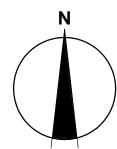
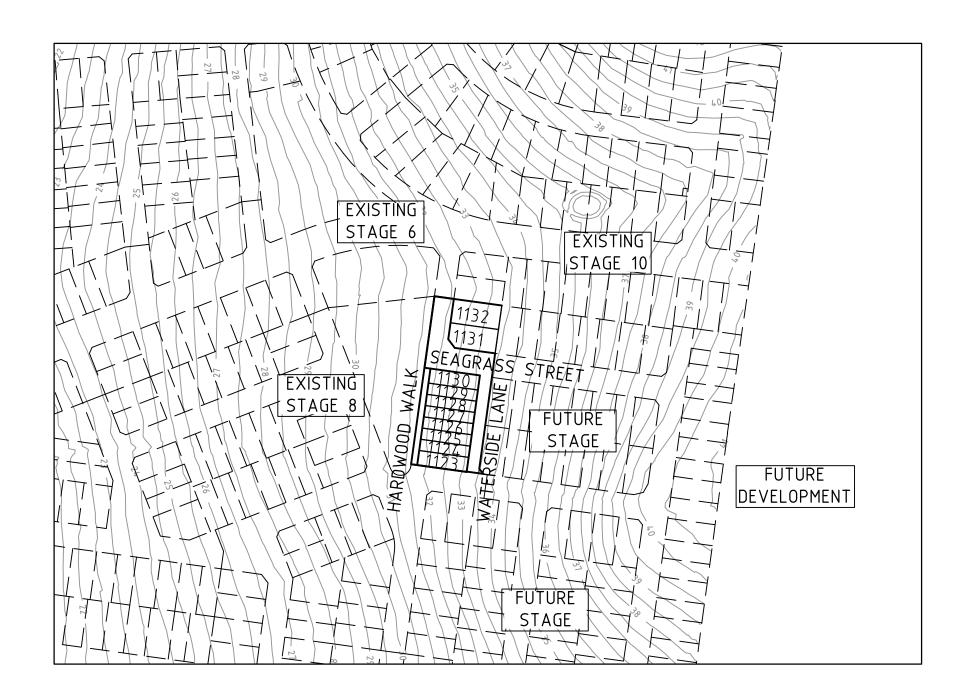
Estuary

Stage 11A

City of Greater Geelong





LOCALITY PLAN
MELWAYS REF: 468 D6





Principal

Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay Southbank, Victoria 3006

Drawing Index

Drawing index	<u>`</u>
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0250EHL-11A- 02	General Notes
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0250EHL-11A- 04	Services Layout Plan
0250EHL-11A- 05	Intersection Detail Plan & Lip Profiles
0250EHL-11A- 06	Setout Information Plan
0250EHL-11A- 07	Longitudinal Sections
0250EHL-11A- 08	Cross Sections - Seagrass Street
0250EHL-11A- 09	Cross Sections - Waterside Lane
0250EHL-11A-10	Drainage Longitudinal Sections
0250EHL-11A-11	Drainage Pit Schedule
0250EHL-11A-12	Details
0250EHL-11A-13	Subdivision Setout Plan



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Standard Construction Notes

1. GENERAL

- 1.1 **Drawings** The drawings are to be read in conjunction with the contract specification and the responsible Authorities standard drawings and current specifications for Roadworks and Drainage. Any observed discrepancy to be referred to the Superintendent prior to start of work.
- 1.2 **Responsible Authority Documentation Availability** A set of the respective responsible Authority standard construction documentation including drawings and specification/s are to be provided by the Contractor and made available on-site for the duration of the construction period.
- 1.3 **Conformity with Drawings** All works are to be finished in conformity with the lines, grades, thicknesses and cross sections shown in the drawings.
- 1.4 **Materials and Workmanship** Materials and workmanship to comply with responsible Authority specifications and relevant SAA Codes.
- 1.5 **Tolerances** Works are to be constructed in compliance with tolerances specified by the relevant responsible Authorities.
- 1.6 **Minimum Standards** The standards of work and materials stated in the drawings and specification are the minimum acceptable irrespective of relevant responsible Authority minimum standards.
- 1.7 **Sewer/Water Supply** Construction notes specific to sewer and water supply asset construction are incorporated in the drawings approved by the Water Company as attached hereto.

2. EXISTING CONDITIONS

- 2.1 **Discrepancy with Drawings** Any discrepancy observed/identified between the drawings and existing conditions and site features are to be referred to the Superintendent prior to start of any related work.
- 2.2 **Municipal Assets & Infrastructure** The condition of existing Council assets potentially affected by the works is to be assessed by a joint site inspection with Council Officers prior to the start of works. Asset conditions are to be recorded and witnessed by Council and the Contractor. The Contractor is to arrange and record site inspections and is liable for all rectification/reinstatement costs for damage to existing assets.
- 2.3 **Utility Services** The locations of existing utility services, as shown in the drawings, are not guaranteed. Exact service locations are to be proven prior to start of works. Service location works are to comply with the requirements of the relevant responsible Authority. The Contractor is liable for rectification/reinstatement costs for damage to existing utility services.

3. NOTIFICATIONS

- 3.1 **Council** Minimum notification periods are:
- (a) two (2) days written notice of intention to start works
- (b) two (2) days notice to inspect condition of existing Council assets
- (c) twenty four (24) hours notice for weekend work
- (d) twenty four (24) hours notice for:
 - inspection of drainage works
 - inspection of sub-soil drainsproof roll of prepared sub-grade or constructed pavement
 - inspection of prepared base for concrete works
 - other works as stated in the drawings or specified
 - **Or** as otherwise agreed with Council Officers.
- 3.2 **Property Owners/Tenants** Seven (7) days written notice to property

4. OCCUPATION OF PUBLIC ROADS

owners/tenants affected by the works.

- All roadworks signage to comply with VicRoads Worksite Traffic Management Code incorporating AS 1742.3.
- 4.1 **Roads under VicRoads jurisdiction** The Contractor is to arrange VicRoads consent via "Application for Consent Works within Road Reserves" (refer VicRoads web site).
- 4.2 **Roads under Council control** The Contractor is to arrange and acquire requisite Road Closure Permits via Council's Traffic Officer.

5. SET OUT

- 5.1 **Survey Stations and Reference Marks** The locations of survey stations and reference marks are to be verified prior to start of works.
- 5.2 **Road Chainages** Road chainages as shown in the drawings are to road centreline, unless otherwise stated.
- 5.3 **Kerb & Channel** Kerb and channel radii and levels relate to edge of channel, unless otherwise stated.
- 5.4 **Drainage Pits** The locations and orientation of drainage pits are to be accurately set out from co ordinates and/or offsets as stated.
- 5.5 **Pipe Drains** Drainage lines are to be accurately set out from coordinates and/or offsets as stated. Further to Standard Note 5.4 drainage lines at pits are to be accurately set out to ensure that the outlet pipe is aligned directly opposite the inlet pipe (where deflection angles are 45° or less) or as otherwise stated in the drawings or directed.

TOPSOIL

- 6.1 **Stripping Limits** Clearing and stripping of topsoil to be restricted to areas to be excavated/filled as stated in the drawings or limits as otherwise directed by the Superintendent.
- 6.2 **Surplus Material** Surplus topsoil must be re-used on-site unless otherwise stated in the drawings or directed by the Superintendent.

7. EXISTING VEGETATION

All existing trees and significant vegetation within and external to the worksite are to be retained, preserved and protected unless otherwise stated in the drawings or directed by the Superintendent.

8. EXCAVATION/TRENCHING

- 8.1 **Trenching** Trenching operations exceeding 1.5 metres depth are to comply with the provisions of the Mines (Trenches) Regulations 1982.
- 8.2 **Work close to Trees and Vegetation** Excavation work within the drip line of trees is not to be performed unless otherwise stated in the drawings or approved by the Superintendent.
- 8.3 **Unstable Sub-Grade** Unstable sub-grade/"soft spots" to be excavated to a sound proof-rolled base and backfilled with material approved by Council.

9. SOIL EROSION

The Contractor must install necessary protection works to effectively manage and limit soil erosion within the worksite. Works to include, but are not limited to:

- 9.1 **Silt Fences** downstream of all exposed areas.
- 9.2 **Silt Barriers** upstream of all pits

10. DRAINAGE WORK

- 10.1 **Existing Drains** The location of existing drainage assets to be verified prior to start of works.
- 10.2 **Pipe Class** Pipes to be, unless otherwise stated in the drawings:

(a) Roads & Reserves - Class 2 Rubber Ring Jointed RCP

- (b) Easements Rubber Ring Jointed RCP/FRP or Sewer Class Solvent Cement UPVC
- 10.3 **Pit Covers** Pit covers are to be placed to match actual finished surface profiles level and cross fall of adjacent structures/surfaces. Finished surface levels stated in the drawings are indicative, for depth range purposes, and are not to be used as the basis for setting final pit cover levels
- 10.4 **Pit Construction** Precast standard pits are to be installed. Cast in-situ standard pits are only to be constructed where approved by the Superintendent. All sumps in precast concrete pits are to be infilled with concrete flush to the inlet level of the outlet pipe unless otherwise approved by the superintendent.

10.5 Sub-Soil Drains

(a) Entry to pits to be trimmed flush with inner wall and effectively mortared in place through the full pit wall thickness.

(b) Details of granular filter material including source to be submitted to the Superintendent prior to start of sub-soil drainage works.

10.6 **CCTV Inspection of drainage lines** - All drainage lines including curved pipelines are to be inspected via remote camera at the end of the maintenance period at the contractor's expense and under the supervision of COGG Subdivisions Engineer or representative.

11. BACKFILL MATERIAL

- 11.1 Trenches under all edgings/kerb sections & Nature Strips 20mm Class 3 Fine Crushed Rock or other material as approved by Council.
- 11.2 **Trenches under road pavement S** tormwater pipes are to be backfilled with two percent (2%) cement stabilised sand to extend from the bottom of the pipe to the springline (mid point) of the pipe. Class 3 Fine Crushed Rock is then to be used as the backfill material from the springline up to the road pavement base.
- 11.3 **Allotments/Reserves/** Selected best quality excavated in-situ material or other material as approved by Council.

12. COMPACTION STANDARDS

Compaction standards are to be checked and proven in accordance with the requirements of AS 1289. Where unspecified by the responsible Authority, the following minimum standards will apply:

12.1 Structural Fill

- (a) Fill base top 150mm 95% standard compaction
- (b) Fill zone 95% standard compaction
- (c) Under road pavement zone less than 450mm under road pavement surface 98% standard compaction

12.2 Road Pavement

- (a) Road sub-grade top 150mm 98% standard compaction
- (b) Pavement materials 98% modified compaction

12.3 Trench Backfill

- (a) Granular under all pavement & edgings/kerb sections 98% modified compaction
- (b) Granular behind kerbing 95% modified compaction
- (c) Earth around structures 95% standard compaction

13. CONCRETE WORK

13.1 Minimum Strength

- Concrete for drainage pits to have a minimum compressive strength of 32 MPa at 28 days.
- Concrete for all other applications to have a minimum compressive strength of 25 MPa at 28 days
- 13.2 **Bar Chairs** All reinforcement in footpaths, vehicle crossings and roads to be supported by appropriately sized bar chairs.
- 13.3 **Slump** Concrete to have 75mm maximum slump.
- 13.4 **Kerb Cement Content** Concrete for kerb extrusion machines to have a minimum cement content of 280 kg/m3.
- 13.5 **Services Distribution Mains & Conduits** Mains and conduits are to be installed prior to kerb section construction works.
- 13.6 **Footpaths** All footpaths are to be a minimum of 125mm thick with F62 reinforcement, bedded on min of 75mm compacted Class 3 FCR. Bedding to extend 100mm beyond the edges of the footpath. Contraction joints to be constructed at 12.5m intervals. Class 4 FCR is to be used where filling is required under footpath Class 3 FCR bedding material.
- 13.7 **Continuous Kerb** To allow for a continuous concrete kerb and channel pour the "Gatic" HD concrete surround is to be in place prior to the pour commencing. If the pit surrounds are not in place then the initial kerb and channel pour is to stop one metre either side of pit.

14. ROAD PAVEMENT WORK

- 14.1 **Pavement Composition** The minimum standard of pavement composition is stated in the drawings for the respective road sections.
- 14.2 **Road surfacing** Road surfacing must not be performed until all other works have been completed.

15. IDENTIFICATION MARKING

All identification marking figures are to be a minimum of 50mm high.

15.1 **Conduits** - Letter "W", "G" "E" or "T" for water, gas, electricity or telecommunications conduit to be stamped into face of kerb sections at frontage of lot served.

- 15.2 **House Drain Connections** Letter "H" to be stamped into face of kerb sections opposite street drain connection point.
- 15.3 **Lot Nos.** Lot Nos. to be stenciled in white paint on face of kerb sections at lot frontages.

16. TESTING

16.1 **Specified Testing** - Testing will be conducted in compliance with specified requirements. The Contractor is liable for all costs.

16.2 **Proof-Rolling** - Pneumatic tyred plant minimum weight 20 tonne with minimum ground contact pressure 450 kPa per tyre.

17. EXPOSED SURFACES RESTORATION

- 17.1 **Topsoiling** All exposed residual surface areas at completion of civil works to be topsoiled with 100mm depth of best available material.
- 17.2 **Allotments/Reserves** Allotments and reserves are to be evenly graded at a minimum gradient of 1 in 100 to their nominated drainage connection points.
- 17.3 **Nature Strips** Nature strip surfaces are to be trimmed to grade between adjacent surfaces. Top-soiling and compaction operations are to ensure there is no later settlement/subsidence.
- 17.4 **Top-Dressing** Undisturbed grassed areas are to be top-dressed and evenly graded as directed by the Superintendent.
- 17.5 **Hydroseeding** At completion of the above works all prepared exposed surfaces are to be well watered and hydroseeded.
- 17.6 **Batter Slopes** Batter slopes shall be a maximum of 1 in 5 for fill and 1 in 3 for cut unless otherwise shown.

18. FINAL WORKS PRESENTATION

- At Practical Completion the following minimum standards of presentation will apply:
- 18.1 **Roads/Paved Areas** All roads and paved areas are to be swept/washed down to produce clean surfaces free of all deleterious materials.
- 18.2 **Pipe Systems** All pipe systems are to be flushed and cleared of all accumulated debris and deleterious materials.
- 18.3 **Site** The site is to be prepared to a state acceptable for presentation to the public for sale purposes and is to be in a condition satisfactory to the Superintendent with
- completion of, at least, the following activities:
- (a) all incidental and minor works(b) site clean up operations
- (c) site cleared of all facilities, temporary structures, plant, litter, surplus materials, etc. that are to be removed off-site.
- 18.4 **Reserve Frontages** Round topped treated pipe bollards (0.6m high) are to be placed across reserve frontages at 1.5m centres. A demountable section for vehicle access consisting of an appropriate length of 50mm diameter (2.3mm wall thickness) galvanised water pipe, short section of chain (3 links) welded to each end. Two galvanised steel bollards one each side of the entry, with one end to have a D20 padlock, which locks in to a link, which has been welded onto the bollard. Unless otherwise stated on plans.
- 18.5 **Street Signs** Street signs are to be located as indicated on the plans and installed in accordance with Vicroads Traffic Engineering Manual Volume 2. Mounting height is to be to the underside of the sign and is to be a minimum of 2.1m and maximum of 3.0m
- 18.6 **No Through Road** No through road signs are to be installed below the street sign where applicable.

