENTERING GRID OR WASH BAY AND ENSURE THAT VEHICLES DO NOT CARRY MUD/DIRT OFF-SITE.

7. VEGETATIVE COVER
- 7.1. THE MAINTENANCE AND RE-ESTABLISHMENT OF VEGETATION ARE THE MOST IMPORTANT FACTORS IN MINIMISING EROSION DURING DEVELOPMENT. PERMANENT VEGETATIVE COVER OVER EXPOSED SOIL AREAS WILL STABILISE THE SOIL, SLOW THE MOVEMENT OF STORMWATER RUN-OFF AND INCREASE INFILTRATION TO HELP PROTECT NEARBY WETLANDS, STREAMS OR OTHER ENVIRONMENTALLY SENSITIVE AREAS.
- 7.2. VEGETATION SHIELDS THE SOIL SURFACE FROM RAINDROP IMPACT WHILE THE ROOT MASS HOLDS SOIL PARTICLES IN PLACE. GRASS BUFFER STRIPS CAN BE USED TO FILTER SEDIMENT FROM SURFACE RUN-OFF AND TO PREVENT WIND DISPERSION.

8. VEGETATIVE BUFFERS
- 8.1. THE MAINTENANCE OF VEGETATION ADJACENT TO WATER BODIES, WETLANDS AND OTHER AREAS OF NATURAL RESOURCE VALUE IS ESSENTIAL TO ENSURE SUCH AREAS ARE NOT ADVERSELY AFFECTED BY CONSTRUCTION OR BY STORMWATER RUN-OFF ONCE CONSTRUCTION IS COMPLETED.

9. REVEGETATION
- 9.1. STABILISATION MEASURES (EITHER TEMPORARY OR PERMANENT) ARE TO BE APPLIED WITHIN SIX DAYS OF DISTURBANCE AND/OR FINAL EARTHWORKS SHAPING, DURING NOVEMBER TO FEBRUARY INCLUSIVE AND UP TO 14 DAYS DURING THE REST OF THE YEAR.
- 9.2. FOR STABILISATION BEYOND SIX MONTHS, A MIXTURE OF PERENNIAL AND ANNUAL SPECIES IS BEST. THE ANNUAL SPECIES ARE FAST GROWING AND USEFUL TEMPORARILY; THE PERENNIAL SPECIES ARE USUALLY SLOWER TO ESTABLISH AND WILL GROW UNDER THE ANNUAL SPECIES AND SUCCEED THEM TO PROVIDE A PERMANENT SURFACE PROTECTION.
- 9.3. USE SPECIES APPROPRIATE FOR THE SEASON AND CLIMATE.

10. SPECIALISED METHODS OF ESTABLISHING VEGETATION.
- 10.1. WHERE SITES ARE UNLIKELY TO BE SUCCESSFULLY VEGETATED USING BROAD AREA TECHNIQUES, ADOPT SPECIALISED METHODS TO ESTABLISH VEGETATION. THESE METHODS INCLUDE STRAW MULCHING AND BITUMEN SPRAYING, HYDROMULCHING, HYDROSEEDING, TURFING AND THE USE OF OTHER MESHES AND MATTINGS.
- 10.2. EXAMPLES OF SITUATIONS WHERE SPECIALISED METHODS WOULD BE APPLICABLE ARE:
  - 10.2.1. EXCESSIVELY STEEP SLOPES
  - 10.2.2. DRAINAGE LINES CURRENTLY OPERATING AND REQUIRING IMMEDIATE COVER
  - 10.2.3. AREAS WHERE TOPSOIL IS ABSENT AND CANNOT BE APPLIED
  - 10.2.4. SOWING DURING UNFAVOURABLE SEASONAL CONDITIONS.

11. OTHER STABILISATION MEASURES
- 11.1. TEMPORARY STABILISATION MEASURES
  - 11.1.1. MULCH COVERS: THE USE OF TEMPORARY MULCH COVERS SUCH AS STRAW, PROPERLY ANCHORED WITH A BINDER, IS AN EFFECTIVE WAY TO PROTECT THE SOIL FROM EROSION UNTIL A PERMANENT VEGETATIVE COVER CAN BE ESTABLISHED. MULCH COVERS CAN BE USED DURING THE NON-GROWING SEASON, BUT ARE ALSO EFFECTIVE WHEN APPLIED AFTER AN EXPOSED SOIL AREA HAS BEEN SEEDED. THE MULCH HELPS RETAIN SOIL MOISTURE AND PROTECT THE SEED BEFORE GERMINATION.
  - 11.1.2. RIP RAP
  - 11.1.3. GEOTEXTILES
  - 11.1.4. POLYMERS
  - 11.1.5. HYDRA MULCH.

12. OTHER NON-TEMPORARY STABILISATION MEASURES
- 12.1. GABIONS
- 12.2. CONCRETE OR ASPHALT PAVING
- 12.3. QUARRY SPALLS USED AS DITCH LINING
- 12.4. GRAVEL BASE (ENSURE IT IS CLEAN).

13. SPOIL MANAGEMENT
- 13.1. SPOIL MANAGEMENT INCLUDES STOCKPILES AND ACCEPTANCE AND DISPOSAL OF SOIL.

14. STOCKPILES
- 14.1. IF STOCKPILES AND BATTERS WILL REMAIN BARE FOR MORE THAN 14 DAYS, THEY ARE REQUIRED TO BE STABILISED. MANAGE STOCKPILES TO PREVENT DUST EMISSIONS.
- 14.2. STORE STOCKPILES OUTSIDE HAZARD AREAS SUCH AS DRAINAGE LINES. IF NECESSARY, INSTALL UP-SLOPE DIVERSIONS.
- 14.3. PLACE STOCKPILES NEAR THE STABILISED ACCESS POINT TO REDUCE DAMAGE TO THE SITE.
- 14.4. WHEN ORDERING MATERIALS, GIVE CLEAR INSTRUCTIONS ABOUT WHERE THEY SHOULD BE PLACED ON SITE.
- 14.5. CLEARLY MARK THE STOCKPILE AREA.
- 14.6. LIMIT THE AMOUNT OF MATERIAL STOCKPILED ON SITE IF POSSIBLE.
- 14.7. DO NOT PLACE STOCKPILES ON NATURE STRIPS OR VERGES.

TO PROTECT STOCKPILES AND BUILDING MATERIALS FROM ENTERING THE STORMWATER SYSTEM:
- 14.8. STORE THEM BEHIND SEDIMENT CONTROL BARRIERS
- 14.9. COVER THEM WHERE NECESSARY
- 14.10. LOCATE THEM AWAY FROM HIGH WATER FLOW AREAS
- 14.11. KEEP STOCKPILE HEIGHT BELOW 2 METRES.

15. ACCEPTANCE AND DISPOSAL OF SOIL
- 15.1. ACCEPTANCE OF SOIL - BEFORE ACCEPTING SOIL ON SITE, FOLLOW THESE STEPS TO REDUCE THE RISK OF RECEIVING CONTAMINATED MATERIAL:
  - 15.1.1. ENSURE ALL FILL USED IS VIRGIN EXCAVATED MATERIAL (E.G. CLAY, GRAVEL, SAND, SOIL OR ROCK) THAT IS NOT MIXED WITH ANY OTHER WASTE OR FROM A CONTAMINATED SITE.
  - 15.1.2. REQUEST THE SUPPLIER PROVIDE FORMAL CERTIFICATION THAT FILL IS CLEAN.
  - 15.1.3. REQUEST THE SUPPLIER PROVIDE INFORMATION ON CURRENT AND PAST ACTIVITIES ON THE SITE THE FILL HAS BEEN SOURCED FROM.
  - 15.1.4. DELIVERY SHOULD BE SUPERVISED TO ENSURE THE APPROPRIATE MATERIAL IS RECEIVED.
  - 15.1.5. CHECK FOR SIGNS OF CONTAMINATION, SUCH AS ODOURS (CHEMICAL/PETROL), STAINING FROM CHEMICALS, AND RUBBISH SUCH AS BRICKS, TIMBER, METAL, ASBESTOS, ETC.
  - 15.1.6. MAINTAIN ALL DOCUMENTS AND RECORDS.
- 15.2. DISPOSAL OF SPOIL
  - 15.2.1. SPOIL SHOULD ONLY BE TAKEN TO A LOCATION LAWFULLY ABLE TO ACCEPT IT, AND IN ACCORDANCE WITH AN ENVIRONMENTAL AUTHORISATION, IF ONE IS IN PLACE.

16. REUSE OF EXCAVATED NATURAL MATERIAL (ENM) AND OTHER RECYCLED MATERIALS
- 16.1. ACCEPTANCE OF ENM AND OTHER RECYCLED MATERIAL - BEFORE ACCEPTING ENM OR ANY OTHER RECYCLED MATERIALS ON SITE, FOLLOW THESE STEPS TO REDUCE THE RISK OF RECEIVING CONTAMINATED MATERIAL:
  - 16.1.1. ENSURE ALL FILL USED IS APPROPRIATE RECYCLED MATERIAL AGGREGATES MATERIAL THAT IS NOT MIXED WITH ANY OTHER WASTE OR FROM A CONTAMINATED SITE.
  - 16.1.2. REQUEST THE SUPPLIER PROVIDE FORMAL CERTIFICATION THAT RECYCLED MATERIAL AGGREGATES ARE CLEAN, INCLUDING ANY APPROPRIATE RECORD-KEEPING OF THE TYPE, AMOUNT AND SOURCE OF RECYCLED AGGREGATES.
  - 16.1.3. REQUEST THE SUPPLIER PROVIDE INFORMATION ON CURRENT AND PAST ACTIVITIES ON THE SITE THE FILL HAS BEEN SOURCED FROM.
  - 16.1.4. DELIVERY SHOULD BE SUPERVISED TO ENSURE THE APPROPRIATE MATERIAL IS RECEIVED.
  - 16.1.5. CHECK FOR SIGNS OF CONTAMINATION, SUCH AS ODOURS (CHEMICAL/PETROL), STAINING FROM CHEMICALS, AND RUBBISH SUCH AS BRICKS, TIMBER, METAL, ASBESTOS, ETC.
  - 16.1.6. MAINTAIN ALL DOCUMENTS AND RECORDS.

17. SEDIMENT BARRIER INFRASTRUCTURE
- 17.1. SEDIMENT BARRIER INFRASTRUCTURE INCLUDES:
  - 17.1.1. CHECK DAMS FOR CHANNELLED RUN-OFF
  - 17.1.2. SEDIMENT FENCE
  - 17.1.3. STORMWATER INLET PROTECTION.

SEDIMENT BARRIERS ARE RELATIVELY EFFECTIVE AT RETAINING SUSPENDED SOILS COARSER THAN 0.02 MM, HOWEVER FINER PARTICLES AND SOLUBLE MATERIALS PASS THROUGH THEM.

