

CHANDLER AVENUE, COWAN

ROAD RECONSTRUCTION

FRASER ROAD TO ALBERTA AVENUE

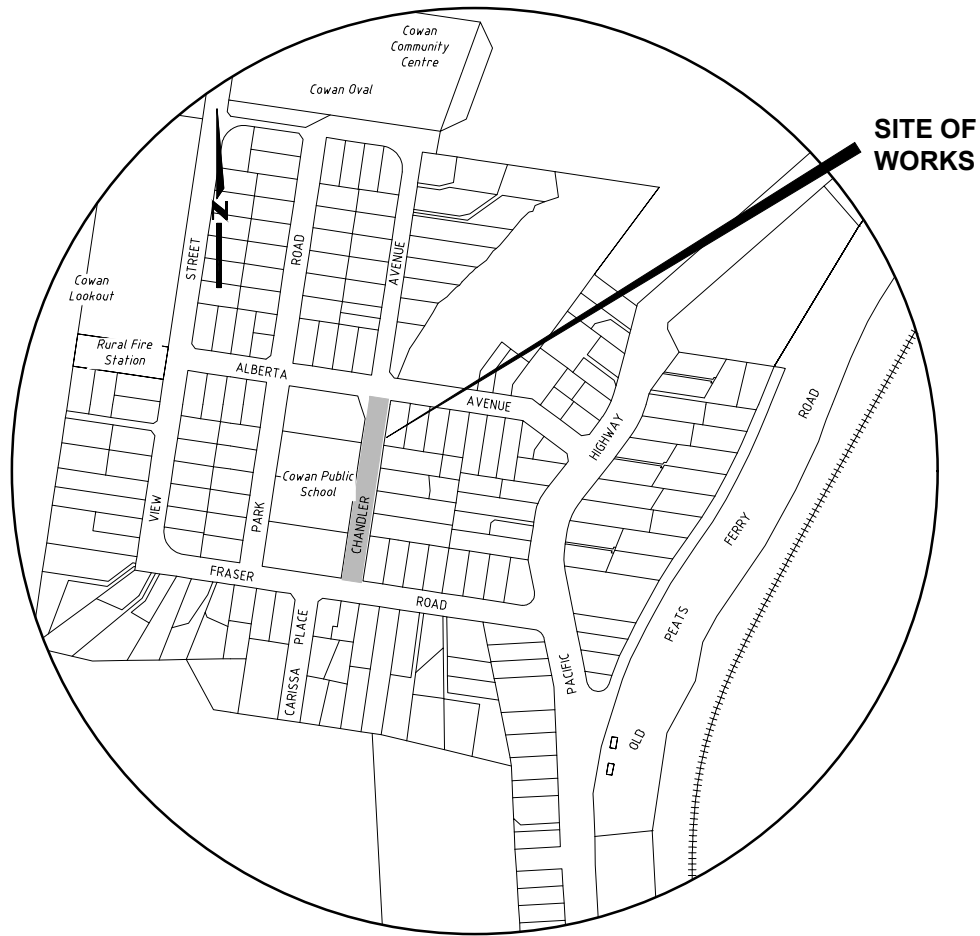
LEGEND

	EXISTING KERB & GUTTER.
	EXISTING EDGE OF BITUMEN.
	EXISTING FENCE.
	EXISTING CONCRETE PATH EDGE.
	EXISTING STORMWATER PIPE.
	EXISTING POWER POLE.
	EXISTING/PROPOSED SIGN.
	EXISTING TREE / TREE TO BE REMOVED.
	PROPOSED TREE (<i>Banksia serrata</i>).
	SURVEY TRAVERSE STATION.
	STATE SURVEY MARK.
	SURVEY REFERENCE MARKS - DRILL HOLE & WING/GALVANISED IRON PIPE.
	EXISTING SEWER MANHOLE.
	EXISTING WATER STOP VALVE / FIRE HYDRANT.
	EXISTING TELSTRA PIT.
	EXISTING SEWER MAIN.
	EXISTING U/G TELSTRA CABLES.
	EXISTING U/G ELECTRICAL CABLES.
	EXISTING OVERHEAD ELECTRICAL CABLES.
	EXISTING WATER MAIN.
	TREE PROTECTION. REFER TO SHEET No.6 FOR DETAILS.
	PROPOSED KERB & GUTTER.
	PROPOSED STORMWATER PIT.
	PROPOSED STORMWATER PIPE.
	STORMWATER PIT LABEL (PIT No./LINE No).
	STORMWATER PIT LABEL FROM COUNCIL GIS DATA BASE.
	DESIGN SETOUT POINT & NUMBER.
	GEO-TECH BOREHOLE & NUMBER. REFER TO SHEET No.2 FOR DETAILS.
	EXTENT OF NEW PAVEMENT CONSTRUCTION (REFER TO TYPICAL SECTION ON SHEET No.3 FOR DETAILS).
	EXTENT OF DRIVEWAY RECONSTRUCTION REINSTATED WITH EXISTING OR MATCHING MATERIALS UNLESS NOTED OTHERWISE.
	EXTENT OF NEW FOOTPATH CONSTRUCTION. ALL PATHS 100mm THICK N25 CONCRETE (COLOUR: PLAIN CONCRETE).
	EXTENT OF PAVEMENT PROFILING TO SUIT FINISHED DESIGN LEVELS.
	EXTENT OF AC DEEPLIFT CORRECTIVE COURSE VARIABLE THICKNESS (NOMINAL SIZE AC14).
	EXTENT OF HEAVY PATCHING. REFER TO SHEET No.3 FOR DETAILS.

DRAWING SCHEDULE

SHEET No.	TITLE	ISSUE
1	DRAWING SCHEDULE, LOCALITY PLAN & LEGEND.	1
2	PROJECT NOTES.	1
3	TYPICAL SECTION, NEW ROAD PAVEMENT DETAILS & TREE PLANTING DETAILS.	1
4	CONTROL LINE 1 SETOUT DETAILS.	1
5	GENERAL WORKS & SERVICES PLAN - SHEET 1 OF 2.	1
6	GENERAL WORKS & SERVICES PLAN - SHEET 2 OF 2.	1
7	CL1 CROSS SECTIONS - CH20.000 TO CH130.000.	1
8	CL1 CROSS SECTIONS - CH140.000 TO CH170.000 & DRIVEWAY PROFILES.	1
9	KERB RETURN DETAILS & SETOUT PLAN.	1
10	STORMWATER CATCHMENT PLAN.	1
11	STORMWATER DATA & CALCULATIONS.	1
12	DRAINAGE LONG SECTIONS.	1

ROAD CLASSIFICATION : 2 LANE URBAN
DESIGN SPEED : 50km/h



LOCALITY PLAN
NOT TO SCALE

Hornsby Shire Council Design & Construction Branch

TELEPHONE: (02) 9847 6666
EMAIL: hsc@hornsby.nsw.gov.au
Authorised for release - A/Manager Design & Construction
Name: M.DRAKE Signed: Date:

Designer S. COMISH	Design Checked-Design Team Leader		
Drawn S. COMISH	Signed:		
Surveyor J.HART	N/A Field Book	N/A Level Book	GDA94 Datum
Project Identifier\\CAD File Name H\\\\Chandler St Cowan LRV\\Design\\ACAD\\Chandler Ave.dwg			
TRIM Document Number D09093691			

1	ISSUED FOR CONSTRUCTION	D. TAMANG			
Issue	Description	Name	Initial	Date	
Design not to be amended without authorisation by Manager Design & Construction					

Bar Scales

NOT TO SCALE

DO NOT SCALE, USE FIGURED DIMENSIONS ONLY



CHANDLER AVENUE, COWAN ROAD RECONSTRUCTION FRASER ROAD TO ALBERTA AVENUE

DRAWING SCHEDULE, LOCALITY PLAN & LEGEND

ASSET OPERATIONS & MAINTENANCE BRANCH		
Acting Asset Planning Team Leader		
Name: J. HURTIS		Telephone: 9847 6679
Accepted as complying with the general intent of the design brief		
Signed:		Date:
Project Number		
100901		
Sheet	of	Issue
1	12	1
HSC Drawing Number		
924.2		

GENERAL NOTES:

1.

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS & SPECIFICATIONS OF HORNSBY SHIRE COUNCIL.
2.

LEVELS SHALL BE OBTAINED FROM ESTABLISHED BENCH MARKS & NOT FROM SURVEY PEGS.
3.

PROVIDE TRAFFIC MANAGEMENT, LINEMARKING & SIGNAGE IN ACCORDANCE WITH THE TfNSW "TRAFFIC CONTROL AT WORK SITES" TECHNICAL MANUAL & AS1742.3 REQUIREMENTS.
4.

SERVICES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM INFORMATION SUPPLIED FROM THE RELEVANT AUTHORITIES VIA A "BEFORE YOU DIG AUSTRALIA" ENQUIRY. THE LOCATION OF SERVICES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED AS ACCURATELY AS POSSIBLE FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES & FIELD INVESTIGATIONS & ARE TO BE VERIFIED PRIOR TO CONSTRUCTION.
5.

EROSION & SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH THE LANDCOM PUBLICATION:- "MANAGING URBAN STORMWATER, SOILS & CONSTRUCTION" Vol. 1, 4th EDITION.
6.

ALL DISTURBED AREAS OF THE SITE ARE TO BE REINSTATED WITH EXISTING OR MATCHING MATERIALS UNLESS NOTED OTHERWISE AT THE COMPLETION OF THE WORKS.
7.

WHERE WORKS ARE ADJACENT TO EXISTING STRUCTURES UNDERTAKE A DILAPIDATION SURVEY OF EXISTING ADJACENT STRUCTURES BEFORE COMMENCEMENT OF ANY WORKS.
8.

IF SET-OUT IS REQUIRED BY HORNSBY SHIRE COUNCIL DESIGN & CONSTRUCTION BRANCH SURVEYOR, NOTIFY ENGINEERING SURVEYOR A MINIMUM OF 24 HOURS IN ADVANCE.
9.

WHERE PAVEMENT RESURFACING IS UNDERTAKEN ENSURE ALL BLUE HYDRANT MARKER RRPMS ARE REINSTATED AT THE COMPLETION OF WORKS.
10.

COUNCIL'S TREE MANAGEMENT GROUP CONTACT DETAILS.
CONTACT: Gareth Hambridge PH: 9847 6201
11.

COORDINATE RELOCATION OF SERVICES THROUGH APPROPRIATE CONTACTS-
TELSTRA: Name: Support Team Ph: 1800 653 935

ACCESS & SAFETY NOTES:

1.

THE CONSTRUCTOR SHALL COMPLY WITH ALL STATUTORY & INDUSTRIAL REQUIREMENTS FOR PROVISION OF A SAFE WORKING ENVIRONMENT INCLUDING TRAFFIC CONTROL.
2.

THE CONSTRUCTOR SHALL PROVIDE TRAFFIC MANAGEMENT PLANS FOR THE PROPOSED WORKS COMPLETED BY A SUITABLY QUALIFIED PERSON & APPROVED BY COUNCIL/REGULATORY AUTHORITY. WORK IS NOT TO COMMENCE ON SITE PRIOR TO APPROVAL OF TRAFFIC MANAGEMENT SCHEME.
3.

THE CONSTRUCTOR SHALL ENSURE THAT AT ALL TIMES ACCESS TO BUILDINGS/RESIDENCES ADJACENT TO THE WORKS IS NOT DISRUPTED, INCLUDING THE COWAN RURAL FIRE STATION.
4.

WHERE NECESSARY THE CONSTRUCTOR SHALL PROVIDE SAFE PASSAGE OF VEHICLES AND/OR PEDESTRIANS THROUGH OR BY THE SITE.
5.

THE CONSTRUCTOR SHALL ENSURE PUBLIC ACCESS EXTERNAL TO THE SITE IS IN ACCORDANCE WITH COUNCIL REQUIREMENTS.

GEO-TECHNICAL NOTES:

1.

A GEO-TECHNICAL INVESTIGATION HAS BEEN UNDERTAKEN AT THIS PROJECT SITE BY STS GEO-TECHNICS PTY LTD (REPORT No. 32657/9246D-G. NOVEMBER. 2024). THE REPORT CAN BE FOUND IN COUNCIL'S DOCUMENT MANAGEMENT SYSTEM AS DOCUMENT No. D09093717 & D09093721.
2.

CARE WILL BE REQUIRED TO ENSURE THAT NEARBY STRUCTURES & INFRASTRUCTURE ARE NOT DAMAGED WHEN EXCAVATING IN ROCK. EXCAVATION METHODS SHOULD BE ADOPTED WHICH LIMIT GROUND VIBRATIONS AT THE ADJOINING STRUCTURES TO NOT MORE THAN 5mm/SEC.
3.

IT IS RECOMMENDED THAT BEFORE COMMENCING EXCAVATION TO UNDERTAKE A DILAPIDATION SURVEY OF ANY STRUCTURES THAT MAY POTENTIALLY BE DAMAGED. THIS WILL PROVIDE REASONABLE BASIS FOR ASSESSING ANY FUTURE CLAIMS OF DAMAGE.
4.

EXCAVATIONS ARE NOT EXPECTED TO ENCOUNTER THE GROUNDWATER TABLE, HOWEVER SHOULD ANY SIGNIFICANT GROUNDWATER FLOWS BE ENCOUNTERED DURING EXCAVATION, STS MUST BE CONTACTED IMMEDIATELY TO PROVIDE FURTHER ADVICE & RECOMMENDATIONS.
5.

STS GEOTECHNICS CONTACT PH: 02 9756 2166.

ABORIGINAL ARTIFACT NOTES:

1.

