WATER STANDARD PLANS

April 2014

PREFACE

The primary purpose of these documents is to clearly define the current WATER engineering and construction standards to be used in Park City. Park City is in the process of updating the Water portion of the *Park City Design Standards, Construction Specifications, and Standard Details*. However, while the City finalizes the design standards and specifications portion, the Water related standard plans have been completed. These updated standard plans incorporate current Water regulations and City water system operation, maintenance, and asset management considerations. These documents serve to replace the existing Section 700 Standard Details of the *Park City Design Standards, Construction Specifications, and Standard Details*. Conflicts between the existing specifications and updated standard plans shall be resolved in favor of the updated standard plans.

The plan numbering structure of this document follows the same basic structure as the APWA Standard Plans, however, there are some differences. Following is an explanation of the structure of this document:

1. Part 5 – Water Systems. Standard Plan divisions for Water system related details are:
    a. Notes, Abbreviations, and Symbols
    b. Fire Hydrants
    c. Water Meters
    d. Corrosion Protection Systems
    e. Piping
    f. Thrust Blocks
    g. Valves
    h. Trenching
    i. General
2. Numbering – A plan number having a suffix of "S" identifies that the plan contains index, legend, detail specific notes, and acceptable manufacturer and parts numbers related to the standard plan.

This document is intended to be altered periodically to ensure that the most current Park City Standards are available for public use. This document will be revised and published on the City's web site annually, during the first week of January.

Items contained in the Table of Contents and marked red indicate that there are ongoing discussions regarding the Standard Plan and are anticipated to be finalized in the near future.

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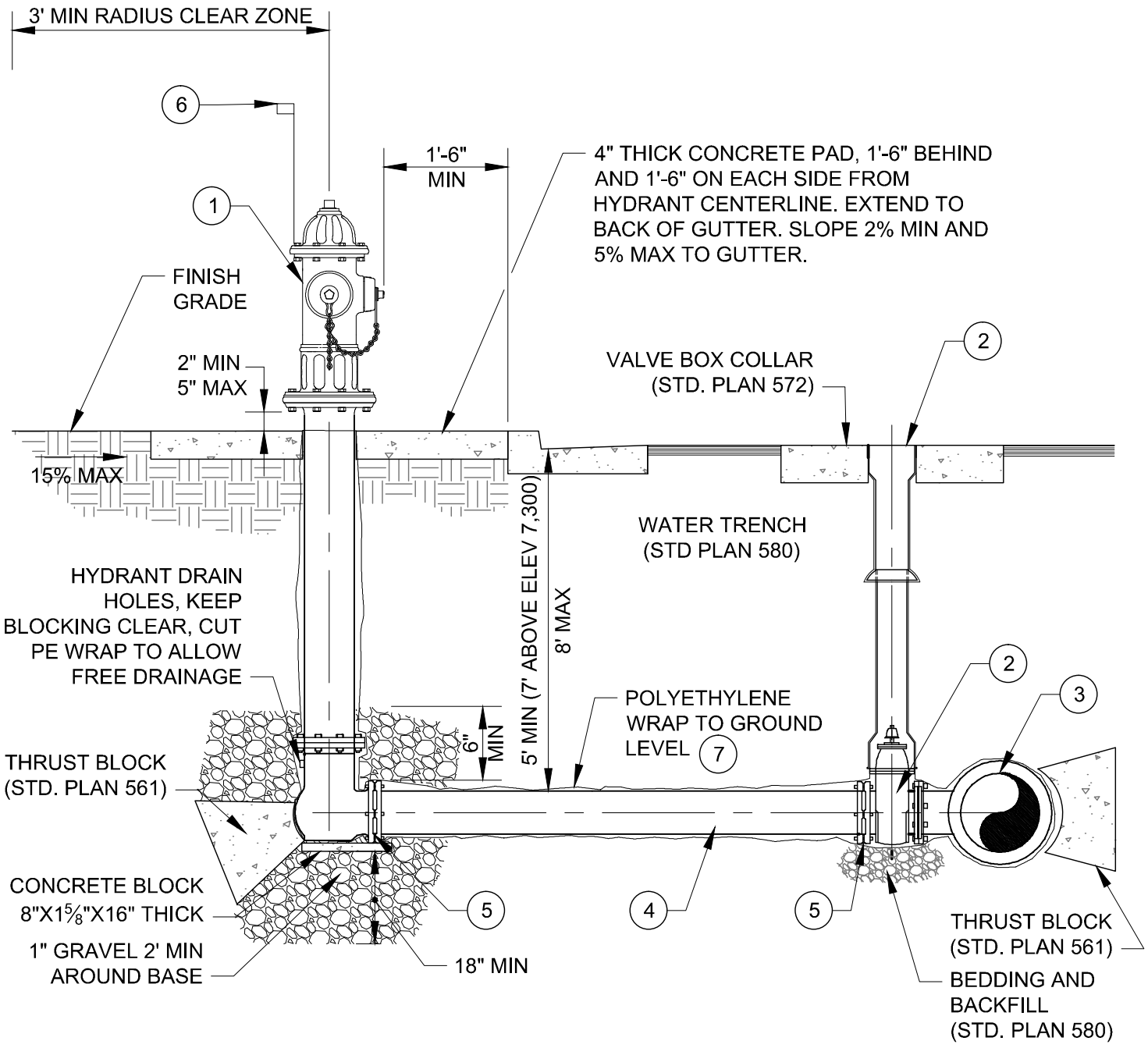
GENERAL WATER NOTES

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED INTO THESE CONTRACT DOCUMENTS BY REFERENCE:
   a. PARK CITY DESIGN STANDARDS, CONSTRUCTION SPECIFICATIONS, AND STANDARD DETAILS
   b. AMERICAN WATER WORKS ASSOCIATION STANDARDS (AWWA)
   c. UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF DRINKING WATER (DDW), R309-550 FACILITY DESIGN AND OPERATION: TRANSMISSION AND DISTRIBUTION PIPELINES
   d. INTERNATIONAL PLUMBING CODE
2. ALL PIPE AND FITTINGS SHALL BE ANSI-CERTIFIED AS MEETING NSF STANDARD 61 OR STANDARD 14.
3. UTAH DIVISION OF DRINKING WATER (DDW) APPROVALS:
   a. FOR PROJECTS EXCEEDING 300 FEET OF NEW PIPE AND/OR INCLUDING A WATER BOOSTER STATION OR PRESSURE REDUCING STATION, A DDW *PROJECT NOTIFICATION FORM* (PNF) SHALL BE SUBMITTED TO THE DDW BY THE DESIGN ENGINEER IN CONJUNCTION WITH SUBMITTAL OF A WATER MASTER PLAN TO THE CITY. FOLLOWING DESIGN REVIEW BY THE CITY AND INCORPORATION OF CITY COMMENTS, THE DESIGN ENGINEER SHALL SUBMIT WATER CONSTRUCTION PLANS TO THE DDW TO OBTAIN A CONSTRUCTION PERMIT. NO WATER CONSTRUCTION SHALL COMMENCE UNTIL A DDW CONSTRUCTION PERMIT IS ISSUED.
   b. A DDW FINAL OPERATING PERMIT IS REQUIRED PRIOR TO THE CITY OPERATING AND ACCEPTING THE WATER IMPROVEMENTS. FOLLOWING THE CITY'S WATER SYSTEM WALK-THROUGH AND THE CONTRACTOR'S SUBSEQUENT COMPLETION OF PUNCH-LIST ITEMS, THE CITY'S WATER DEPARTMENT WILL SUBMIT THE OPERATING PERMIT REQUEST TO THE DDW. THE FOLLOWING ITEMS ARE REQUIRED FROM THE DEVELOPER FOR THE CITY'S SUBMITTAL:
      i. FINAL RECORD DRAWINGS AND O&M MANUALS
      ii. HYDROSTATIC TESTING AND FLUSHING RECORDS (COMPLETED BY THE CITY'S INSPECTOR)
      iii. ACCEPTABLE BACTERIOLOGICAL TESTING RESULTS
      iv. CERTIFICATION BY THE (DEVELOPER'S) ENGINEER OF RECORD
4. THE CITY UTILIZES AN AUTOMATIC METER READING (AMR) SYSTEM. THE DEVELOPER MAY BE REQUIRED TO CONDUCT A PROPOGATION STUDY AND INSTALL RESULTING RECOMMENDED IMPROVEMENTS TO FACILITATE A CLEAR SIGNAL TO THE PROJECT. REFER TO STANDARD PLAN 520 FOR METER SPECIFIC METER TRANSMITTER UNIT (MXU) REQUIREMENTS.
5. REFER TO APPLICABLE STANDARD PLANS FOR WATER SYSTEM DETAILS AND REQUIREMENTS
6. EXTERNAL CORROSION PROTECTION SHALL BE INCLUDED ON ALL WATER SYSTEM IMPROVEMENTS, REFERENCE STANDARD PLAN 540 FOR REQUIREMENTS. A SOILS ANALYSIS MAY BE REQUIRED IN CONJUNCTION WITH THE DESIGN OF THE WATER SYSTEM TO DETERMINE THE EXTENT OF CORROSION PROTECTION REQUIRED.
7. REFER TO STANDARD PLAN 520 FOR GENERAL REQUIREMENTS FOR WATER METERS, METER VAULTS, AND WATER SERVICE LINES
8. NOTIFY CITY ENGINEER'S OFFICE AT LEAST 48 HOURS BEFORE START OF WORK
9. CITY INSPECTION OF WATER SYSTEM IMPROVEMENTS WILL FOLLOW THE "PUBLIC WATER SYSTEM FIELD OBSERVATION GUIDELINES" AND ESTABLISHED CITY POLICIES. CONTRACTOR SHALL PROVIDE NESSARY ASSISTANCE TO MEET THE GUIDELINE REQUIREMENTS.
10. ARRANGE A PRECONSTRUCTION CONFERENCE SPECIFIC TO WATER CONSTRUCTION WITH THE CITY ENGINEER AND WATER DEPARTMENT AT LEAST 48 HOURS BEFORE START OF WORK. FOR PROJECTS INVOLVING ONLY SERVICE LINE AND/OR METER VAULT INSTALLATION, AN ON-SITE MEETING WITH THE CITY ENGINEER 48 HOURS PRIOR TO CONSTRUCTION IS ACCEPTABLE.
11. FOR TEMPORARY USE OF EXISTING WATER SYSTEM AND FIRE HYDRANTS TO OBTAIN CONSTRUCTION WATER, REFER TO STANDARD PLAN 531.
12. ALL CONSTRUCTION OF WATER SYSTEM SHALL BE CLEARLY STAKING BY THE DEVELOPER'S OR CONTRACTOR'S SURVEYOR. STAKING SHALL INCLUDE ALL BENDS, VALVES, HYDRANTS, SERVICES, METER VAULTS, AND SPECIALS. A MINIMUM OF 50-FOOT STATIONING IS REQUIRED FOR PIPELINE.
13. CHANGES TO THE APPROVED WATER PLANS, INCLUDING PIPE ALIGNMENT, SIZE, AND DEPTH AS WELL AS FITTINGS, VALVES, SERVICES, AND METER VAULT LOCATIONS SHALL BE AUTHORIZED BY THE CITY ENGINEER PRIOR TO INSTALLATION.

14. WATER SERVICE INTERRUPTION. THE FOLLOWING SHALL BE MET WITH RESPECT TO THE INTERRUPTION OF SERVICE TO CUSTOMERS INCLUDING THE SHUTDOWN OF THE EXISTING WATER SYSTEM:
    a. CONTRACTOR SHALL NOT OPERATE EXISTING WATER VALVES
    b. SCHEDULE SERVICE WORK REQUIRING WATER SERVICE INTERRUPTIONS OR SHUTDOWN OF THE EXSTING WATER SYSTEM A MINIMUM OF 72 HOURS IN ADVANCE WITH THE WATER DEPARTMENT
    c. LIMIT INTERRUPTIONS TO OCCUR AND BE COMPLETED ON MONDAY THRU THURSDAY, 9:00 AM TO 4:00 PM. NO INTERRUPTIONS SHALL OCCUR ON FRIDAYS, WEEKENDS, OR HOLIDAYS.
    d. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION TO AFFECTED CUSTOMERS. CONTACT THE WATER DEPARTMENT FOR NOTIFICATION REQUIREMENTS. BE ADVISED THAT ON OCCASION VALVES IN THE EXISTING WATER SYSTEM MAY BE INOPERABLE AND MAY REQUIRE NOTIFICATION OF A LARGER AREA. IF VALVE MAINTENANCE IS REQUIRED, A SHUTDOWN DELAY OF SEVERAL DAYS SHOULD BE EXPECTED.
    e. FOR WATER SHUTDOWNS LONGER THAN 6 HOURS, CONTRACTOR SHALL SUBMIT A TEMPORARY WATER PLAN TO KEEP ALL CUSTOMERS IN SERVICE. ALL COSTS ASSOCIATED WITH MAINTAINING SERVICE TO AFFECTED CUSTOMERS SHALL BE BORNE BY THE CONTRACTOR
    f. CONTRACTOR SHALL HAVE ALL PERTINENT PARTS AND MATERIALS ON SITE PRIOR TO SHUTDOWN OF THE WATER SYSTEM BY THE WATER DEPARTMENT
    g. CONSTRUCTION EXCAVATION MUST BE PREPARED AND THE WATER MAIN EXPOSED PRIOR TO SHUTDOWN OF THE WATER SYSTEM
15. EXPOSE EXISTING WATER PIPES AND VERIFY HORIZONTAL AND VERTICAL LOCATION PRIOR TO INSTALLING NEW IMPROVEMENTS
16. PROVIDE ACCESS TO EXISTING MAIN LINE VALVES THROUGHOUT CONSTRUCTION
17. WHERE JOINING EXISTING ASBESTOS CEMENT PIPE, CUT IN ACCORDANCE WITH OSHA REQUIREMENTS AND DISPOSE OF IN ACCORDANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS.
18. PROVIDE EXTENSIONS ON VALVE STEM TOPS HAVING OVER 5 FEET BURY. REFER TO STANDARD PLAN 570.
19. INSTALL AIR AND VACUUM VALVES PER STANDARD PLANS 574 AND 575 AT HIGH POINTS (8" DIAMETER PIPE OR LARGER) AS DEEMED NECESSARY BY THE DESIGN ENGINEER AND CITY.
20. THRUST BLOCKING IS REQUIRED ON ALL WATER MAIN AND FIRE LINES. REFER TO STANDARD PLANS 561 AND 562
21. REMOVE AND CORRECT DEFECTIVE WORK WITHIN 24 HOURS FOLLOWING WRITTEN NOTIFICATION BY THE CITY ENGINEER.
22. CONSTRUCT TEMPORARY FLUSHING VALVES/BLOW-OFF PIPING ON THE END OF NEW WATER MAINS AS REQUIRED TO MEET FLUSHING REQUIREMENTS. CONSULT WITH CITY INSPECTOR TO DETERMINE ACCEPTABLE LOCATIONS AND SIZING REQUIREMENTS. MINIMUM ACCEPTABLE FLUSHING VELOCITY IS 6 FEET PER SECOND. DO NOT FLUSH THROUGH FIRE HYDRANTS.
23. DISINFECTING, FLUSHING, AND HYDROSTATIC PLANS SHALL BE SUBMITTED TO THE CITY INSPECTOR A MINIMUM OF 5 WORKING DAYS PRIOR TO COMMENCEMENT OF ACTIVITY. CONTRACTOR SHALL NOT OPERATE EXISTING WATER VALVES. REFER TO SPECIFICATIONS FOR DISINFECTING, FLUSHING, AND HYDROSTATIC TESTING REQUIREMENTS
24. ALL BRASS AND BRONZE PIPE, FITTINGS, AND VALVES SHALL MEET LOW LEAD COMPLIANCE REQUIREMENTS IN ACCORDANCE WITH ANSI/ASTM 371
25. BACKFLOW PREVENTION DEVICES MAY BE REQUIRED. IF REQUIRED, THE CITY MAY NOT SET A WATER METER UNTIL AN APPROVED AND TESTED BACKFLOW DEVICE IS INSTALLED AND INSPECTED



NOTES:

1. REFER TO STD. PLAN 511-S FOR LEGEND ITEMS, APPROVED PARTS LIST, AND DETAIL NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 02/2014 REV. 0	**FIRE HYDRANT**	STD. PLAN **511**

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	FIRE HYDRANT, DRY BARREL, AWWA C502	MUELLER	SUPER CENTURION 250 3-WAY A-423, 5-1/4 PUMPER NOZZLE, NATIONAL STD. OPERATING NUT (OPENS LEFT)
		CLOW	MEDALLION, 5-1/4 PUMPER NOZZLE, NATIONAL STD. OPERATING NUT (OPENS LEFT)
②	BURIED VALVE AND VALVE BOX (STD. PLAN 570), 6" GATE VALVE, NRS, FLG X MJ, 2" SQ. OPERATING NUT, AWWA C509	MUELLER	SERIES 2360, SST BONNET BOLTS
		CLOW	MODEL 2639, SST BONNET BOLTS
③	6" DUCTILE IRON FLANGE TEE, AWWA C110		
④	HYDRANT SERVICE LINE, 6" DIAMETER DUCTILE IRON PIPE, RESTRAINED JOINTS (STD PLAN 540)		
⑤	MECHANICAL JOINT RESTRAINT OR SST TIE ROD / NUT RESTRAINTS	EBBA IRON	MEGALUG SERIES 1100, STD T-BOLTS AND NUTS
⑥	HYDRANT MARKER, HEAVY DUTY FIBERGLASS WITH RED FLAG, TOP MOUNT, 5' LENGTH (STD.), 6' LENGTH (ABOVE 7300' ELEVATION)	POLLARD	REFLECTIVE HYDRANT MARKER MODEL P69161 (STD.) AND P69170 (ABOVE 7300') WITH FLAG MODEL P691801, OR APPROVED EQUAL
⑦	POLYETHYLENE ENCASEMENT, HIGH DENSITY CROSS LAMINATED (HDCL) POLYETHYLENE FILM, AWWA C105 & AWWA C703E METHOD A & C	CHRISTY'S OR APPROVED EQUAL	AWWA C703E METHOD A (4 MIL) AT PIPE AND AWWA C703E METHOD C (10 MIL) AT BOLT-TYPE JOINTS, FITTINGS AND VALVES

DETAIL NOTES

1. LOCATE HYDRANT AS SHOWN ON THE APPROVED PLANS
2. SET HYDRANT PLUMB WITH PUMPER NOZZLE FACING STREET
3. ADJUST TO GRADE WITH MAXIMUM OF ONE (1) HYDRANT BARREL EXTENSION (AWWA C502)
4. PROVIDE 316 STAINLESS STEEL BOLTS AND NUTS WITH ANTI-SIEZE LUBRICATION ON ALL FLANGED CONNECTIONS
5. RECOAT DAMAGED OR MARRED HYDRANT COATING AFTER INSTALLATION (UV RESISTANT, HIGH GLOSS, POLYURETHANE ENAMEL COATING, FIRE HYDRANT RED)
6. REFER TO SPECIFICATIONS FOR FLUSHING, HYDROSTATIC TESTING, AND DISINFECTING REQUIREMENTS
7. APPLY WAX TAPE COATING SYSTEM TO VALVE BONNET BOLTS AND ALL OTHER BURIED BOLTS, NUTS, CONNECTORS, AND COUPLINGS, AWWA C 217. (STD PLAN 534)
8. CATHODICALLY PROTECT PIPE AND OR FITTINGS, WHEN EXISTING SOIL CONDITIONS REQUIRE PER SOILS ANALYSIS (STD. PLAN 534)

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	FIRE HYDRANT	STD. PLAN
2/2014		511 S
REV.		

