

1 LARAPINTA PLACE, GLENHAVEN

HYDRAULIC SERVICES

GENERAL NOTES

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH CURRENT BUILDING CODE OF AUST., LOCAL SUPPLY AUTHORITIES REGULATIONS, AS/NZS 3500 AND ANY OTHER RELEVANT STANDARD.
2. THE CONTRACTOR SHALL PROVIDE COORDINATED "SHOP DRAWINGS" OR DRAWINGS "FOR CONSTRUCTION" TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO THE CONSTRUCTION OF ANY HYDRAULIC SERVICES WORKS. THE DRAWINGS SHALL CLEARLY NOMINATE AND DIMENSION THE EXACT SIZE AND LOCATION OF ALL STRUCTURAL PENETRATIONS AND DETAIL THE POSITION AND LEVEL OF ALL HYDRAULIC SERVICES PIPEWORK IN RELATION TO THE STRUCTURE AND OTHER SERVICES.
3. ALL WASTE WATER DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE RELEVANT AND MOST RECENT HYDRAULIC, ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL, FIRE AND LANDSCAPING DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL ADVISE THE SUPERINTENDENT IMMEDIATELY OF ANY TECHNICAL OR COORDINATION ISSUES THAT MAY ARISE.
4. THE LOCATION AND LEVELS OF EXISTING SERVICES SHOWN ARE APPROXIMATE ONLY AND SHALL BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO COMMENCING WORKS. THE CONTRACTOR SHALL ADVISE THE SUPERINTENDENT IMMEDIATELY OF ANY DISCREPANCIES THAT MAY PREVENT CONSTRUCTION OF THE WORKS GENERALLY AS PER THE DRAWINGS.
5. THE CONTRACTOR SHALL TAKE ALL REASONABLE CARE WHEN EXCAVATING NEAR EXISTING SERVICE AND SHALL FOLLOW THE RELEVANT SERVICE AUTHORITIES GUIDELINES FOR EXCAVATION NEAR EXISTING SERVICES. IF THERE IS ANY DOUBT AS TO THE ACTUAL LOCATION OF AN EXISTING SERVICE, THEN THE CONTRACTOR SHALL CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO ANY EXCAVATION WORK COMMENCING.
6. ALL LEVELS REFER TO AUSTRALIAN HEIGHT DATUM (AHD) UNLESS NOTED OTHERWISE.
7. THE CONTRACTOR SHALL ALLOW FOR ALL SURVEY AND SETOUT REQUIRED TO INSTALL THE WORKS. "WORK AS EXECUTED" SURVEY AND DRAWINGS OF ANY SERVICE MUST BE PREPARED AND SIGNED BY A REGISTERED SURVEYOR.
8. THE CONTRACTOR SHALL ALLOW TO MAKE ALL APPLICATIONS AND PAY ALL ASSOCIATED FEES RELATING TO ROAD OPENING, AS REQUIRED, TO THE SATISFACTION OF THE GOVERNING ROAD AUTHORITY. THE CONTRACTOR SHALL ALSO ALLOW FOR THE PREPARATION OF TRAFFIC CONTROL PLANS AND PROVISION OF TRAFFIC CONTROL AS MAY BE REQUIRED.
9. UPON PRACTICAL COMPLETION OF THE WORKS, THE CONTRACTOR SHALL:
 - PROVIDE "WORK AS EXECUTED" DRAWINGS OF THE COMPLETED WORKS.
 - PROVIDE COPIES OF ALL TEST RESULTS AND CERTIFICATES RELATING TO THE INSTALLATION OF THE WORKS.
 - PROVIDE MANUFACTURERS SPECIFICATIONS AND MANUALS FOR INSTALLED PLANT ITEMS, COMPONENTS, ETC.
 - TRANSFER ALL WARRANTIES FOR INSTALLED PLANT ITEMS, COMPONENTS, ETC., TO THE PRINCIPAL.