AN AHIMS WEB SEARCH HAS BEEN UNDERTAKEN FOR THIS PROJECT (REF: HSC CLIENT SERVICE ID: 972813 – 6th FEBRUARY 2025). NO ARTIFACTS ARE SHOWN. SHOULD ANY POTENTIAL ARTIFACTS BE UNCOVERED THEY ARE NOT TO BE REMOVED FROM THE SITE & SHALL BE IMMEDIATELY REPORTED TO COUNCIL'S PROJECT MANAGER. (TRIM # D09093600)

TREE PROTECTION MEASURES:

1.

ALL WORKS WITHIN THE TREE PROTECTION ZONE OF ANY TREE/S TO BE RETAINED SHOULD NOT REDUCE THE USEFUL LIFE EXPECTANCY OF THE TREE/S & BE CARRIED OUT UNDER THE SUPERVISION OF AN 'AQF LEVEL 5 ARBORIST'.

TREE PROTECTION ZONES (TPZ)

TREE SIZE	TPZ
TREES WITH A DIAMETER AT BREAST HEIGHT GREATER THAN 800mm	9m
TREES WITH A DIAMETER AT BREAST HEIGHT BETWEEN 400mm & 800mm	7m
TREES WITH A DIAMETER AT BREAST HEIGHT LESS THAN 400mm	4m

SOIL LEVELS WITHIN THE TREE PROTECTION ZONE OF TREES TO BE RETAINED SHOULD REMAIN AT EXISTING GRADE & UNDISTURBED. EXCAVATION WITHIN THE TREE ROOT ZONE OF TREES TO BE RETAINED SHOULD BE CARRIED OUT BY HAND EXCAVATION ONLY. HAND EXCAVATION SHOULD BE CARRIED OUT UNDER THE SUPERVISION OF A QUALIFIED ARBORIST IN SUCH A MANNER THAT IS NON-INJURIOUS TO ANY ROOTS REVEALED. NO TREE ROOT GREATER THAN 40mm DIAMETER LOCATED WITHIN THE TPZ OF ANY TREE TO BE RETAINED SHOULD BE SEVERED OR INJURED IN THE PROCESS OF ANY WORKS.

TREE ROOTS LESS THAN 30mm IN DIAMETER REQUIRED TO BE SEVERED SHALL BE CUT CLEANLY BY HAND BY A QUALIFIED & EXPERIENCED ARBORIST OR HORTICULTURIST WITH MINIMUM QUALIFICATIONS OF HORTICULTURAL CERTIFICATE OR TREE SURGERY CERTIFICATE (AQF 3).

2.

ALL PRUNING SHALL BE UNDERTAKEN AS SPECIFIED IN THE AUSTRALIAN STANDARD 'PRUNING OF AMENITY TREES' (AS 4373-2009).
3.

THE FILLING OR STOCKPILING OF BUILDING MATERIALS, PARKING OF VEHICLES OR PLANT, THE USE OF MACHINERY OTHER THAN HAND HELD, DISPOSAL OF CEMENT SLURRY, WASTE WATER OR OTHER CONTAINMENTS MUST REMAIN OUTSIDE THE TREE ROOT ZONE OF ANY TREE TO BE RETAINED.
4.

ANY MECHANICAL DAMAGE TO TREES OR CHEMICAL SPILLS WITHIN THE TPZ MUST BE REPORTED TO THE PROJECT SUPERVISOR/MANAGER.
5.

BARRIER MESH FENCING SHALL BE ERECTED AROUND RETAINED TREES TO ENSURE THEY ARE PROTECTED FROM MACHINERY MISTAKENLY TRAVERSING BETWEEN TREES, THIS CAN BE IDENTIFIED/ DIRECTED BY PROJECT ARBORIST.
6.

REFER TO COUNCIL'S TREE MANAGEMENT TEAM FOR TREE REMOVAL APPROVAL, TRIM REFERENCE D09105087.

SEDIMENT & EROSION CONTROL NOTES:

1.

NO WORK SHALL BE UNDERTAKEN UNTIL ALL SEDIMENT & EROSION CONTROL MEASURES ARE IN PLACE & HAVE BEEN APPROVED BY THE CONSTRUCTION ENGINEER.
2.

ALL SEDIMENT CONTROL STRUCTURES TO BE INSPECTED BY THE SITE SUPERVISOR ON A DAILY BASIS & SIGNED OFF ON THE BACK OF THE DAY SHEET. A CHECKLIST SHALL BE HANDED OVER TO THE PROJECT MANAGER AT THE END OF EACH DAY. STRUCTURES WILL ALSO BE INSPECTED AFTER EACH RAINFALL EVENT FOR STRUCTURAL DAMAGE & ALL TRAPPED SEDIMENT TO BE REMOVED TO A NOMINATED SOIL STOCKPILE SITE. THE CONSTRUCTION ENGINEER MUST INFORM ALL CONTRACTORS & SUB-CONTRACTORS OF THEIR OBLIGATIONS UNDER THE EROSION CONTROL PLAN.
3.

SELECTIVE CLEARING OF VEGETATION TO BE RESTRICTED TO NOMINATED AREAS WITH CLEARED VEGETATION WINDROWED ON THE CONTOUR.
4.

TREES NEAR THE CONSTRUCTION ZONE NOT OTHERWISE PROTECTED BY FENCING SHALL BE PROTECTED IN ACCORDANCE WITH AS4970 SECTION 4.5. ALTERNATIVE PROTECTION MEASURES SATISFYING THE PROJECTS ABORIST'S REQUIREMENTS IS ACCEPTABLE. TRUNK PROTECTION SHOULD BE MAINTAINED INTACT UNTIL THE COMPLETION OF ALL WORK ON THE SITE. ALL TREES REQUIRING REMOVAL ARE SHOWN ON THIS PLAN & SHALL BE MARKED ACCORDINGLY PRIOR TO REMOVAL.
5.

TOPSOIL FROM AREAS THAT WILL BE DISTURBED TO BE STRIPPED & STOCKPILED AT THE NOMINATED SITE.
6.

A MINIMUM STOCK OF THE FOLLOWING SHALL BE KEPT ON SITE AT ALL TIMES:
(A) 50m ROLL OF SEDIMENT FENCE & PEGS.
(B) 50m ROLL OF BIDIM GEOTEXTILE.
7.

ANY DISTURBED AREA OF LAND SHALL BE COMPACTED AT THE END OF EACH WORKING DAY & BEFORE ANY STORM EVENT.
8.

CONSTRUCTION AREA IS TO BE LIMITED AS SHOWN TO MINIMISE DISTURBANCE.
9.

SEDIMENT FENCING SHALL BE PLACED AROUND ANY STOCKPILE AREA.
10.

ALL EROSION & SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH THE LANDCOM PUBLICATION:- "MANAGING URBAN STORMWATER, SOILS & CONSTRUCTION" Vol. 1, 4th EDITION.
11.

ALL DISTURBED AREAS SHALL BE TURFED WITHIN 14 DAYS OF FINAL TRIMMING.

SUBSOIL DRAINAGE NOTES:

1.