GENERAL REQUIREMENTS –
WATER METER, METER VAULT, AND SERVICE LINE

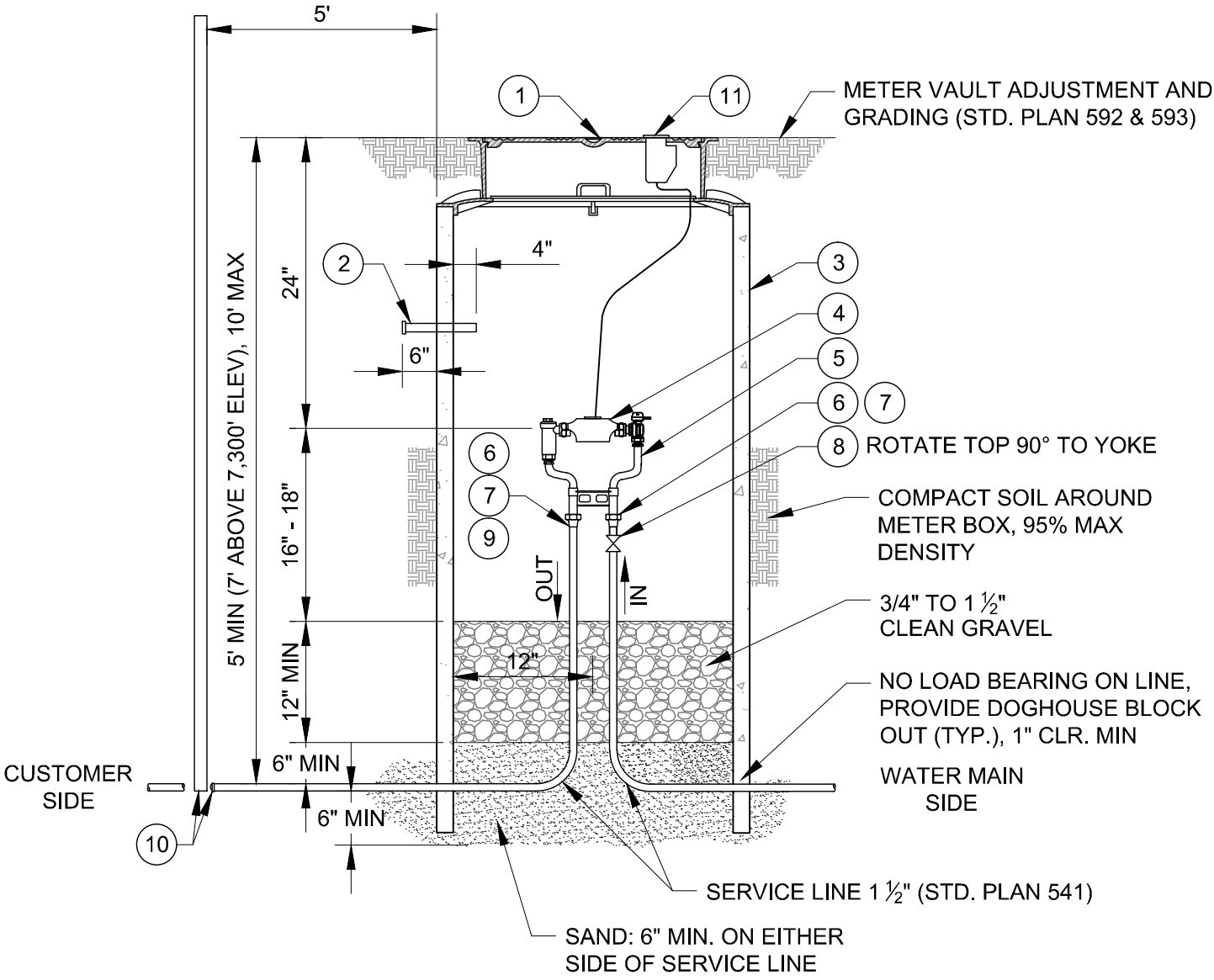
WATER METER & METER VAULT:

1. WATER METER AND RADIOREAD METER TRANSCEIVER UNIT (MXU) WILL BE PROVIDED BY THE CITY. ALL OTHER COMPONENTS SHALL BE PROVIDED AND INSTALLED BY THE DEVELOPER/BUILDER. PROVIDE 2 WEEKS ADVANCE NOTICE TO THE WATER DEPARTMENT FOR METER SET REQUESTS EXCEEDING FIVE METERS OR METER SIZES GREATER THAN 2 INCHES. APPROPRIATE METER APPLICATION AND PAYMENT OF FEES APPLY BEFORE THE CITY WILL SET A METER.
2. WATER METER SIZE SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO INSTALLATION OF ANY SERVICE LINE, METER VAULT, OR WATER MAIN TAP.
3. INSTALLATION OF A WATER METER EXCEEDING 2-INCH WILL REQUIRE CITY ENGINEER APPROVAL. THE METER AND VAULT WILL REQUIRE A FLOWRATE AND DEMAND ANALYSIS BY THE DEVELOPER / BUILDER AND A SITE SPECIFIC DESIGN.
4. INSTALLATION OF A WATER SERVICE LINE SIZE GREATER THAN 1-1/2" WILL REQUIRE CITY ENGINEER APPROVAL. THE SERVICE LINE UPGRADE REQUEST WILL REQUIRE SUBMITTAL OF A FLOWRATE AND DEMAND ANALYSIS BY THE DEVELOPER/BUILDER.
5. USE OF AN INSIDE WATER METER WILL REQUIRE CITY ENGINEER APPROVAL. INSIDE METERS SHALL BE USED ONLY FOR COMMERCIAL OR MULTI-UNIT BUILDINGS SUBJECT TO THE FOLLOWING CONDITIONS:
   A. UNRESTRICTED ACCESS IS AVAILABLE TO WATER DEPARTMENT PERSONNEL
   B. THE METER SHALL BE LOCATED IN A SEPARATE MECHANICAL ROOM
   C. THE METER SHALL BE ASSOCIATED WITH FIRE PROTECTION SPRINKLER SYSTEM (FIRE STACK) PLUMBING
   D. THE METER REQUIRES A SITE SPECIFIC DESIGN APPROVED BY THE FIRE MARSHAL, THE PARK CITY BUILDING DEPARTMENT, AND THE WATER DEPARTMENT. LAYOUT SHALL BE CONSISTENT WITH WATER STANDARD PLANS 523, 526, AND 528
   E. A REMOTE RADIOREAD METER TRANSCEIVER UNIT (MXU) DEVICE SHALL BE INSTALLED AT A LOCATION ACCEPTABLE TO THE WATER DEPARTMENT. REFER TO NOTE 11.
6. METER VAULT LOCATION SHALL BE APPROVED BY THE CITY ENGINEER AND WATER DEPARTMENT PRIOR TO INSTALLATION OF ANY SERVICE LINE OR WATER MAIN TAP.
7. LOCATE METER VAULT, WHENEVER POSSIBLE, IN LANDSCAPE AREAS. PLACEMENT WITHIN A PAVED SURFACE, DRIVEWAY OR WALKWAY, REQUIRES WRITTEN APPROVAL PRIOR TO INSTALLATION OF THE SERVICE LINE OR WATER MAIN TAP. THE METER VAULT SHALL BE PLACED AT THE PUBLIC RIGHT OF WAY LINE. IN THE ABSENCE OF A PUBLIC R-O-W LINE, THE METER VAULT SHALL BE LOCATED WITHIN A DEDICATED EASEMENT AND A MAXIMUM OF FIVE FEET BEHIND THE CURB AND GUTTER OR SIDEWALK AS APPLICABLE.
8. EXTEND THE SERVICE LINE STUB ON THE CUSTOMER SIDE TO 5 FEET BEYOND THE METER VAULT WITH METER VAULT CONSTRUCTION. INSTALL END CAP AND MARKER ON SERVICE LINE TERMINATION.
9. LOCATE METER VAULT TO PROVIDE CONVENIENT, SAFE, AND UNINHIBITED ACCESS FROM A PUBLIC ROW OR WATER EASEMENT. NO FENCES SHALL BE LOCATED BETWEEN THE ROW/EASEMENT LINE AND THE METER VAULT. NO OBSTRUCTIONS OR UTILITIES SHALL BE LOCATED WITHIN 3 FEET OF THE OUTSIDE WALL OF THE METER VAULT. NO BUSHES, SHRUBS, OR PLANTS SHALL BE WITHIN 2 FEET OF THE METER LID AND NO TREES SHALL BE PLANTED SUCH THAT THE DRIP LINE AT MATURITY WILL BE WITHIN 3 FEET OF THE METER LID.
10. SET METER VAULT SET FLUSH WITH THE FINAL LANDSCAPE OR PAVEMENT GRADE. IF THE GROUND IS NOT TO FINAL GRADE AT THE TIME OF THE METER INSTALLATION OR INSPECTION, ADJUST METER VAULT WHEN FINAL GRADE IS ESTABLISHED AND ADJUST THE METER SETTER TO MEET REQUIRED VAULT DIMENSIONS. REFERENCE STANDARD PLANS 593-A AND 593-B FOR METER VAULT GRADING REQUIREMENTS.

11. IN MOST CASES THE METER TRANSCEIVER UNIT (MXU) DEVICE WILL MOUNT THROUGH THE METER VAULT LID. IF METER LOCATION DOES NOT PERMIT A CLEAR RELIABLE MXU DEVICE RADIO SIGNAL TO CITY FACILITIES, A REMOTE MXU DEVICE WILL BE REQUIRED. THE REMOTE MXU DEVICE WILL BE INSTALLED BY THE CITY, AT A LOCATION DETERMINED BY THE CITY, AT THE TIME OF THE METER INSPECTION. IN MOST CASES THE REMOTE MXU DEVICE WILL BE INSTALLED ON THE OUTSIDE OF THE BUILDING FACING A PUBLIC STREET. PROVIDE CONDUIT AND SIGNAL WIRE FROM METER VAULT TO REMOTE MXU DEVICE LOCATION, REFERENCE STANDARD PLAN 530. FOR DEVELOPMENT PROJECTS, A SIGNAL PROPAGATION STUDY AND INSTALLATION OF A NEW REPEATER STATION AT THE DEVELOPER'S EXPENSE MAY BE REQUIRED.
12. IF REPLACING METER VAULT, PROTECT EXISTING METER AND MXU DEVICE, TAG OR LEAVE IN VAULT. CONTACT PARK CITY WATER DEPARTMENT PRIOR TO REMOVING OR REPLACING METER.
13. PROTECT METER VAULT AND MXU DEVICE THROUGHOUT CONSTRUCTION.
14. A WATER METER WILL NOT BE SET BY THE CITY UNTIL THE METER VAULT AND SERVICE LINE ARE IN COMPLIANCE WITH THE MOST CURRENT VERSION OF THE ENGINEERING STANDARDS, STANDARD DRAWINGS, AND APPROVED PROJECT DRAWINGS, A METER INSPECTION HAS BEEN PERFORMED AND DEFICIENCIES CORRECTED, AND ALL APPLICABLE FEES PAID.
15. ALL BRASS AND BRONZE PIPE, FITTINGS, AND VALVES SHALL MEET LOW LEAD COMPLIANCE REQUIREMENTS IN ACCORDANCE WITH ANSI/ASTM 371.
16. PROVIDE COMPRESSION STYLE FITTINGS AND VALVES. FLARED STYLE CONNECTIONS ARE NOT ALLOWED.

SERVICE LINE:

1. ROUTE SERVICE LINES AT A 90 DEGREE ANGLE TO THE FRONT PROPERTY/R-O-W/EASEMENT LINE FROM THE WATER MAIN. AVOID ROUTING SERVICE LINES UNDER DRIVEWAYS.
2. MAINTAIN 5 FEET OF HORIZONTAL SEPARATION BETWEEN TAP LOCATION AND UTILITY CROSSINGS.
3. DUCTILE IRON WATER MAIN: MAINTAIN 2 FEET SEPARATION BETWEEN SERVICE LINE TAP AND ALL MAIN LINE FITTINGS, VALVES, PIPE JOINTS, AND OTHER SERVICE TAPS.
4. PVC WATER MAIN: MAINTAIN 3 FEET SEPARATION BETWEEN SERVICE LINE TAP AND ALL MAIN LINE FITTINGS, VALVES, PIPE JOINTS, AND OTHER SERVICE TAPS.
5. WATER SERVICE LINE SHALL BE CONTINUOUS. NO BENDS, FITTINGS, COUPLERS, OR CONNECTIONS, ARE PERMITTED BETWEEN WATER MAIN CORPORATION STOP AND THE METER VAULT CURB VALVE.
6. PROVIDE COMPRESSION STYLE VALVES FITTINGS. FLARED STYLE CONNECTIONS ARE NOT ALLOWED.
7. METER VAULTS AND SERVICE LINES MUST BE INSPECTED BY THE CITY PRIOR TO BACKFILLING, UNLESS SPECIFIC PRIOR APPROVAL IS PROVIDED BY THE CITY.
8. TAPPING NEW CONSTRUCTION WATER MAIN: NOTIFY AND SECURE INSPECTION OF INSTALLATION BY CITY ENGINEER PRIOR TO TAPPING WATER MAIN. PROVIDE TAPPING "COUPON" TO CITY INSPECTOR
9. TAPPING EXISTING WATER MAIN: NOTIFY AND SECURE INSPECTION OF INSTALLATION BY WATER DEPARTMENT 48 HOURS PRIOR TO TAPPING WATER MAIN. PROVIDE TAPPING "COUPON" TO CITY INSPECTOR
10. SERVICES LINES LARGER THAN 2-INCH DIAMETER SHALL MEET WATER MAIN REQUIREMENTS.
11. ALL BRASS AND BRONZE PIPE, FITTINGS, AND VALVES SHALL MEET LOW LEAD COMPLIANCE REQUIREMENTS IN ACCORDANCE WITH ANSI/ASTM 371
12. REFER TO SPECIFICATIONS FOR SERVICE LINE AND METER DISINFECTING, FLUSHING, AND HYDROSTATIC TESTING REQUIREMENTS



NOTES:

1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.
2. REFER TO STD. PLAN 521 S FOR LEGEND ITEMS, APPROVED PARTS LIST, AND DETAIL NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 02/2014 REV. 0	**3/4" AND 1" SINGLE METER OUTSIDE SETTING**	STD. PLAN **521**

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	METER VAULT FRAME AND COVER (STD. PLAN 529)		
②	MXU REMOTE LOCATION CONDUIT WITH END CAPS, SCH 40 PVC (STD. PLAN 530)		
③	24" DIAMETER METER VAULT PAVED AREAS: REINF. CONCRETE PIPE LANDSCAPE AREAS: RCP ASTM C76 OR CORRUGATED DUAL-WALL HDPE PIPE	HDPE PIPE: ADS	RCP: ASTM C 76 CLASS III; HDPE: MEGA GREEN N-12, OR APPROVED EQUAL
④	METER, SUPPLIED AND INSTALLED BY PCMC		
⑤	3/4" METER YOKE	MUELLER	5/8"x3/4"x9" B2410N-6AN
		FORD	5/8"x3/4" VBHC82-9W-11-33-NL
	1" METER YOKE	MUELLER	1"x12" B2410N-6AN
		FORD	1" VBHC84-12W-11-44-NL
⑥	3/4" OR 1" METER YOKE END CONNECTION	MUELLER	MULTI X M.I.P, H-14223N
		FORD	3/4" OR 1" CLOSE BRASS NIPPLE
⑦	1-1/2" X 3/4" OR 1" BRONZE BUSHING		
⑧	1-1/2" CURB VALVE, F.I.P. X CTS (INLET)	MUELLER	B-25172N
⑨	1-1/2" CONNECTION, F.I.P. X CTS (OUTLET)	MUELLER	H-15451N
		FORD	C-14-66-G-NL
⑩	END CAP AND MARKER, CTS X F.I.P. (OUTLET)	MUELLER	H-15451N AND H-10035N
⑪	MXU AND WIRING, SUPPLIED AND INSTALLED BY PCMC		

