

ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

ISO 9001
QUALITY
ASSURED

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OR ALTERED, WITHOUT THE WRITTEN PERMISSION OF HARRISON GRIERSON CONSULTANTS
LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
3. EARTHWORKS VOLUMES :
AREA = 63221.3m²
CUT VOLUME (UNADJUSTED) = 53,392m³
FILL VOLUME (UNADJUSTED) = 14,697m³
NET (UNADJUSTED) = 38,695m³ CUT
4. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

LEGEND:

- CUT CONTOURS SHOWN AT 0.5m
INTERVALS
- FILL CONTOURS SHOWN AT 0.5m
INTERVALS
- EARTHWORK BOUNDARY

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF
THE WORKS UNDERTAKEN AND THAT:
• THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD
(2000), AND ARE WITHIN ±50mm.
• THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL)
LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed:
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com

HG AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

CUT AND FILL
AS-BUILT PLAN

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	24.11.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
DDS	24.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		23.11.20

ISSUE STATUS: AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:1000-A1 1:2000-A3	
DRAWING No:		REV

142875-13-AB220 A

OVERLAND FLOWPATH
LEVEL IN 1% AEP
STORM EVENT

142875-13-AB455	A
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NOTES:

1. LEVELS ARE IN TERMS OF AUCKLAND VERTICAL DATUM 1946

ORIGIN OF LEVELS
SS 66 SO 48643
RL 54.50
2. CATCHMENT AREAS AND DISCHARGE FLOWS INCORPORATE FUTURE OVERLAND FLOWPATH GENERATION FROM UPSTREAM DEVELOPMENT.
3. ALL FLOWPATHS ARE WITHIN THE LEGAL ROAD WIDTH.


LEGEND:

OVERLAND FLOWPATH
LEVEL IN 1% AEP
STORM EVENT

ENGINEERING APPROVAL
ENG-60349136

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HC

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A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

OVERLAND FLOW PATH
AS-BUILT CROSS SECTIONS
2 OF 3

ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No: 1050-142875-01	SCALES: AS SHOWN	A1
DRAWING No:		REV

142875-13-AB456

A

FLOW 1484 L/s
VELOCITY 1.63 m/s

0.076m DEEP

E
467

OLFP CROSS SECTION E

SCALE 1:50 -A1
1:100 -A3

FLOW 814 L/s
VELOCITY 2.24 m/s

0.134m DEEP

F
466

OLFP CROSS SECTION F

SCALE 1:50 -A1
1:100 -A3

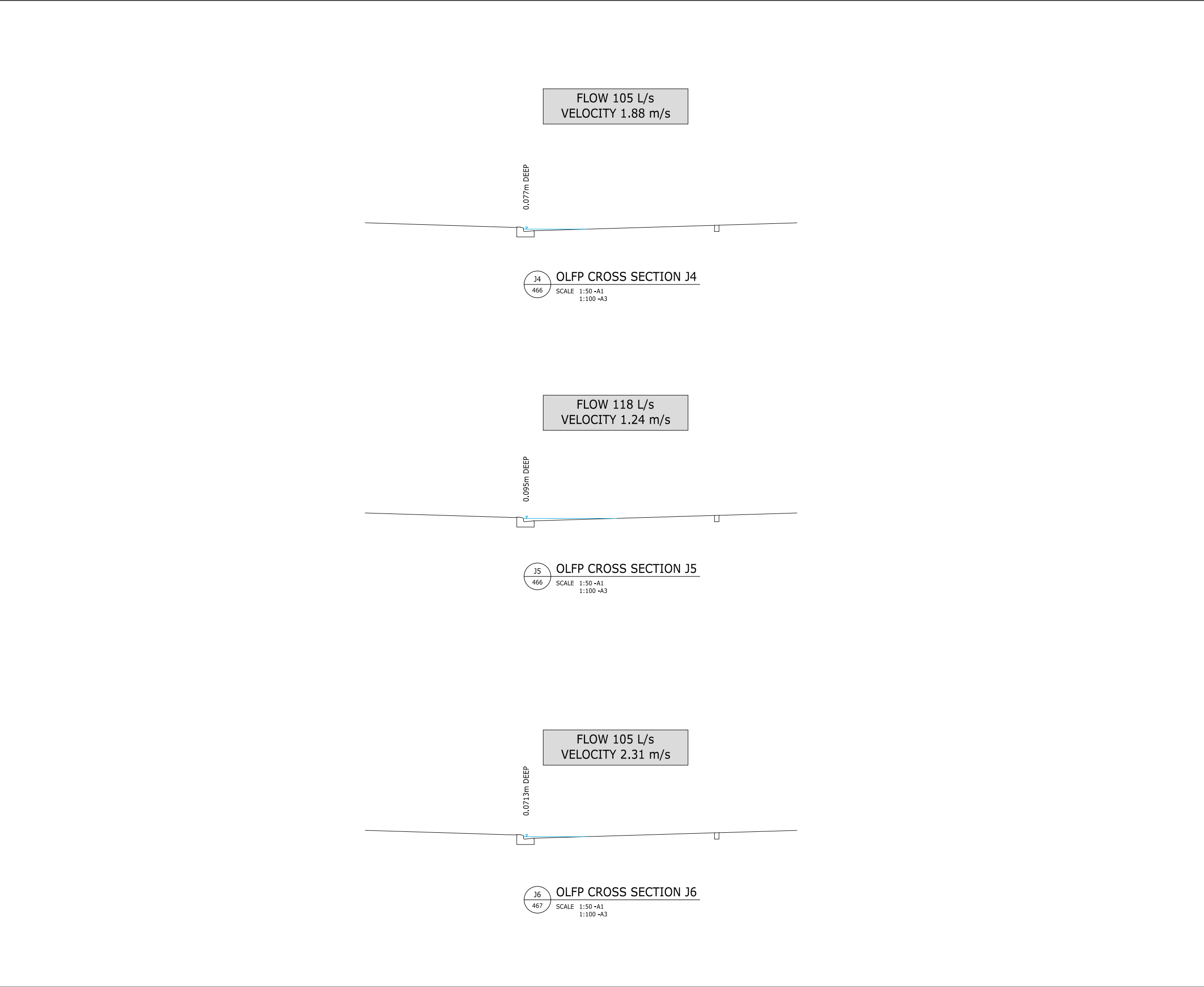
FLOW 1072 L/s
VELOCITY 2.25 m/s


0.106m DEEP

J
466

OLFP CROSS SECTION J

SCALE 1:50 -A1
1:100 -A3





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NOTES:

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RL 54.50

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3. ALL FLOWPATHS ARE WITHIN THE LEGAL ROAD WIDTH.


LEGEND:

OVERLAND FLOWPATH
LEVEL IN 1% AEP
STORM EVENT

ENGINEERING APPROVAL
ENG-60349136

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W www.harrisongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

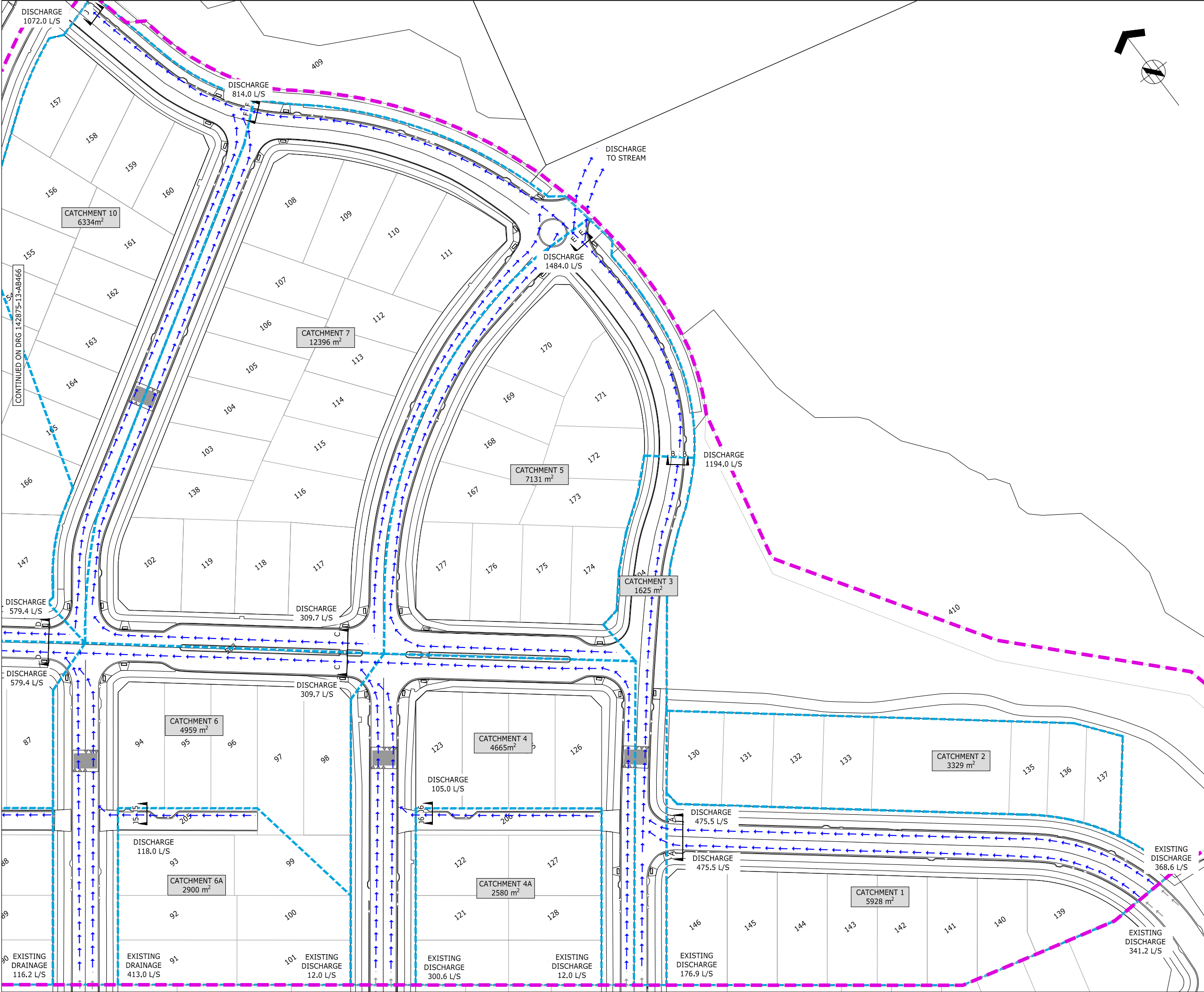
OVERLAND FLOW PATH
AS-BUILT CROSS SECTIONS
3 OF 3

ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No: 1050-142875-01	SCALES: AS SHOWN	A1
DRAWING No:		REV
142875-13-AB457		A





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NOTES:

1. REFER TO OVERLAND FLOW PATH ASBUILT CROSS SECTION DRAWINGS 142875-13-AB455 TO AB457 FOR FLOWS AND VELOCITIES.

LEGEND:



CATCHMENT BOUNDARIES



OVERLAND FLOWPATHS



STAGE BOUNDARIES

ENGINEERING APPROVAL
ENG-60349136

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REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

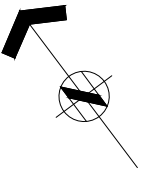
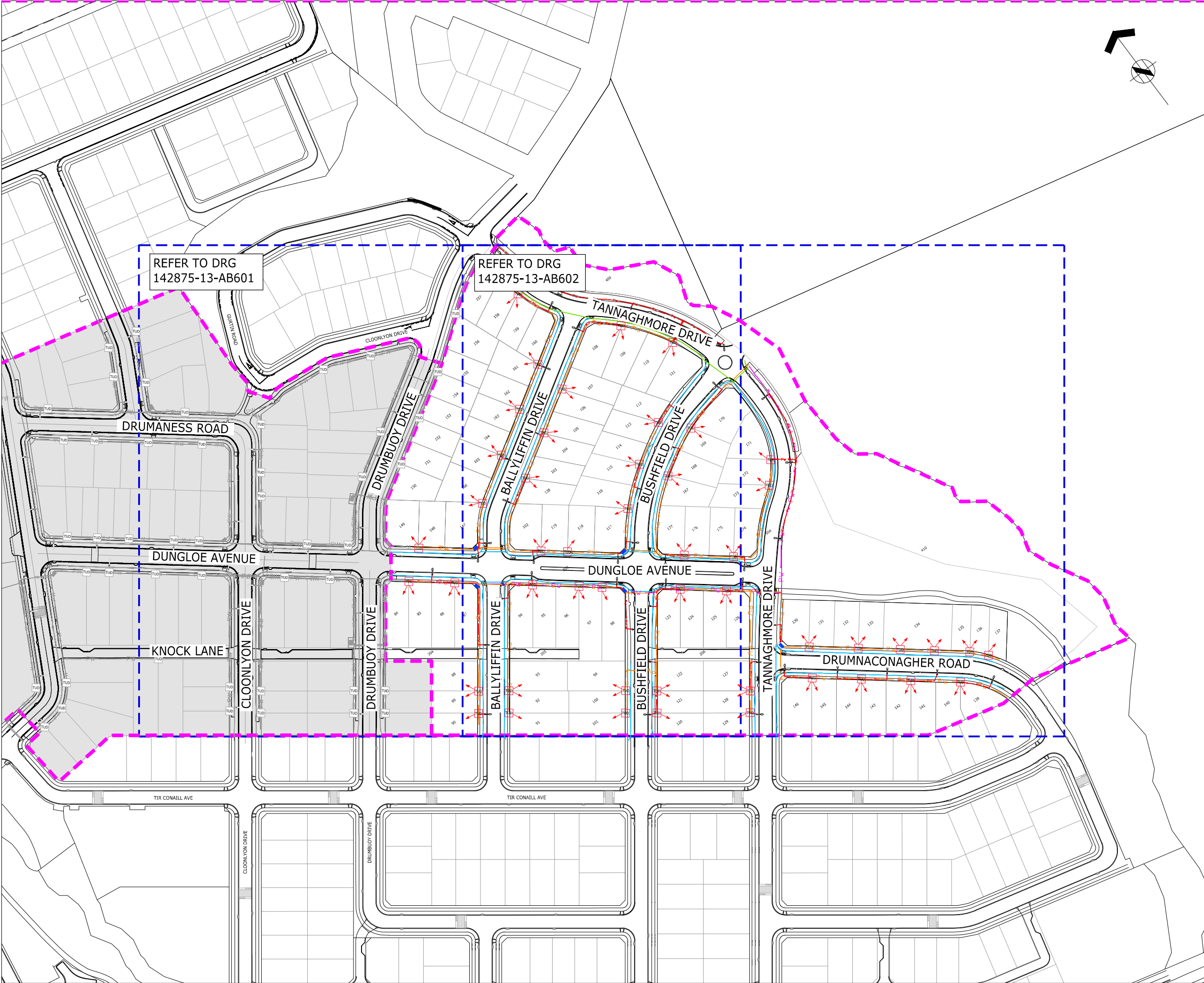
100 YEAR OVERLAND FLOWPATH
AS-BUILT PLAN
SHEET 2 OF 2


ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	
DRAWING No:	REV	A
142875-13-AB467		





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NOTES:

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S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.


LEGEND:

- STAGE BOUNDARY
- NEW GAS 50 PVC PIPE
- NEW GAS 100 PVC PIPE
- PW NEW LV POWER
- PW NEW HV POWER
- NEW STREETLIGHT CABLE
- NEW POWER TUD
- NEW STREETLIGHT
- LINK PILLAR
- NEW POWER CONNECTION

ENGINEERING APPROVAL
ENG-60349136

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W www.harrissongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVE, FLATBUSH

TITLE:

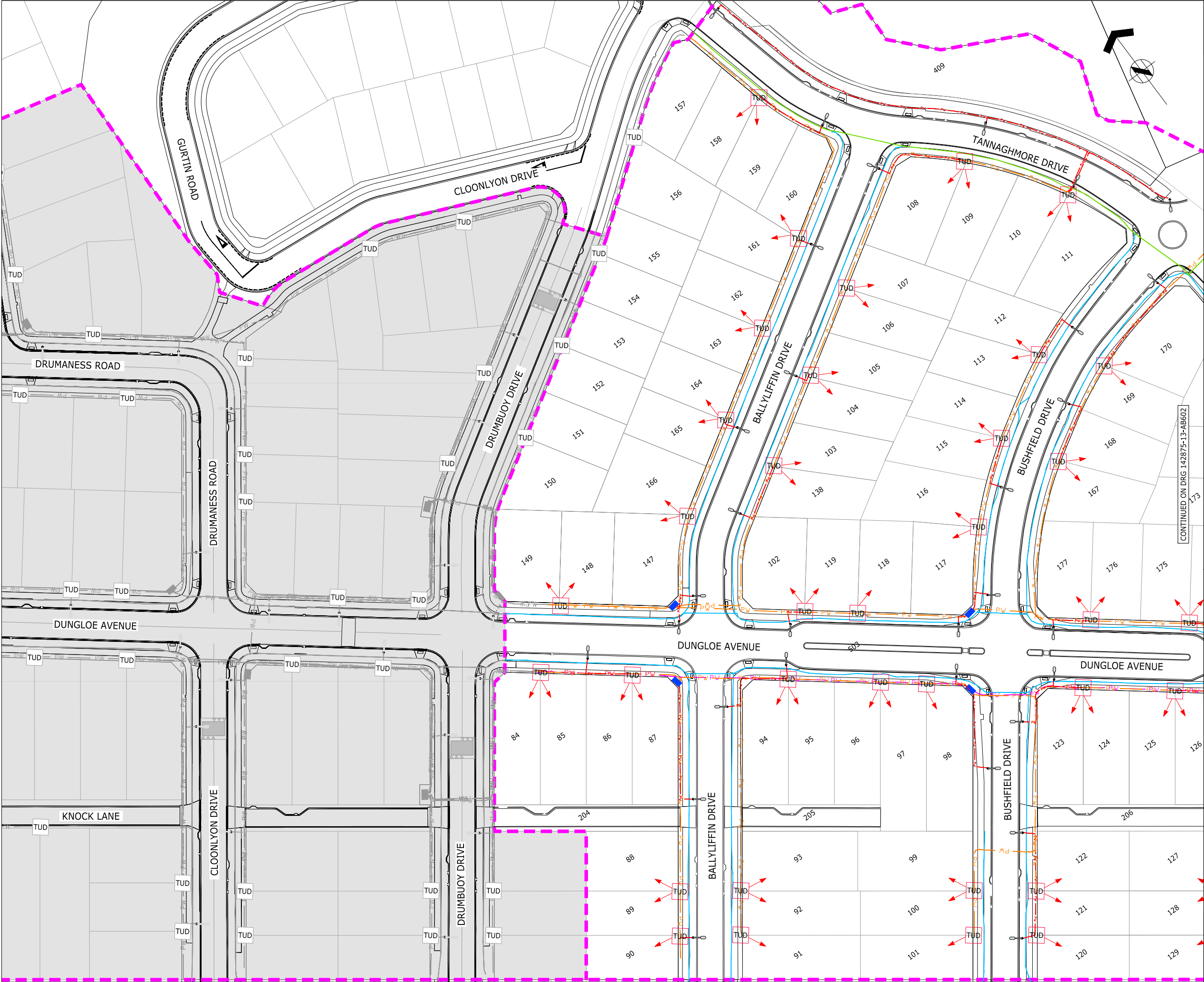
OVERALL POWER AND GAS
SERVICES AS-BUILT PLAN


ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:1000-A1 1:2000-A3	
DRAWING No:		REV
142875-13-AB600		A





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NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m

2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

LEGEND:

STAGE BOUNDARY

NEW GAS 50 PVC PIPE

NEW GAS 100 PVC PIPE

NEW LV POWER

NEW HV POWER

NEW STREETLIGHT CABLE

TUD

NEW POWER TUD

TUD

NEW STREETLIGHT

█

LINK PILLAR

----->


NEW POWER CONNECTION

ENGINEERING APPROVAL
ENG-60349136

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HG

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PARNELL AUCKLAND 1052
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W www.harrissongrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVE, FLATBUSH

TITLE:

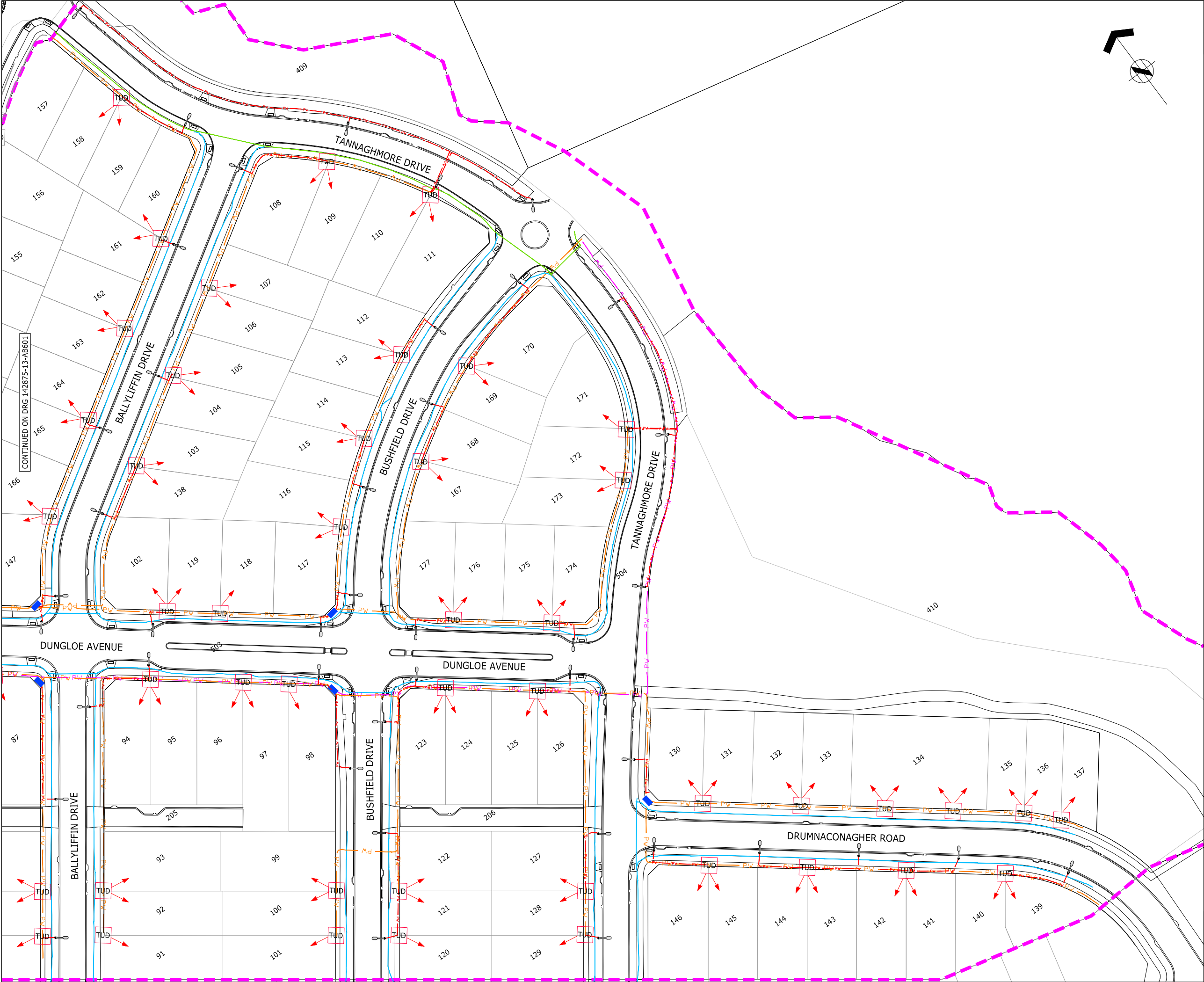
POWER AND GAS
SERVICES AS-BUILT PLAN
SHEET 1 OF 2


ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	
DRAWING No:	REV	A
142875-13-AB601		





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NOTES:

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S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.


