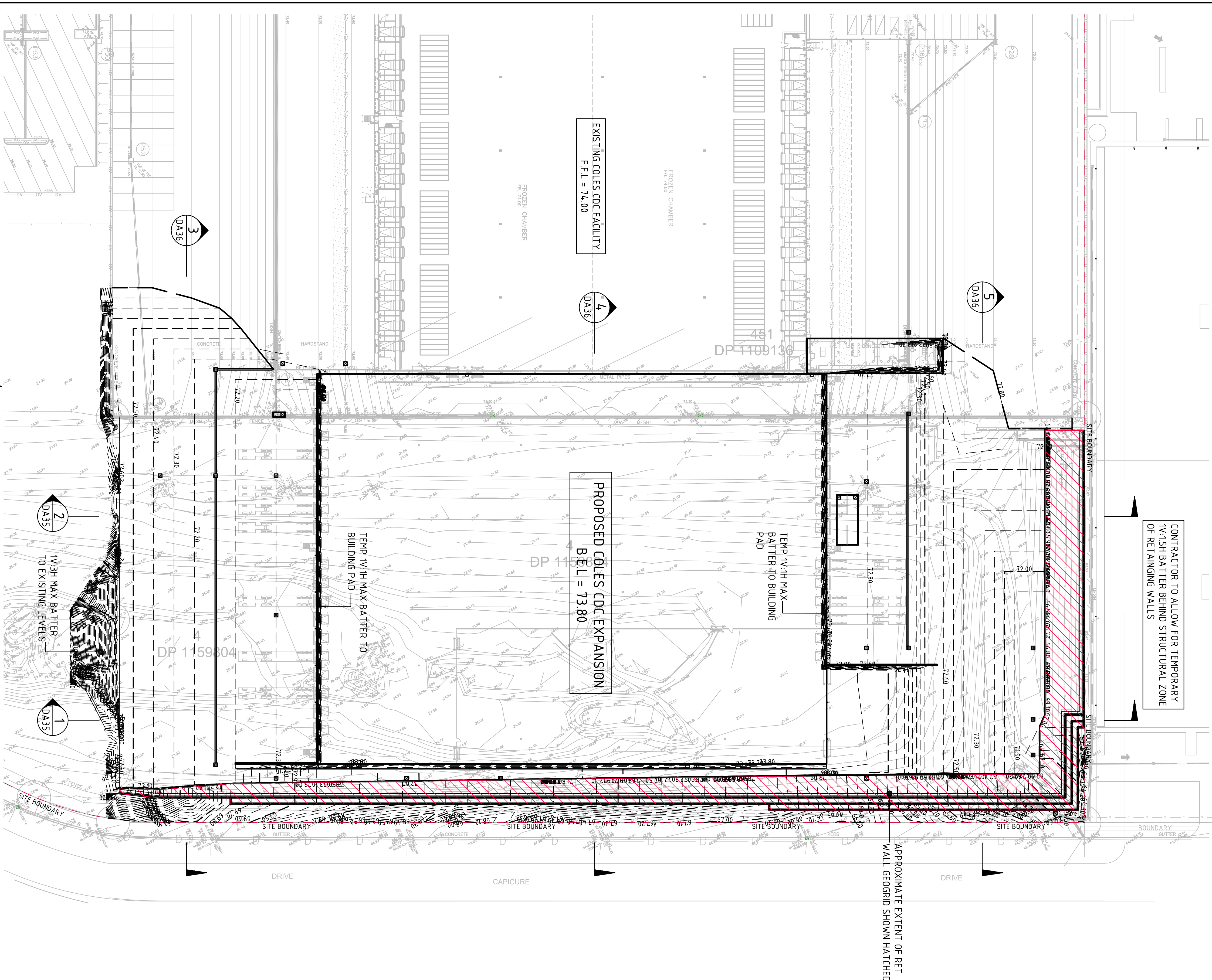
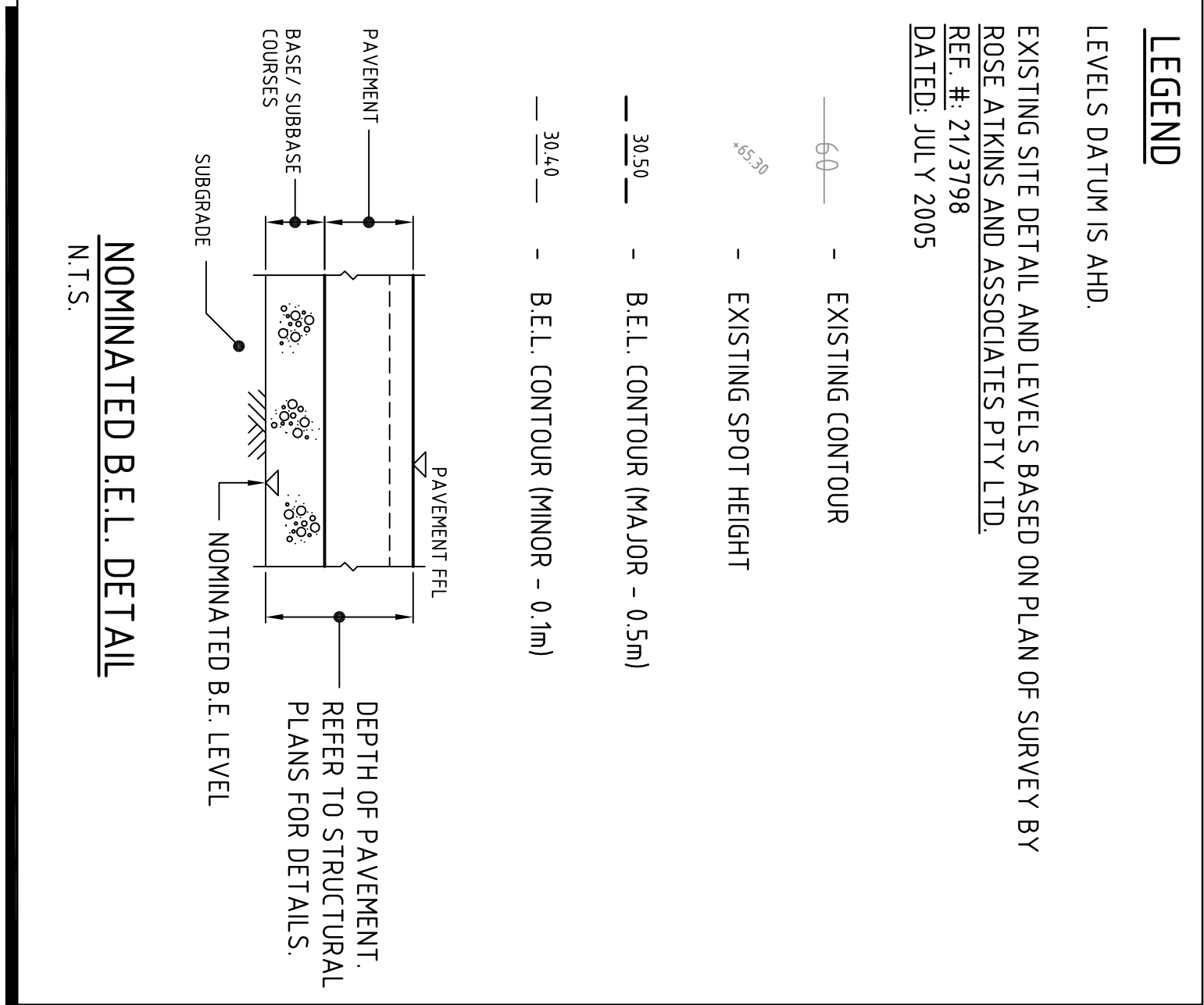