DETAIL NOTES

1. LOCATE METER VAULT PER APPROVED PLANS AND SET METER BOX PLUMB
2. SST INSERT STIFFENERS REQUIRED ON ALL CTS TUBING CONNECTIONS

PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	3/4" and 1" SINGLE METER OUTSIDE SETTING	STD. PLAN
4/2014		521 S
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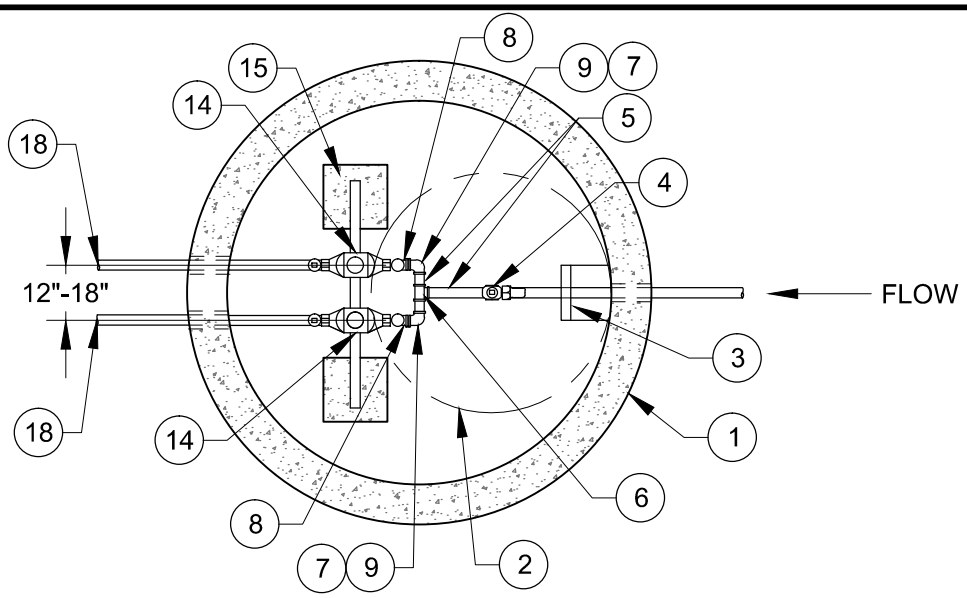
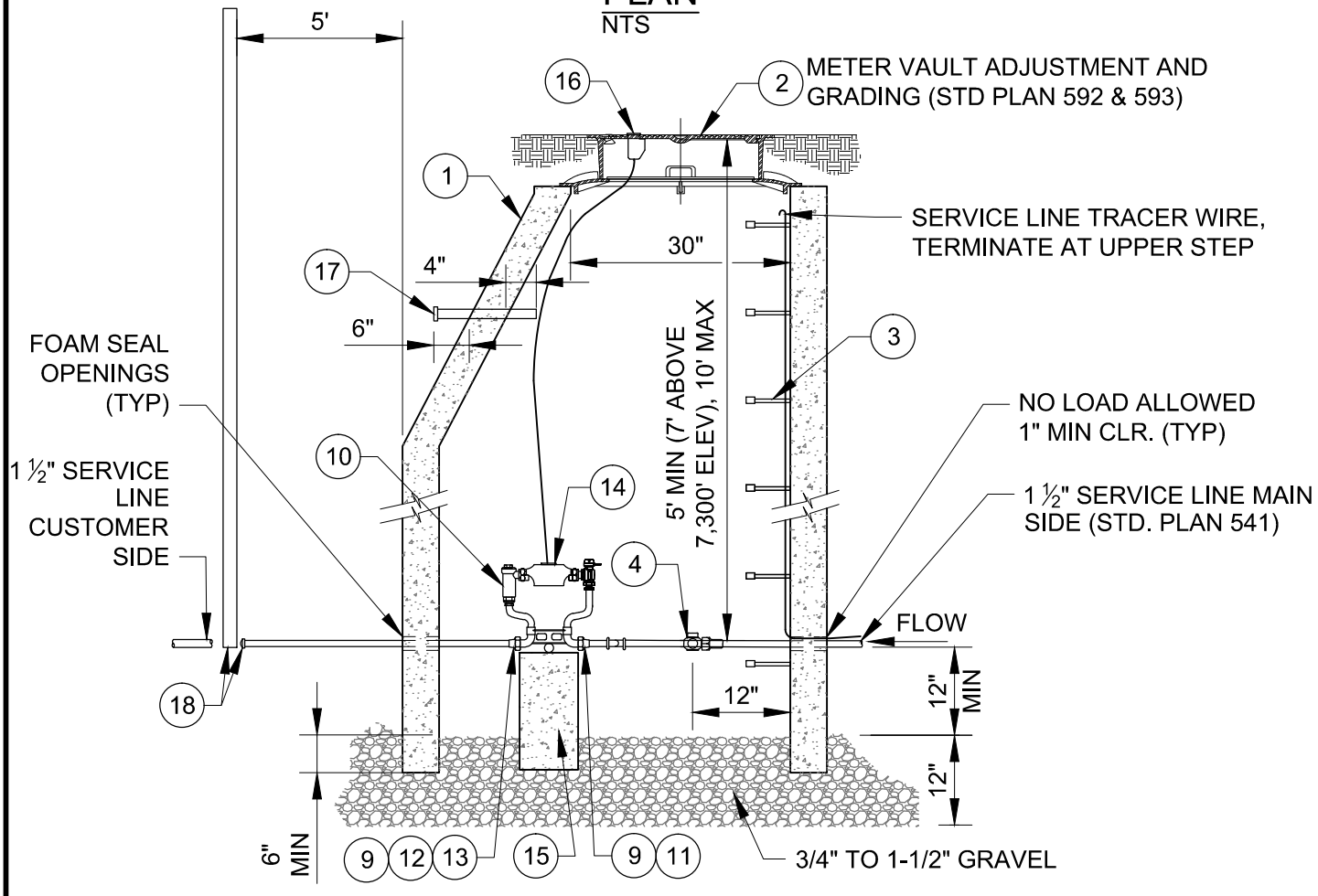


PLAN
NTS



SECTION
NTS

NOTES:

1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.
2. REFER TO STD. PLAN 521 S FOR LEGEND ITEMS, APPROVED PARTS LIST, AND DETAIL NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**3/4" AND 1" DUAL METERS OUTSIDE SETTING**	STD. PLAN **522**

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	4' DIA. MANHOLE, PRECAST CONCRETE ECCENTRIC CONE AND WALL SECTIONS		ASTM C 478
②	METER VAULT FRAME AND COVER (STD PLAN 529)		
③	POLYPROPYLENE ENCASED GRADE 60 STEEL STEPS AT 13" C-C, 13-1/2" TREAD WIDTH	M.A. INDUSTRIES OR APP'D EQUAL	PS2-PFDF
④	1-1/2" CURB VALVE	MUELLER	B-25172N
⑤	1-1/2" DIA. BRASS NIPPLE X 6" LENGTH, M.I.P.		
⑥	1-1/2" DIA. BRONZE TEE, F.I.P., THREADED		
⑦	1-1/2" BRONZE 90^0 ELBOW, F.I.P., THREADED (2 EA)		
⑧	1-1/2" BRASS NIPPLE X 4" LENGTH, M.I.P. (2 EA)		
⑨	BRONZE BELL REDUCER REQ'D (2 EA) 3/4" YOKE: 1-1/2" X 3/4" 1" YOKE: 1-1/2" X 1" DIA.		
⑩	3/4" METER YOKE (2 EA)	MUELLER	5/8"x3/4"x9" B2404N-6AN
		FORD	5/8"x3/4" VBHC72-9W-11-33-NL
	1" METER YOKE (2 EA)	MUELLER	1"x12" B2404N-6AN
		FORD	1" VBHC72-12W-11-44-NL
⑪	3/4" OR 1" METER YOKE END CONNECTIONS (2 EA)	MUELLER	MULTI X M.I.P., H-14223N
		FORD	3/4" OR 1" CLOSE BRASS NIPPLE
⑫	1-1/2" x 3/4" OR 1" BRONZE BUSHING (OUTLET) (2 EA)		
⑬	1-1/2" CONNECTION, F.I.P. X CTS (OUTLET) (2 EA)	MUELLER	H-15451N
		FORD	C-14-66-G-NL
⑭	METER, SUPPLIED AND INSTALLED BY PCMC (2 EA)		
⑮	PIPE SUPPORTS, GALVANIZED PIPE SUPPORT ROD AND (2) 16"x8"x8" CMU BLOCK		
⑯	MXU AND WIRING, SUPPLIED AND INSTALLED BY PCMC		
⑰	MXU REMOTE LOCATION CONDUIT WITH END CAPS, SCH 40 PVC (STD. PLAN 531)		
⑱	END CAP AND MARKER, CTS X F.I.P. (OUTLET) (2 EA)	MUELLER	H-15451N AND H-10035N

DETAIL NOTES

1. LOCATE METER VAULT PER APPROVED PLANS AND SET METER BOX PLUMB
2. SST INSERT STIFFENERS REQUIRED ON ALL CTS TUBING CONNECTIONS

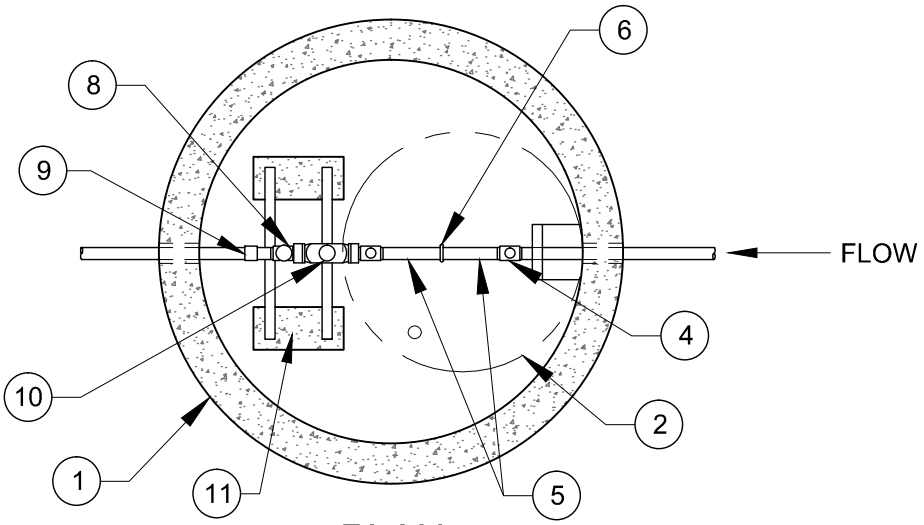
PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

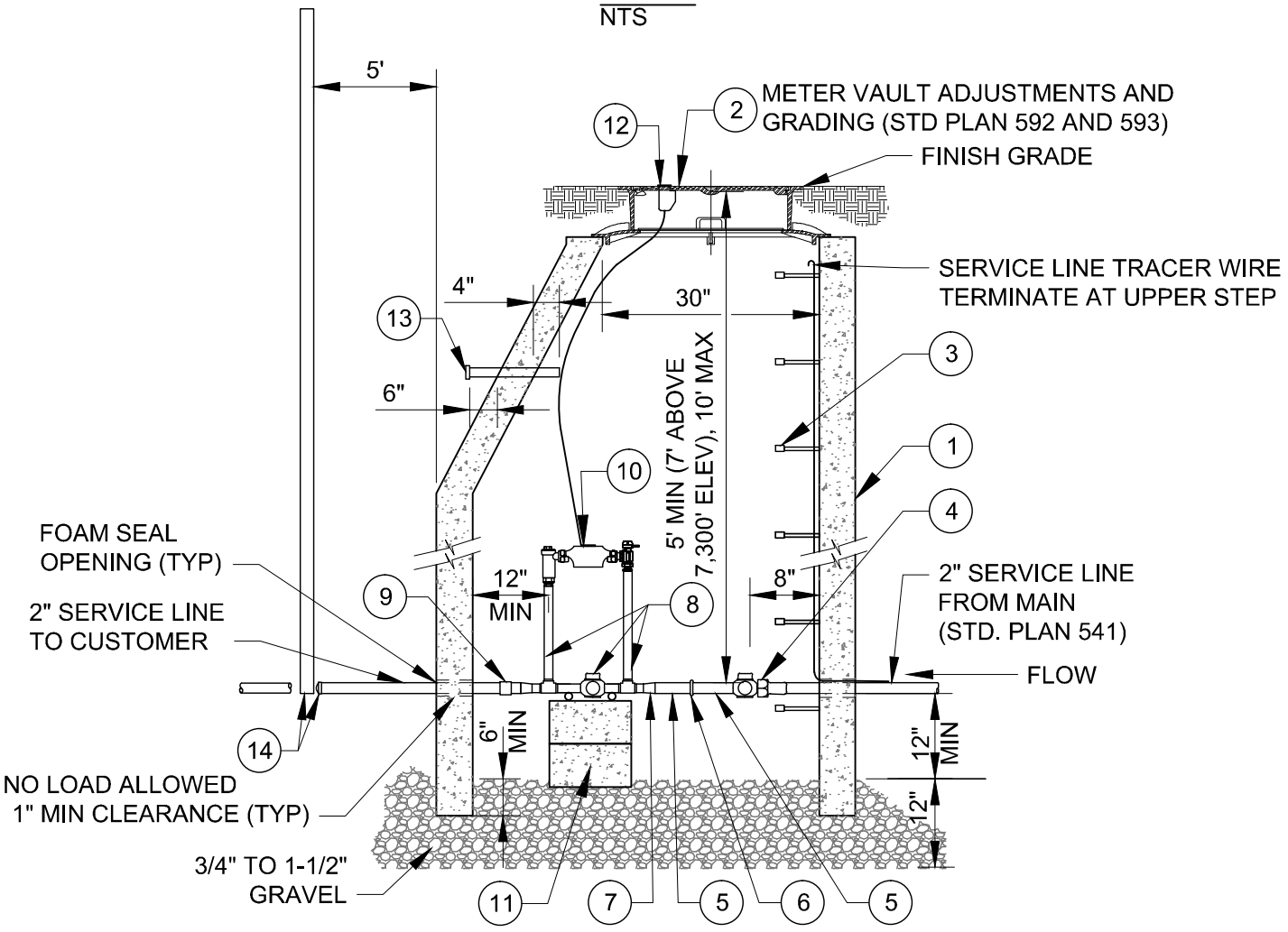
DATE	STD. PLAN
4/2014	
REV.	

3/4" and 1" DUAL METER OUTSIDE SETTING

522 S



PLAN
NTS



SECTION
NTS

NOTES:

1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.
2. REFER TO STD. PLAN 521 S FOR LEGEND ITEMS, APPROVED PARTS LIST, AND DETAIL NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**1-1/2" AND 2" SINGLE METER OUTSIDE SETTING**	STD. PLAN **524**

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	5' DIA. MANHOLE, PRECAST CONCRETE ECCENTRIC CONE AND WALL SECTIONS		ASTM C 478
②	METER VAULT FRAME AND COVER (STD. PLAN 529)		
③	POLYPROPYLENE ENCASED GRADE 60 STEEL STEPS AT 13" C-C, 13-1/2" TREAD WIDTH	M.A. INDUSTRIES OR APPV'D EQ.	PS2-PFDF
④	2" CURB VALVE, F.I.P. x CTS	MUELLER	B-25172N
⑤	2" DIA. BRASS NIPPLE x 4" LENGTH, M.I.P.		
⑥	2" BRONZE UNION, F.I.P., THREADED		
⑦	1-1/2" BRASS NIPPLE x 4" LENGTH, 2" x 1-1/2" BRONZE BELL REDUCER, AND 1-1/2" CLOSE BRASS NIPPLE (1-1/2" YOKE ONLY)		
⑧	1-1/2" METER YOKE COMMERCIAL SERVICE: WITH BYPASS RESIDENTIAL SERVICE: WITHOUT BYPASS IRRIGATION SERVICE: WITHOUT BYPASS	MUELLER	1-1/2"x15" B2423-2-01N (WITH BYPASS) 1-1/2"x15" B2422-2N (WITHOUT BYPASS)
		FORD	1-1/2" VBHH76-15B-11-66-NL (WITH BYPASS) 1-1/2" VBHH76-15-11-66-NL (WITHOUT BYPASS)
	2" METER YOKE COMMERCIAL SERVICE: WITH BYPASS RESIDENTIAL SERVICE: WITHOUT BYPASS IRRIGATION SERVICE: WITHOUT BYPASS	MUELLER	2"x15" B2423-2-01N (WITH BYPASS) 2"x15" B2422-2N (WITHOUT BYPASS)
		FORD	2" VBHH77-15B-11-77-NL (WITH BYPASS) 2" VBHH77-15-11-77-NL (WITHOUT BYPASS)
⑨	2" CONNECTION, F.I.P. x CTS AND 2" BRASS NIPPLE x 4" LENGTH (OUTLET); 1-1/2" YOKE ONLY: ADD 2"x1-1/2" BRONZE BELL REDUCER AND 1-1/2" CLOSE BRASS NIPPLE	MUELLER	H-15451N
		FORD	C-14-66-G-NL
⑩	METER, SUPPLIED AND INSTALLED BY PCMC		
⑪	PIPE SUPPORTS (4) 16"x8"x8" CMU BLOCK, (2) METER SUPPORT RODS, GALVANIZED		
⑫	MXU AND WIRING, SUPPLIED AND INSTALLED BY PCMC		
⑬	MXU REMOTE LOCATION CONDUIT WITH END CAPS, SCH 40 PVC (STD. PLAN 531)		
⑭	END CAP AND MARKER, CTS x F.I.P. (OUTLET)		H-15451N AND H-10035N

