NOTE:
1. DOUBLE CHECK ASSE 1015 OR REDUCED PRESSURE BACKFLOW ASSEMBLY ASSE 1013 SHALL MEET CURRENT TOWN OF APEX CROSS CONNECTION ORDINANCE AND USC CODE.
2. INLET PIPE TO WATER METER SHALL BE SAME SIZE AS OUTLET PIPE BEHIND BACKFLOW PREVENTER.
3. THERE SHALL BE NO TAPS, BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS OR OTHER WATER-USE APPURPENCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS REQUIRED BACKFLOW PREVENTER.
4. EACH BACKFLOW PREVENTER CONNECTED TO TOWN OF APEX WATER SUPPLY (CONTAINMENT) SHALL BE TESTED BY AN APPROVED TESTER BEFORE PLACING THE WATER SYSTEM IN SERVICE AND SHALL BE TESTED ANNUALLY OR AS REQUESTED BY THE TOWN OF APEX.
5. IRRIGATION BACKFLOW PREVENTERS SHALL BE INSTALLED OUTSIDE.
6. IRRIGATION SYSTEM RAIN SENSORS SHALL BE INSTALLED AND SET TO 1/4" OR LESS.
7. ENCLOSURE SHALL HAVE THE FOLLOWING INFORMATION MARKED:
   A. NAME OF MANUFACTURER OR TRADE MARK
   B. MODEL NUMBER
   C. DATE CODE OR SERIAL NUMBER
   D. CLASS DESIGNATION AND LOWEST TEMPERATURE RANGE
   E. ASSE STANDARD #1060
   F. PHYSICAL ADDRESS
   G. MARKINGS SHALL BE 6 MM (1/4") SIZE LETTER HEIGHT AND CAST, ETCHED, STAMPED OR ENGRAVED ON THE ENCLOSURE, OR ON A CORROSION RESISTANT PLATE SECURELY ATTACHED TO THE ENCLOSURE.
   H. 2" SIZE NUMBERS TO BE PLACED ON THE BACK OF THE COVER FOR EACH BACKFLOW LOCATION (COMMERCIAL ONLY).
8. ALL BACKFLOW PREVENTERS SHALL BE "LEAD FREE".
1. **NOTE:** REDUCED PRESSURE BACKFLOW ASSEMBLY ASSE 1013 SHALL MEET CURRENT TOWN OF APEX CROSS CONNECTION ORDINANCE AND USC CODE.
2. INLET PIPE TO WATER METER SHALL BE SAME SIZE AS OUTLET PIPE BEHIND BACKFLOW PREVENTER.
3. THERE SHALL BE NO TAPS, BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS OR OTHER WATER-USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS REQUIRED BACKFLOW PREVENTER.
4. EACH BACKFLOW PREVENTER CONNECTED TO TOWN OF APEX WATER SUPPLY (CONTAINMENT) SHALL BE TESTED BY AN APPROVED TESTER BEFORE PLACING THE WATER SYSTEM IN SERVICE AND SHALL BE TESTED ANNUALLY OR AS REQUESTED BY THE TOWN OF APEX.
5. IRRIGATION BACKFLOW PREVENTERS SHALL BE INSTALLED OUTSIDE.
6. IRRIGATION SYSTEM RAIN SENSORS SHALL BE INSTALLED AND SET TO ½” OR LESS.
7. ENCLOSURE SHALL HAVE THE FOLLOWING INFORMATION MARKED:
   A. NAME OF MANUFACTURER OR TRADE MARK
   B. MODEL NUMBER
   C. DATE CODE OR SERIAL NUMBER
   D. CLASS DESIGNATION AND LOWEST TEMPERATURE RANGE
   E. ASSE STANDARD #1060
   F. MARKINGS SHALL BE 6 MM (¼”) SIZE LETTER HEIGHT AND CAST, STAMPED OR ENGRAVED ON THE ENCLOSURE, OR ON A CORROSION RESISTANT PLATE SECURELY ATTACHED TO THE ENCLOSURE.
   G. 2” SIZE NUMBERS TO BE PLACED ON THE BACK OF THE COVER FOR EACH BACKFLOW LOCATION (COMMERCIAL ONLY).
8. ALL BACKFLOW PREVENTERS SHALL BE "LEAD FREE".