EARTHWORKS VOLUMES	
VOLUMES:	
TOP SOIL	= 1,750 m ³
CUT	= -13,900 m ³
FILL	= 29,700 m ³
GROSS BALANCE	= 15,800 m ³
TOLL IMPORT	= 15,000 m ³
NET BALANCE	= 800 m ³ (TO BE IMPORTED)
RET WALLS:	
APPROX 15,000 m ³ OF CRUSHED SANDSTONE TO BE IMPORTED T.B.C UPON DETAILED STRUCTURAL DESIGN OF WALLS.	
EARTHWORK VOLUMES ARE APPROXIMATE ONLY & ARE CALCULATED BASED ON A NOMINAL TOPSOIL STRIP OF 40mm. NO ALLOWANCE HAS BEEN MADE FOR EROSION AND SEDIMENT CONTROL, BULKING, COMPACTION OF FILLED SOILS.	
REFER TO DRAWING DA20 FOR EROSION AND SEDIMENT CONTROL PLAN.	
THE EXISTING SURFACE IS BASED ON SURVEY INFORMATION PROVIDED. THIS SURVEY IS MOST CURRENT HOWEVER IT MAY NOT ACCURATELY REFLECT ACTUAL GROUND LEVELS OR STOCKPILES ETC ON SITE. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM VOLUMES AND ALLOWANCES FOR EARTHWORKS.	