SANITARY PLUMBING

1. ALL VENTS SHALL BE OFFSET WITHIN THE ROOF SPACE AS REQUIRED A MINIMUM OF 600mm FROM EAVES.
2. ALL PIPE PENETRATIONS AT WALLS SHALL BE FITTED WITH A PUDDLE FLANGE AND MADE GOOD TO ENSURE WATER TIGHTNESS
3. ALL PIPE PENETRATIONS THROUGH CONCRETE STRUCTURAL ELEMENTS SHALL BE COORDINATED AND WHERE POSSIBLE CAST-IN PRIOR TO THE PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL NOT CUT OR MOVE ANY STEEL REINFORCING BARS TO SUIT A PIPE PENETRATION UNLESS APPROVED IN WRITING BY THE SUPERINTENDENT AND OR THE PROJECTS STRUCTURAL ENGINEER.
4. ALL CORE HOLE LOCATIONS SHALL BE APPROVED IN WRITING BY THE SUPERINTENDENT AND OR THE PROJECTS STRUCTURAL ENGINEER PRIOR TO THE COMMENCEMENT OF ANY CORING ACTIVITIES.
5. ALL PIPE WORK SHALL BE ACOUSTICALLY INSULATED TO ACHIEVE THE MINIMUM STC REQUIREMENT OR BETTER AS PER THE CURRENT BUILDING CODE OF AUSTRALIA. THE CONTRACTOR SHALL SUBMIT IN WRITING AND SEEK APPROVAL FROM THE PRINCIPAL CERTIFYING AUTHORITY FOR THE INTENDED METHOD TO BE USED FOR ACHIEVING THE STC REQUIREMENTS PRIOR TO THE SUPPLY AND INSTALLATION OF THE ACOUSTIC TREATMENT

WATER SUPPLY

1. THE CONTRACTOR SHALL MAKE ALL APPLICATIONS AND PAY ALL ASSOCIATED FEES AND CHARGES TO THE LOCAL SUPPLY AUTHORITY TO ENABLE CONNECTION OF THE WATER SUPPLY TO THE AUTHORITIES WATER MAIN.
2. THE CONTRACTOR SHALL MAKE ALL APPLICATIONS AND PAY ALL ASSOCIATED FEES AND CHARGES TO THE LOCAL SUPPLY AUTHORITY TO ENABLE THE INSTALLATION OF ANY WATER SUPPLY PUMP-SETS FOR THE WATER SUPPLY SERVICE.
3. ALL PIPE WORK SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH AS/NZS 3500.
4. COLD WATER METERS SHALL BE SUPPLIED FROM AN APPROVED METER SUPPLIER AND INSTALLED BY CONTRACTOR IN COMPLIANCE WITH CURRENT SYDNEY WATER METERING (AMS) POLICY AND NOTICE OF REQUIREMENTS. CONTRACTOR SHALL PROVIDE ALL REQUIRED VALVES, BRACKETS AND ITEMS NECESSARY. THE INSTALLATION SHALL BE COMMISSIONED AND APPROVED BY AN APPROVED METER SUPPLIER.

SEWER DRAINAGE

1. THE CONTRACTOR SHALL MAKE ALL APPLICATIONS AND PAY ALL ASSOCIATED FEES AND CHARGES TO THE LOCAL AUTHORITY TO ENABLE THE INSTALLATION OF SANITARY SERVICES AND WASTE WATER TREATMENT SYSTEM.
2. THE CONTRACTOR SHALL PROVIDE AND REMOVE ON COMPLETION ALL TIMBERING AND SHORING AS NECESSARY TO CONSTRUCT THE PIPEWORK.
3. ALL PIPE WORK SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH AS/NZS 3500.
4. DRAINS UNDER STRUCTURES SHALL BE RETESTED AS REQUIRED BY THE LOCAL AUTHORITY, PLUMBING AND DRAINAGE INSPECTOR OR THE SUPERINTENDENT.
5. WHERE THE CLEARANCE FROM THE TOP OF PIPE WORK TO THE UNDERSIDE OF A FOOTING IS LESS THAN 150mm THEN THE CONTRACTOR SHALL INSTALL AN 80mm COMPRESSIBLE MATERIAL OVER THE PIPE WORK.