SUBSOIL FLUSHING POINTS TO BE INSTALLED AT ALL U/S ENDS OF LINES & AT 60m MAXIMUM CENTRES. CONNECT SUBSOIL PIPES TO STORMWATER PITS.

CONCRETE NOTES

(USING STEEL REINFORCED CONCRETE U.N.O.)

1.

MATERIALS AND CONSTRUCTION: TO AS 3600, AS 3610.
STEEL REINFORCEMENT MATERIALS: TO AS 4671.
2.

CONCRETE QUALITY: TO AS 1379
READY MIX CONCRETE: TO AS 1379
a) DO NOT USE ADMIXTURES WITHOUT WRITTEN APPROVAL FROM SUPERVISING ENGINEER.
b) CEMENT: TYPE 'GP' OR 'GB' TO AS 3972.
c) MAXIMUM SIZE OF COARSE AGGREGATE: 20mm.
d) CONCRETE SLUMP: 80mm U.N.O.

ELEMENT	CHARACTERISTIC CONCRETE STRENGTH (f'c) AT 28 DAYS	REINFORCEMENT	COVER (mm)	SPECIAL REQUIREMENTS
FOOTPATH	N25 (U.N.O.)	-	N/A	BROOM FINISH & PLAIN CONCRETE.
DRIVEWAYS	N25 (U.N.O.)	SL72	40	BROOM FINISH & PLAIN CONCRETE.

3.

VERIFY STRENGTH BY PRODUCTION CONTROL TESTING TO AS 1379.
4.

NO UNSPECIFIED HOLES, DUCTING OR CHASES ARE PERMITTED WITHOUT WRITTEN APPROVAL FROM SUPERINTENDENT (SUPERVISING OFFICER). NO PIPES OR CONDUITS ARE PERMITTED WITHIN CONCRETE COVER.
5.

STRUCTURAL DIMENSIONS DO NOT INCLUDE TOPPINGS OR FINISHES.
6.

FORM CONSTRUCTION JOINTS ONLY AT LOCATIONS SHOWN ON DRAWINGS. DO NOT VARY WITHOUT WRITTEN APPROVAL FROM SUPERVISING ENGINEER.
7.

PREPARE COLD JOINTS BY LIGHT SCABBLING, REMOVAL OF DEBRIS & WASHING WITH CLEAN WATER.
8.

FOUNDATION MATERIALS MUST BE CAPABLE OF WITHSTANDING A SAFE BEARING PRESSURE OF 100kPa. VERIFY & RECORD THE BEARING CAPACITY BEFORE ANY CONCRETE IS PLACED.
9.

DO NOT PLACE CONCRETE UNTIL REINFORCEMENT (IF USED) & FORMWORK ARE INSPECTED BY SUPERVISING ENGINEER.
10.

THOROUGHLY CLEAN OUT ALL FORMWORK PRIOR TO POURING.
11.

DO NOT PLACE CONCRETE UNDER THE FOLLOWING CONDITIONS:
a) WHEN THE SURROUNDING OUTDOOR TEMPERATURE EXCEEDS 30°C.
b) WHEN THE SURROUNDING WIND SPEED EXCEEDS 12 KNOTS.
12.

IMPLEMENT THE FOLLOWING PROCEDURES TO MITIGATE PREMATURE DRYING & CRACKING OF THE CONCRETE:
a) IN HOT CONDITIONS, PROGRAM CONCRETE PLACEMENT FOR THE COOLER PART OF THE DAY (ie. EARLY MORNING).
b) SPRAY EVAPORATIVE RETARDERS WITH FUGATIVE DYES (eg. ALIPHATIC ALCOHOL) OVER THE SURFACE IMMEDIATELY AFTER SCREEDING & WHILST BLEED WATER IS STILL PRESENT. REAPPLY IF THE SURFACE IS DISTURBED.
c) COMMENCE CURING IMMEDIATELY AFTER FINISHING. CURE FOR 7 DAYS.
13.

VIBRATE CONCRETE DURING PLACEMENT TO GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION.
14.

SURFACE FINISH – REFER TO DRAWINGS FOR DETAILS.
15.

COMMENCE CURING OF ALL CONCRETE SURFACES IMMEDIATELY ON FINISHING & CONTINUE FOR 7 DAYS MIN.
16.

EXPANSION JOINTS & ISOLATION JOINTS ARE TO BE SEALED TO MANUFACTURER'S SPECIFICATIONS WITH A GUN GRADE POLYURETHANE LOW MODULUS SELF PRIMING SEALANT EQUAL TO 'TREMCO DYMONIC NT' (+100%, -50% MOVEMENT CAPACITY). SEALANT COLOUR GREY OR EQUIVALENT.

KERB RAMP & FOOTPATH NOTES:

1.

CONCRETE TO BE MINIMUM GRADE N25.
2.

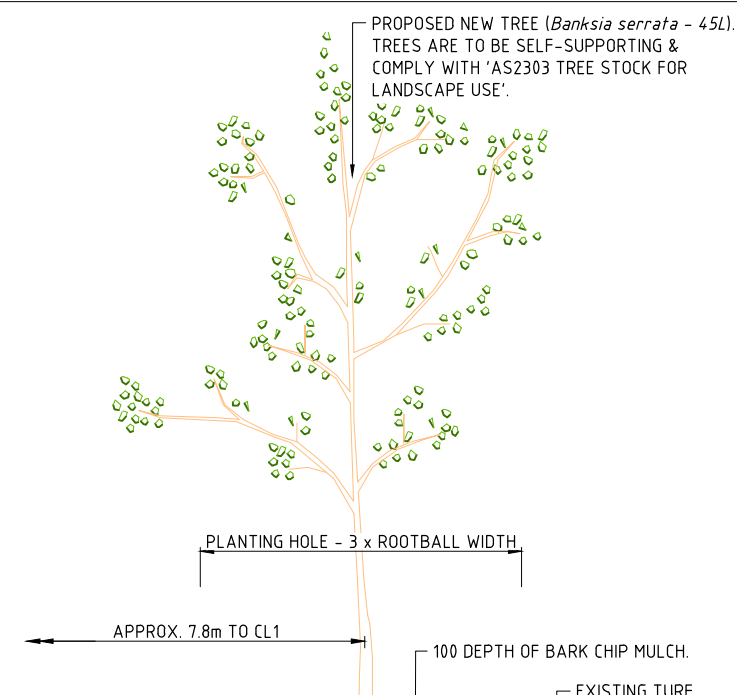
ALL CONCRETE TO BE TRANSVERSE HEAVY BROOM FINISHED. USE A STANDARD EDGING TOOL TO PENCIL ROUND THE EDGE INCLUDING CONTROL & EXPANSION JOINTS WITH SMOOTH BORDER APPROXIMATELY 50mm WIDE.
3.

THE RAMP GRADIENT IS TO BE NO STEEPER THAN 1 IN 8.
4.

ALL CONSTRUCTION TO COMPLY WITH THE REQUIREMENTS OF AS3600, CONCRETE CODE.
5.