DETAIL NOTES

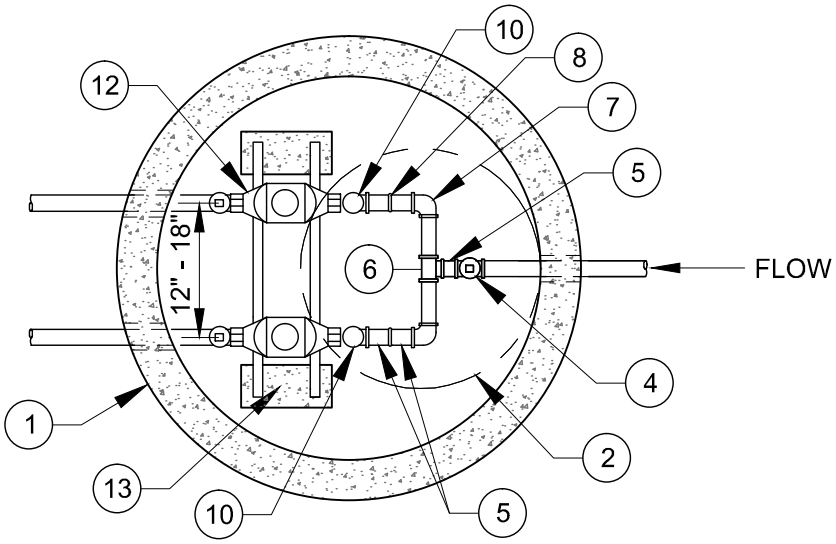
1. LOCATE METER VAULT PER APPROVED PLANS AND SET METER BOX PLUMB
2. SST INSERT STIFFENERS REQUIRED ON ALL CTS TUBING CONNECTIONS

PARK CITY MUNICIPAL CORPORATION
WATER

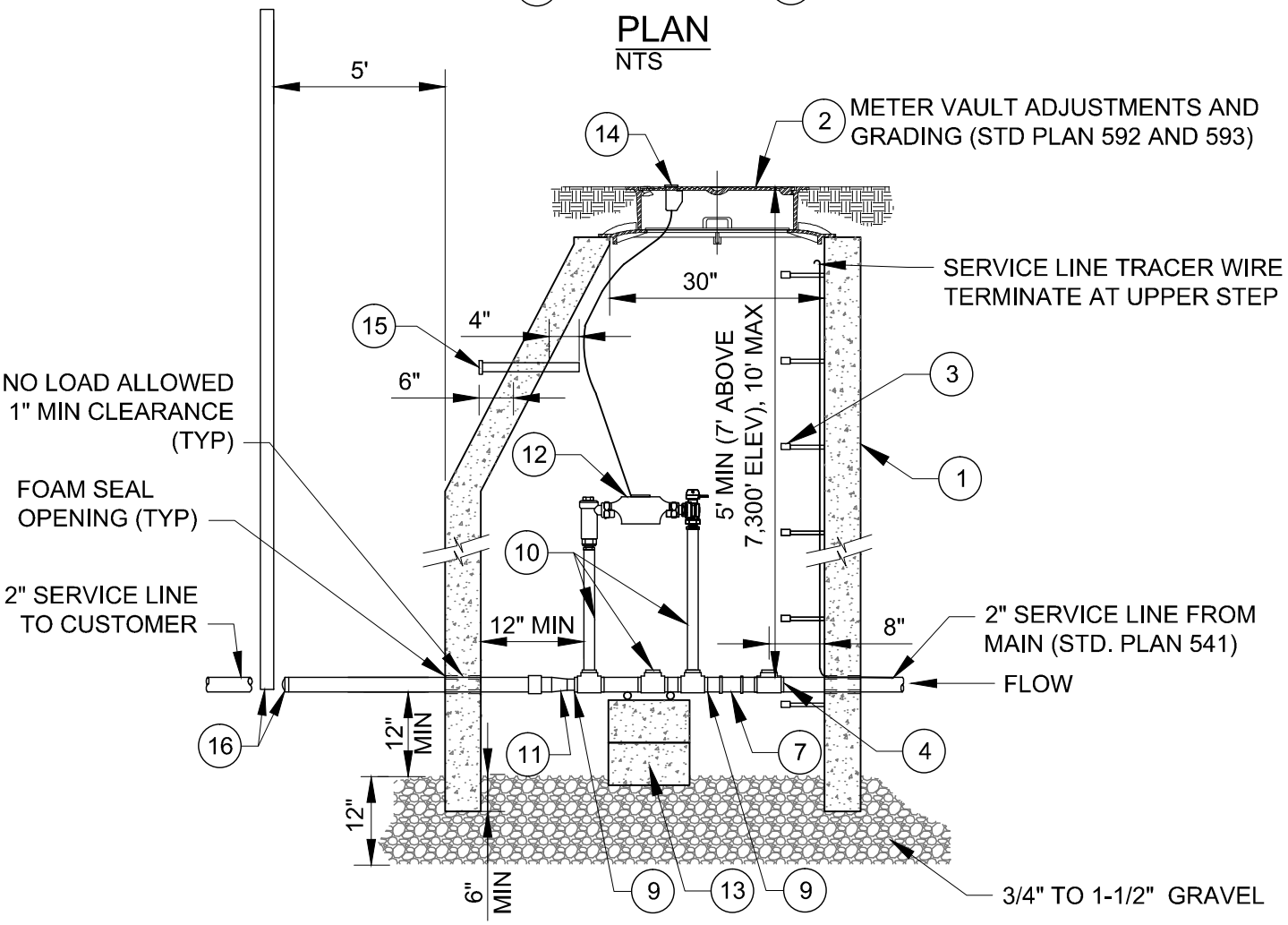
DATE	STD. PLAN
3/2014	
REV.	

1-1/2" and 2" SINGLE METER OUTSIDE SETTING

524 S



PLAN
NTS



SECTION
NTS

NOTES:
1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.
2. REFER TO STD. PLAN 521 S FOR LEGEND ITEMS, APPROVED PARTS LIST, AND DETAIL NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**1-1/2" DUAL METERS OUTSIDE SETTING**	STD. PLAN **525**

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	5' DIA. MANHOLE, PRECAST CONCRETE ECCENTRIC CONE AND WALL SECTIONS		ASTM C 478
②	METER VAULT FRAME AND COVER (STD. PLAN 529)		
③	POLYPROPYLENE ENCASED GRADE 60 STEEL STEPS AT 13" C-C, 13-1/2" TREAD WIDTH	M.A. INDUSTRIES OR APPV'D EQ.	PS2-PFDF
④	2" CURB VALVE, F.I.P. x CTS	MUELLER	B-25172N
⑤	2" DIA. BRASS NIPPLE x 3" LENGTH, M.I.P. (5 EA)		
⑥	2" DIA. BRONZE TEE, F.I.P., THREADED		
⑦	2" BRONZE 90^0 ELBOW, F.I.P., THREADED (2 EA)		
⑧	2" BRONZE UNION, F.I.P., THREADED (2 EA)		
⑨	1-1/2" BRASS NIPPLE x 4" LENGTH, 2" x 1-1/2" BRONZE BELL REDUCER, AND 1-1/2" CLOSE BRASS NIPPLE (2 EA)		
⑩	1-1/2" METER YOKE (2 EA) COMMERCIAL SERVICE: WITH BYPASS RESIDENTIAL SERVICE: WITHOUT BYPASS IRRIGATION SERVICE: WITHOUT BYPASS	MUELLER	1-1/2"x15" B2423-2-01N (WITH BYPASS) 1-1/2"x15" B2422N (WITHOUT BYPASS)
		FORD	1-1/2" VBHH76-15B-11-66-NL (WITH BYPASS) 1-1/2" VBHH76-15-11-66-NL (WITHOUT BYPASS)
⑪	2" CONNECTION, F.I.P. x CTS; 2" BRASS NIPPLE x 4" LENGTH; 2"x1-1/2" BRONZE BELL REDUCER; AND 1-1/2" CLOSE BRASS NIPPLE (OUTLET) (2 EA)	MUELLER	H-15451N
		FORD	C-14-66-G-NL
⑫	METER, SUPPLIED AND INSTALLED BY PCMC (2 EA)		
⑬	PIPE SUPPORTS (4) 16"X8"X8" CMU BLOCK, (2) METER SUPPORT RODS, GALVANIZED		
⑭	MXU AND WIRING, SUPPLIED AND INSTALLED BY PCMC		
⑮	MXU REMOTE LOCATION CONDUIT WITH END CAPS, SCH 40 PVC (STD. PLAN 531)		
⑯	END CAP AND MARKER, CTS X F.I.P. (OUTLET) (2 EA)		H-15451N AND H-10035N

DETAIL NOTES

1. LOCATE METER VAULT PER APPROVED PLANS AND SET METER BOX PLUMB
2. SST INSERT STIFFENERS REQUIRED ON ALL CTS TUBING CONNECTIONS

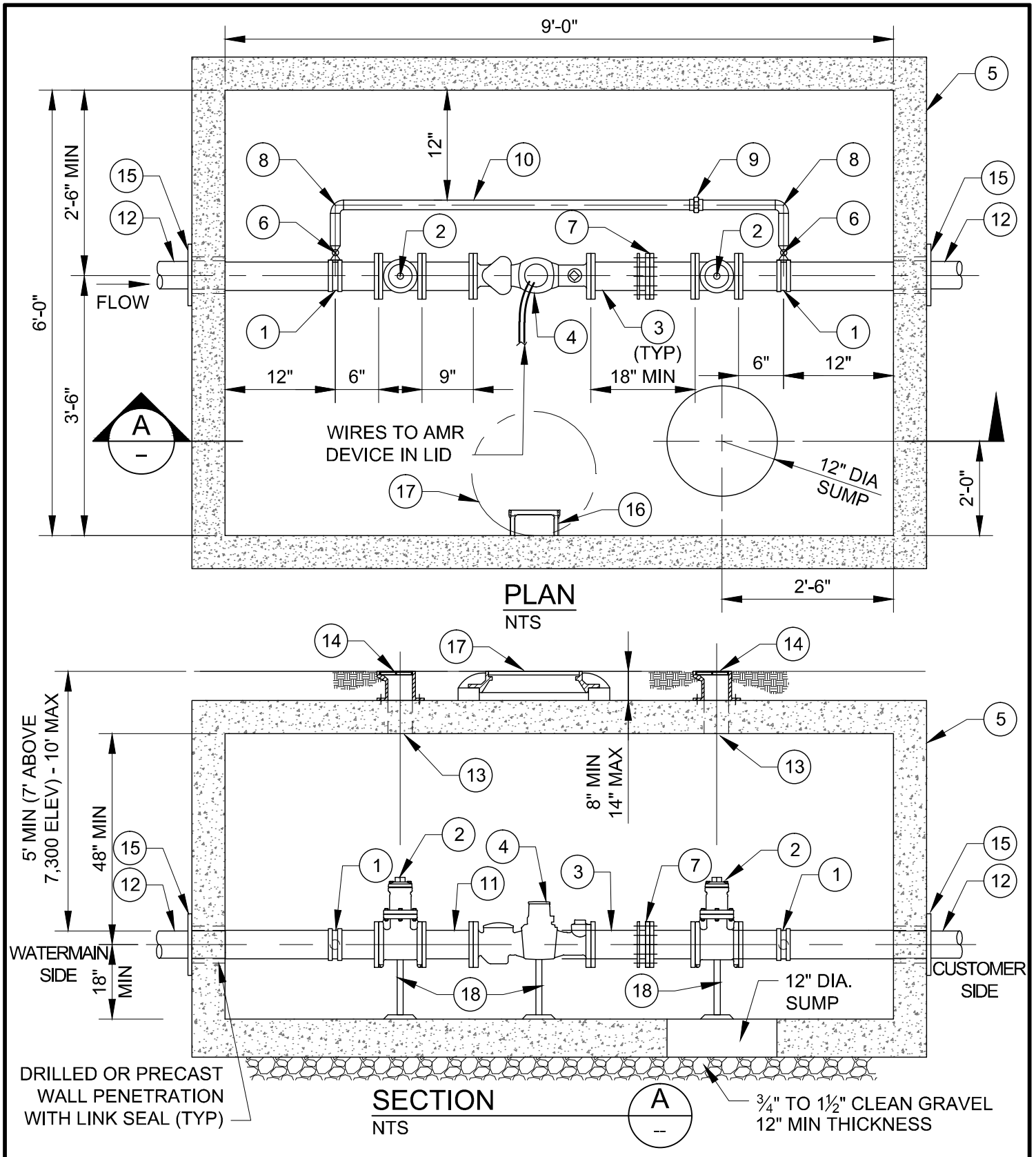
PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
4/2014	
REV.	

1-1/2" DUAL METERS OUTSIDE SETTING

525 S



NOTES:

1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.
2. REFER TO STD. PLAN 527 S FOR LEGEND ITEMS, APPROVED PARTS LIST, AND DETAIL NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**3" AND LARGER METER OUTSIDE SETTING**	STD. PLAN **527**

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	2" BRONZE SERVICE SADDLE, DOUBLE STRAP	MUELLER	BR2B SERIES, F.I.P. THREADS
		FORD	202B SERIES, F.I.P. THREADS
②	GATE VALVE, PIPE SIZE, NRS, FLANGED, 2" SQ. OPERATING NUT, AWWA C509	MUELLER	SERIES A-2360
		CLOW	MODEL 2639
③	DUCTILE IRON PIPE SPOOL (2), FLG X PE		
④	METER, SUPPLIED AND INSTALLED BY PCMC		
⑤	PRECAST CONCRETE VAULT, HS20 RATED		
⑥	2" BRONZE BALL VALVE WITH LOCKING HANDLE, F.I.P., THREADED, 300 PSI RATED		
⑦	DISMANTLING JOINT	ROMAC	DJ400 OR APPV'D EQUAL
⑧	2" DIA. COPPER 90^0 ELBOW, SOLDERED, OR BRONZE, F.I.P., THREADED		
⑨	2" DIA. BRONZE UNION, F.I.P., THREADED		
⑩	2" COPPER PIPE, TYPE K, OR BRASS NIPPLE		
⑪	DUCTILE IRON PIPE SPOOL, 9" LENGTH, FLG X FLG		
⑫	DUCTILE IRON PIPE SPOOL, FLG X PE		
⑬	AFTER PIPING INSTALLATION CORE DRILL 6" DIA. HOLE IN VAULT LID DIRECTLY ABOVE GATE VALVES		
⑭	VALVE BOX, FASTEN VALVE BOX TO VAULT WITH TWO EPOXIED ALL-THREAD ROD/NUT OR SST EXP ANCHOR	D & L SUPPLY HILTI	M-8065 AND M-8048 TO M-8053 3/8" DIA. ROD SST 316, OR KWIK BOLT 3 3/8"x3" SS316
⑮	THRUST RESTRAINTS	EBBA IRON	MEGALUG SERIES 1100
⑯	POLYPROPYLENE ENCASED GRADE 60 STL STEPS AT 13" C-C, 13-1/2" TREAD WIDTH	M.A. INDUSTRIES OR APPV'D EQUAL	PS2-PFDF
⑰	METER VAULT FRAME AND COVER (STD. PLAN 529)		
⑱	PIPE SUPPORTS, 5 REQ'D (STD. PLAN 533)		
⑲	MXU AND WIRING, SUPPLIED AND INSTALLED BY PCMC		

DETAIL NOTES

1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS – METER, METER VAULT, AND SERVICE LINE
2. LOCATE METER VAULT PER APPROVED PLANS AND SET METER BOX PLUMB
3. SST FASTENERS REQUIRED ON ALL FITTINGS
4. NO BYPASS ALLOWED FOR IRRIGATION METERS
5. NO SERVICE LINE REDUCERS OR BENDS WITHIN 5' OF VAULT
6. COORDINATE METER SIZE AND LENGTH WITH CITY PRIOR TO ORDERING MATERIALS
7. REFER TO STD. PLANS 592 AND 593 FOR MANHOLE ADJUSTMENT AND GRADING REQUIREMENTS

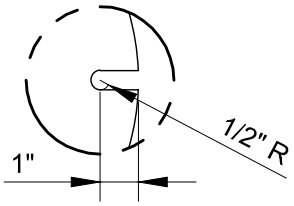
PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

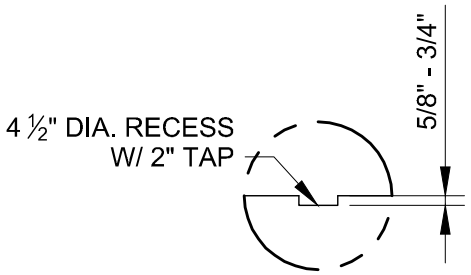
DATE	STD. PLAN
2/2014	
REV.	

