



STORMWATER MANAGEMENT REPORT

Buckingham Arms Development, Walkerville Terrace (1-9), Gilberton

Prepared by: SR

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Project No: 23394
Revision: -00-
Date of Issue: 24/05/2023

INTRODUCTION

A re-development of the Buckingham Arms is proposed to be constructed at 1-9 Walkerville Terrace, Gilberton. This report considers the stormwater management including detention in accordance with council's requirements.

THE SITE

The site is a triangle shaped piece of land approximately 6249m² in area. The site is bordered by Walkerville Terrace to the East and Northcote Terrace to the West. The site is currently developed with an existing hotel and carpark. Most of the site is impervious. The site falls approx. 0.4m from the north to the south corner of the site.

There are multiple existing side entry pit stormwater connections surrounding the site along with a perimeter kerb and tray.

STORMWATER DETENTION

Flow generated by the post development major storm event must not exceed that generated by the pre-development minor storm event.

Calculations show that the maximum allowable stormwater flow from this site must not exceed 144.40 L/sec, Post development flows are 154.10 L/s. We only require a negligible 3.0kL detention for the site and hence no detention will form part of this application. Refer to appendix A of this report for the supporting calculations.

STORMWATER DESIGN

The FFL of the building is proposed to provide 300mm freeboard above the highest adjacent kerb. Final building FFL to be confirmed at future stage.

All roof and paved catchment areas within the site will be directed to the stormwater pits and discharge to existing street water table or side entry pits. Final stormwater pipe layout and sizes will be determined in accordance with AS3500.3 during detailed design development stage in the future.

Proprietary at sump treatment devices will be installed to trafficable areas prior to discharging from the site to reduce any potential pollutants. Suitable treatment devices will be specified once we get into detailed design development.

APPENDIX A

STORMWATER DETENTION CALCULATIONS

Project: Buckingham Arms

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Page 1 of 1

PRE DEVELOPMENT v POST DEVELOPMENT DETENTION VOLUME GRAVITY SYSTEM (Worst Case)

Time of Concentration 5 mins
 Rainfall Intensity **99.8** mm/hr 10% AEP

PRE DEVELOPMENT FLOW

| Catchment Area | C | Area (m ²) | |
|----------------|------|------------------------|--------------------|
| Roof | 0.95 | 1487 | 39.2 |
| Impervious | 0.85 | 4374 | 103.1 |
| Pervious | 0.2 | 388 | 2.2 |
| Total | | | 144.4 L/sec |

