Appendix G

DRAINAGE STRATEGY LAYOUT

Public

Appendix G.1

OUTLINE PLANNING APPLICATION SITE DRAINAGE STRATEGY LAYOUT

Public

DO NOT SCALE

NOTES

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETRES AND ALL LEVELS ARE SHOWN IN METRES UNLESS NOTED OTHERWISE.
2. THIS DRAWING IS IN THE DEVELOPMENT STAGE AND IS SUBJECT TO CHANGE.
3. THIS DRAWING IS BASED ON THE FOLLOWING INFORMATION:
   - TOPOGRAPHICAL SURVEY REF 52187_01 BY MALCOLM HUGHES SURVEYORS DATED MARCH 2019.
   - SITE MASTERPLAN REF 4150-CA-00-00-DR-A-05100_INDICATIVE MASTERPLAN OPP DWG.1-SK12 BY CHETWOODS DATED OCTOBER 2019.
   - UNITED UTILITIES SEWER RECORDS DATED NOVEMBER 2019.
4. PROPOSED IMPERMEABLE AREAS ARE MEASURED FROM THE SITE MASTERPLAN LAYOUT. THE STORAGE VOLUMES DISPLAYED REPRESENT THE TOTAL REQUIREMENTS FOR EACH UNIT BASED ON THE SITE GREENFIELD RUNOFF RATE.

M62

POTENTIAL LANDSCAPE / ECOLOGICAL MITIGATION BUFFER (TBC)

UNNAMED WATERCOURSE

WHITTLE BROOK

BARROW BROOK

UNIT 1

UNIT 2

UNIT 3

UNIT 4

EXISTING THG BUILDING

LOCATION OF FOUL WATER CONNECTION TO EXISTING PUBLIC SEWERS

CATALINA APPROACH

EXISTING 225Ø UNITED UTILITIES FOUL SEWER

FOUL WATER PUMPING STATION AND STORAGE

BOOTH'S WOOD

Old Hall Plantation

DETAILED PLANNING APPLICATION SITE

PLEASE REFER TO DRAWING NOS 131504 UNIT1 DWG.24, DWG.25 AND DWG.26 BY FARHURST FOR DETAILED PLANNING APPLICATION SITE DRAINAGE STRATEGY.