GIVEN THE FINE PARTICLE NATURE OF ACT SOILS, IT IS RECOMMENDED THAT, WHERE POSSIBLE, NODAL TREATMENT OF SEDIMENT LADEN STORMWATER SHOULD OCCUR DOWNSTREAM FROM SEDIMENT BARRIER INFRASTRUCTURE.

- 17.2. CHECK DAMS FOR CHANNELED RUN-OFF
  - 17.2.1. A CHECK DAM IS A SEDIMENT CONTROL DEVICE TO INTERCEPT AND RETAIN SEDIMENT FROM CHANNELLED SEDIMENT LADEN RUN-OFF. IT IS DESIGNED TO BE PLACED ALONG THE CHANNEL CONTAINING CONCENTRATED FLOW IN ORDER TO REDUCE VELOCITY, HOWEVER DOES NOT ADDRESS SEDIMENT IN WATER.
  - 17.2.2. A CHECK DAM IS REQUIRED WHERE CHANNEL GRADES ARE BETWEEN 2% AND 10%.
  - 17.2.3. A GUIDE TO CHECK DAM SPACING IS THAT THE TOP OF THE UPSTREAM CHECK DAM IS EQUIVALENT TO THE ELEVATION OF THE CREST OF THE DOWNSTREAM CHECK DAM.
  - 17.2.4. CHECK DAMS ARE A TEMPORARY CONTROL THAT MUST BE DECOMMISSIONED AND REMOVED AT THE CONCLUSION OF CONSTRUCTION.
  - 17.2.5. SPACING OF CHECK DAMS ALONG THE CENTRELINE AND SCOUR PROTECTION BELOW EACH CHECK DAM IS TO BE SPECIFIED ON THE EROSION AND SEDIMENT CONTROL PLAN.
- 17.3. ROCK BUND/GABION CHECK DAMS
  - 17.3.1. ROCK BUND/GABION CHECK DAMS CONSISTS OF A TRAP FORMED BY ROCK, 50 MM AGGREGATE OR EQUIVALENT, WRAPPED IN GEOTEXTILE FABRIC, WIRE MESH OR EQUIVALENT.
- 17.4. RIP-RAP OUTLET CHECK DAMS
  - 17.4.1. RIP-RAP OUTLET CHECK DAMS CONSIST OF A TRAP FORMED BY THE PLACEMENT OF ROCK.
  - 17.4.2. RIP-RAP OUTLET CHECK DAMS MAY BE USED FOR CATCHMENT AREAS OF UP TO A MAXIMUM OF 5 HECTARES.
- 17.5. WHEN TO USE
  - 17.5.1. A CHECK DAM IS USUALLY INSTALLED IN EITHER A FLOODWAY, AT A STORM DRAIN INLET OR OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA.
- 17.6. CLEANOUT
  - 17.6.1. REMOVE SEDIMENT AND RESTORE THE DAM TO THE ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO HALF OF THE DESIGN DEPTH OF THE DAM.
- 17.7. OUTLET
  - 17.7.1. DESIGN, CONSTRUCT AND MAINTAIN THE OUTLET IN SUCH A MANNER THAT UNDER OPERATING CONDITIONS SEDIMENT DOES NOT LEAVE THE DAM AND THAT EROSION DOES NOT OCCUR.
  - 17.7.2. CHECK DAMS MAY OUTLET ONTO STABILISED (PREFERABLY UNDISTURBED) GROUND.
  - 17.7.3. IF THERE IS NO AREA AVAILABLE, IT IS PERMISSIBLE TO DISCHARGE TO THE STORMWATER SYSTEM WHEN THE WATER PH IS 6.5-8.5 AND IS CLARIFIED TO AT OR BELOW 50 NTU FOR URBAN AREAS AND FOR OTHER AREAS ON THE ADVICE OF THE EPA.
  - 17.7.4. GYPSUM DOSING RATE SHOULD BE APPLIED AT ABOUT 30 KG/100 M3 OF STORED WATER. IN SOME INSTANCES HIGHER RATES MAY APPLY, TYPICALLY LESS THAN 50 MG/LITRE.

18. SEDIMENT FENCE

SEDIMENT FENCES ARE DESIGNED TO RUN ALONG A CONTOUR AND ARE NOT RECOMMENDED TO CAPTURE ANY CONCENTRATED FLOWS.

A SEDIMENT FENCE IS A TEMPORARY ASSET AND MUST BE DECOMMISSIONED AND REMOVED AT THE CONCLUSION OF CONSTRUCTION.

- 18.1. GEOTEXTILE SEDIMENT FENCE
  - 18.1.1. A TEMPORARY BARRIER OF GEOTEXTILE FABRIC CAN BE USED TO INTERCEPT SEDIMENT LADEN RUN-OFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL.
    - 18.1.1.1. DESIGN CRITERIA
      - 18.1.1.1.1. IDENTIFY LOW POINT OF SITE.
      - 18.1.1.1.2. CONSTRUCT A SEDIMENT FENCE PARALLEL TO THE SITE CONTOURS OR AS CLOSE AS POSSIBLE.
      - 18.1.1.1.3. PUT 1.5 M STAR PICKETS NO MORE THAN 2.5-3 M APART AND 600 MM DEEP.
      - 18.1.1.1.4. PUT A STAR PICKET 1.5 M UPSLOPE OF THE OTHERS EVERY 20 M (IF THE FENCE IS LONGER THAN 20 M). THIS SPREADS THE VOLUME OF WATER THAT FLOWS THROUGH EACH SECTION OF FENCE.
      - 18.1.1.1.5. DIG A TRENCH AND BURY THE BASE OF THE SEDIMENT CONTROL FABRIC. THE TRENCH SHOULD BE 150 MM DEEP. ALTERNATIVELY, USE BACKFILL OR AGGREGATE TO MAKE SURE THE FABRIC IS TIGHT ON THE GROUND.
      - 18.1.1.1.6. USE WIRE TIES TO ATTACH THE FABRIC TO THE UPSLOPE SIDE OF THE FENCE POSTS.
      - 18.1.1.1.7. IF YOU NEED TO JOIN TWO PIECES OF FABRIC, OVERLAP THE FABRIC AT LEAST 150 MM AND SUPPORT WITH A STAR PICKET
- 18.2. STRAW BALES
  - 18.2.1. STRAW BALE SEDIMENT CONTROLS MAY BE USED UPSTREAM OF OTHER CONTROLS AS A COMPLEMENTARY MEASURE OR ON MINOR DRAINAGE LINES OF LESS THAN 0.5 HECTARE AND LOCATED AT SPECIFIED INTERVALS TO MINIMISE EROSION. IT IS ESSENTIAL THESE CONTROLS ARE EFFECTIVELY MAINTAINED.
    - 18.2.1.1. DESIGN CRITERIA FOR STRAW BALE INSTALLATION:
      - 18.2.1.1.1. DIG A TRENCH 100 MM DEEP TO STOP WATER RUNNING UNDER THE STRAW BALE. THE TRENCH SHOULD BE AS WIDE AS THE STRAW BALE AND AS LONG AS NEEDED ALONG THE CONTOUR LINES OF THE BLOCK.
      - 18.2.1.1.2. PUT THE BALES LENGTHWAYS ALONG THE TRENCH. USE STRAW TO FILL ANY GAPS BETWEEN BALES. BIND BALES ALONG THE SIDE RATHER THAN TOP AND BOTTOM AS THEY WILL HOLD TOGETHER BETTER WHEN WET.
      - 18.2.1.1.3. FIX THE BALES IN PLACE USING TWO 1.2 M STAR PICKETS AT EACH END OF EACH BALE. ANGLE ONE STAKE TOWARDS THE PREVIOUSLY LAID BALE BEFORE DRIVING IT 600 MM INTO THE GROUND. PUT THE OTHER STAKE IN VERTICALLY.
      - 18.2.1.1.4. BACKFILL AND COMPACT THE TRENCH TO GROUND LEVEL ON THE DOWNSLOPE SIDE OF THE STRAW BALES. ON THE UPSLOPE SIDE, BUILD UP THE SOIL TO 100 MM. THIS WILL SLOW THE SPEED OF THE WATER FLOWS AND TRAP COARSE SEDIMENTS.
      - 18.2.1.1.5. MAINTAIN AND REPLACE STRAW BALES REGULARLY.

19. VEGETATED FILTER STRIP
- 19.1. A VEGETATED FILTER STRIP MAY BE USED ALONGSIDE SEDIMENT FENCES TO HELP FILTER STORMWATER RUN-OFF.
- 19.2. DO NOT USE NATIVE VEGETATION AS A FILTER STRIP

20. STORMWATER INLET PROTECTION
- 20.1. AN INLET PROTECTION DEVICE PREVENTS SEDIMENT-LADEN WATER FROM ENTERING A STORMWATER DRAINAGE SYSTEM.
- 20.2. USE STORMWATER INLET PROTECTION WHERE THE DRAINAGE AREA TO AN INLET IS DISTURBED AND IT IS NOT POSSIBLE TO TEMPORARILY DIVERT THE STORMWATER DRAIN OUTFALL INTO WATER RETAINING INFRASTRUCTURE AND WATERTIGHT BLOCKING OF INLETS IS NOT ADVISABLE.

21. DUST CONTROL MEASURES

WHERE CONSTRUCTION WORK GENERATES DUST, ALL REASONABLE AND PRACTICABLE MEASURES SHOULD BE TAKEN TO MINIMISE THAT DUST.
- 21.1. REQUIREMENTS
  - 21.1.1. RETAINING EXISTING VEGETATION WHERE POSSIBLE.
  - 21.1.2. STRIPPING AREAS PROGRESSIVELY AND ONLY WHERE IT IS NECESSARY FOR WORKS TO OCCUR.
  - 21.1.3. EMPLOYING STABILISATION METHODS SUCH AS MATTING, GRASSING OR MULCH.
  - 21.1.4. DAMPENING THE GROUND WITH A LIGHT WATER SPRAY (CONTACT THE EPA FOR REQUIREMENTS DURING EXTREME DROUGHT CONDITIONS). IF ADDITIVES IN THE WATER ARE USED TO INCREASE ITS DUST SUPPRESSION PROPERTIES, THE CHEMICAL SHOULD HAVE NO ADVERSE IMPACT ON ADJACENT WATER BODIES.
  - 21.1.5. ROUGHENING THE SURFACE OF EXPOSED SOIL.
  - 21.1.6. COVERING STOCKPILES AND LOCATING THEM WHERE THEY ARE PROTECTED FROM THE WIND.
  - 21.1.7. RESTRICTING VEHICLE MOVEMENTS.
  - 21.1.8. COVERING THE LOAD WHEN TRANSPORTING MATERIAL.
  - 21.1.9. CONSTRUCTING WIND BREAKS SUCH AS WIND FENCES IN ACCORDANCE WITH THE NSW BLUE BOOK.
  - 21.1.10. IMMEDIATELY REVEGETATING THE AREA WHEN AN AREA OF WORKS IS COMPLETED TO INHIBIT THE GENERATION OF DUST.