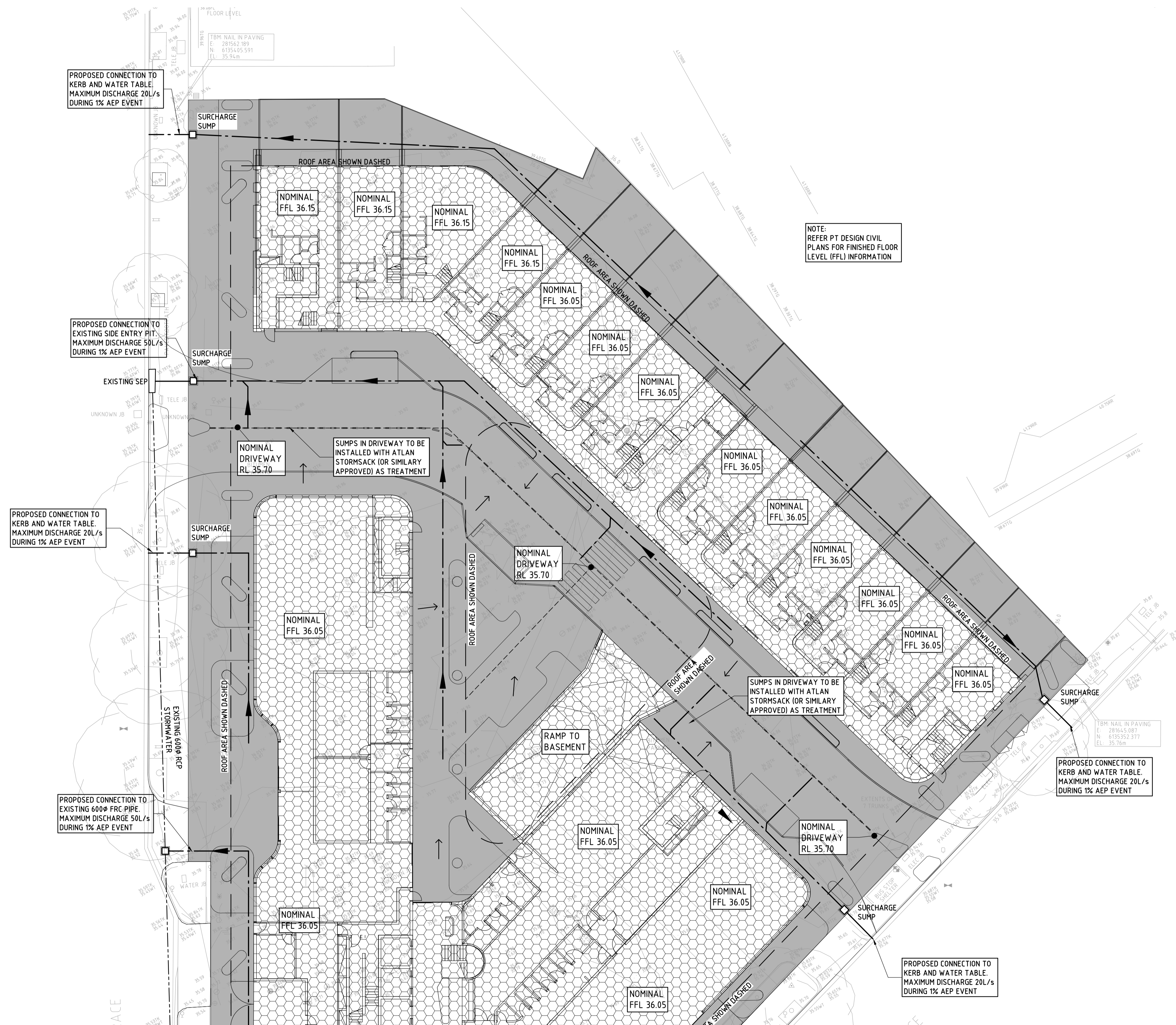
POST DEVELOPMENT FLOW

| Catchment Area | C | Area (m ²) | |
|----------------|------|------------------------|--------------------|
| Roof | 0.95 | 5549 | 146.14 |
| Impervious | 0.85 | 224 | 5.28 |
| Pervious | 0.2 | 476 | 2.64 |
| Total | | | 154.1 L/sec |

STORAGE VOLUME REQUIRED **2903** L

Volume considered negligible as Pre and Post area are effectively like for like.

No detention to be considered as part of application.



NOTE:

DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AS A PACKAGE. REFER TO ARCHITECTS DRAWINGS FOR ALL SETOUT DIMENSIONS.

ALL LEVELS SHALL BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION. SHOULD ANY DISCREPANCY OCCUR THE CONTRACTOR SHALL CONTACT THIS OFFICE IMMEDIATELY FOR FURTHER INSTRUCTION.

CONTRACTORS NOTES:

COVER LEVELS GIVEN FOR PITS ARE NOMINAL ONLY. COVER LEVELS SHALL MATCH FINISHED PAVING LEVELS.

WHERE EXISTING SERVICE COVERS ARE FOUND WITHIN THE SCOPE OF THE NEW WORKS, THE CONTRACTOR MUST ALLOW TO ADJUST THE COVERS TO SUIT THE PROPOSED FINISHED SURFACE LEVEL.

THE CONTRACTOR IS RESPONSIBLE FOR CHECKING LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING ANY EXCAVATION WORK. ANY DAMAGE CAUSED TO ANY SERVICES SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT & SHALL BE REPAIRED BY THE APPROPRIATE AUTHORITIES. ALL COSTS ASSOCIATED WITH REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. PHONE 'BEFORE YOU DIG AUSTRALIA (BYDA)' (1100) FOR ASSISTANCE.

WHERE PROPRIETARY ITEMS ARE SPECIFIED, ALTERNATE EQUIVALENT PRODUCTS MAY BE ADOPTED WITH THE PRIOR WRITTEN APPROVAL OF THIS OFFICE.

| 30.08.2024 | ISSUED FOR PLANNING | B |
|------------|---------------------|-------|
| 26.07.2024 | PRELIMINARY ISSUE | A |
| Date | Revision | Issue |