WASTE WATER TREATMENT PLANT

1. THE CONTRACTOR SHALL LIAISE AND COORDINATE THE SUPPLY AND INSTALLATION OF A WASTE WATER TREATMENT PLANT AS MANUFACTURED BY ULTRA CLEAR WASTEWATER TREATMENT SYSTEMS OF MITTAGONG NSW, MODEL CT20. PAY ALL ASSOCIATED FEES AND CHARGES TO THE LOCAL AUTHORITY TO ENABLE CONNECTION OF THE SYSTEM.
2. ALL PIPE WORK SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH AS/NZS 3500.
3. CONTRACTOR SHALL PROVIDE ALL REQUIRED DOCUMENTATION AND DRAWINGS TO LOCAL AUTHORITY FOR APPROVAL PRIOR TO ORDERING PLANT.
4. CONTRACTOR SHALL PROVIDE AN ADDITIONAL 3,500 LITRE (MIN.) WET WEATHER SURGE IRRIGATION TANK TO BE LOCATED AT OUTLET OF TREATMENT PLANT TO RETAIN IRRIGATION WATER. LIAISE AND COORDINATE LOCATION OF TREATMENT PLANT WITH ARCHITECT AND LANDSCAPE ARCHITECT.
5. SUBMERSIBLE IRRIGATION (PUMP) PLANT SHALL BE SIZED IN COORDINATION WITH UNDERGROUND IRRIGATION SYSTEM, SUPPLIER / INSTALLER AND SITE SOIL COMPOSITION.
6. CONTRACTOR TO SUPPLY AND INSTALL AN UNDERGROUND IRRIGATION SYSTEM OF KISSS MANUFACTURE AS SUPPLIED BY IRRIGATION AND WATER TECHNOLOGIES. UNDERGROUND IRRIGATION SYSTEM SHALL BE LOCATED WITHIN THE TWO TURF ZONES AS SHOWN ON DRAWINGS. THE IRRIGATION ZONES AND PUMPS SHALL BE ELECTRONICALLY CONTROLLED. PROVIDE A RAIN SENSOR TO CONTROL THE IRRIGATION PUMPS.

HYDRAULIC SERVICE MATERIALS

THE SUPPLY AND INSTALLATION OF THE ACOUSTIC TREATMENT.

HYDRAULIC SERVICE MATERIALS

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1. POTABLE WATER SUPPLY
 - SHALL BE COPPER TUBING TYPE B TO AS 1432 UNLESS NOTED OTHERWISE.
2. FIRE HYDRANT WATER SUPPLY
 - DN100 SHALL BE DUCTILE IRON CEMENT LINED (DICL) PIPE CLASS K9 TO AS2280 WITH POLYETHYLENE SLEEVING WHEN INSTALLED IN GROUND AND ROLLED GROOVE MEDIUM DUTY GALV. IRON ABOVE GROUND.
3. GAS SUPPLY
 - SHALL BE COPPER TUBING TYPE B TO AS 1432 UNLESS NOTED OTHERWISE.
4. HOT WATER SUPPLY
 - SHALL BE COPPER TUBING TYPE B TO AS 1432 UNLESS NOTED OTHERWISE. ALL HOT WATER PIPELINES SHALL BE INSULATED WITH 25mm THERMOTEC 4 - ZERO OR EQUAL.
5. SANITARY DRAINAGE
 - SHALL BE UPVC PIPE CLASS SN4 TO AS1260 WITH SOLVENT WELD JOINTS (EXCEPT WHERE EXPANSION JOINTS ARE REQUIRED) UNLESS NOTED OTHERWISE.
6. SANITARY PLUMBING
 - ALL PIPES SHALL BE UPVC PIPE TYPE SWV TO AS1415 WITH SOLVENT WELD JOINTS (EXCEPT WHERE EXPANSION JOINTS ARE REQUIRED) UNLESS NOTED OTHERWISE.
7. HOT WATER LAGGING
 - 25mm THERMOTEC 4-ZERO. OR KEMLAG AS SPECIFIED.
8. FIRE HOSE REEL SERVICE
 - COPPER TUBE TYPE B AS1432