LEGEND:

- STAGE BOUNDARY
- NEW GAS 50 PVC PIPE
- NEW GAS 100 PVC PIPE
- PW NEW LV POWER
- PW NEW HV POWER
- NEW STREETLIGHT CABLE
- NEW POWER TUD
- NEW STREETLIGHT
- LINK PILLAR
- NEW POWER CONNECTION

ENGINEERING APPROVAL
ENG-60349136

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A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVE, FLATBUSH

TITLE:

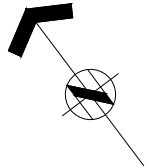
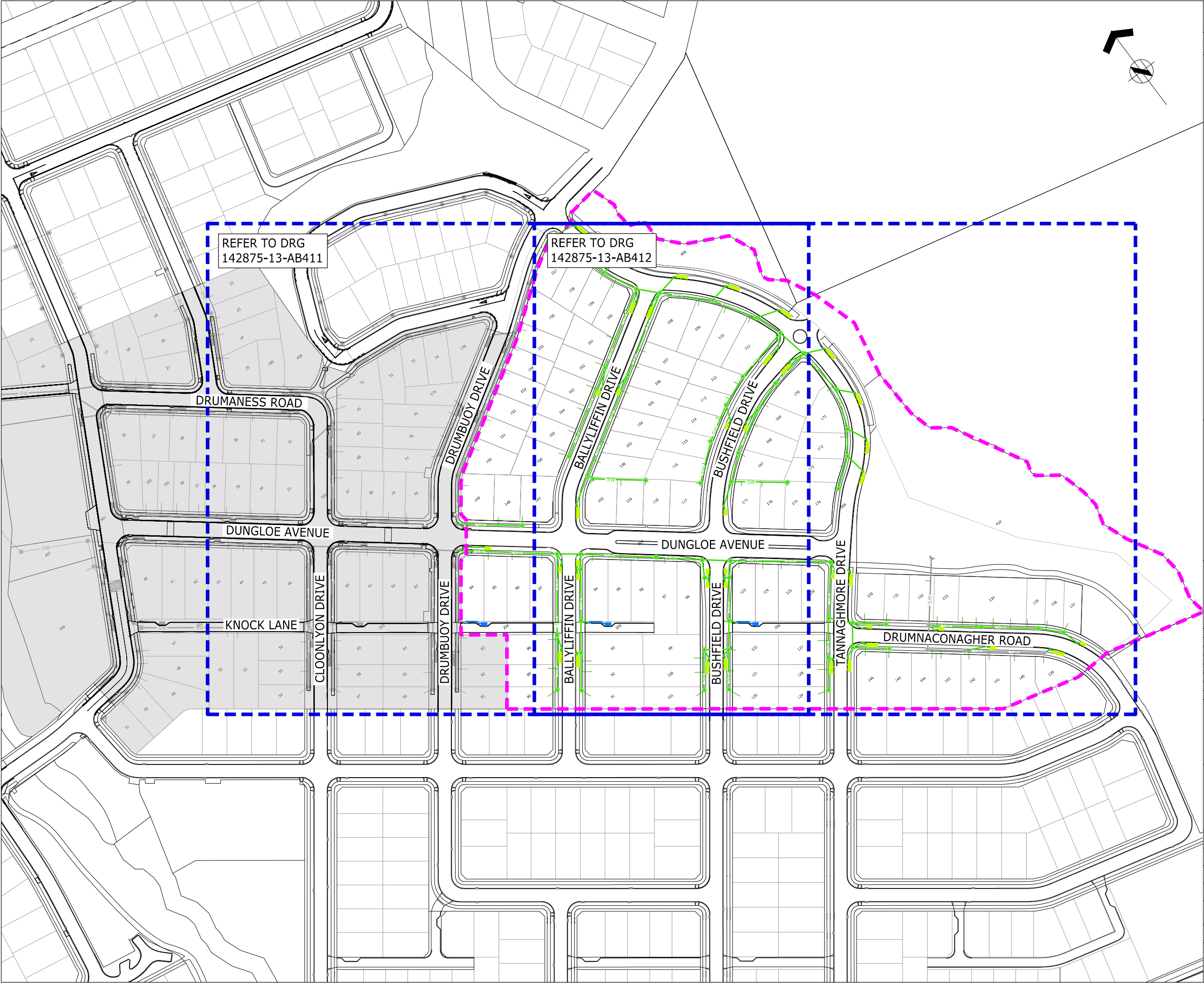
POWER AND GAS
SERVICES AS-BUILT PLAN
SHEET 2 OF 2


ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	
DRAWING No:		REV
142875-13-AB602		A





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RL 54.50m

2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

LEGEND:

SW

NEW PUBLIC STORMWATER

NEW PUBLIC/ PRIVATE CATCHPIT

NEW LOT CONNECTION

EXISTING LOT CONNECTION

SW

EXISTING SW LINE, MH AND CP

NEW RAINGARDEN (PUBLIC)

NEW RAINGARDEN (PRIVATE)

EXISTING RAINGARDEN


STAGE BOUNDARY

NEW PRIVATE CONNECTION

ENGINEERING APPROVAL
ENG-60349136

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A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLATBUSH

TITLE:

OVERALL RAINGARDEN
AS-BUILT PLAN

ORIGINATOR: DDS	DATE: 27.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 27.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

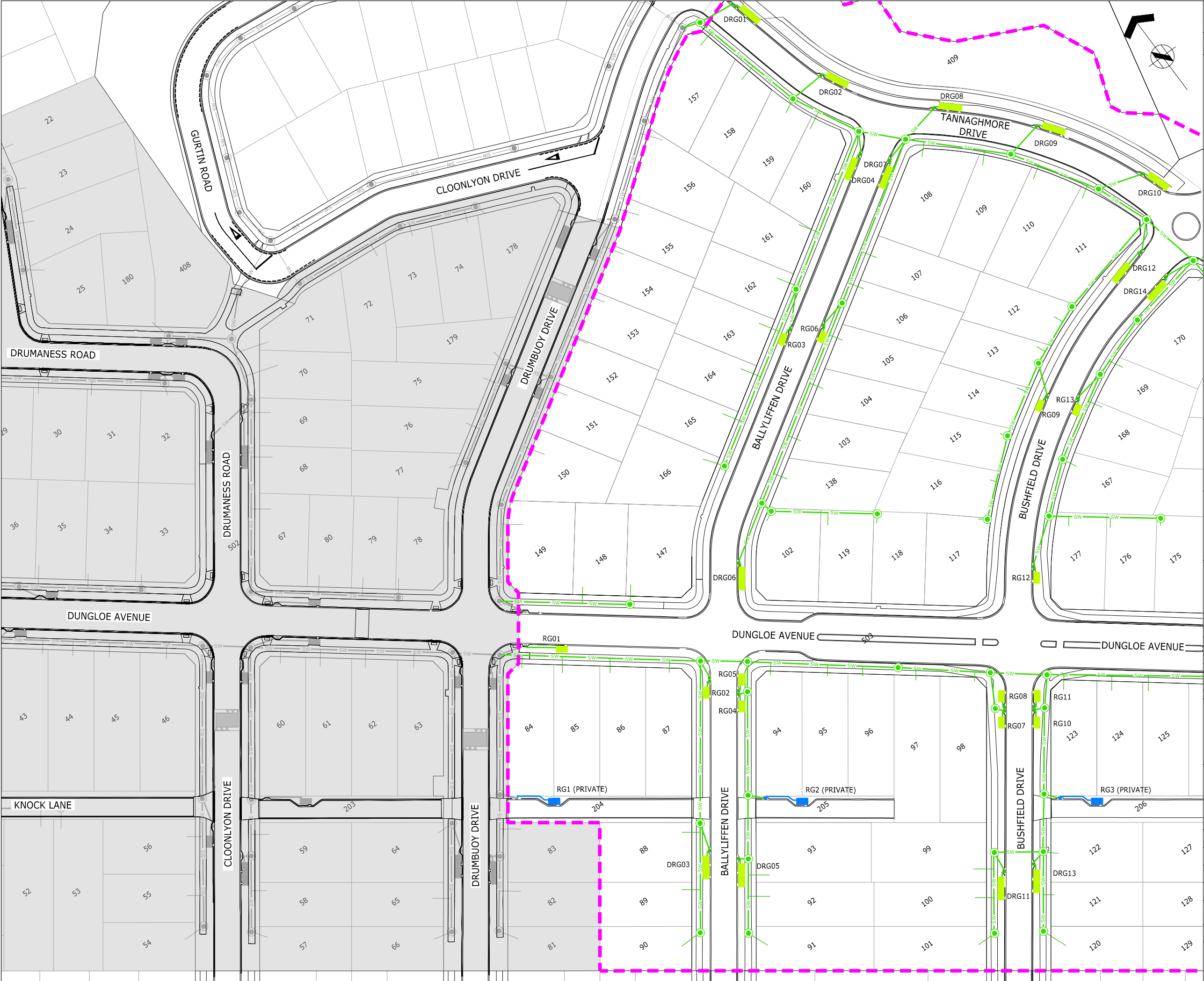
ISSUE STATUS:


AS-BUILT

PROJECT No: 1050-142875-01	SCALES: 1:1000-A1 1:2000-A3	A1
DRAWING No:		REV

142875-13-AB410

A





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NOTES:

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2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

LEGEND:

SW

NEW PUBLIC STORMWATER

CP

NEW PUBLIC/ PRIVATE CATCHPIT

NEW LOT CONNECTION

EXISTING LOT CONNECTION

SW

EXISTING SW LINE, MH AND CP

RG

NEW RAINGARDEN (PUBLIC)

RG

NEW RAINGARDEN (PRIVATE)

RG

EXISTING RAINGARDEN

STAGE BOUNDARY


NEW PRIVATE CONNECTION

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF
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LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

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PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisingrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLATBUSH

TITLE:

RAINGARDEN
AS-BUILT PLAN
SHEET 1 OF 2

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	27.11.20		DDS

DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	27.11.20		21.12.20

CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD

APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	

DRAWING No:




142875-13-AB411

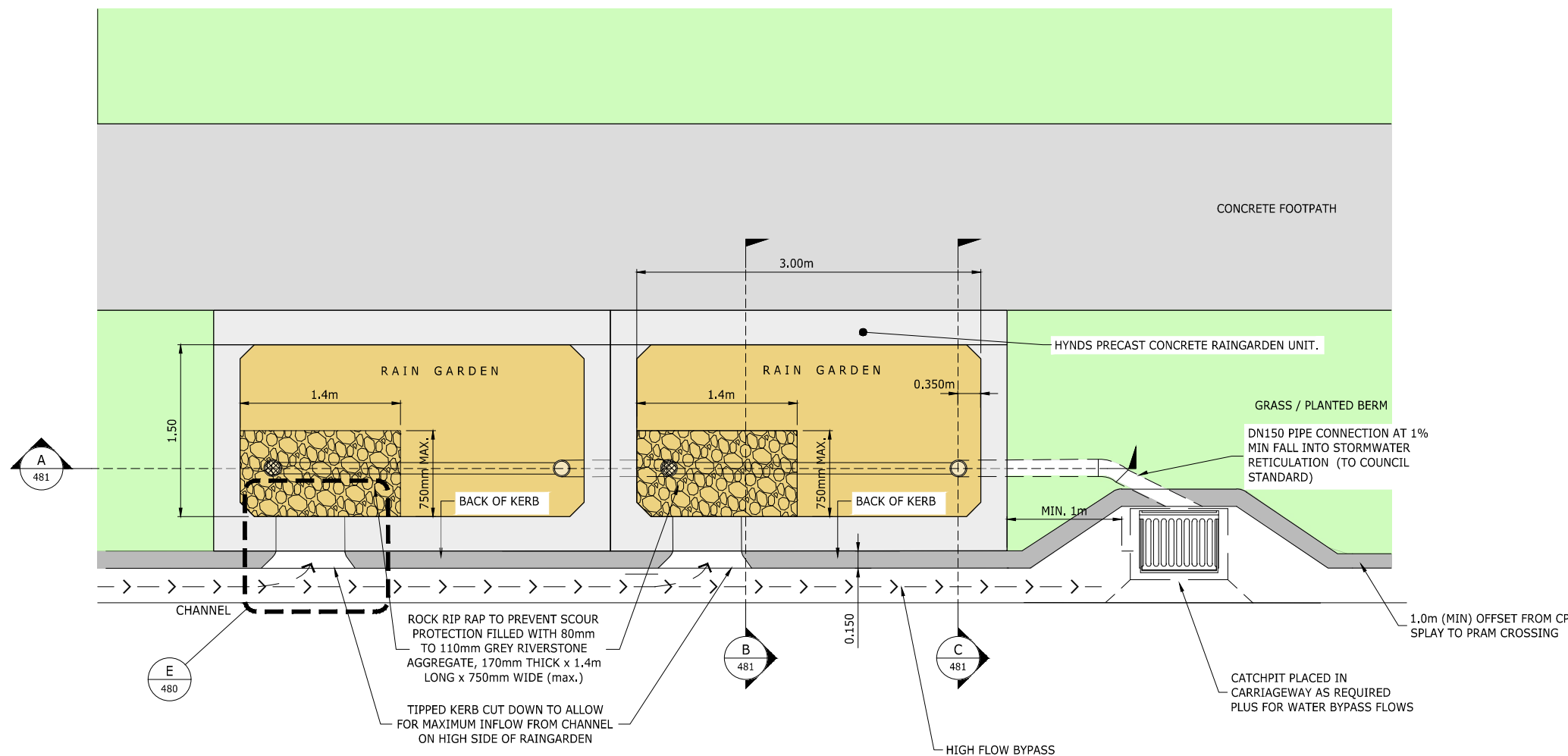
REV

A

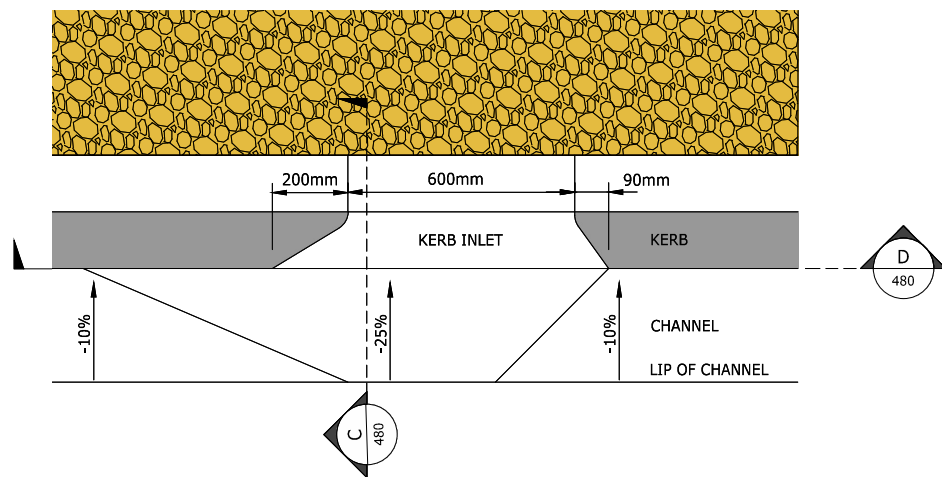
REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: DATA\LOCAL\AUTODESK\C3D 2021\ENU\TEMPLATE N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB410-413.DWG

SCHEDULE OF COORDINATES		
RG No.	mE	mN
DRG01	1770489.56	5905549.09
DRG02	1770498.25	5905519.19
DRG03	1770336.37	5905363.30
DRG04	1770487.53	5905496.47
DRG05	1770341.64	5905356.61
DRG06	1770392.05	5905423.68
DRG07	1770493.02	5905490.23
DRG08	1770519.44	5905493.73
DRG09	1770539.03	5905471.40
DRG10	1770553.61	5905441.92
DRG11	1770399.49	5905308.49
DRG12	1770530.78	5905427.00
DRG13	1770407.30	5905305.10
DRG14	1770535.34	5905418.58
DRG15	1770455.63	5905266.32
DRG16	1770462.89	5905262.33
DRG17	1770492.82	5905300.73
DRG18	1770532.31	5905342.58
DRG19	1770545.02	5905354.71
DRG20	1770557.61	5905379.13
DRG21	1770559.91	5905408.88
DRG22	1770481.75	5905264.12
DRG23	1770563.39	5905197.01
RG01	1770340.64	5905438.43
RG02	1770366.05	5905402.82
RG03	1770443.13	5905469.51
RG04	1770370.33	5905394.76
RG05	1770374.92	5905400.86
RG06	1770451.53	5905464.95
RG07	1770427.78	5905345.96
RG08	1770432.23	5905351.89
RG09	1770489.99	5905410.86
RG10	1770434.34	5905341.01
RG11	1770438.92	5905346.98
RG12	1770458.86	5905373.81
RG13	1770496.74	5905405.13
RG14	1770487.56	5905307.34
RG15	1770485.16	5905271.87
RG16	1770517.12	5905246.41
RG17	1770535.14	5905221.63
RG18	1770575.84	5905191.69
RG1 (PRIVATE)	1770312.00	5905404.07
RG2 (PRIVATE)	1770368.13	5905361.73
RG3 (PRIVATE)	1770434.88	5905311.63

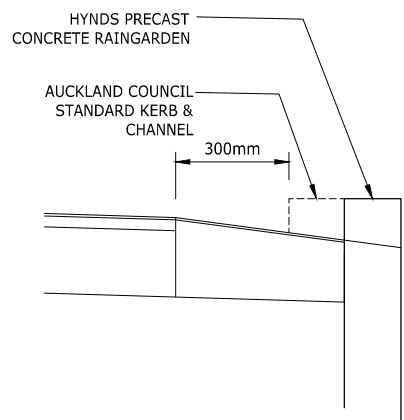
		ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND		ISO 9001 QUALITY ASSURED	
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NOTES: 1. ORIGIN OF LEVELS S 66 SO 48643 RL 54.50m 2. ORIGIN OF COORDINATES S 66 SO 48643 5905356.71mN 1770941.22mE 3. SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.					
<div>ENGINEERING APPROVAL ENG-60349136</div>					
<p>I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:</p> <ul style="list-style-type: none">THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm. <div></div> <p>Signed: CHARTERED PROFESSIONAL ENGINEER</p> <p>Date: 21/12/2020</p> <p>Name: CAMPBELL MCGREGOR</p> <p>Phone: 09-917-5000</p> <p>Email: c.mcgregor@harrisongrierson.com</p>					
<div><div>AUCKLAND OFFICE LEVEL 4, 96 ST GEORGES BAY ROAD PARNELL AUCKLAND 1052 T +64 9 917 5000 W www.harrisongrierson.com</div></div>					
A	AS-BUILT		DDS	21.12.20	
REF	REVISIONS		BY	DATE	
PROJECT:					
HUGH GREEN LIMITED DONEGAL STAGE 13 36 TIR CONAILL AVENUE, FLATBUSH					
TITLE:					
RAINGARDEN AS-BUILT SCHEDULE OF COORDINATES					
ORIGINATOR:	DATE:	SIGNED:	PLOT BY:		
DDS	27.11.20		DDS		
DRAWN:	DATE:	SIGNED:	PLOT DATE:		
JYW	27.11.20		21.12.20		
CHECKED:	DATE:	SIGNED:	SURVEY BY:		
JOM	18.12.20		DEMPSEY WOOD		
APPROVED:	DATE:	SIGNED:	SURVEY DATE:		
DAS	18.12.20		11.2020		
ISSUE STATUS:					
AS-BUILT					
PROJECT No:		SCALES:		A1	
1050-142875-01		NOT TO SCALE			
DRAWING No:					REV
142875-13-AB413					A



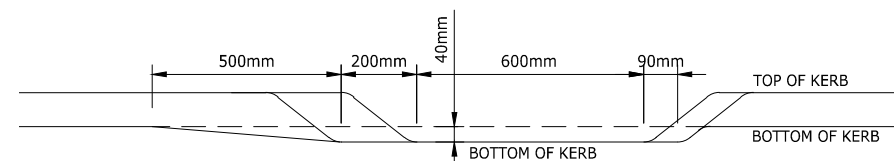
PLAN VIEW
BIORETENTION RAINGARDEN
SCALE: 1:25 - A1
1:50 - A3



PLAN VIEW
KERB CUT DOWN AT RAINGARDEN (HIGH SIDE)
SCALE 1:10-A1 1:20-A3



CROSS SECTION
KERN INLET DETAIL AT RAINGARDEN
SCALE 1:10-A1 1:20-A3



LONG SECTION
KERN INLET DETAIL AT RAINGARDEN
SCALE 1:10-A1 1:20-A3

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN $\pm 50\text{mm}$.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN $\pm 25\text{mm}$.

Signed:
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com

HG AUCKLAND OFFICE
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PARNELL AUCKLAND 1052
T +64 9 917 5000
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REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:
RAINGARDEN
TYPICAL PLAN DETAILS
AS-BUILT

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	30.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	30.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:
AS-BUILT

PROJECT No:	SCALES:	AS SHOWN	A1
DRAWING No:			REV

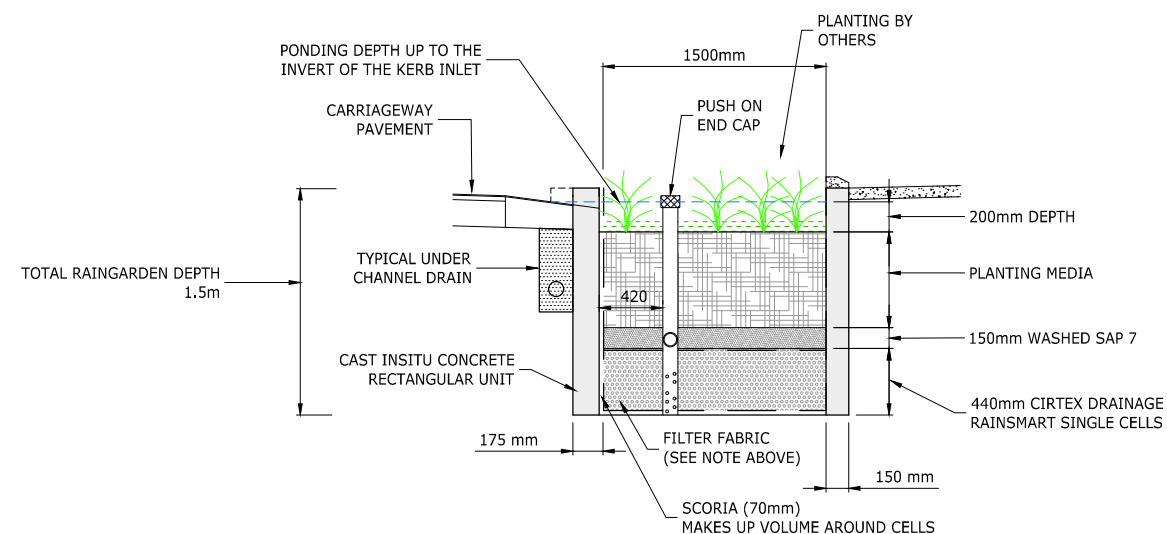
142875-13-AB480
A

Diagram illustrating the cross-section of a rain garden structure, showing various layers and components:

- PRE-CAST RAINGARDEN UNITS MATCH ROAD LONGITUDINAL GRADE ALONG THE LENGTH**
- INSPECTION/FLUSHING RISER**
- GRASSED BERM**
- 200mm DEPTH**
- PLANTING MEDIA DEPTH VARIES**
- 150mm WASHED SAP 7**
- DN100 uPVC SECONDARY DISCHARGE PIPE IN 150mm WASHED SAP 7**
- TOP OF KERB**
- 3000**
- PLANTING MEDIA TO BE HORIZONTAL**
- PUSH ON END CAP**
- OBSERVATION WELL DN150 PERFORATED PIPE, uPVC SEWER GRADE, WITH AT LEAST 8 x 10mmØ HOLES PER 100mm LENGTH AND ANCHORED AT BASE.**
- GRASSED BERM**
- TOTAL RAINGARDEN DEPTH 1.5m**
- 440mm CIRTEX RAINSMART SINGLE CELL UNITS (EACH 0.4m W x 0.715m L x 0.44m H)**
- SCORIA (150mm) MAKES UP VOLUME AROUND CELLS. REFER TO BASE PLAN DETAIL**
- CIRTEX DRAINAGE CELL, 16 SINGLE TANK UNITS (400 Wx715Lx440H)**
- SCORIA MAKES UP VOLUME AROUND CELLS**
- SUBGRADE**
- 5mm RETENTION CONTAINED WITHIN DRAINAGE LAYER**
- DURAFORCE AS410 (CLASS C) GEOTEXTILE FILTER FABRIC OR APPROVED EQUIVLENT**
- DN150 PIPE AT 1% GRADIENT : SUBSURFACE OVERFLOW CONNECTS TO DOWNSTREET CATCHPIT. REFER TO TYPICAL OUTLET CONNECTION DETAIL BELOW.**
- 1090mm**
- 410mm**