RESIDENTIAL / COMMERCIAL

NOT TO SCALE
NOTE:
1. REDUCED PRESSURE DETECTOR ASSEMBLY ASSE 1047 SHALL MEET CURRENT TOWN OF APEX CROSS CONNECTION ORDINANCE AND USC CODE.
2. INLET PIPE TO WATER METER SHALL BE SAME SIZE AS OUTLET PIPE BEHIND BACKFLOW PREVENTER.
3. THERE SHALL BE NO TAPS, BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS OR OTHER WATER-USING APPURTEENCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS REQUIRED BACKFLOW PREVENTER.
4. EACH BACKFLOW PREVENTER CONNECTED TO TOWN OF APEX WATER SUPPLY (CONTAINMENT) SHALL BE TESTED BY AN APPROVED TESTER BEFORE PLACING THE WATER SYSTEM IN SERVICE AND SHALL BE TESTED ANNUALLY OR AS REQUESTED BY THE TOWN OF APEX.
5. ENCLOSURE SHALL HAVE THE FOLLOWING INFORMATION MARKED:
A. NAME OF MANUFACTURER OR TRADE MARK
B. MODEL NUMBER
C. DATE CODE OR SERIAL NUMBER
D. CLASS DESIGNATION AND LOWEST TEMPERATURE RANGE
E. ASSE STANDARD #1060
F. PHYSICAL ADDRESS
G. MARKINGS SHALL BE 6 MM (½") SIZE LETTER HEIGHT AND CAST, ETCHED, STAMPED OR ENGRAVED ON THE ENCLOSURE, OR ON A CORROSION RESISTANT PLATE SECURELY ATTACHED TO THE ENCLOSURE.
H. 2" SIZE NUMBERS TO BE PLACED ON THE BACK OF THE COVER FOR EACH BACKFLOW LOCATION (COMMERCIAL ONLY).
6. ALL BACKFLOW PREVENTERS SHALL BE "LEAD FREE".