3" AND LARGER METER OUTSIDE SETTING

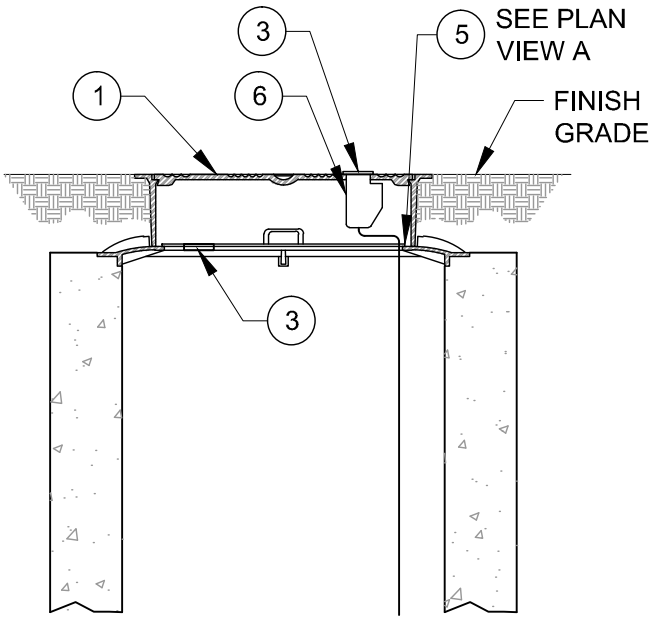
527 S



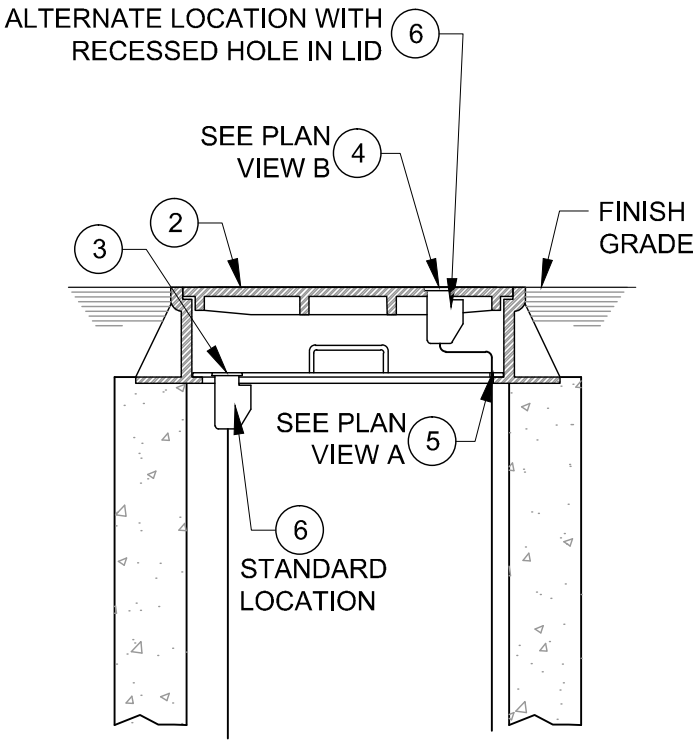
PLAN VIEW A



PLAN VIEW B



LANDSCAPE AREA



PAVEMENT AREA

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**METER VAULT FRAME AND COVER / MXU DEVICE LOCATION**	STD. PLAN **529**

LEGEND AND APPROVED PARTS LIST

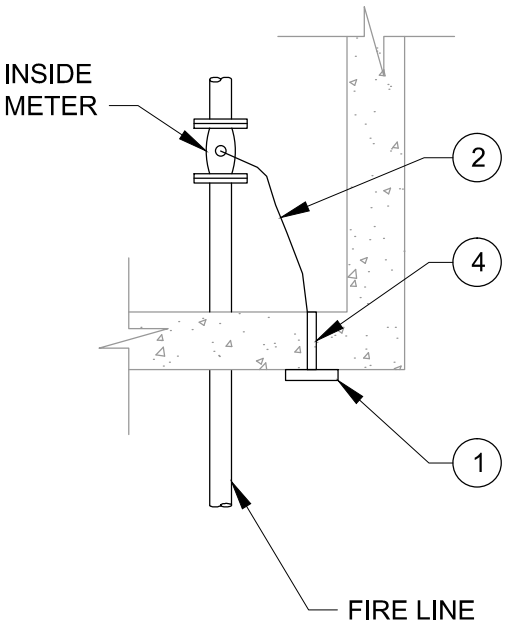
ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	METER VAULT FRAME AND COVER, MARKED “WATER”	D&L SUPPLY	L-2320, OR APPROVED EQUAL
②	METER VAULT FRAME AND COVER, TRAFFIC RATED, MARKED “WATER”	D&L SUPPLY	A-1019, OR APPROVED EQUAL
③	2” TAP AND PLUG, REQUIRED	FORD OR APPROVED EQUAL	PLUG: PTP
④	2” TAP WITH RECESSED PLUG, REQUIRED (PLAN VIEW ‘B’)		
⑤	NOTCH INNER FROST FREE LID FOR SIGNAL WIRE (PLAN VIEW ‘A’)		
⑥	MXU AND WIRING, SUPPLIED AND INSTALLED BY PCMC		
⑦	METER VAULT, MATERIALS VARY		

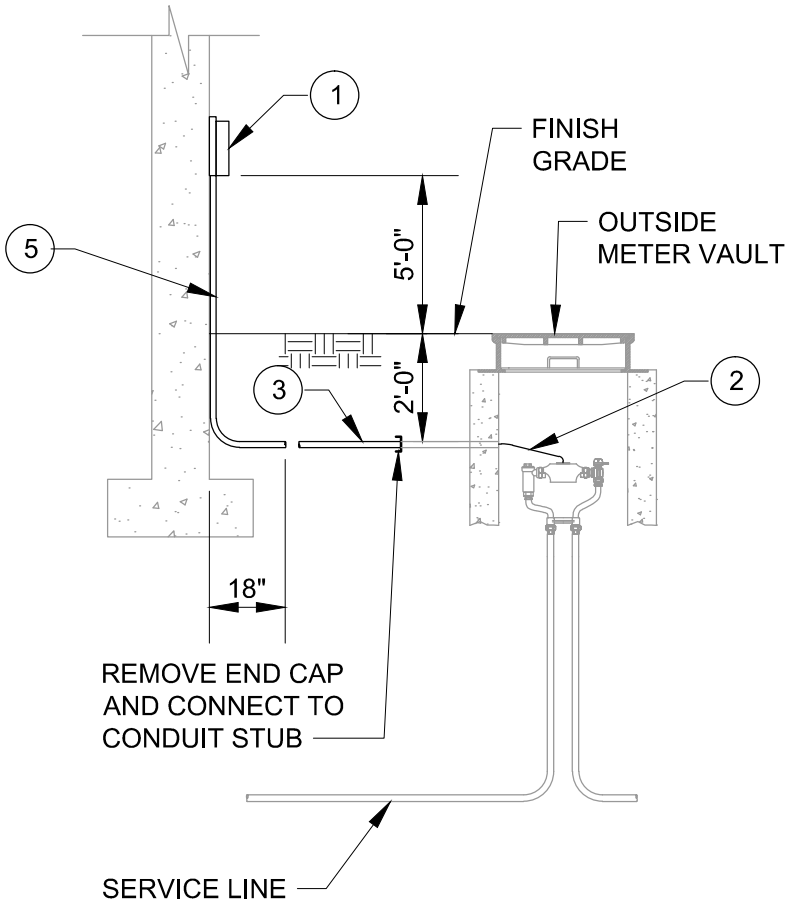
DETAIL NOTES

1. REFER TO STD. PLAN 592 AND 593 FOR METER VAULT ADJUSTMENT AND GRADING REQUIREMENTS
2. PROVIDE TAPS FOR STANDARD AND ALTERNATE MXU LOCATIONS
3. PROVIDE PLUGS FOR ALL OPENINGS
4. REMOVE ALL BURRS FROM TAPS AND NOTCHES
5. REFER TO STD PLAN 530 FOR REMOTE MXU REQUIREMENTS

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	METER VAULT FRAME AND COVER / MXU DEVICE LOCATION	STD. PLAN
3/2014		529 S
REV.		
0		





INSIDE METER

OUTSIDE METER

LEGEND	
ITEM	DESCRIPTION
1	REMOTE RADIO READ MXU, 6"X6", DEVICE SURFACE MOUNT, BY PCMC
2	MXU SIGNAL WIRE, SUPPLIED AND INSTALLED BY PCMC
3	3/4" PVC NEMA TC-2 CONDUIT BY CUSTOMER
4	WALL PENETRATION, BY CUSTOMER
5	3/4" GALVANIZED RIGID STEEL CONDUIT, BY CUSTOMER

NOTES:

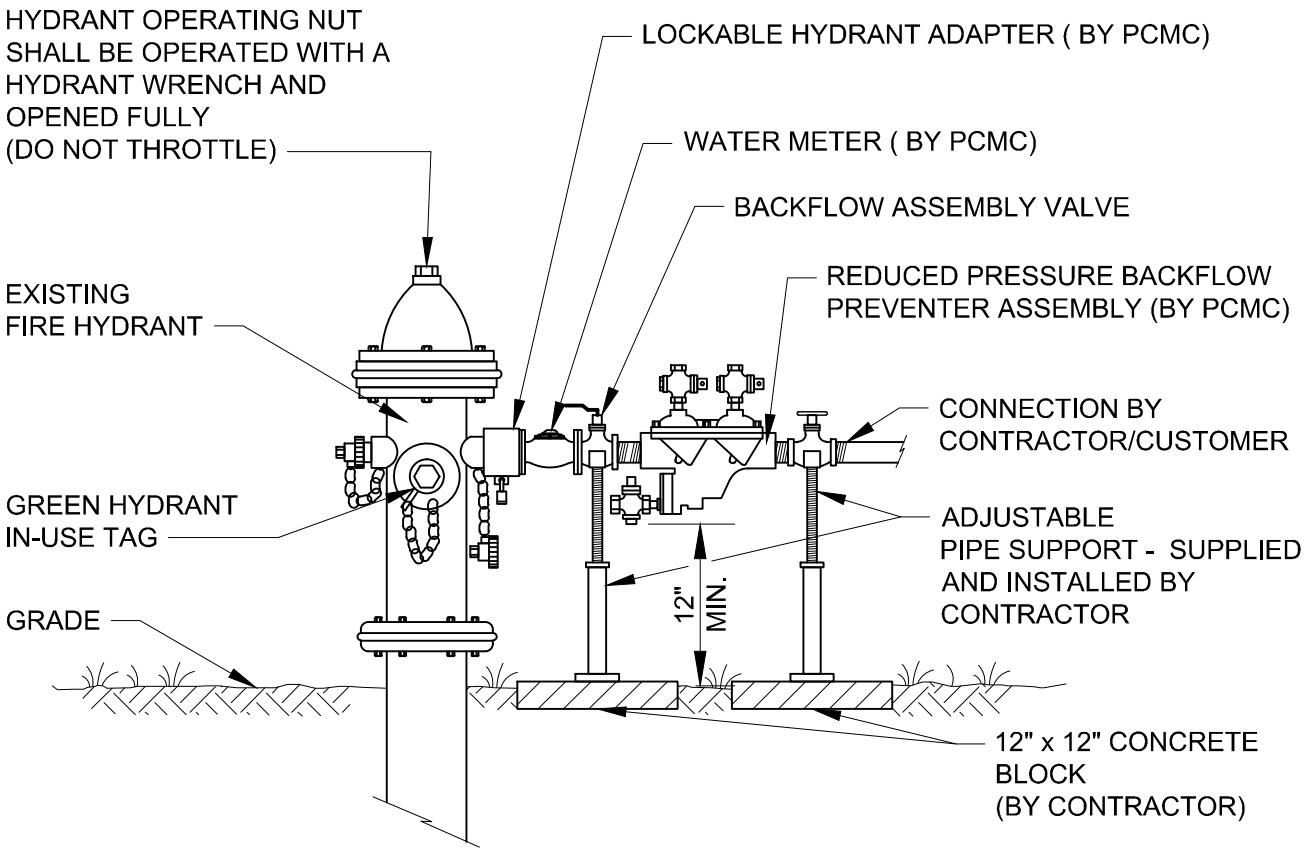
1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
03/2014	
REV.	
0	

REMOTE MXU DEVICE

530



NOTES:

1. USE OF A PCMC FIRE HYDRANT FOR OBTAINING CONSTRUCTION WATER REQUIRES A VALID CUSTOMER WATER SERVICE AGREEMENT. THE AGREEMENT CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT. A DEPOSIT FEE IS REQUIRED.
2. CONTRACTOR (CUSTOMER) IS RESPONSIBLE TO PICK UP THE PCMC PROVIDED HYDRANT METER ASSEMBLY FROM THE PUBLIC WORKS DEPARTMENT. COORDINATE PICK UP 24 HOURS PRIOR TO ARRIVAL.
3. CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL AND PROPERLY SUPPORT THE PCMC PROVIDED HYDRANT METER ASSEMBLY. PRIOR TO THE PLACING THE ASSEMBLY IN SERVICE THE FOLLOWING IS REQUIRED:
   1) ASSEMBLY INSTALLATION IS TO BE INSPECTED BY A WATER DEPARTMENT REPRESENTATIVE. ALLOW 24 HOURS NOTICE FOR AN INSPECTION (NO WEEKEND OR HOLIDAY INSPECTIONS). ONCE PROPER INSTALLATION IS VERIFIED, THE WATER DEPARTMENT REPRESENTATIVE SHALL UNLOCK THE ASSEMBLY AND ACTIVE THE HYDRANT.
   2) CONTRACTOR SHALL NOTIFY THE PARK CITY FIRE SERVICE DISTRICT OFFICE OF THE HYDRANT CONNECTION
4. FULLY OPEN THE FIRE HYDRANT VALVE PRIOR TO OPERATION. DO NOT USE THE FIRE HYDRANT VALVE FOR THROTTLING, USE THE BACKFLOW ASSEMBLY VALVE. DO NOT CLOSE VALVES ON THE ASSEMBLY OR THE DISCHARGE LINE QUICKLY.
5. CONTRACTOR SHALL PROTECT THE HYDRANT METER ASSEMBLY FROM DAMAGE, THEFT, AND MISUSE.
6. CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL WATER CONSUMPTION.
7. CONTRACTOR SHALL NOTIFY PCMC WATER DEPARTMENT, REMOVE, AND RETURN THE HYDRANT METER ASSEMBLY WHEN HYDRANT USE IS COMPLETE. RELOCATION OF THE HYDRANT METER ASSEMBLY REQUIRES PRIOR NOTIFICATION TO THE WATER DEPARTMENT AND A MODIFICATION TO THE CUSTOMER SERVICE AGREEMENT.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**TEMPORARY HYDRANT METER ASSEMBLY**	STD. PLAN **531**

PCMC WATER SYSTEM – CORROSION PROTECTION REQUIREMENTS:

PCMC HAS EXPERIENCED EXTERNAL CORROSION OF WATER DISTRIBUTION MATERIALS IN VARYING DEGREES THROUGHOUT THE CITY. TO MAXIMIZE THE LIFE CYCLE OF WATER SYSTEM IMPROVEMENTS AS IMPACTED BY THE IMMEDIATE SITE CONDITIONS AND THE SELECTION OF MATERIALS, THE CITY HAS IDENTIFIED KEY DESIGN AND CONSTRUCTION REQUIREMENTS.

1. **FOR PROJECTS WITH LESS THAN 300 FEET OF NEW WATER PIPE** AND APPURTENANCES, CORROSION PROTECTION SHALL BE ADDRESSED IN THE FOLLOWING MANNER:
   a. IN ADDITION TO THE REQUIRED POLYETHYLENE WRAP, APPLY A WAX TAPE COATING SYSTEM TO VALVE BONNET BOLTS AND ALL OTHER BURIED BOLTS, NUTS, CONNECTORS, RESTAINER GLAND BOLTS, AND COUPLING HARDWARE, AWWA C217. COATING SYSTEM TO INCLUDE A 4-MIL MINIMUM WAX TAPE PRIMER, FILLER MATERIAL, 45-MIL MINIMUM WAX TAPE AND PROTECTIVE OUTER WRAP
   b. WAX TAPE COATING MATERIALS:
      i. DENSO NORTH AMERICA DENSO PRIMER, DENSYL TAPE AND/OR MASTIC, DENSO FIBER-WRAP
      ii. TRENTON PRIMER, #1 WAX-TAPE, AND GUARD-WRAP
      iii. OR APPROVED EQUAL (SUBMITTAL TO CITY AND WRITTEN APPROVAL REQUIRED PRIOR TO INSTALLATION)

2. **FOR PROJECTS EXCEEDING 300 FEET OF NEW WATER PIPE** AND APPURTENANCES, CORROSION PROTECTION SHALL BE ADDRESSED IN THE FOLLOWING MANNER:

   a. THE DEVELOPER AND ITS' DESIGN ENGINEER, GEOTECHNICAL ENGINEER, AND CORROSION CONSULTANT SHALL PROVIDE A SITE SPECIFIC "CORROSION STUDY REPORT". THE REPORT SHALL INCORPORATE PROJECT SPECIFIC FINDINGS INTO CORROSION PROTECTION RECOMMENDATIONS FOR THE PROPOSED WATER SYSTEM IMPROVEMENTS. THE REPORT SHALL INCLUDE AT A MINIMUM THE FOLLOWING ITEMS:

      i. DETAILED INFORMATION ON EXISTING CONDITIONS, SOIL TYPES, CLASSIFICATION, ETC.
      ii. IDENTIFICATION OF STRAY CURRENT SOURCES AND ANY EXISTING CORROSION PROTECTION SYSTEMS IN THE IMMEDIATE AREA
      iii. IDENTIFICATION OF ANY POTENTIAL FOR HOT SPOTS OR VARYING SOIL CONDITIONS THAT MAY WARRANT CHANGES TO THE CORROSION PROTECTION PLAN DURING CONSTRUCTION.
      iv. FIELD SAMPLING AND TESTING RESULTS WITHIN THE PROPOSED PIPE ZONE BASED ON REPRESENTATIVE SAMPLING OF THE DEVELOPMENT AREA CONDITIONS
      v. SOIL RESISTIVITY TESTING RESULTS IDENTIFYING CORROSIVE SOIL CONDITIONS AND LOCATIONS (WENNER 4-PIN SOIL RESISTIVITY TESTS AND SOIL BOX RESISTIVITY TESTS) AT REPRESENTATIVE PIPE INSTALL DEPTHS
      vi. LABORATORY ANALYSIS OF SOIL SAMPLES FOR PH, CHLORIDES, SULFATES, TOTAL SALTS, AND CONDUCTIVITY
      vii. DETERMINATION OF THE NEED FOR CORROSION PROTECTION BASED ON SOIL CORROSIVITY CLASSIFICATION/SOIL RESISTIVITY AND RECOMMENDATION OF SUITABLE PIPE, CONSTRUCTION MATERIALS, PIPE PROTECTION METHOD, PIPE EXTERIOR COATINGS, ETC., BASED ON SITE CORROSIVITY. SEE TABLE BELOW.
      viii. SPECIFY IF THE INVESTIGATION INCLUDES ONLY THE INITIAL PHASE OR ALL FUTURE PHASES