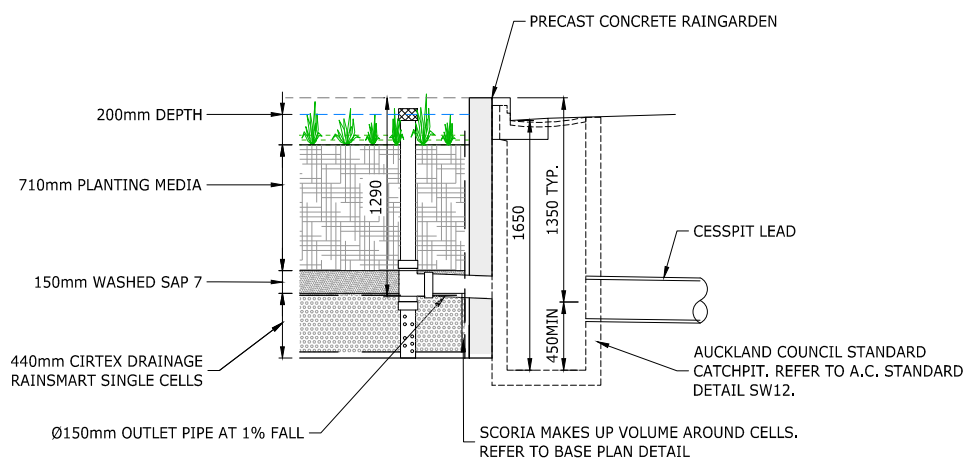
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SCALE 1:25 - A1
1:50 - A3



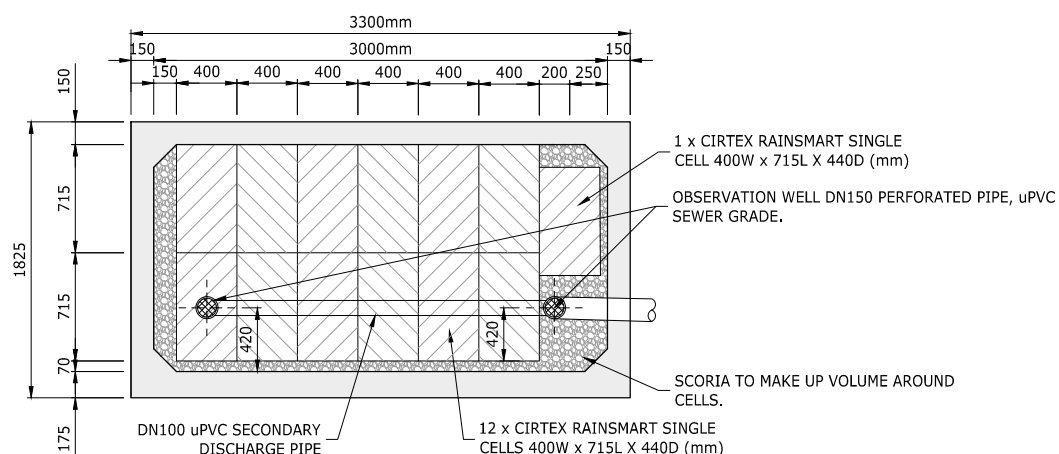
B
480

SCALE 1:25 - A1
1:50 - A2



C
480

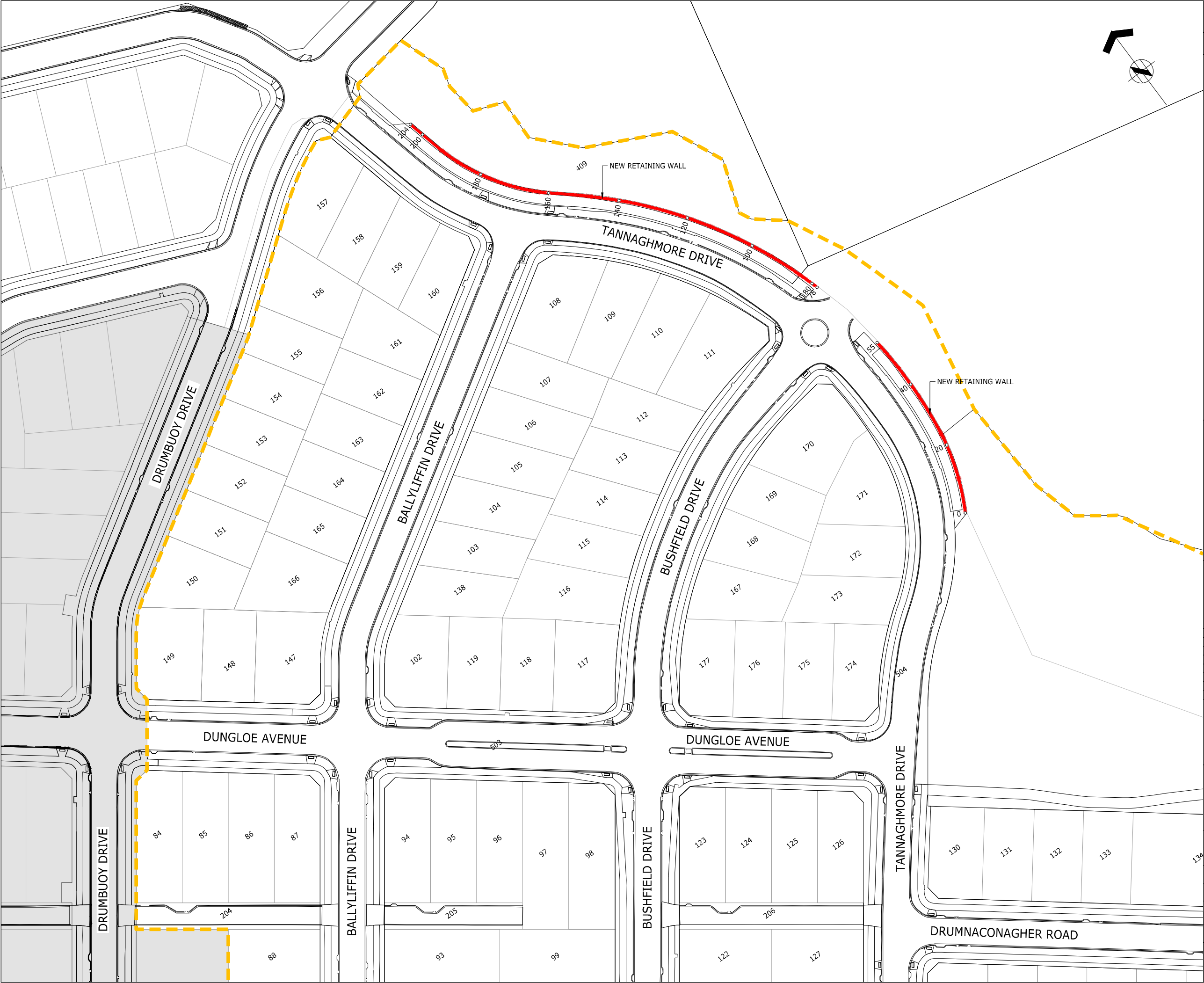
SCALE 1:25 - A1
1:50 - A3



SCALE: 1:25 - A1
1:50 - A3

SCALE: 1:25 - A1
1:50 - A3

A





ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

ISO 9001
QUALITY
ASSURED

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LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m

2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD
CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS
ACCURATE

LEGEND:

--- STAGE BOUNDARY

— NEW RETAINING WALL

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF
THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD
(2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL)
LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com



AUCKLAND OFFICE
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PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisongrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:
RETAINING WALL
AS-BUILT PLAN

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	02.12.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	02.12.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No: 1050-142875-01
DRAWING No: 142875-13-AB250


SCALES: 1:500-A1
1:1000-A3

A1
REV
A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: NEWMARKET N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB250-251.DWG

RW CO-ORDINATE SCHEDULE					
CHAINAGE	mE	mN	TOP OF WALL	BOTTOM OF WALL	HEIGHT
1.293	1770557.13	5905362.20	52.45	51.15	1.30
3.034	1770557.95	5905363.74	52.45	50.94	1.51
4.326	1770558.52	5905364.90	52.46	50.73	1.73
5.199	1770558.92	5905365.67	52.44	50.53	1.91
6.283	1770559.41	5905366.64	52.44	50.33	2.11
6.284	1770559.41	5905366.64	52.23	50.33	1.90
7.591	1770559.95	5905367.83	52.23	49.93	2.30
9.158	1770560.57	5905369.27	52.22	49.73	2.49
9.159	1770560.57	5905369.27	52.03	49.73	2.30
10.483	1770561.06	5905370.50	52.01	49.52	2.49
11.799	1770561.52	5905371.73	52.01	49.32	2.70
13.096	1770561.93	5905372.96	52.01	49.11	2.90
14.404	1770562.34	5905374.21	52.01	49.10	2.91
15.912	1770562.82	5905375.64	52.02	48.76	3.26
15.913	1770562.82	5905375.64	51.82	48.76	3.06
17.201	1770563.23	5905376.86	51.81	48.71	3.10
18.534	1770563.57	5905378.15	51.81	48.51	3.31
19.833	1770563.88	5905379.41	51.81	48.50	3.31
20.710	1770564.07	5905380.27	51.79	48.27	3.53
21.838	1770564.30	5905381.38	51.81	48.14	3.67
21.838	1770564.30	5905381.38	51.61	48.14	3.47
23.128	1770564.50	5905382.65	51.61	48.06	3.55
24.435	1770564.69	5905383.95	51.60	48.01	3.60
25.987	1770564.92	5905385.48	51.59	47.94	3.65
25.988	1770564.92	5905385.48	51.40	47.94	3.45
27.732	1770565.18	5905387.21	51.39	47.88	3.51
28.604	1770565.34	5905388.07	51.40	47.86	3.54
30.176	1770565.54	5905389.63	51.40	47.81	3.59
30.176	1770565.54	5905389.63	51.20	47.81	3.39
31.461	1770565.66	5905390.91	51.21	47.77	3.44
32.756	1770565.78	5905392.20	51.20	47.73	3.46
33.847	1770565.85	5905393.29	51.17	47.70	3.48
33.847	1770565.85	5905393.29	50.98	47.70	3.28
36.289	1770565.97	5905395.73	51.00	47.61	3.39
36.290	1770565.97	5905395.73	50.81	47.61	3.20
38.025	1770566.01	5905397.47	50.82	47.55	3.27
39.721	1770566.05	5905399.17	50.82	47.53	3.29
41.759	1770566.04	5905401.20	50.81	47.60	3.21
41.759	1770566.04	5905401.20	50.62	47.60	3.02
45.035	1770566.10	5905404.48	50.58	47.70	2.89
45.035	1770566.10	5905404.48	50.39	47.70	2.69
49.632	1770566.07	5905409.08	50.42	47.52	2.89
49.633	1770566.07	5905409.09	50.22	47.52	2.70
53.793	1770565.77	5905413.24	50.19	47.53	2.66
53.793	1770565.77	5905413.24	49.99	47.53	2.46
55.066	1770565.65	5905414.51	49.99	47.54	2.46

RW CO-ORDINATE SCHEDULE					
CHAINAGE	mE	mN	TOP OF WALL	BOTTOM OF WALL	HEIGHT
78.198	1770561.32	5905437.22	48.82	45.63	3.19
81.687	1770560.37	5905440.57	48.81	45.12	3.69
81.688	1770560.37	5905440.57	48.61	45.12	3.49
85.875	1770559.16	5905444.59	48.41	44.71	3.71
85.875	1770559.16	5905444.59	48.61	44.71	3.90
90.022	1770557.82	5905448.52	48.39	44.12	4.27
90.024	1770557.81	5905448.52	48.19	44.12	4.07
94.185	1770556.28	5905452.40	48.19	43.29	4.90
94.186	1770556.28	5905452.40	47.98	43.29	4.69
97.888	1770554.76	5905455.78	47.77	42.68	5.09
97.888	1770554.76	5905455.78	47.97	42.68	5.29
102.049	1770552.99	5905459.56	47.80	42.48	5.32
102.050	1770552.99	5905459.56	47.60	42.48	5.11
105.773	1770551.36	5905462.91	47.60	43.19	4.41
105.776	1770551.36	5905462.92	47.39	43.19	4.20
109.511	1770549.52	5905466.18	47.42	43.64	3.77
109.513	1770549.52	5905466.18	47.20	43.64	3.56
113.657	1770547.40	5905469.75	47.22	43.42	3.80
113.658	1770547.40	5905469.75	47.00	43.42	3.58
117.388	1770545.38	5905472.89	47.02	43.33	3.69
117.389	1770545.38	5905472.89	46.82	43.33	3.49
123.726	1770541.70	5905478.06	46.85	44.01	2.84
123.727	1770541.70	5905478.06	46.65	44.01	2.64
124.840	1770541.07	5905478.98	46.41	44.13	2.28
124.840	1770541.07	5905478.98	46.63	44.13	2.50
128.966	1770538.56	5905482.26	46.41	43.95	2.46
128.974	1770538.55	5905482.27	46.22	43.95	2.27
133.142	1770535.95	5905485.54	46.23	43.79	2.44
133.145	1770535.95	5905485.54	46.03	43.79	2.24
135.973	1770534.10	5905487.68	46.05	43.66	2.39
135.981	1770534.09	5905487.69	45.84	43.66	2.18
141.417	1770530.39	5905491.68	45.63	43.41	2.22
141.417	1770530.39	5905491.68	45.82	43.41	2.41
142.942	1770529.33	5905492.78	45.62	43.34	2.28
142.944	1770529.33	5905492.78	45.40	43.33	2.06
146.451	1770526.87	5905495.29	45.41	42.91	2.51
149.713	1770524.52	5905497.56	45.41	42.18	3.23
149.715	1770524.52	5905497.56	45.21	42.18	3.04
152.978	1770522.14	5905499.81	45.19	41.70	3.49
152.985	1770522.14	5905499.81	44.99	41.70	3.29
155.921	1770519.91	5905501.73	45.00	41.51	3.49
159.193	1770517.43	5905503.87	45.00	41.14	3.86
159.203	1770517.42	5905503.88	44.80	41.14	3.66
162.061	1770515.31	5905505.78	44.82	40.90	3.92
162.064	1770515.31	5905505.78	44.61	40.90	3.71
164.230	1770513.73	5905507.25	44.63	40.79	3.85
166.203	1770512.36	5905508.66	44.62	40.74	3.88
166.212	1770512.35	5905508.67	44.42	40.74	3.69
167.790	1770511.31	5905509.84	44.42	40.75	3.67
167.795	1770511.30	5905509.85	44.22	40.75	3.47
169.550	1770510.21	5905511.21	44.23	40.67	3.56
171.970	1770508.80	5905513.17	44.23	40.57	3.66
171.977	1770508.79	5905513.17	44.03	40.57	3.46
175.261	1770506.94	5905515.87	43.82	40.43	3.39
175.261	1770506.94	5905515.87	44.03	40.43	3.60
178.115	1770505.40	5905518.26	43.82	40.49	3.33
178.116	1770505.40	5905518.26	43.63	40.49	3.14
180.492	1770504.28	5905520.36	43.62	41.11	2.51
180.493	1770504.28	5905520.36	43.43	41.11	2.32
183.381	1770503.04	5905522.96	43.43	41.16	2.27
183.390	1770503.04	5905522.97	43.22	41.16	2.06
186.679	1770501.76	5905525.98	43.22	41.00	2.22
186.686	1770501.76	5905525.99	43.03	41.00	2.03
189.974	1770500.70	5905529.09	43.02	41.27	1.76
189.978	1770500.70	5905529.10	42.84	41.27	1.57
193.264	1770499.72	5905532.22	42.84	41.31	1.53
193.266	1770499.72	5905532.22	42.62	41.31	1.32
196.571	1770498.86	5905535.41	42.65	41.02	1.63
196.578	1770498.86	5905535.42	42.45	41.02	1.43
200.730	1770497.96	5905539.47	42.46	41.62	0.85
200.735	1770497.96	5905539.47	42.25	41.62	0.63
204.038	1770497.21	5905542.69	42.27	41.51	0.75



ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

ISO 9001
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NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m


2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.



Signed:
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com

HC

AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED

DONEGAL STAGE 13

36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

RETAINING WALL AS-BUILT

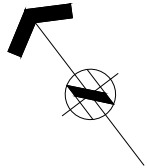
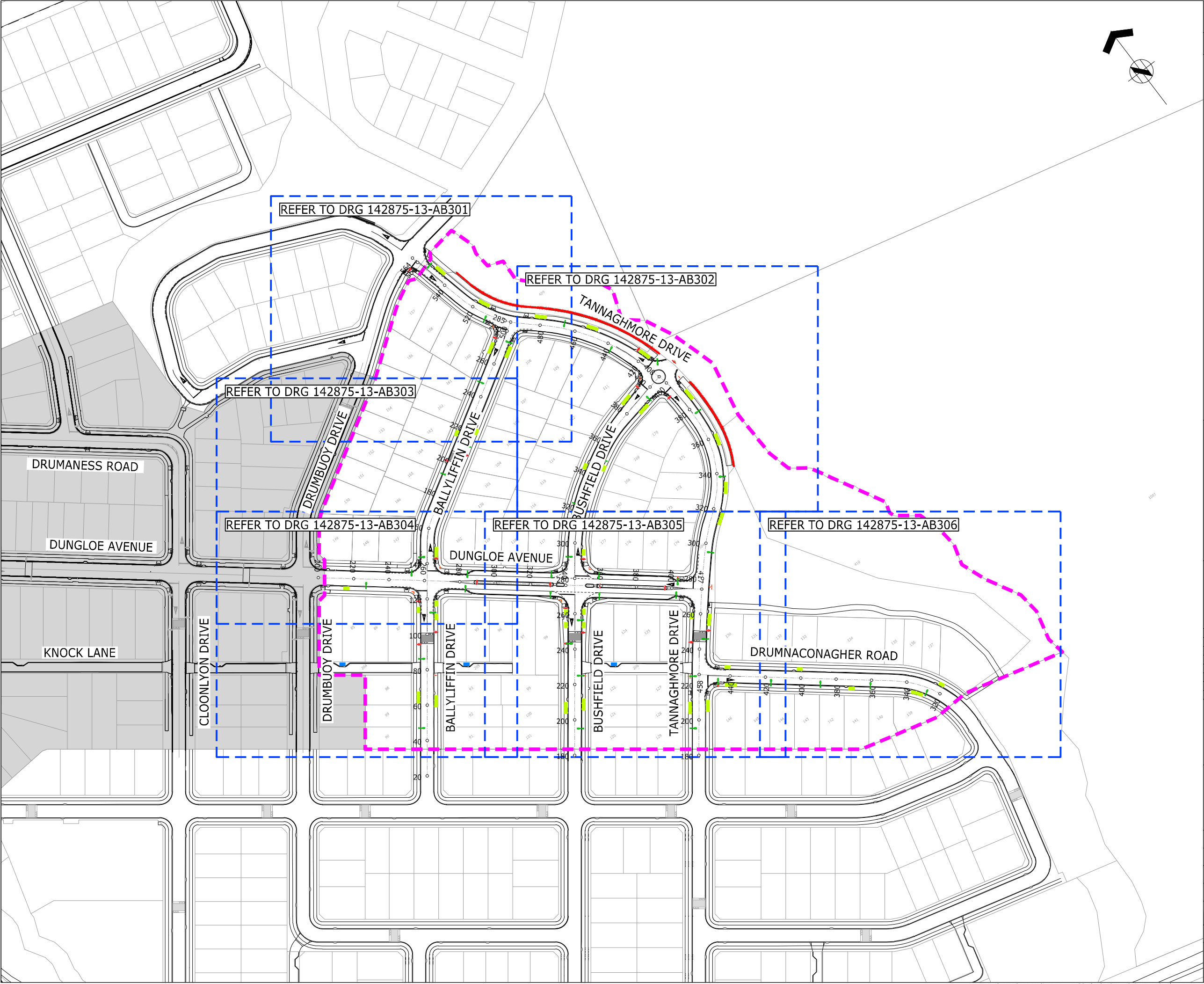
SCHEDULE OF COORDINATES


ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	02.12.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	02.12.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:		A1
1050-142875-01	NOT TO SCALE		
DRAWING No:			REV
142875-13-AB251			A





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OR ALTERED, WITHOUT THE WRITTEN PERMISSION OF HARRISON GRIERSON CONSULTANTS
LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m

2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE

LEGEND:

STAGE BOUNDARY

NO STOPPING LINEWORK

NO PASSING LINEWORK

NEW RETAINING WALL

ROAD SIGN/ STREET NAME SIGN

STREETLIGHT

NEW SPEED TABLE
(TC003)

PRAM CROSSING

NEW RAINGARDEN (PUBLIC)


NEW RAINGARDEN (PRIVATE)

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF
THE WORKS UNDERTAKEN AND THAT:

• THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD
(2000), AND ARE WITHIN ±50mm.

• THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL)
LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

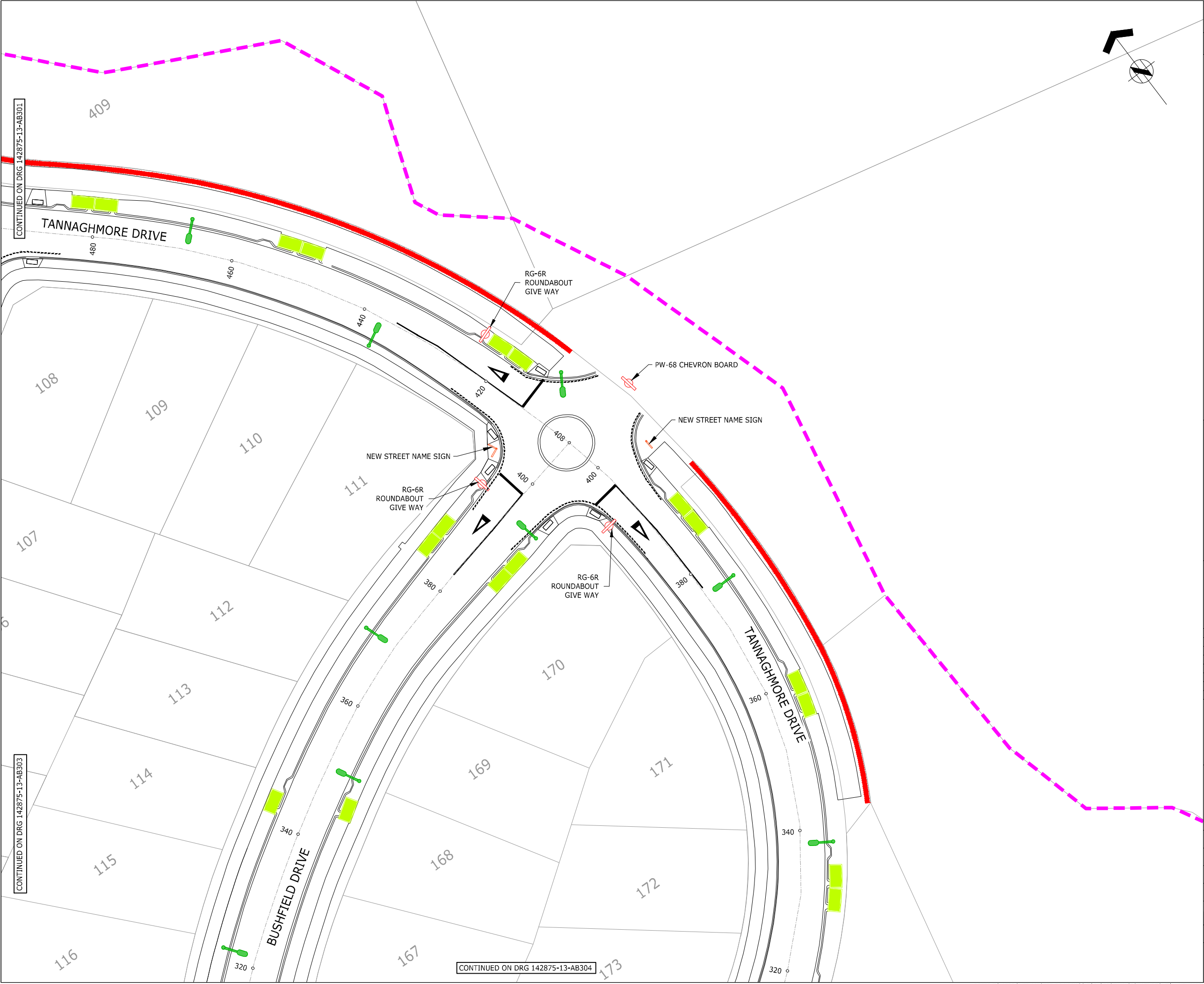
Email: c.mcgregor@harrisonsgrinson.com

HG

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LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisonsgrinson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE
PROJECT:			
HUGH GREEN LIMITED DONEGAL STAGE 13 36 TIR CONAILL AVENUE, FLAT BUSH			
TITLE:			
OVERALL ROADING & ROAD MARKING AS-BUILT LAYOUT PLAN			
ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	23.11.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	23.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020
ISSUE STATUS:			
AS-BUILT			
PROJECT No:	SCALES:		A1
1050-142875-01	1:1000-A1 1:2000-A3		REV
DRAWING No:			A
142875-13-AB300			







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NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL PRAM CROSSINGS HAVE TACTILE GROUND SURFACE INDICATORS (TGSi) INSTALLED AS PER AT STANDARD FP009 REV 5.
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE

LEGEND:

- STAGE BOUNDARY
- NO STOPPING LINEWORK
- NO PASSING LINEWORK
- NEW RETAINING WALL
- ROAD SIGN/ STREET NAME SIGN
- STREETLIGHT
- NEW SPEED TABLE (TC003)
- PRAM CROSSING
- NEW RAINGARDEN (PUBLIC)
- NEW RAINGARDEN (PRIVATE)

ENGINEERING APPROVAL

ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

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Signed:
 CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisonsongrierson.com



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W www.harrisonsongrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
 DONEGAL STAGE 13
 36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

ROADING LAYOUT & ROAD MARKING
 AS-BUILT PLAN
 SHEET 2 OF 6

ORIGINATOR: DDS	DATE: 23.11.20	SIGNED:	PLOT BY: JYW
DRAWN: JYW	DATE: 23.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

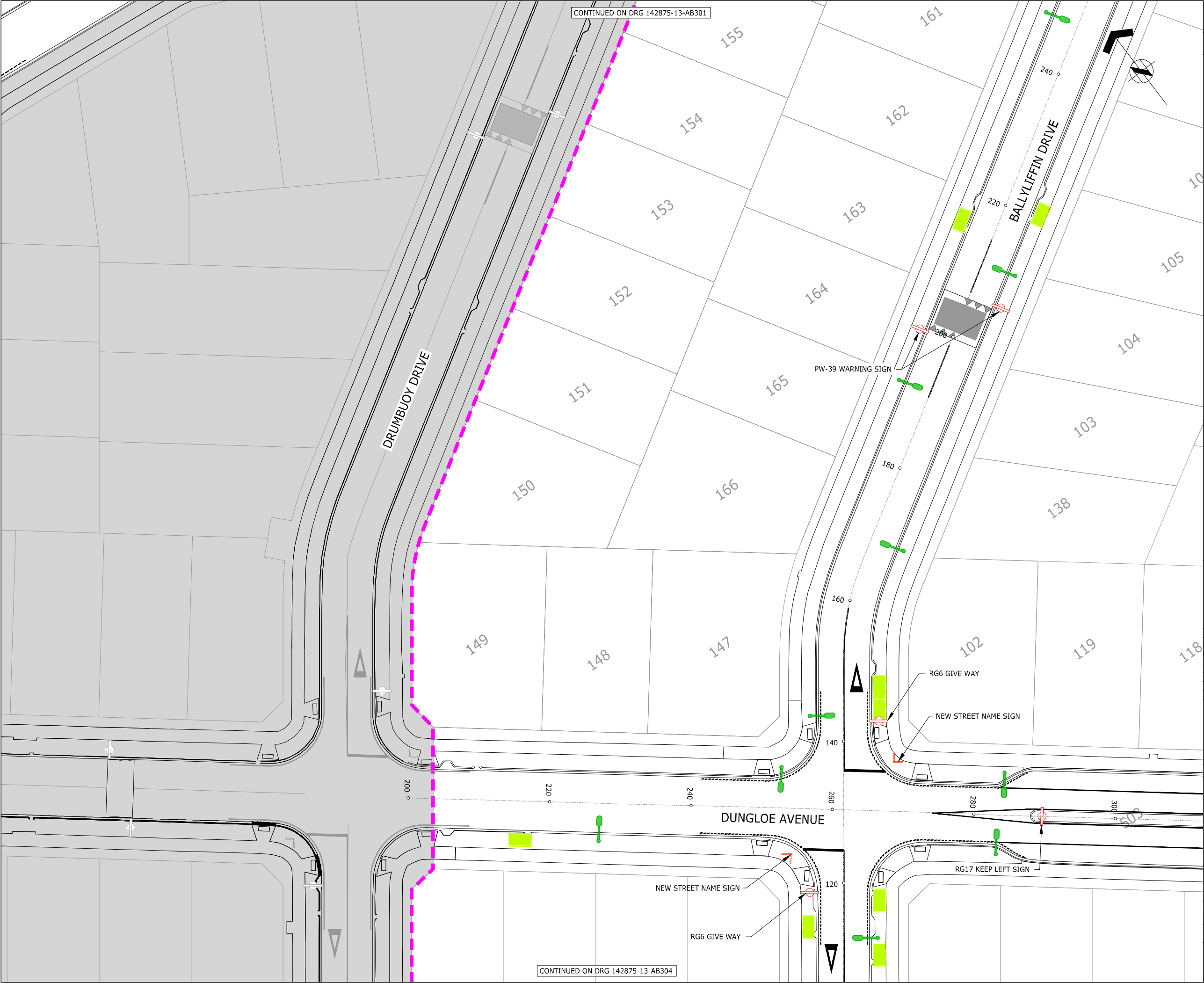
ISSUE STATUS:

AS-BUILT

PROJECT No: 1050-142875-01	SCALES: 1:250-A1 1:500-A3	A1
DRAWING No:		REV

142875-13-AB302

A



CONTINUED ON DRG 142875-13-AB301

CONTINUED ON DRG 142875-13-AB304



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NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL PRAM CROSSINGS HAVE TACTILE GROUND SURFACE INDICATORS (TGSi) INSTALLED AS PER AT STANDARD DRAWING FP009 REV 5.
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE


LEGEND:

- STAGE BOUNDARY
- NO STOPPING LINEWORK
- NO PASSING LINEWORK
- NEW RETAINING WALL
- ROAD SIGN/ STREET NAME SIGN
- STREETLIGHT
- NEW SPEED TABLE (TC003)
- PRAM CROSSING
- NEW RAINGARDEN (PUBLIC)
- NEW RAINGARDEN (PRIVATE)

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE AS-BUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

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Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrsongrierson.com



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T +64 9 917 5000
W www.harrsongrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

ROADING LAYOUT & ROAD MARKING
AS-BUILT PLAN
SHEET 3 OF 6

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	23.11.20		JYW

DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	23.11.20		21.12.20

CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD

APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

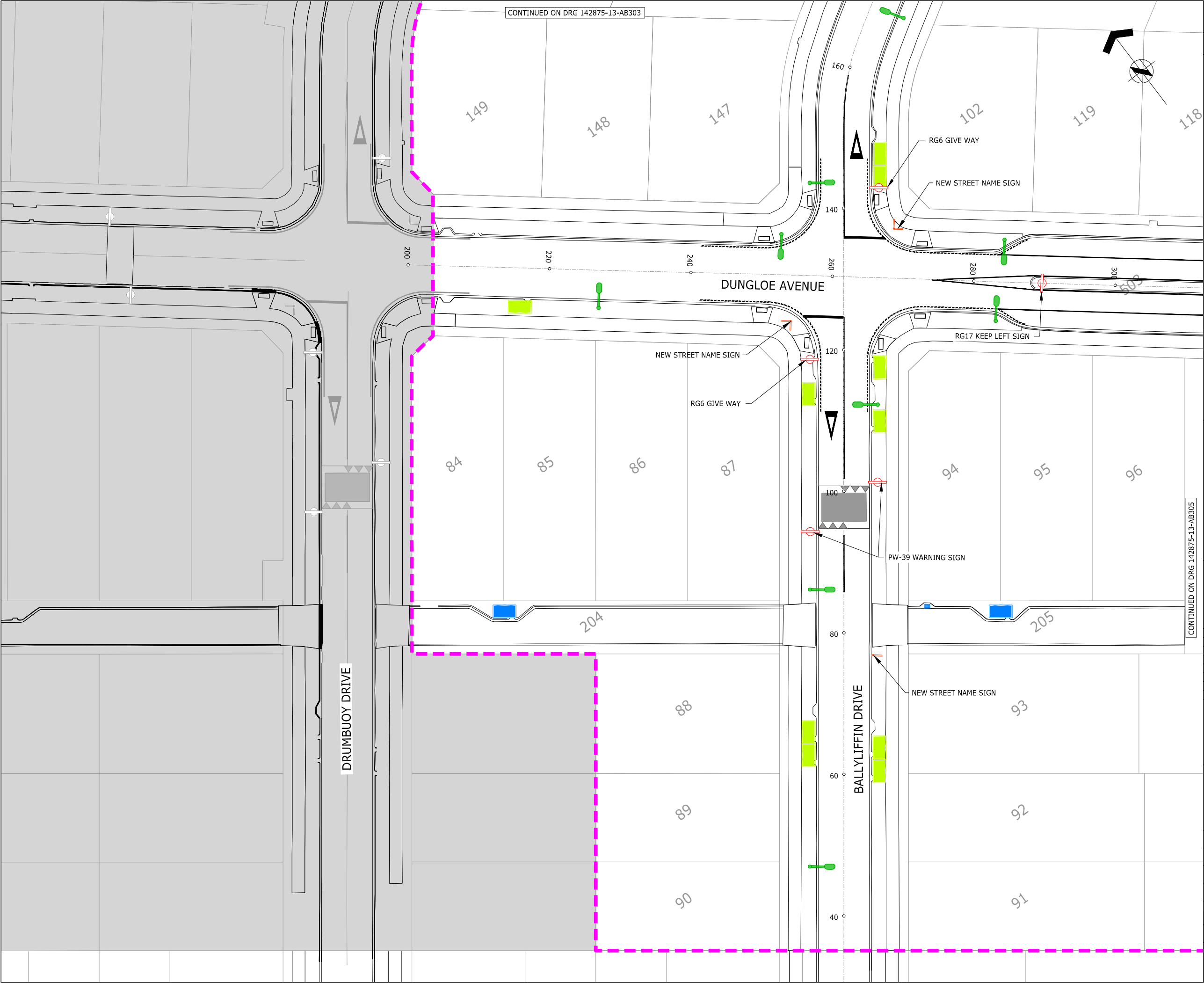
ISSUE STATUS:


AS-BUILT

PROJECT No:	SCALES:	
1050-142875-01	1:250-A1 1:500-A3	A1

DRAWING No:	REV
142875-13-AB303	A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: NEWMARKET N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB300-306.DWG





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NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL PRAM CROSSINGS HAVE TACTILE GROUND SURFACE INDICATORS (TGSI) INSTALLED AS PER AT STANDARD DRAWING FP009 REV 5.
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE

LEGEND:

- STAGE BOUNDARY
- NO STOPPING LINEWORK
- NO PASSING LINEWORK
- NEW RETAINING WALL
- ROAD SIGN/ STREET NAME SIGN
- STREETLIGHT
- NEW SPEED TABLE (TC003)
- PRAM CROSSING
- NEW RAINGARDEN (PUBLIC)
- NEW RAINGARDEN (PRIVATE)

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

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Signed:
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com



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LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisongrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

ROADING LAYOUT & ROAD MARKING
AS-BUILT PLAN
SHEET 4 OF 6

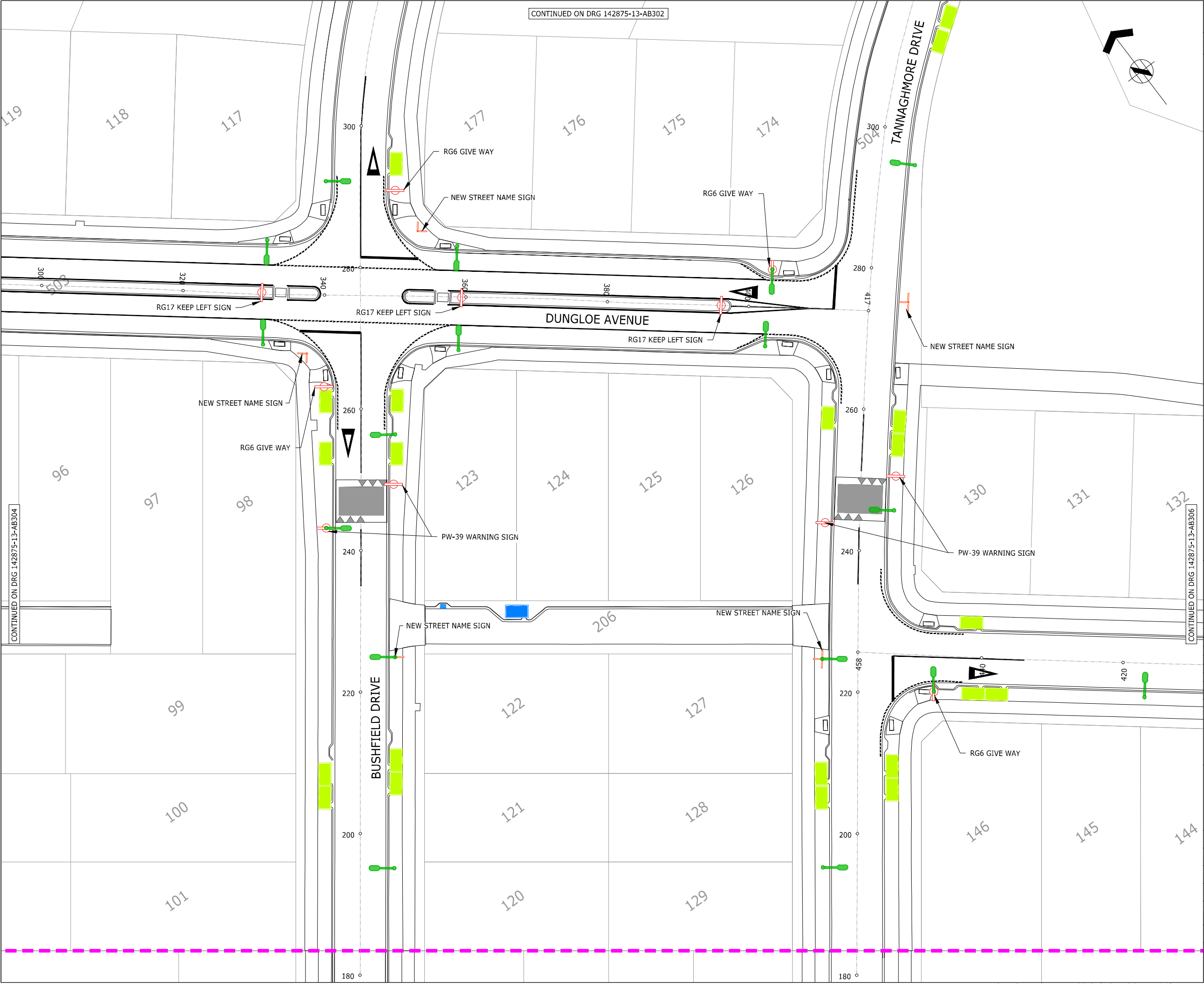
ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	23.11.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	23.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:250-A1 1:500-A3	
DRAWING No:		REV
142875-13-AB304		A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: NEWMARKET N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB300-306.DWG





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NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m

2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. ALL PRAM CROSSINGS HAVE TACTILE GROUND
SURFACE INDICATORS (TGST) INSTALLED AS PER AT
STANDARD DRAWING FP009 REV 5.

4. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE

LEGEND:

STAGE BOUNDARY

NO STOPPING LINEWORK

NO PASSING LINEWORK

NEW RETAINING WALL

ROAD SIGN/ STREET NAME SIGN

STREETLIGHT

NEW SPEED TABLE
(TC003)

PRAM CROSSING

NEW RAINGARDEN (PUBLIC)

NEW RAINGARDEN (PRIVATE)

ENGINEERING APPROVAL
ENG-60349136

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Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisingrierson.com

HG

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LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisingrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE
PROJECT:			
HUGH GREEN LIMITED DONEGAL STAGE 13 36 TIR CONAILL AVENUE, FLAT BUSH			
TITLE: ROADING LAYOUT & ROAD MARKING AS-BUILT PLAN SHEET 5 OF 6			
ORIGINATOR: DDS	DATE: 23.11.20	SIGNED:	PLOT BY: JYW
DRAWN: JYW	DATE: 23.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020
ISSUE STATUS:			
AS-BUILT			
PROJECT No: 1050-142875-01	SCALES: 1:250-A1 1:500-A3	A1	
DRAWING No: 142875-13-AB305			REV A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: NEWMARKET N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB306-306.DWG



CONTINUED ON DRG 142875-13-AB305



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NOTES:

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S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL PRAM CROSSINGS HAVE TACTILE GROUND SURFACE INDICATORS (TGSi) INSTALLED AS PER AT STANDARD DRAWING FP009 REV 5.
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE

LEGEND:

- STAGE BOUNDARY
- NO STOPPING LINEWORK
- NO PASSING LINEWORK
- NEW RETAINING WALL
- ROAD SIGN/ STREET NAME SIGN
- STREETLIGHT
- NEW SPEED TABLE (TC003)
- PRAM CROSSING
- NEW RAINGARDEN (PUBLIC)
- NEW RAINGARDEN (PRIVATE)

ENGINEERING APPROVAL
ENG-60349136

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Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisonsongrierson.com



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LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisonsongrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

ROADING LAYOUT & ROAD MARKING
AS-BUILT PLAN
SHEET 6 OF 6

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	23.11.20		JYW

DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	23.11.20		21.12.20

CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD

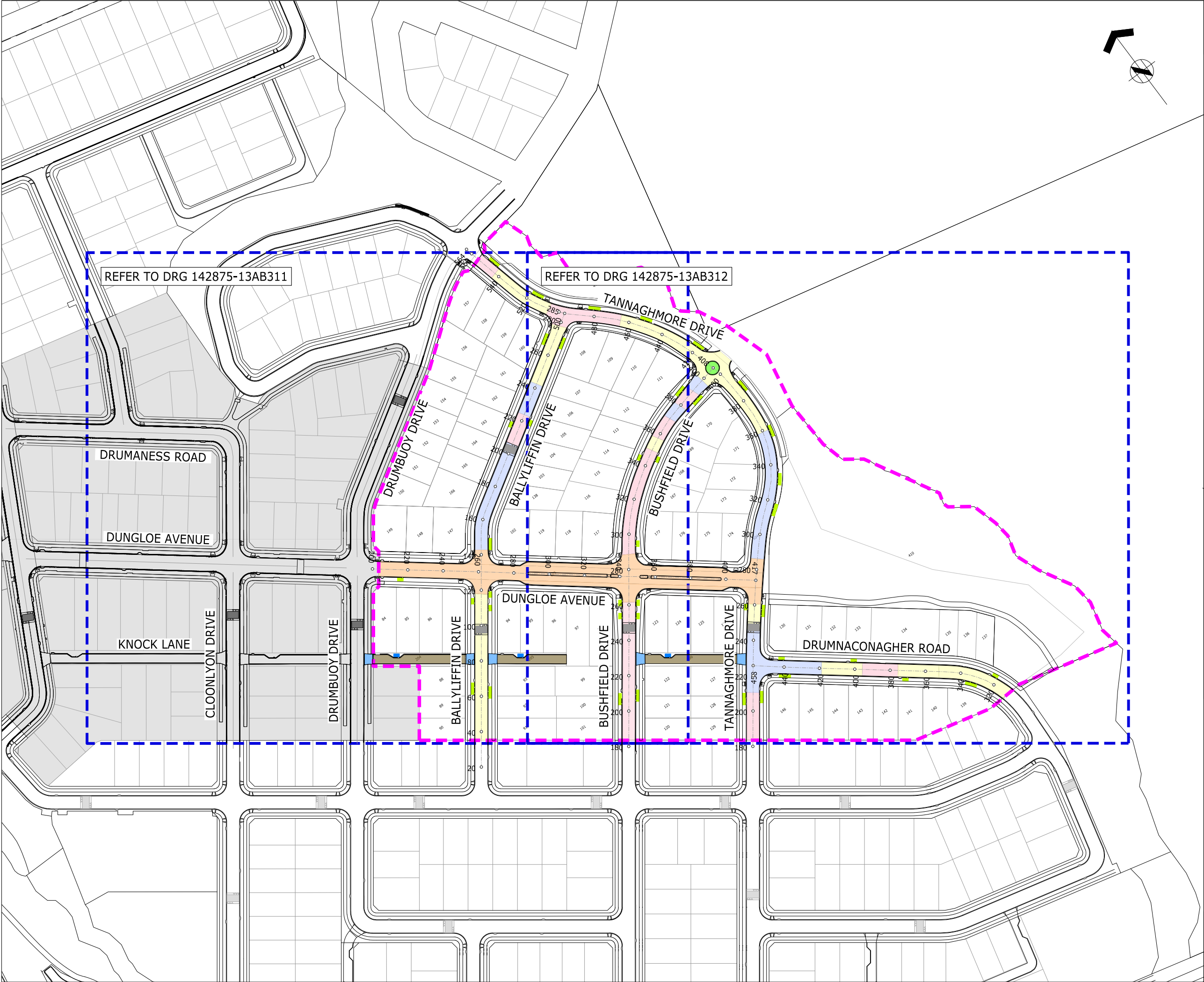
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020


ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	
1050-142875-01	1:250-A1 1:500-A3	A1

DRAWING No:	REV
142875-13-AB306	A





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NOTES:

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S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.

LEGEND:

300mm BLACK SAND (UNDERCUT)

200 AP 65 (SUBBASE)

150mm AP 40 (BASE)

200 AP 65 (SUBBASE)

150mm AP 40 (BASE)

300mm AP 65 (UNDERCUT & SUBBASE)

150mm AP 40 (BASE)

350mm AP 65 (UNDERCUT & SUBBASE)

150mm AP 40 (BASE)

500mm AP 65 (UNDERCUT & SUBBASE)

150mm AP 40 (BASE)

CONCRETE JOAL

175mm (30 MPa) CONCRETE

150mm AP 40 (BASE)

COMMERCIAL VEHICLE CROSSING

200mm (20MPa) CONCRETE

100mm AP40 (BASE)

CONCRETE ROUNDABOUT

200mm AP65

150mm AP40

175mm 20MPa CONCRETE

MANARC RESIDENTIAL VEHICLE CROSSING

RAINGARDEN (PUBLIC / PRIVATE)

ENGINEERING APPROVAL
ENG-60349136

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Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

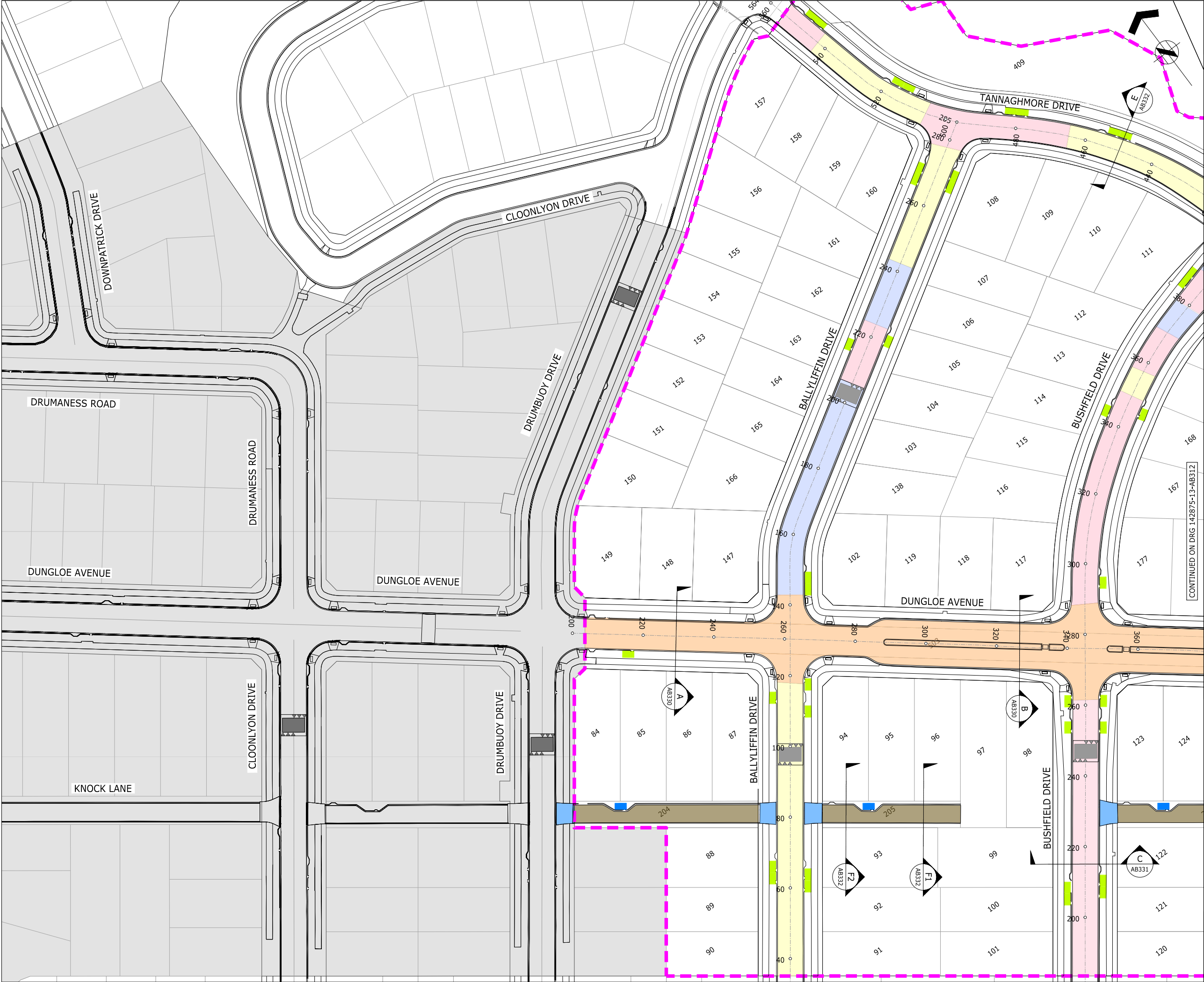
Name: CAMPBELL MCGREGOR


Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com



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ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND



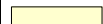







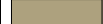












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QUALITY
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NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL PAVEMENT COVERED IN 40mm HOTMIX (MIX 10)
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.