Y

FIRE SEALING OF PENETRATIONS

1. PENETRATIONS THROUGH CONCRETE SLABS SHALL BE SEALED TO PROVIDE A MINIMUM TWO HOUR FRL TO AS1530.
2. PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED TO PROVIDE A MINIMUM TWO HOUR FRL TO AS1530.
3. THE CONTRACTOR SHALL SUBMIT IN WRITING AND SEEK APPROVAL FROM THE PRINCIPAL CERTIFYING AUTHORITY FOR THE INTENDED METHODS TO BE USED FOR FIRE SEALING PENETRATIONS PRIOR TO THEIR SUPPLY AND INSTALLATION.
4. WHERE UPVC PIPES PENETRATE CONCRETE SLABS OR FIRE RATED WALLS, THEY SHALL BE PROVIDED WITH AN APPROVED FIRE RATED COLLAR HAVING THE SAME FIRE RATING AS THE CONCRETE SLAB OR FIRE RATED WALL.
- MAXIMUM 30m INTERVALS ALONG DRAINS
- IMMEDIATELY UPSTREAM AND DOWNSTREAM OF ALL JUMP-UPS
- DRAINS EXITING FROM UNDER A BUILDING OR STRUCTURE
- ANY LOCATION ALONG A DRAIN THAT MAY BE DIFFICULT FOR A PLUMBER TO ACCESS IN FUTURE FOR MAINTENANCE PURPOSES
7. ALL DRAINS SHALL BE SUPPORTED ON FIRM GROUND. UPON EXCAVATION TO THE REQUIRED LEVELS, IF SOFT OR WATER CHARGED GROUND IS ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT IMMEDIATELY AND AWAIT FURTHER DIRECTION PRIOR TO PROCEEDING WITH ANY PIPE LAYING.

ABBREVIATIONS LEVELS

FFL	FINISH FLOOR LEVEL
FSL	FINISH SURFACE LEVEL
IL	INVERT LEVEL
RL	REDUCED LEVEL
H/L	HIGH LEVEL
L/L	LOW LEVEL

FIXTURES

HT
SHR
B
SK
FW
WC
ORG
GULLY
TD
TTD
LT
BTH
CT
WM
AAV
BV
RWP
CIS

PIPES

VP	VENT PIPE
RV	RELIEF VENT
GWV	GREASE WASTE VENT
CV	CHAMBER VENT
SST	SINGLE STACK
AD	AERIAL DRAINAGE
FVM	FULLY VENTED
	MODIFIED
HWR	HOT WATER RETURN
CW	COLD WATER
NPCW	NON-POTABLE COLD
WATER	
WW	WARM WATER
FH	FIRE HYDRANT
SW	STORMWATER
SRM	SEWER RISING MAIN
DTU	DRAINAGE TURN UP

PIPE FITTINGS

	BOUNDARY TRAP		DUAL CHECK VALVE		DUAL FIRE HYDRANT
	DROPPER		STOP VALVE		FLOOR WASTE
	END CAP		CHECK VALVE		REDUCED PRESSURE ZONE DEVICE
	DIRECTION OF FLOW		CLEAR OUT		FIRE BRIGADE BOOSTER VALVE
	OVERFLOW RELIEF GULLY		TEMPERING VALVE		TUNDISH
	HOSE TAP		THERMOSTATIC MIXING VALVE		MONITOR VALVE
	IN-DUCT MICRO FLAP (LOW LEVEL VENT)		BALANCING VALVE		FIRE HOSE REEL
	METER (GAS/WATER)		CLEAN OUT		RAINWATER OUTLET
	PUMP		SEWER MAINTENANCE HOLE		RAINWATER OUTLET
	GAS REGULATOR		FIRE HYDRANT		SPRINKLER PIPE
	RISER				

NOT FOR CONSTRUCTION

							Architect				
							ICONFM AUSTRALIA P/L.				
B	DEVELOPMENT APPROVAL APPLICATION		31/01/2019	WW	WW	IS					
A	PRELIMINARY ISSUE		29/01/2019	WW	WW	IS					
Issue	Description		Date	Drawn	Design	Checked					
-1	0	1cm at full size	10cm	20cm							
											