TOWN OF APEX STANDARDS
TYPICAL FIRE CONNECTIONS - COMMERCIAL

EFFECTIVE: MARCH 6, 2018

STD. NO. 620.02
SHEET 1 OF 2
NOTE:
1. REDUCED PRESSURE ASSEMBLY ASSE 1013 OR DOUBLE CHECK VALVE ASSE 1015 SHALL MEET CURRENT TOWN OF APEX CROSS CONNECTION ORDINANCE AND USC CODE.
2. INLET PIPE TO WATER METER SHALL BE SAME SIZE AS OUTLET PIPE BEHIND BACKFLOW PREVENTER.
3. THERE SHALL BE NO TAPS, BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS OR OTHER WATER-USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS REQUIRED BACKFLOW PREVENTER.
4. EACH BACKFLOW PREVENTER CONNECTED TO TOWN OF APEX WATER SUPPLY (CONTAINMENT) SHALL BE TESTED BY AN APPROVED TESTER BEFORE PLACING THE WATER SYSTEM IN SERVICE AND SHALL BE TESTED ANNUALLY OR AS REQUESTED BY THE TOWN OF APEX.
5. ENCLOSURE SHALL HAVE THE FOLLOWING INFORMATION MARKED:
   A. NAME OF MANUFACTURER OR TRADE MARK
   B. MODEL NUMBER
   C. DATE CODE OR SERIAL NUMBER
   D. CLASS DESIGNATION AND LOWEST TEMPERATURE RANGE
   E. ASSE STANDARD #1060
   F. PHYSICAL ADDRESS
   G. MARKINGS SHALL BE 6 MM (½") SIZE LETTER HEIGHT AND CAST, ETCHED, STAMPED OR ENGRAVED ON THE ENCLOSURE, OR ON A CORROSION RESISTANT PLATE SECURELY ATTACHED TO THE ENCLOSURE.
6. ALL BACKFLOW PREVENTERS SHALL BE "LEAD FREE".
7. INTERIOR INSTALLATIONS ARE NOT PERMITTED IN WALLS, FLOORS, OR CEILINGS / ATTICS.
8. EXTERIOR INSTALLATIONS ARE NOT PERMITTED IN CRAWL SPACES / FOUNDATIONS OR BENEATH PERMANENT STRUCTURES.
NOTES:
1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED PER DRAWING CC-1.01 AND CC-2.01.
3. BACKFLOW ASSEMBLY SHALL BE CENTERED ON CONCRETE OR APPROVED BASE PER MANUFACTURER SPECIFICATION.
4. ASSE 1060 FREEZE-RETARDANT ENCLOSURE OR DISCONNECT UNIONS WITH TOWN APPROVED ENCLOSURE REQUIRED.
5. PIPE MATERIAL SHALL MEET CURRENT NC PLUMBING CODE SPECIFICATION TABLE 605.3.
6. INSTALLATION SHALL BE IN COMPLIANCE WITH ALL APPLICABLE TOWN ORDINANCES AND SPECIFICATIONS, USCFCCCHR CODE AND THE NC PLUMBING CODE.
7. INSTALLATIONS ARE NOT ALLOWED IN TOWN RIGHT-OF-WAYS, UNDER STRUCTURES OR WITHIN FOUNDATIONS. INSTALLATIONS MUST BE WITHIN 25' OF WATER METER BUT NOT TO EXCEED 10' PAST THE FRONT CORNER OF THE PERMANENT STRUCTURE.
8. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF BACKFLOW PREVENTION ASSEMBLY AND COMPLIANCE WITH REPORTING AND TESTING REQUIREMENTS.
9. ALL BACKFLOW PREVENTERS SHALL MEET CURRENT UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION AND HYDRAULIC RESEARCH REQUIREMENTS.
10. ALL BACKFLOWS SHALL BE "LEAD FREE".
NOTES:

1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2. DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1015 & AWWA C510.
3. BACKFLOW PREVENTION ASSEMBLY SHALL BE CENTERED ON CONCRETE OR APPROVED BASE PER MANUFACTURER SPECIFICATION.
4. ASSE 1060 CLASS 2 FREEZE-RETARDANT ENCLOSURE - ELECTRICAL HEAT NOT REQUIRED.
5. 120V GFCI ELECTRICAL RECEPTACLE REQUIRED TO BE INSTALLED IN ACCORDANCE WITH THE NC ELECTRICAL CODE FOR OUTDOOR OPERATION WITH ASSE 1060 CLASS 1 ENCLOSURE.
6. PIPE MATERIAL SHALL MEET CURRENT NC PLUMBING CODE TABLE 605.3.
7. INSTALLATION SHALL BE IN COMPLIANCE WITH ALL APPLICABLE TOWN ORDINANCES AND SPECIFICATIONS, USFCCCHR CODE AND THE NC PLUMBING CODE.
8. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF BACKFLOW ASSEMBLY AND COMPLIANCE WITH REPORTING AND TESTING REQUIREMENTS.
9. ALL BACKFLOW PREVENTERS SHALL MEET CURRENT UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION AND HYDRAULIC RESEARCH REQUIREMENTS.
10. ALL BACKFLOWS SHALL BE "LEAD FREE".

TOWN OF APEX STANDARDS

3/4" to 2" COMMERCIAL OUTDOOR BACKFLOW ASSEMBLY (DOMESTIC SERVICE)
NOTES:

1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2. DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1015 & AWWA C510.
3. BACKFLOW PREVENTION ASSEMBLY SHALL MAINTAIN MINIMUM CLEARANCES FROM WALLS AND FLOOR AS SPECIFIED.
4. ALL BACKFLOW PREVENTERS SHALL BE LOCATED IN A LOWEST FLOOR ROOM (1HR FIRE RATED) WITH AN EXTERIOR DOOR WITH DIRECT ACCESS FROM THE OUTSIDE.
5. PIPE MATERIAL SHALL MEET CURRENT NC PLUMBING CODE TABLE 605.3 (OUTSIDE) AND TABLE 605.4 (INSIDE).
6. INSTALLATION SHALL BE IN COMPLIANCE WITH ALL APPLICABLE TOWN ORDINANCES AND SPECIFICATIONS, USCFCCCHR CODE AND THE NC PLUMBING CODE.
7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF BACKFLOW ASSEMBLY AND COMPLIANCE WITH REPORTING AND TESTING REQUIREMENTS.
8. ALL BACKFLOW PREVENTERS SHALL MEET CURRENT UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION AND HYDRAULIC RESEARCH REQUIREMENTS.
9. ALL DRAINS SHALL BE Sized TO MEET MAX CAPACITY RELEASE FROM A REDUCED PRESSURE BACKFLOW ASSEMBLY.
10. ALL BACKFLOW PREVENTERS SHALL BE "LEAD FREE".

TOWN OF APEX STANDARDS
EFFECTIVE: MARCH 6, 2018

3/4" to 2" COMMERCIAL INDOOR BACKFLOW ASSEMBLY (DOMESTIC SERVICE)

STD. NO.
620.05

SHEET 1 OF 1
NOTES:

1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2. REDUCED PRESSURE DETECTOR BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1047. UNIT SHALL BE USED FOR ALL FIRE PREVENTION SYSTEMS WITH FDC, CHEMICAL, PROCESSED OR BOOSTERED.
3. DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1015 & AWWA C510.
4. DOUBLE CHECK DETECTOR BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1048.
5. BACKFLOW ASSEMBLY SHALL BE CENTERED ON CONCRETE PAD AND CENTERED WITHIN ENCLOSURE OR BASED ON MANUFACTURER SPECIFICATION.
6. ASSE 1060 CLASS 2 FREEZE-RETARDANT ENCLOSURE REQUIRED.
7. STANDARD 120V GFCI ELECTRICAL RECEPTACLE TO BE INSTALLED IN ACCORDANCE WITH THE NC ELECTRICAL CODE FOR OUTDOOR OPERATION.
8. PIPE MATERIAL SHALL BE CLASS 350 DIP AWWA C150 AND C151 APPROVED BY THE TOWN.
9. INSTALLATION SHALL BE IN COMPLIANCE WITH ALL APPLICABLE TOWN ORDINANCES, SPECIFICATIONS, UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AND THE NC PLUMBING CODE.
10. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF BACKFLOW PREVENTION ASSEMBLY AND COMPLIANCE WITH REPORTING AND TESTING REQUIREMENTS.
11. ALL BACKFLOW PREVENTERS SHALL BE "LEAD FREE".

COMMERCIAL OUTDOOR DOMESTIC/FIRE BACKFLOW ASSEMBLY (3" DIAMETER & LARGER)
NOTES:
1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2. REDUCED PRESSURE DETECTOR ASSEMBLY SHALL COMPLY WITH ASSE 1047. UNIT SHALL BE USED FOR ALL FIRE PREVENTION SYSTEMS.
3. DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1015 & AWWA C510.
4. DOUBLE CHECK DETECTOR BACKFLOW PREVENTION VALVE ASSEMBLY SHALL COMPLY WITH ASSE 1048.
5. BACKFLOW PREVENTERS CANNOT BE LOCATED INSIDE WALLS, CABINETS OR FOUNDATIONS.
6. ALL BACKFLOW PREVENTERS SHALL BE LOCATED IN A LOWEST FLOOR ROOM (2HR FIRE RATED) WITH AN EXTERIOR DOOR WITH DIRECT ACCESS FROM THE OUTSIDE.
7. PIPE MATERIAL SHALL BE CLASS 350 DIP AWWA C150 AND C151 APPROVED BY THE TOWN. PIPE MATERIAL BEHIND THE BACKFLOW PREVENTER SHALL MEET NC PLUMBING CODE TABLE 605.4
8. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF BACKFLOW ASSEMBLY AND COMPLIANCE WITH REPORTING AND TESTING REQUIREMENTS.
9. ALL BACKFLOW PREVENTERS SHALL MEET CURRENT UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION AND HYDRAULIC RESEARCH REQUIREMENTS.
10. ALL DRAINS SHALL BE SIZED TO MEET MAX CAPACITY RELEASE FROM A REDUCED PRESSURE BACKFLOW ASSEMBLY.
11. ALL BACKFLOWS SHALL BE "LEAD FREE".