LEGEND:

	300mm BLACK SAND (UNDERCUT)
	200 AP 65 (SUBBASE)
	150mm AP 40 (BASE)
	200 AP 65 (SUBBASE)
	150mm AP 40 (BASE)
	300mm AP 65 (UNDERCUT & SUBBASE)
	150mm AP 40 (BASE)
	350mm AP 65 (UNDERCUT & SUBBASE)
	150mm AP 40 (BASE)
	500mm AP 65 (UNDERCUT & SUBBASE)
	150mm AP 40 (BASE)
	CONCRETE JOAL
	175mm (30 MPa) CONCRETE
	150mm AP 40 (BASE)
	COMMERCIAL VEHICLE CROSSING
	200mm (20MPa) CONCRETE
	100mm AP40 (BASE)
	CONCRETE ROUNDABOUT
	200mm AP65
	150mm AP40
	175mm 20MPa CONCRETE
	MANARC RESIDENTIAL VEHICLE CROSSING
	RAINGARDEN (PUBLIC / PRIVATE)

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.


Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrissongrierson.com



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PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrissongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE
PROJECT:			
HUGH GREEN LIMITED DONEGAL STAGE 13 36 TIR CONAILL AVE, FLAT BUSH			
TITLE: PAVEMENT AS-BUILT PLAN SHEET 1 OF 2			
ORIGINATOR: DDS	DATE: 30.11.20	SIGNED:	PLOT BY: JYW
DRAWN: JYW	DATE: 30.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020
ISSUE STATUS: AS-BUILT			
PROJECT No: 1050-142875-01		SCALES: 1:500-A1 1:1000-A3	A1
DRAWING No: 142875-13-AB311			REV A





ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

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QUALITY
ASSURED

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NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54,50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO BEST OF OUR KNOWLEDGE IS ACCURATE.

LEGEND:

- STAGE BOUNDARY
- NEW RETAINING WALL
- NEW CESSPIT LEAD
- NEW STORMWATER MANHOLE
- NEW CESSPIT
- NEW POWER TUD
- NEW TELECOM HAND HOLE
- LINK PILLAR
- NEW STREETLIGHT
- NEW ROAD SIGN/
STREET NAME SIGN
- NEW FIRE HYDRANT
- NEW SLUCE VALVE
- NEW RAINGARDEN (PUBLIC)
- NEW RAINGARDEN (PRIVATE)

ENGINEERING APPROVAL

ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: *Campbell McGregor*
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisonsgrinson.com



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PARNELL AUCKLAND 1052
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W www.harrisonsgrinson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVE, FLATBUSH

TITLE:

ROADING AS-BUILT PLAN
SHEET 2 OF 2


ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	30.11.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	30.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	
DRAWING No:	REV	
142875-13-AB322	A	

COORDINATE SCHEDULE		
SL No.	mE	mN
SL01	1770488.70	5905555.66
SL02	1770492.63	5905511.60
SL03	1770529.77	5905484.32
SL04	1770538.96	5905455.06
SL05	1770558.44	5905435.73
SL06	1770560.70	5905398.16
SL07	1770549.37	5905359.62
SL08	1770518.12	5905329.10
SL09	1770486.49	5905291.84
SL10	1770465.77	5905281.16
SL11	1770448.14	5905257.55
SL12	1770497.90	5905492.21
SL13	1770469.81	5905486.52
SL14	1770443.94	5905459.38
SL15	1770421.99	5905457.59
SL16	1770407.96	5905437.77
SL17	1770383.36	5905427.12
SL18	1770543.21	5905422.00
SL19	1770514.73	5905423.41
SL20	1770500.95	5905406.70
SL21	1770471.46	5905399.42
SL22	1770450.16	5905377.29
SL23	1770348.89	5905430.92
SL24	1770375.82	5905423.72
SL25	1770400.56	5905404.15
SL26	1770392.69	5905395.74
SL27	1770438.55	5905375.60
SL28	1770429.21	5905364.16
SL29	1770459.54	5905358.83
SL30	1770450.45	5905349.91
SL31	1770493.18	5905329.41
SL32	1770485.83	5905321.34
SL33	1770372.23	5905396.29
SL34	1770348.89	5905381.15
SL35	1770325.39	5905349.85
SL36	1770436.53	5905342.77
SL37	1770420.78	5905338.05
SL38	1770417.63	5905317.63
SL39	1770399.63	5905293.84
SL40	1770475.60	5905268.01
SL41	1770498.95	5905249.49
SL42	1770520.88	5905231.99
SL43	1770543.01	5905214.43
SL44	1770565.41	5905192.54



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ENGINEERS NEW ZEALAND

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NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m


2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 


CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com



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W www.harrisongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVE, FLATBUSH

TITLE:

STREETLIGHTS AS-BUILT
SCHEDULE OF COORDINATES

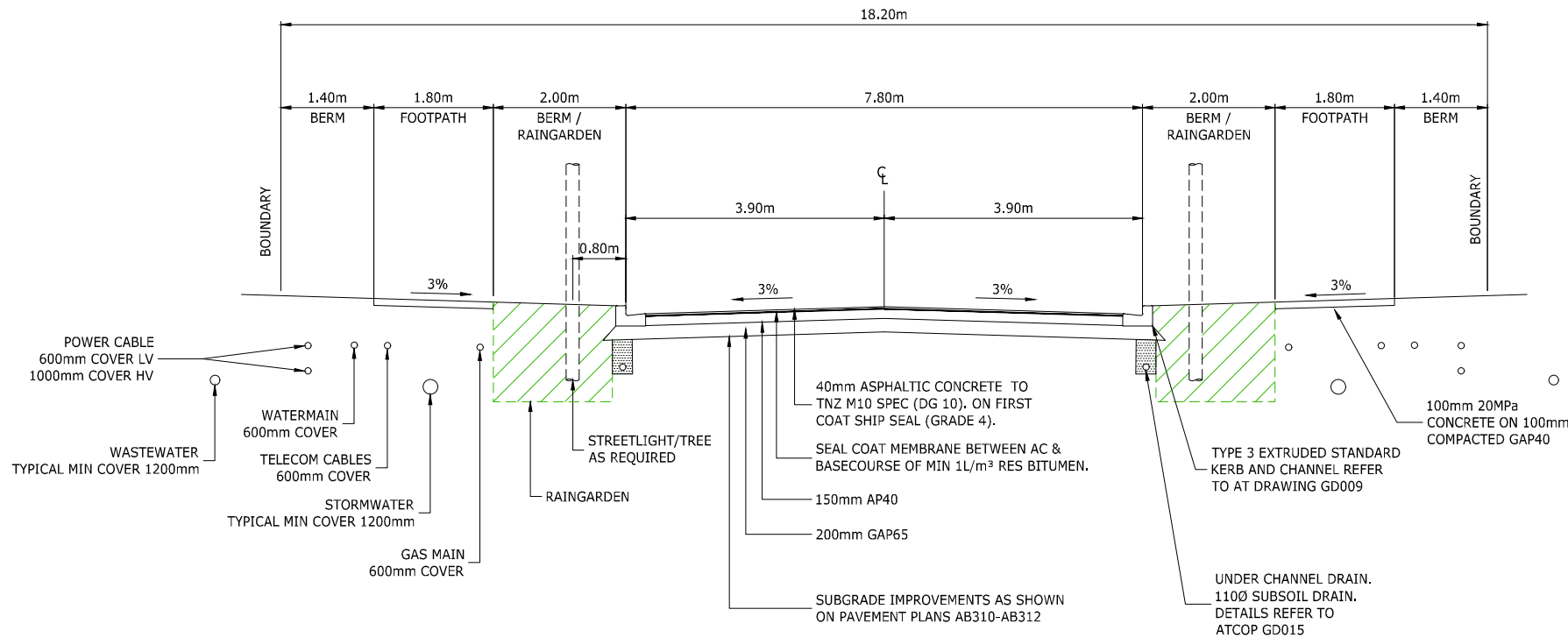
ORIGINATOR: DDS	DATE: 30.11.20	SIGNED:	PLOT BY: JYW
DRAWN: JYW	DATE: 30.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

ISSUE STATUS:

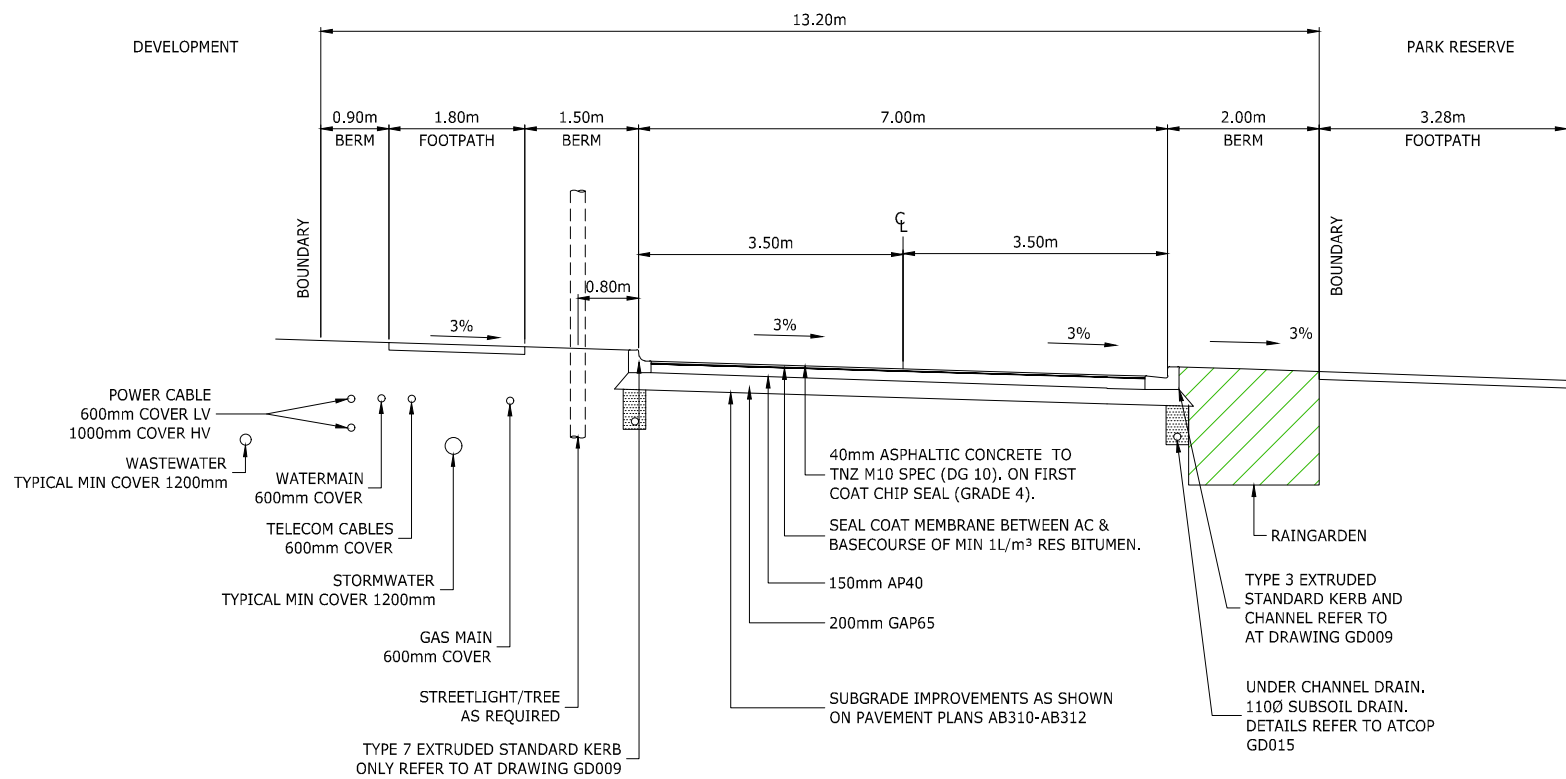
AS-BUILT

PROJECT No: 1050-142875-01	SCALES: NOT TO SCALE	A1
DRAWING No: 142875-13-AB323		REV A





C CROSS SECTION (LOCAL ROAD)
SCALE 1:50 -A1
1:100 -A3
BUSHFIELD DRIVE - ROAD 4 (CH 184.0 - CH 400.0)
TANNAGHMORE DRIVE - ROAD 6 (CH 186.0 - CH 265.0)
BALLYLIFFIN DRIVE - ROAD 9 (CH 35.0 - CH 280.0)
DRUMNACONAGHER DRIVE - ROAD 10 (CH 309.0 - CH 451.0)



D CROSS SECTION (LOCAL ROAD)
SCALE 1:50 -A1
1:100 -A3
TANNAGHMORE DRIVE - ROAD 6 (CH 543.0 - CH 568.0, CH 289.0 - CH 348.0)

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
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Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

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Email: c.mcgregor@harrisingrierson.com

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W www.harrisingrierson.com

A		AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE	

PROJECT:

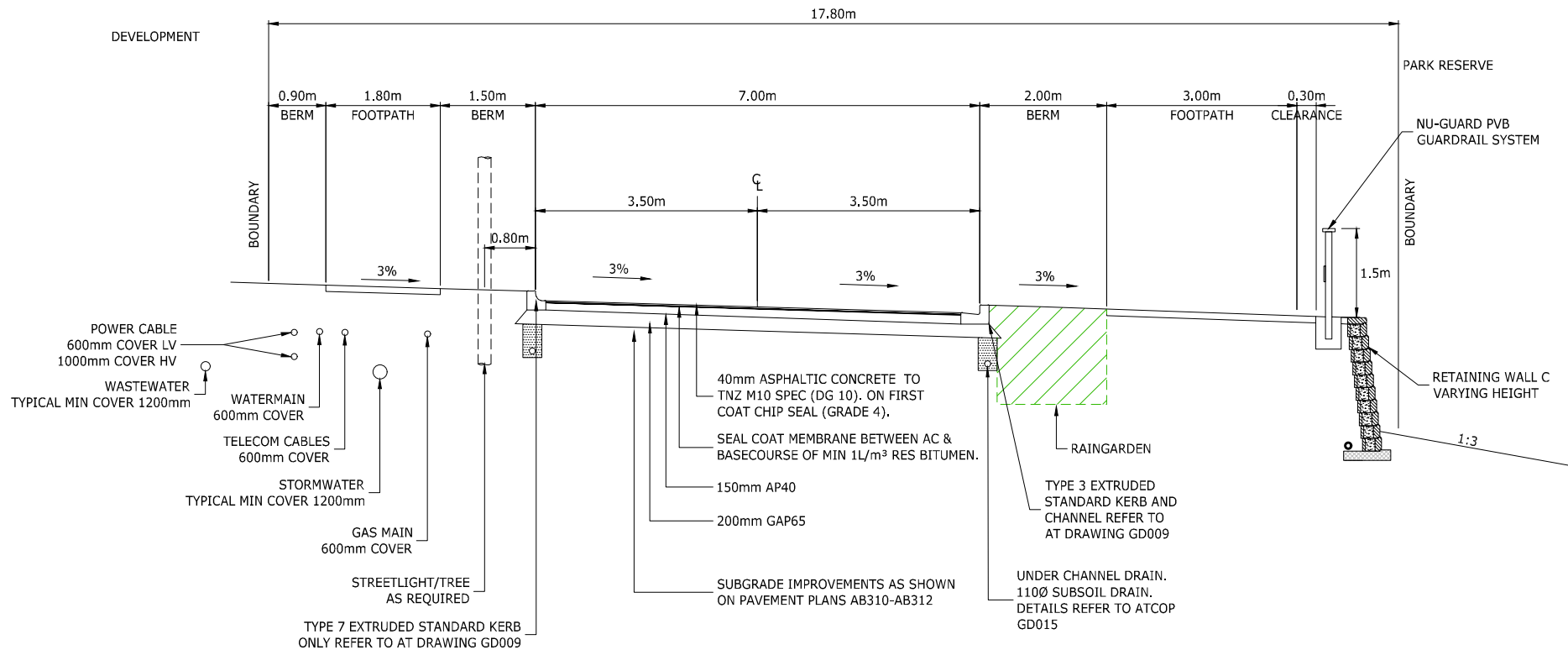
HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:
TYPICAL ROAD CROSS-SECTIONS
SHEET 2 OF 3
AS-BUILT

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	30.11.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	30.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

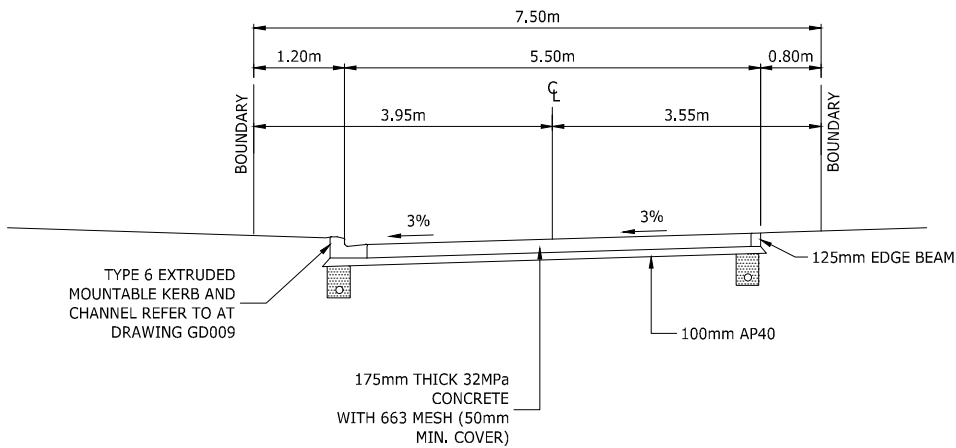
ISSUE STATUS:
AS-BUILT

PROJECT No:	1050-142875-01	SCALES:	AS SHOWN	A1
DRAWING No:	142875-13-AB331			REV
				A



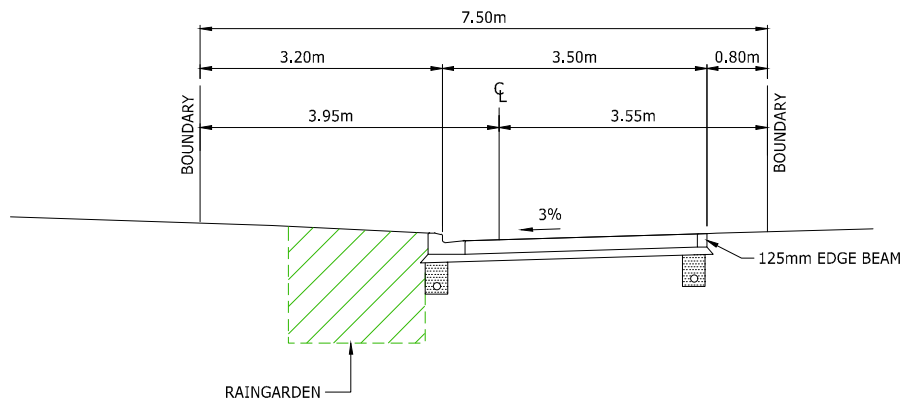
E CROSS SECTION (LOCAL ROAD)

312 SCALE 1:50-A1 1:100-A3 TANNAGHMORE DRIVE - ROAD 6 (CH 343.0 - 540.0)



F1 CROSS SECTION (JOAL WITHOUT RAINGARDEN)

312 SCALE 1:50-A1 1:100-A3 JOAL 4 (CH 201.0 - CH 209.0 & CH 219.0 - CH 253.0)
JOAL 5 (CH 272.0 - CH 280.0 & CH 289.0 - CH 311.0)
JOAL 6 (CH 355.0 - CH 364.0 & CH 373.0 - CH 407.0)



F2 CROSS SECTION (JOAL WITH RAINGARDEN)

311 SCALE 1:50-A1 1:100-A3 JOAL 4 (CH 209.0 - CH 219.0)
JOAL 5 (CH 280.0 - CH 289.0)
JOAL 6 (CH 364.0 - CH 373.0)

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisingrierson.com

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T +64 9 917 5000
W www.harrisingrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:
TYPICAL ROAD CROSS-SECTIONS
SHEET 3 OF 3
AS-BUILT

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	30.11.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	30.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	AS SHOWN	A1
DRAWING No:			REV

142875-13-AB332

A

ENGINEERING APPROVAL

ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

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Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com

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PARNELL AUCKLAND 1052
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W www.harrisongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

TYPICAL ROAD CROSS-SECTIONS
SHEET 3 OF 3
AS-BUILT

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	30.11.20		JYW
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	30.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

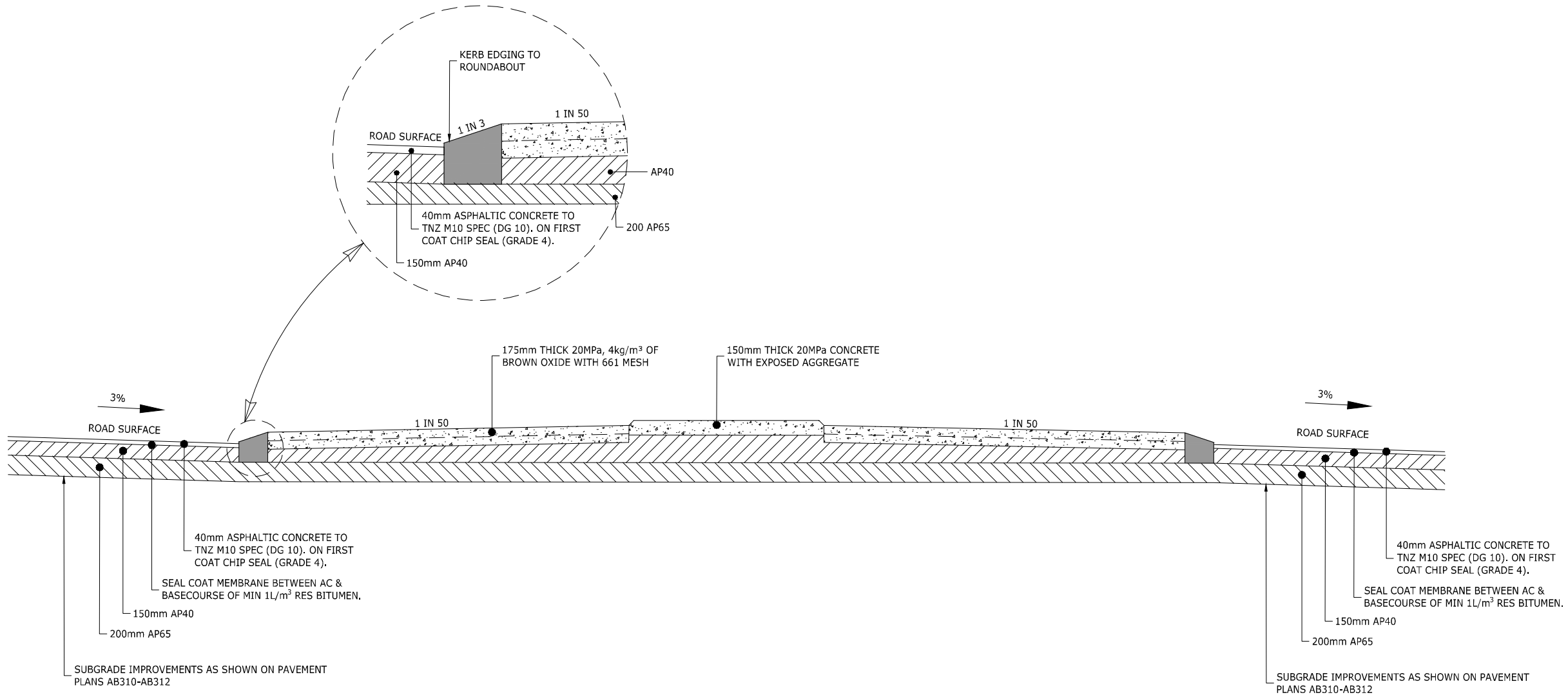
ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	AS SHOWN	A1
DRAWING No:			REV