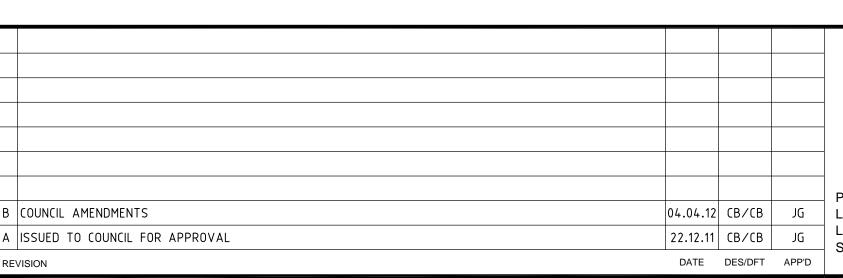
19. MAINTENANCE WORKS

The Contractor must responsively repair/remediate defective works as directed during the maintenance period.

- 19.1 **Council Assets** for Maintenance Period of 3 months
- 19.2 **Water Company Assets** for Defects Liability Period of 12 months and Maintenance Period of 2 years
- 19.3 **Inspection & General Maintenance Activities** the Contractor must undertake regular site inspections of all completed works. Special attention must be given to the adequacy of the following soil protection works:
- (a) Silt fences
- (b) Silt barriers
- (c) Areas hydroseeded

Melbourne +61 3 9869 0800

Traralgon +61 3 5173 0100



DRAWING NOTES

- Do not scale drawings use only dimensions stated
 Dimensions Dimensions are in metres [m] unless
- 3. Australian Height Datum Reduced levels are to Australian Height (AHD) unless otherwise stated.

Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay Southbank, Victoria 3006

otherwise stated.

Drawn
C. Barker
Checked
C. Birkett
Authorised
J.Golden

Date

November 2011

Designed

C. Barker

Scale @ A1 As Shown

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City of Greater Geelong
Roadworks and Drainage
General Notes

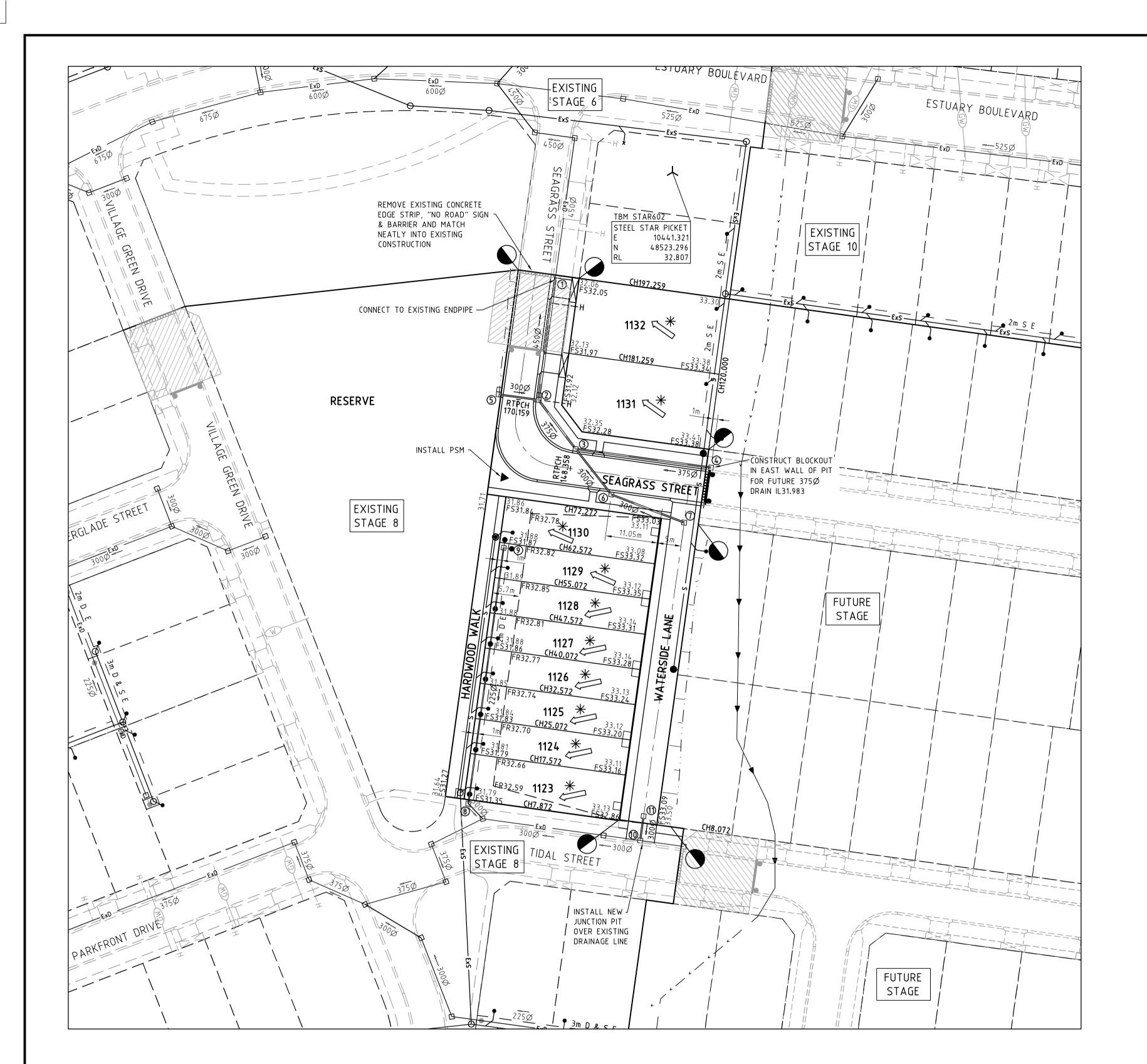
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Estuary

Stage 11A

Drawing No. 0250EHL-11A-02Sheet No. 2 of 13

Approved for Construction



03.05.13 CB/CB JG

21.05.12 CB/CB JG

04.04.12 CB/CB JG

22.12.11 CB/CB JG

DATE DES/DFT APP'D

Principal

Southbank, Victoria 3006



D PIT 10 RELOCATED

REVISION

B COUNCIL AMENDMENTS

DRAIN LINE PIT 10 TO 11 ADDED

A ISSUED TO COUNCIL FOR APPROVAL

Designed C. Barker Drawn C. Barker Checked C. Birkett Authorised J .Golden Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay Date

Scale @ A1 1:500

November 2011

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Estuary Stage 11A City of Greater Geelong Roadworks and Drainage Layout Plan

Drawing No. 0250EHL-11A-03 Sheet No. 3 of 13

LEGEND - LAYOUT PLAN

───── SWALE DRAIN

− − −H HOUSE DRAIN ——GW—— SERVICE CONDUITS TACTILE PAVERS

——Ex G—— EXISTING GAS ——Ex T—— EXISTING TELSTRA ---Ex W--- EXISTING WATER

O—Ex S—— EXISTING SEWER

RETAINING WALL — — ZERO LOT LINES

PAVEMENT TREATMENT

 □⇒ DIRECTION OF FALL OVERLAND FLOW

→ LIMIT OF WORKS

PROPOSED DRIVEWAY

STRUCTURAL FILL > 200mm DEEP EX. STRUCTURAL FILL > 200mm DEEP

st ALLOTMENT TO BE GRADED EVENLY IN

EXISTING TREE TO BE REMOVED

TEMPORARY BENCH MARK

A PERMANENT SURVEY MARK

— ASPHALT INFILL

— CONCRETE ROAD

PAVEMENT

CONCRETE EDGE STRIP WITH SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER

DIRECTION OF FALL TO LEVELS INDICATED

STORMWATER DRAIN, PIT & PROPERTY INLET

● S SEWER & MAINTENANCE STRUCTURES

——Ex E—— EXISTING ELECTRICITY (UNDERGROUND) —──0/H E—— EXISTING ELECTRICITY (OVERHEAD)

Ex D EXISTING STORMWATER DRAIN

− − −H EXISTING HOUSE DRAIN

141.34 EXISTING SURFACE LEVEL FS140.35 FINISHED BUILDING LINE LEVEL FR157.40 FINISHED RIDGE LINE LEVEL TW159.30 TOP OF RETAINING WALL BW159.30 BOTTOM OF RETAINING WALL

---> ---> EXISTING SWALE DRAIN

Approved for Construction

Rev D

-CRUSHED ROCK FILL UNDER PAVEMENT TYPICAL BENCHING SECTION MEDIUM DENSITY LOTS NOT TO SCALE

27m

FINISHED -

33m

-FUTURE BUILDING

WORKS BY OTHERS

4 m

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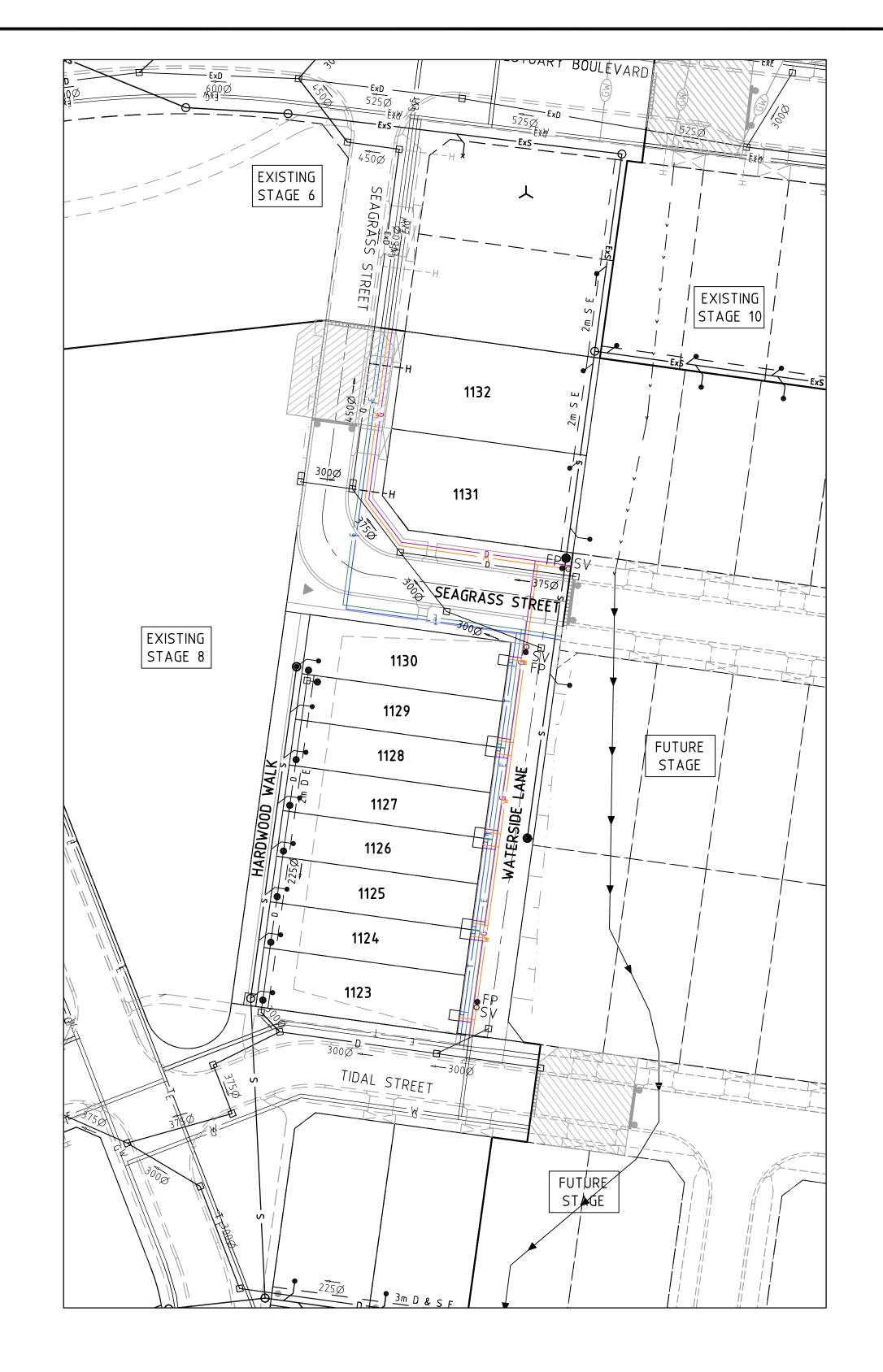
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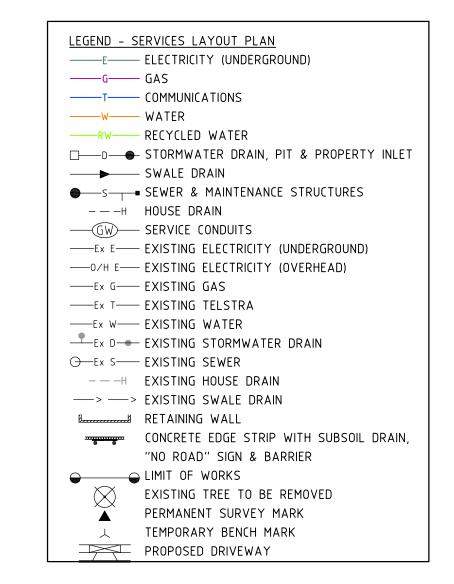
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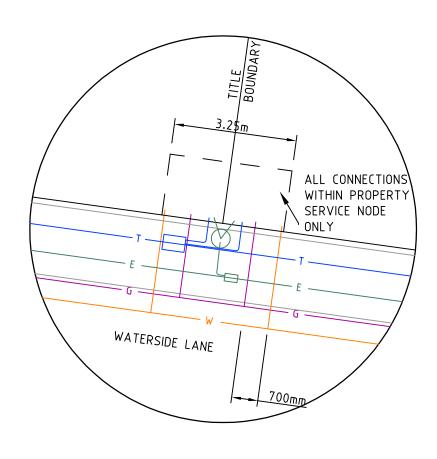
			SERVICES OFFS	SET SCHEDULE				
ROAD NAME	G	AS	WA	ATER	ELECT	TRICITY	COMMUI	NICATIONS
ROAD NAME	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
SEAGRASS STREET EAST/WEST	NORTH	2.10	NORTH	2.70	SOUTH	2.30	SOUTH	1.70
SEAGRASS STREET NORTH/SOUTH	EAST	2.10	EAST	2.70	EAST	3.90	EAST	3.30
WATERSIDE LANE	WEST	2.10	WEST	2,60	WEST	1,40	WEST	0.70

ROAD LAYOUT TABLE								
ROAD NAME	RESERVE		ROAD WIDTH (m)	KERB	TYPE	VERGE W	VIDTH (m)
ROAD NAME	WIDTH (m)	LIP to LIP	INV to INV	BACK to BACK	NTH/WEST	STH/EAST	NTH/WEST	STH/EAST
SEAGRASS STREET EAST/WEST	15.80	6.60	7.20	7.50	В2	B2	4.25	4.05
SEAGRASS STREET NORTH/SOUTH	13.00	6.60	7.20	7.50	В2	B2	0.00	5.50
WATERSIDE LANE	8.00	6.00	-	_	-	-	2.00	0.00



			SERVICES OFFS	ET SCHEDULE				
DOAD NAME	G	45	WA	TER	ELECT	RICITY	COMMUN	CATIONS
ROAD NAME	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
SEAGRASS STREET EAST/WEST	NORTH	2.10	NORTH	2.70	SOUTH	2.30	SOUTH	1.70
SEAGRASS STREET NORTH/SOUTH	EAST	2.10	EAST	2.70	EAST	3.90	EAST	3.30
WATERSIDE LANE	WEST	2.10	WEST	2.60	WEST	1.40	WEST	0.70





SERVICING DETAIL MEDIUM DENSITY LOTS 1123 TO 1130 WILL BE CONSTRUCTED AS HOUSE AND LAND PACKAGES WITH SET BUILDING

ENVELOPES AND FIXED GARAGE AND VEHICLE ACCESS.