22. NOISE
- 22.1. ENSURE ALL CONSTRUCTION WORK THAT GENERATES NOISE IS CONDUCTED WITHIN THE TIME PERIODS DETAILED IN SCHEDULE 2 OF THE ENVIRONMENT PROTECTION REGULATION 2005 (TABLE 8).
- 22.2. SCHEDULE NOISY ACTIVITIES FOR THE LEAST SENSITIVE TIMES OF THE DAY, SUCH AS MID- MORNING AND MID-AFTERNOON
- 22.3. SELECT MACHINERY THAT PRODUCES LESS NOISE
- 22.4. ENSURE MACHINERY IS WELL MAINTAINED.
- 22.5. IF WORK MAY UNAVOIDABLY EXCEED THE NOISE LIMITS DURING THE TIMES SET, SEEK WRITTEN APPROVAL FROM THE EPA AND INFORM NEARBY RESIDENTS.

23. AIR QUALITY
- 23.1. MISMANAGEMENT OF AIR QUALITY ON SITE HAS THE POTENTIAL TO RESULT IN DETRIMENTAL EFFECTS ON THE HEALTH AND AMENITY OF NEIGHBOURS AND EMPLOYEES, REDUCED VISIBILITY ON SITE, INCREASED WEAR ON MACHINERY AND EQUIPMENT AND COMPLAINTS FROM NEIGHBOURS.
- 23.2. INCORPORATE MEASURES TO LIMIT THE EFFECT ON AIR QUALITY BY MINIMISING DUST FROM CONSTRUCTION ACTIVITIES AND SMOKE FROM FIRES.

24. FIRE
- 24.1. A FIRE MAY BE PERMITTED FOR HEATING PURPOSES PROVIDED IT IS IN A BRAZIER OR CONSTRUCTED FIREPLACE. ONLY SEASONED, UNTREATED TIMBER CAN BE BURNT FOR HEATING PURPOSES.

25. VEHICLE AND EQUIPMENT EXHAUST
- 25.1. ENSURE ALL VEHICLES AND MACHINERY ARE FITTED WITH APPROPRIATE EMISSION CONTROL EQUIPMENT, ARE MAINTAINED FREQUENTLY AND ARE SERVICED TO THE MANUFACTURERS' SPECIFICATIONS.
- 25.2. SMOKE FROM INTERNAL COMBUSTION ENGINES SHOULD NOT BE VISIBLE FOR MORE THAN TEN SECONDS.

26. WASTE MANAGEMENT
- 26.1. PRINCIPLES OF WASTE MANAGEMENT:
  - 26.1.1. OPERATE A MATERIAL COLLECTION AND DISPOSAL SYSTEM.
  - 26.1.2. FOLLOW THE WASTE MINIMISATION HIERARCHY OF REDUCE, REUSE, RECYCLE AND DISPOSE APPROPRIATELY.
- 26.2. REDUCE--USE REUSABLE OR RECYCLED PRODUCTS WHERE PRACTICABLE.
- 26.3. REUSE--REUSE CONSTRUCTION, DEMOLITION OR GREEN WASTE MATERIALS ON SITE WHERE PRACTICABLE.
- 26.4. RECYCLE--WHERE DISPOSAL OF MATERIALS IS REQUIRED, PROVIDE WASTE TO CONSTRUCTION MATERIAL RECOVERY FACILITIES WHERE POSSIBLE.
- 26.5. DISPOSE APPROPRIATELY--MATERIALS THAT CANNOT BE RECYCLED SHOULD BE DISPOSED TO A LICENSED FACILITY.

27. HAZARDOUS SUBSTANCES
- 27.1. STORE ALL POSSIBLE POLLUTANT MATERIALS (E.G. CHEMICALS AND FUEL) WELL CLEAR OF ANY POORLY DRAINED AREAS, FLOOD PRONE AREAS, STREAMBANKS, CHANNELS AND STORMWATER DRAINAGE AREAS.
- 27.2. STORE POLLUTANT MATERIALS IN A DESIGNATED AREA, UNDER COVER WHERE POSSIBLE.
- 27.3. CONSTRUCT CONTAINMENT BUNDS WITH PROVISION FOR COLLECTION AND STORAGE OF ANY SPILT MATERIAL.
- 27.4. IMPLEMENT A CONTINGENCY PLAN TO HANDLE SPILLS SO ENVIRONMENTAL HARM IS AVOIDED.
- 27.5. DISPOSE OF ANY LIQUID WASTE (FUEL, WET PAINT, SOLVENTS ETC.) THROUGH A HAZARDOUS WASTE CONTRACTOR.
- 27.6. PAINTS:
  - 27.6.1. WASH WATER-BASED PAINTS IN SMALL AMOUNTS OF WATER OVER NEWSPAPER TO COLLECT RESIDUE. PLACE PAPER IN A SOLID WASTE BIN.
  - 27.6.2. WASH OIL-BASED PAINTS IN A SERIES OF SOLVENT BATHS. SOLVENT CAN BE REUSED SEVERAL TIMES AND MUST BE STORED IN LABELLED, SEALED CONTAINERS. YOU MUST DISPOSE OF WASTE SOLVENT THROUGH A HAZARDOUS WASTE CONTRACTOR. DO NOT PLACE IN A NORMAL BIN OR ON THE GROUND.
- 27.7. DO NOT BURN WASTE MATERIALS ON THE SITE, SUCH AS PLASTICS, CHEMICALS OR WOOD THAT IS PAINTED, CHEMICALLY TREATED OR CONTAMINATED WITH CHEMICALS; IT IS ILLEGAL.

28. CONTAMINATION
- 28.1. PLACING CONTAMINATED MATERIAL ON LAND CAN HARM THE ENVIRONMENT BY POLLUTING WATERWAYS, DESTROYING VEGETATION AND CONTAMINATING LAND, AND MAY LEAVE YOU WITH AN EXPENSIVE CLEAN-UP BILL.
- 28.2. AN UNEXPECTED FINDS PROTOCOL SHOULD BE INCORPORATED INTO CONTRACT DOCUMENTATION TO DETAIL WHAT ACTIONS WILL BE UNDERTAKEN IF ANY CONTAMINATION IS UNCOVERED WHILE UNDERTAKING EARTHWORKS.

29. BIODIVERSITY
- 29.1. AN INITIAL ASSESSMENT OF THE SITE IS TO BE CONDUCTED TO IDENTIFY SENSITIVE ENVIRONMENTAL AREAS OR USES THAT REQUIRE PROTECTION. THESE MAY INCLUDE:
  - 29.1.1. SENSITIVE OR THREATENED FLORA AND FAUNA
  - 29.1.2. AQUATIC PLANTS AND ANIMALS IF A NATURAL WATERWAY IS AFFECTED. ENSURE YOU MAINTAIN THE ORIGINAL SOIL PROFILE OF THE SITE.

30. CLIMATE CHANGE
- 30.1. WHEN PLANNING YOUR DEVELOPMENT, CONSIDER THE IMPACTS ON GREENHOUSE GAS EMISSION FROM CONSTRUCTION, INCLUDING VEHICLES, WASTE AND MATERIAL SELECTION. THE ACT IS A GLOBAL LEADER ON CLIMATE CHANGE ACTION AND THE ACT CLIMATE CHANGE STRATEGY OUTLINES THE STEPS THE COMMUNITY, BUSINESS AND GOVERNMENT WILL TAKE TO MEET THE TERRITORY'S AMBITIOUS EMISSIONS REDUCTION TARGETS. THE STRATEGY IS COMPLEMENTED BY CANBERRA'S LIVING INFRASTRUCTURE PLAN: COOLING THE CITY, WHICH SETS THE DIRECTION FOR MAINTAINING AND ENHANCING TREES, SOILS AND WATERWAYS TO KEEP OUR CITY COOL, HEALTHY AND LIVEABLE IN A CHANGING CLIMATE.

ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT 2022.

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C					
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REV	REVISION	DATE	DESIGNED	DRAWN	APPROVED
F					
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H					
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J					

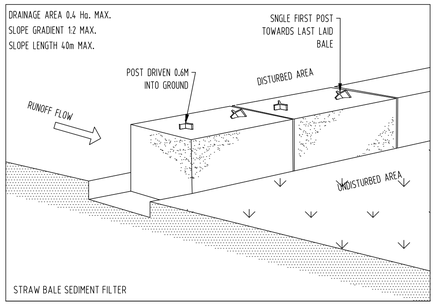
DEVELOPER: THEO KOUTSIKAMANIS

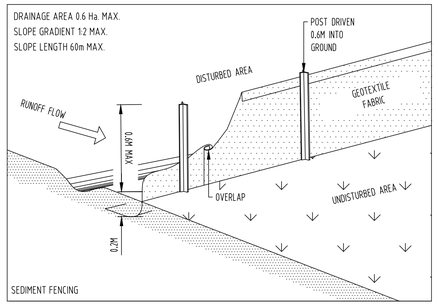
BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE: AS SHOWN
DATE:
DRAWING No: C04-01
PROJECT No: 26-0534
REVISION:
DRAWING TITLE: POLLUTION CONTROL AND MANAGEMENT NOTES 1





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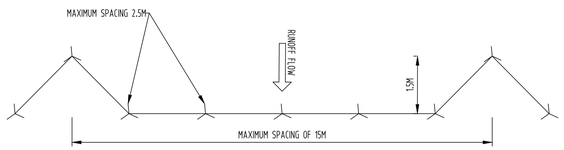
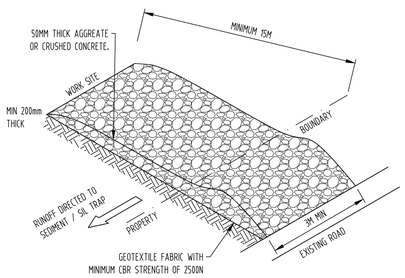
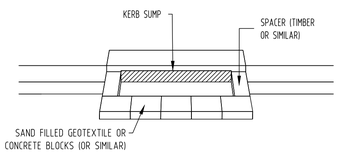


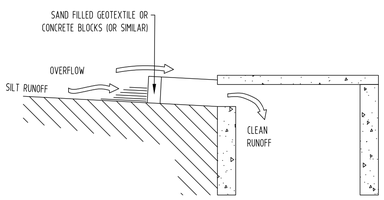
SILT FENCE



STABILISED CONSTRUCTION ACCESS



KERB INLET FILTER



KERB INLET FILTER - SECTION

TOTAL SITE AREA:	----------m2
SITE CONTRACTOR:	----------
SITE SUPERVSIOR:	----------
CONTACT NUMBER:	----------
EPA AGREEMENT No.	----------

WORK HOURS

BUILDING WORK DETAIL	MONDAY TO SATURDAY	SUNDAY AND PUBLIC HOLIDAYS
INDUSTRIAL, CITY AND TOWN CENTRES	6AM TO 8PM	6AM TO 8 PM
ANY OTHER AREA WHEN COMPLETED WITHIN 2 WEEKS	7AM TO 8PM	8AM TO 8PM
ANY OTHER AREA WHEN NOT COMPLETED WITHIN 2 WEEKS	7AM TO 6PM	CONSTRUCTION WORK MUST NOT EXCEED NOISE STANDARD

ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT 2022.

