# HOT WATER DEMAND - main building

| OCCUPANCY | OCCUPANCY TYPE | NO. OF BEDRMS | NO. OF PEOPLE |
|---|---|---|---|
| H4 | MEDIUM TO HIGH RENTAL | 3 | 6 |

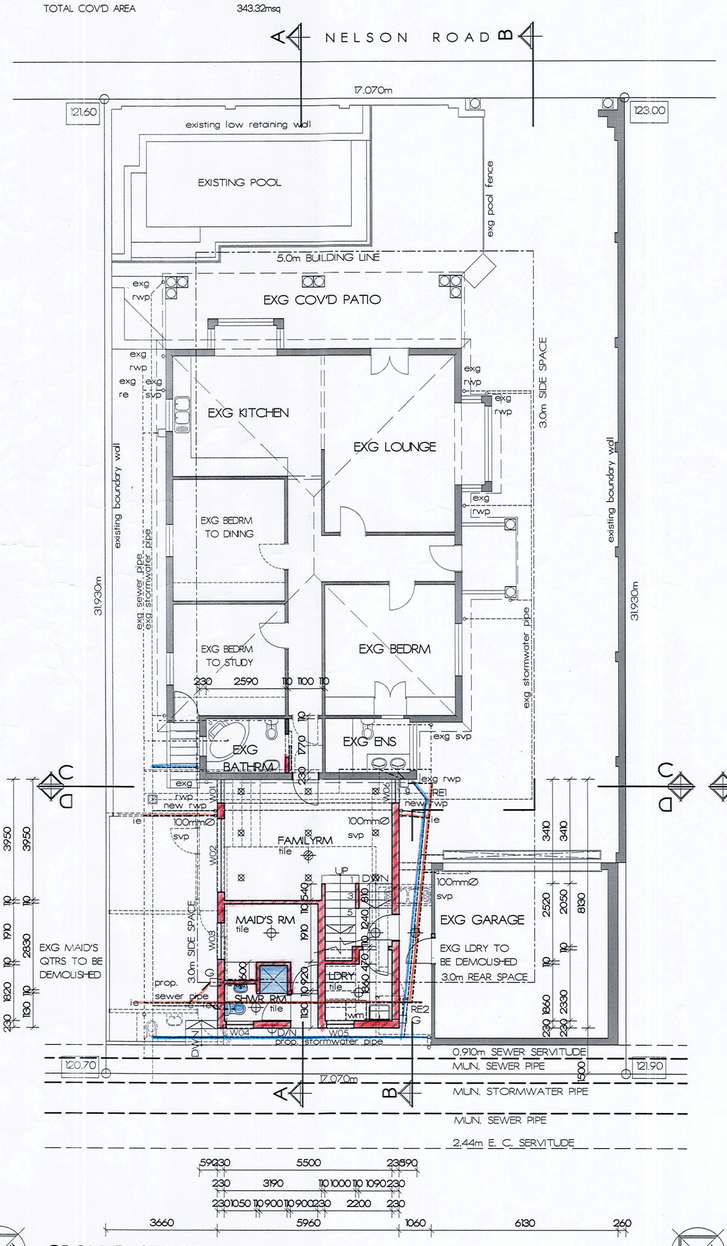
| SOLAR HEAT INPUT REQD<br>H = (V x C x delta T) / n | AREA OF SOLAR COLLECTORS REQD.<br>A = H / S (winter solar radiation) |
|---|---|
| H = (0.414 x 4.18kJ/L x 40°) / 0.56<br>= 123 608.571 kJ/DAY | A = 123 608.571 kJ / 11.00kJ<br>= 11.14msq |

| TOTAL HOT WATER DEMAND/CAPITA/DAY | TOTAL HOT WATER DEMAND |
|---|---|
| 115L PER CAPITA PER DAY | 6 x 115L/d = 690L/DAY<br>+20% water loss = 828L/DAY<br>50% x 1104L/DAY = 414L/DAY |
| **STORAGE VOLUME/ CAPITA/DAY @60°** | **SIZE OF STORAGE TANK** |
| 40L PER CAPITA | 6 x 40L/d = 240L/DAY<br>+20% water loss = 288L/DAY<br>MIN. TANK SIZE = 300L |