PROPOSED ATTENUATION POND
APPROX STORAGE (1.5m DEEP) 11,600 m³

POTENTIAL LOCATION OF OUTFALL TO REALIGNED LOCATION OF WHITTLE BROOK

OUTLINE PLANNING APPLICATION SITE – UNIT 2

TOTAL IMPERMEABLE AREA: 9.011 ha
APPROX DESIGN DISCHARGE RATE: 52.3 l/s

STORAGE VOLUME REQUIRED: 6,455 m³ (100Y+40%CC)
DISCHARGE LOCATION: WHITTLE BROOK

OUTLINE PLANNING APPLICATION SITE – UNIT 4

TOTAL IMPERMEABLE AREA: 6.398 ha
APPROX DESIGN DISCHARGE RATE: 37.1 l/s

STORAGE VOLUME REQUIRED: 4,580 m³ (100Y+40%CC)
DISCHARGE LOCATION: WHITTLE BROOK

OUTLINE PLANNING APPLICATION SITE – UNIT 3

TOTAL IMPERMEABLE AREA: 6.247 ha
APPROX DESIGN DISCHARGE RATE: 36.2 l/s

STORAGE VOLUME REQUIRED: 4,460 m³ (100Y+40%CC)
DISCHARGE LOCATION: WHITTLE BROOK

EXISTING UNITED UTILITIES FOUL AND SURFACE WATER SEWERS

LINGLEY MERE BUSINESS PARK

EXISTING UNITED UTILITIES SURFACE WATER SEWER

PROPOSED ATTENUATION POND
APPROX STORAGE (1.5m DEEP) 6,600 m³

POTENTIAL LOCATION OF OUTFALL TO WHITTLE BROOK

KEY

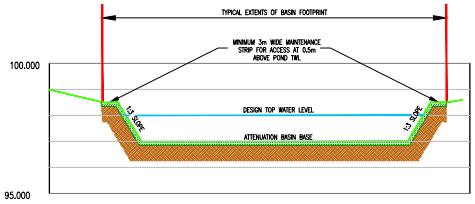
- SITE BOUNDARY
- EXISTING UNITED UTILITIES SEWER (APPROXIMATE LOCATION)
- PROPOSED FOUL WATER PUMPING STATION AND RISING MAIN (APPROXIMATE LOCATION)
- OVERLAND FLOOD FLOW ROUTE
- POTENTIAL ROUTE FOR GRASSED CHANNELS / SWALES, SUBJECT TO SUITABILITY OF LAYOUT AND FINISHED LEVELS
- INDICATIVE PRIMARY SURFACE WATER ROUTE
- INDICATIVE PRIMARY FOUL SEWER ROUTE
- POTENTIAL LOCATION FOR ABOVE GROUND SuDS IE ATTENUATION PONDS

OUTLINE SITE – UNIT X

TOTAL IMPERMEABLE AREA: X.XXX ha
APPROX DESIGN DISCHARGE RATE: XX l/s

STORAGE VOLUME REQUIRED: X,XXX m³ (100Y+40%CC)
DISCHARGE LOCATION: XXX

- TOTAL AREA OF IMPERMEABLE SURFACE WITHIN THE CATCHMENT.
- PERMITTED ATTENUATED OUT FLOW RATE BASED ON 5.8 l/s/ha GREENFIELD RUN-OFF RATE.
- VOLUME OF STORAGE REQUIRED TO RETAIN SURPLUS FLOWS FOR THE CRITICAL 100 YEAR + 40% STORM EVENT.
- PROPOSED DISCHARGE LOCATION FOR THE SURFACE WATER OUTFALL



TYPICAL CROSS SECTION THROUGH ATTENUATION BASIN

REV	DATE	BY	DESCRIPTION	CHK	APP
P03	04/08/2020	DV	UPDATE TO SUIT WATERCOURSE DIVERSION ROUTE	LO	GF
P02	16/12/2019	DV	GENERAL UPDATE	LC	CLI
P01	06/12/2019	DV	FIRST ISSUE	LC	

DRAWING STATUS: S2 - FOR INFORMATION

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wsp.com

CLIENT: OMEGA ST. HELENS

ARCHITECT:

SITE/PROJECT: OMEGA ZONE 8, ST. HELENS

TITLE: OUTLINE PLANNING APPLICATION SITE DRAINAGE STRATEGY LAYOUT

SCALE @ A1	CHECKED:	APPROVED:
1:2800	VD	MWW

PROJECT NO	DESIGNED:	DRAWN:	DATE:
70060349	DV	DV	August 20

DRAWING No: 70060349-WSP-ZZ-XX-DR-D-002 REV: P03

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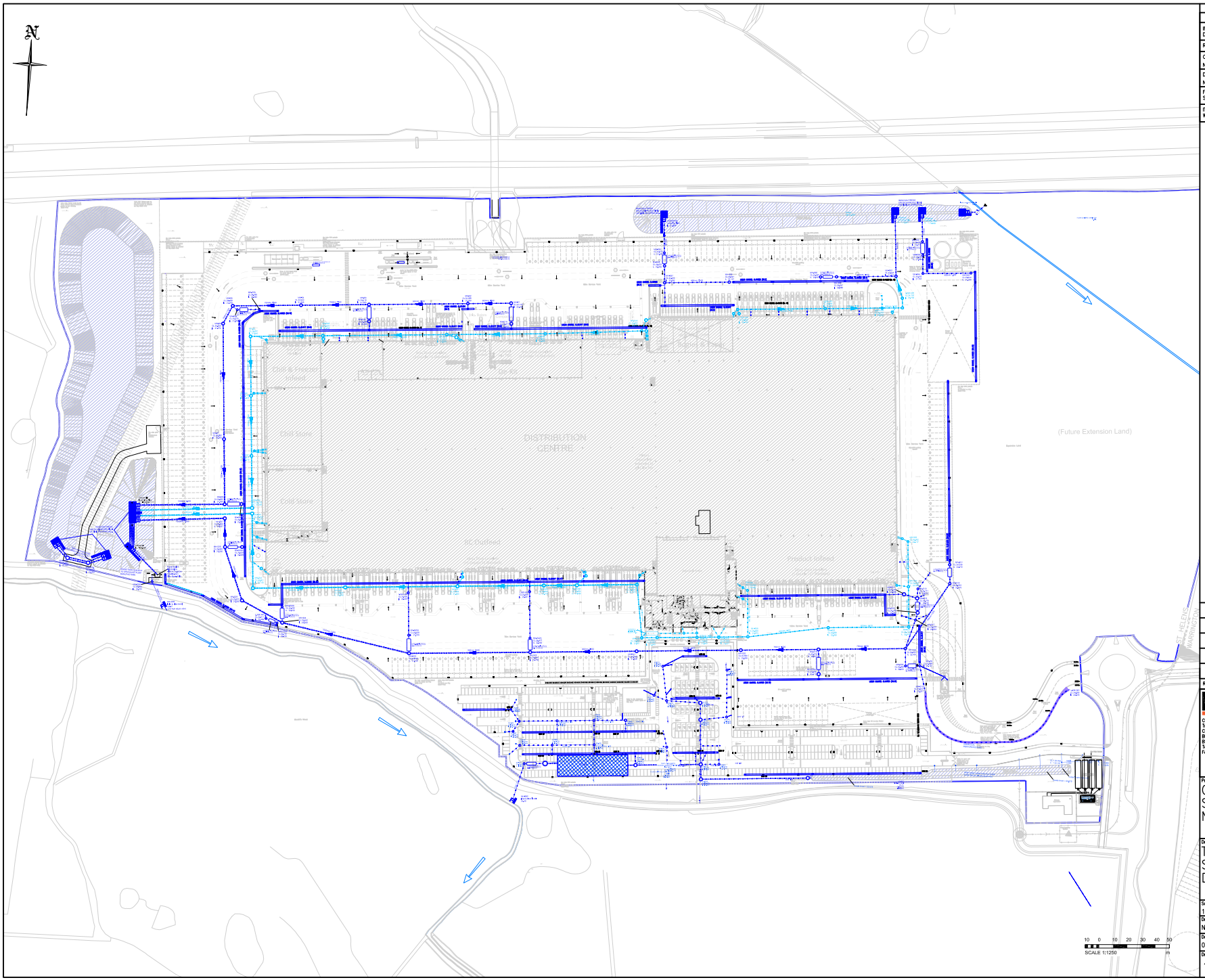
File name \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\70060349\70060349 - OMEGA ZONE 8\03 WIP\DOC DEVELOPMENT\03 DRAWING\70060349-WSP-ZZ-XX-DR-D-002 P03.DWG, printed on 04 August 2020 08:57:21, by Valla, Deepika

Appendix G.2

DETAILED PLANNING APPLICATION SITE DRAINAGE STRATEGY LAYOUT

Public



Do not scale from this drawing.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.

RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM NO.

CONSTRUCTION
NONE THAT A COMPETENT CONTRACTOR WOULDN'T ALREADY BE AWARE OF.

DEMOLITION
NONE THAT A COMPETENT CONTRACTOR WOULDN'T ALREADY BE AWARE OF.

FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE.

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.

NOTES

- PIPE SIZES AND SEPARATORS SHOWN ARE INDICATIVE AND ARE SUBJECT TO CONFIRMATION.

KEY

- BYPASS SEPARATOR
- SURFACE WATER DRAINAGE
- LINEAR DRAINAGE
- CHANNEL DRAINAGE

Rev.	Date	Description	Dran.	Chkd.	Appd.
E	30.07.20	UPDATED TO SUIT THE LATEST ARCHITECTS SITE LAYOUT	PMJ	DT	DT
D	16.06.19	REVISED TO SUIT LATEST ARCHITECTS LAYOUT	MDF	PJ	DT
C	18.12.19	DRAWINGS AMENDED TO PLANNING CONSULTANTS COMMENTS	MDF	PJ	DT
B	11.12.19	REVISED TO SUIT LATEST ARCHITECTS LAYOUT	NJS	PJ	DT
A	04.12.19	FIRST ISSUE	NJS	PJ	DT