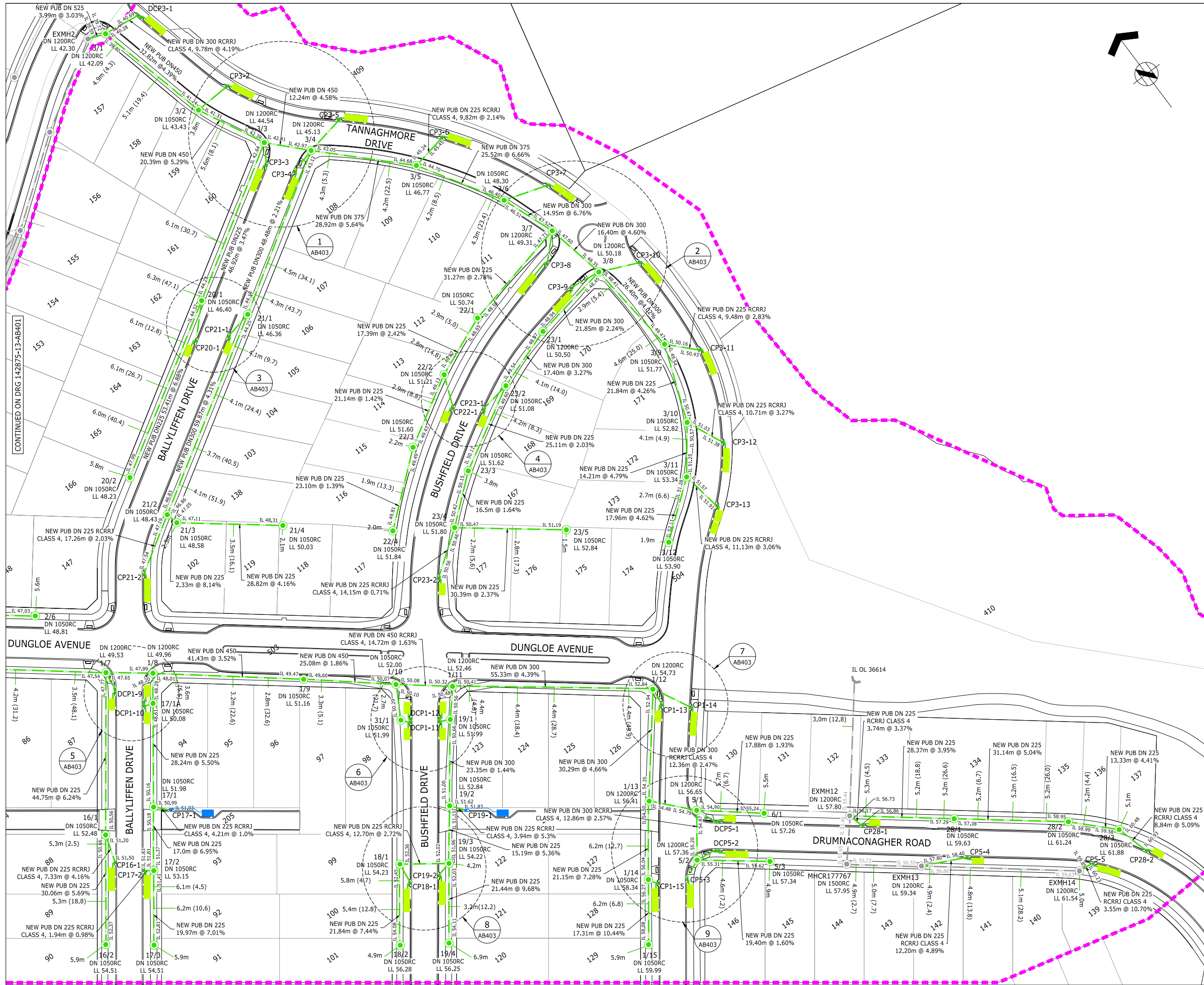
142875-13-AB333


A



G **ROUNDABOUT DETAIL**

312 SCALE 1:25-A1 1:50-A3 TANNAGHMORE DRIVE - ROAD 6 (CH402.0 - CH410.0)





ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

ISO 9001
QUALITY
ASSURED

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NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL CONNECTIONS ARE DN 100 uPVC. CHAINAGE FOR CONNECTIONS ARE FROM DOWNSTREAM MANHOLE CENTRE.
- ALL STORMWATER LINES ARE RCRRJ CLASS 2 UNLESS SHOWN OTHERWISE.
- ALL CATCHPIT LEADS ARE RCRRJ CLASS 4.
- ALL NEW MANHOLES ARE DN 1050 RC UNLESS SHOWN OTHERWISE.
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.
- REFER AB480-AB481 FOR RAIN GARDEN DETAILS

LEGEND:


- SW NEW PUBLIC STORMWATER
- NEW PUBLIC/ PRIVATE CATCHPIT
- NEW LOT CONNECTION
- EXISTING LOT CONNECTION
- SW EXISTING SW LINE, MH AND CP
- NEW PUBLIC/ PRIVATE RAINGARDEN
- EXISTING RAINGARDEN
- NEW PRIVATE CONNECTION
- STAGE BOUNDARY

ENGINEERING APPROVAL

ENG-60349136

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Signed:  CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrissongrierson.com



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PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrissongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT: HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLATBUSH

TITLE: STORMWATER
AS-BUILT PLAN
SHEET 2 OF 2

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS

DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20

CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD

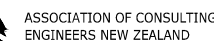
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS: AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	REV

DRAWING No: 142875-13-AB402

A



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1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
3. ALL CONNECTIONS ARE DN 100 uPVC. CHAINAGE FOR CONNECTIONS ARE FROM DOWNSTREAM MANHOLE CENTRE.
4. ALL STORMWATER LINES ARE RCRRJ CLASS 2 UNLESS SHOWN OTHERWISE.
5. ALL CATCHPIP LEADS ARE RCRRJ CLASS 4.
6. ALL NEW MANHOLES ARE DN 1050 RC UNLESS SHOWN OTHERWISE.
7. SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.
8. REFER AB480-AB481 FOR RAIN GARDEN DETAILS

	NEW PUBLIC STORMWATER
	NEW PUBLIC/ PRIVATE CATCHPIT
	NEW LOT CONNECTION
	EXISTING LOT CONNECTION
	EXISTING SW LINE, MH AND CP
	NEW PUBLIC/ PRIVATE RAINGARDEN
	EXISTING RAINGARDEN
	STAGE BOUNDARY

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN $\pm 50\text{mm}$.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN $\pm 25\text{mm}$.

Signed:
 CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL McGREGOR

Phone: 09-917-5000

Email: c.mcgregor@h



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PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisongrierson.com

A	AS-BUILT	DDS	21.12.
REF	REVISIONS	PV	DAT

A	AS-BUILT	DDS	21.12.2017
REV	REVISIONS	BY	DATE

REF	REVISIONS	BT	DATE
PROJECT:			

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLATBUSH

TITLE: _____

STORMWATER DETAILS AS-BUILTS

ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DEMPSEY WOOD
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.20

ISSUE STATUS:				
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AS-BUILT T

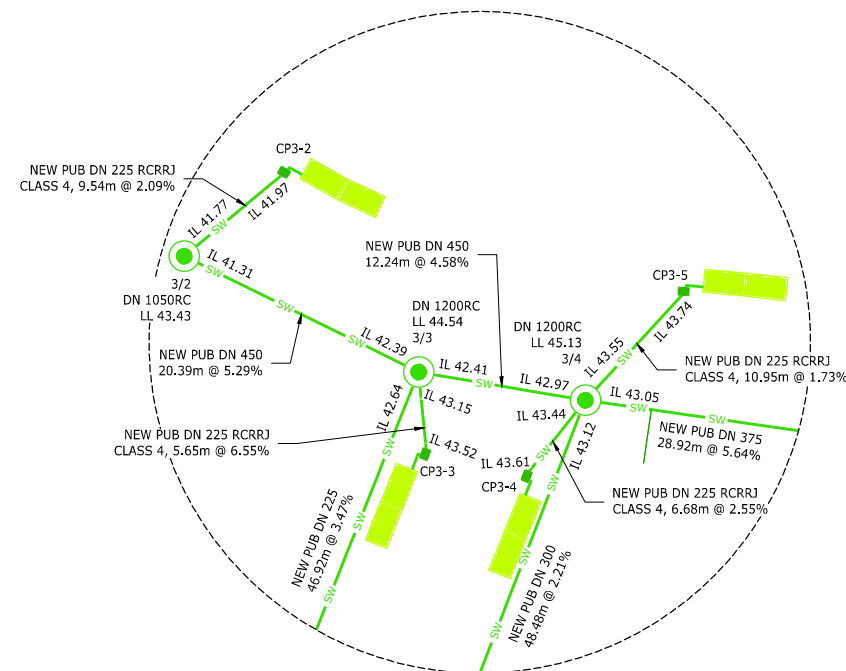
		AS BUILT
	USE TOOLS	

PROJECT No: 1050.142875.01	SCALES: NOT TO SCALE	A1
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1050-142875-01		7/1
DRAWING No:		REV

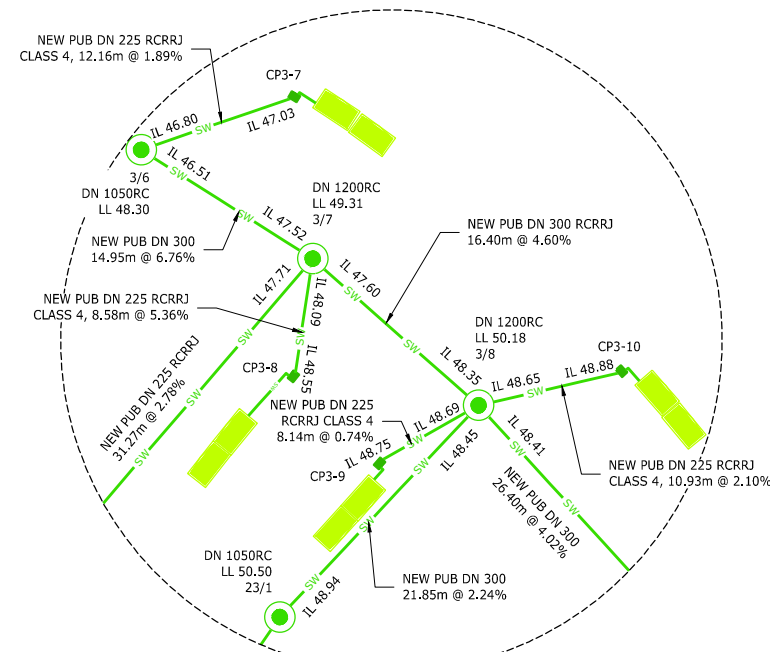
DRAWING No:	REV
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14287E 13 APR403	A
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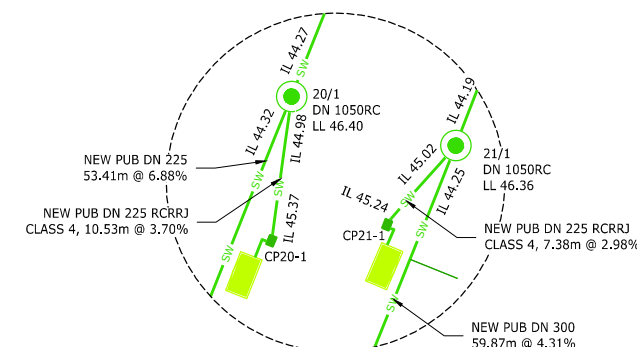


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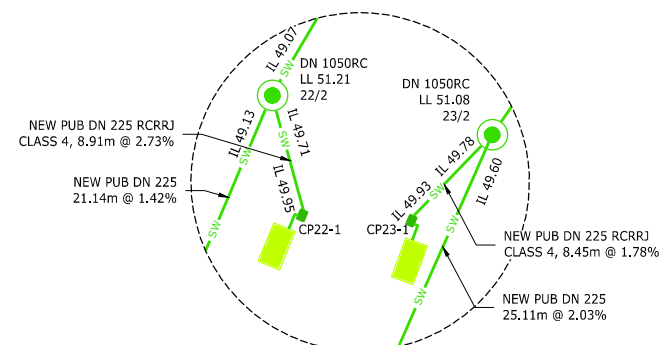
DETAIL
SCALE NTS



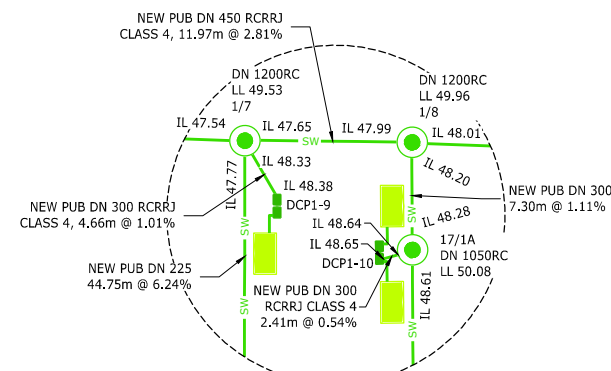
2 DETAIL
AB403 SCALE NTS



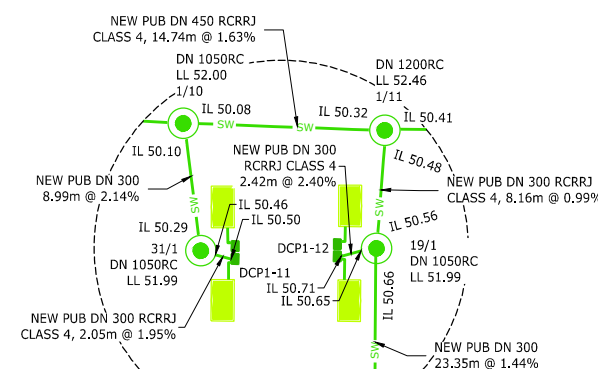
3 DETAIL
AB403 SCALE NTS



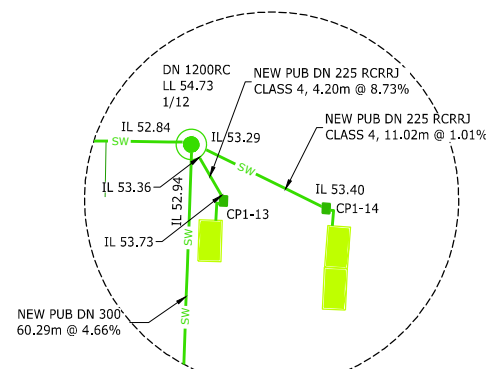
4 DETAIL
AB403 SCALE NTS



5 DETAIL
AB403 SCALE NTS

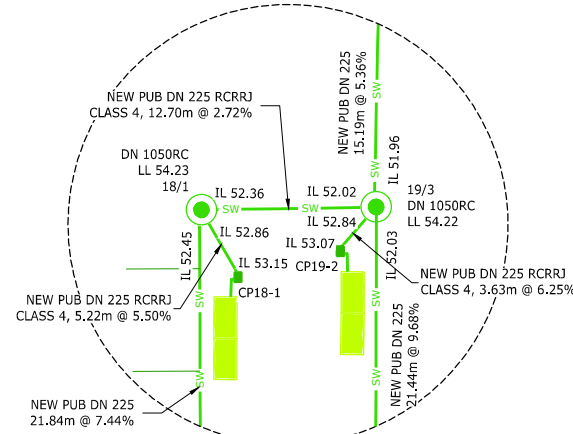


6 DETAIL
AB403 SCALE NTS

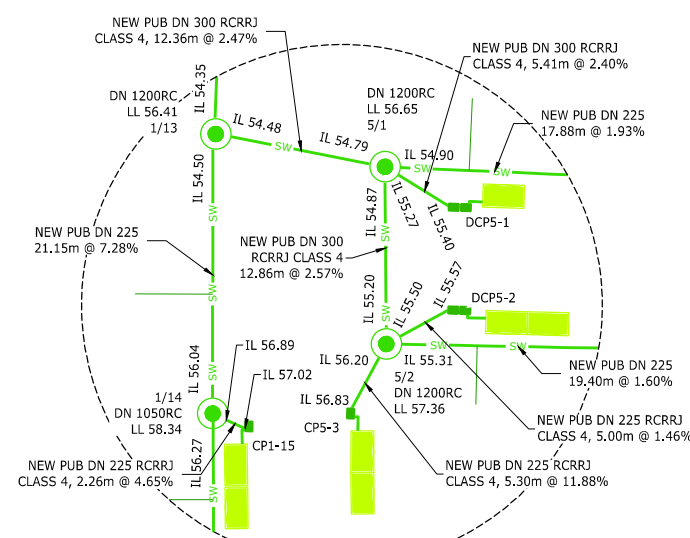


7
AB403

DETAIL
SCALE NTS




8 DETAIL
AB403 SCALE NTS



9 DETAIL
AB403 SCALE NTS

COORDINATE SCHEDULE			
MH No.	mE	mN	LL
1/10	1770432.97	5905359.61	52.00
1/11	1770445.43	5905349.58	52.46
1/12	1770490.23	5905314.91	54.73
1/13	1770470.42	5905290.26	56.41
1/14	1770456.91	5905272.66	58.34
1/15	1770445.91	5905257.92	59.99
1/7	1770369.42	5905411.50	49.53
1/8	1770379.95	5905403.41	49.96
1/9	1770412.96	5905376.44	51.16
2/6	1770363.07	5905436.32	48.81
3/1	1770477.77	5905555.97	42.09
3/10	1770543.25	5905369.40	52.82
3/11	1770533.91	5905357.17	53.34
3/12	1770518.78	5905345.44	53.90
3/2	1770485.81	5905522.94	43.43
3/3	1770495.17	5905504.42	44.54
3/4	1770504.40	5905494.68	45.13
3/5	1770525.67	5905473.41	46.77
3/6	1770539.59	5905450.67	48.30
3/7	1770545.29	5905435.60	49.31
3/8	1770548.84	5905418.37	50.18
3/9	1770551.44	5905390.92	51.77
31/1	1770428.03	5905350.71	51.99
5/1	1770479.60	5905280.11	56.65
5/2	1770471.24	5905268.80	57.36
5/3	1770487.48	5905256.11	57.34
6/1	1770494.34	5905268.00	57.26
16/1	1770341.79	5905374.87	52.48
16/2	1770323.22	5905350.09	54.51
17/1	1770357.36	5905373.05	51.98
17/1A	1770374.84	5905396.57	50.08
17/2	1770346.61	5905358.63	53.15
17/3	1770334.04	5905341.78	54.51
18/1	1770403.35	5905318.31	54.23
18/2	1770389.67	5905299.96	56.28
19/1	1770439.29	5905342.47	51.99
19/2	1770424.52	5905323.06	52.84
19/3	1770414.57	5905310.17	54.22
19/4	1770401.08	5905292.16	56.25
20/1	1770454.18	5905479.34	46.40
20/2	1770407.97	5905451.54	48.23
21/1	1770462.27	5905468.40	46.36
21/2	1770410.07	5905436.79	48.43
21/3	1770410.88	5905433.36	48.58
21/4	1770434.39	5905414.74	50.03
22/1	1770513.60	5905428.57	50.74
22/2	1770496.44	5905421.42	51.21
22/3	1770477.09	5905410.29	51.60
22/4	1770458.34	5905394.83	51.84
23/1	1770526.13	5905414.42	50.50
23/2	1770508.52	5905408.44	51.08
23/3	1770485.56	5905395.60	51.62
23/4	1770472.86	5905385.09	51.80
23/5	1770497.74	5905365.63	52.84
28/1	1770536.37	5905234.49	59.63
28/2	1770561.67	5905214.42	61.24
28/3	1770571.82	5905204.04	61.88
EX1/6	1770325.04	5905446.96	47.66
EX2/5	1770334.13	5905459.28	47.34
EXMH12	1770513.25	5905252.89	57.80
MHCR177767	1770504.37	5905242.47	57.95
EXMH13	1770520.94	5905229.35	59.34
EXMH14	1770555.82	5905201.42	61.54
EXMH2	1770472.91	5905557.78	42.30

COORDINATE SCHEDULE						
POINT	mE	mN	LL	IL (OUT)	IL (IN)	SIZE (mm)
CP1-13	1770489.61	5905309.79	54.91	53.73	53.36	675 x 450
CP1-14	1770495.77	5905304.40	54.92	53.40	53.29	675 x 450
CP1-15	1770458.56	5905270.09	58.22	56.79	56.69	675 x 450
CP3-10	1770559.56	5905413.74	50.20	51.38	51.03	675 x 450
CP3-11	1770558.56	5905383.64	51.75	50.43	50.16	675 x 450
CP3-12	1770548.00	5905358.90	52.63	51.38	51.03	675 x 450
CP3-13	1770535.98	5905345.46	53.13	51.91	51.57	675 x 450
CP3-2	1770496.13	5905523.57	43.21	41.97	41.77	675 x 450
CP3-3	1770491.76	5905498.87	44.76	43.52	43.15	675 x 450
CP3-4	1770497.03	5905492.64	44.72	43.61	43.44	675 x 450
CP3-5	1770515.72	5905496.94	45.10	43.74	43.55	675 x 450
CP3-6	1770536.09	5905475.37	46.67	45.45	45.24	675 x 450
CP3-7	1770551.88	5905446.81	48.40	47.03	46.80	675 x 450
CP3-8	1770538.51	5905429.05	49.99	48.55	48.09	675 x 450
CP3-9	1770539.79	5905419.39	49.99	48.75	48.69	675 x 450
CP5-3	1770465.64	5905266.04	58.11	56.83	56.20	675 x 450
CP5-4	1770532.74	5905223.48	59.63	58.40	57.80	675 x 450
CP5-5	1770560.07	5905200.84	61.44	60.23	59.85	675 x 450
CP16-1	1770339.32	5905367.01	52.81	51.50	51.20	675 x 450
CP17-1	1770360.73	5905369.38	52.28	51.03	50.99	675 x 450
CP17-2	1770344.40	5905360.40	52.96	51.83	51.51	675 x 450
CP18-1	1770402.51	5905312.30	54.54	53.15	52.86	675 x 450
CP19-1	1770427.43	5905319.32	53.27	51.83	51.62	675 x 450
CP19-2	1770410.20	5905309.08	54.36	53.07	52.84	675 x 450
CP20-1	1770446.03	5905471.12	46.58	45.37	44.98	675 x 450
CP21-1	1770454.14	5905466.61	46.43	45.24	45.02	675 x 450
CP21-2	1770394.60	5905427.20	48.86	47.54	47.19	675 x 450
CP22-1	1770492.66	5905412.43	51.21	49.95	49.71	675 x 450
CP23-1	1770499.32	5905406.85	51.14	49.93	49.78	675 x 450
CP23-2	1770460.61	5905376.26	51.74	50.56	50.46	675 x 450
CP28-1	1770514.55	5905248.38	58.25	56.86	56.73	675 x 450
CP28-2	1770574.39	5905194.62	62.11	60.93	60.48	675 x 450
DCP1-10	1770372.61	5905398.04	49.91	48.65	48.64	675 x 450
DCP1-11	1770430.01	5905348.85	51.79	48.65	48.64	675 x 450
DCP1-12	1770436.70	5905344.26	51.79	50.71	50.65	675 x 450
DCP1-9	1770368.39	5905405.82	49.65	48.38	48.33	675 x 450
DCP3-1	1770488.25	5905554.15	47.71	40.69	40.28	675 x 450
DCP5-1	1770482.37	5905274.00	56.73	55.40	55.27	675 x 450
DCP5-2	1770477.44	5905267.49	56.73	55.57	55.50	675 x 450



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ENGINEERS NEW ZEALAND

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ASSURED

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NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m


2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 

CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrissongrierson.com

HC

AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrissongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONATLL AVENUE, FLATBUSH

TITLE:

STORMWATER AS-BUILT
SCHEDULE OF COORDINATES

ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

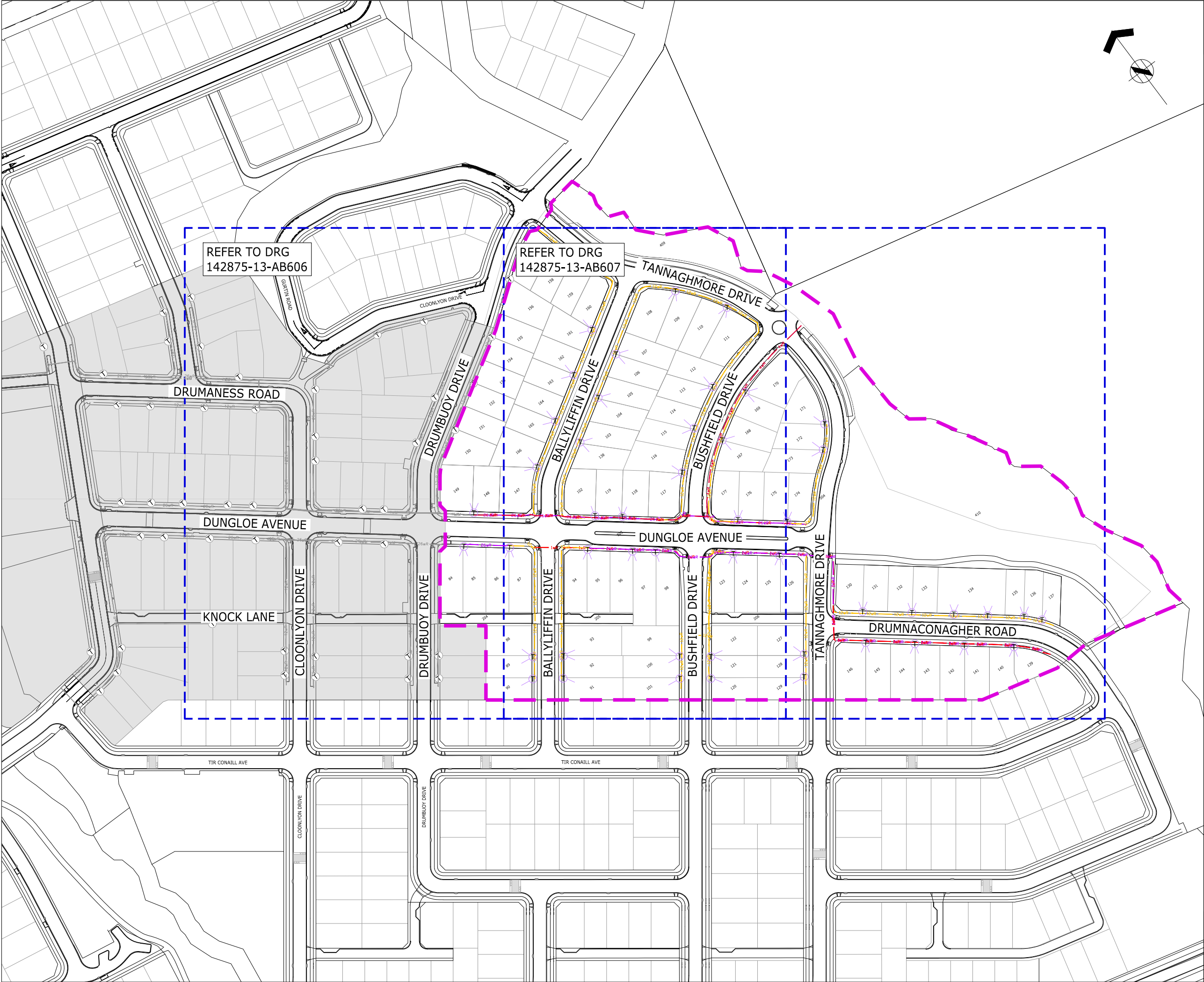
ISSUE STATUS:


AS-BUILT

PROJECT No: 1050-142875-01	SCALES: NOT TO SCALE	A1
DRAWING No:		REV

142875-13-AB404

A





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ENGINEERS NEW ZEALAND

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NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
3. SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.