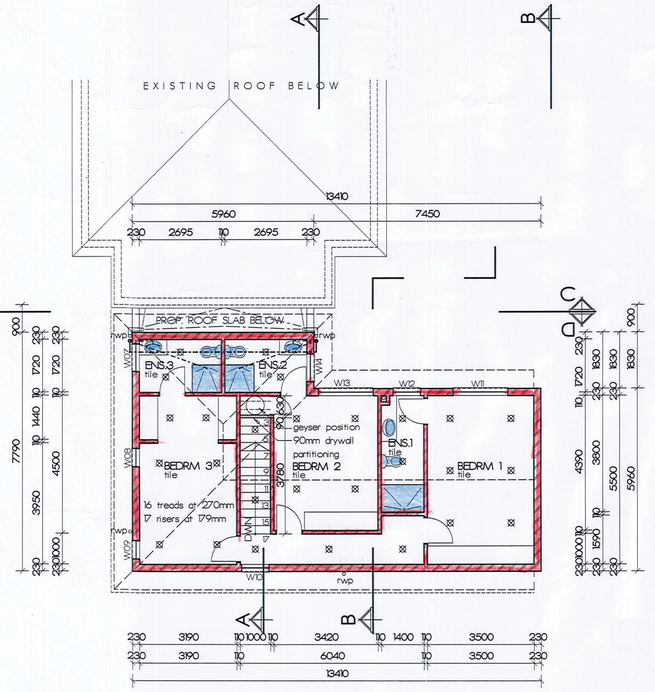
## AREAS

| | |
|---|---|
| EXISTING | |
| HOUSE | 137.95msq |
| PORCH | 3.76msq |
| COVERED PATIO | 19.08msq |
| GARAGE | 38.08msq |
| TOTAL EXISTING | 198.87msq |
| PROP ADDS GROUND STOREY | 48.46msq |
| COV'D WALKWAY | 9.66msq |
| FIRST STOREY | 86.33msq |
| TOTAL PROPOSED AREA | 144.45msq |
| TOTAL COV'D AREA | 343.32msq |

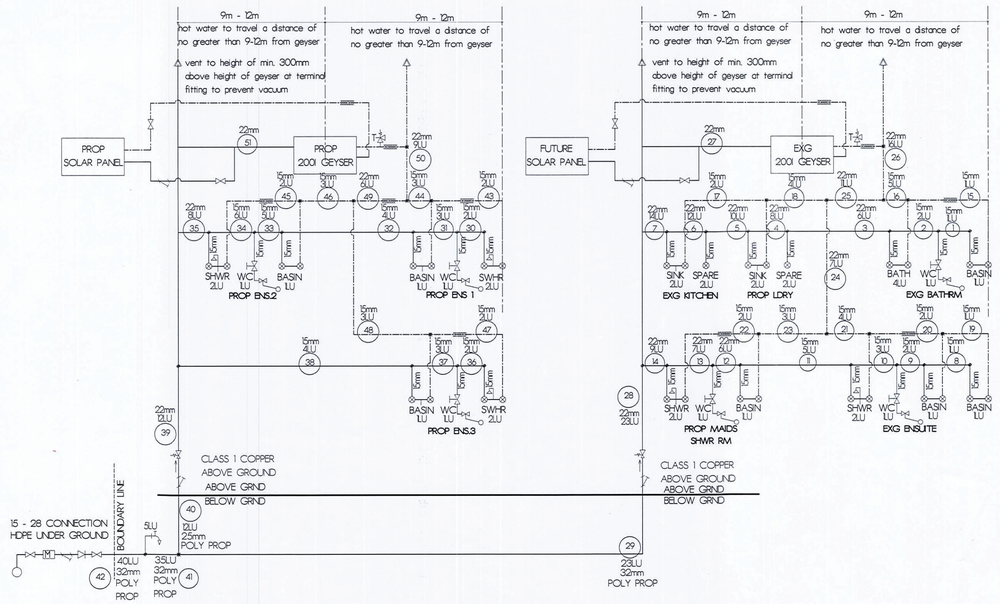
| | |
|---|---|
| OCCUPANCY CLASSIFICATION | H4 |
| ZONING | SR 400 |
| SITE AREA | 545msq |
| COVERAGE ALLOWED(50%) | 272.50msq |
| COVERAGE EXISTING | 198.87msq |
| COVERAGE PROPOSED | 58.12msq |
| COVERAGE TOTAL | 256.99msq |
| COVERAGE REMAINING | 15.51msq |




GROUND STOREY
SCALE 1:100




FIRST STOREY
SCALE 1:100




ALL WATER RETICULATION & DRAINAGE TO BE INSTALLED ON SITE AS PER SANS 10252:2012

## SCHEMATIC WATER RETICULATION SYSTEM

NTS

## ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION | W |
|---|---|---|
| ⊠ | LED DOWNLIGHTER | 5w |
| D/N | WALL LIGHT WITH PHOTOCELL (D/N) | max 9w |
| | 1.2m FLOURESCENT | 36w |
| | BI-PIN CHANDELIER with energy saving bulbs | max 25w |
| | CEILING LIGHT | max 9w |