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	**DATE** 3/2014 **REV.** 0	**METALLIC PIPE CORROSION PROTECTION**	**STD. PLAN** **534.1**

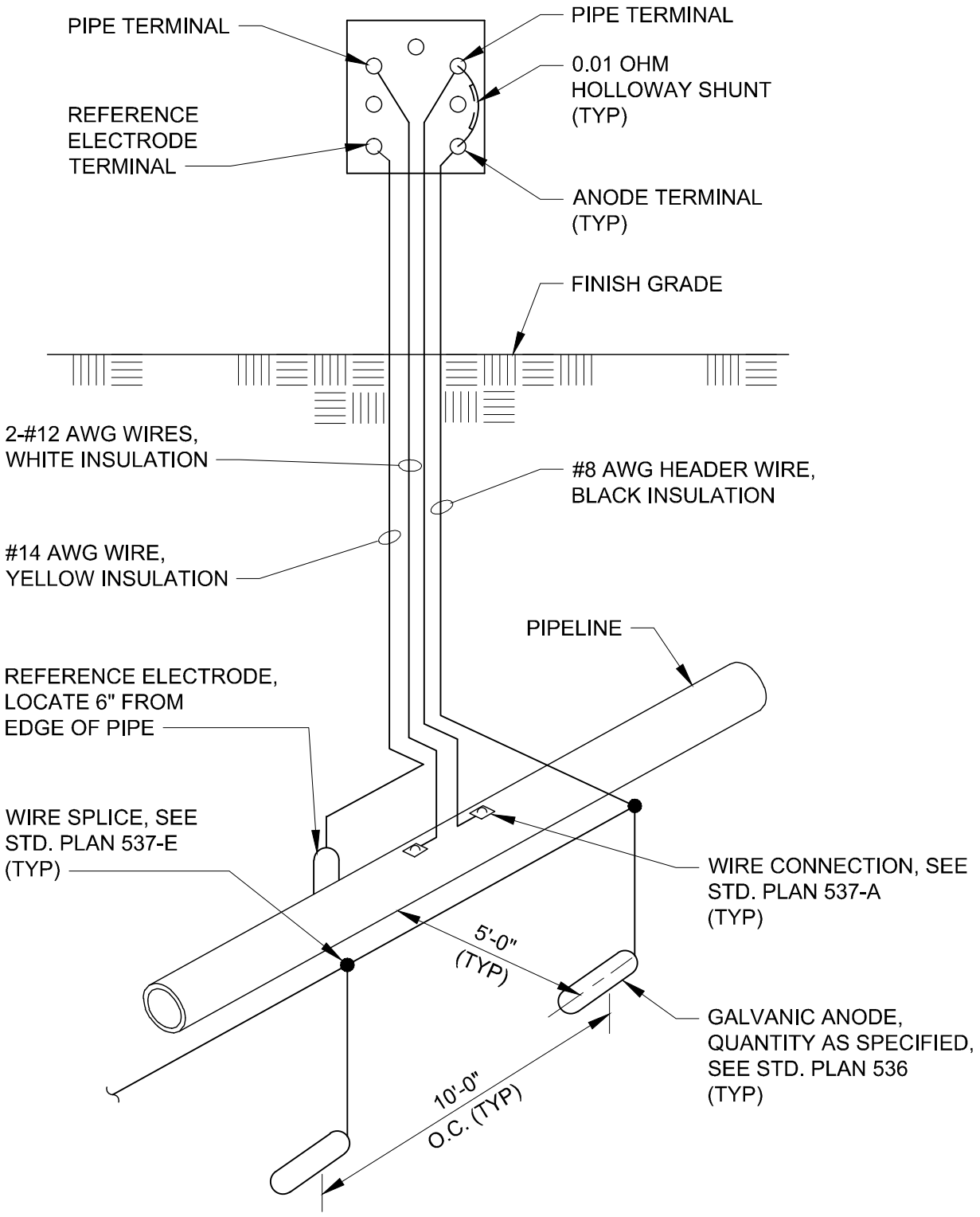
b. FOLLOWING PCMC'S RECEIPT AND REVIEW OF THE CORROSION STUDY REPORT, THE DEVELOPER WILL BE NOTIFIED OF THE CITY'S DETERMINATION AS TO REQUIRED PROTECTION OR THE DESIGN TEAM WILL BE REQUESTED TO MEET AND REVIEW THE FINDINGS AND ESTABLISH THE FINAL WATER SYSTEM DESIGN CRITERIA. THE CITY'S REVIEW WILL BE BASED ON THE FOLLOWING TABLE 1:

TABLE 1 - SOIL CORROSIVITY CLASSIFICATION VERSUS SOIL RESISTIVITY

CORROSIVITY	RESISTIVITY, OHM-CM	TREATMENT
EXTREMELY CORROSIVE	LESS THAN 1,000	SITE SPECIFIC DESIGN REQUIRED
VERY CORROSIVE	1,000 TO 3,000	SITE SPECIFIC DESIGN REQUIRED
CORROSIVE	3,000 TO 6,000	NON-METALLIC PIPE – WAX TAPE COATING SYSTEM ON BOLTS & NUTS, ANODE PROTECTED FITTINGS AND VALVES
MODERATELY CORROSIVE	6,000 TO 10,000	NON-METALLIC PIPE - WAX TAPE COATING SYSTEM ON BOLTS AND NUTS, FITTINGS, AND VALVES
MILDLY CORROSIVE	MORE THAN 10,000	WAX TAPE COATING SYSTEM ON BOLTS AND NUTS, FITTINGS, AND VALVES

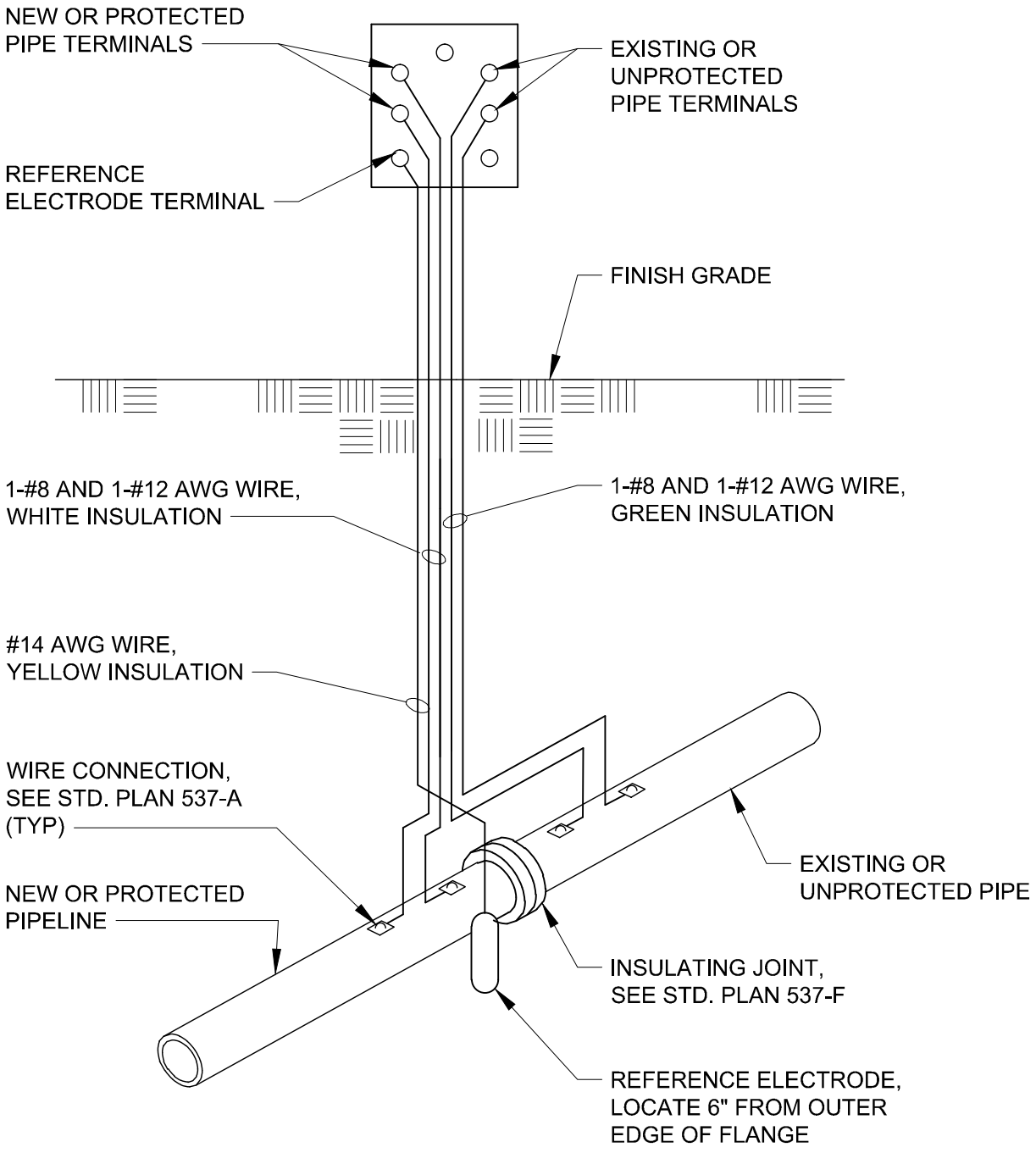
c. REFER TO PERTINENT PCMC WATER STANDARD PLANS OR PROVIDE CONSTRUCTION DRAWING DETAILS ASSOCIATED WITH CORROSION STUDY RECOMMENDATIONS AND THE PCMC FINAL APPROVED WATER SYSTEM

TERMINAL BOARD WIRING DIAGRAM



PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**TYPE A TEST STATION**	STD. PLAN **535-A**

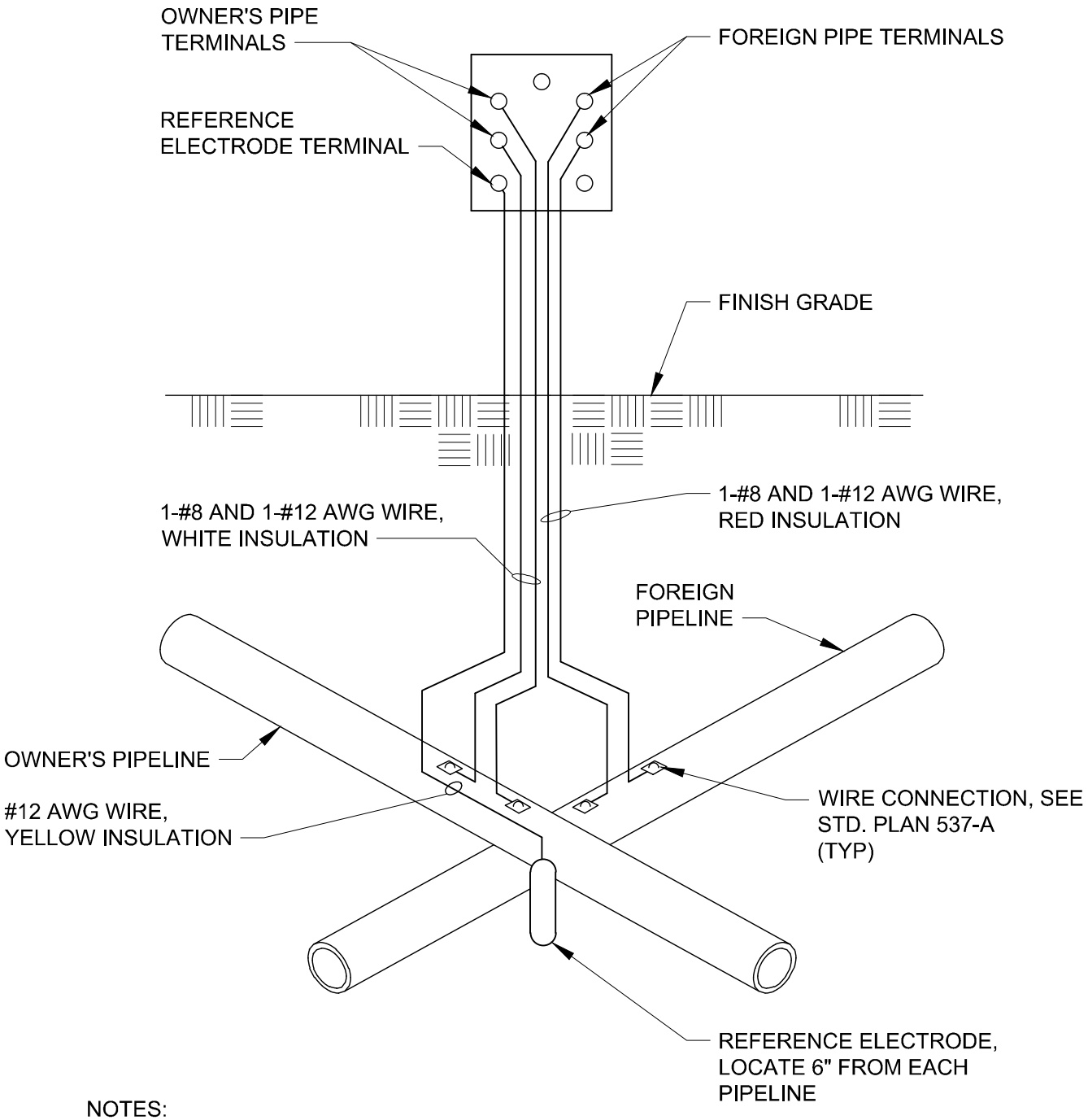
TERMINAL BOARD WIRING DIAGRAM



NOTE:
SEE POST OR FLUSH MOUNTED TEST STATION DETAILS AS APPLICABLE FOR TEST STATION STYLE REQUIRED.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**TYPE I TEST STATION**	STD. PLAN **535-B**

TERMINAL BOARD WIRING DIAGRAM

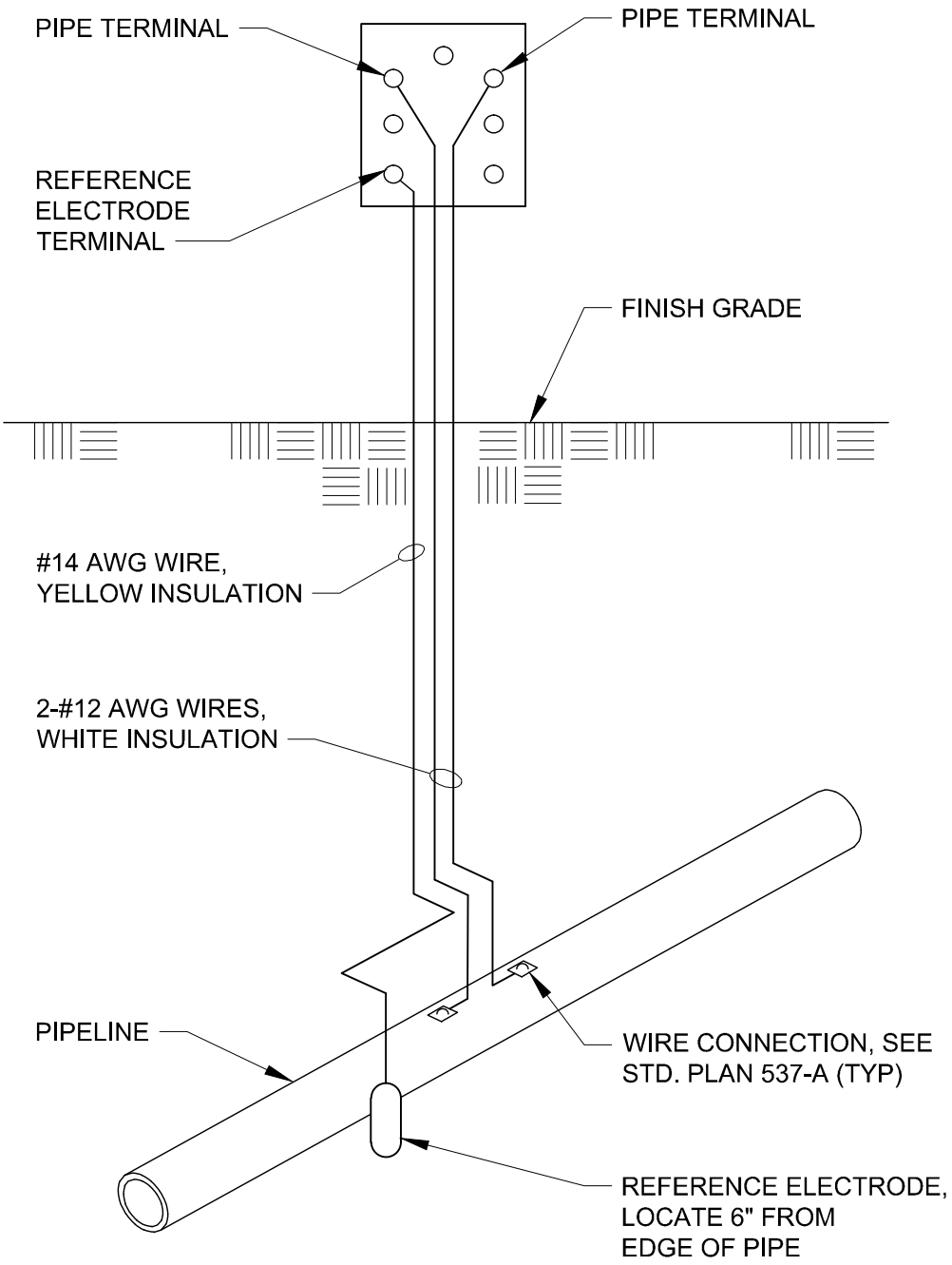


NOTES:

1. PRIOR TO MAKING WIRE CONNECTIONS CONTACT FOREIGN PIPELINE OWNER FOR APPROVAL.
2. SEE POST OR FLUSH MOUNTED TEST STATION DETAILS AS APPLICABLE FOR TEST STATION STYLE REQUIRED.