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H					
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J					

DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST 20 TALBOT STREET FORREST

SCALE: AS SHOWN

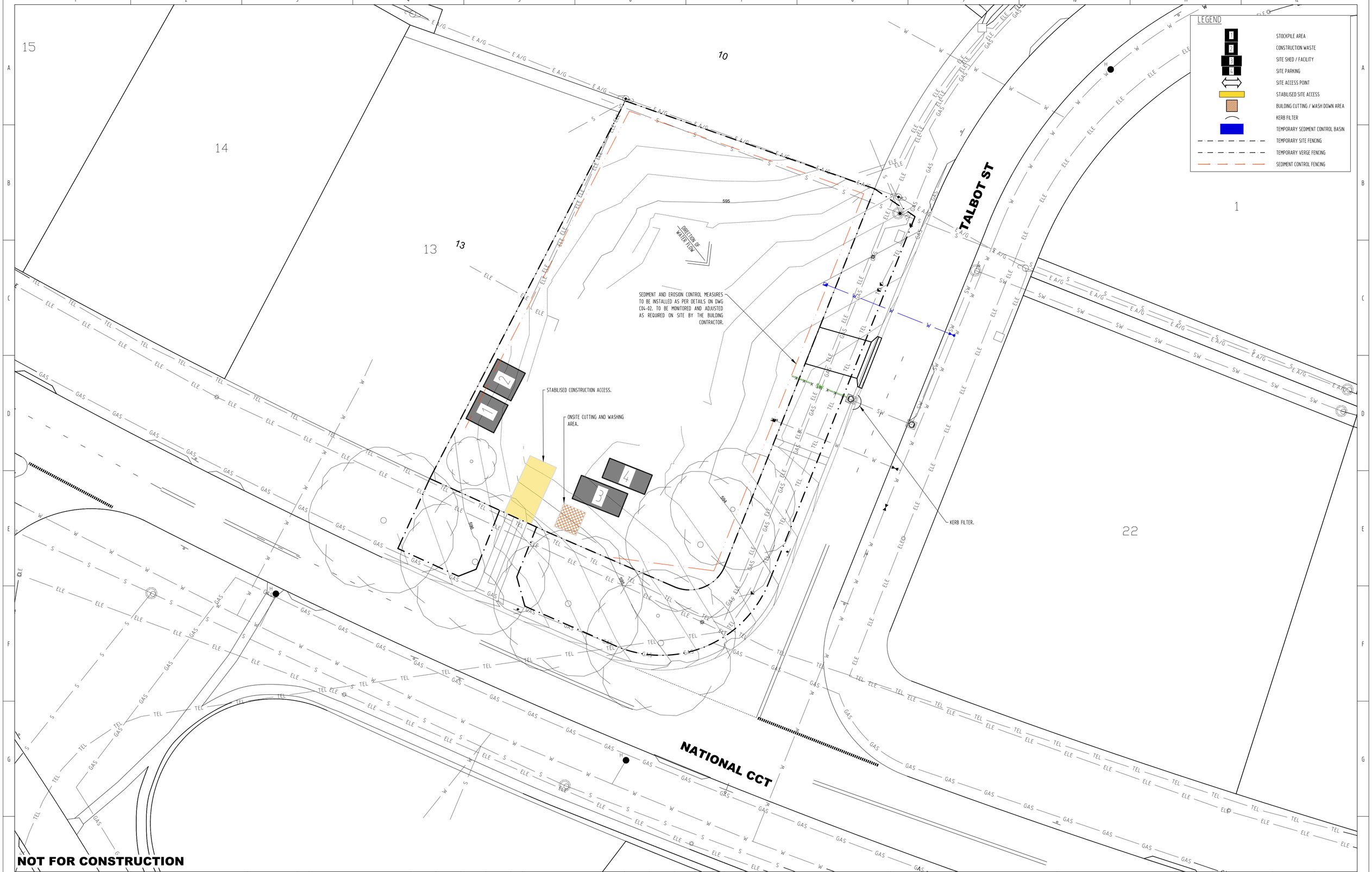
DATE:

DRAWING No: C04-02

PROJECT No: 26-0534

REVISION:

DRAWING TITLE: POLLUTION CONTROL AND MANAGEMENT NOTES 2



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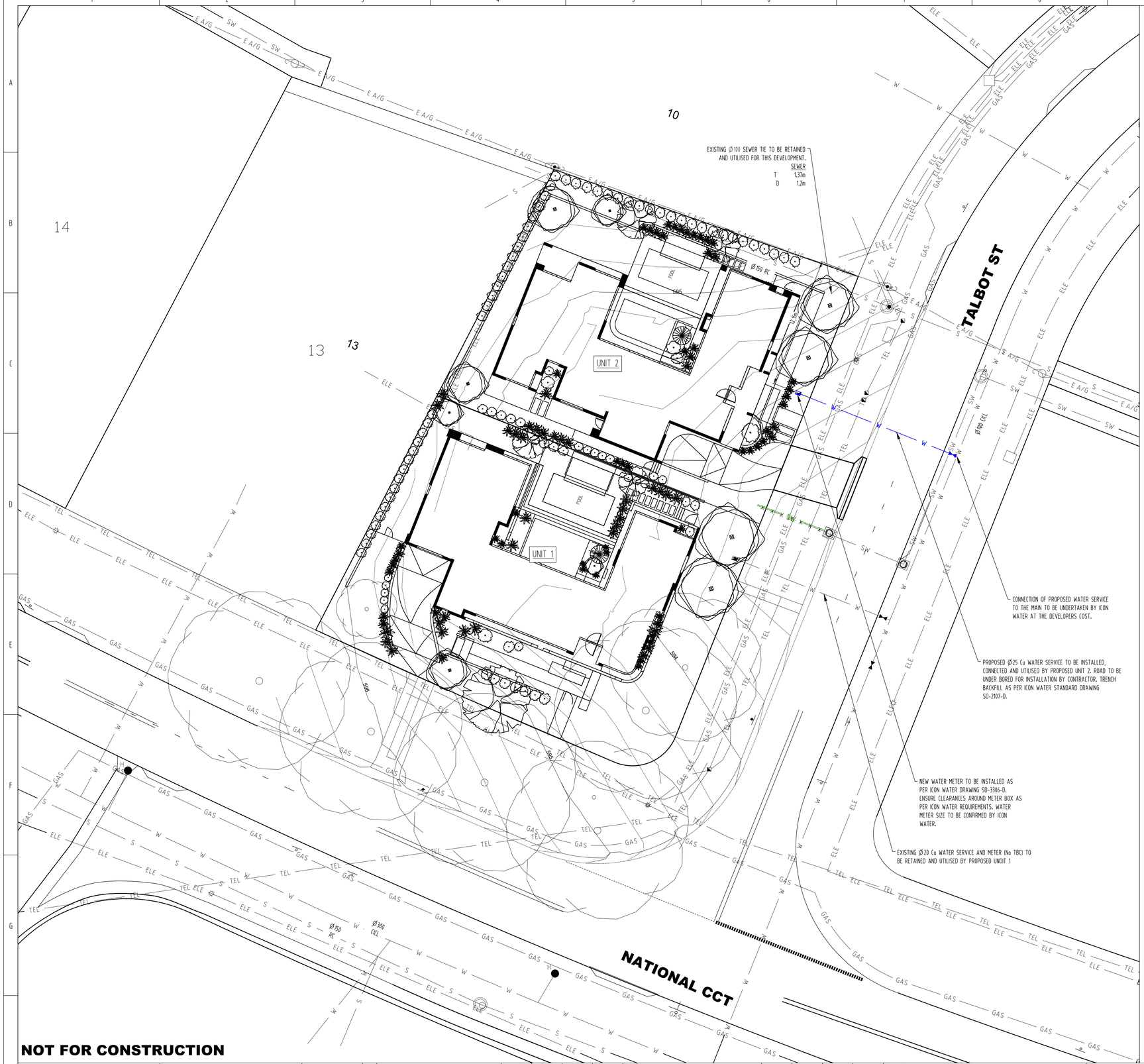
DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE: AS SHOWN
DATE:
DRAWING No: C04-03
PROJECT No: 26-0534
REVISION:
DRAWING TITLE: POLLUTION CONTROL AND MANAGEMENT PLAN



EXTERNAL SERVICES

GENERAL NOTES

1. ALL WORK ON WATER SUPPLY AND SEWER MAINS IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT ICON WATER'S WATER SUPPLY AND SEWERAGE STANDARDS. ALL WORK ON STORMWATER MAINS TO BE CARRIED OUT IN ACCORDANCE WITH DESIGN STANDARDS FOR URBAN INFRASTRUCTURE WORKS.
2. CONNECTIONS AND OR DISCONNECTIONS OF SEWER AND WATER AT THE MAIN TO BE MADE BY ICON WATER AT THE CONTRACTORS EXPENSE. THE CONTRACTOR IS TO EXPOSE THE MAIN AT THE LOCATION OF THE CONNECTION/DISCONNECTION IN PREPARATION FOR THE WORK BY ICON WATER. ALL EXCAVATION IN THE VICINITY OF MAINS IS TO BE CARRIED OUT BY HAND.
3. THE CONTRACTOR MUST VISIT THE SITE OF WORKS BEFORE TENDERING AND MAKE ALLOWANCES ON HIS TENDER FOR ALL TOPOGRAPHIC CONSTRAINTS AFFECTING THE EXECUTION OF THE WORKS AND THE RESTORATION OF THE SITE.
4. ALTHOUGH THE POSITION OF EXISTING UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS, THE CONTRACTOR SHALL CONFIRM THE DEPTH AND LOCATION OF ALL SERVICES ON SITE BEFORE COMMENCING EXCAVATIONS.
5. ALL LEVELS TO AUSTRALIAN HEIGHT DATUM (AHD). ALL COORDINATES ARE BASED ON THE CANBERRA LOCAL GRID SYSTEM.
6. THE CONTRACTOR MUST SECURE ALL PERMITS, ARRANGE ALL CLEARANCES AND PAY ALL FEES REQUIRED TO COMPLETE THE PROJECT PRIOR TO THE COMMENCEMENT OF WORK.
7. WORK AS EXECUTED DRAWINGS AND TIE BOOK MUST BE SUBMITTED BEFORE CONNECTION.
8. ANY NON-METALLIC WATER SERVICE IS TO BE INSTALLED WITH TRACER WIRE AND TESTED.
9. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AND DUMPED AT AN APPROVED SPOIL AREA.
10. THE CONTRACTOR SHALL REINSTATE ALL DISTURBED SURFACES TO MATCH EXISTING.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PREPARATION OF ALL NECESSARY TEMPORARY TRAFFIC MANAGEMENT PLANS AND THEIR APPROVAL.
12. CONTRACTOR TO CONFIRM DEPTH OF SEWER AND STORMWATER TIE POINTS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ADVISE DESIGN ENGINEER IF NOT IN ACCORDANCE WITH THE PLAN.
13. ANY NEW DRIVEWAY CONSTRUCTED OVER AN EXISTING WATER OR SEWER MAIN MUST BE BACKFILLED IN ACCORDANCE WITH THE CURRENT ICON WATER DESIGN AND CONSTRUCTION STANDARDS.