- SITE PREPARATION NOTES:**
- ALL EARTHWORKS SHALL BE COMPLETED GENERALLY IN ACCORDANCE WITH THE GUIDELINES SPECIFIED BY THE GEOTECHNICAL REPORT AND NOTES PROVIDED BY - DATED -.
 - EXISTING LEVELS ARE BASED ON SURVEY INFORMATION PROVIDED BY CARDNO HARD & FORESTER DATED JANUARY 2013.
 - STRIP ANY TOP SOIL OR DELETERIOUS MATERIAL AND DISPOSE OF FROM SITE OR STORE AS DIRECTED.
 - COMPLETE CUT TO FILL EARTHWORKS TO ACHIEVE THE REQUIRED LEVELS AS INDICATED ON THE DRAWINGS WITHIN A TOLERANCE OF +0mm/-20mm THROUGH BUILDING PADS AND +0mm/-50mm ELSEWHERE.
 - PREPARE STEEP BATTERS TO RECEIVE FILL BY CONSTRUCTING BENCHING TO FACILITATE FILL PLACEMENT AND COMPACTION.
 - AREAS TO RECEIVE FILL (THAT ARE NOT ON BENCHED BATTERS) AND HEAVING MATERIAL. SOFT MATERIAL SHALL BE BOXED OUT AND REMOVED PRIOR TO FILL PLACEMENT.
 - SITE WON FILL TO BE PLACED IN MAXIMUM 300mm LOOSE LAYERS AND COMPACTED TO 98% STANDARD AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT.
 - IMPORTED FILL SHALL BE PLACED IN MAXIMUM 300mm LOOSE LAYERS AND COMPACTED TO 98% STANDARD AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT.
 - MAXIMUM PARTICLE SIZE TO BE THE SMALLER OF 150mm OR HALF THE (LOOSE) LAYER THICKNESS AND/OR TWO THIRDS THE LAYER THICKNESS AFTER COMPACTION.
 - ALL EARTHWORKS SHALL BE COMPLETED UNDER LEVEL 1 CONTROL IN ACCORDANCE WITH AS 3799-2007.
 - AT COMPLETION OF EARTHWORKS SITE SHALL BE CLEARED AND MADE READY FOR INSTALLATION OF EROSION CONTROL AS OUTLINED IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
 - EXISTING ROCK SHALL BE REMOVED BY HEAVY ROCK BREAKING OR RIPPING.



BULK EARTHWORKS PLAN

SCALE 1:500

FOR DEVELOPMENT APPLICATION		ARCHITECT		CLIENT		PROJECT		CONSULTING ENGINEERS		DRAWING TITLE	
PRELIMINARY - FOR INFORMATION		SB		Goodman		PROPOSED COLES CDC EXPANSION		Costin Roe Consulting Pty Ltd.		BULK EARTHWORKS PLAN	
PRELIMINARY - FOR INFORMATION		ARCHITECTS		LEVEL 9, 66 Castlereagh Street, NSW, 2000, Australia		W7 BUSINESS HUB		Level 1, 8 Windmill Street, Maitland, NSW, 2320		DRAWING No	
AMENDMENTS		DATE		Tel: 02 9231 1440		WALL GROVE ROAD, MINCHINBURY, NSW		email: maitland@costinroe.com.au @		C684871-21-DA30	
AMENDMENTS		DATE		Fax: 02 9231 1444		DESIGNED (DRAWN)		CHECKED (SIZE SCALE)		C	
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