WARNING BEWARE OF UNDERGROUND SERVICES

The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works

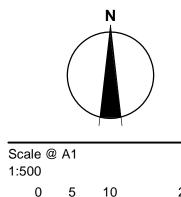
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Α	ISSUED TO COUNCIL FOR APPROVAL	22.12.11	CB/CB	JG	Le So
RE'	/ISION	DATE	DES/DFT	APP'D	

Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay Southbank, Victoria 3006

Designed C. Barker Drawn C. Barker Checked C. Birkett Authorised J .Golden November 2011



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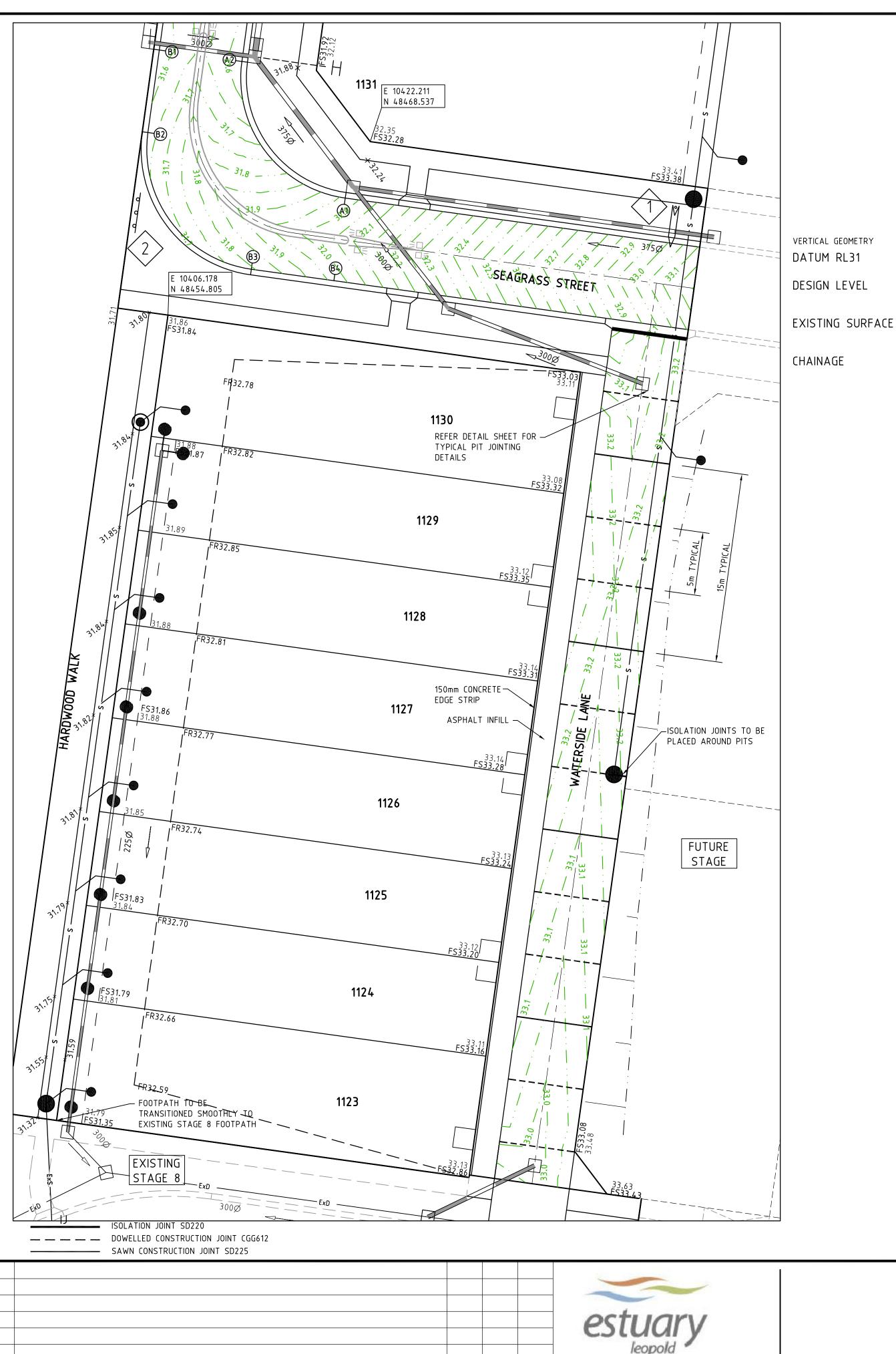
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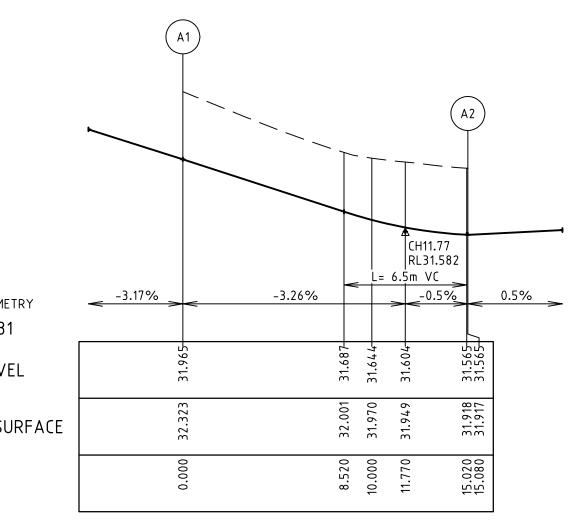
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Estuary Stage 11A City of Greater Geelong Roadworks and Drainage Services Layout Plan

Drawing No. 0250EHL-11A-04

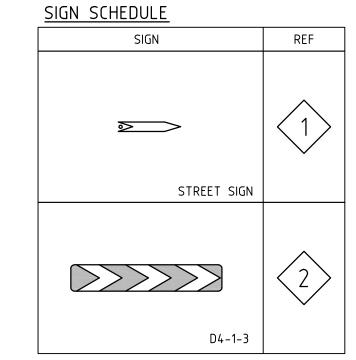
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LIP LINE A

CH21.21 RL31.741 L= 14.14m VC € 0.5% 3.17% 0.83% 3.17% VERTICAL GEOMETRY DATUM RL31 31.759-31.782-31.792-DESIGN LEVEL EXISTING SURFACE CHAINAGE LIP LINE B



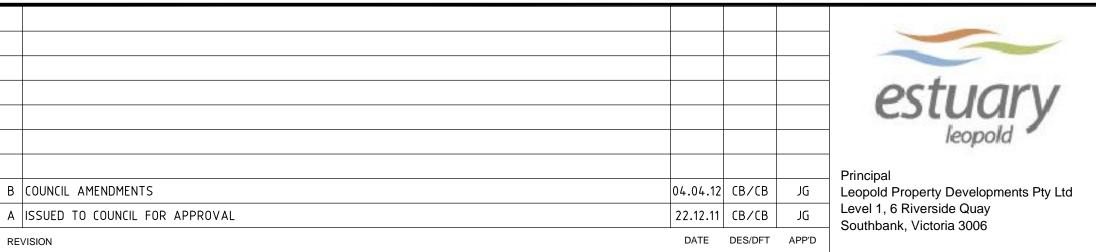
<u>LEGEND - INTERSECTION PLAN</u> STORMWATER DRAIN, PIT & PROPERTY INLET ───── SWALE DRAIN ● S SEWER & MAINTENANCE STRUCTURES − − −H HOUSE DRAIN TACTILE PAVERS ---- EXISTING HOUSE DRAIN RETAINING WALL PAVEMENT TREATMENT CONCRETE EDGE STRIP WITH SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER → LIMIT OF WORKS EXISTING TREE TO BE REMOVED A PERMANENT SURVEY MARK TEMPORARY BENCH MARK PROPOSED DRIVEWAY

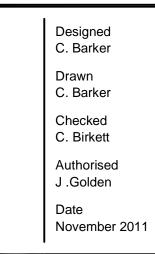
WARNING **BEWARE OF UNDERGROUND SERVICES**

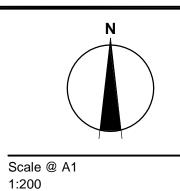
The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works **DIAL 1100 BEFORE YOU DIG**

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- REFER TO SHEET No 6 FOR SETOUT INFORMATION.
- 2. 90° BENDS TO HAVE CENTRELINE MARKING WITH RRPM'S AT MAX 6m SPACING.







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Estuary Stage 11A City of Greater Geelong Roadworks and Drainage

Intersection Detail Plan & Lip Profiles **Drawing No.** 0250EHL-11A-05

Approved for Construction

SEAGRASS STREET DESIGN LINE CHAINAGE EASTING NORTHING BEARING 48456.913 277°52′36″ IP 48461.291 277°52′36″ TC 10416.212 151.950 166.559 10408.274 48471.778 7°52′36″ CT 197.259 10412.481 48502.188 7°52'36" IP COORDINATE = 10447.8602 48456.9125 CHAINAGE = 120.0001 IP 2 COORDINATE = 10406.9994 48462.5655 CENTRE = 10417.4862 48470.5033 RADIUS = LENGTH = 9.3000 14.6084 INTERSECT ANGLE = 90°00′00′′ START TANGENT COORDINATE = 10416.2117 48461.2910 LENGTH = 9.3000 CHAINAGE = 151.9501 BEARING = 277°52′36″ END TANGENT COORDINATE = 10408.2739 48471.7778 LENGTH = 9.3000 CHAINAGE = 166.5585 BEARING = 7°52′36″ COORDINATE = 10412.4811 48502.1881 CHAINAGE = 197.2585 WATERSIDE LANE DESIGN LINE CHAINAGE EASTING NORTHING BEARING 8.072 10435.022 48386.003 7°52′36" IP 80.072 10444.889 48457.324 7°52'36" IP COORDINATE = 10435.0216 48386.0029 CHAINAGE = 8.0716 COORDINATE = 10444.8885 48457.3237 80.0717 CHAINAGE = <u>ALIGNMENT A</u> POINT NO EASTING NORTHING 48464.067 31.965 A 1 10420.230 A 2 10412.036 48474.892 31.565 RADIUS ARC CURVE NO MID POINT RL 90.000 9.600 15.080 2.812 2.081 3.674 3.114 3.770 31.719 A1 - A2 <u>ALIGNMENT B</u> POINT NO EASTING NORTHING B 1 10405.498 48475.796 31.565 B 2 10404.594 48469.258 31.620 В3 10412.788 48458.433 31.792 10419.326 48457.529 31.965 L MID POINT RL CURVE NO RADIUS ARC 90.000 15.080 2.812 2.081 3.674 3.114 3.770 31.682 B2 - B3

1. SETOUT CO-ORDINATES REFER TO LIP OF KERB/EDGE OF CONCRETE.

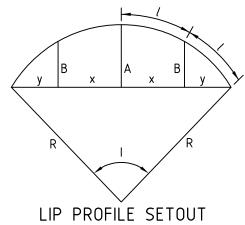
2. REFER TO SHEET No 5 FOR LIP PROFILES.

B COUNCIL AMENDMENTS 22.12.11 CB/CB JG A ISSUED TO COUNCIL FOR APPROVAL DATE DES/DFT APP'D



04.04.12 CB/CB JG Leopold Property Developments Pty Ltd

22.12.11 CB/CB JG Level 1, 6 Riverside Quay Southbank, Victoria 3006



Designed C. Barker Drawn C. Barker Checked C. Birkett Authorised J .Golden

November 2011

Date

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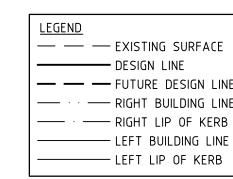
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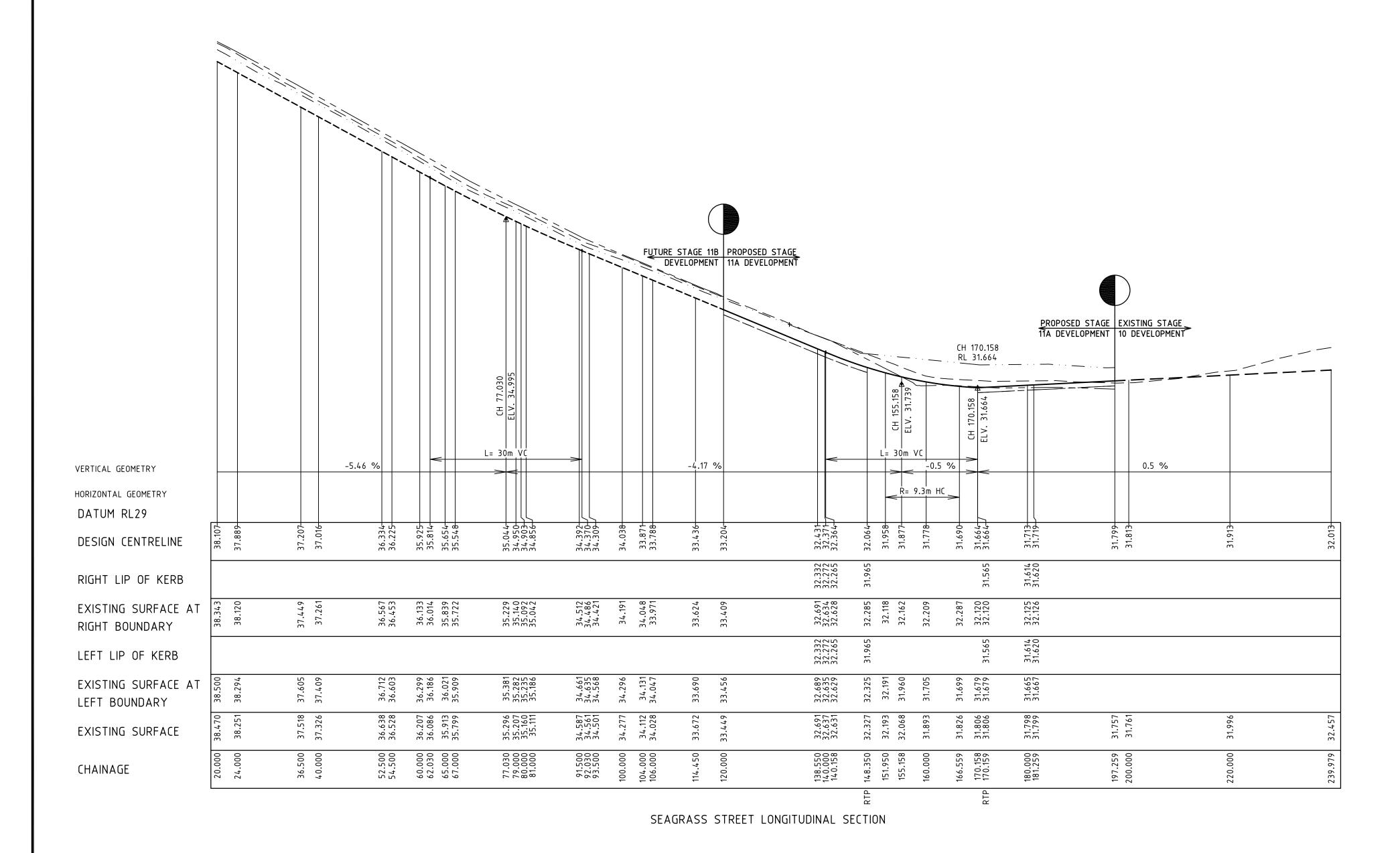
Estuary Stage 11A City of Greater Geelong Roadworks and Drainage Setout Information Plan