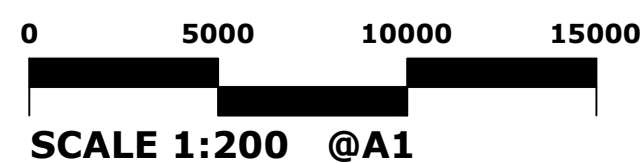


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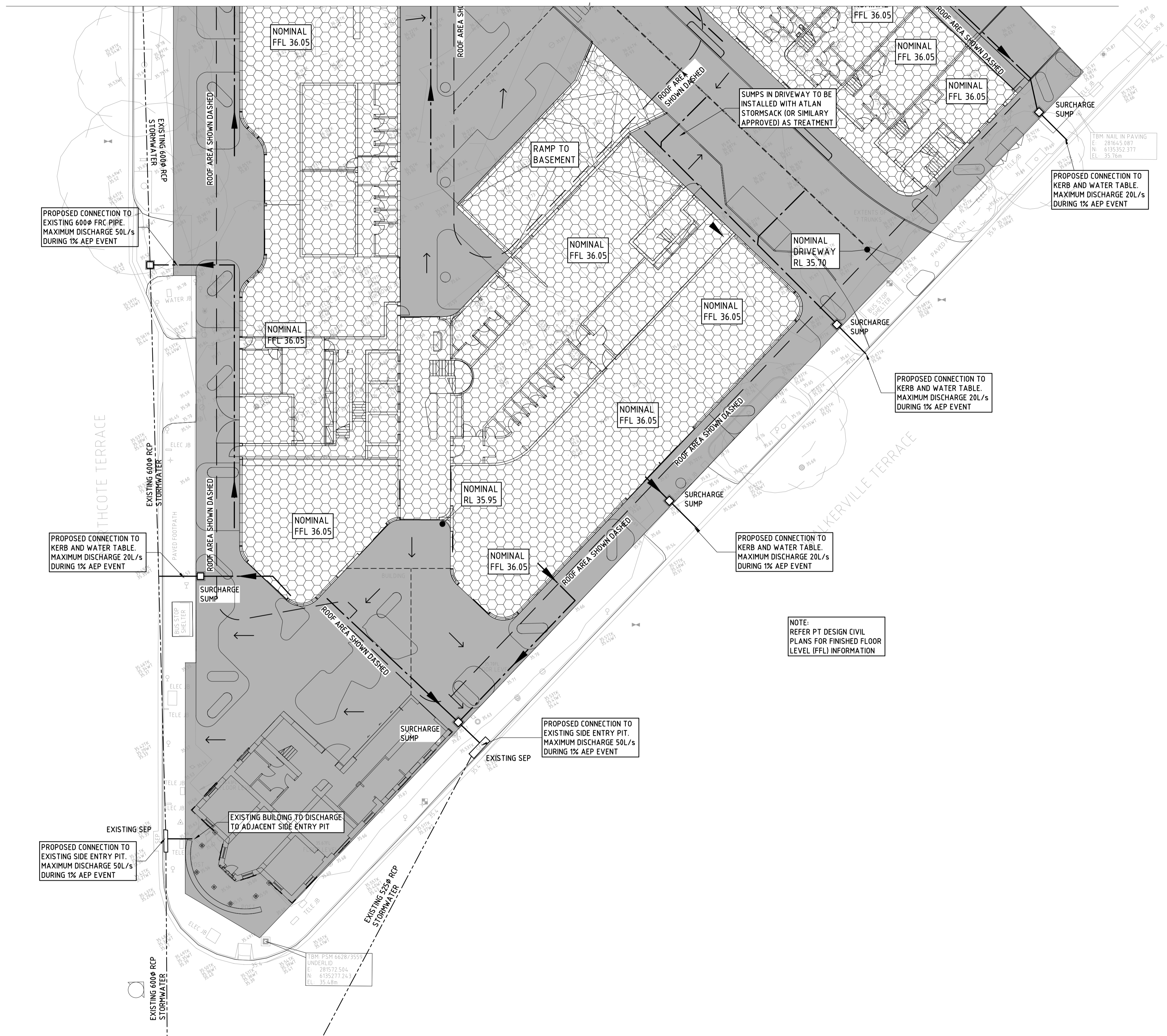
| | | | |
|----------|----|-------|---------|
| Designed | SR | Drawn | SR |
| Approved | | Date | SEP '23 |
| CIVIL | | Sheet | 3 OF 4 |

Project
**PROPOSED DEVELOPMENT
1 WALKERVILLE TERRACE
GLIBERTON SA 5081**

| | | | |
|----------------|--|-------|----------|
| Client | CITIFY GROUP | N | |
| Drawing Title | SITE LEVELS AND DRAINAGE LAYOUT | Scale | 1:200 |
| Drawing Number | 23394-C03 | Issue | B |



PRELIMINARY



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| Drawing Number 23394-C04 | Issue B |

