

**IRRIGATION GUIDELINES FOR THE USE OF RECLAIMED WATER**

- OPERATION OF THE IRRIGATION SYSTEM SHALL ONLY OCCUR BETWEEN THE HOURS OF 9:00PM AND 6:00AM. WATERING OUTSIDE OF THIS TIME FRAME MUST BE DONE MANUALLY & ONLY WITH QUALIFIED SUPERVISORY PERSONNEL ON SITE. AT NO TIME SHALL THE IRRIGATION SYSTEM BE LEFT UNATTENDED DURING USE OUTSIDE OF THE NORMAL IRRIGATION SCHEDULE.
- IRRIGATION SHALL OCCUR IN A MANNER CONSISTENT WITH MINIMIZING RUNOFF, POOLING AND PONDING. THE APPLICATION RATE SHALL NOT EXCEED THE INFILTRATION RATE OF THE SOIL. IRRIGATION SCHEDULES SHALL BE ADJUSTED TO COMPLY WITH THE LOWEST SOIL INFILTRATION RATE WHICH OCCURS WITHIN THE PROJECT. THIS PROCEDURE MAY BE FACILITATED BY THE EFFICIENT SCHEDULING OF IRRIGATION CONTROLLERS UTILIZING MULTIPLE IRRIGATION CYCLES, (I.E. EMPLOYING THE REPEAT FUNCTION TO BREAK UP THE TOTAL IRRIGATION TIME INTO CYCLES THAT WILL PROMOTE MAXIMUM SOIL ABSORPTION).
- IRRIGATION HEADS SHALL BE ADJUSTED TO ELIMINATE OVER SPRAY ACROSS ADJACENT PROPERTY LINES AND/OR ONTO AREAS WHICH ARE NOT TO BE IRRIGATED. FOR EXAMPLE, POOL DECKS, PRIVATE PATIOS, STREETS, SIDEWALKS, DRIVEWAYS, ETC.
- THE IRRIGATION SYSTEM SHALL BE MONITORED AND MAINTAINED TO MINIMIZE EQUIPMENT AND/OR MATERIAL FAILURE. BROKEN SPRINKLER HEADS, LEAKS, UNRELIABLE VALVES, ETC., SHALL BE REPAIRED AS SOON AS THEY BECOME APPARENT.
- ALL MAINTENANCE PERSONNEL SHALL BE EDUCATED ON A CONTINUAL BASIS, OF THE PRESENCE OF RECLAIMED WATER AND THE FACT THAT IT IS NOT APPROVED FOR DRINKING PURPOSES. THE LANDSCAPE CONTRACTOR AND MAINTENANCE SUPERVISOR SHALL BE RESPONSIBLE FOR EDUCATING THEIR EMPLOYEES ABOUT THE PROPER USE OF RECLAIMED WATER IRRIGATION SYSTEMS. ANY PROPOSED CHANGES AND/OR MODIFICATIONS TO ANY ON-SITE FACILITIES RELATED TO THE RECLAIMED WATER IRRIGATION SYSTEM MUST BE SUBMITTED TO, AND APPROVED BY THE DISTRICT ENGINEERING OFFICE. ANY PROPOSED CHANGES AND/OR MODIFICATIONS SHALL BE DESIGNED IN ACCORDANCE WITH DISTRICT STANDARDS AND REQUIRE APPROVAL PRIOR TO BEGINNING THE PROPOSED MODIFICATIONS. FAILURE TO COMPLY WITH ANY ONE OF THE ABOVE GUIDELINES SHALL RENDER THE SYSTEM TO BE IN VIOLATION TO THE DISTRICT'S RULES & REGULATIONS AND WILL RESULT IN TERMINATION OF SERVICE UNTIL THE APPROPRIATE CORRECTIVE STEPS HAVE BEEN TAKEN. THE IRVINE RANCH WATER DISTRICT FEELS THAT THE BENEFITS DERIVED FROM THE SUCCESSFUL APPLICATION OF RECLAIMED WATER MERIT THE OPERATING GUIDELINES THAT HAVE BEEN ESTABLISHED. FOR ASSISTANCE OR TO HAVE ANY QUESTIONS ANSWERED, PLEASE CALL THE WEST BASIN MUNICIPAL WATER DISTRICT AT 310-217-2411.