FOUNDATION MATERIALS MUST BE CAPABLE OF WITHSTANDING A SAFE BEARING PRESSURE OF 100kPa. VERIFY & RECORD THE BEARING CAPACITY BEFORE ANY CONCRETE IS PLACED.

Hornsby Shire Council Design & Construction Branch TELEPHONE: (02) 9847 6666 EMAIL: hsc@hornsby.nsw.gov.au Authorised for release - A/Manager Design & Construction Name: M.DRAKE Signed: Date:	Designer S. COMISH Drawn S. COMISH Surveyor J.HART Project Identifier\--CAD File Name H:\\\\Chandler St Cowan LRV\Design\ACAD\Chandler Ave.dwg	Design Checked-Design Team Leader Signed: Drawing Checked Signed: N/A Field Book N/A Level Book GDA94 Datum	1 ISSUED FOR CONSTRUCTION D. TAMANG	Issue Description Name Initial Date	Design not to be amended without authorisation by Manager Design & Construction	Bar Scales NOT TO SCALE DO NOT SCALE, USE FIGURED DIMENSIONS ONLY	 PO BOX 37, HORNSBY NSW 1630	CHANDLER AVENUE, COWAN ROAD RECONSTRUCTION FRASER ROAD TO ALBERTA AVENUE PROJECT NOTES	Project Number 100901 Sheet 2 of 12 Issue 1 HSC Drawing Number 924.2
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NEW TREE IN VERGE DETAIL
NOT TO SCALE



PLANTING NOTES:

GENERAL:
TOPSOIL SUPPLY & INSTALLATION & PLANTING TO BE UNDERTAKEN BY A LANDSCAPE CONTRACTOR WHO IS A MEMBER OF THE LCA OR ALTERNATIVE CONTRACTOR APPROVED BY HSC PARKS, TREES & RECREATION TEAM.

PLANT MATERIAL:
PLANTS SHALL BE OF SPECIES, SIZES & QUANTITIES AS SHOWN ON DRAWINGS. PLANTS SHALL BE VIGOROUS, WELL ESTABLISHED, OF GOOD FORM, NOT SOFT OR FORCED, FREE FROM DISEASE & INSECT PESTS. PLANTS SHALL HAVE LARGE HEALTHY ROOT SYSTEMS, NOT ROOT BOUND & ALL TREES WITH A SINGLE LEADING SHOOT.

PLANTING:
BEFORE PLANTING BEGINS THOROUGHLY WATER THE PLANTS & THE WATERING HOLES. EXCAVATE A HOLE LARGE ENOUGH FOR EACH PLANT TO ALLOW 100mm BACKFILL ALL ROUND OR AS DETAILED WITH IMPORTED TOPSOIL. PLANTS SHALL BE SET PLUMB WITH THE TOP OF THE ROOTBALL SLIGHTLY BELOW THE LEVEL OF THE SURROUNDING GROUND.

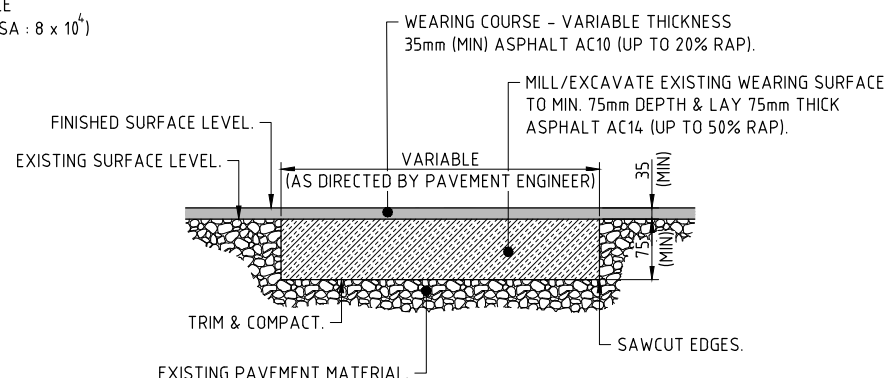
IMPORTED SOILS:
SITE TOPSOIL TYPE A:
 COMPLY WITH AS4419
 ORGANIC GARDEN MIX AS SUPPLIED BY AUSTRALIAN NATIVE LANDSCAPES PH: 9450 1444 OR EQUIVALENT
 COMPOSITION:
 30% TOPSOIL
 30% DOUBLE WASHED SAND 5mm MINUS
 20% 'MULCH & COMPOST'
 20% COMPOSTED SAWDUST
 DEPTH 0 - 300mm MAX. DEPTH

SITE TOPSOIL TYPE B:
 SAND SOIL BLEND 80-20 AS SUPPLIED BY AUSTRALIAN NATIVE LANDSCAPES PH: 9450 1444 OR EQUIVALENT
 COMPOSITION:
 20% TOPSOIL
 80% COURSE SAND
 DEPTH 300 - 600mm MAX. DEPTH

ASPHALT COURSE & LAYER THICKNESS TABLE

NOMINAL SIZE OF ASPHALT (mm)	COMPACTED LAYER THICKNESS (mm)	TYPE OF WORK	RAP (%)
10	30 TO 45	WEARING COURSE	MAX. 20
14	30 TO 55	CORRECTIVE COURSE	MAX. 50
20	40 TO 90	CORRECTIVE COURSE	MAX. 50

NOTE: REFER TO GEO-TECHNICAL NOTES ON SHEET No. 2 FOR REFERENCE TO PAVEMENT TESTING REPORT.



HEAVY PATCHING PAVEMENT DETAIL

Hornsby Shire Council Design & Construction Branch TELEPHONE: (02) 9847 6666 EMAIL: hsc@hornsby.nsw.gov.au	Designer S. COMISH	Design Checked-Design Team Leader								Bar Scales	 HORNSBY SHIRE COUNCIL PO BOX 37, HORNSBY NSW 1630	CHANDLER AVENUE, COWAN ROAD RECONSTRUCTION FRASER ROAD TO ALBERTA AVENUE	Project Number 100901		
	Drawn S. COMISH	Signed:											Sheet 3	of 12	Issue 1
	Surveyor J.HART	N/A Field Book	N/A Level Book	AHD Datum											
	Project Identifier\ACAD File Name H:\V\Chandler St Cowan LR\Design\ACAD\Chandler Ave.dwg														
Authorised for release - A/Manager Design & Construction Name: M DRAKE Signed: _____ Date: _____		TRIM Document Number D09093691		1	ISSUED FOR CONSTRUCTION		D. TAMANG					TYPICAL SECTION, NEW ROAD PAVEMENT DETAILS & TREE PLANTING DETAILS	HSC Drawing Number 924.2		
				Issue	Description	Name	Initial	Date	DO NOT SCALE, USE FIGURED DIMENSIONS ONLY						
				Design not to be amended without authorisation by Manager Design & Construction											

NOTE: SURVEY MARKS MUST NOT BE DISTURBED. IF MARKS HAVE TO BE REMOVED APPLICATION MUST BE MADE THROUGH A REGISTERED SURVEYOR TO SUBMIT A "PRESERVATION OF SURVEY INFRASTRUCTURE" FORM TO SPATIAL SERVICES NSW.

