

KINGS FOREST

BULK EARTHWORKS-PRECINCT 01 & 02, TWEED COAST ROAD INTERSECTION & ESTATE MAJOR ACCESS WORKS No.12301-EMAW

SCHEDULE OF DRAWINGS					
NUMBER	REV. NO.	TITLE	NUMBER	REV. NO.	TITLE
GENERAL					
12301-EMAW-000	F	COVER SHEET	12301-EMAW-307	A	KINGS FOREST PARKWAY (ROAD 01) (Cont.) SHEET 05
12301-EMAW-001	B	GENERAL NOTES	12301-EMAW-308	A	KINGS FOREST PARKWAY (ROAD 01) (Cont.) SHEET 06
12301-EMAW-002	A	LEGEND	12301-EMAW-309	A	ROAD 09 SHEET 01
12301-EMAW-003	B	KEY PLAN-EARTHWORKS	12301-EMAW-310	A	ROAD 09 (Cont.) SHEET 02
12301-EMAW-004	B	KEY PLAN-ROADWORKS & DRAINAGE	12301-EMAW-311	A	ROAD 09 (Cont.) SHEET 03
12301-EMAW-005	B	KEY PLAN-SEWER & WATER RETICULATION	12301-EMAW-312	A	ROAD 09 (Cont.) SHEET 04
12301-EMAW-007	C	ROAD HIERARCHY & STAGING PLAN	12301-EMAW-313	A	ROAD 10 SHEET 01
SEDIMENT AND EROSION			12301-EMAW-314	A	ROAD 10 (Cont.) SHEET 02
12301-EMAW-010	B	CONCEPT PLAN	12301-EMAW-315	A	ROAD 10 (Cont.) SHEET 03
BULK EARTHWORKS			12301-EMAW-316	A	ROAD 10 (Cont.) SHEET 04
12301-EMAW-030	C	CUT FILL PLAN-SHEET 01	12301-EMAW-317	A	ROAD 27 SHEET 01
12301-EMAW-031	C	CUT FILL PLAN-SHEET 02	12301-EMAW-318	A	ROAD 27 (Cont.) SHEET 02
12301-EMAW-040	F	BULK EARTHWORKS CUTFILL DEPTHS	12301-EMAW-319	A	ROAD 04, ROAD 05 & ROAD 07
12301-EMAW-041	B	BULK EARTHWORKS SEQUENCING	12301-EMAW-320	A	ROAD 03, ROAD 13, ROAD 24 & ROAD 28
12301-EMAW-042	B	SEQUENCE 01- CUTFILL AREAS	SEWER RETICULATION		
12301-EMAW-043	B	SEQUENCE 02- CUTFILL AREAS	12301-EMAW-500	B	PLAN-SHEET 01
12301-EMAW-044	B	SEQUENCE 03- CUTFILL AREAS	12301-EMAW-501	C	PLAN-SHEET 02
12301-EMAW-045	B	SEQUENCE 04- CUTFILL AREAS	12301-EMAW-502	C	PLAN-SHEET 03
12301-EMAW-046	B	SEQUENCE 05- CUTFILL AREAS	12301-EMAW-503	B	PLAN-SHEET 04
12301-EMAW-047	B	SEQUENCE 06- CUTFILL AREAS	12301-EMAW-504	B	PLAN-SHEET 05
12301-EMAW-048	B	SEQUENCE 07- CUTFILL AREAS	12301-EMAW-505	B	PLAN-SHEET 06
12301-EMAW-049	B	SEQUENCE 08- CUTFILL AREAS	12301-EMAW-506	B	PLAN-SHEET 07
12301-EMAW-050	B	SEQUENCE 09- CUTFILL AREAS	12301-EMAW-507	B	PLAN-SHEET 08
12301-EMAW-055	C	KEY PLAN EARTHWORK SECTIONS	WATER RETICULATION		
12301-EMAW-056	C	LONGITUDINAL SECTIONS SHEET 01	12301-EMAW-700	B	PLAN-SHEET 01
TYPICAL SECTIONS AND DETAILS			12301-EMAW-701	C	PLAN-SHEET 02
12301-EMAW-090	B	SHEET 01	12301-EMAW-702	B	PLAN-SHEET 03
12301-EMAW-091	B	SHEET 02	12301-EMAW-703	B	PLAN-SHEET 04
12301-EMAW-092	B	SHEET 03	12301-EMAW-704	B	PLAN-SHEET 05
ROADWORKS AND DRAINAGE			12301-EMAW-705	B	PLAN-SHEET 06
12301-EMAW-100	B	PLAN-SHEET 01	12301-EMAW-706	B	PLAN-SHEET 07
12301-EMAW-101	D	PLAN-SHEET 02	12301-EMAW-707	B	PLAN-SHEET 08
12301-EMAW-102	D	PLAN-SHEET 03			
12301-EMAW-103	C	PLAN-SHEET 04			
12301-EMAW-104	B	PLAN-SHEET 05			
12301-EMAW-105	B	PLAN-SHEET 06			
12301-EMAW-106	B	PLAN-SHEET 07			
12301-EMAW-107	B	PLAN-SHEET 08			
12301-EMAW-108	B	PLAN-SHEET 09			
12301-EMAW-109	B	PLAN-SHEET 10			
12301-EMAW-110	B	PLAN-SHEET 11			
12301-EMAW-111	B	PLAN-SHEET 12			
PLAN AND LONGITUDINAL SECTIONS					
12301-EMAW-200	B	KEY PLAN - ROAD LONGITUDINAL SECTIONS			
12301-EMAW-201	B	TWEED COAST ROAD			
12301-EMAW-202	C	KINGS FOREST PARKWAY (01)			
12301-EMAW-203	B	ROAD 27			
12301-EMAW-204	B	ROAD 10			
12301-EMAW-205	B	ROAD 09			
12301-EMAW-206	B	ROAD 23			
12301-EMAW-207	A	ROAD 05, ROAD 07, ROAD 28 & ROAD 13			
12301-EMAW-208	A	ROAD 57, ROAD 24, ROAD 04 & ROAD 32			
CROSS SECTIONS					
12301-EMAW-300	A	TWEED COAST ROAD (NORTH) SHHET 01			
12301-EMAW-301	A	TWEED COAST ROAD (NORTH) SHEET 02			
12301-EMAW-302	A	TWEED COAST ROAD (SOUTH)			
12301-EMAW-303	A	KING FOREST PARKWAY (ROAD 01) SHEET 01			
12301-EMAW-304	A	KINGS FOREST PARKWAY (ROAD 01) (Cont.) SHEET 02			
12301-EMAW-305	A	KINGS FOREST PARKWAY (ROAD 01) (Cont.) SHEET 03			
12301-EMAW-306	A	KINGS FOREST PARKWAY (ROAD 01) (Cont.) SHEET 04			