LEGEND

EXISTING		PROPOSED	
TEL	COMMS / TEL	TEL	
SW	STORMWATER	SW	
ELE	ELEC	ELE	
E A/G	ELEC ABOVE GROUND	E A/G	
E HV	ELEC HV	E HV	
E LV	ELEC LV	E LV	
GAS	GAS	GAS	
S	SEWER	S	
S R/M	SEWER RISING MAIN	S R/M	
W	WATER	W	
W (P)	WATER - PRIVATE	W (P)	
	DISCONNECT	— x · x · x · x · x · x —	
	SW MANHOLE		
	SW PIT		
	SW SUMP		
	SERVICE ENDCAP		
	SCOUR STOP		
	TANK - ABOVE GROUND		
	TANK - BELOW GROUND		
H	WATER HYDRANT	H	
	WATER METER		
	WATER VALVE		
	WATER THRUST BLOCK		
	SEWER MANHOLE		
	SEWER ENDCAP		
RP	SEWER RODDING POINT	RP	
	SCOUR STOP		
	STREET LIGHT		
	ELECTRICTY POLE		
	STREET TREE		

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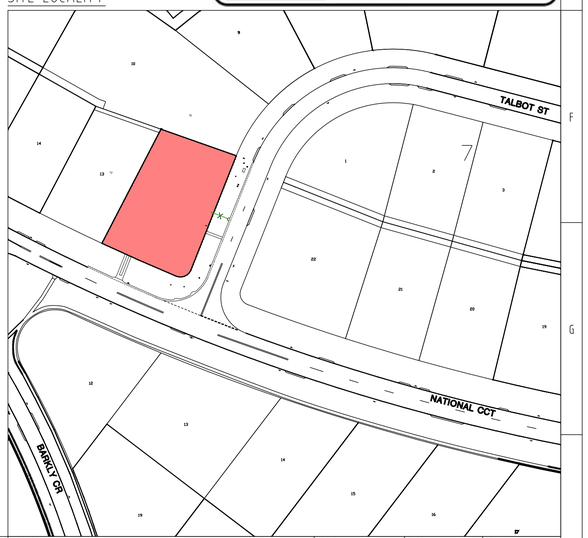
SITE LOCALITY



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H					
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J					

DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE	DATE:	DRAWING No:
AS SHOWN		C05
PROJECT No: 26-0534	REVISION:	

DRAWING TITLE: EXTERNAL SERVICES PLAN

DRIVEWAY CONSTRUCTION AND CONCRETE WORKS

GENERAL NOTES

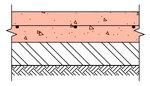
- THE COST OF OFF SITE CONCRETE WORKS ARE TO BE AT FULL COST TO THE DEVELOPER.
- THE MODIFICATION OF EXISTING VERGE LEVELS IS NOT PERMITTED WITHOUT THE PRIOR APPROVAL FROM TRANSPORT CANBERRA AND CITY SERVICES.
- DRIVEWAYS ARE TO BE CONSTRUCTED, UNLESS NOTED OTHERWISE, A MINIMUM OF
  - 1200mm AWAY FROM INFRASTRUCTURE SUCH AS SUMPS AND PITS;
  - 1500mm AWAY FROM STREET LIGHTS, PILLARS, SUBSTATIONS, AND BUS SHELTERS;
  - 3000mm AWAY FROM TREES;

SPECIFICATION - DRIVEWAYS

- ALL CONCRETE SHALL BE GRADE 32 (32 MPa). AGGREGATE SIZE TO BE 20mm MAXIMUM..
- PAVEMENT TO BE MINIMUM OF 150mm THICK AND REINFORCED WITH SL82 MESH AT 50mm TOP COVER UNLESS OTHERWISE NOTED.
- ALL DRIVEWAYS SHALL BE CONSTRUCTED ON GRANULAR SUBBASE CLASS 1 WITH 100MM MINIMUM THICKNESS AND COMPACTED TO 95%MMDD.
- DRIVEWAYS SHALL BE INSPECTED AT FORM WORK, PRIOR TO POURING CONCRETE, BY A MEMBER OF TRANSPORT CANBERRA AND CITY SERVICES OR THE DESIGN ENGINEER.
- BROOMED FINISH TO BE APPLIED TO ALL KERB CROSSINGS AND PRAM RAMPS. ALL OTHER EXPOSED SURFACES TO HAVE STEEL FLOAT FINISH.
- ALL CONCRETE TO BE WATER CURED CONTINUOUSLY FOR 3 DAYS OR ALTERNATIVELY COATED WITH AN APPROVED CURING COMPOUND.

SPECIFICATION - KERBS, FOOTPATHS AND MINOR WORKS

- CONSTRUCTION OF CONCRETE KERBING, LAYBACKS AND FOOTPATHS SHALL BE DONE IN ACCORDANCE WITH TRANSPORT CANBERRA AND CITY SERVICES STANDARD DRAWINGS AND SPECIFICATIONS.
- ALL CONCRETE TO BE MINIMUM GRADE N32 (32MPa) UNLESS NOTED OTHERWISE. AGGREGATE SIZE TO BE 20 MAXIMUM.
- JOINTS IN THE CONCRETE SHALL BE AS PER THE GIVEN DETAILS, IN ACCORDANCE WITH TRANSPORT CANBERRA AND CITY SERVICES STANDARDS.
- ALL KERBS, GUTTERS, INVERTS AND CROSSINGS TO BE CONSTRUCTED ON COMPACTED GRANULAR SUBBASE (CLASS 1 (SB1) OF 75mm MINIMUM THICKNESS OR AS OTHERWISE DETAILED.
- EXPANSION JOINTS (EJ) TO BE SEALED WITH 12mm JOINTEX FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EJ's TO BE LOCATED AT ALL DRAINAGE STRUCTURES (BOTH SIDES), ON TPs OF CURVES LESS THAN 15m RADIUS AND ELSEWHERE AT 15m CENTRES.
- WEAKENED PLANE JOINTS (WJ) TO BE 3mm WIDE TO 1/4 DEPTH FOR EXTRUDED WORK AND TO THE FULL DEPTH OF FORMED SECTIONS. WJ's TO BE LOCATED AT ALL VCs, PCs AND ELSEWHERE AT 3m CENTRES.
- FOR KG NOT LAID BY MACHINE, RADIUS AT THE TOP OF KERB FACE TO BE REDUCED TO 10mm.
- BROOMED FINISH TO BE APPLIED TO ALL KERB CROSSINGS AND PRAM RAMPS. ALL OTHER EXPOSED SURFACES TO HAVE STEEL FLOAT FINISH.
- ALL CONCRETE TO BE WATER CURED CONTINUOUSLY FOR 3 DAYS OR ALTERNATIVELY COATED WITH AN APPROVED CURING COMPOUND.



100MM THICK N32 REINFORCED CONCRETE WITH SL72 MESH CENTRAL

MINIMUM 100MM THICK DGB20 BASE COURSE

MINIMUM SUBGRADE WITH CBR>3% COMPACTED TO 95% MMDD

CONCRETE PAVEMENT - 100mm

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C					
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J					

DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE: AS SHOWN

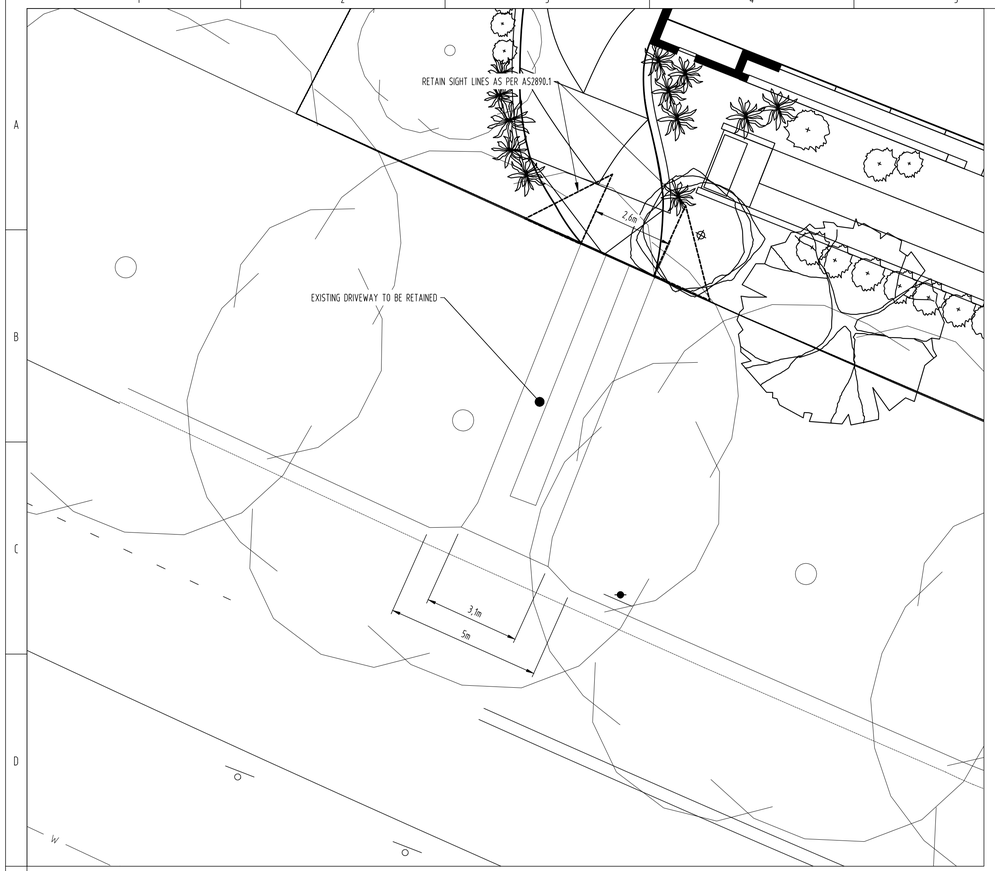
DATE:

DRAWING No: C06

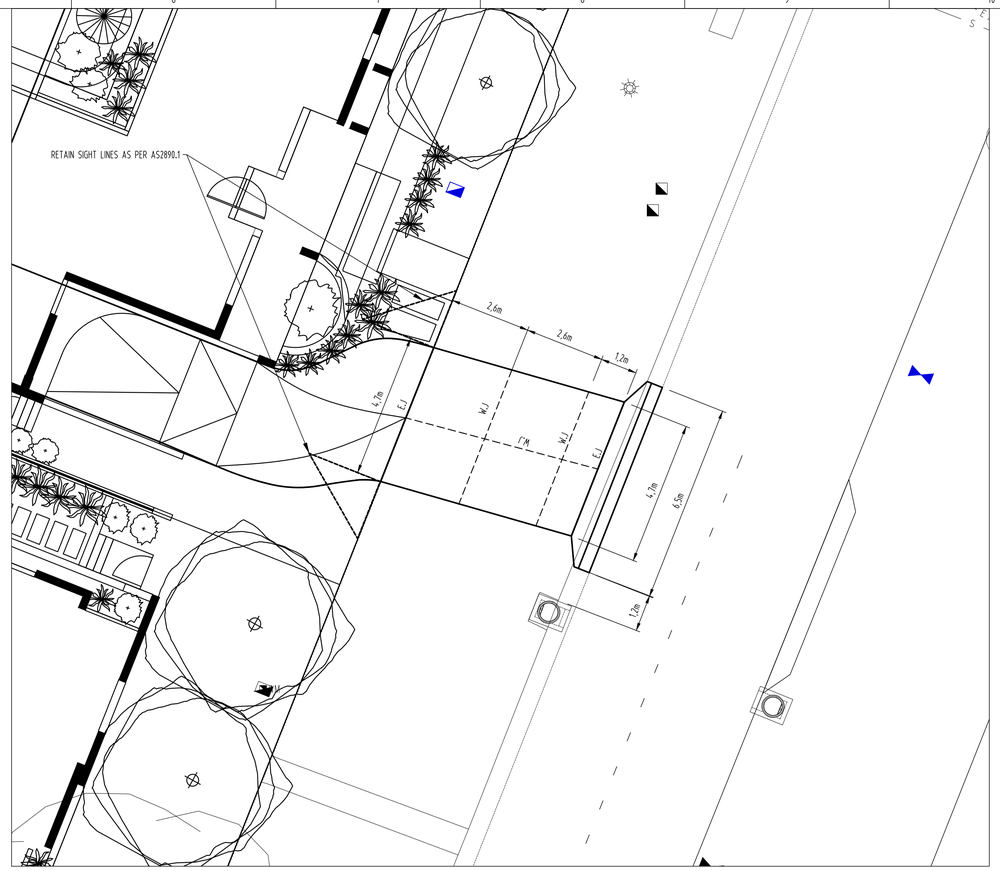
PROJECT No: 26-0534

REVISION:

DRAWING TITLE: CIVIL WORKS PLAN



DETAIL 1
SCALE 1:100 C06



DETAIL 2
SCALE 1:100 C06

DRIVEWAY CONSTRUCTION AND CONCRETE WORKS

GENERAL NOTES

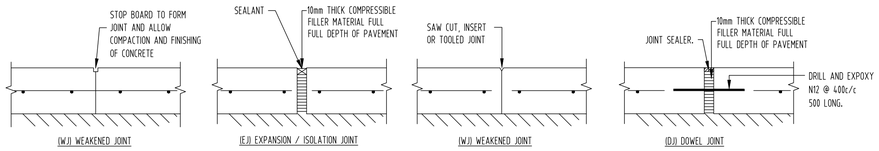
- THE COST OF OFF SITE CONCRETE WORKS ARE TO BE AT FULL COST TO THE DEVELOPER.
- THE MODIFICATION OF EXISTING VERGE LEVELS IS NOT PERMITTED WITHOUT THE PRIOR APPROVAL FROM TRANSPORT CANBERRA AND CITY SERVICES.
- DRIVEWAYS ARE TO BE CONSTRUCTED, UNLESS NOTED OTHERWISE, A MINIMUM OF
  - 1200mm AWAY FROM INFRASTRUCTURE SUCH AS SUMPS AND PITS;
  - 1500mm AWAY FROM STREET LIGHTS, PILLARS, SUBSTATIONS; AND BUS SHELTERS;
  - 3000mm AWAY FROM TREES;

SPECIFICATION - DRIVEWAYS

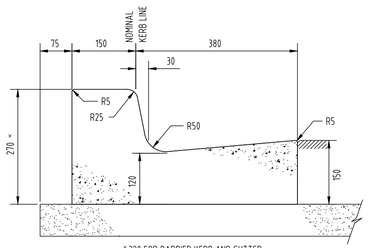
- ALL CONCRETE SHALL BE GRADE 32 (32 MPa). AGGREGATE SIZE TO BE 20mm MAXIMUM..
- PAVEMENT TO BE MINIMUM OF 150mm THICK AND REINFORCED WITH SL82 MESH AT 50mm TOP COVER UNLESS OTHERWISE NOTED.
- ALL DRIVEWAYS SHALL BE CONSTRUCTED ON GRANULAR SUBBASE CLASS 1 WITH 100MM MINIMUM THICKNESS AND COMPACTED TO 95%MMDD.
- DRIVEWAYS SHALL BE INSPECTED AT FORM WORK, PRIOR TO POURING CONCRETE, BY A MEMBER OF TRANSPORT CANBERRA AND CITY SERVICES OR THE DESIGN ENGINEER.
- BROOMED FINISH TO BE APPLIED TO ALL KERB CROSSINGS AND PRAM RAMPS. ALL OTHER EXPOSED SURFACES TO HAVE STEEL FLOAT FINISH.
- ALL CONCRETE TO BE WATER CURED CONTINUOUSLY FOR 3 DAYS OR ALTERNATIVELY COATED WITH AN APPROVED CURING COMPOUND.

SPECIFICATION - KERBS, FOOTPATHS AND MINOR WORKS

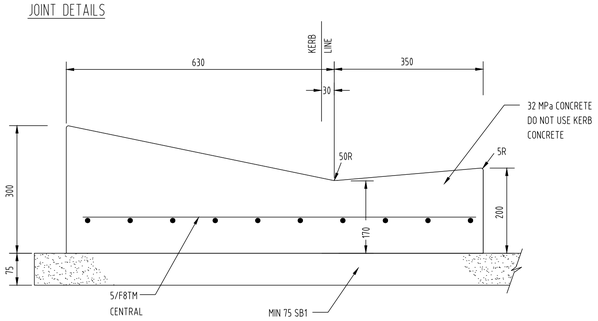
- CONSTRUCTION OF CONCRETE KERBING, LAYBACKS AND FOOTPATHS SHALL BE DONE IN ACCORDANCE WITH TRANSPORT CANBERRA AND CITY SERVICES STANDARD DRAWINGS AND SPECIFICATIONS.
- ALL CONCRETE TO BE MINIMUM GRADE N32 (32MPa) UNLESS NOTED OTHERWISE. AGGREGATE SIZE TO BE 20 MAXIMUM.
- JOINTS IN THE CONCRETE SHALL BE AS PER THE GIVEN DETAILS, IN ACCORDANCE WITH TRANSPORT CANBERRA AND CITY SERVICES STANDARDS.
- ALL KERBS, GUTTERS, INVERTS AND CROSSINGS TO BE CONSTRUCTED ON COMPACTED GRANULAR SUBBASE CLASS 1 (SB1) OF 75mm MINIMUM THICKNESS OR AS OTHERWISE DETAILED.
- EXPANSION JOINTS (EJ) TO BE SEALED WITH 12mm JOINTEX FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EJ's TO BE LOCATED AT ALL DRAINAGE STRUCTURES (BOTH SIDES), ON TPs OF CURVES LESS THAN 15m RADIUS AND ELSEWHERE AT 15m CENTRES.
- WEAKENED PLANE JOINTS (WJ) TO BE 3mm WIDE TO 1/4 DEPTH FOR EXTRUDED WORK AND TO THE FULL DEPTH OF FORMED SECTIONS. WJ's TO BE LOCATED AT ALL VCs, PCs AND ELSEWHERE AT 3m CENTRES.
- FOR KG NOT LAID BY MACHINE, RADIUS AT THE TOP OF KERB FACE TO BE REDUCED TO 10mm.
- BROOMED FINISH TO BE APPLIED TO ALL KERB CROSSINGS AND PRAM RAMPS. ALL OTHER EXPOSED SURFACES TO HAVE STEEL FLOAT FINISH.
- ALL CONCRETE TO BE WATER CURED CONTINUOUSLY FOR 3 DAYS OR ALTERNATIVELY COATED WITH AN APPROVED CURING COMPOUND.



JOINT DETAILS



KERB & GUTTER (KG)
BARRIER KERB & GUTTER (BKG)
SCALE 1:10



REINFORCED VEHICLE CROSSING
SCALE 1:10

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0m 1 2 3 4 5
1:100 @A1 1:200 @A3

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B					
C					
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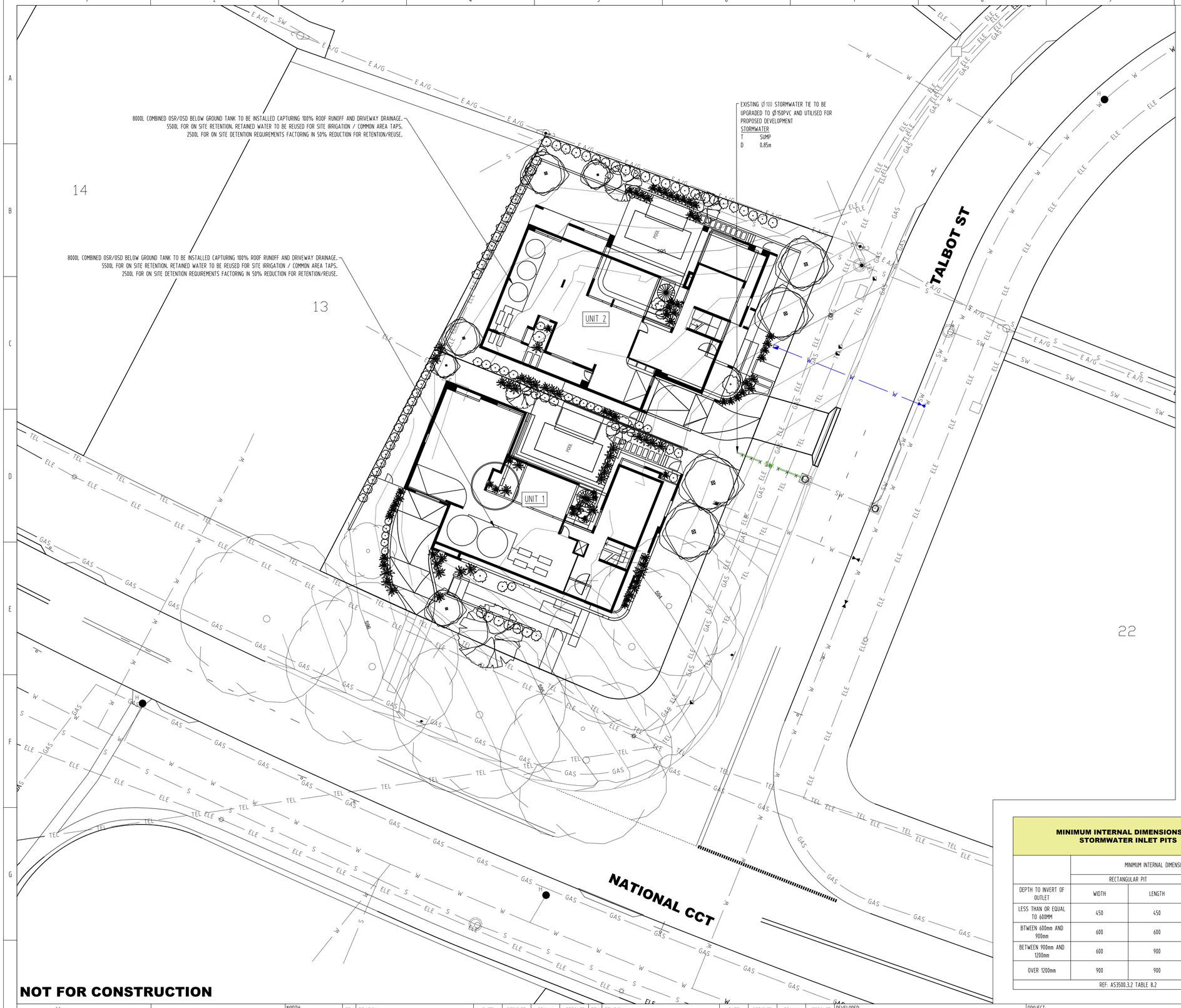
H					
I					
J					