! DH&W
ROAD

0 **STN 1704**¹⁰
RL 206.853

STN 1925
RL 206.687

 BENCH MARK
RI 208 728

CHANDLER

CONTROL LINE 1

STN 1894
RL 210.897

BENCH MARK
RL 211.521

STN 1537
RL 210.103

STN 1491
RL 208.933

BENCH MARK
RL 209.344

STN 5203
RI 209 887

AVENUE

180
190
191.491

SSM76969
RL 205.503

ALBERTA

NOTE: ALL COORDINATES ARE ON MGA94 ZONE 56 DATUM.

NOT TO SCALE

NOTE: ALL COORDINATES ARE ON MGA94 ZONE 56 DATUM.

CONTROL LINE No.1 SETOUT DETAILS					
PT	CHAINAGE	EASTING	NORTHING	LEVEL	RAD/SPIRAL
IP 1	0.000	330105.815	6281831.538		
	10.000	330107.294	6281841.428		
	20.000	330108.772	6281851.318	207.227	
	30.000	330110.251	6281861.208	208.029	
	40.000	330111.729	6281871.098	208.832	
	50.000	330113.208	6281880.988	209.624	
	60.000	330114.686	6281890.878	210.250	
	70.000	330116.165	6281900.768	210.654	
	80.000	330117.644	6281910.658	210.902	
	90.000	330119.122	6281920.548	210.988	
	100.000	330120.601	6281930.438	210.839	
	110.000	330122.079	6281940.329	210.458	
	120.000	330123.558	6281950.219	209.848	
	130.000	330125.036	6281960.109	209.163	
	140.000	330126.515	6281969.999	208.478	
	150.000	330127.994	6281979.889	207.796	
	160.000	330129.472	6281989.779	207.174	
	170.000	330130.951	6281999.669	206.636	
180.000	330132.429	6282009.559	206.181		
190.000	330133.908	6282019.449			
IP 2	191.491	330134.128	6282020.924		

SURVEY STATION AND/OR CONTROL LINE
DETAILS CHECKED AND VERIFIED

Sheet	of	Issue
4	12	1

**Hornsby Shire Council
Design & Construction
Branch**

Designer S. COMISH	Design Checked-Design Team Leader		
Drawn S. COMISH	Signed:		
Surveyor J.HART	Drawing Checked		
	Signed:		
	N/A Field Book	N/A Level Book	GDA94 Datum
Project Identifier\ACAD File Name			
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TRIM Document Number			
D09093691			

1	ISSUED FOR CONSTRUCTION	D. TAMANG		
Issue	Description	Name	Initial	Date
Design not to be amended without authorisation by Manager Design & Construction				

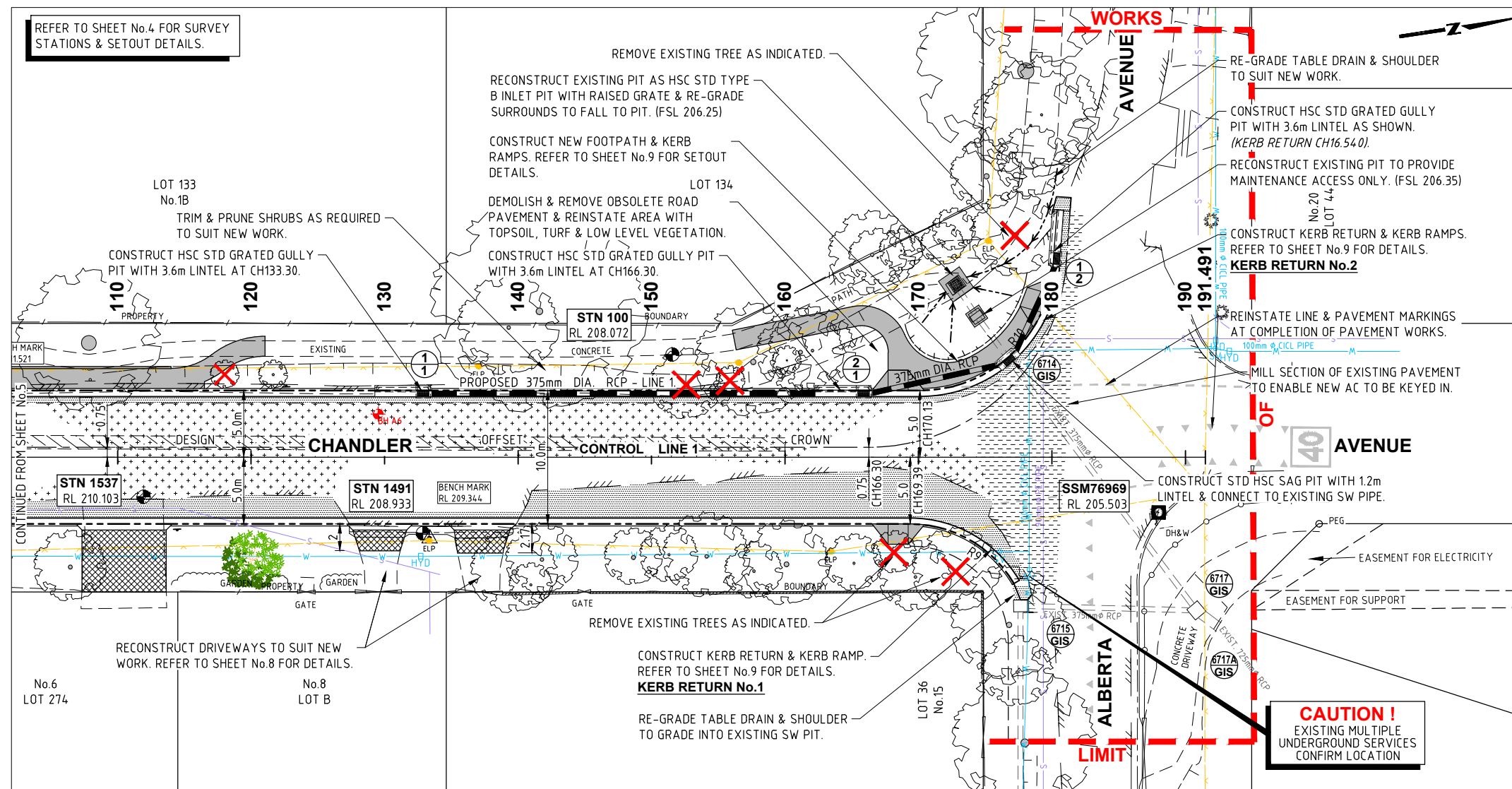
Bar Scales	NOT TO SCALE DO NOT SCALE, USE FIGURED DIMENSIONS ONLY
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CONTROL LINE 1 SETOUT DETAILS