CLIENT

PROJECT 28
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CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM

- 1. PRE START
 - ERECT SITE SIGNAGE. CONSTRUCT ENTRY AND EXIT POINT AS INDICATED.
 - CONSTRUCT VEHICLE WASHDOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.
 - CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA.
 - ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED.
 - ERECT TEMPORARY 3 STRAND WIRE FENCE TO EXISTING TREES TO BE RETAINED.
 - CONSTRUCT ROCK CHECK DAMS AND SILT FENCES DOWNSTREAM OF BASIN. CONSTRUCT BASIN TO FULL DEPTH.
 - CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS.
 - BASIN TO BE UTILISED AS TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE.
- 2. CLEARING AND BULK EARTHWORKS
 - SILT FENCE, SAND BAGS AND EARTH RILLS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING.
 - SUPERINTENDENT TO CONFIRM EXTENT OF CLEARING TO CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.
 - SILT FENCES AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING EARTHWORKS.
- 3. CONSTRUCTION OF SEWER/ROOFWATER/STORMWATER/SERVICES
 - EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS.
 - TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.
 - DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
- 4. CONSTRUCTION - SEDIMENT BASINS
 - SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN.
 - STORMWATER OUTLET PIPES TO BE TEMPORARILY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES).
 - PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREA AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER.
- 5. CONSTRUCTION - STOCKPIILING
 - TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPIILING.
 - STOCKPILE SITE TO BE CLEAR OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE A NUISANCE TO ADJOINING PROPERTIES.
- 6. CONSTRUCTION - ROADWORKS
 - SILT FENCES TO ALLOTMENTS TO BE ERECTED.
 - KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.
- 7. CONSTRUCTION - ALLOTMENTS
 - TOPSOIL AND SEED ALLOTMENTS.
 - SILT FENCES TO ALLOTMENTS TO BE RE-ERECTED.
 - COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATED THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
- 8. POST CONSTRUCTION - ALLOTMENTS
 - TOPSOIL AND GRASS SEED ALL ALLOTMENTS.
 - COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING)..
- 9. POST CONSTRUCTION - ROAD RESERVES
 - TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.
- 10. MAINTENANCE (PRE TO POST CONSTRUCTION)
 - THE SILT FENCES ARE TO BE INSPECTED WEEKLY.
 - ANY REPAIRS REQUIRED ARE TO BE EFECTED IMMEDIATELY.
 - SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE OF THE FAILURE.

GENERAL

- 1. CONTRACT SPECIFICATIONS
 - ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION.
- 2. SETOUT
 - SURVEY SETOUT INFORMATION HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR TO ENABLE THE CONTRACTOR TO ACCURATELY SETOUT THE WORKS TO THE CO-ORDINATES SHOWN. SETOUT INFORMATION SHALL NOT BE OBTAINED BY SCALING FROM THESE DRAWINGS.
- 3. DATUM
 - LEVELS SHOWN ARE TO A.H.D.
- 4. EXISTING SERVICES - External Works
 - THE LOCATIONS OF ALL EXISTING SERVICES WITHIN THE WORK AREA SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION COMMENCING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT AUTHORITIES AND TO ENSURE THAT THE EXISTING SERVICES ARE NOT DAMAGED OR DISTURBED IN ANY WAY.

BIO RETENTION/TEMPORARY SEDIMENT BASIN CONSTRUCTION

- 1. PRIOR TO COMMENCING CONSTRUCTION OF THE BIO-RETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORKS AREA, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DEWATERING.
- 2. FOR THE ENTIRE EMBANKMENT AREA STRIPPING OF VEGETATION AND ANY HIGHLY ORGANIC TOP SOILS AND ANY SOFT CLAYS TO DEPTHS OF APPROX. 0.3m IS REQUIRED.
- 3. THE STRIPPED SURFACE IS TO BE INSPECTED AND TESTED BY A GEOTECHNICAL ENGINEER.
- 4. SUBJECT TO GEOTECHNICAL ENGINEERS INSPECTION EXCAVATION OF A CUTOFF KEY ALONG THE EMBANKMENT CENTERLINE AT LEAST 0.5m - 1.0m INTO THE FOUNDATION MATERIALS SHALL BE REQUIRED.
- 5. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO A DENSITY RATIO WITHIN THE RANGE 98% - 102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENTS SHOULD BE WITHIN THE RANGE OMC -1% TO OMC +2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION).

SERVICE CORRIDOR ALLOCATIONS.

- 1. SERVICE CORRIDOR ALLOCATIONS TO BE AS PER KINGS FOREST CONCEPT PLAN WHERE PROVIDED.