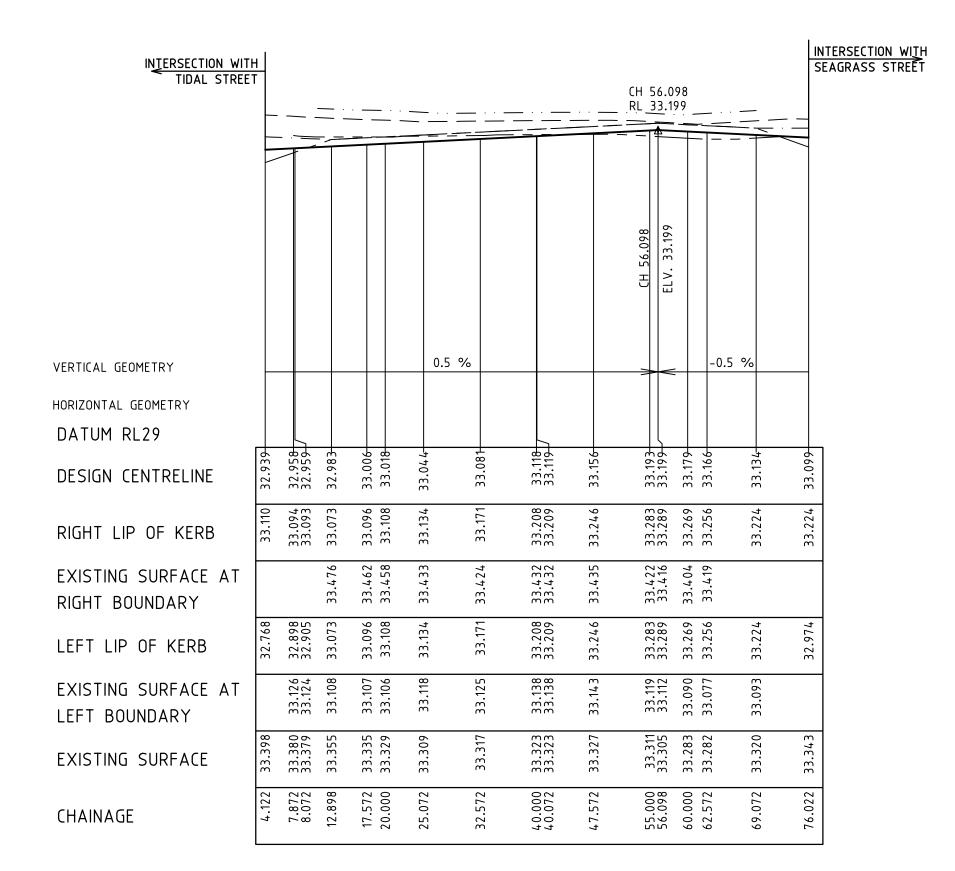
Drawing No. 0250EHL-11A-06

Sheet No. 6 of 13

Approved for Construction







WATERSIDE LANE LONGITUDINAL SECTION

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				estuary LEOPOLD ®
				LEGIGLE
				Principal
B COUNCIL AMENDMENTS	04.04.12	CB/CB	JG	Leopold Property Developments Pty Ltd
A ISSUED TO COUNCIL FOR APPROVAL	22.12.11	CB/CB	JG	Level 1, 6 Riverside Quay Southbank, Victoria 3006
REVISION	DATE	DES/DFT	APP'D	

Designed C. Barker Drawn C. Barker Checked C. Birkett Authorised J .Golden November 2011

Scale @ A1

H1:500, V1:50

0 5 10

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Estuary

Stage 11A

Drawing No. 0250EHL-11A-07

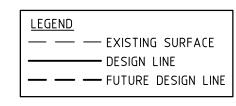
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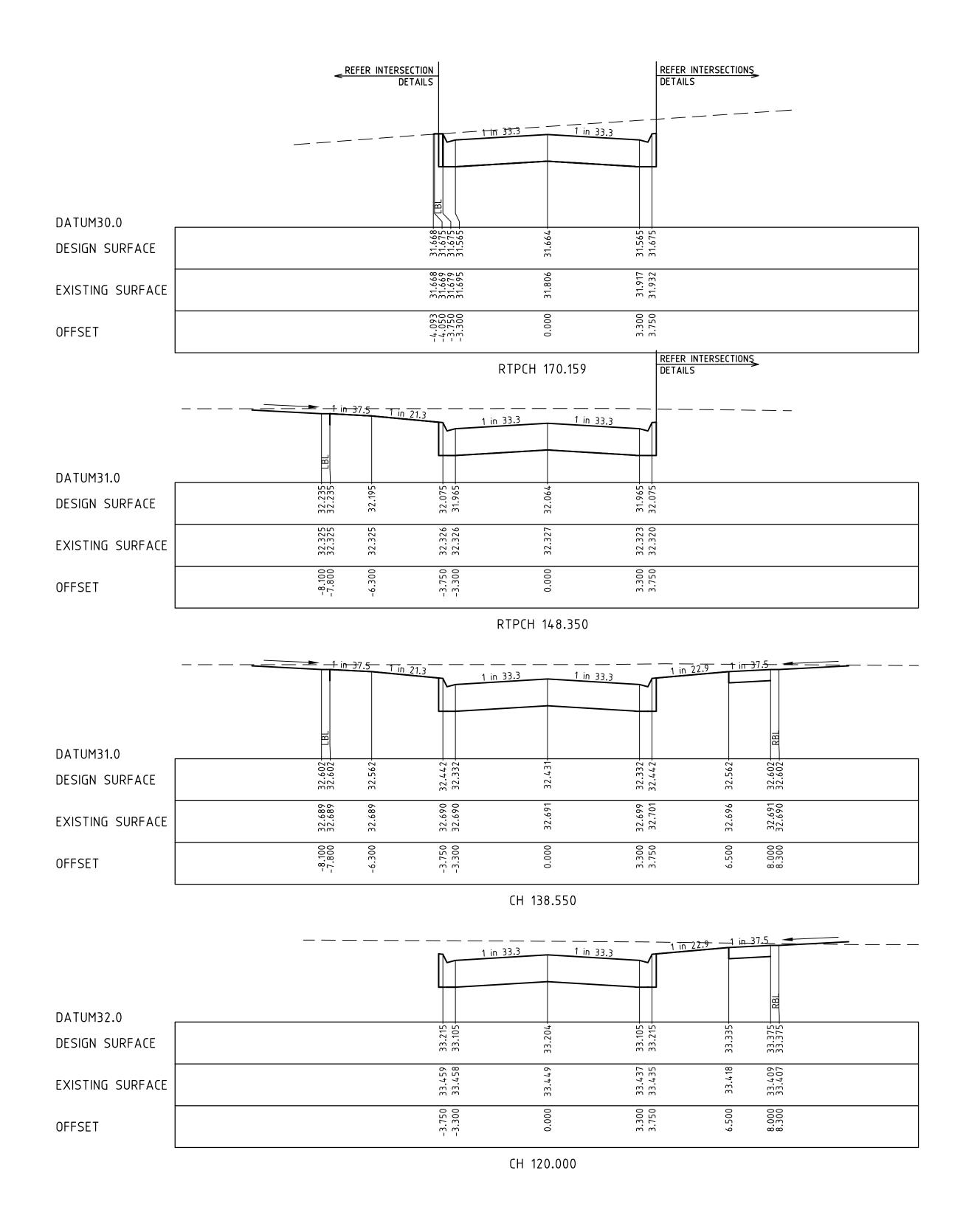
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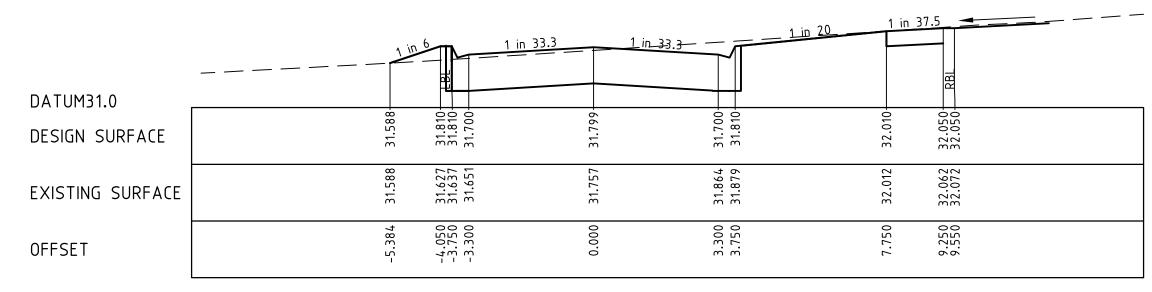
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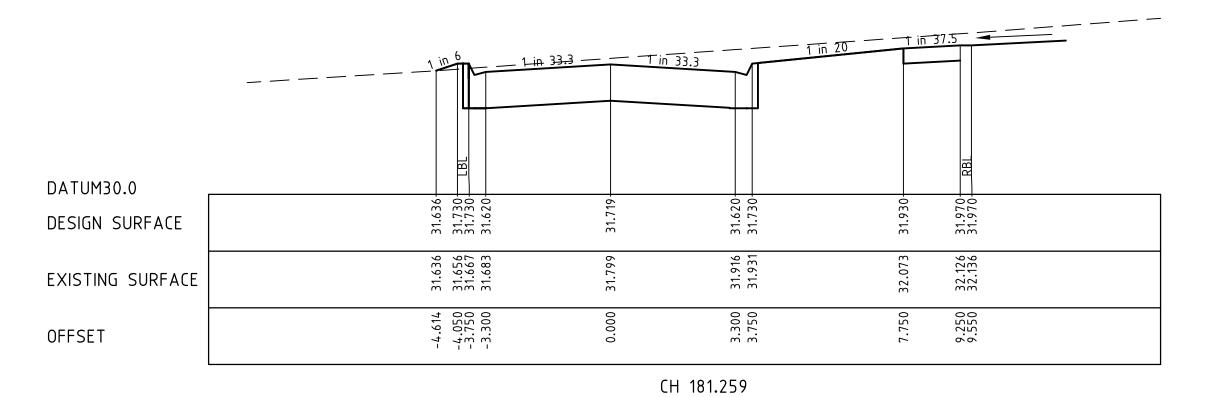