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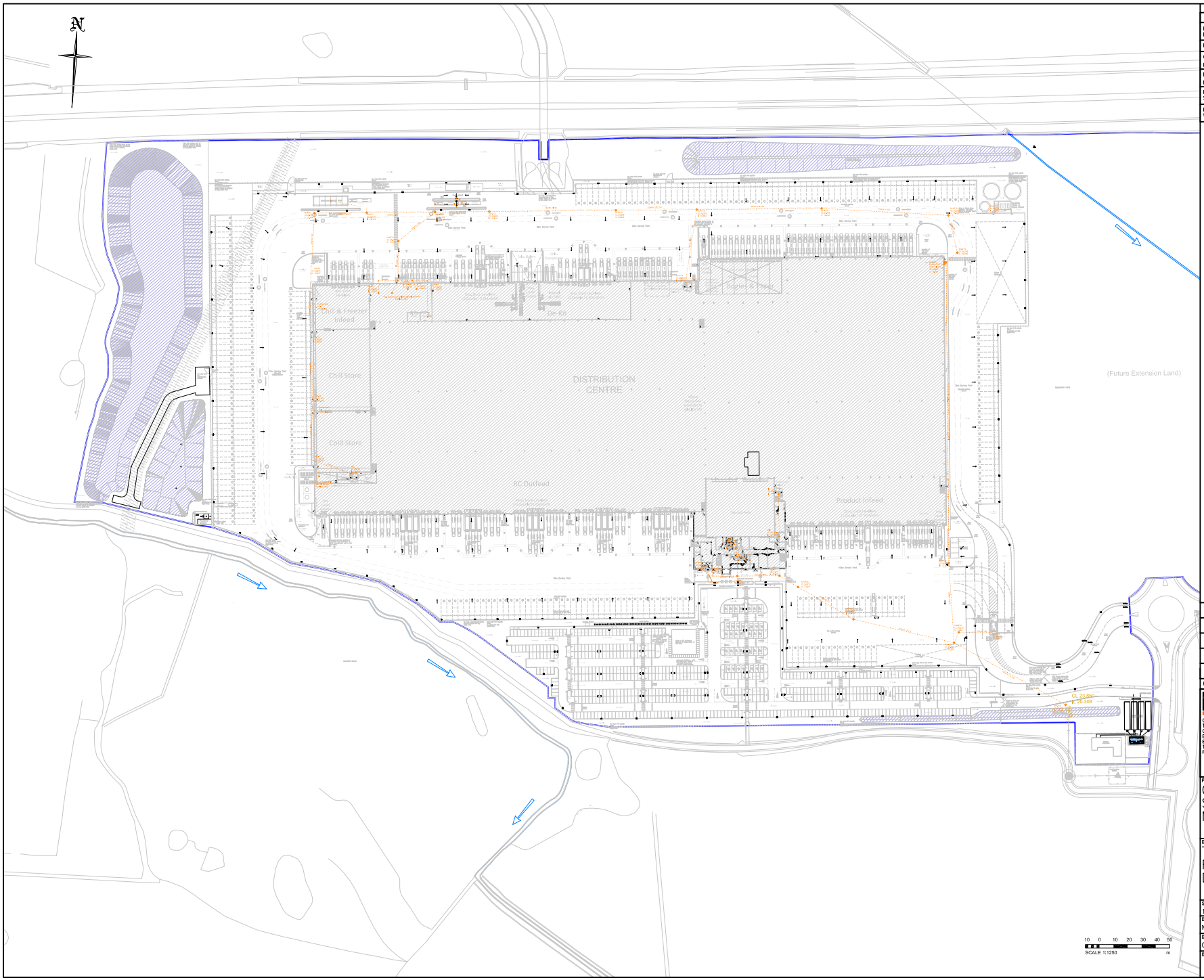
T.J.MORRIS LTD

Project Title:
OMEGA ZONE 8
ST. HELENS
NEW DISTRIBUTION HUB

Drawing Title:
TJM PLOT
SURFACE WATER
DRAINAGE LAYOUT

Scale at A1:	Status:	
1:1250	Planning	
Drawn:	Checked:	Approved:
NS	PJ	DT
Date:	Date:	Date:
03.12.2019	04.12.2019	04.12.2019

Drawing No.:		Revision:
131504	UNIT 1 DWG.24	E



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1:1250	Planning	
Drawn:	Checked:	Approved:
NS	PJ	DT
Date:	Date:	Date:
03.12.2019	04.12.2019	04.12.2019

Drawing No.:		Revision:
131504	UNIT 1 DWG.25	E