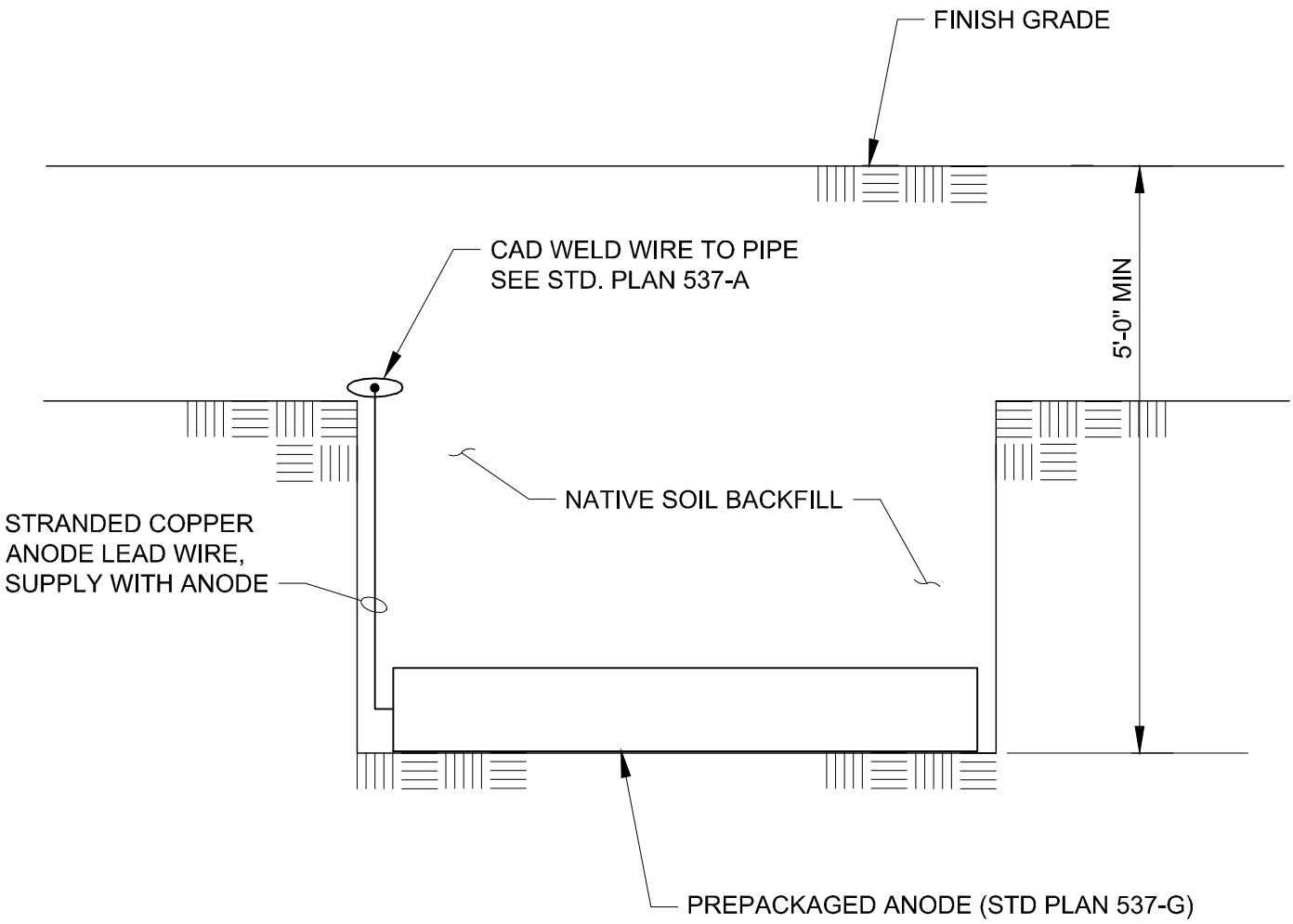
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**TYPE F TEST STATION**	STD. PLAN **535-C**

TERMINAL BOARD WIRING DIAGRAM

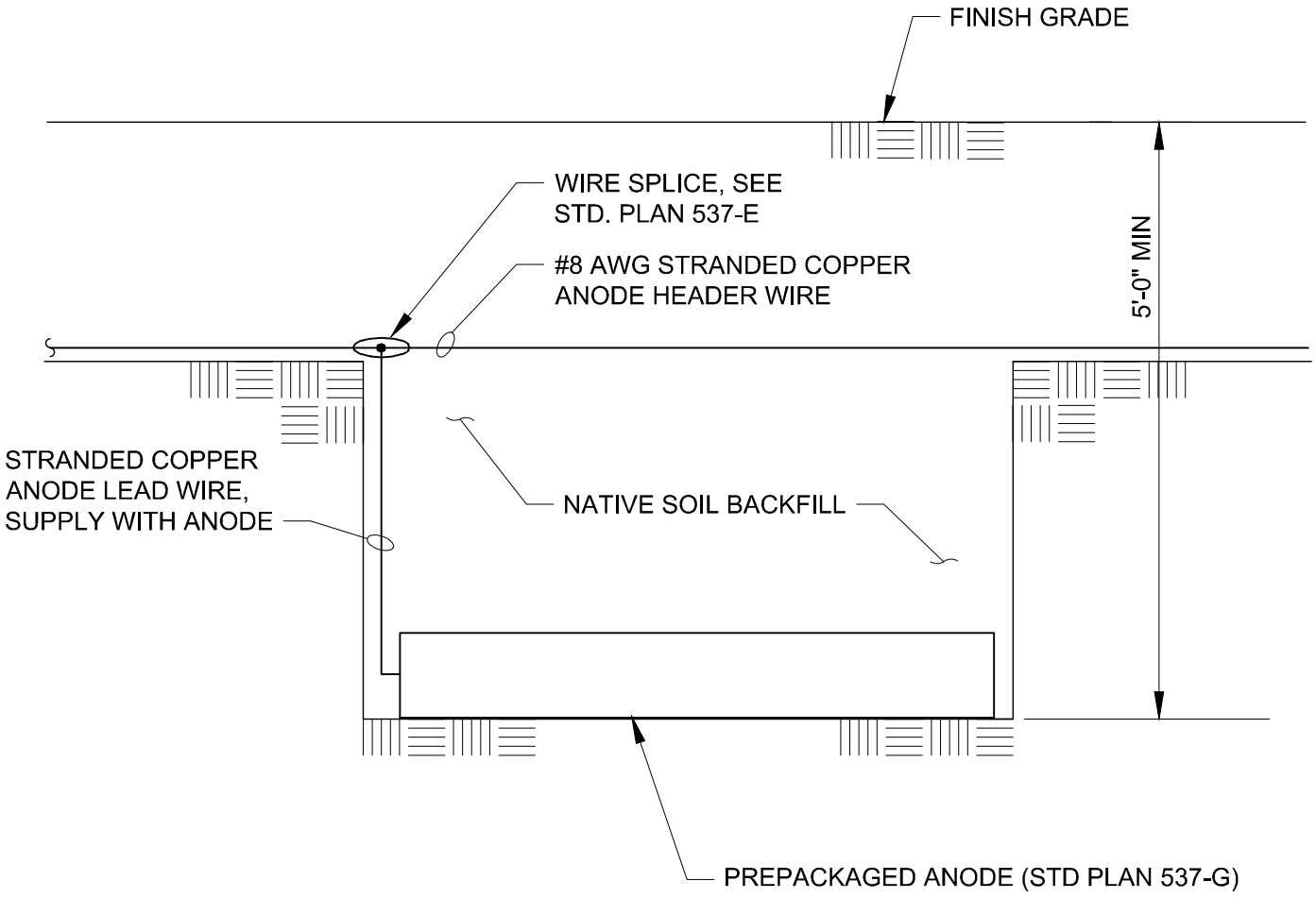


NOTE:
SEE POST OR FLUSH MOUNTED TEST STATION DETAILS AS APPLICABLE FOR TEST STATION STYLE REQUIRED.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**TYPE T TEST STATION**	STD. PLAN **535-D**

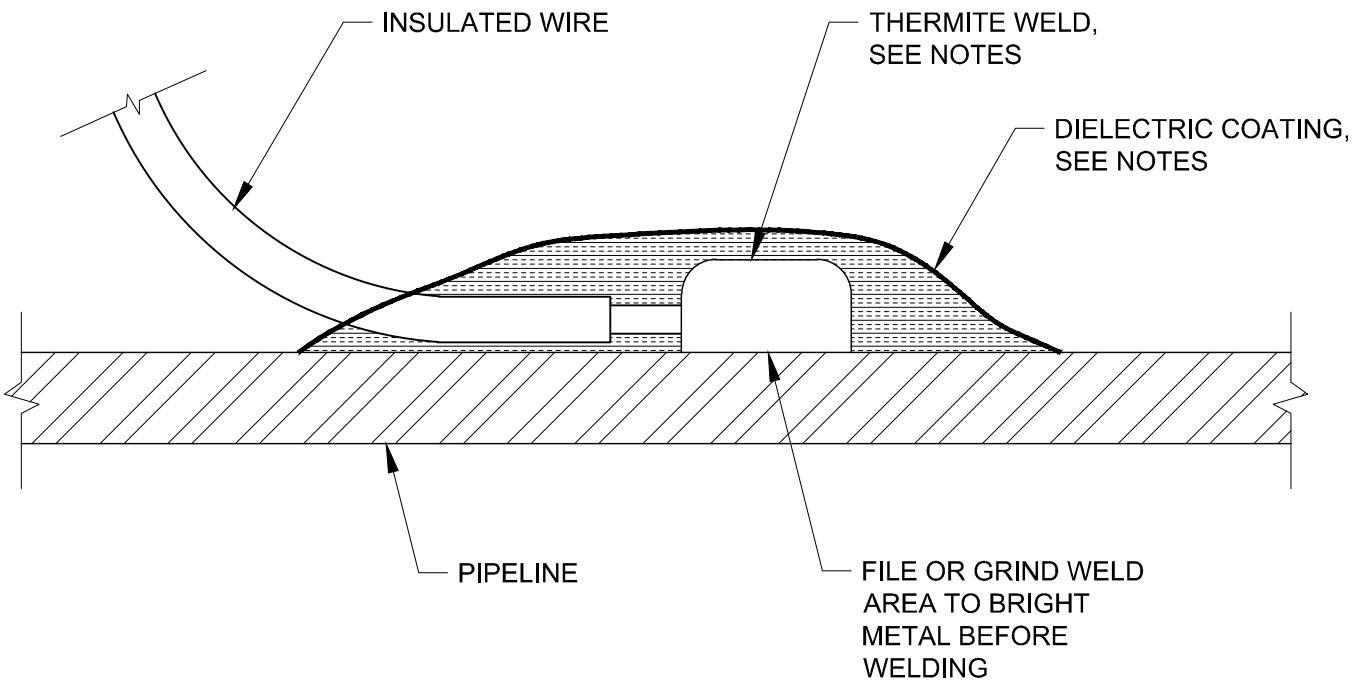


PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 04/2014 REV. 0	**HORIZONTAL GALVANIC ANODE INSTALLATION WITHOUT TEST STATION**	STD. PLAN **536-A**



PARK CITY MUNICIPAL CORPORATION
WATER

DATE	HORIZONTAL GALVANIC ANODE INSTALLATION	STD. PLAN
03/2014		536-B
REV.		
0		



NOTES:

1. MAKE WIRE CONNECTION TO PIPE AT FIELD JOINT WHERE HOLDBACK OCCURS ON PIPELINE COATING.

2. MAINTAIN SEPARATION BETWEEN MULTIPLE TEST WIRE CONNECTIONS OF ONE PIPE DIA OR 24", WHICHEVER IS LESS.

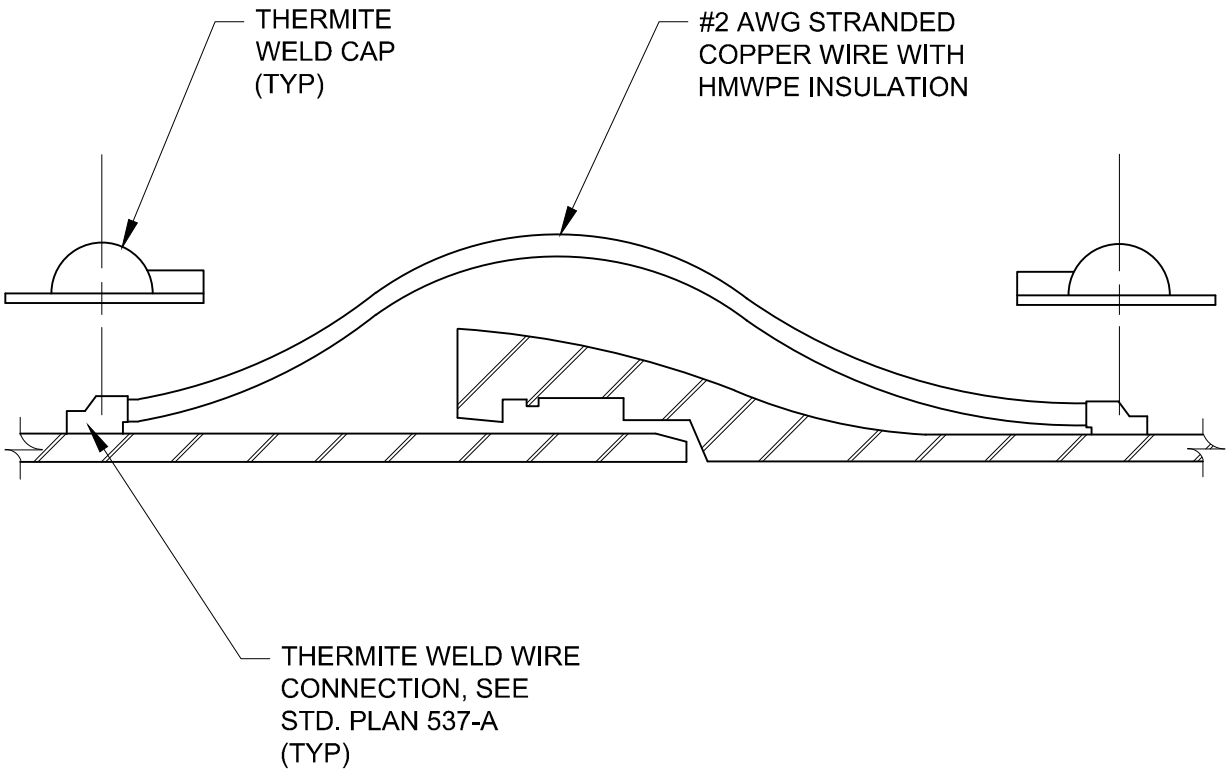
3. COPPER SLEEVE REQUIRED FOR #2 AWG JOINT BONDS OR FOR #12 AWG OR SMALLER TEST WIRES.

4. WELDER AND CARTRIDGE SIZE VARIES ACCORDING TO PIPE SIZE AND PIPE MATERIAL, CONSULT WELDER MANUFACTURER FOR RECOMMENDED WELDER AND CARTRIDGE.