B COUNCIL AMENDMENTS

A ISSUED TO COUNCIL FOR APPROVAL



CH 197.259



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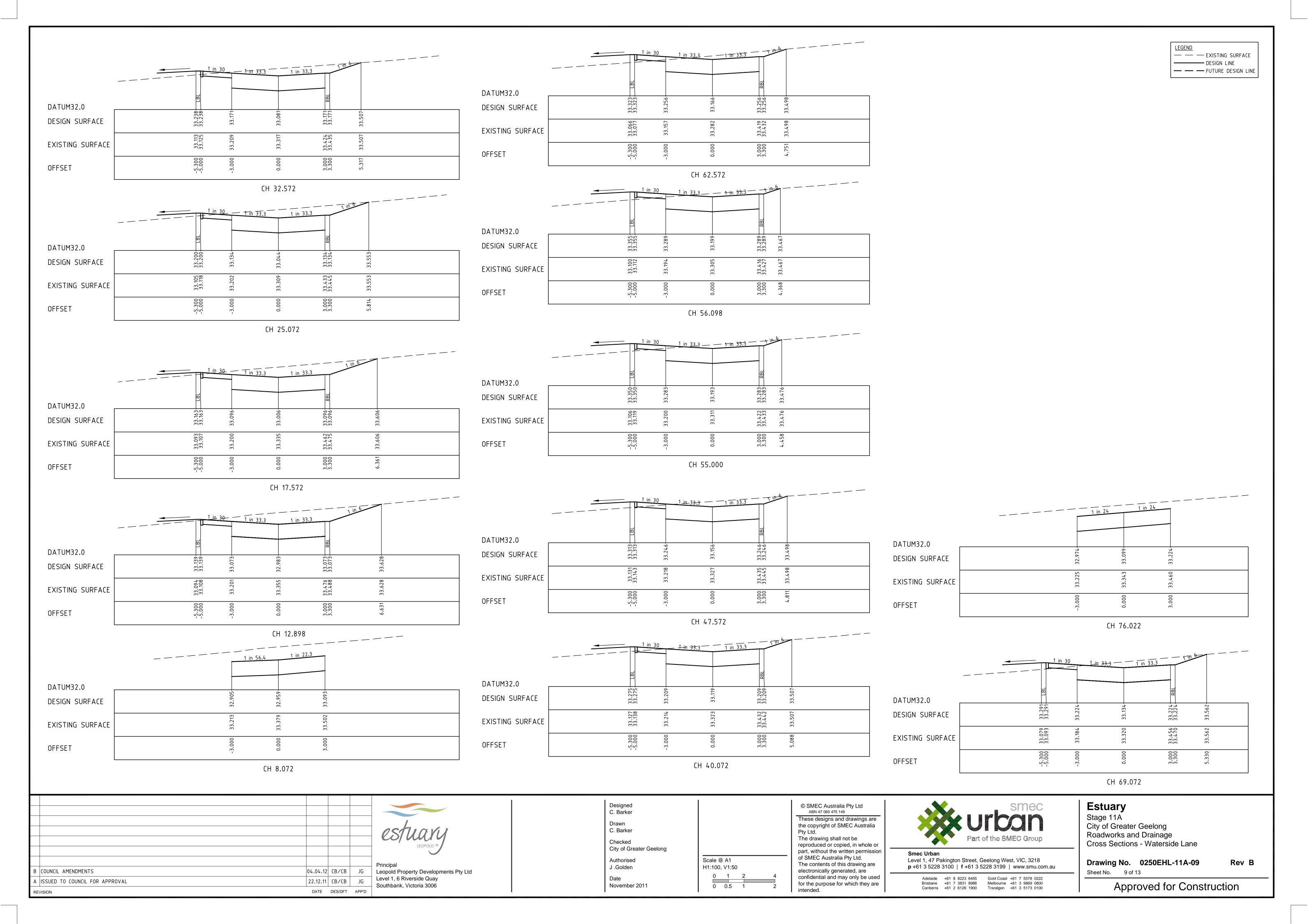
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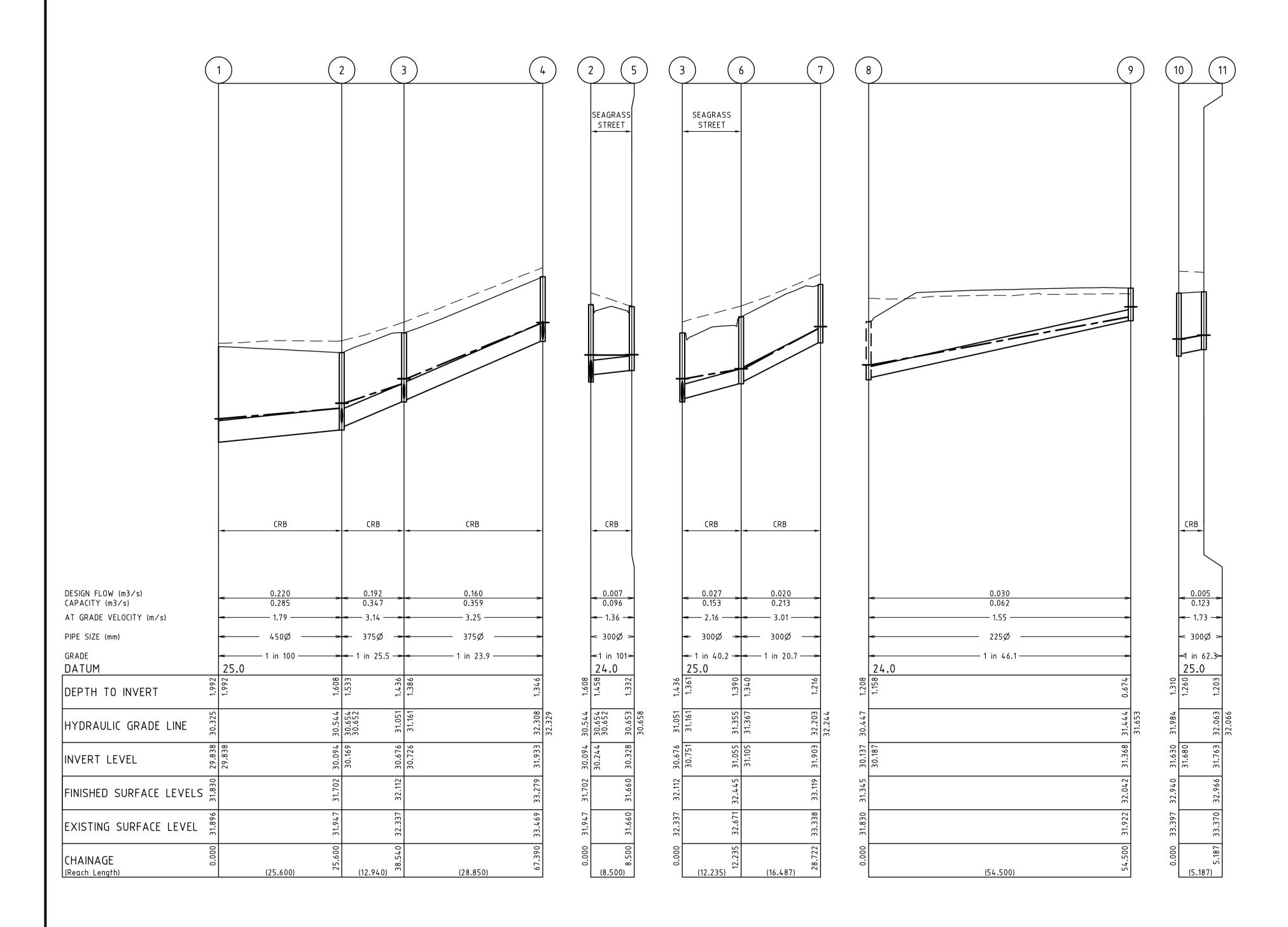
Estuary Stage 11A
City of Greater Geelong
Roadworks and Drainage
Cross Sections - Seagrass Street

Drawing No. 0250EHL-11A-08

Approved for Construction



— — EXISTING SURFACE DESIGN SURFACE ----- DRAINAGE PIPE/PIT — — EXISTING DRAINAGE PIPE/PIT



L					
· [
					estuary
	D PIT 10 RELOCATED	03.05.13	CB/CB	JG	1201013
	C DRAIN 10 TO 11 ADDED	21.05.12	CB/CB	JG	Principal
I	B COUNCIL AMENDMENTS	04.04.12	CB/CB	JG	Leopold Property Developments Pty Ltd
I	A ISSUED TO COUNCIL FOR APPROVAL	22.12.11	CB/CB	JG	Level 1, 6 Riverside Quay Southbank, Victoria 3006
	REVISION	DATE	DES/DFT	APP'D	Countries, Violena 6000

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November 2011

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Sheet No. 10 of 13

Estuary Stage 11A City of Greater Geelong Roadworks and Drainage Drainage Longitudinal Sections

Drawing No. 0250EHL-11A-10

Approved for Construction

Rev D

PIT NUMBER	TYPE	INTE	RNAL	INL	ET .	ОИТ	LET	F.S.L. (m)	DEPTH (m)	STANDARD	REMARKS
PII NOWBER	TIPE	WIDTH (mm)	LENGTH (mm)	DIAMETER (mm)	INVERT R.L.(m)	DIAMETER (mm)	INVERT R.L. (m)	, ,	DEPTH (III)	DRAWING	REIVIARRS
1	Ex ENDPIPE			450	29.838			31.830	1.992		CONNECT TO EXISITNG ENDPIPE
2	DOUBLE SIDE ENTRY PIT	600	1900	375	30.169	450	30.094	31.702	1.608	SD 450	
				300	30.244						
3	SIDE ENTRY PIT	600	900	375	30.726	375	30.676	32.112	1.436	SD 430	
				300	30.751						
4	SIDE ENTRY PIT	600	900	375	31.983	375	31.933	33.279	1.346	SD 430	
5	DOUBLE SIDE ENTRY PIT	600	1900			300	30.328	31.660	1.332	SD 450	
6	SIDE ENTRY PIT	600	900	300	31.105	300	31.055	32.445	1.390	SD 430	
7	GRATED PIT	600	900			300	31.903	33.119	1.216	SD 420	
8	Ex			225	30.187			31.345	1.208		CONNECT TO EXISTING PIT
9	JUNCTION PIT	600	900			225	31.368	32.042	0.674	SD 425	
10	JUNCTION PIT	600	900	300	31.680	300	31.630	32.940	1.310	SD 430	INSTALL NEW PIT OVER EXISTING DRAIN. HEAVY DUTY GATIC COVER
11	GRATED PIT	600	900			300	31.765	32.966	1.201	SD 420	

03.05.13 CB/CB JG D PIT 10 RELOCATED 21.05.12 CB/CB JG

04.04.12 CB/CB JG

22.12.11 CB/CB JG

Principal
Leopold Property Developments Pty Ltd
Level 1, 6 Riverside Quay
Southbank, Victoria 3006 C PITS 10 AND 11 ADDED B COUNCIL AMENDMENTS A ISSUED TO COUNCIL FOR APPROVAL REVISION

Designed C. Barker Drawn C. Barker Checked C. Birkett Authorised J .Golden Date November 2011

Scale @ A1

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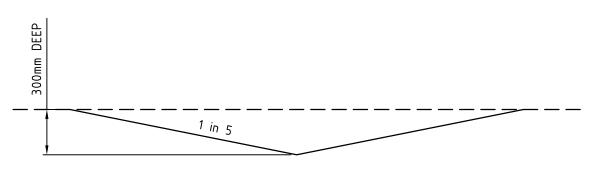
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Estuary
Stage 11A
City of Greater Geelong
Roadworks and Drainage
Drainage Pit Schedule

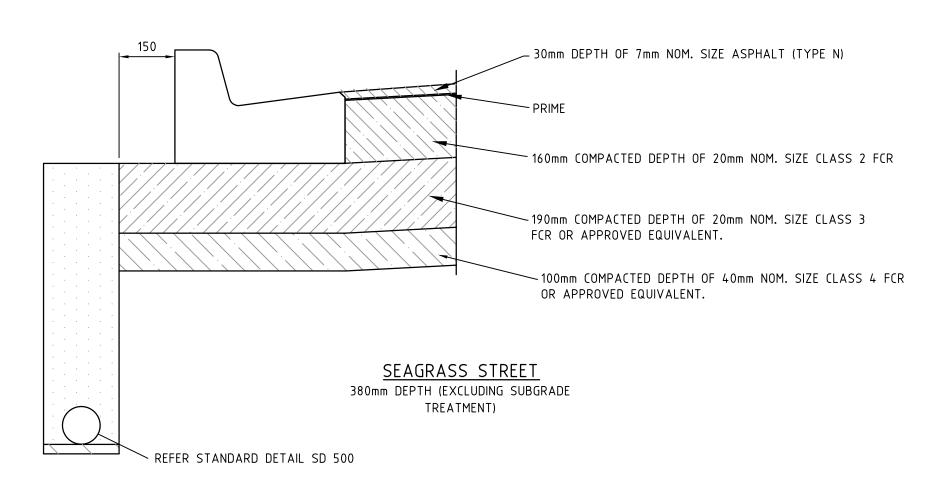
Drawing No. 0250EHL-11A-11

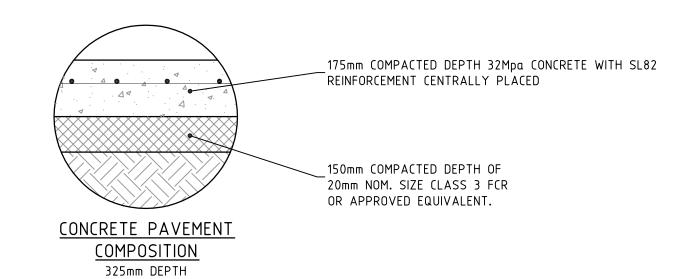
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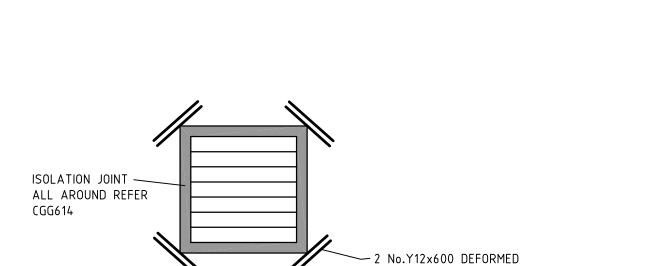


CUT OFF DRAIN TYPICAL SECTION

NOT TO SCALE



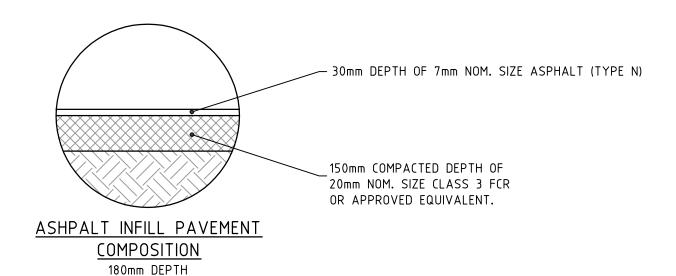




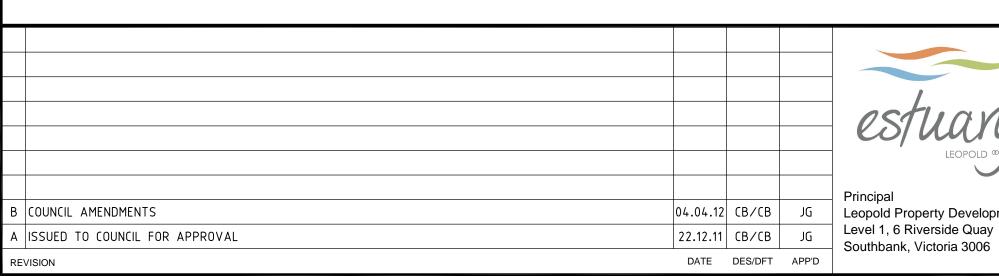
TYPICAL PIT JOINTING

CONCRETE JOINTING NOTES

- 1. SAW JOINTS ARE TO BE PLACED AT A MAXIMUM 5m SPACING AT INTERSECTIONS AND CONSTRUCTED 18-24 HOURS AFTER POURING.
- 2. TRANSVERSE/CONTRACTION JOINTS ARE TO BE PLACED AT A MAXIMUM SPACING OF 15m.
- 3. ISOLATION JOINTS ARE TO BE PLACED AROUND PITS
- 4. ALL JOINTS SHALL BE LOCATED AND SPACED IN ACCORDANCE WITH "CEMENT AND CONCRETE ASSOCIATION OF AUSTRALIA - CONCRETE PAVEMENT DESIGN FOR RESIDENTIAL
- 5. ALL JOINTS TO COMPLY WITH COGG STANDARD DRAWINGS