SEDIMENT AND EROSION

- 1. THE OBJECTIVE OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE TO
 - A) ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON-EROSIVE FLOW VELOCITIES.
 - B) MINIMAL SOIL EROSION FROM WATER AND WIND.
 - C) MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.
 - D) MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTION SITE.
 - E) ENSURE THAT THE VALUE AND USE OF RESIDENTIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.
- 2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST PRACTICE FOR EROSION AND SEDIMENT CONTROL, THE SOIL EROSION AND SEDIMENT CONTROL - ENGINEERING GUIDELINES FOR NEW SOUTH WALES CONSTRUCTION SITES, THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES.
- 3. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
- 4. NOTWITHSTANDING THE DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT SEDIMENT CONTROL DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY SEDIMENT LEAVING THE SITE.
- 5. THE CONTRACTOR IS TO FOLLOW THE CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/ SILT MANAGEMENT PROGRAM.
- 6. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPAIRED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%.
- 7. ALL PERIMETER BANK/SWALE SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
- 8. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS.
- 9. INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS DIRECTED BY THE ENGINEER.
- 10. PRIOR TO THE COMMENCEMENT OF EARTHWORKS THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALISATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETED.
- 11. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT.
- 12. CLEARING OF SITE AND STOCK PILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.
- 14. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES).
- 15. PLACE ROCK BUND AROUND ALL HEADWALLS DURING CONSTRUCTION.
- 16. PLACE 0.8m WIDE TURF STRIP BEHIND ALL KERBS AND ON ALL BATTERS STEEPER THAN 14 UNLESS OTHERWISE NOTED.
- 17. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEEDED, AS SPECIFIED, WITHIN 7 DAYS OF FINAL TRIMMING.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRASS STRIKE RATES ARE ACHIEVED AT ON AND OFF MAINTENANCE INSPECTION IN ACCORDANCE WITH TWEED SHIRE COUNCIL REQUIREMENTS.

EARTHWORKS/ROADWORKS

- 1. TOPSOIL STRIPPING
 - TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
- 2. EARTHWORKS LEVELS
 - EARTHWORKS LEVELS SHOWN ON DRAWINGS ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL.
- 3. COMPACTION STANDARD
 - SITE FILLING AND TRENCH BACKFILL SHALL BE COMPACTED TO THE STANDARDS OUTLINED IN TWEED SHIRE COUNCIL STANDARD SPECIFICATION.
- 4. PAVEMENT DEPTHS
 - THE DESIGN PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE DEPTHS SHOWN IN THE SCHEDULE OF PAVEMENT DEPTHS.
 - THE PAVEMENT DEPTHS GIVEN ARE DESIGN DEPTHS ONLY AND MAY BE VARIED AFTER SUBGRADE TESTS ARE TAKEN.
- 5. TESTING
 - ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. TESTING AUTHORITY. ALL SITE FILLING SHALL BE TESTED AT LEVEL 1 REQUIREMENTS.
- 6. TOPSOIL REPLACEMENT
 - ALL FOOTPATHS, BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOPSOILED WITH TOPSOIL FROM ONSITE STOCKPILES. THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING IF DIRECTED BY SUPERINTENDENT.
- 7. GRASSING
 - ALL CUT/FILL AREAS, DISTURBED AREAS AND TRENCHED AREAS SHALL BE GRASSED TO THE SATISFACTION OF THE SUPERINTENDENT.
- 8. SUBSOIL DRAINS
 - SUBSOIL DRAINS ARE TO BE CONSTRUCTED IN ACCORDANCE TWEED SHIRE COUNCIL STANDARD SPECIFICATIONS AND SHALL BE PLACED AS DIRECTED BY THE SUPERINTENDENT.
- 9. ROCK
 - THE CONTRACTOR IS TO MAKE THEMSELVES KNOWN OF ANY ROCK PRIOR TO TENDER AND INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATE.
- 10. EARTHWORKS
 - ALL EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3798-2007, "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".

LINEMARKING

- 1. LINE-MARKING AND SIGNAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES-2003 EDITION".
- 2. EXTENT OF LINE-MARKING IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
- 3. EXACT LOCATION OF ALL SIGNS IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
- 4. ALL SIGN POSTS & SIGN RAILS TO BE IN ACCORDANCE WITH TWEED SHIRE COUNCIL STANDARD SPECIFICATIONS.

STORMWATER

- 1. ALL STORMWATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH T.S.C. STANDARD SPECIFICATIONS D220,221,222,223&224.
- 2. 1. ALL ROAD GULLY LINTELS TO BE STAMPED 'DUMP NO WASTE - FLOWS INTO CREEK AS PER T.S.C. STD DWG SD103.
- 3. STEP IRONS REQUIRED IN ALL DRAINAGE STRUCTURES >1200mm DEEP AS PER T.S.C. S.D.109.
- 4. INTERLOTMENT DRAINAGE PITS
 - < 900 DEPTH TO BE 600mm UNLESS NOTED OTHERWISE
 - > 900 < 1200 TO BE 600x900 UNLESS NOTED OTHERWISE
 - > 1200 TO BE 900x900 UNLESS NOTED OTHERWISE
- 5. AND CONSTRUCTED IN ACCORDANCE WITH DETAIL ON DWG. 7710-10to12-090.
- 6. ALL INTERLOTMENT DRAINAGE PITS LINES TO BE 225mm DIA. UNLESS NOTED OTHERWISE AND HAVE MINIMUM GRADE OF 1% AND 300mm COVER. PIPES EXCEEDING 15% GRADE TO HAVE BULKHEADS INSTALLED AT JOINTS. REFER TO T.S.C. STD DWG S.D.107 FOR CONCRETE BULKHEAD DETAILS.
- 7. ALL INTERLOTMENT DRAINAGE PITS STUBS TO EXISTING AND FUTURE LOTS TO BE 90mm OR 100mm DIA UPVC LOCATED IN LOWEST CORNER, EXTENDING 1m INTO PROPERTY AND SEALED OFF WITH UPVC CAP. LOCATION TO BE MARKED WITH GREEN PAINTED STEEL STAR PICKET 600mm MIN. HEIGHT.
- 8. ALL DRAINAGE PIPE BEDDING INSTALLATION SHALL BE TYPE HS2 UNLESS NOTED OTHERWISE AND AS SPECIFIED IN AS3725.
- 9. ALL DRAINAGE PIPES SHALL BE DESIGNED TO WITHSTAND TRAFFIC VEHICLE LOADING OF 70kN AND 600mm COVER. (REFER CONCRETE PIPE ASSOCIATION- CONCRETE PIPE SELECTION AND INSTALLATION).THE CONTRACTOR SHALL MAKE ALLOWANCE FOR ALL CONSTRUCTION LOADS.
- 10. FOR STANDARD ROAD GULLY PIT DETAILS REFER T.S.C DWG SD104.
- 11. ALL PIPES UP TO 600mm DIA. ARE TO BE RRJ IF GROUNDWATER IS ENCOUNTERED WHERE OVER 600 RRJ SHALL ALSO BE USED.
- 12. PROVIDE KERB ADAPTORS TO ALL LOTS WITHOUT IAD CONNECTIONS.
- 13. THE CONTRACTOR IS TO INCLUDE ANY ROCK EXCAVATION AS PART OF THEIR STORMWATER RATE.