TOWN OF APEX STANDARDS
COMMERCIAL DOMESTIC/FIRE INDOOR BACKFLOW ASSEMBLY (3" DIAMETER & LARGER)

TOWNE OF APEX STANDARDS
COMMERCIAL DOMESTIC/FIRE INDOOR BACKFLOW ASSEMBLY (3" DIAMETER & LARGER)

TOWNE OF APEX STANDARDS
COMMERCIAL DOMESTIC/FIRE INDOOR BACKFLOW ASSEMBLY (3" DIAMETER & LARGER)
NOTES:
1. ALL EXPOSED PIPING AND FITTINGS SHALL BE GALVANIZED WITH EXCEPTION OF STORZ CONNECTION
2. PIPE MATERIAL SHALL BE CLASS 350 DIP AWWA C150 AND C151 APPROVED BY THE TOWN. PIPE MATERIAL BEHIND THE BACKFLOW PREVENTER SHALL MEET NC PLUMBING CODE TABLE 605.4
3. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF FDC AND ACCESSORIES
4. 50' MAX DISTANCE FROM FDC TO APPARATUS - FIRE HYDRANT
5. FOR NFPA 13R SYSTEMS (2 3/4" Riser and smaller) SINGLE FDC WITH NATIONAL STANDARD THREADS SHALL BE USED
6. AN APPROVED CONNECTION (TAPPING IS NOT APPROVED)
NOTES:
1. ALL PIPING AND FITTINGS SHALL BE DUCTILE IRON, GALVANIZED BRASS, OR ALUMINUM.
2. DUCTILE IRON PIPE MATERIAL SHALL BE CLASS 350 DIP AWWA C150 AND C151 APPROVED BY THE TOWN. PIPE MATERIAL BEHIND THE BACKFLOW PREVENTER SHALL MEET NC PLUMBING CODE TABLE 605.4.
3. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF FDC AND ACCESSORIES.
4. 50' MAX DISTANCE FROM FDC TO APPARATUS - FIRE HYDRANT.
5. FDC TO FACE FIRE HYDRANT - APPARATUS ACCESS LOCATION.
6. DO NOT BLOCK HYDRANT - APPARATUS ACCESS TO BUILDING WITH HOSE LAY FROM HYDRANT TO FDC.
7. MINIMUM DISTANCE BEHIND CURB IS 3'.
8. PROVIDE HEAT AND ALARM SUPERVISION TO HOT BOX (2 CONDUITS).
9. COMPLY WITH TOWN OF APEX SPECIFICATION AND DETAILS FOR BACKFLOW INSTALLATION.
10. ALL BACKFLOWS SHALL BE "LEAD FREE".
NOTES:
1. ALL PIPING AND FITTINGS SHALL BE DUCTILE IRON, GALVANIZED BRASS, OR ALUMINUM.
2. DUCTILE IRON PIPE MATERIAL SHALL BE CLASS 350 DIP AWWA C150 AND C151 APPROVED BY THE TOWN. PIPE MATERIAL BEHIND THE BACKFLOW PREVENTER SHALL MEET NC PLUMBING CODE TABLE 605.4.
3. PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF FDC AND ACCESSORIES.
4. 50' MAX DISTANCE FROM FDC TO APPARATUS - FIRE HYDRANT.
5. FDC TO FACE FIRE HYDRANT - APPARATUS ACCESS LOCATION.
6. DO NOT BLOCK HYDRANT - APPARATUS ACCESS LOCATION WITH HOSE LAY FROM HYDRANT TO FDC.
7. MINIMUM DISTANCE BEHIND CURB IS 3'.
8. PROVIDE HEAT AND ALARM SUPERVISION TO HOT BOX (2 CONDUITS).
9. COMPLY WITH TOWN OF APEX SPECIFICATION AND DETAILS FOR BACKFLOW INSTALLATION.
10. ALL BACKFLOWS SHALL BE "LEAD FREE".