**RECYCLED AND POTABLE WATER NOTES**

- INSTALLATION OF THE IRRIGATION SYSTEM SHALL CONFORM TO THE REGULATIONS FOR THE CONSTRUCTION OF IRRIGATION WATER SYSTEMS WITHIN THE IRVINE RANCH WATER DISTRICT (IRWD) AND THE ACCOMPANYING PLANS AND SPECIFICATIONS.
- ALL RECLAIMED AND POTABLE WATER PIPING INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL BE IDENTIFIED IN ACCORDANCE WITH WBMWD REGULATIONS AND THE IRRIGATION SPECIFICATIONS.
- RECLAIMED WATER PIPING SHALL BE PURPLE PVC MANUFACTURED FOR RECLAIMED WATER SYSTEMS.
- MARKING ON THE PURPLE PVC SHALL INCLUDE THE FOLLOWING: "CAUTION RECLAIMED WATER"; THE NOMINAL PIPE SIZE; PVC-1120; PRESSURE RATING IN POUNDS PER SQUARE INCH AT 73 DEGREES; ASTM DESIGNATIONS SUCH AS 1785,2241, 2672, 3139. PRINTING SHALL OCCUR CONTINUOUSLY ON TWO SIDES OF THE PIPE.
- ALL RECLAIMED WATER SPRINKLER BOX COVERS, CONTROL VALVES, ISOLATION VALVES, QUICK COUPLERS, AND ALL OTHER EQUIPMENT ASSOCIATED WITH THE RECLAIMED WATER IRRIGATION SYSTEM SHALL HAVE IDENTIFICATION STATING RECLAIMED WATER IS BEING USED FOR IRRIGATION.
  - IDENTIFICATION TAGS WITHIN THE EQUIPMENT BOXES SHALL BE @ 3" X 4", WEATHERPROOF PLASTIC WITH THE WORDS: "WARNING RECLAIMED WATER DO NOT DRINK" IMPRINTED ON ONE SIDE, AND THE WORDS: "AVISO AGUA IMPURA NO TOMAR" IMPRINTED ON THE OTHER SIDE. ALL IMPRINTING SHALL BE PERMANENT AND BLACK IN COLOR. TAGS SHALL BE MANUFACTURED BY T. CHRISTY ENTERPRISES (OR APPROVED EQUAL). EACH PIECE OF EQUIPMENT ASSOCIATED WITH THE RECLAIMED WATER SYSTEM SHALL BE IDENTIFIED BY ONE OF THE FOLLOWING METHODS:
    - IDENTIFY VALVE BOX COVERS WITH A HEAT BRANDED STAMP THAT READS "RECLAIMED WATER DO NOT DRINK."
    - ATTACH IDENTIFICATION TAG TO CONTROL VALVE STEM DIRECTLY OR WITH PLASTIC TIE-WRAP
    - ATTACH IDENTIFICATION TAG TO CONTROL VALVE SOLENOID WIRE DIRECTLY OR WITH PLASTIC TIE-WRAP
    - ATTACH IDENTIFICATION TAG TO THE PIECE OF EQUIPMENT WITH A PLASTIC TIE-WRAP
- WARNING TAPES SHALL BE USED ON ALL CONSTANT PRESSURE MAIN LINE PIPING CARRYING POTABLE WATER.
- WARNING TAPES SHALL BE A MINIMUM OF 3 INCHES WIDE AND SHALL RUN CONTINUOUSLY FOR THE ENTIRE LENGTH OF ALL CONSTANT PRESSURE MAIN LINE PIPING. THE TAPE SHALL BE ATTACHED TO THE TOP OF THE PIPE WITH PLASTIC TAPE BANDED AROUND THE WARNING TAPE AND THE PIPE EVERY 5 FEET ON CENTER.
- WARNING TAPE FOR THE CONSTANT PRESSURE POTABLE WATER PIPING SHALL BE BLUE IN COLOR WITH THE WORDS: "CAUTION BURIED WATERLINE BELOW" IMPRINTED IN 1 INCH TALL (MINIMUM), BLACK LETTERS. IMPRINTING SHALL BE CONTINUOUS AND PERMANENT.
- IRWD SHALL BE NOTIFIED TWO WORKING DAYS PRIOR TO THE START OF IRRIGATION CONSTRUCTION & EACH WORK DAY THEREAFTER UNTIL COMPLETION OF THE PROJECT. CONTACT PHONE NUMBER: 949.453.5300