WATER.

- 1. ALL WATER RETICULATION SHALL BE IN ACCORDANCE WITH T.S.C. DEVELOPMENT DESIGN SPECIFICATION D11.
- 2. GENERAL ALIGNMENT OF WATERMAINS SHALL BE as per T.S.C. SD301.
- 3. ALL CONNECTIONS TO EXISTING WATERMAINS SHALL BE BY TWEED SHIRE COUNCIL AT DEVELOPERS COST.
- 4. ALL WATERMAINS SHALL BE DICL CLASS K9 (UNLESS SHOWN OTHERWISE), POLYETHYLENE SLEEVED.
- 5. WATER SERVICES SHALL BE IN ACCOEDANCE WITH T.S.C. SD302.
- 6. SLUICE VALVES ARE TO HAVE A RESILIENT SEAT,WITH ABILITY TO REPLACE RING STEM SEAL WHILE UNDER FULL WORKING PRESSURE, NYLON COATED,HAVE A WORKING PRESSURE OF 1600kPa OR GREATER, MANUFACTURED IN ACCORDANCE WITH AS2638-1991 AND ARE TO BE CLOCKWISE CLOSE.
- 7. SPRING HYDRANTS ARE TO BE MANUFACTURED IN ACCORDANCE WITH AS3925-1991 WITH DUCTILE IRON.
- 8. 00kPa OR GREATER, AND NUTS AND BOLTS TO BE GRADE 316 STAINLESS STEEL.
- 9. TAPING BANDS ARE TO BE WATERMAIN FITTINGS SURESEAL TAPPING SADDLES FOR DUCTILE IRON PIPE, MANUFACTURED FROM GUNMETAL AND DR BRASS, WITH A WORKING PRESSURE OF 1.8MPa. ALTERNATIVELY DUCTILE IRON TAPPING BANDS 150-TAP WITH A WORKING PRESSURE OF 1.8MPa, ARE SUITABLE.(PROVISIONAL)
- 10. MAIN COCKS ARE TO BE TPFNR CAPPED FERRULES MANUFACTURED FROM GUNMETAL WITH A WORKING PRESSURE OF 1.8MPa. A TITA END CONNECTOR FERRULE TO POLY IS TO BE JOIN MAIN COCK TO MDPE PIPE. NOTE MAIN COCKS INCORPORATING A POLY FERRULE WILL NOT BE ACCEPTED.
- 11. PATH COCKS AT THE END OF THE SERVICE PIPE ARE TO BE GUNMETAL INLINE BALL VALVE WITH A WORKING PRESSURE OF 1.8MPa OR GREATER. BALL VALVES ARE TO BE FEMALE TO FEMALE AND A TITA MALE POLY END CONNECTOR IS TO BE USED TO JOIN THE BALL VALVE TO THE MDPE PIPE.
- 12. MINIMUM COVER TO PIPE WORK SHALL BE 450mm (FOOTPATH), 600mm (ROAD PAVEMENT).
- 13. PRIOR TO PURCHASE OF ANY BRASS WARE CONTRACTOR SHALL CONTACT T.S.C REGARDING APPROVED MATERIALS.
- 14. PROVIDE THRUST BLOCKS AT ALL FLUSHING BENDS AND HYDRANT, TEES AND BENDS.
- 15. WATER RETICULATION AND WATER SERVICE TO BE INSTALLED AFTER ELECTRICITY AND TELSTRA WORKS COMPLETED.
- 16. PRIOR TO RETICULATION WORK COMMENCING, ALL MATERIALS ARE TO BE INSPECTED BY T.S.C.'S INSPECTING OFFICER.
- 17. WATER SERVICE CONNECTION TO BE ON OPPOSITE BOUNDARY TO POWER SERVICE.
- 18. PROVIDE SERVICE CONDUIT MARKERS AS DETAILED ON T.S.C. STD DWG SD302
- 19. ROAD PAVEMENT AND KERB MARKINGS FOR HYDRANTS AND VALVES SHALL BE AS PER T.S.C. STD DWG SD316.
- 20. THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR WATER RATE.

SEWER

- 1. ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH DEVELOPMENT DESIGN SPECIFICATION D12.
- 2. REFER TO WATER SERVICES ASSOCIATION OF AUSTRALIA STD DWG SEW-1300 FOR STANDARD MANHOLE DETAILS AND SEW-1206 AND SEW-1207 FOR CONCRETE BULKHEADS AND BEDDING DETAILS.
- 3. ALL HOUSE CONNECTIONS TO BE IN ACCORDANCE WITH T.S.C. STD DWG SD250 FOR TYPES 'A' & 'B' AND SD251 FOR TYPE 'C'
- 4. ALL WORKS ON 'LIVE" SEWER LINES TO BE CARRIED OUT UNDER COUNCIL SUPERVISION AT DEVELOPERS EXPENSE.
- 5. ALL SEWER HOUSE SERVICE JUNCTIONS SHALL BE 1m CLEAR OF BOUNDARY. (TYPICAL).
- 6. ALL SEWER HOUSE CONNECTIONS TO LOTS TO BE 150mm DIA UPVC UNLESS NOTED OTHERWISE.
- 7. EXTENDING 1m INTO PROPERTY AND SEALED OFF WITH PVC CAP. LOCATION TO BE MARKED WITH RED PAINTED STEEL STAR PICKET 0.6m MIN. HEIGHT.
- 8. FOR SETOUT DETAILS REFER SEWERAGE LONGITUDINAL SECTIONS.
- 9. ALL SEWER TO BE UPVC RRJ CLASS SN8 UNLESS NOTED OTHERWISE.
- 10. ALL GRAVITY PIPELINES FOR ROAD CROSSINGS TO BE UPVC CLASS 12 TO AS 1447 SERIES 1.
- 11. ALL SEWER LINES ON PRIVATE PROPERTY TO BE CONTAINED IN A MINIMUM 3.0m WIDE EASEMENT.
- 12. ALL SEWER MANHOLES AND ENDS SHALL BE LOCATED 1.50m FROM FRONT AND SIDE BOUNDARIES UNLESS NOTED OTHERWISE.
- 13. SEWER RISING MAIN ROAD CROSSING TO BE CLASS 16 UPVC SERIES 2 OR DICL.
- 14. LOCATION OF SERVICES TO BE IN ACCORDANCE WITH T.S.C. SD006 & ALL PUMP STATIONS SHALL BE IN ACCORDANCE WITH SD220/01,02,03 & 04.
- 15. AUTOMATIC AIR VALVE TO BE INSTALLED IN ACCORDANCE WITH T.S.C. SD242
- 16. THE CONTRACTOR IS TO INCLUDE ANY ROCK EXCAVATION AS PART OF THEIR SEWER RATE.