BARS @ 200 CENTRES



Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay

Drawn C. Barker Checked C. Birkett Authorised J .Golden November 2011

Designed C. Barker Scale @ A1 As Shown

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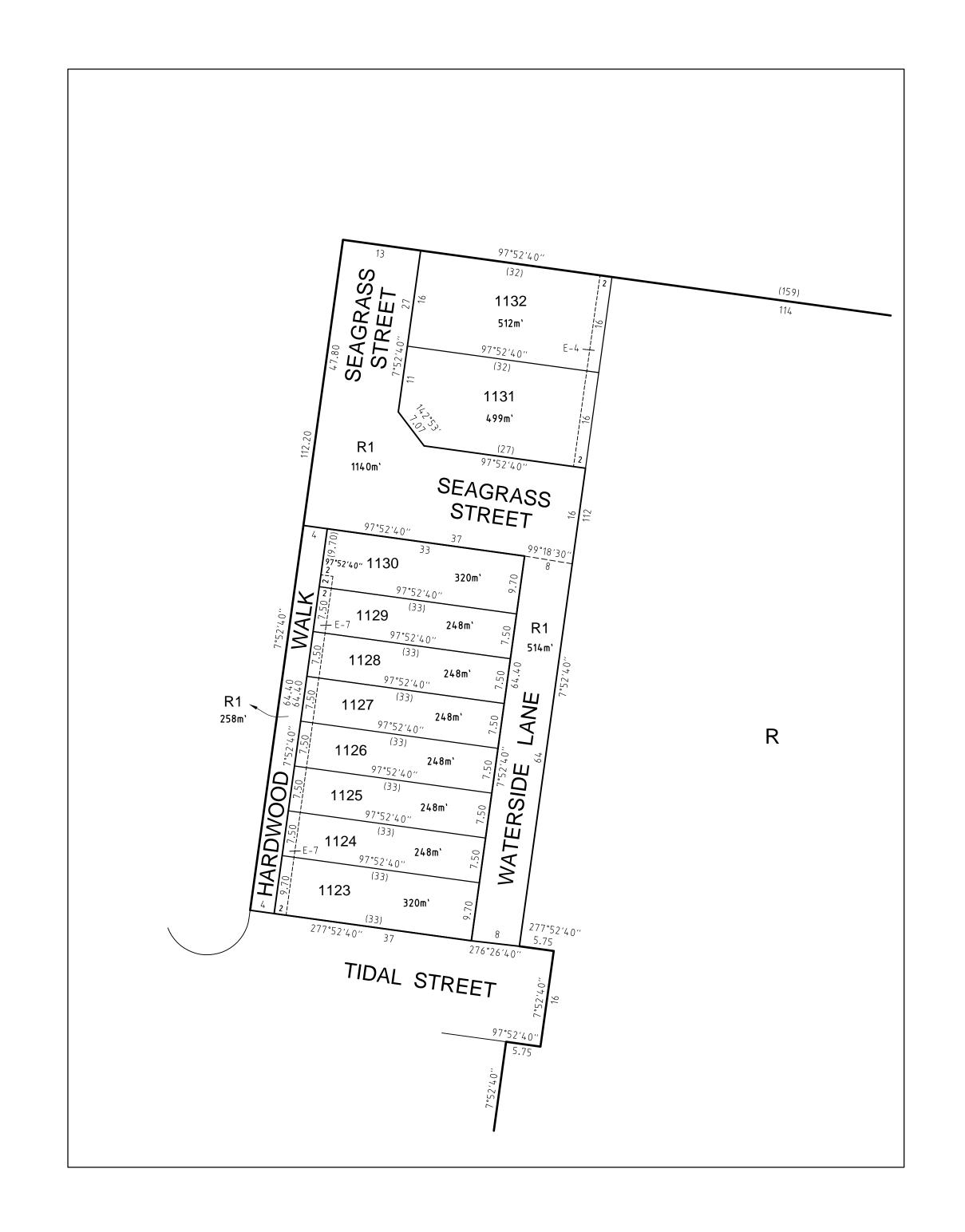
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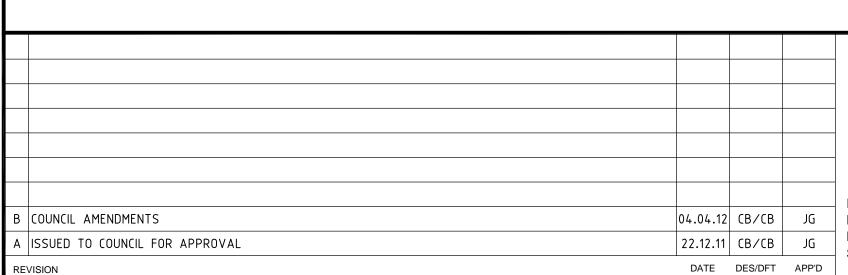
Estuary Stage 11A City of Greater Geelong Roadworks and Drainage Details

Drawing No. 0250EHL-11A-12

Sheet No. 12 of 13

Approved for Construction





Principal
Leopold Property Developments Pty Ltd
Level 1, 6 Riverside Quay
Southbank, Victoria 3006

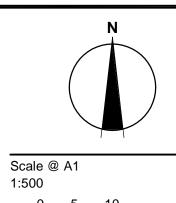
Designed
C. Barker

Drawn
C. Barker

Checked
C. Birkett

Authorised
J.Golden

Date
November 2011



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Estuary
Stage 11A
City of Greater Geelong
Roadworks and Drainage
Subdivision Setout Plan

Drawing No. 0250EHL-11A-13

ing No. 0250EHL-11A-13 Rev B
No. 13 of 13

LEGEND - SEWER PLAN □ → STORMWATER DRAIN & PIT ● SEWER & MAINTENANCE STRUCTURES ----S TYPE "B" JUMP UP ————— OBLIQUE JUNCTION ----s TYPE "A" SPECIAL ——s—↑ TYPE "TM" SPECIAL -----S TYPE "B" SPECIAL ——Ex E—— EXISTING ELECTRICITY (UNDERGROUND) ——O/H E—— EXISTING ELECTRICITY (OVERHEAD) ——Ex G—— EXISTING GAS ——Ex T—— EXISTING TELSTRA ——Ex W—— EXISTING WATER Ex D EXISTING STORMWATER DRAIN O—Ex S— EXISTING SEWER 141.34 EXISTING SURFACE LEVEL FS140.35 FINISHED BUILDING LINE LEVEL FR157.40 FINISHED RIDGE LINE LEVEL PERMANENT SURVEY MARK TEMPORARY BENCH MARK ASBESTOS CEMENT CAST IRON CEMENT LINED DICL DUCTILED CEMENT LINED MSCL MILD STEEL CEMENT LINED PVC POLYVINAL CHLORIDE POLYETHYLENE (AS SPECIFIED) REINFORCED CONCRETE VITREOUS CLAY

WARNING

BEWARE OF UNDERGROUND SERVICES

The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works DIAL 1100 BEFORE YOU DIG

BARWON WATER APPROVED CONTRACTOR TO CONNECT TO EXISTING ACCESS CHAMBER AT CONTRACTORS COST. 7 CLEAR DAYS NOTICE PRIOR TO THE COMMENCEMENT OF WORKS MUST BE GIVEN TO THE SUPERINTENDENT AND BARWON WATER SENIOR QUALITY AUDITOR.

BARWON WATER APPROVED CONTRACTOR TO CONSTRUCT NEW HOUSE CONNECTIONS OVER EXISTING MAIN AT CONTRACTORS COST. 7 CLEAR DAYS NOTICE PRIOR TO THE COMMENCEMENT OF WORKS MUST BE GIVEN TO THE SUPERINTENDENT AND BARWON WATER SENIOR QUALITY AUDITOR.

ROD501

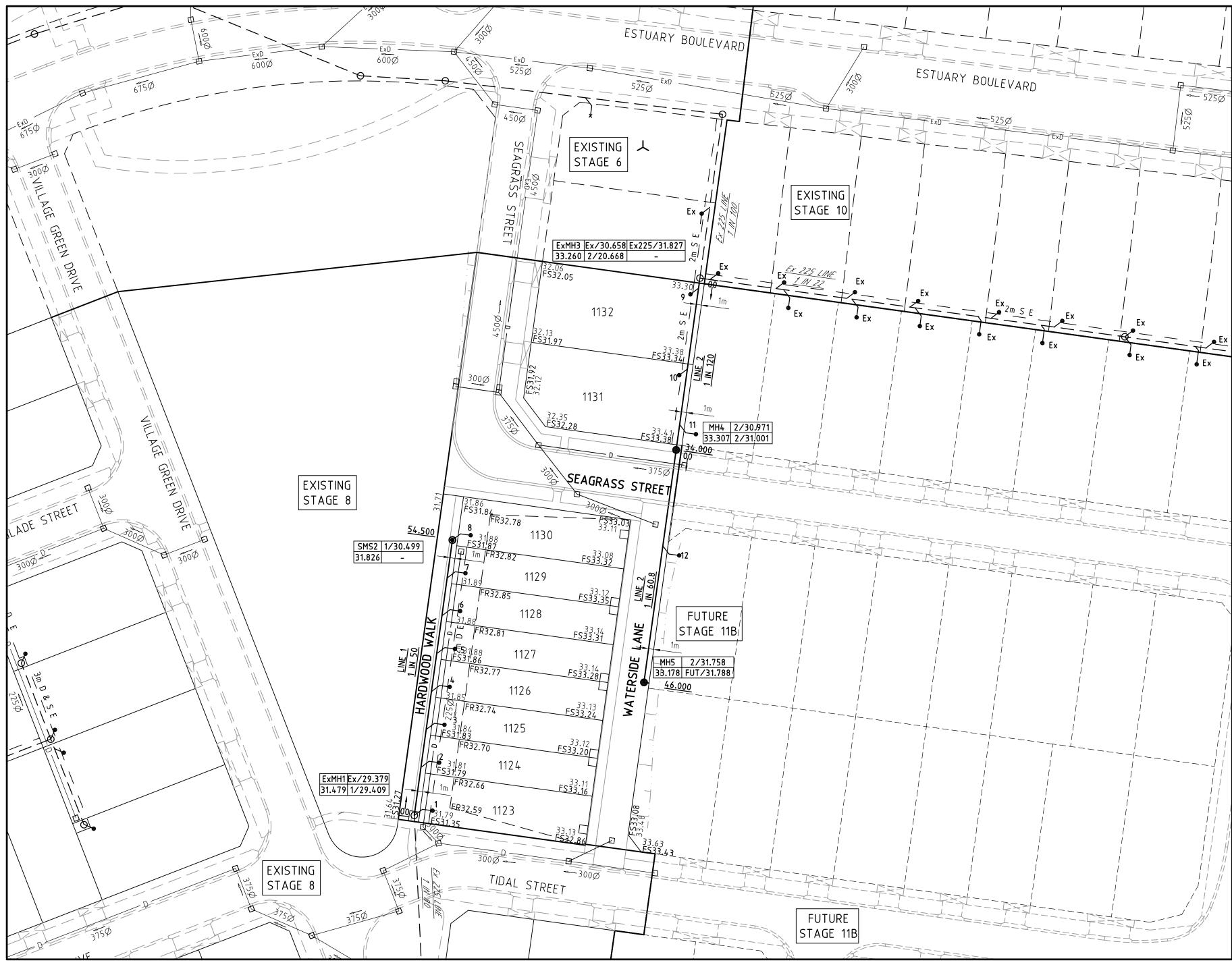
ROD502

MOOLAP PM69

MOOLAP PM321

277138.66

277040



				NE
	SURVEY STATION	NS (HORIZONTAL - A	RBITARY, VERTIC	AL - AHD)
TBM	EASTING	NORTHING	RL	DESCRIPTION
ROD501	10106.39	48560.27	21.19	ROD
ROD502	10309.58	48587.59	28.62	ROD
MOOLAP PM69	1000.00	50000.00	-	BRASS PLAQUE
MOOLAP PM321	9897.742000	48994.921	9.436	BRASS PLAQUE

5770359.31

5769480

10212.03	40707.004	22.100	DRASS PLAUUE			
				_	SIZE	TYPE
	SURVEY CONTR	ROL			150	PVC SN8
EASTING	NORTHING	RL	DESCRIPTION			
277245.07	5768919.27	21.19	ROD			
277448.31	5768946.60	28.62	ROD			MAINTENANCE H

BRASS PLAQUE

BRASS PLAQUE

NEW SEWER MAINS					
SIZE	TYPE	LENGTH			
150	PVC SN8	134.5m			

MAINTENANCE HOLE CHAMBER INFORMATION LEGEND						
MH No.	LINE No. / DOWNSTREAM INVERT	LINE No. / UPSTREAM INVERT				
F.S.L.	LINE No. / UPSTREAM INVERT	LINE No. / UPSTREAM INVERT				

SERVICES OFFSET SCHEDULE								
DOAD NAME	GAS		WATER		ELECTRICITY		COMMUNICATIONS	
ROAD NAME	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
SEAGRASS STREET EAST/WEST	NORTH	2.10	NORTH	2.70	SOUTH	2.30	SOUTH	1.70
SEAGRASS STREET NORTH/SOUTH	EAST	2.10	EAST	2.70	EAST	3.90	EAST	3.30
WATERSIDE LANE	WEST	2.10	WEST	2.60	WEST	1.40	WEST	0.70

WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED BY BARWON WATER

ACCEPTED BY BARWON WATER DEVELOPMENT SERVICES CO-ORDINATOR **DEVELOPMENT & CONSERVATION**

277310 22.180 MOOLAP PM302 5769280 BRASS PLAQUE B BARWON WATER AMENDMENTS 01.03.12 CB/CB A ISSUED TO BARWON WATER FOR APPROVAL 09.02.12 CB/CB DATE DES/DFT APP'D

8.503

9.436

Leopold Property Developments Pty Ltd

Level 1, 6 Riverside Quay

Southbank, Victoria 3006

Construction of the sewer and water mains is to be in accordance with the Barwon Water standard specifications "Construction of gravity sewers and rising mains" and "Construction of Every endeavour to ensure the

Construction Notes

Designed

Drawn

C. Barker

Checked

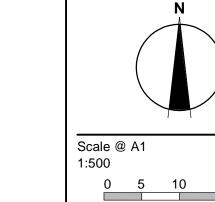
Authorised

November 2011

J .Golden

location of all existing services on the plan are correct. However actual locations are to be checked on site prior to commencement of

excavations. Nominal size of water mains indicated in millimetres & offsets are indicated in metres. . All sewer pipes are 1500mm unless otherwise shown.



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Smec Urban Level 1, 47 Pakington Street, Geelong West, VIC, 3218

GENERAL

1. SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE WATER SERVICES ASSOCIATION

2. BARWON WATER AND THE PROJECT MANAGER TO BE NOTIFIED 7 CLEAR WORKING DAYS

STATUTORY RULES, AND THE MINES (TRENCHES) REGULATIONS 1982.

IS IN ATTENDANCE WHEN TRENCHING OPERATIONS ARE IN PROGRESS.

CARRY OUT THE NECESSARY INSPECTIONS AND SURVEYING BEFORE BACKFILLING IS

5. SERVICES ARE APPROXIMATE ONLY. ALL RELEVANT SERVICE AUTHORITY'S ARE TO BE

8. INVERT LEVELS OF EXISTING SEWERS AND WATERMAINS TO BE CHECKED PRIOR TO THE

9. CLASS 2 BACKFILL TO BE USED UNDER DRIVEWAYS FOR WATER AND SEWER RETICULATION.

10. PROPERTY OWNERS ARE TO BE NOTIFIED IN WRITING BY THE CONSULTANT 14 CLEAR DAYS

11. COPY OF CADASTRAL MAP GRID (MGA) CONNECTION & COPY OF AUSTRALIAN HEIGHT DATUM

FRIDAY. IN THE EVENT THAT WORKS ARE TO BE EFFECTED OUTSIDE THESE WORKING HOURS

A LETTER REQUESTING APPROVAL FOR SUCH OUT OF HOURS WORK SHALL BE LODGED TO

13. THE CONTRACTOR SHALL COMPLY WITH SAFETY REQUIREMENTS RELATING TO WORKING NEAR

WITH BY-LAW NO. 187. ONLY TRIGGER HOSES (MAXIMUM SIZE 25mm) MAY BE USED FOR

CONSTRUCTION WORK NOT INCLUDING TRENCHING, UNLESS OTHERWISE EXEMPTED BY THE AUTHORITY IN WRITING. MECHANICAL COMPACTION IS TO BE USED IN ACCORDANCE WITH

TO FLUSH WATER MAINS IS TO BE RECLAIMED AND USED FOR CONSTRUCTION PURPOSES.