- ALL CONSTANT PRESSURE, RECLAIMED WATER MAINLINE PIPING SHALL BE INSTALLED SO AS TO MAINTAIN 10'-0" MINIMUM HORIZONTAL SEPARATION FROM ALL POTABLE WATER PIPING. WHERE RECLAIMED AND POTABLE WATER PRESSURIZED MAINLINE PIPING CROSS, THE RECLAIMED WATER PIPING SHALL BE INSTALLED BELOW THE POTABLE WATER PIPING IN A CLASS 200, PURPLE PVC SLEEVE, WHICH SHALL EXTEND A MINIMUM OF 5'-0" ON EITHER SIDE OF THE POTABLE WATER PIPING. PROVIDE A MINIMUM VERTICAL CLEARANCE OF 6 INCHES. CONVENTIONAL (WHITE) PVC PIPE MAY BE USED FOR SLEEVING MATERIAL IF IT IS WRAPPED WITH 3 INCH WIDE PURPLE WARNING TAPE WHICH READS: "CAUTION RECLAIMED WATER".
- THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE BETWEEN THE HOURS OF 9:00PM AND 6:00AM, UNLESS OTHERWISE DIRECTED BY THE DISTRICT ENGINEER.
- ALL NEW COMMON AREAS WHERE RECLAIMED WATER IS BEING USED AND ARE ACCESSIBLE TO THE GENERAL PUBLIC SHALL BE POSTED WITH CONSPICUOUS SIGNS THAT INCLUDE THE FOLLOWING WORDING IN LETTERS NO LESS THAN 4 INCHES HIGH, NOR LESS THAN 8 INCHES WIDE: "RECLAIMED WATER DO NOT DRINK". EACH SIGN SHALL ALSO DISPLAY AN INTERNATIONALLY RECOGNIZED SYMBOL CONVEYING THE SAME WARNING.
- ADJUST SPRAY HEADS TO ELIMINATE OVER SPRAY ACROSS ADJACENT PROPERTY LINES AND/OR ONTO AREAS WHICH ARE NOT TO BE IRRIGATED. FOR EXAMPLE; POOL DECKS, PRIVATE PATIOS, STREETS, SIDEWALKS, DRIVEWAYS, ETC.
- CONTACT THE IRWD OFFICE TWO DAYS PRIOR TO THE IRRIGATION SYSTEM COVERAGE TEST & CROSS CONNECTION TEST TO ARRANGE A WALK THROUGH OF THE SYSTEM. CONTACT PHONE NUMBER: 949.453.5300.
- FAILURE TO COMPLY WITH ANY ONE OF THE GUIDELINES LISTED IN THIS NOTE WILL RENDER THE IRRIGATION SYSTEM IN VIOLATION OF IRWD RULES AND REGULATIONS AND WILL RESULT IN TERMINATION OF SERVICE UNTIL THE APPROPRIATE CORRECTIVE MEASURES HAVE BEEN TAKEN TO COMPLY WITH ALL OF THE GUIDELINES.
- THE USE OF WARNING TAPE ON CONSTANT PRESSURE, RECLAIMED WATER MAINLINE PIPING REQUIRES WRITTEN APPROVAL FROM THE IRWD DISTRICT ENGINEER AND IS ONLY GRANTED ON A PROJECT-BY-PROJECT BASIS. IF APPROVED BY THE DISTRICT ENGINEER, THE CONTRACTOR MUST ADHERE TO THE FOLLOWING INSTALLATION SPECIFICATIONS:
  - WARNING TAPE SHALL BE USED ON ALL CONSTANT PRESSURE MAINLINE PIPING.
  - WARNING TAPE SHALL BE A MINIMUM OF 3 INCHES WIDE AND SHALL RUN CONTINUOUSLY FOR THE ENTIRE LENGTH OF ALL CONSTANT PRESSURE MAINLINE PIPING. THE TAPE SHALL BE ATTACHED TO THE TOP OF THE PIPE WITH PLASTIC TAPE BANDED AROUND THE WARNING TAPE AND THE PIPE EVERY 5'-0" ON CENTER. WARNING TAPE FOR THE CONSTANT PRESSURE, RECLAIMED WATER MAINLINE PIPING SHALL BE COLORED PURPLE AND SHALL HAVE THE WORDS "CAUTION RECLAIMED WATER"
    - IMPRINTED IN 1 INCH HIGH, BLACK LETTERING (MINIMUM), IMPRINTING SHALL BE CONTINUOUS AND PERMANENT.