PROJECT NAME

KINGS FOREST

BULK EARTHWORKS PRECINCTS 01 & 02, TWEED COAST RD. INTERSECTION & ESTATE MAJOR ACCESS WORKS

REAL PROPERTY DESCRIPTION

Lot 7 on DP875447, Part of Lot 6 on DP875446, Part of Lot 1 on DP781633, Part of Lot 40 on DP7482 & Part of Lot 2 on DP819015

PARISH OF CUDGEN

COUNTY OF ROUS

CLIENT

PROJECT 28

PTY LTD

ISSUES		DATE	
TENDER			
STATE AUTHORITY		08-03-11	
CONSTRUCTION			

B	30-08-12	PPR REVISIONS
A	08-03-11	STATE AUTHORITY ISSUE

PRE	DATE	AMENDMENT
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GILBERT+SUTHERLAND

agricultural and environmental scientists

DRAWING TITLE

GENERAL NOTES



MORTONS urbansolutions

Urban & Regional Planning

Civil Engineering

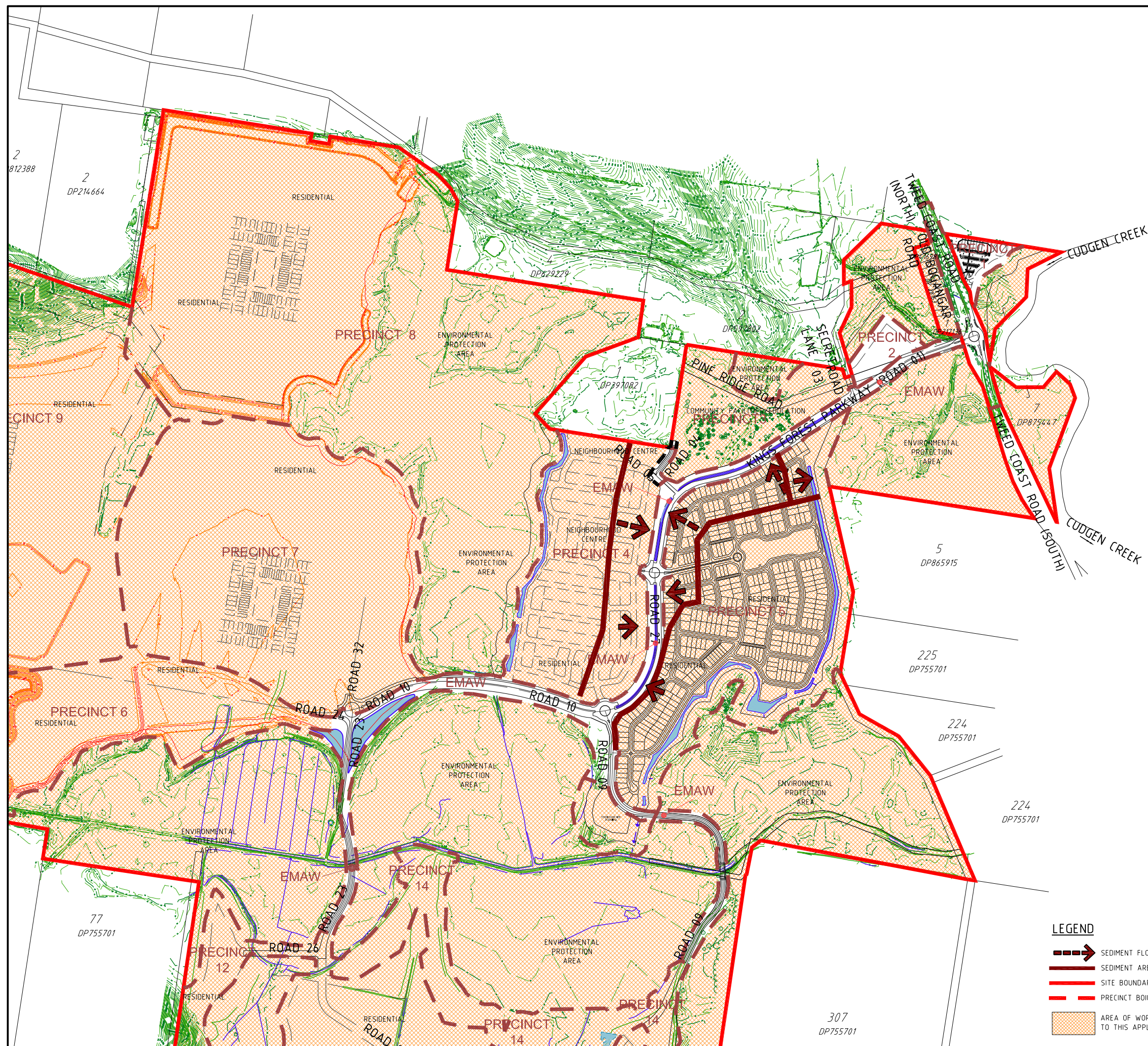
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DESIGNED	RB	DRAWN	BL
APPROVED		DATE	10-12-10
DRAWING NUMBER			AMEND.
12301-EMAW-001			B