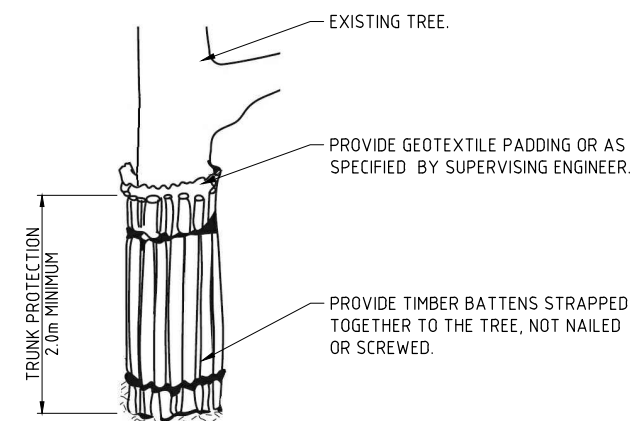
SURVEY CONTROL		
SURVEY STATION AND/OR CONTROL LINE DETAILS CHECKED AND VERIFIED		
Signed: _____		Date: _____
Project Number		
100901		
Sheet	of	Issue
4	12	1
HSC Drawing Number		
924.2		

REFER TO SHEET No.4 FOR SURVEY STATIONS & SETOUT DETAILS.



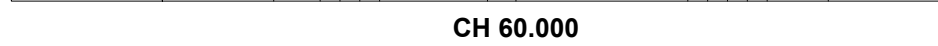
WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN
INTERPOLATED FROM KNOWN POSITIONS OF VALVES,
MANHOLES ETC. AND/OR INFORMATION SUPPLIED BY SERVICE
AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE
ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED.
ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO
COMMENCEMENT OF WORK.

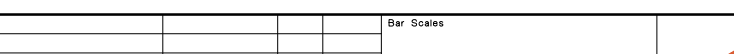
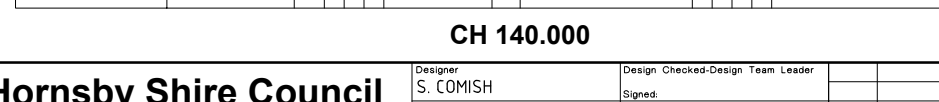
Horizontal Geometry Data			
Vertical Geometry Grade (%)			
Vertical Grade Length (m)			
Vertical Curve Length (m)			
Vertical Curve Radius (m)			
DATUM R.L. 201.000			
CUT / FILL DEPTH TO EXISTING	0.089		
CONTROL LINE FINISHED LEVEL	209.848	209.163	208.478
EXISTING SURFACE LEVEL	209.759	209.122	208.438
CONTROL LINE CHAINAGE	120	130	140
			147.48
			150
			160
			163.48
			170
			179.48
			180
			190
			191.491



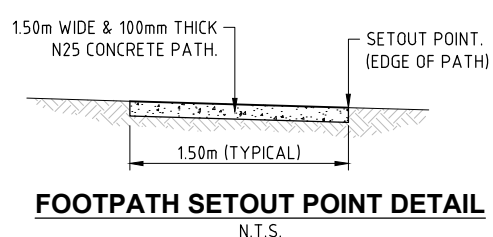
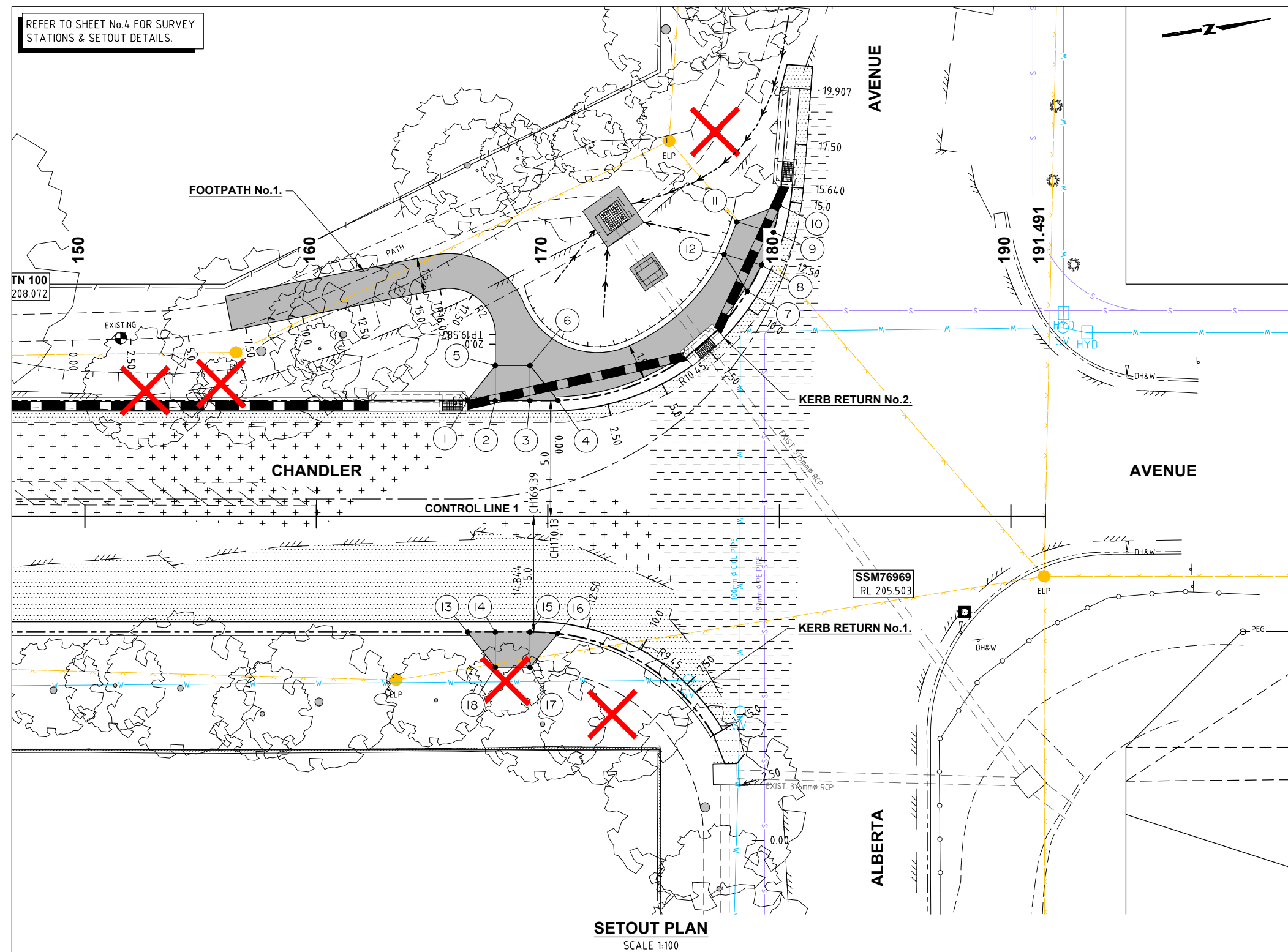
TREE TRUNK PROTECTION DETAIL
NOT TO SCALE

[illegible]





REFER TO SHEET No.4 FOR SURVEY STATIONS & SETOUT DETAILS.