LEGEND:

26wR

12wR

4wM

1wR

26wR

12wR

4wM

1wR

26wR

12wR

4wM

1wR

STAGE BOUNDARY

NEW TELECOMMUNICATIONS
(26WAY RIBBONET)

NEW TELECOMMUNICATIONS
(12WAY RIBBONET)

NEW TELECOMMUNICATIONS
(4 WAY MICRONET DUCT)

NEW TELECOMMUNICATIONS
(1 WAY MICRONET DUCT)

NEW TELECOMMUNICATIONS
(50 mmP MICRONET DUCT)

EXISTING TELECOMMUNICATION


NEW TELECOM HAND HOLE

NEW TELECOM CONNECTION

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.


Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

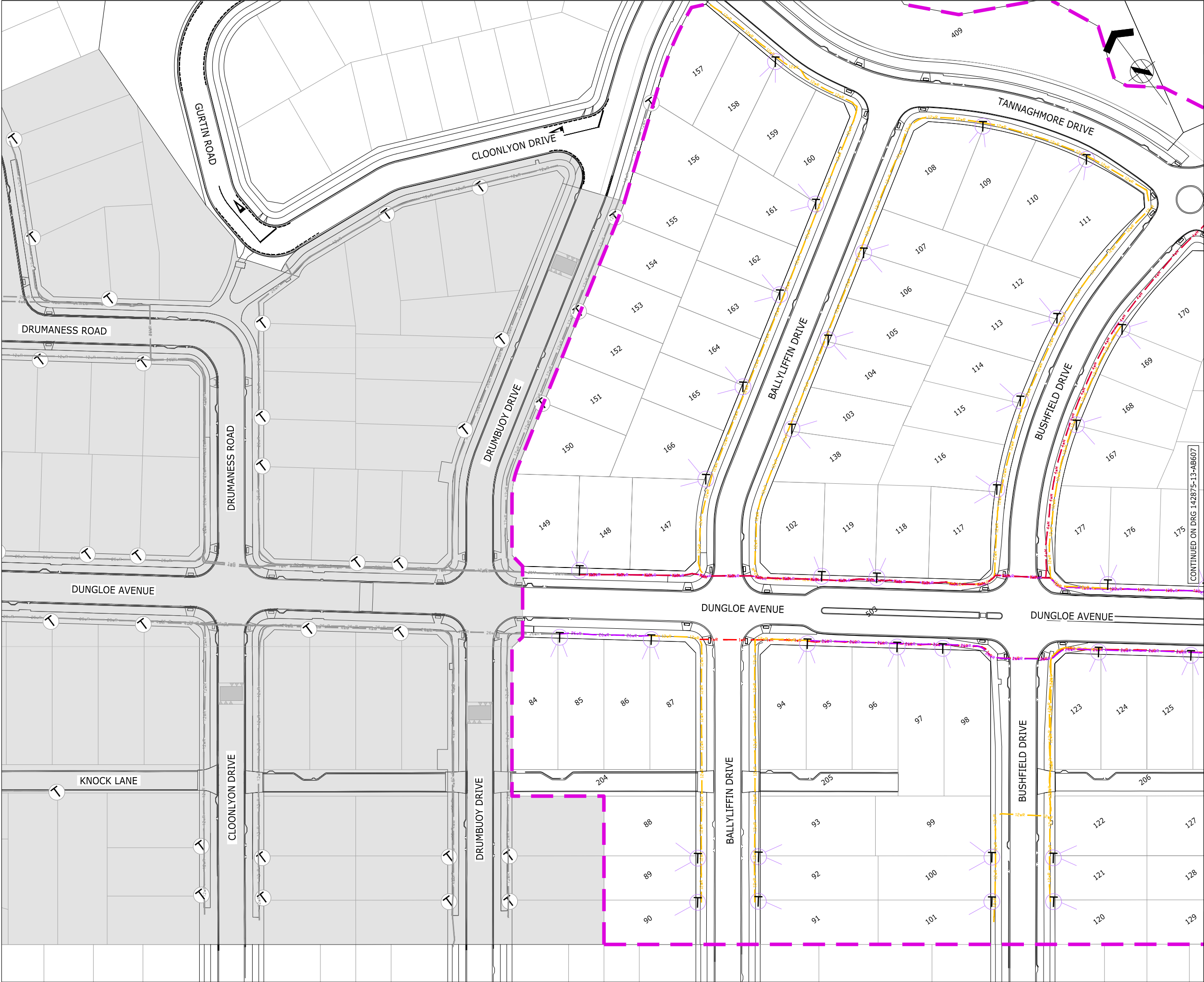
Phone: 09-917-5000


Email: c.mcgregor@harrisonsgrinson.com



AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisonsgrinson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE
PROJECT:			
HUGH GREEN LIMITED DONEGAL STAGE 13 36 TIR CONAILL AVE, FLATBUSH			
TITLE: OVERALL TELECOMMUNICATION SERVICES AS-BUILT PLAN			
ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020
ISSUE STATUS: AS-BUILT			
PROJECT No: 1050-142875-01	SCALES: 1:1000-A1 1:2000-A3	A1	
DRAWING No:			REV
142875-13-AB605			A





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ENGINEERS NEW ZEALAND

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NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.

LEGEND:

- STAGE BOUNDARY
- NEW TELECOMMUNICATIONS (26WAY RIBBONET)
- NEW TELECOMMUNICATIONS (12WAY RIBBONET)
- NEW TELECOMMUNICATIONS (4 WAY MICRONECT DUCT)
- NEW TELECOMMUNICATIONS (1 WAY MICRONECT DUCT)
- NEW TELECOMMUNICATIONS (50 mmP MICRONECT DUCT)
- EXISTING TELECOMMUNICATION
- NEW TELECOM HAND HOLE
- NEW TELECOM CONNECTION

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.


Signed: *C. McGregor*
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrissongrierson.com



AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrissongrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVE, FLATBUSH

TITLE:

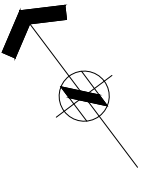
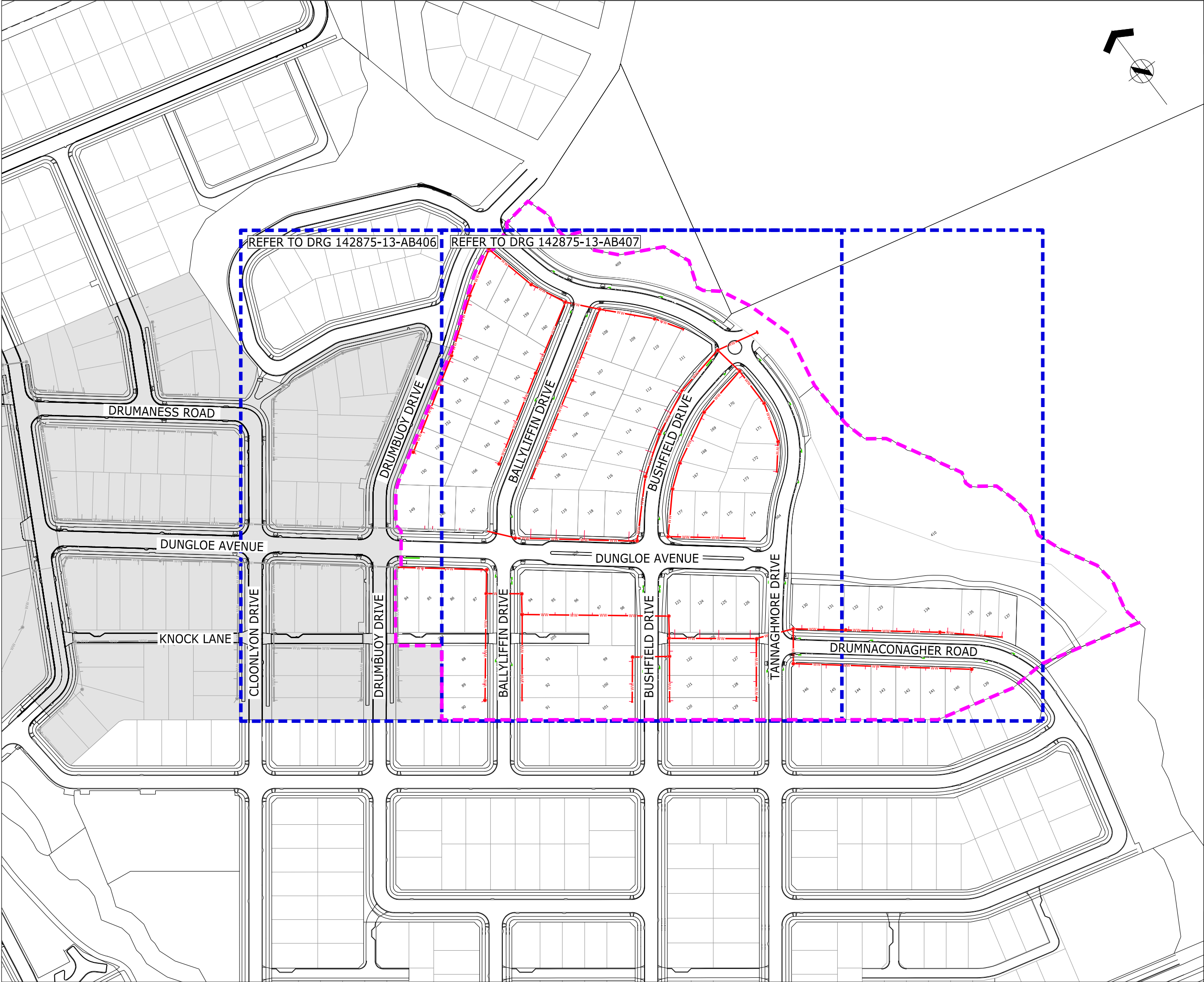
TELECOMMUNICATION SERVICES
AS-BUILT PLAN
SHEET 1 OF 2

ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No: 1050-142875-01	SCALES: 1:500-A1 1:1000-A3	A1
DRAWING No:		REV
142875-13-AB606		A



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LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

NOTES:

- ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL CONNECTIONS ARE DN 100 uPVC. CHAINAGE
FOR CONNECTIONS ARE FROM DOWNSTREAM
MANHOLE CENTRE.
- ALL WASTEWATER LINES ARE PVC-U SN16 UNLESS
SHOWN OTHERWISE.
- ALL NEW MANHOLES ARE DN 1050 RC UNLESS
SHOWN OTHERWISE.

LEGEND:

- STAGE BOUNDARY
- NEW PUBLIC WASTEWATER LINE
- EXISTING PUBLIC WASTEWATER LINE
- NEW LOT CONNECTION
- NEW PUBLIC MANHOLE
- EXISTING PUBLIC MANHOLE

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF
THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD
(2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL)
LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed:
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisingrierson.com

HC

AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisingrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLATBUSH

TITLE:

OVERALL WASTEWATER
AS-BUILT PLAN

ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

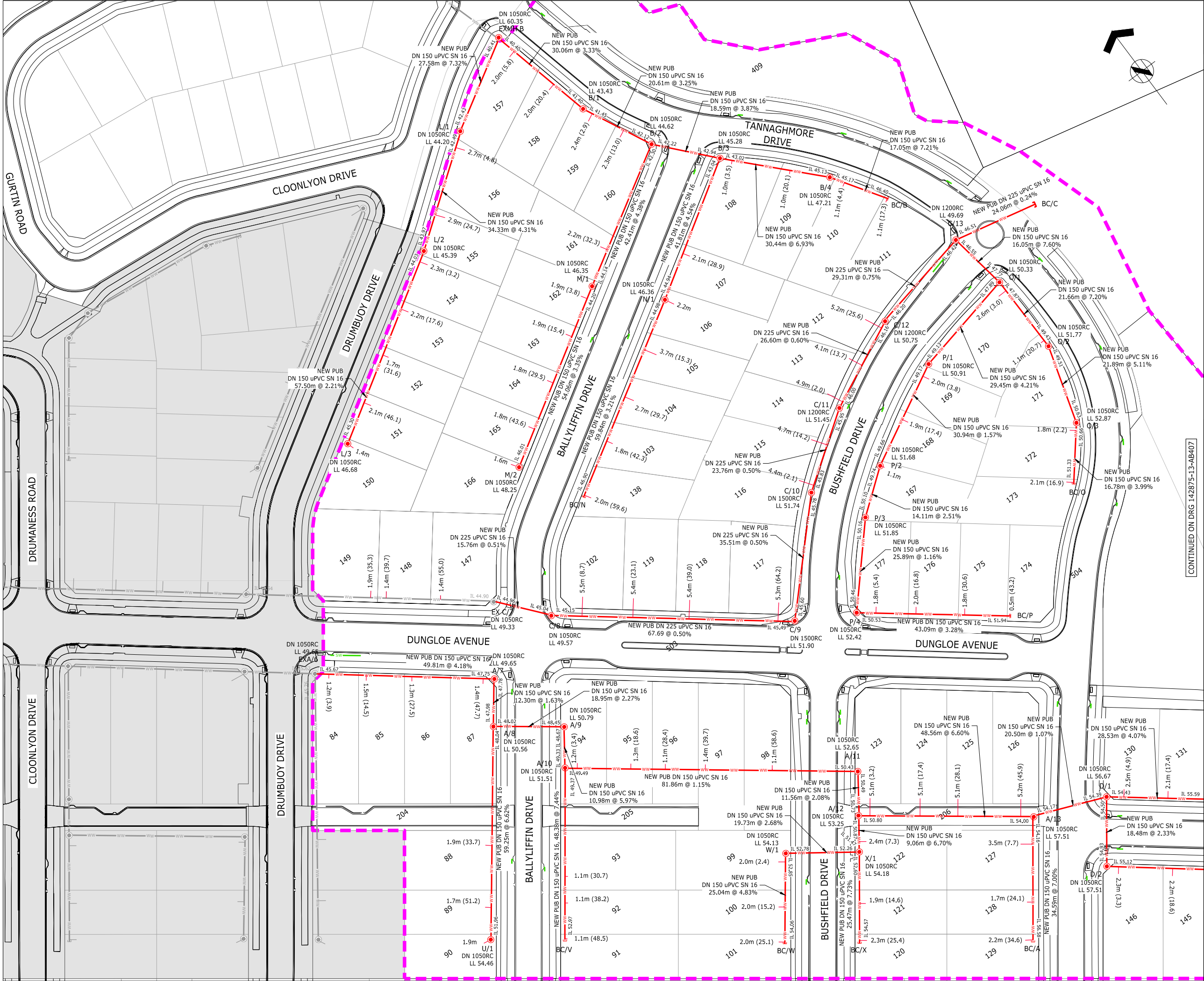
ISSUE STATUS:


AS-BUILT

PROJECT No: 1050-142875-01	SCALES: 1:1000-A1 1:2000-A3	A1
DRAWING No:		REV

142875-13-AB405

A





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NOTES:

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S 66 SO 48643
RL 54.50m
- ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE
- ALL CONNECTIONS ARE DN 100 uPVC. CHAINAGE FOR CONNECTIONS ARE FROM DOWNSTREAM MANHOLE CENTRE.
- ALL WASTEWATER LINES ARE PVC-U SN16 UNLESS SHOWN OTHERWISE.
- ALL NEW MANHOLES ARE DN 1050 RC UNLESS SHOWN OTHERWISE.
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.

LEGEND:


- STAGE BOUNDARY
- NEW PUBLIC WASTEWATER LINE
- EXISTING PUBLIC WASTEWATER LINE
- NEW LOT CONNECTION
- NEW PUBLIC MANHOLE
- EXISTING PUBLIC MANHOLE

ENGINEERING APPROVAL

ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed:  CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisingrierson.com



AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisingrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLATBUSH

TITLE:
**WASTEWATER
AS-BUILT PLAN
SHEET 1 OF 2**

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS

DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20

CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD

APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020

ISSUE STATUS:

AS-BUILT


PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	

DRAWING No:

142875-13-AB406

A

COORDINATE SCHEDULE			
POINT	mE	mN	LEVEL
A/10	1770366.20	5905378.89	51.51
A/11	1770431.87	5905328.31	52.65
A/12	1770424.53	5905318.21	53.25
A/13	1770463.99	5905288.14	57.51
A/7	1770365.29	5905411.05	49.65
A/8	1770357.00	5905400.46	50.56
A/9	1770372.97	5905388.31	50.79
B/1	1770482.26	5905524.95	43.43
B/2	1770491.76	5905505.33	44.62
B/3	1770504.86	5905490.51	45.28
B/4	1770526.50	5905467.53	47.21
C/10	1770468.76	5905399.32	51.74
C/11	1770489.47	5905413.69	51.45
C/12	1770514.55	5905425.56	50.75
C/13	1770544.38	5905431.91	49.69
C/8	1770388.95	5905415.69	49.57
C/9	1770443.19	5905373.12	51.90
D/1	1770483.88	5905280.28	56.67
D/2	1770472.13	5905264.50	57.51
D/3	1770550.83	5905201.41	61.44
E/1	1770507.22	5905261.90	60.35
E/2	1770549.01	5905228.94	60.35
L/1	1770450.65	5905540.79	44.20
L/2	1770422.06	5905519.86	45.39
L/3	1770372.07	5905489.21	46.68
M/1	1770454.17	5905483.29	46.35
M/2	1770406.87	5905454.76	48.25
N/1	1770468.35	5905467.84	46.36
O/1	1770547.08	5905414.92	50.33
O/2	1770547.31	5905392.12	51.77
O/3	1770540.62	5905370.04	52.87
P/1	1770517.14	5905408.48	50.91
P/2	1770488.88	5905393.69	51.68
P/3	1770476.78	5905384.52	51.85
P/4	1770458.59	5905364.44	52.42
U/1	1770320.19	5905352.68	54.46
W/1	1770401.64	5905322.03	54.13
X/1	1770418.55	5905309.86	54.18
EX C/7	1770378.27	5905428.63	49.33
EXA/6	1770325.56	5905442.74	49.65
EXMH B	1770475.26	5905555.45	60.35



ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

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NOTES:

1. ORIGIN OF LEVELS
S 66 SO 48643
RL 54.50m


2. ORIGIN OF COORDINATES
S 66 SO 48643
5905356.71mN
1770941.22mE

3. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:

- THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.
- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.




Signed:
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisongrierson.com



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W www.harrisongrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLATBUSH

TITLE:

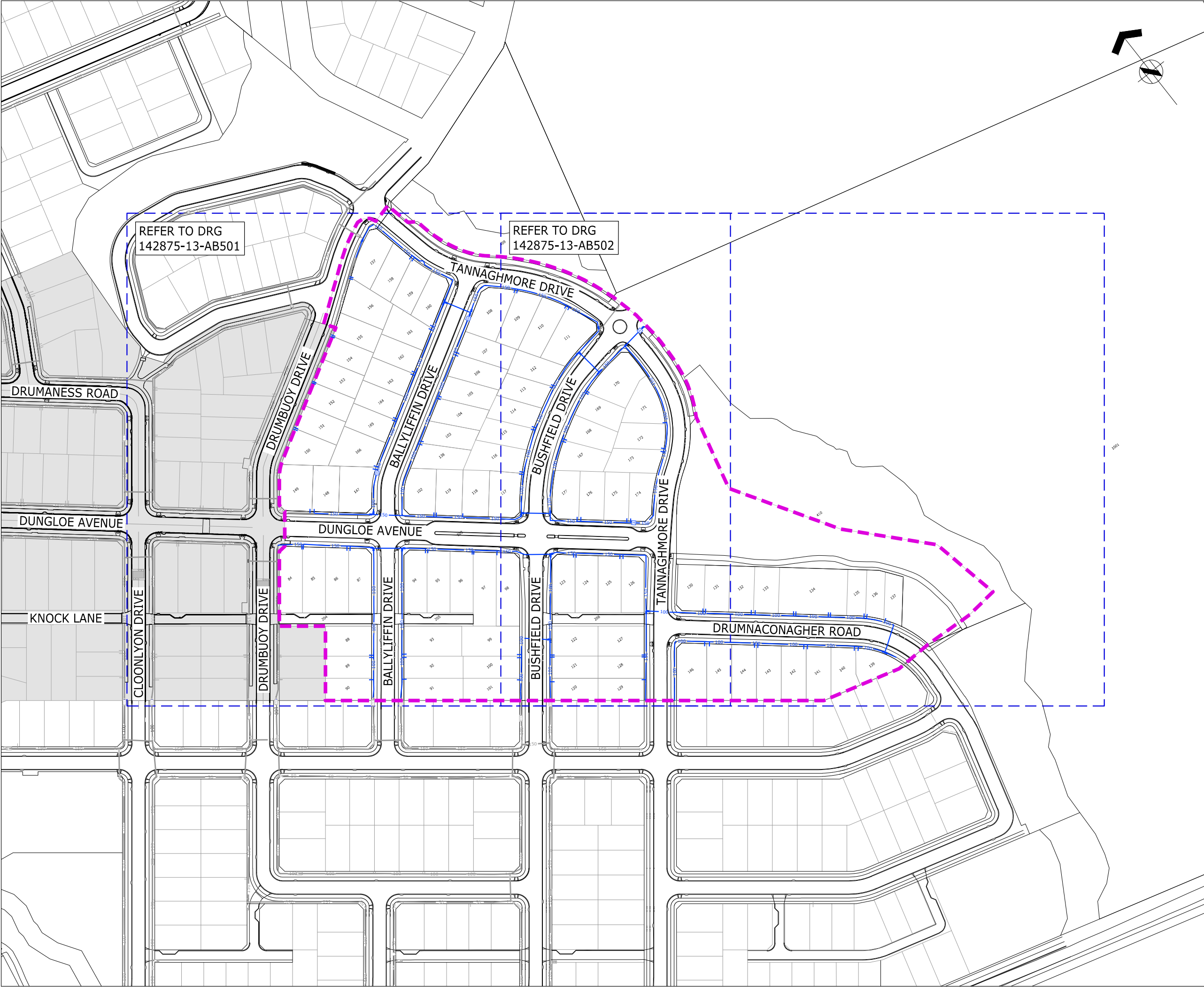
WASTEWATER AS-BUILT
SCHEDULE OF COORDINATES


ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No: 1050-142875-01	SCALES: NOT TO SCALE	A1
DRAWING No: 142875-13-AB408		REV A





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LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

NOTES:

1. COORDINATE DATUM - NZ TRANSVERSE MERCATOR
DATUM 2000.

2. ALL LOT CONNECTIONS ARE DN25

3. NB 100-150mmØ uPVC, AS/NZS 1477:1999
SERIES 11 PN12 COLOURED BLUE

4. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

LEGEND:

STAGE BOUNDARIES

— 150

NEW PUBLIC 150 NB UPVC WATERMAIN

— 100

NEW PUBLIC 100 NB UPVC WATERMAIN

NEW PRIVATE WATER LOT CONNECTIONS

NEW PUBLIC FIRE HYDRANT

NEW PUBLIC SLUICE VALVE

NEW PUBLIC PEET VALVE

NEW PUBLIC BLANK CAP

NEW WATER METER BANK

EXISTING PUBLIC WATERMAIN

EXISTING SLUICE VALVE


EXISTING PEET VALVE

ENGINEERING APPROVAL
ENG-60349136

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Signed: 
CHARTERED PROFESSIONAL ENGINEER

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W www.harrisonsgrierson.com

A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE
PROJECT:			
HUGH GREEN LIMITED			
DONEGAL STAGE 13			
36 TIR CONAILL AVENUE, FLAT BUSH			
TITLE:			
WATERMAIN AS-BUILT			
OVERALL LAYOUT PLAN			
ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020
ISSUE STATUS:			
AS-BUILT			
PROJECT No:	SCALES:	A1	
1050-142875-01	1:1000-A1 1:2000-A3		
DRAWING No:			REV
142875-13-AB500			A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: DATA\LOCAL\AUTODESK\C3D 2021\ENU\TEMPLATE N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB500-503.DWG





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NOTES:

- COORDINATE DATUM - NZ TRANSVERSE MERCATOR DATUM 2000.
- ALL LOT CONNECTIONS ARE DN25
- NB 100-150mmØ uPVC, AS/NZS 1477:1999 SERIES 11 PN12 COLOURED BLUE
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.