PROJECT NAME

KINGS
FOREST

**BULK EARTHWORKS PRECINCTS
01 & 02, TWEED COAST RD.
INTERSECTION & ESTATE MAJOR
ACCESS WORKS**

REAL PROPERTY DESCRIPTION
Lot 7 on DP875447, Part of Lot 6 on DP875446,
Part of Lot 1 on DP781633, Part of Lot 40 on DP7482
& Part of Lot 2 on DP819015
PARISH OF CUDGEN
COUNTY OF ROUS

CLIENT

PROJECT 28
PTY LTD



0 50 100 150 200 250m
Scale 1:5000 - A1 (1:10000 - A2)

ISSUES	DATE	
TENDER		
STATE AUTHORITY	08-03-11	
CONSTRUCTION		

B	30-08-12	PPR REVISIONS
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PRE	DATE	AMENDMENT

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D R A W I N G T I T L E

SEDIMENT & EROSION CONCEPT PLAN

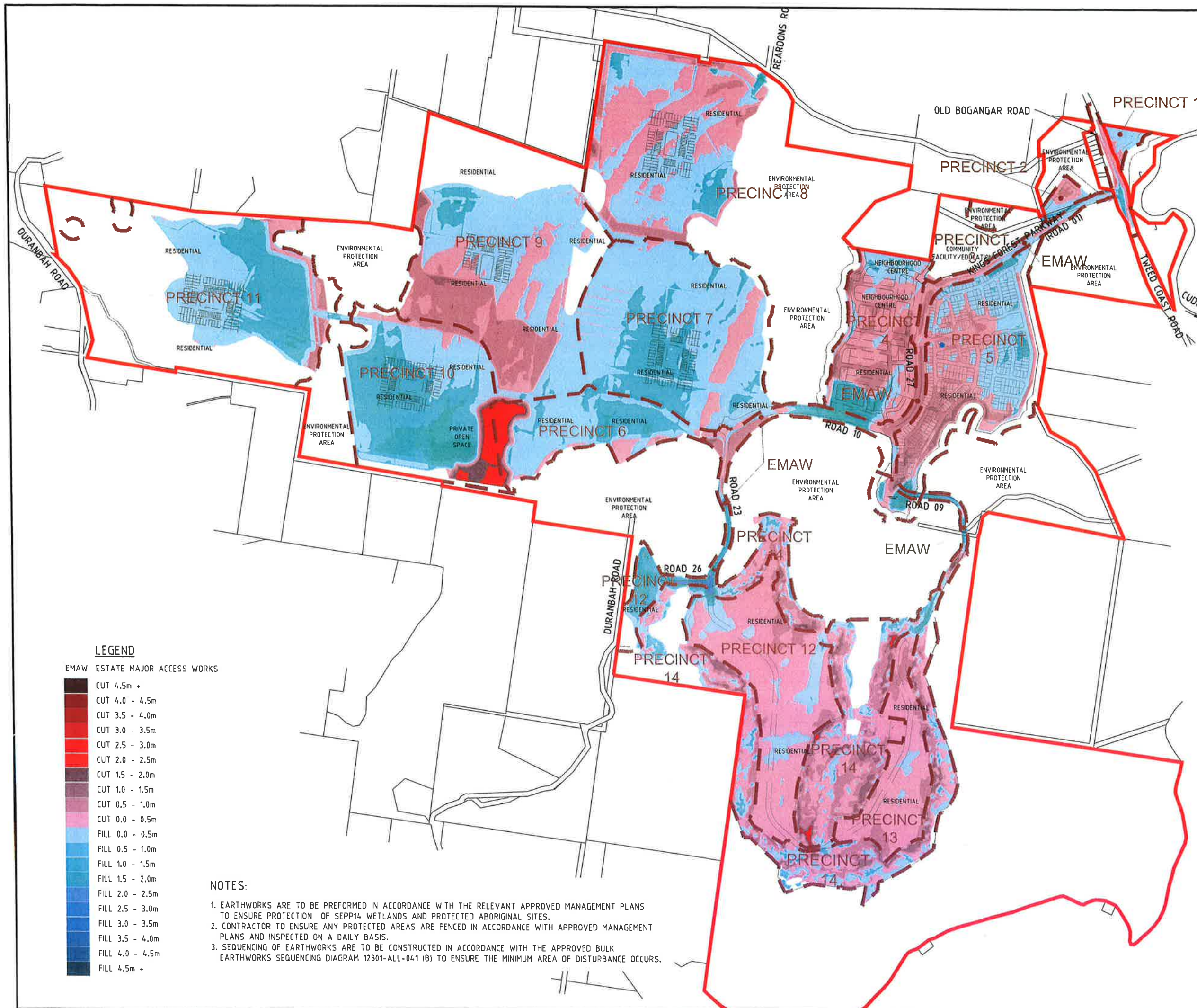


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DESIGNED RB	DRAWN BL
APPROVED	DATE 10-12-10
DRAWING NUMBER	
12301-EMAW-010	AMEND B



PROJECT NAME

KINGS FOREST

BULK EARTHWORKS PRECINCTS 01 & 02, TWEED COAST RD. INTERSECTION & ESTATE MAJOR ACCESS WORKS

REAL PROPERTY DESCRIPTION
Lot 7 on DP875447, Part of Lot 6 on DP875446, Part of Lot 1 on DP781633, Part of Lot 40 on DP7482 & Part of Lot 2 on DP819015
PARISH OF CUDGEN
COUNTY OF ROUS

CLIENT

PROJECT 28 PTY LTD


0 750 1500 2250 3000 3750m
Scale 1:75000 - A1 (1:150000 - A3)

ISSUES	DATE
TENDER	
STATE AUTHORITY	08-03-11
CONSTRUCTION	

F	16-10-12	NOTE ADDED
E	27-08-12	PPR REVISIONS
D	23-08-12	AMEND EARTHWORKS
C	19-09-11	AMEND EARTHWORKS EXTENT
B	29-06-11	ADD NOTE TO LEGEND
A	08-03-11	STATE AUTHORITY ISSUE