NOTE: ALL COORDINATES ARE ON MGA94 ZONE 56 DATUM.

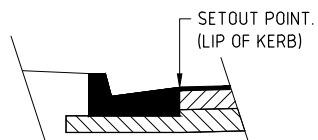
KERB RETURN No.1 SETOUT DETAILS				
CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS
0.000	330146.104	6282006.339	205.385	-9.450
2.500	330143.611	6282006.380	205.470	-9.450
5.000	330141.195	6282005.767	205.630	-9.450
7.500	330139.023	6282004.543	205.863	-9.450
10.000	330137.247	6282002.795	206.105	-9.450
12.500	330135.989	6282000.642	206.300	-9.450
14.844	330135.360	6281998.391	206.439	-9.450

NOTE: ALL COORDINATES ARE ON MGA94 ZONE 56 DATUM.

KERB RETURN No.2 SETOUT DETAILS				
CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS
0.000	330126.469	6282000.463	206.592	-10.450
2.500	330126.541	6282002.956	206.519	-10.450
5.000	330126.020	6282005.395	206.497	-10.450
7.500	330124.936	6282007.641	206.494	-10.450
10.000	330123.350	6282009.566	206.523	-10.450
12.500	330121.354	6282011.061	206.573	-10.450
15.000	330119.060	6282012.040	206.623	-10.450
15.640	330118.441	6282012.200	206.636	-10.450
17.500	330116.626	6282012.611	206.674	
19.907	330114.279	6282013.142	206.722	

NOTE: ALL COORDINATES ARE ON MGA94 ZONE 56 DATUM.

KERB RAMP SETOUT DETAILS			
PONIT No.	EASTING	NORTHING	REMARKS
1	330125.489	6281996.976	TOP OF KERB/WING OF RAMP
2	330125.669	6281998.160	INV OF KERB/BOT OF RAMP
3	330125.891	6281999.644	INV OF KERB/BOT OF RAMP
4	330126.066	6282000.844	TOP OF KERB/RAMP WING
5	330124.166	6281998.385	TOP OF RAMP/EDGE OF PATH
6	330124.388	6281999.869	TOP OF RAMP
7	330122.610	6282009.627	TOP OF KERB/WING OF RAMP
8	330121.572	6282010.400	INV OF KERB/BOT OF RAMP
9	330120.252	6282011.121	INV OF KERB/BOT OF RAMP
10	330119.128	6282011.549	TOP OF KERB/WING OF RAMP
11	330119.572	6282009.617	TOP OF RAMP
12	330120.883	6282008.876	TOP OF RAMP
13	330135.382	6281995.495	TOP OF KERB/WING OF RAMP
14	330135.559	6281996.682	INV OF KERB/BOT OF RAMP
15	330135.781	6281998.165	INV OF KERB/BOT OF RAMP
16	330136.018	6281999.343	TOP OF KERB/WING OF RAMP
17	330137.285	6281997.940	TOP OF RAMP
18	330137.063	6281996.457	TOP OF RAMP



BARRIER KERB & GUTTER.
KERB SETOUT POINT DETAIL
N.T.S.

NOTE: ALL COORDINATES ARE ON MGA94 ZONE 56 DATUM.

FOOTPATH No.1 SETOUT DETAILS				
CHAINAGE	EASTING	NORTHING	LEVEL	RADIUS
0.000	330120.390	6281980.499	EXIST	
2.500	330120.702	6281982.980	EXIST	
4.440	330120.943	6281984.904	EXIST	
5.000	330120.951	6281985.464	EXIST	
6.894	330120.978	6281987.358	207.753	
7.500	330120.950	6281987.964	207.713	
10.000	330120.836	6281990.461	207.549	
12.500	330120.722	6281992.958	207.386	
15.000	330120.608	6281995.456	207.222	
16.057	330120.559	6281996.512	207.153	2.00
17.500	330120.997	6281997.854	207.059	2.00
19.587	330122.853	6281998.581	206.922	2.00
20.000	330123.261	6281998.520	206.895	
22.435	330125.670	6281998.160	206.655	

Hornsby Shire Council Design & Construction Branch

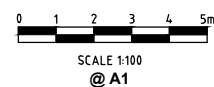
TELEPHONE: (02) 9547 6666
EMAIL: hsc@hornsby.nsw.gov.au
Authorised for release - A/Manager Design & Construction
Name: M.DRAKE Signed: Date:

Designer
S. COMISH
Drawn
S. COMISH
Surveyor
J.HART
Project Identifier\CAD File Name
H:\Chandler St Cowan LR\Design\ACAD\Chandler Ave.dwg
TRIM Document Number
D09093691

Design Checked-Design Team Leader
Signed:
Drawing Checked
Signed:
N/A Field Book
N/A Level Book
GDA94 Datum

1	ISSUED FOR CONSTRUCTION	D. TAMANG		
Issue	Description	Name	Initial	Date
Design not to be amended without authorisation by Manager Design & Construction				

Bar Scales



DO NOT SCALE, USE FIGURED DIMENSIONS ONLY



CHANDLER AVENUE, COWAN ROAD RECONSTRUCTION FRASER ROAD TO ALBERTA AVENUE

KERB RETURN DETAILS & SETOUT PLAN

Project Number

100901

Sheet

of

9

12

Issue

1

HSC Drawing Number

924.2

[illegible]

THE DRAINAGE ANALYSIS FOR THIS PROJECT CAN BE FOUND IN THE FOLLOWING LOCATION: *H:\Branch - Design and Construction\PROJECTS\Chandler St Cowan LR\Drainage\DRAINS\Chandler-Proposed.drn*

Hornsby Shire Council Design & Construction Branch TELEPHONE: (02) 9847 6666 EMAIL: hsc@hornsby.nsw.gov.au	Designer: S. COMISH	Design Checked-Design Team Leader Signed:								Bar Scales NOT TO SCALE	 HORNSBY SHIRE COUNCIL PO BOX 37, HORNSBY NSW 1630	CHANDLER AVENUE, COWAN ROAD RECONSTRUCTION FRASER ROAD TO ALBERTA AVENUE			Project Number 100901	
	Drawn: S. COMISH	Drawing Checked Signed:											Sheet of 11 12	Issue 1		
	Surveyor: J.HART	N/A Field Book	N/A Level Book	GDA94 Datum												
	Project Identifier\\GAD File Name H:\\\\chandler St Cowan LR\\Design\\ACAD\\Chandler Ave.dwg															
	Authorised for release - A/Manager Design & Construction Name: M.DRAKE Signed: Date:			TRIM Document Number D09093691	1	ISSUED FOR CONSTRUCTION		D. TAMANG								
				Issue	Description	Name	Initial	Date	DO NOT SCALE, USE FIGURED DIMENSIONS ONLY			HSC Drawing Number 924.2				
Design not to be amended without authorisation by Manager Design & Construction																