LEGEND:

- STAGE BOUNDARIES
- NEW PUBLIC 150 NB uPVC WATERMAIN
- NEW PUBLIC 100 NB uPVC WATERMAIN
- NEW PRIVATE WATER LOT CONNECTIONS
- NEW PUBLIC FIRE HYDRANT
- NEW PUBLIC SLUICE VALVE
- NEW PUBLIC PEET VALVE
- NEW PUBLIC BLANK CAP
- NEW WATER METER BANK
- EXISTING PUBLIC WATERMAIN
- EXISTING SLUICE VALVE
- EXISTING PEET VALVE

ENGINEERING APPROVAL
ENG-60349136

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- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 21/12/2020

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisingrierson.com



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PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisingrierson.com

REF	REVISIONS	BY	DATE
A	AS-BUILT	DDS	21.12.20

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

WATERMAIN AS-BUILT PLAN
SHEET 1 OF 2

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		21.12.20
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	18.12.20		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	18.12.20		11.2020




ISSUE STATUS:

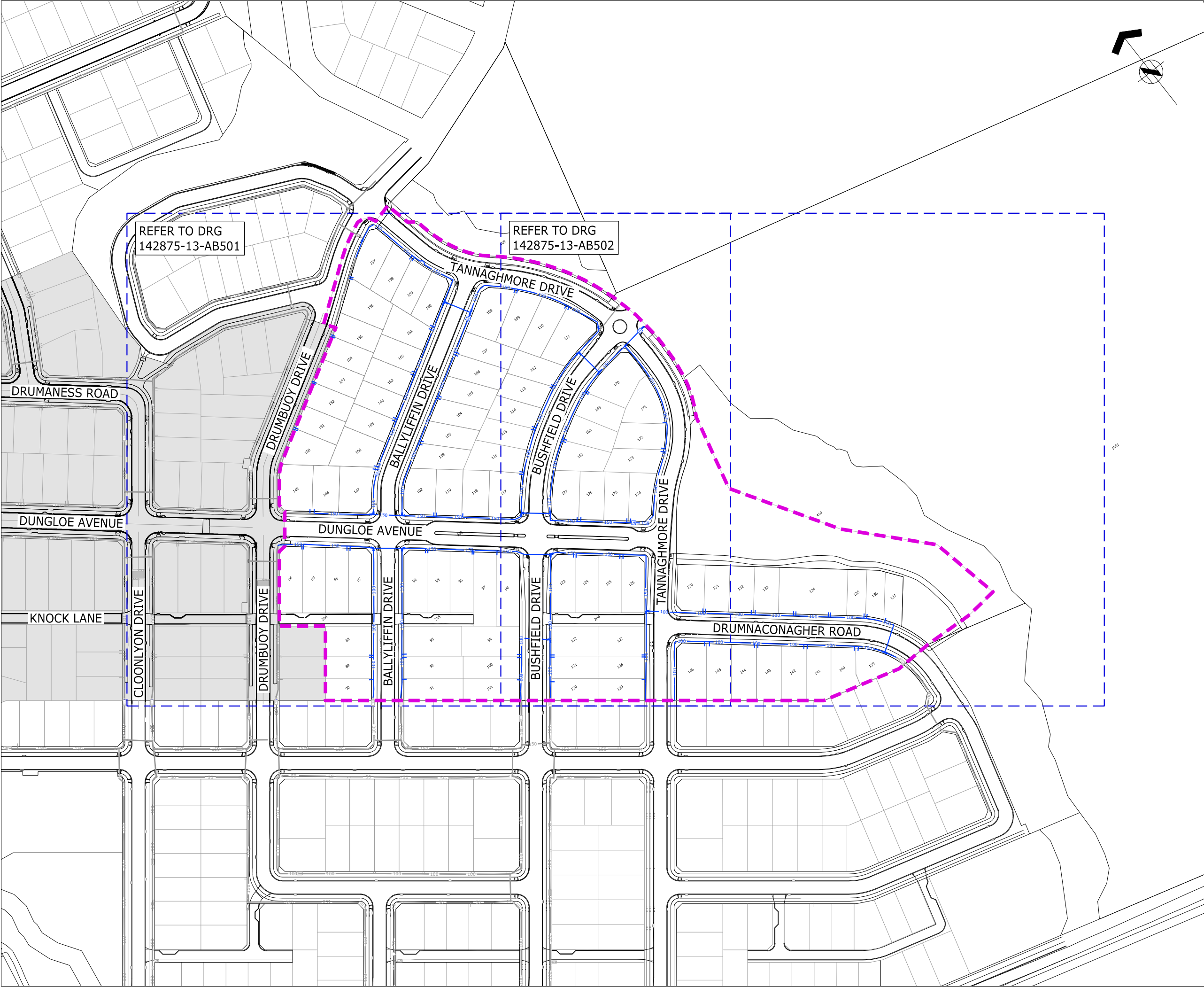
AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	
DRAWING No:		REV
142875-13-AB501		A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: DATA\LOCAL\AUTODESK\C3D 2021\ENU\TEMPLATE N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB500-503.DWG

COORDINATE SCHEDULE			
POINT	mE	mN	RL
FH01	1770487.59	5905482.33	44.33
FH02	1770394.25	5905443.40	48.68
FH03	1770561.05	5905418.88	49.44
FH04	1770493.27	5905334.22	53.98
SV01	1770466.20	5905553.25	42.33
SV02	1770482.90	5905498.39	44.51
SV03	1770481.29	5905497.38	44.51
SV04	1770482.79	5905497.15	44.55
SV05	1770491.62	5905484.86	44.59
SV06	1770489.63	5905483.61	44.49
SV07	1770379.12	5905426.89	48.26
SV08	1770377.37	5905426.99	48.31
SV09	1770366.74	5905411.64	49.14
SV10	1770366.77	5905410.25	49.06
SV11	1770380.94	5905400.59	49.30
SV12	1770379.53	5905400.44	49.20
SV13	1770543.06	5905434.09	49.26
SV14	1770563.29	5905419.24	49.30
SV15	1770549.44	5905417.03	49.64
SV16	1770526.11	5905428.86	49.65
SV17	1770524.78	5905429.50	49.56
SV18	1770529.31	5905414.02	49.92
SV19	1770527.45	5905413.64	49.88
SV20	1770446.46	5905376.21	51.44
SV21	1770444.94	5905375.91	51.48
SV22	1770458.99	5905367.45	51.46
SV23	1770445.57	5905348.06	51.70
SV24	1770444.27	5905347.52	51.69
SV25	1770415.38	5905310.54	53.58
SV26	1770415.28	5905309.23	53.67
SV27	1770469.56	5905289.80	55.84
SV28	1770468.29	5905289.75	55.96
SV29	1770561.95	5905191.80	61.99
SV30	1770562.78	5905190.33	62.02
TEE01	1770482.28	5905497.97	44.20
TEE02	1770490.57	5905484.14	44.28
TEE03	1770378.54	5905426.10	48.04
TEE04	1770391.08	5905416.00	48.21
TEE05	1770367.29	5905411.00	48.79
TEE06	1770380.12	5905401.22	48.97
TEE07	1770548.69	5905416.92	49.34
TEE08	1770526.02	5905429.71	49.30
TEE09	1770528.39	5905413.87	49.61
TEE10	1770445.69	5905376.77	51.13
TEE11	1770458.61	5905366.76	51.21
TEE12	1770444.84	5905348.33	51.37
TEE13	1770415.95	5905310.16	53.37
TEE14	1770468.79	5905290.47	55.62
TEE15	1770562.37	5905191.10	61.73

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<div>NOTES:</div> <div><div>1. COORDINATE DATUM - NZ TRANSVERSE MERCATOR DATUM 2000.</div><div>2. SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.</div></div>			
<div>ENGINEERING APPROVAL</div> <div>ENG-60349136</div>			
<div>I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF THE WORKS UNDERTAKEN AND THAT:</div> <div><div>• THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD (2000), AND ARE WITHIN ±50mm.</div><div>• THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.</div></div> <div><div></div><div>Signed: CHARTERED PROFESSIONAL ENGINEER</div><div>Date: 21/12/2020</div><div>Name: CAMPBELL MCGREGOR</div><div>Phone: 09-917-5000</div><div>Email: c.mcgregor@harrisonsongrierson.com</div></div>			
<div><div></div><div>AUCKLAND OFFICE LEVEL 4, 96 ST GEORGES BAY ROAD PARNELL AUCKLAND 1052 T +64 9 917 5000 W www.harrisonsongrierson.com</div></div>			
A	AS-BUILT	DDS 21.12.20	
REF	REVISIONS	BY DATE	
PROJECT:			
HUGH GREEN LIMITED DONEGAL STAGE 13 36 TIR CONAILL AVENUE, FLAT BUSH			
TITLE:			
WATERMAIN AS-BUILT COORDINATE SCHEDULE			
ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 21.12.20
CHECKED: JOM	DATE: 18.12.20	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 18.12.20	SIGNED:	SURVEY DATE: 11.2020
ISSUE STATUS:			
AS-BUILT			
PROJECT No: 1050-142875-01		SCALES: NOT TO SCALE	A1
DRAWING No:			REV
142875-13-AB503			A





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NOTES:

1.

COORDINATE DATUM - NZ TRANSVERSE MERCATOR
DATUM 2000.

2.

ALL LOT CONNECTIONS ARE DN25

3.

NB 100-150mmØ uPVC, AS/NZS 1477:1999
SERIES 11 PN12 COLOURED BLUE

4.

SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

LEGEND:

STAGE BOUNDARIES

— 150

NEW PUBLIC 150 NB UPVC WATERMAIN

— 100

NEW PUBLIC 100 NB UPVC WATERMAIN

NEW PRIVATE WATER LOT CONNECTIONS

NEW PUBLIC FIRE HYDRANT

NEW PUBLIC SLUICE VALVE

NEW PUBLIC PEET VALVE

NEW PUBLIC BLANK CAP

NEW WATER METER BANK

— 150

EXISTING PUBLIC WATERMAIN

EXISTING SLUICE VALVE

EXISTING PEET VALVE

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF
THE WORKS UNDERTAKEN AND THAT:

•

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(2000), AND ARE WITHIN ±50mm.

•

THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL)
LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 13/01/2021

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisonsgrierson.com



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W www.harrisonsgrierson.com

B	AS-BUILT	DDS	13.01.21
A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

WATERMAIN AS-BUILT
OVERALL LAYOUT PLAN

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		13.01.21
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	13.01.21		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	13.01.21		11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	
1050-142875-01	1:1000-A1 1:2000-A3	A1
DRAWING No:		REV

142875-13-AB500

B

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: DATA\LOCAL\AUTODESK\C3D 2021\ENU\TEMPLATE N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB500-503.DWG





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NOTES:

- COORDINATE DATUM - NZ TRANSVERSE MERCATOR DATUM 2000.
- ALL LOT CONNECTIONS ARE DN25
- NB 100-150mmØ uPVC, AS/NZS 1477:1999 SERIES 11 PN12 COLOURED BLUE
- SURVEY INFORMATION PROVIDED BY DEMPSEY WOOD CIVIL LTD AND TO THE BEST OF OUR KNOWLEDGE IS ACCURATE.

LEGEND:

- STAGE BOUNDARIES
- NEW PUBLIC 150 NB uPVC WATERMAIN
- NEW PUBLIC 100 NB uPVC WATERMAIN
- NEW PRIVATE WATER LOT CONNECTIONS
- NEW PUBLIC FIRE HYDRANT
- NEW PUBLIC SLUICE VALVE
- NEW PUBLIC PEET VALVE
- NEW PUBLIC BLANK CAP
- NEW WATER METER BANK
- EXISTING PUBLIC WATERMAIN
- EXISTING SLUICE VALVE
- EXISTING PEET VALVE

ENGINEERING APPROVAL
ENG-60349136

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- THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL) LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed:  CHARTERED PROFESSIONAL ENGINEER

Date: 13/01/2021

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W www.harrisingrierson.com

B	AS-BUILT	DDS	13.01.21
A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

WATERMAIN AS-BUILT PLAN
SHEET 1 OF 2

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		13.01.21
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	13.01.21		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	13.01.21		11.2020

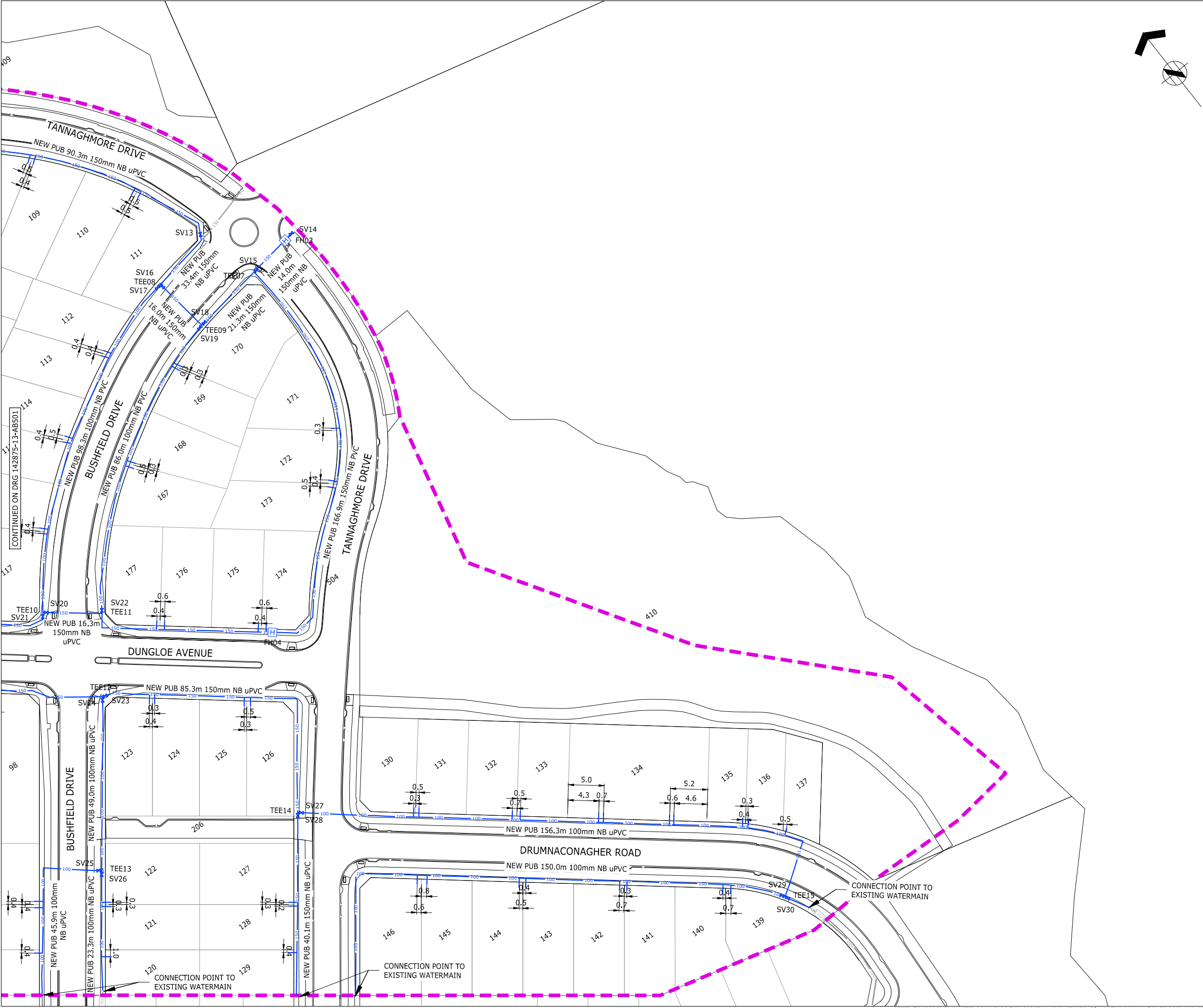
ISSUE STATUS:

AS-BUILT

PROJECT No:	1050-142875-01	SCALES:	1:500-A1 1:1000-A3	A1
DRAWING No:				REV

142875-13-AB501

B





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LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING.

NOTES:

1. COORDINATE DATUM - NZ TRANSVERSE MERCATOR
DATUM 2000.

2. ALL LOT CONNECTIONS ARE DN25

3. NB 100-150mmØ uPVC, AS/NZS 1477:1999
SERIES 11 PN12 COLOURED BLUE

4. SURVEY INFORMATION PROVIDED BY DEMPSEY
WOOD CIVIL LTD AND TO THE BEST OF OUR
KNOWLEDGE IS ACCURATE.

LEGEND:

STAGE BOUNDARIES

NEW PUBLIC 150 NB UPVC WATERMAIN

NEW PUBLIC 100 NB UPVC WATERMAIN

NEW PRIVATE WATER LOT CONNECTIONS

NEW PUBLIC FIRE HYDRANT

NEW PUBLIC SLUICE VALVE

NEW PUBLIC PEET VALVE

NEW PUBLIC BLANK CAP

NEW WATER METER BANK

EXISTING PUBLIC WATERMAIN

EXISTING SLUICE VALVE

EXISTING PEET VALVE

ENGINEERING APPROVAL
ENG-60349136

I CERTIFY THAT THESE ASBUILT PLANS ARE AN ACCURATE RECORD OF
THE WORKS UNDERTAKEN AND THAT:

THE COORDINATES (X,Y) ARE IN TERMS OF NZTM ON NZGD
(2000), AND ARE WITHIN ±50mm.

THE LEVELS (Z) ARE IN TERMS OF THE AUCKLAND 1946 (MSL)
LINZ DATUM (DOSLI DATUM), AND ARE WITHIN ±25mm.

Signed: 
CHARTERED PROFESSIONAL ENGINEER

Date: 13/01/2021

Name: CAMPBELL MCGREGOR

Phone: 09-917-5000

Email: c.mcgregor@harrisingrierson.com

HG

AUCKLAND OFFICE
LEVEL 4, 96 ST GEORGES BAY ROAD
PARNELL AUCKLAND 1052
T +64 9 917 5000
W www.harrisingrierson.com

B	AS-BUILT	DDS	13.01.21
A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

WATERMAIN AS-BUILT PLAN
SHEET 2 OF 2

ORIGINATOR:	DATE:	SIGNED:	PLOT BY:
DDS	16.11.20		DDS
DRAWN:	DATE:	SIGNED:	PLOT DATE:
JYW	16.11.20		13.01.21
CHECKED:	DATE:	SIGNED:	SURVEY BY:
JOM	13.01.21		DEMPSEY WOOD
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
DAS	13.01.21		11.2020


ISSUE STATUS:

AS-BUILT

PROJECT No:	SCALES:	A1
1050-142875-01	1:500-A1 1:1000-A3	
DRAWING No:		REV
142875-13-AB502		B

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: DATA\LOCAL\AUTODESK\C3D 2021\ENU\TEMPLATE N:\1050\142875_A\CAD\AS-BUILTS\STAGE 13\142875-13-AB500-503.DWG

COORDINATE SCHEDULE			
POINT	mE	mN	RL
FH01	1770487.59	5905482.33	44.33
FH02	1770394.25	5905443.40	48.68
FH03	1770561.05	5905418.88	49.44
FH04	1770493.27	5905334.22	53.98
SV01	1770466.20	5905553.25	42.33
SV02	1770482.90	5905498.39	44.51
SV03	1770481.29	5905497.38	44.51
SV04	1770482.79	5905497.15	44.55
SV05	1770491.62	5905484.86	44.59
SV06	1770489.63	5905483.61	44.49
SV07	1770379.12	5905426.89	48.26
SV08	1770377.37	5905426.99	48.31
SV09	1770366.74	5905411.64	49.14
SV10	1770366.77	5905410.25	49.06
SV11	1770380.94	5905400.59	49.30
SV12	1770379.53	5905400.44	49.20
SV13	1770543.06	5905434.09	49.26
SV14	1770563.29	5905419.24	49.30
SV15	1770549.44	5905417.03	49.64
SV16	1770526.11	5905428.86	49.65
SV17	1770524.78	5905429.50	49.56
SV18	1770529.31	5905414.02	49.92
SV19	1770527.45	5905413.64	49.88
SV20	1770446.46	5905376.21	51.44
SV21	1770444.94	5905375.91	51.48
SV22	1770458.99	5905367.45	51.46
SV23	1770445.57	5905348.06	51.70
SV24	1770444.27	5905347.52	51.69
SV25	1770415.38	5905310.54	53.58
SV26	1770415.28	5905309.23	53.67
SV27	1770469.56	5905289.80	55.84
SV28	1770468.29	5905289.75	55.96
SV29	1770561.95	5905191.80	61.99
SV30	1770562.78	5905190.33	62.02
SV31	1770391.68	5905416.77	48.62
SV32	1770391.84	5905415.37	48.61
TEE01	1770482.28	5905497.97	44.20
TEE02	1770490.57	5905484.14	44.28
TEE03	1770378.54	5905426.10	48.04
TEE04	1770391.08	5905416.00	48.21
TEE05	1770367.29	5905411.00	48.79
TEE06	1770380.12	5905401.22	48.97
TEE07	1770548.69	5905416.92	49.34
TEE08	1770526.02	5905429.71	49.30
TEE09	1770528.39	5905413.87	49.61
TEE10	1770445.69	5905376.77	51.13
TEE11	1770458.61	5905366.76	51.21
TEE12	1770444.84	5905348.33	51.37
TEE13	1770415.95	5905310.16	53.37
TEE14	1770468.79	5905290.47	55.62
TEE15	1770562.37	5905191.10	61.73



ASSOCIATION OF CONSULTING
ENGINEERS NEW ZEALAND

ISO 9001
QUALITY
ASSURED

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NOTES:


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ENGINEERING APPROVAL
ENG-60349136

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Signed:
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B	AS-BUILT	DDS	13.01.21
A	AS-BUILT	DDS	21.12.20
REF	REVISIONS	BY	DATE

PROJECT:

HUGH GREEN LIMITED
DONEGAL STAGE 13
36 TIR CONAILL AVENUE, FLAT BUSH

TITLE:

WATERMAIN AS-BUILT
COORDINATE SCHEDULE

ORIGINATOR: DDS	DATE: 16.11.20	SIGNED:	PLOT BY: DDS
DRAWN: JYW	DATE: 16.11.20	SIGNED:	PLOT DATE: 13.01.21
CHECKED: JOM	DATE: 13.01.21	SIGNED:	SURVEY BY: DEMPSEY WOOD
APPROVED: DAS	DATE: 13.01.21	SIGNED:	SURVEY DATE: 11.2020

ISSUE STATUS:

AS-BUILT

PROJECT No: 1050-142875-01	SCALES: NOT TO SCALE	A1
DRAWING No: 142875-13-AB503		REV B