PRE DATE

AMENDMENT

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DRAWING TITLE

BULK EARTHWORKS CUT FILL DEPTHS


MORTONS
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Urban & Regional Planning
Civil Engineering
Project Coordination

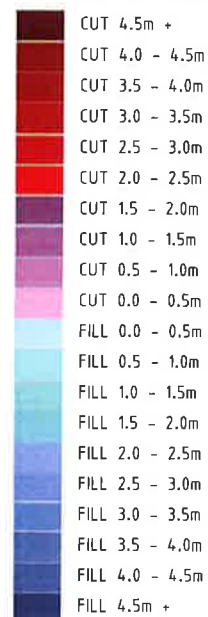
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DESIGNED RB	DRAWN BL
APPROVED	DATE 30-11-10
DRAWING NUMBER	AMEND.
12301-ALL-040	F

LEGEND

EMAW ESTATE MAJOR ACCESS WORKS



NOTES:

1. EARTHWORKS ARE TO BE PERFORMED IN ACCORDANCE WITH THE RELEVANT APPROVED MANAGEMENT PLANS TO ENSURE PROTECTION OF SEPP14 WETLANDS AND PROTECTED ABORIGINAL SITES.
2. CONTRACTOR TO ENSURE ANY PROTECTED AREAS ARE FENCED IN ACCORDANCE WITH APPROVED MANAGEMENT PLANS AND INSPECTED ON A DAILY BASIS.
3. SEQUENCING OF EARTHWORKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED BULK EARTHWORKS SEQUENCING DIAGRAM 12301-ALL-041 (B) TO ENSURE THE MINIMUM AREA OF DISTURBANCE OCCURS.

PROJECT NAME KINGS FOREST BULK EARTHWORKS PRECINCTS , & ESTATE MAJOR ACCESS WORKS

REAL PROPERTY DESCRIPTION
Lot 7 on DP875447, Part of Lot 6 on DP875446,
Lot 1 on DP781633, Lot 40 on DP7482,
Lot 2 on DP819015, Lot 1 on DP129737,
Lot 37A, 38A & 39B ON DP13727,
Lot 1 on DP706497, Lot 76, 323, 272,
96 & 326 on DP755701
PARISH OF CUDGEN, COUNTY OF ROUS.

CLIENT
**PROJECT 28
PTY LTD**



0 40 80 120 160 200m
Scale 1:4000 - A1 (1:8000 - A3)

ISSUES	DATE
TENDER	
STATE AUTHORITY	05-09-12
CONSTRUCTION	

ISSUES	DATE
B	16-10-12
A	05-09-12
PRE DATE	AMENDMENT

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GILBERT+SUTHERLAND
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DRAWING TITLE

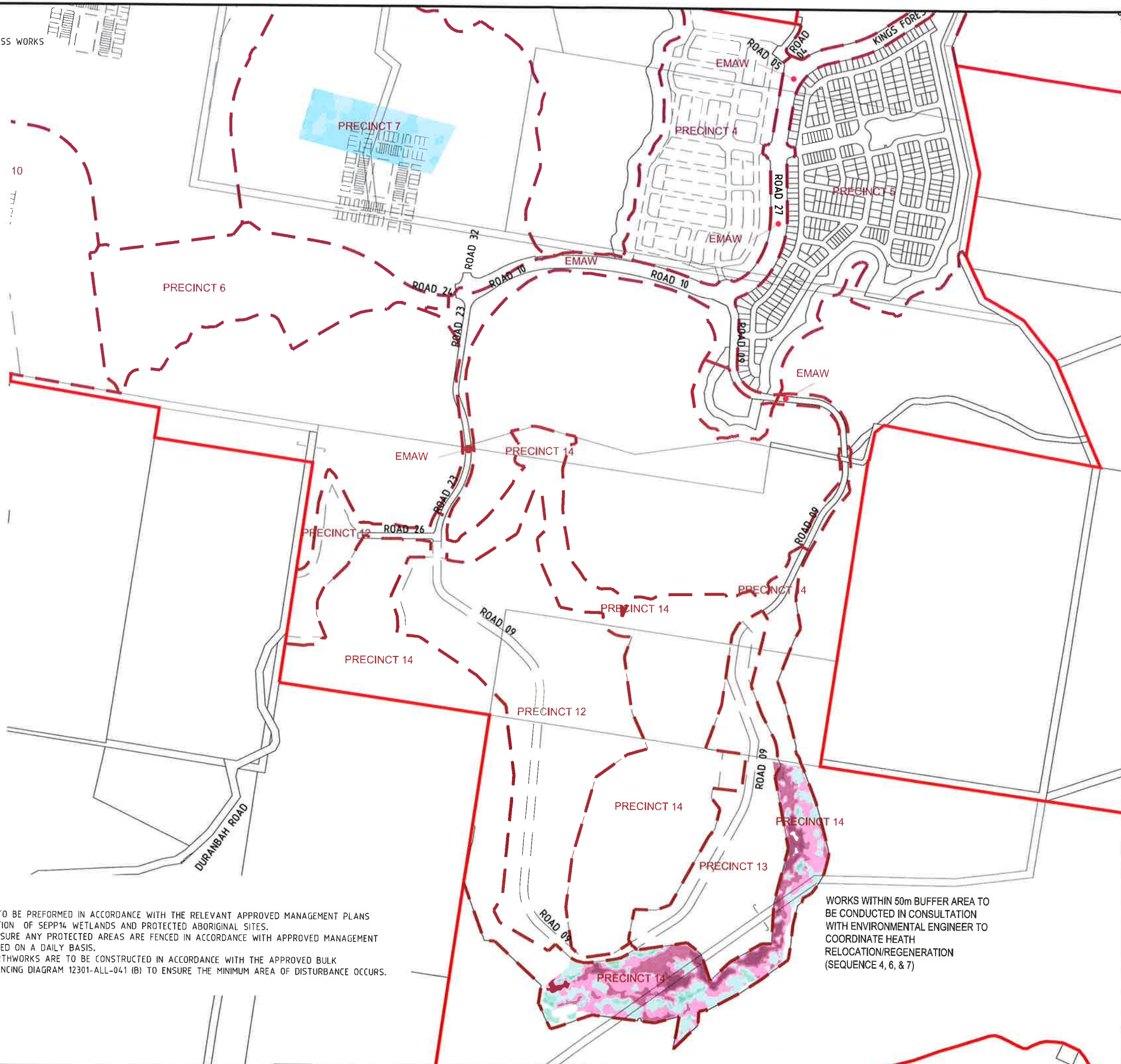
BULK EARTHWORKS
SEQUENCING DIAGRAM
SEQUENCE 1
DETAIL SHEET

MORTONS
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Urban & Regional Planning
Civil Engineering
Project Coordination