DEVELOPER: THEO KOUTSIKAMANIS
BUILDER: THEO KOUTSIKAMANIS
PROJECT: PROPOSED DUAL OCCUPANCY
SITE ADDRESS: BLOCK 12 SECTION 5 FORREST 20 TALBOT STREET FORREST
SCALE: AS SHOWN
DATE:
DRAWING No: C07
PROJECT No: 26-0534
REVISION:
DRAWING TITLE: CIVIL WORKS DETAILS PLAN



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This spread sheet is an online tool for individuals, designers and developers to gauge possible methods of reducing mains water consumption on Multi-unit developments. Please enter ALL the relevant information for your development before using the reduction percentage.

Percentage Reduction =	41%

Indoor information	
Number of bedrooms in the entire complex	8
What is the water rating of the shower heads?	4 Star
What is the water rating of the clothes washing machines?	3 Star
What is the water rating of the dishwashers?	3 Star
What is the water rating of the toilets?	3 Star

Site information	
Site area (m^2)?	1,787
Total Roof area (m^2)?	654
Lawn area (m^2)?	0
Irrigated garden area (m^2)?	60
Imperveous pavement or driveway (m^2)?	93

Rain water tank information	
Are there going to be water tanks installed?	Yes
What is the total size of all the tanks (L)?	11,000
What is the total roof area flowing into the tanks (m^2)?	654
What will be the use for the water in the tanks?	Garden

WATER SENSITIVE URBAN DESIGN GENERAL CODE COMPLIANCE TABLE

RULE	PROPOSED COMPLIANCE MEASURES
1.1 - R1 - MAINS WATER USE REDUCTION TARGET	40% REDUCTION ACHIEVED. SPREADSHEET ATTACHED.
2.1 - R2 - ONSITE STORMWATER RETENTION	8000L COMBINED OSR/OSD BELOW GROUND TANK TO BE INSTALLED CAPTURING 100% ROOF RUNOFF AND DRIVEWAY DRAINAGE. 5500L FOR ON SITE RETENTION. RETAINED WATER TO BE REUSED FOR SITE IRRIGATION / COMMON AREA TAPS.
2.2 - R3 - ONSITE STORMWATER DETENTION	8000L COMBINED OSR/OSD BELOW GROUND TANK TO BE INSTALLED CAPTURING 100% ROOF RUNOFF AND DRIVEWAY DRAINAGE. 2500L FOR ON SITE DETENTION REQUIREMENTS FACTORING IN 50% REDUCTION FOR RETENTION/REUSE.
2.3 - R4 - STORMWATER QUANTITY FOR MAJOR ROAD ON SITES OVER 2000M2	NOT APPLICABLE
2.4 ON-SITE STORMWATER DETENTION FOR ESTATE DEVELOPMENT PLANS	NOT APPLICABLE
3.1 - R6 - STORMWATER QUALITY TARGET-SITES GREATER THAN 2000M2	NOT APPLICABLE
3.2 - R7 - STORMWATER QUALITY TARGET – MAJOR ROADS	NOT APPLICABLE
4.1 NUISANCE FLOODING –SITES GREATER THAN 2000M2	NOT APPLICABLE
4.2 - R9 - GREEN/LIVING INFRASTRUCTURE	REFER TO LANDSCAPE PLANS
5.1 WATER INFRASTRUCTURE	NOT APPLICABLE

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER INLET PITS

	MINIMUM INTERNAL DIMENSIONS		
	RECTANGULAR PIT		
DEPTH TO INVERT OF OUTLET	WIDTH	LENGTH	CIRCULAR DIAMETER
LESS THAN OR EQUAL TO 600MM	450	450	600
BTWEEN 600mm AND 900mm	600	600	900
BETWEEN 900mm AND 1200mm	600	900	1000
OVER 1200mm	900	900	1000
REF: AS3500.3.2 TABLE 8.2			

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1:200 @A1 1:400 @A3

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J					

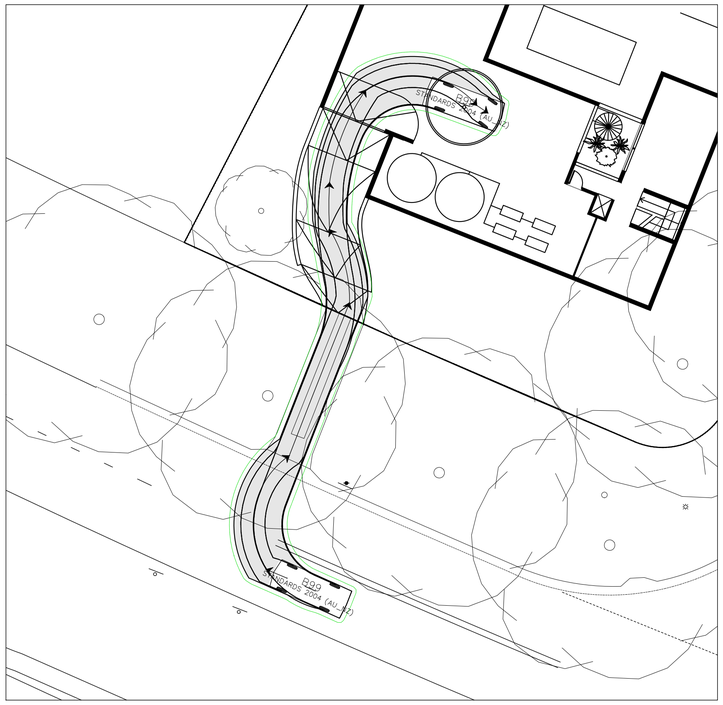
DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE: AS SHOWN
DATE:
DRAWING No: C08
PROJECT No: 26-0534
REVISION:
DRAWING TITLE: STORMWATER MANAGEMENT PLAN



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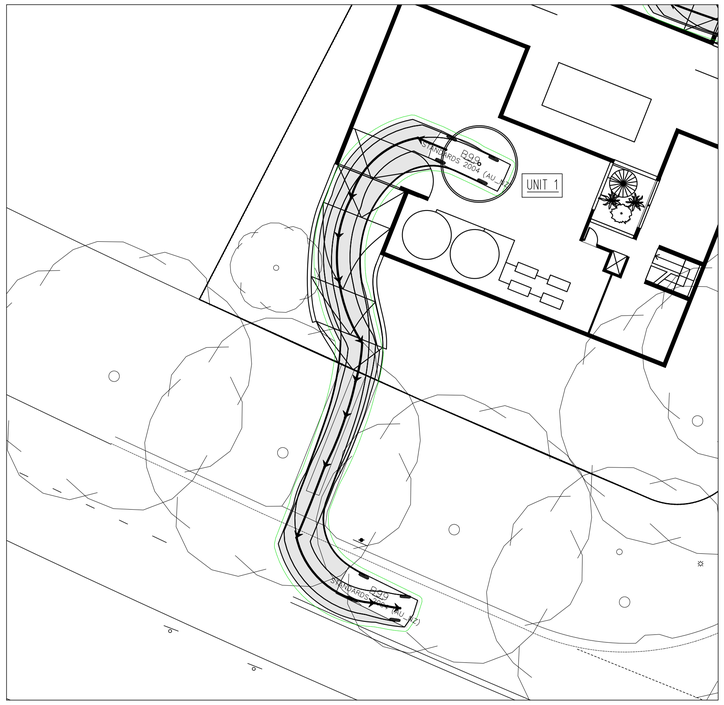
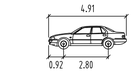