**IRRIGATION NOTES**

- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITH IN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY. INSTALL ALL COMPONENTS IN PLANTING AREAS WHEREVER POSSIBLE.
- SET ALL VALVES AND QUICK COUPLERS NEXT TO WALKS OR PAVED SURFACES. IN LOCATIONS WITH NO ADJACENT PAVING, COORDINATE FINAL LOCATION WITH OWNER.
- ALL SPRINKLER HEADS ARE TO HAVE TRIPLE SWING JOINTS (EXCEPT WHERE NOTED ON PLANS).
- NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED.
- ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF THE SAID REJECTION.
- CONTROLLER LOCATION SHOWN IS DIAGRAMMATIC. OBTAIN FINAL LOCATION APPROVAL FROM THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO INSTALLATION.
- 120VAC ELECTRICAL POWER SOURCE AT CONTROLLER LOCATION IS NOT A PART OF THE IRRIGATION SYSTEM. COORDINATE POWER REQUIREMENTS WITH GENERAL CONTRACTOR, LANDSCAPE ARCHITECT AND/OR OWNER.
- BEFORE COMMENCING ANY WORK, OBTAIN AN UNDERGROUND SERVICE ALERT I.D. NUMBER BY CALLING 1-800-422-4133. ALLOW TWO (2) WORKING DAYS AFTER THE I. D. NUMBER IS OBTAINED AND BEFORE THE EXCAVATION WORK IS STARTED SO THAT UTILITY OWNERS CAN BE NOTIFIED.
- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
- FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVER SPRAY ONTO WALKS, STREETS, ETC.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BE FAMILIAR WITH THE EXISTING SITE CONDITIONS, UTILITIES, GRADE DIFFERENCES, LOCATION OF WALLS, ETC. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS UNDER ROADWAYS AND PAVING, ETC.
- THE SPRINKLER SYSTEM DESIGN IS BASED ON A MINIMUM OPERATING PRESSURE OF 70 P.S.I. AND A MAXIMUM FLOW DEMAND OF 60 G. P.M. THE CONTRACTOR SHALL VERIFY WATER PRESSURES PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE ARCHITECT.
- DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT THERE ARE UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES IN THE AREA. DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. IN THE EVENT THAT THIS NOTIFICATION IS NOT GIVEN, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REVISIONS.
- ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- THE INTENT OF THE DESIGN IS TO PROVIDE 100% COVERAGE TO ALL PLANTING AREAS. AS PART OF THE SCOPE OF WORK, THE CONTRACTOR WILL PROVIDE ANY ADDITIONAL HEADS, SPECIAL NOZZLES, OR PATTERNS TO ACHIEVE PROPER COVERAGE WITH A MINIMUM OF OVER SPRAY AT NO ADDITIONAL COST TO THE OWNER.
- INSTALLATION OF CONTROL WIRES SHALL FOLLOW MAINLINE ROUTING.
- PROVIDE SLEEVES AS SHOWN ON DRAWING. USE 2 TIMES DIAMETER MIN. (AND NOT LESS THAN 2") SCH. 80 P.V.C. MIN. DEPTH 24" TO TOP OF LINE.
- LOCATE VALVE CHART IN CONTROLLER- REDUCE AND ENCASE IN PLASTIC (AS BUILT).
- GUARANTEE: THE INSTALLED SPRINKLER SYSTEM SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK. SHOULD ANY TROUBLE DEVELOP WITHIN THE TIME SPECIFIED DUE TO INFERIOR OR FAULTY MATERIAL OR WORKMANSHIP, THE TROUBLE SHALL BE CORRECTED BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER.
- REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION REGARDING THIS SECTION OF WORK.