1. THE CONTRACTOR SHALL CORE CUT ALL HOLES INTO EXISTING PRECAST SEWER

MRWA SPECIFICATION 04-03 FOR TRENCH WORKS UNTIL FURTHER NOTICE. ANY WATER USED

ALL FSL's SHOWN IN MAINTENANCE HOLES INFORMATION BOX ARE TOP OF MANHOLE LEVELS. 3. ALL END OF LINES NOMINATED AS TMS ARE TO HAVE A TERMINAL MAINTENANCE SHAFT AS

WHERE FUTURE SEWER MAINS ARE INDICATED A 150mm ACCESS COUPLING AND CAP ARE TO

1996, STATUTORY RULE No 148/1996 AND A.S. 2865 - 1995 SAFE WORKING IN CONFINED

SPACES". PERSON(S) REQUIRING ACCESS TO ANY BARWON WATER MANHOLE AS PART OF

THE DEVELOPER WORKS PROCESS MUST CONTACT THE SENIOR QUALITY AUDITOR PH (03)

DURING THE CONSTRUCTION OF WORKS TO GAIN ACCESS TO A BARWON WATER MANHOLE

THE PROCEDURE AS OUTLINED IN THE ATTACHED FLOWCHART IS TO BE FOLLOWED, AND

"THE CONFINED SPACE ENTRY PERMIT APPLICATION FORM" (ALSO ATTACHED) IS TO BE COMPLETED AND LODGED WITH THE SENIOR QUALITY AUDITOR 3 (THREE) CLEAR WORKING

7. DETECTOR TAPE TO BE PLACED OVER SEWERS AT ALL ROAD CROSSINGS AND ALL CURVED

LAND DEVELOPMENT MANUAL AND SUBMITTED TO BARWON WATER FOR ACCEPTANCE. 9. ALL MANHOLE JOINTS, INCLUDING DROPS TO BE SEALED WITH FERROPRE OR APPROVED

8. BORED SECTIONS OF SEWER TO BE CCTV INSPECTED IN ACCORDANCE WITH BARWON WATER'S

10. ALL EXCAVATIONS AROUND A NEWLY CONSTRUCTED MANHOLE TO BE BACKFILLED WITH 3%

TRENCH COMPACTION RESULTS TO BE SUBMITTED BY CONSULTANT WITH 'AS CONSTRUCTED'

WARNING; ENTRY INTO ANY MAINTENANCE HOLE IS CONTROLLED BY CONFINED SPACE REGULATIONS BEING "OCCUPATIONAL HEALTH & SAFETY (CONFINED SPACES) REGULATIONS

POWER LINES AS SET BY THE CHIEF ELECTRICAL INSPECTOR WHERE NECESSARY AN

14. WATER RESTRICTIONS ARE TO APPLY FROM MIDNIGHT JUNE 30th 2006, IN ACCORDANCE

12. WORKS SHALL BE EFFECTED BETWEEN THE HOURS OF 8:00am AND 5:00pm MONDAY -

OPERATIONS WHERE TRENCHES ARE 1.5 METRES OR DEEPER.

7. ALL SERVICES ARE TO BE LOCATED ON SITE PRIOR TO ANY EXCAVATION.

(AHD) CONNECTION IS TO BE PROVIDED BY CONTRACTOR

ACCREDITED TRAINED SPOTTER IS TO BE PROVIDED.

PER BARWON WATER STANDARD DRAWING 70095.

BE PLACED OUT OF THE MANHOLE.

5226 9204 FOR ANY REQUIREMENTS

DAYS PRIOR TO ENTRY.

6. ALL SEWERS ARE TO BE PVC-SN8

CEMENT STABILISED SAND.

BARWON WATERS SUPPLEMENTS TO THE CODES.

NOTICE PRIOR TO COMMENCEMENT OF WORKS.

6. CONTACT PRIOR TO COMMENCEMENT OF WORKS:

VICTORIAN WORKCOVER AUTHORITY

PRIOR TO COMMENCEMENT OF WORKS

THE SENIOR QUALITY AUDITOR.

MAINTENANCE HOLES.

CITY OF GREATER GEELONG

POWERCOR

TELSTRA

3. THE CONTRACTOR SHALL

OF AUSTRALIA STANDARD CODES (WSA 02-2002 - WSA 03-2002) IN CONJUNCTION WITH

3.A. COMPLY WITH SAFETY REQUIREMENTS OF THE MINES ACT, GENERAL REGULATIONS AND

NOTIFY THE DEPARTMENT OF LABOUR OF HIS INTENTION TO COMMENCE TRENCHING

THE CONTRACTOR SHALL MAKE ALL WORKS AVAILABLE FOR THE INSPECTOR/SURVEYOR TO

CONTACTED PRIOR TO THE COMMENCEMENT OF EXCAVATION TO ESTABLISH THEIR EXACT

INSURE THAT THE MINE MANAGER OR HIS DEPUTY AS REQUIRED BY THE REGULATIONS

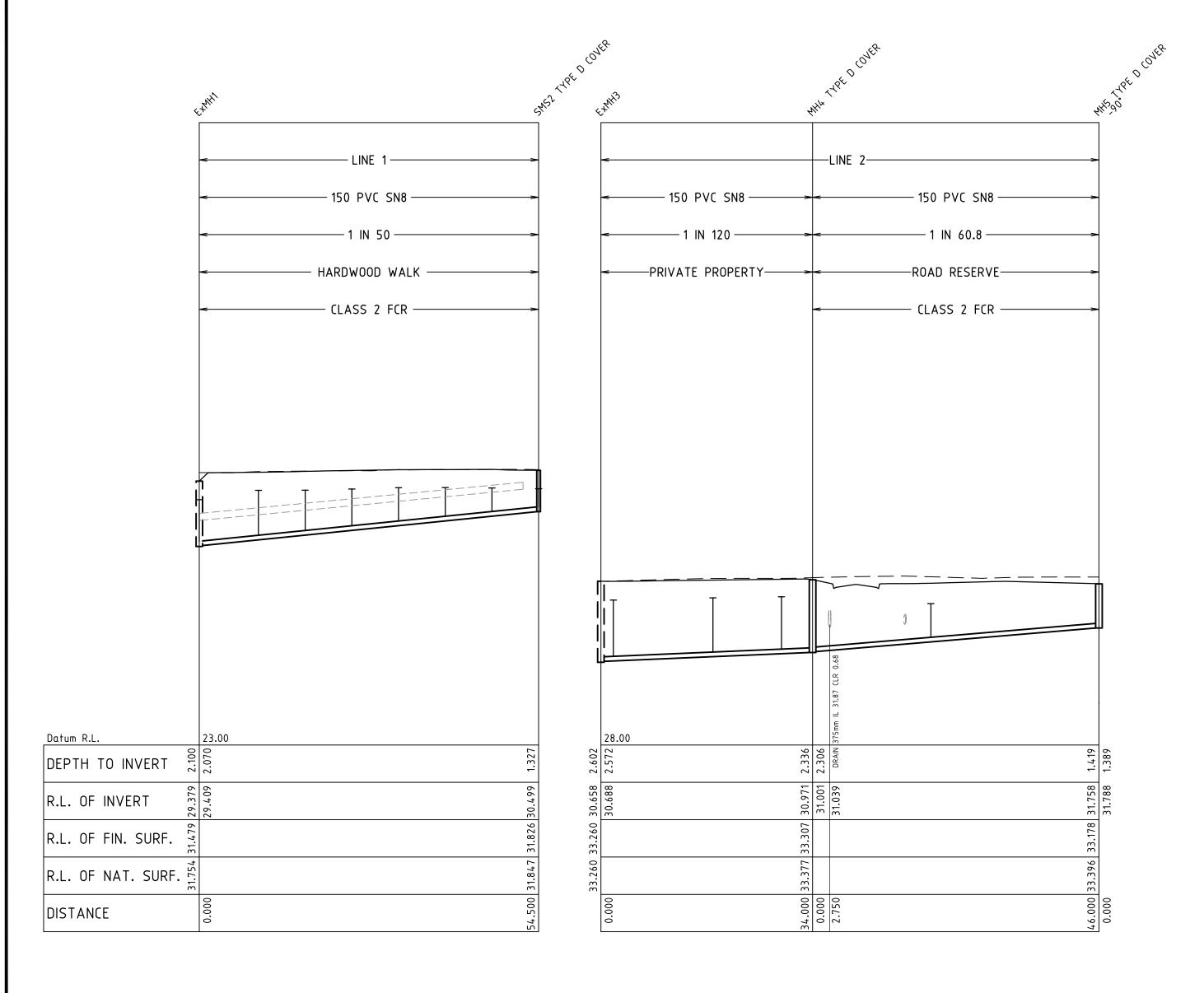
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Barwon Region Water Authority Barwon Water No. L007788

Estuary Stage 11A Sewer Detail Plan

Drawing No. 0250EHL-11A-51

Rev B



LINE NO.	MANHOLE NO.	H C N O .	LOT NAME	CONNECTION TYPE	CHAINAGE	IL SEWER	IL BRANCH	B R A N C H H E I G H T
1	ExMH1	1	Lot 1123	A Special	0.00	29.38	30.88	1.50
1	ExMH1	2	Lot 1124	A Special	9.50	29.59	31.18	1.59
1	ExMH1	3	Lot 1125	A Special	17.00	29.74	31.19	1 . 4 5
1	ExMH1	4	Lot 1126	A Special	24.50	29.90	31.23	1.33
1	ExMH1	5	Lot 1127	A Special	32.00	30.05	31.27	1 . 2 2
1	ExMH1	6	Lot 1128	A Special	39.50	30.20	31.27	1.07
1	EXMH1	7	Lot 1129	A Special	47.00	30.35	31.26	0.91
1	MS2	8	Lot 1130	A Special	0.00	30.50	31.23	0.73
2	ExMH3	9	Lot 1127	В	2.00	30.70	32.66	1.96
2	ExMH3	1 0	Lot 1128	В	18.00	30.84	32.73	1 . 8 9
2	ExMH3	1 1	Lot 1129	A Special	29.00	30.93	32.76	1 . 8 3
2	M H 4	1 2	Lot 1122	A Special	19.00	31.31	32.54	1 . 2 3

WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED BY BARWON WATER

ACCEPTED BY BARWON WATER DEVELOPMENT SERVICES CO-ORDINATOR

DEVELOPMENT & CONSERVATION

01.03.12 CB/CB JG Leopold Property Developments Pty Ltd B BARWON WATER AMENDMENTS Level 1, 6 Riverside Quay A ISSUED TO BARWON WATER FOR APPROVAL Southbank, Victoria 3006 DATE DES/DFT APP'D

Construction of the sewer and water mains is to be in accordance with the Barwon Water standard specifications
"Construction of gravity sewers and rising mains" and "Construction of Every endeavour to ensure the

in metres.

otherwise shown.

location of all existing services on the plan are correct. However actual locations are to be checked on site prior to commencement of excavations. Nominal size of water mains indicated in millimetres & offsets are indicated

4. All sewer pipes are 150Ømm unless

Construction Notes

C. Barker Checked C. Birkett Authorised J .Golden

November 2011

Designed

Scale @ A1 H1:500, V1:100

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 Melbourne
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 Canberra
 +61
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 1900
 Traralgon
 +61
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 5173
 0100

Barwon Region Water Authority Barwon Water No. L007788

Estuary Stage 11A
Sewer Longitudinal Sections

Drawing No. 0250EHL-11A-52 Rev B Sheet No. 2 of 2

LEGEND - WATER PLAN □ □ □ STORMWATER DRAIN & PIT ───── CHANGE OF PIPE SIZE ——→ MAINS NOT CONNECTED —=== MAINS IN CONDUIT ──── VALVE ───── NON RETURN VALVE ──── FIRE PLUG ── DEAD END CAP ——Ex E—— EXISTING ELECTRICITY (UNDERGROUND) ——O/H E—— EXISTING ELECTRICITY (OVERHEAD) ——Ex G—— EXISTING GAS ——Ex T—— EXISTING TELSTRA ---Ex W--- EXISTING WATER Ex D EXISTING STORMWATER DRAIN O—Ex S— EXISTING SEWER 141.34 EXISTING SURFACE LEVEL FS140.35 FINISHED BUILDING LINE LEVEL FR157.40 FINISHED RIDGE LINE LEVEL PERMANENT SURVEY MARK TEMPORARY BENCH MARK SWAB DIRECTION PIPE TYPES ASBESTOS CEMENT CICL CAST IRON CEMENT LINED DICL DUCTILED CEMENT LINED MSCL MILD STEEL CEMENT LINED PVCPOLYVINAL CHLORIDE POLYETHYLENE (AS SPECIFIED) REINFORCED CONCRETE VITREOUS CLAY

WARNING **BEWARE OF UNDERGROUND SERVICES** The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works **DIAL 1100 BEFORE YOU DIG** www.1100.com.au

ALL CONNECTIONS WITHIN PROPERT' SERVICE NODE WATERSIDE LANE

SERVICING DETAIL PLAN

MEDIUM DENSITY LOTS 1123 TO 1130 WILL BE CONSTRUCTED AS HOUSE AND LAND PACKAGES WITH SET BUILDING ENVELOPES AND FIXED GARAGE AND VEHICLE ACCESS. WATER TAPPING POINTS AS SHOWN IN THE DETAIL ARE NON STANDARD AND WE REQUESTED BARWON WATER APPROVAL TO THIS ARRANGEMENT

SURVEY STATIONS (HORIZONTAL - ARBITARY, VERTICAL - AHD)