VEHICLE TURNING OUT 1
SCALE:1:200

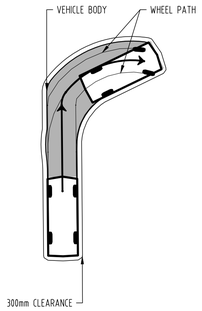


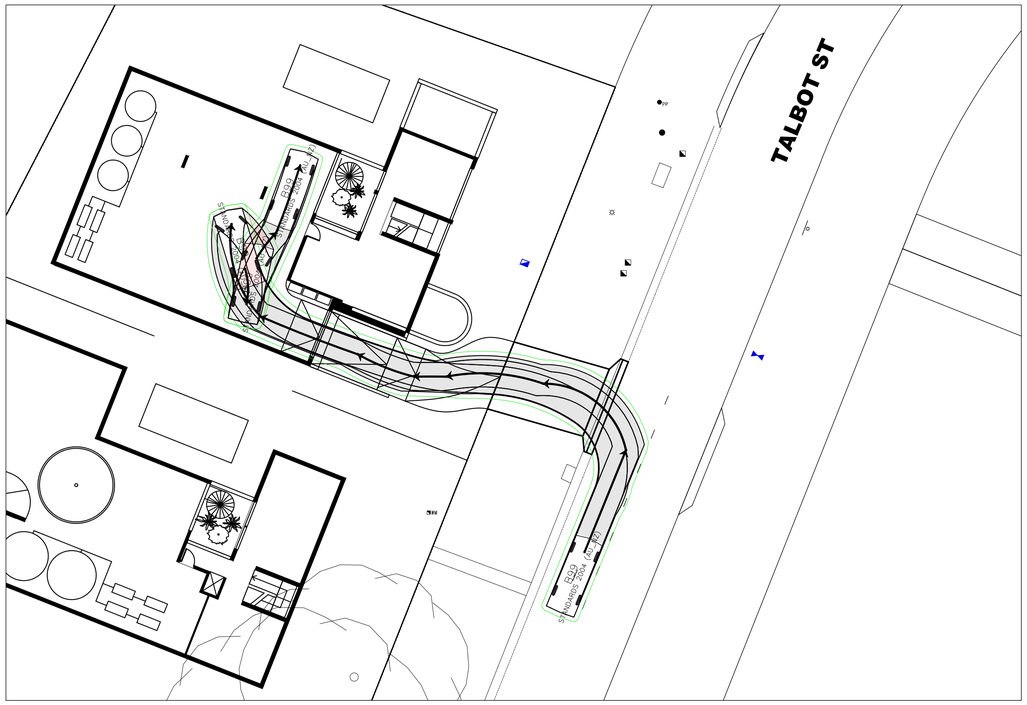
B85 DESIGN VEHICLE

Width	: 1.87m
Track	: 1.77m
Lock to Lock Time	: 6.0m
Steering Angle	: 34.1m

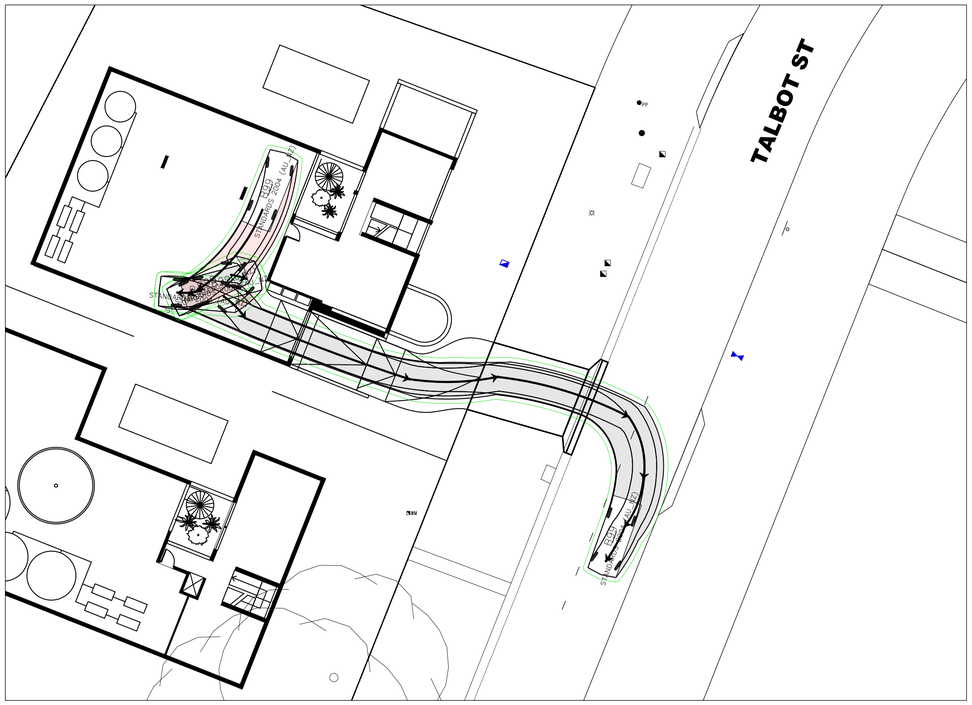
B99 DESIGN VEHICLE

Width	: 1.94m
Track	: 1.84m
Lock to Lock Time	: 6.0m
Steering Angle	: 33.9m





VEHICLE TURNING IN 2
SCALE:1:100



VEHICLE TURNING OUT 2
SCALE:1:100

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D						I					
E						J					

DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
20 TALBOT STREET
FORREST

SCALE	DATE:	DRAWING No:
AS SHOWN		C09
PROJECT No: 26-0534	REVISION:	

DRAWING TITLE: VEHICLE TURNING PLAN

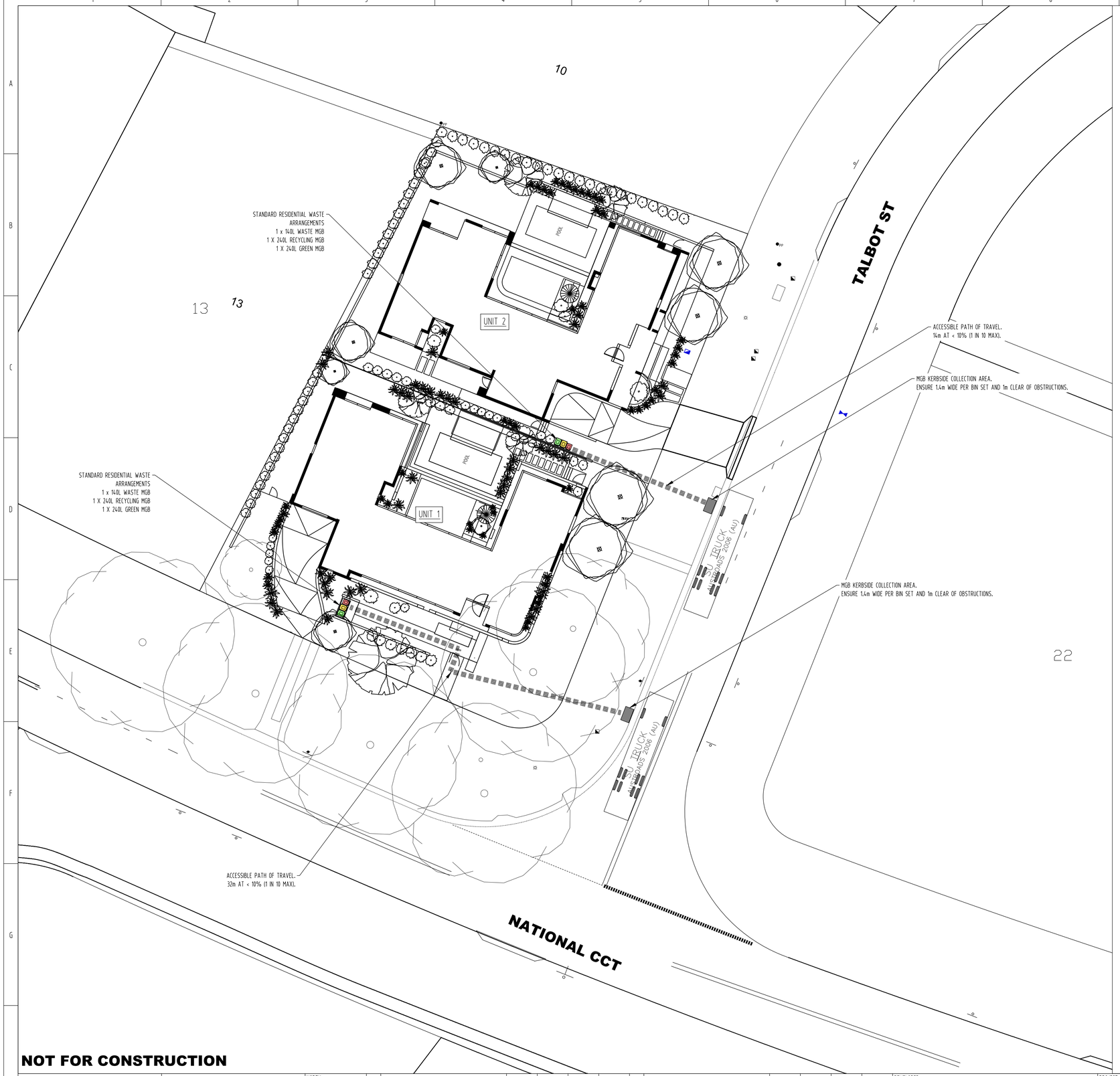

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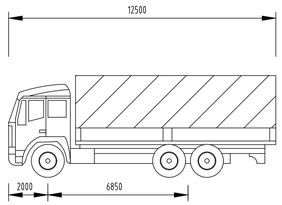
TABLE 3.3 SUBMISSION REQUIREMENTS FOR MGBS ALLOCATED TO EACH INDIVIDUAL DWELLING AND KERBSIDE COLLECTION FOR MULTI-UNIT RESIDENTIAL DEVELOPMENTS

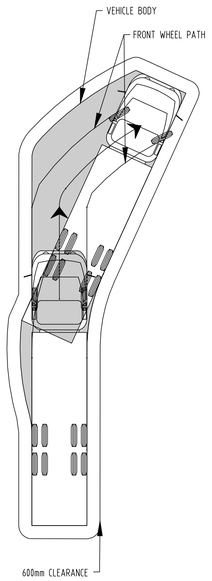
NUMBER	SUBMISSION REQUIREMENT	SUBMISSION RESPONSE
R1	EACH DEVELOPMENT APPLICATION MUST INCLUDE A COMPLETED COPY OF ALL RELEVANT PARTS OF THE WRMP (SEE APPENDIX 10).	WMP HAS BEEN PREPARED
R2	TCCS SUBMISSION DOCUMENTS MUST INCLUDE PLANS, ELEVATIONS, SECTIONS AND WRITTEN DESCRIPTIONS OR SPECIFICATIONS, AS APPLICABLE, SHOWING:	EACH UNIT WITH THIER OWN BIN SET STORED IN THEIR OWN P.O.S
R2.1	- TABULATED WASTE AND RECYCLING GENERATION RATES PER DWELLING SIZE (BEDROOMS) IN ACCORDANCE WITH TABLE 7.1.	EACH UNIT WITH THIER OWN BIN SET STORED IN THEIR OWN P.O.S
R2.2	- THE LOCATION AND DIMENSIONS OF INDIVIDUAL WASTE AND RECYCLING AND GREEN WASTE STORAGE AREAS TO ACCOMMODATE THE TERRITORY-PROVIDED WASTE AND RECYCLING AND GREEN MGBS, WITH TABULATED CALCULATIONS TO DEMONSTRATE THE ADEQUACY OF THIS SPACE.	REFER TO DWG C10
R2.3	- THE PATH OF TRAVEL FOR MOVING MGBS FROM INDIVIDUAL WASTE AND RECYCLING AND GREEN WASTE STORAGE AREAS TO THE DESIGNATED COLLECTION POINT INDICATING DIMENSIONS AND CLEARANCES.	REFER TO DWG C10
R2.4	- THE LOCATION OF THE DESIGNATED COLLECTION POINT, DIMENSIONS OF THE AVAILABLE KERB FRONTAGE FOR THE DEVELOPMENT, CLEARANCES TO STREET TREES AND THE INDICATIVE MGB PRESENTATION LAYOUT TO ENSURE SUFFICIENT SPACE.	REFER TO DWG C10



WIDTH : 2500
TRACK : 2500
LOCK TO LOCK TIME : 6.0s
STEERING ANGLE : 36.6°

12.5m WASTE VEHICLE

N.T.S



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DEVELOPER: THEO KOUTSIKAMANIS

BUILDER: THEO KOUTSIKAMANIS

PROJECT: PROPOSED DUAL OCCUPANCY

SITE ADDRESS: BLOCK 12 SECTION 5 FORREST
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FORREST

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DATE:
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PROJECT No: 26-0534
REVISION:
DRAWING TITLE: WASTE COLLECTION PLAN