**PLOT PLAN NOTES**

- THE IRRIGATION SYSTEM INSTALLATION SHALL COMPLY WITH WESTERN MUNICIPAL WATER DISTRICT'S RECYCLED WATER USER'S MANUAL & CITY OF INGLEWOOD STANDARDS.
- THE ONSITE IRRIGATION SYSTEM IS IN COMPLIANCE WITH MMRP #MMJ 1-7 (9-9) AND MEETS THE STANDARDS ESTABLISHED BY MMRP.

**EQUIPMENT NOTES**

THE IRRIGATION SYSTEM FOR THIS PROJECT WILL INCLUDE A SMART ET BASED IRRIGATION CONTROLLER. ALSO INCLUDED IS A MASTER VALVE AND FLOW SENSOR. THE USE OF DRIP AND MATCHED PRECIPITATION SPRINKLER HEADS WILL INCREASE THE EFFICIENCY OF THE IRRIGATION SYSTEM. THE IRRIGATION LAYOUT WILL INCLUDE PROPER HYDROZONING FOR INCREASED WATER SAVINGS.

**IRRIGATION LEGEND**

SYMBOL	MANUF.	MODEL NO. / DESCRIPTION	DETAIL
	HUNTER	ICZ-101-40-LF DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM PRESSURE REGULATION. 40PSI. FLOW RANGE: 5 GPM TO 15 GPM. 150 MESH STAINLESS STEEL SCREEN.	SEE 10L204
	HUNTER	DRIP LINE 0.4 GPH @ 12" O.C.	