21.19

28.62

NORTHING

48560.27

48587.59

EASTING

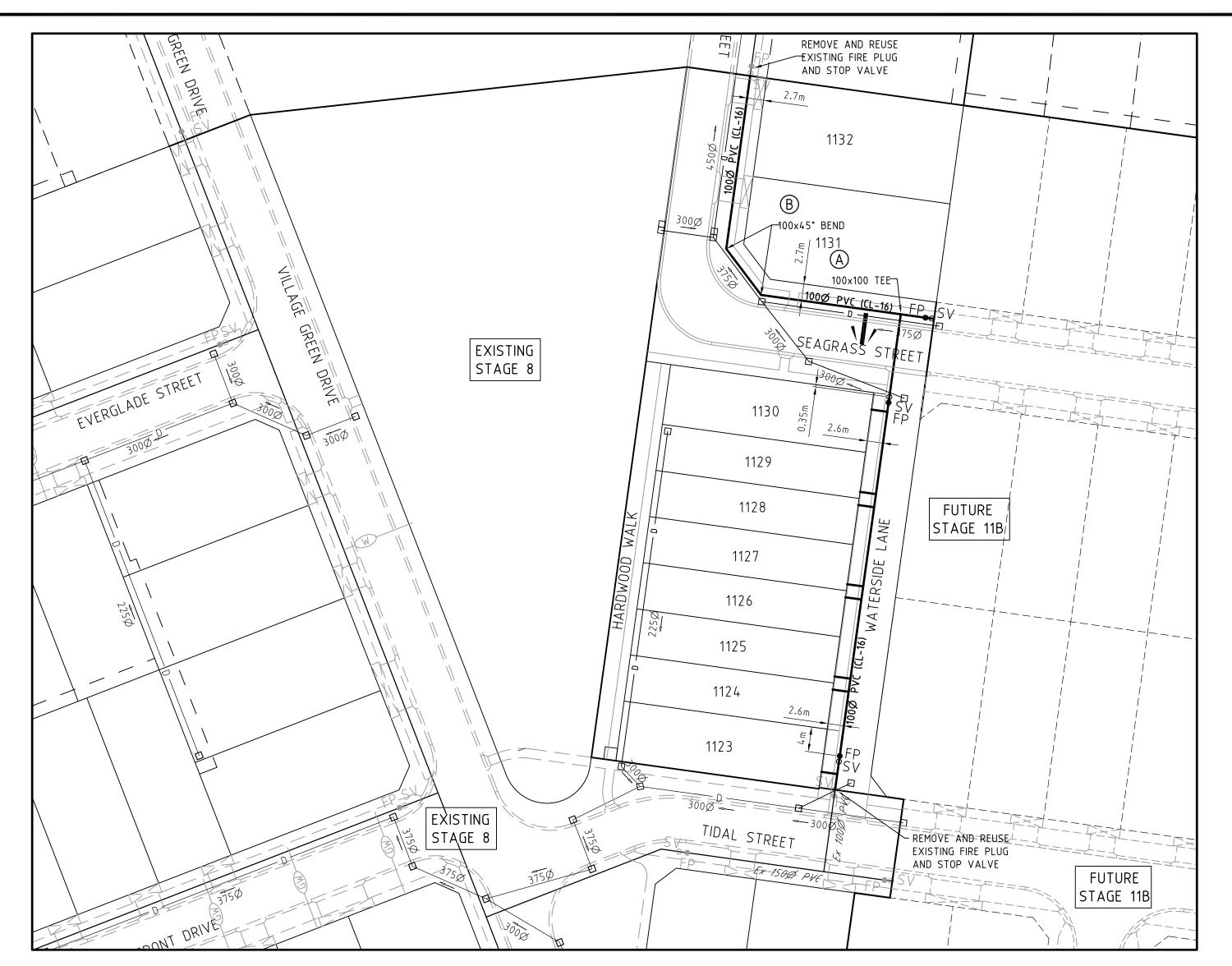
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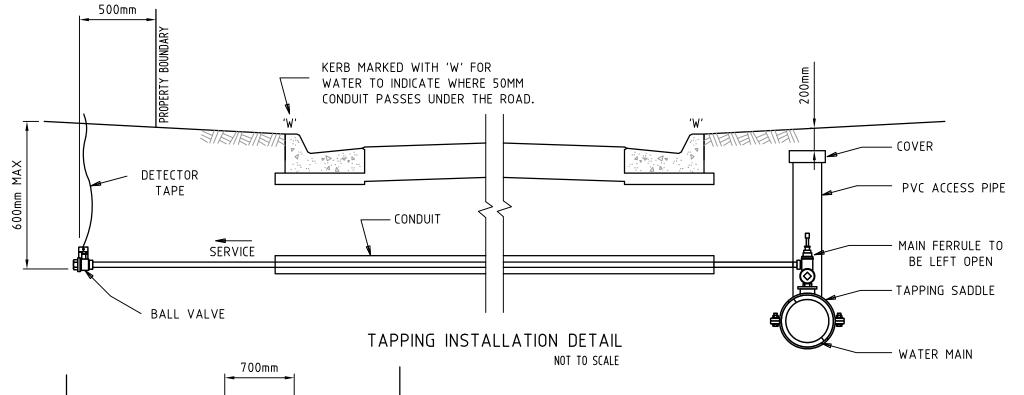
10309.58

R0D501

ROD502

MOOLAP PM69	1000.00	50000.00	-	BRASS PLAQUE
MOOLAP PM321	9897.742000	48994.921	9.436	BRASS PLAQUE
MOOLAP PM302	10212.03	48959.504	22.180	BRASS PLAQUE
		SURVEY CONTR	ROL	
TBM	EASTING	NORTHING	RL	DESCRIPTION
ROD501	277245.07	5768919.27	21.19	ROD
ROD502	277448.31	5768946.60	28.62	ROD
MOOLAP PM69	277138.66	5770359.31	-	BRASS PLAQUE
MOOLAP PM321	277040	5769480	9.436	BRASS PLAQUE
MOOLAP PM302	277310	5769280	22.180	BRASS PLAQUE





- 1. ALL LOTS ARE TO BE TAPPED USING A TAPPING SADDLE AND PRESSURE
- A MINIMUM SIZE SERVICE (IE 20MM COPPER, 25MM PE) IS THEN TO BE EXTENDED TO A POINT 500MM WITHIN THE PROPERTY.
- SERVICE PIPE BETWEEN MAIN FERRULE AND BALL VALVE TO BE A CONTINUOUS LENGTH (IE NO JOINS)
- 4. SERVICE TO BE TYPE 'B' COPPER OR CLASS 12 TYPE 50 PE.

FERRULE.

- IN THE CASE OF PE OR ANY OTHER NON-METALLIC SERVICE BEING
- INSTALLED. A COPPER TRACE WIRE IS TO BE INCORPORATED. A BURIED BALL VALVE IS TO BE PLACED AT THE END OF THE SERVICE.
- DETECTOR TAPE IS TO BE RUN TO SURFACE LEVEL.
- 8. BALL VALVE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARDS (IE STAMPED 'W') BRASS FITTING WITH STAINLESS STEEL BALL.

			SERVICES OFFS	SET SCHEDULE				
ROAD NAME	GAS		WATER		ELECTRICITY		COMMUNICATIONS	
ROAD NAME	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
SEAGRASS STREET EAST/WEST	NORTH	2.10	NORTH	2.70	SOUTH	2.30	SOUTH	1.70
SEAGRASS STREET NORTH/SOUTH	EAST	2.10	EAST	2.70	EAST	3.90	EAST	3.30
WATERSIDE LANE	WEST	2.10	WEST	2.60	WEST	1.40	WEST	0.70

DESIGN HEAD=105.3m AHD TEST PRESSURE=1600kPa

NOTES GENERAL

- 1. WATERMAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE WATER SERVICES ASSOCIATION OF AUSTRALIA STANDARD CODES (WSA 02-2002 - WSA 03-2002) IN CONJUNCTION WITH BARWON WATERS SUPPLEMENTS TO THE CODES.
- 2. BARWON WATER AND THE PROJECT MANAGER TO BE NOTIFIED 7 CLEAR WORKING DAYS NOTICE PRIOR TO COMMENCEMENT OF WORKS.
- 3. THE CONTRACTOR SHALL 3.A. COMPLY WITH SAFETY REQUIREMENTS OF THE MINES ACT, GENERAL REGULATIONS AND STATUTORY RULES, AND THE MINES (TRENCHES)
- REGULATIONS 1982. NOTIFY THE DEPARTMENT OF LABOUR OF HIS INTENTION TO COMMENCE
- TRENCHING OPERATIONS WHERE TRENCHES ARE 1.5 METRES OR DEEPER. INSURE THAT THE MINE MANAGER OR HIS DEPUTY AS REQUIRED BY THE REGULATIONS IS IN ATTENDANCE WHEN TRENCHING OPERATIONS ARE IN
- 4. THE CONTRACTOR SHALL MAKE ALL WORKS AVAILABLE FOR THE INSPECTOR/SURVEYOR TO CARRY OUT THE NECESSARY INSPECTIONS AND
- SURVEYING BEFORE BACKFILLING IS COMMENCED. 5. SERVICES ARE APPROXIMATE ONLY. ALL RELEVANT SERVICE AUTHORITY'S ARE TO BE CONTACTED PRIOR TO THE COMMENCEMENT OF EXCAVATION TO
- ESTABLISH THEIR EXACT LOCATION. 6. CONTACT PRIOR TO COMMENCEMENT OF WORKS: CITY OF GREATER GEELONG

POWERCOR TELSTRA

VICTORIAN WORKCOVER AUTHORITY

- 7. ALL SERVICES ARE TO BE LOCATED ON SITE PRIOR TO ANY EXCAVATION. 8. INVERT LEVELS OF EXISTING SEWERS AND WATERMAINS TO BE CHECKED PRIOR TO THE COMMENCEMENT OF WORKS.
- 9. CLASS 2 BACKFILL TO BE USED UNDER DRIVEWAYS FOR WATER RETICULATION. 10. PROPERTY OWNERS ARE TO BE NOTIFIED IN WRITING BY THE CONSULTANT 14
- CLEAR DAYS PRIOR TO COMMENCEMENT OF WORKS 11. COPY OF CADASTRAL MAP GRID (MGA) CONNECTION & COPY OF AUSTRALIAN
- HEIGHT DATUM (AHD) CONNECTION IS TO BE PROVIDED BY CONTRACTOR
- 12. WORKS SHALL BE EFFECTED BETWEEN THE HOURS OF 8:00am AND 5:00pm MONDAY - FRIDAY. IN THE EVENT THAT WORKS ARE TO BE EFFECTED OUTSIDE
- THESE WORKING HOURS, A LETTER REQUESTING APPROVAL FOR SUCH OUT OF HOURS WORK SHALL BE LODGED TO THE SENIOR QUALITY AUDITOR. 13. THE CONTRACTOR SHALL COMPLY WITH SAFETY REQUIREMENTS RELATING TO
- WORKING NEAR POWER LINES AS SET BY THE CHIEF ELECTRICAL INSPECTOR WHERE NECESSARY AN ACCREDITED TRAINED SPOTTER IS TO BE PROVIDED. 14. WATER RESTRICTIONS ARE TO APPLY FROM MIDNIGHT JUNE 30th 2006, IN ACCORDANCE WITH BY-LAW NO. 187. ONLY TRIGGER HOSES (MAXIMUM SIZE
- 25mm) MAY BE USED FOR CONSTRUCTION WORK NOT INCLUDING TRENCHING UNLESS OTHERWISE EXEMPTED BY THE AUTHORITY IN WRITING. MECHANICAL COMPACTION IS TO BE USED IN ACCORDANCE WITH MRWA SPECIFICATION 04-03 FOR TRENCH WORKS UNTIL FURTHER NOTICE. ANY WATER USED TO FLUSH WATER MAINS IS TO BE RECLAIMED AND USED FOR CONSTRUCTION PURPOSES.
- 1. ENSURE WATERMAINS ARE GRADED TO SUFFICIENT DEPTH UNDER ROADWAYS TO OBTAIN REQUIRED CLEARANCE UNDER STORM WATER DRAINS AND PAVEMENT
- 2. MARKER POSTS TO BE PLACED AT FIRE PLUGS. FIRE PLUG INDICATORS ARE TO
- BE IN ACCORDANCE WITH CFA & WSAA REQUIREMENTS. 3. ALL ALLOTMENTS ARE TO BE PROVIDED WITH A WATER SERVICE AS PART OF WATER RETICULATION WORKS. THE WATER MAIN IS TO BE TAPPED USING A TAPPING SADDLE AND PRESSURE FERRULE (FERRULE TO BE LEFT OPEN). A MINIMUM SIZE SERVICE (i.e. 20mm COPPER, 25mm PE) IS THEN TO BE EXTENDED TO A POINT 500mm WITHIN THE PROPERTY. THE SERVICE IS TO BE A CONTINUOUS LENGTH WITH NO JOINTS. IN THE CASE OF PE OR ANY OTHER NON-METALLIC SERVICE BEING INSTALLED, A COPPER TRACE WIRE IS TO BE INCORPORATED. A BURIED BALL VALVE IS TO BE PLACED AT THE END OF THE SERVICE AND BACKFILLED WITH SAND TO DESIGN SURFACE LEVEL. DETECTOR
- TAPE FROM BALL VALVE TO BE RUN TO SURFACE LEVEL. 4. PE PIPE TO BE LAID IN ACCORDANCE WITH WSA-01 WITH LONG RADIUS BENDS OR DEFLECTION ONLY. NO COMPRESSION BENDS TO BE USED.
- 5. <u>AC PIPE NOTE</u> ANY WORK INVOLVING THE REMOVAL (CUTTING AND HANDLING). STORAGE. TRANSPORTATION AND DISPOSAL OF WASTE ASBESTOS CEMENT (AC) PIPES MUST BE CARRIED OUT IN ACCORDANCE WITH THE OCCUPATIONAL, HEALTH AND SAFETY (ASBESTOS) REGULATIONS 1992 AND RELEVANT CODES OF PRACTICE (REMOVAL), THE ENVIRONMENT PROTECTION (PRESCRIBED WASTE) REGULATIONS 1998 (STORAGE, TRANSPORTATION AND DISPOSAL), AND BARWON WATER'S
- SAFETY MANAGEMENT SYSTEM "SAFEAS". 6. FITZROY BOXES ARE TO BE PLACED OVER MONT TAP (MT) OR ANY TAPPING LOCATED WITHIN THE ROAD PAVEMENT. 7. THRUST BLOCKS ARE TO BE CONSTRUCTED AS PER BARWON WATER STANDARD
- DRAWING No'S 70104, 70105 AND 70106 8. SWABBING OF WATER MAINS IS TO BE DONE IN ACCORDANCE WITH SECTION 6.7 AND SECTION 18 OF WSAA WATER SUPPLY CODE OF AUSTRALIA WSA 03-2002
- 9. ALL WATER MAINS MUST BE HYDROSTATIC PRESSURE TESTED IN ACCORDANCE WITH SECTION 19.4 OF WSAA WATER SUPPLY CODE OF AUSTRALIA WSA 03-2002 MRWA EDITION 1.0. THE CONTRACTOR MUST BE GIVE BARWON WATER THREE WORKING DAYS NOTICE IN WRITING OF THE DATE AND TIME OF THE PROPOSED HYDROSTATIC PRESSURE TESTING TO ENSURE THAT BARWON WATER HAS THE OPPORTUNITY TO WITNESS THESE TESTS.
- 1. TRENCH COMPACTION RESULTS TO BE SUBMITTED BY CONSULTANT WITH 'AS CONSTRUCTED' NOTES.

THRUST RESTRAINT SCHEDULE								
LOCATION		TYPE	AREA (m²)	NUMBER				
Α	A SEAGRASS STREET		CONCRETE	0.32	1			
В	SEAGRASS STREET		SEAGRASS STREET CONCRETE		0.24	2		
NEW WATER MAINS								
	SIZE		TYPE	LENG	TH			
	100	P	VC (CL-16)	142.	8m			

WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED BY BARWON WATER

ACCEPTED BY BARWON WATER DEVELOPMENT SERVICES CO-ORDINATOR

DEVELOPMENT & CONSERVATION

Rev B

Construction Notes Designed Construction of the sewer and water © SMEC Australia Pty Ltd mains is to be in accordance with the C. Barker ABN 47 065 475 149 Barwon Water standard specifications These designs and drawings are "Construction of gravity sewers and Drawn the copyright of SMEC Australia Estuary rising mains" and "Construction of C. Barker Pty Ltd.

01.03.12 | CB/CB | B BARWON WATER AMENDMENTS Level 1, 6 Riverside Quay A ISSUED TO BARWON WATER FOR APPROVAL |09.02.12| CB/CB | Southbank, Victoria 3006

DESCRIPTION

ROD

ROD

Leopold Property Developments Pty Ltd

DATE DES/DFT APP'D

BARWON

PROPERTY BOUNDARY

BARWON WATER MAIN-

WATER

TAPPING-

Every endeavour to ensure the location of all existing services on the plan are correct. However actual

All sewer pipes are 150Ømm unless

excavations.

otherwise shown.

in metres.

- OTHER

TAPPING OFFSET DETAIL

NOT TO SCALE

SERVICES

locations are to be checked on site prior to commencement of Nominal size of water mains indicated in millimetres & offsets are indicated

Checked C. Birkett Authorised J .Golden

November 2011

Scale @ A1 1:500 0 5 10 ____

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Barwon Region Water Authority Barwon Water No. L007788

Stage 11A Water Detail Plan

Drawing No. 0250EHL-11A-61 Sheet No.