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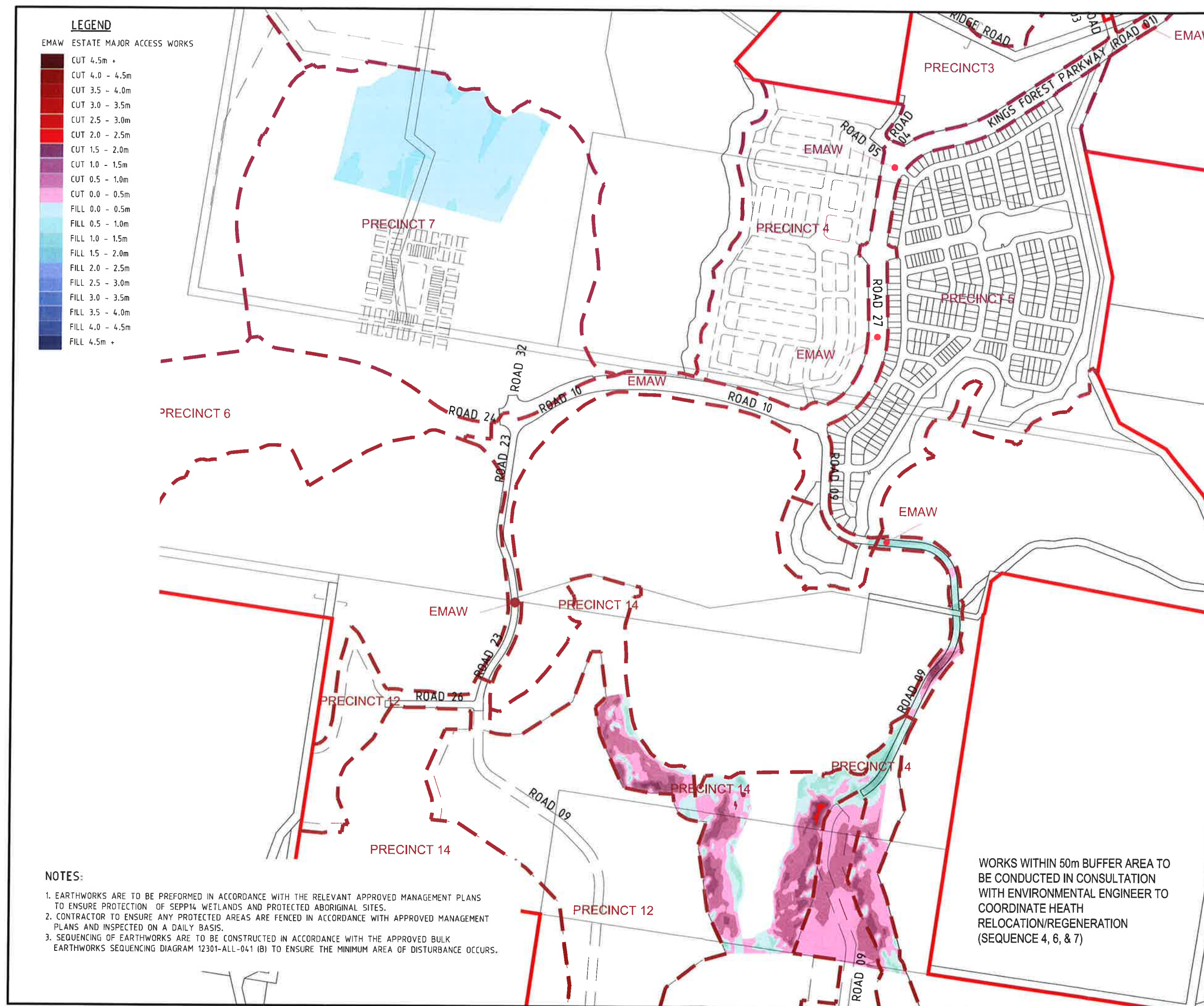
DESIGNED RB	DRAWN BL
APPROVED	DATE 05-09-12
DRAWING NUMBER 12301-ALL-042	AMEND. B



DRAWING NUMBER	AMEND.
12301-ALL-047	B

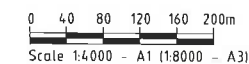
1. EARTHWORKS ARE TO BE PERFORMED IN ACCORDANCE WITH THE RELEVANT APPROVED MANAGEMENT PLANS TO ENSURE PROTECTION OF SEPP14 WETLANDS AND PROTECTED ABORIGINAL SITES.
2. CONTRACTOR TO ENSURE ANY PROTECTED AREAS ARE FENCED IN ACCORDANCE WITH APPROVED MANAGEMENT PLANS AND INSPECTED ON A DAILY BASIS.
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WORKS WITHIN 50m BUFFER AREA TO
BE CONDUCTED IN CONSULTATION
WITH ENVIRONMENTAL ENGINEER TO
COORDINATE HEATH
RELOCATION/REGENERATION
(SEQUENCE 4, 6, & 7)



PROJECT NAME
**KINGS
FOREST**
BULK EARTHWORKS PRECINCTS,
& ESTATE MAJOR ACCESS WORKS

CLIENT
PROJECT 28
PTY LTD



B	16-12-12	NOTE ADDED
A	05-09-12	ISSUE FOR INFORMATION
PRE	DATE	AMENDMENT

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GILBERT+SUTHERLAND
agricultural and environmental scientists

BULK EARTHWORKS
SEQUENCING DIAGRAM
SEQUENCE 7
DETAIL SHEET

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