## GLAZING SCHEDULE

| | | | | |
|---|---|---|---|---|
| | 900 × 2100 B 500 | 2400 × 2100 450 500 | 1100 × 2100 1200 500 | 900 × 2100 450 500 |
| window/door number | W01, W06, W10 | W02 | W03 | W04, W05, W07, W12, W14 |
| frame material | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM |
| frame type | AWNING | AWNING | AWNING | FIXED |
| glazing material | A - MONOLITHIC ANNEALED GLASS<br>B - TOUGHENED SG | MONOLITHIC ANNEALED GLASS | MONOLITHIC ANNEALED GLASS | TOUGHENED SG<br>W05 - MONOLITHIC ANNEALED GLASS |
| no. of sides supported | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES |
| glazing pane min. thickness | 4mm | 4mm | 4mm | 4mm |
| glazing pane max. area | A - 1.5m2 B - 3.0m2 | 1.5m2 | 1.5m2 | 3.0m2 W05 - 1.5m2 |
| | 600 × 2100 B 500 | 1800 × 2100 1200 500 | | |
| window/door number | W08, W09 | W11, W13 | | |
| frame material | ALUMINIUM | ALUMINIUM | | |
| frame type | AWNING | AWNING | | |
| glazing material | A - MONOLITHIC ANNEALED GLASS<br>B - TOUGHENED SG | TOUGHENED SAFETY GLASS | | |
| no. of sides supported | ALL SIDES | ALL SIDES | | |
| glazing pane min. thickness | 4mm | 4mm | | |
| glazing pane max. area | A - 1.5m2 B - 3.0m2 | 3.0m | | |

GENERAL NOTES:
- All glazing to comply with SANS 10400-N:2010.
- Float glass to comply with SANS 50572-VEN 572:1 & 572:2
- Toughened & Laminated safety glass to comply with SANS 1263-1.
- ALL individual panes of safety glazing material to be permanently marked by installer and a certificate to such effect be issued to owner on completion of installation.
- Installer to issue a certificate on completion of the glazing installation & that the glazing material indicated has been installed in the position indicated and such installation complies with the provisions of SANS 10137.
- No changes are to be effected to the size, thickness or type of glazing material without prior approval of the Architectural Professional, as any such changes may affect the compliance with SANS 10400-N and the National Building Regulations.
- All sizes are inclusive of frames and should not be taken as glazing sizes only.
- all frameless shower doors to have min. thickness of 10mm toughened SG over a max. area of 2.1msq

## GENERAL NOTES

All work to comply with SANS 10400.

Contractor to check all dimensions and levels (schedules and details) before the relevant work is placed in hand and report any discrepancies to the DESIGNER/OWNER.

All written dimensions to be taken in preferance to scaling.

Any discrepancies and omissions are to be brought to the DESIGNERS/OWNERS attention immediately.

The contractor is to inspect the official approved copies of the drawings to ensure that all amendments have been taken into account.

The attention of the owner is drawn to the fact that changes to the plan and/or specification after official approval is likely to invalidate that approval.

All existing work to be made good if affected by new work

## SITING & EXCAVATION

If an excavation the site is found to contain expansive clay, shale, ground water or other suspect soil conditions, then all foundations are to be built to professional engineers details & under his supervision.

All foundations to be taken down below natural ground level.

Natural ground line in approximate position only and no claim can be made for any discrepancies on site.

## drainage notes

minimum of 450mm of cover to be maintained over all drainage pipes at all times.

positions & levels of sewer pipes to be determined & verified on site prior to commencement of work.

ie's are to be provided at all junctions.

re's or mh's to be provided at all changes in direction of sewer drainage pipes.

any/all damaged fittings are to be replaced.

all gulley surrounds & manhole covers to be 75mm above ground level.

all sewer drainage pipes to be bridged over beneath all walls & to be encased in concrete beneath all hardened surfaces or to be 100mmØ upvc ribbed pipe.

300x200mm ACCESS PANELS ARE TO BE PROVIDED TO ALL DUCTS AT LEVELS THAT PROVIDE ADEQUATE ACCESS TO PLUMBING JUNCTIONS & SHOULD BE LOCATED PREFERABLY ON THE OUTSIDE

| NAME | ADDRESS | TEL NO. | SIGNATURE |
|---|---|---|---|
| Bee Amos | 5 ROSEANNE PLACE, ESSENWOOD | 0834870542 | |
| FAISAL | 15 NELSON ROAD, ESSENWOOD | 0739083136 | |

client
S. RAMA & C. W. LEUNG

signature

project
PROPOSED ADDITIONS & ALTERATIONS TO EXISTING DWELLING

address
21 NELSON ROAD

cadastral description
PORTION 33 OF ERF 2125 DURBAN

metro acc. no.


DESIGN & drawing TECHNOLOGY
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| | |
|---|---|
| scale | AS SHOWN |
| sheet no. | 1/2 |
| job no. | r21-22 wd01 |
| date | 23.11.2021 |