**IRRIGATION UTILITIES**

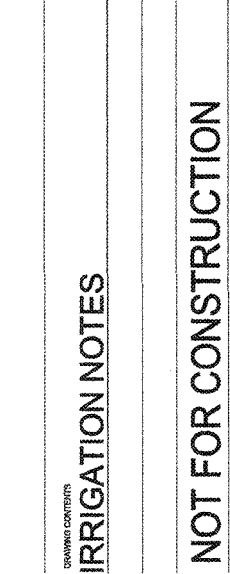
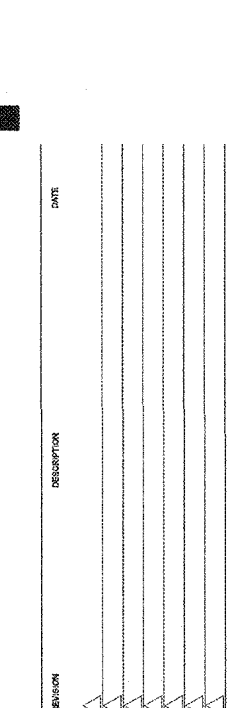
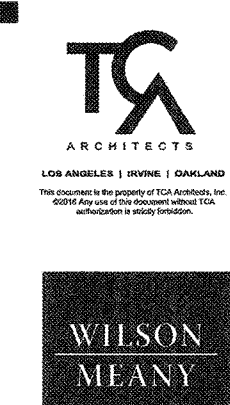
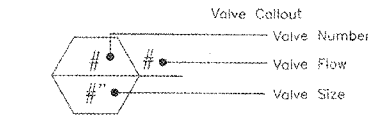
SYMBOL	MANUF.	MODEL NO. / DESCRIPTION	DETAIL
	WATER METER	1" DEDICATED LANDSCAPE METER, SEE CIVIL ENGINEER DWGS.	
	WYATT	BASKET STRAINER	
	BUCKNER-SUPERIOR	3000 1-1/4" NORMALLY CLOSED BRASS MASTER VALVE THAT PROVIDES DIRTY WATER PROTECTION AND 3-WAY SOLENOID DESIGN.	SEE 10L1211
	HUNTER	HPS-150 FLOW SENSOR FOR USE WITH ACC CONTROLLER. 1-1/2" SCHEDULE 40 SENSOR BODY, 24 VAC, 2 AMP.	SEE 10L1211
	HUNTER	ICV-101G-FS 1" PLASTIC ELECTRIC REMOTE CONTROL VALVES. GLOBE CONFIGURATION WITH NPT THREADED INLET/OUTLET FOR COMMERCIAL/MUNICIPAL USE. WITH FILTER SENTRY.	SEE 7L1211
	MATCO-NORCA	759 BRASS SHUT OFF BALL VALVE, 1/2" TO 4". TWO PIECE BODY, BLOW-OUT PROOF STEM, CHROME PLATED SOLID BRASS BALL, THREADED, WITH PTFE SEALS. SAME SIZE AS MAINLINE PIPE.	SEE 4L1211
	HUNTER	HQ-44-KC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.	SEE 6L1211
	HUNTER	SHRUB ROTARY	

**IRRIGATION CONTROLLER**

SYMBOL	MANUF.	MODEL NO. / DESCRIPTION	DETAIL
	HUNTER	IC-600-M W/21 ICM-600 MODULES MODULAR CONTROLLER, 18 STATIONS, OUTDOOR MODEL, METAL CABINET, WITH 1 MODULE REQUIRED. COMMERCIAL USE.	SEE 11L1211
	HUNTER	WSS-SEN WIRELESS SOLAR, RAIN FREEZE SENSOR WITH OUTDOOR INTERFACE, CONNECTS TO HUNTER X-CORE CONTROLLER, INSTALL AS NOTED. INCLUDES OUTLET MOUNT BRACKET. MODULE NOT INCLUDED.	SEE 12L1211
	N/A	120 VOLT POWER SUPPLY PROVIDED BY ELECTRICIAN, FIELD VERIFY LOCATION.	

**IRRIGATION PIPING**

SYMBOL	MANUF.	DESCRIPTION
	AS APPROVED	PRESSURE MAINLINE SCH. 40 PVC IN PLANTER AREAS FOR SIZES 3/4" - 1-1/2"; FOR 2" & LARGER USE CLASS 315 PVC. BURY MIN. 18" BELOW GRADE/SIZE AS NOTED ON PLAN.
	AS APPROVED	TYPE 1 COPPER PIPING MAINLINE DESIGNED BY PLUMBING ENGINEER AND SUPPLIED BY AND INSTALLED BY PLUMBER.



THIS SET OF CONSTRUCTION DOCUMENTS HAS BEEN PREPARED FOR THE CONSTRUCTION OF AN APARTMENT PROJECT.

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