5. COAT COMPLETED CONNECTIONS, SEE STD PLAN 537-G.

6. PIPELINE JOINT COATING NOT SHOWN FOR CLARITY.

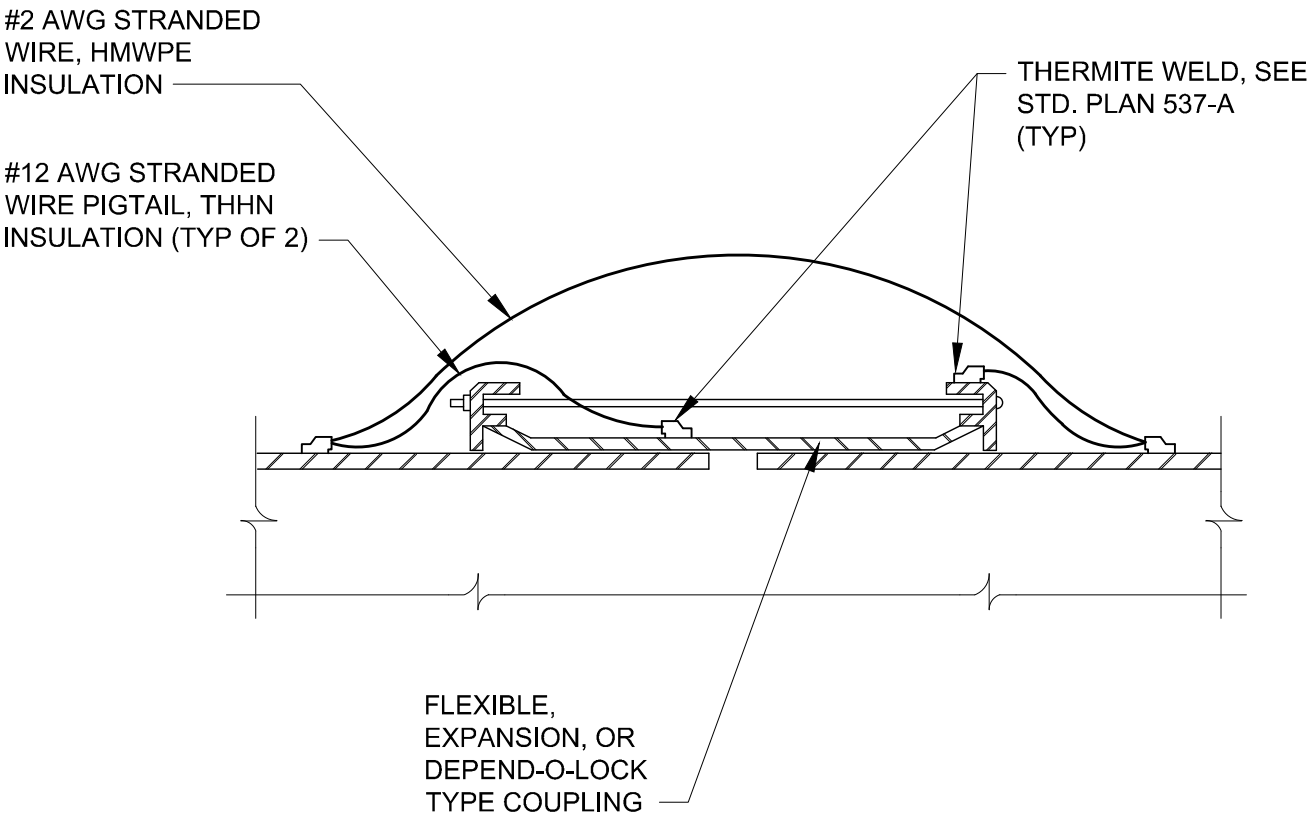
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 04/2014 REV. 0	**STEEL AND DUCTILE IRON PIPE WIRE CONNECTION**	STD. PLAN **537-A**



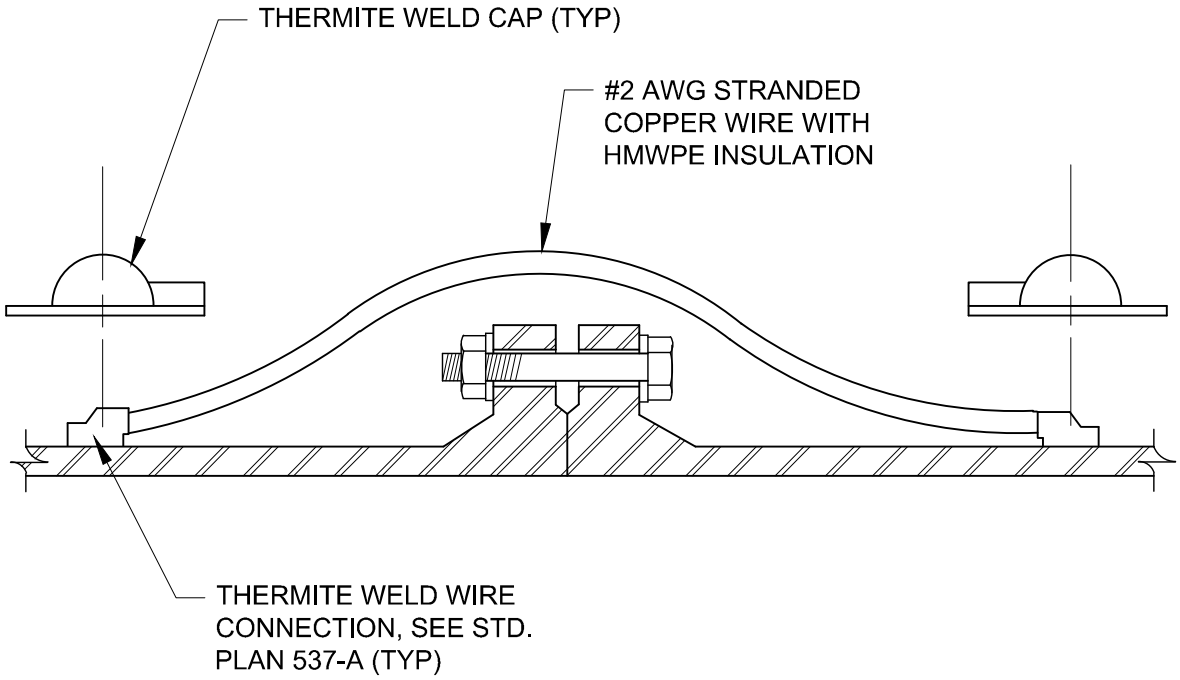
NOTES:

1. PUSH ON DUCTILE IRON BOND SHOWN, SIMILAR FOR DUCTILE MECHANICAL AND RESTRAINED JOINTS, AND STEEL CARNEGIE JOINTS.
2. INSTALL 2 BOND WIRES AT EACH PIPE JOINT, UNLESS SPECIFIED OTHERWISE.
3. COAT THERMITE WELDS WITH THERMITE WELD CAP OR FAST CURE EPOXY AT CONTRACTOR'S OPTION.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**DUCTILE IRON PIPE JOINT BOND**	STD. PLAN **537-B**

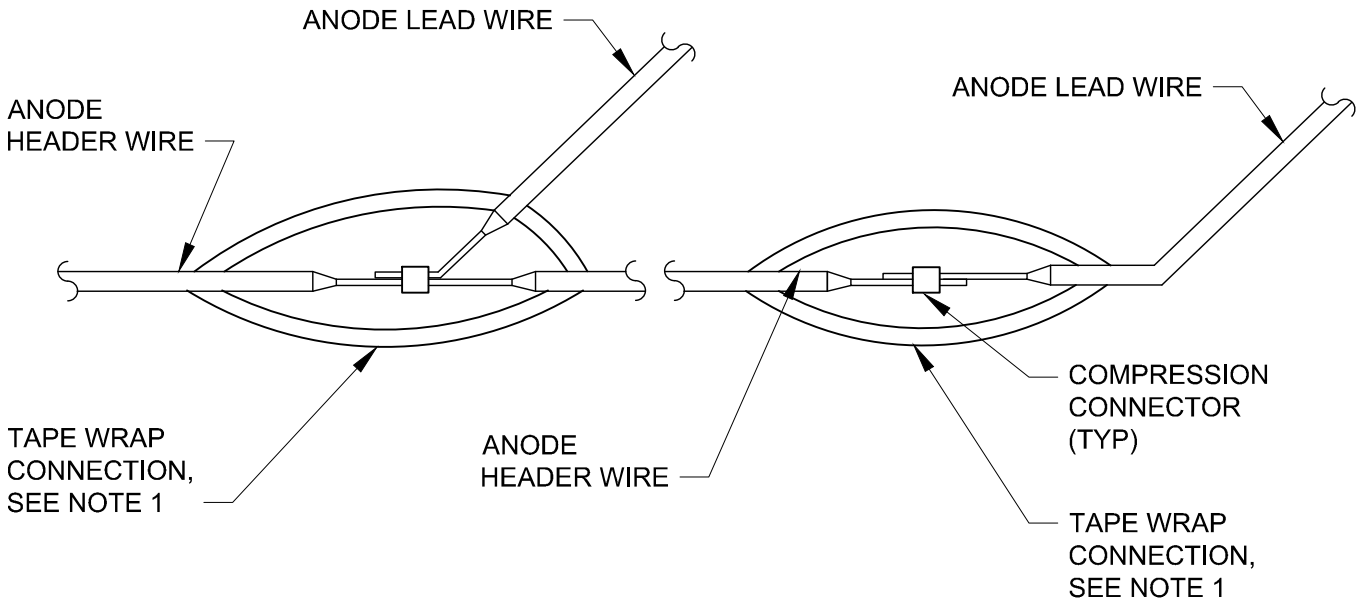


PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**FLEXIBLE JOINT BOND**	STD. PLAN **537-C**



NOTE:
INSTALL TWO BOND WIRES AT EACH PIPE JOINT.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**FLANGED AND MECHANICAL JOINT BOND**	STD. PLAN **537-D**

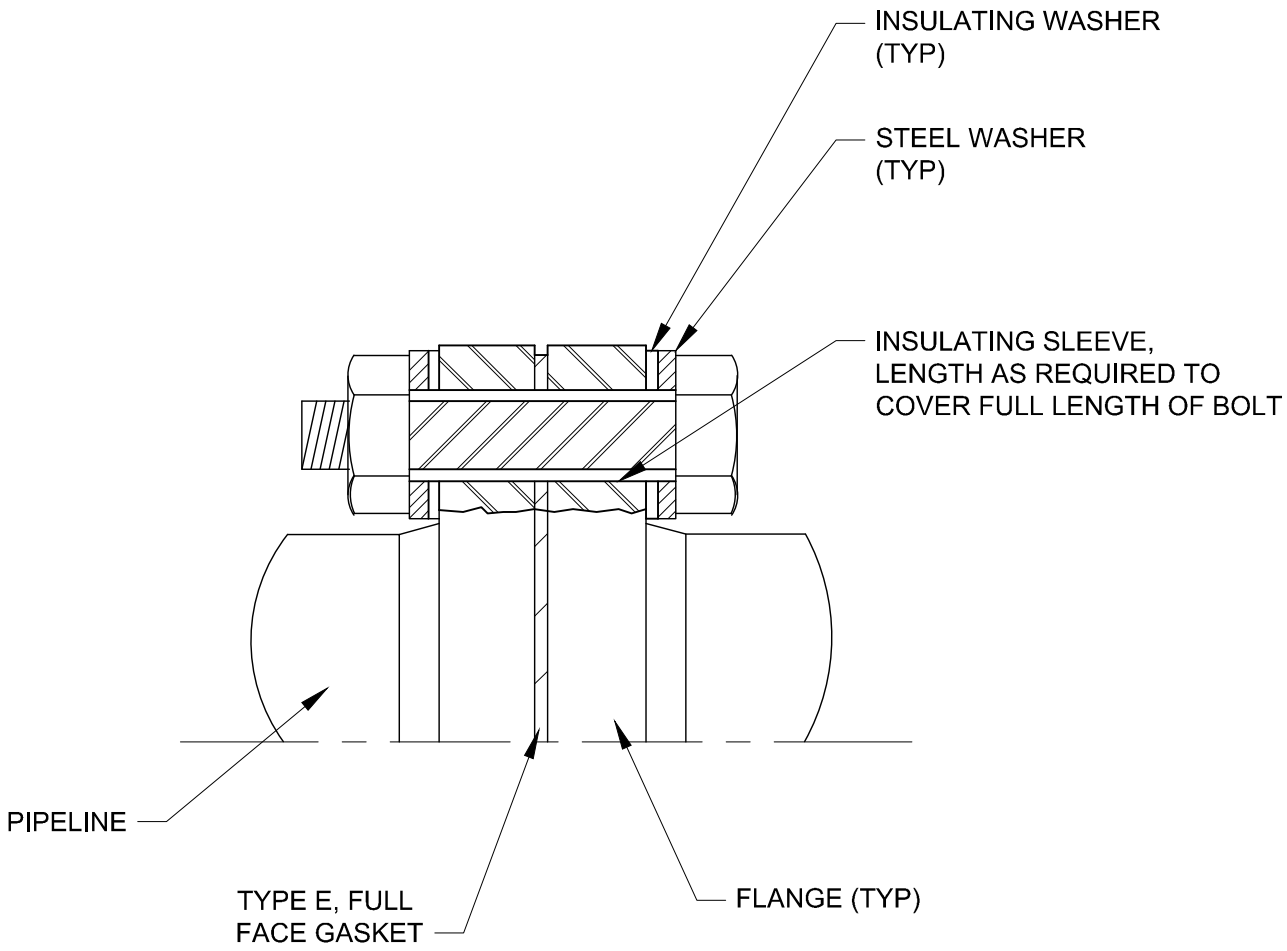


NOTES:

1. FILL VOIDS AND IRREGULARITIES WITH INSULATING PUTTY, WRAP CONNECTION WITH TWO LAYERS OF SCOTCH 130C SELF VULCANIZING RUBBER TAPE AND TWO LAYERS OF SCOTCH 88 VINYL ELECTRICAL TAPE.

2. DETAIL SIMILAR FOR ANODE HEADER WIRE SPLICES, SIZE COMPRESSION CONNECTORS AS REQUIRED.

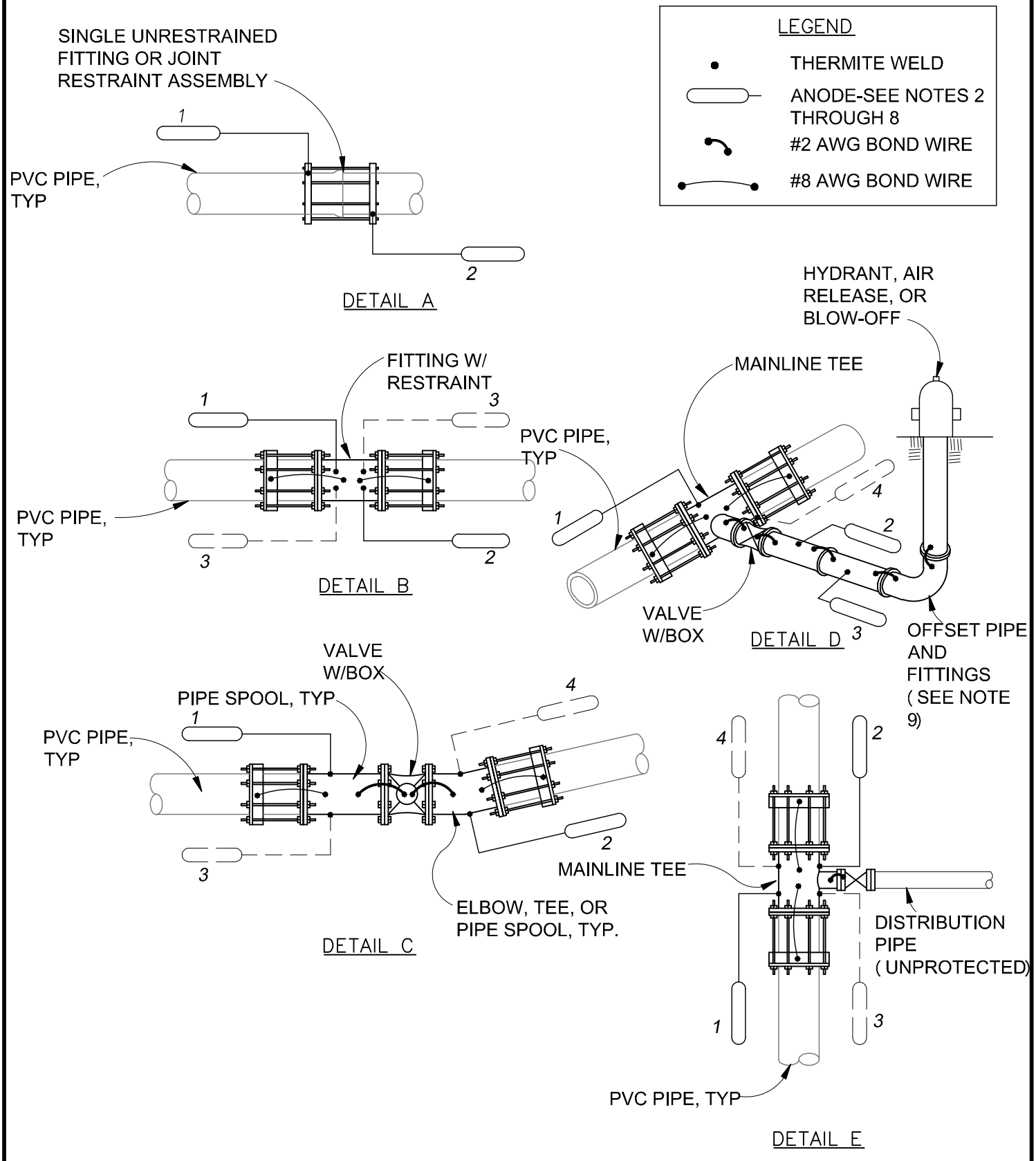
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**GALVANIC ANODE WIRE SPLICE**	STD. PLAN **537-E**



NOTES:

1. DOUBLE INSULATING WASHERS SHOWN FOR NON-BURIED INSULATING FLANGE INSTALLATIONS.
2. FOR BURIED OR SUBMERGED INSULATING FLANGE INSTALLATION USE SINGLE INSULATING WASHER ON UNPROTECTED SIDE OF INSULATING FLANGE.
3. COAT INTERIOR OF MORTAR LINED PIPE FOR TWO PIPE DIAMETERS WITH NSF APPROVED EPOXY AT 20 MILS DFT.
4. COAT BURIED OR IMMERSED INSULATING FLANGES WITH SPECIFIED PIPELINE DIELECTRIC JOINT COATING OR HEAT SHRINK SLEEVE WITH MORTAR OVERCOAT ON MLC STEEL PIPE.
5. TEST COMPLETED JOINT FOR ELECTRICAL ISOLATION AND REPAIR AS REQUIRED.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 12/2013 REV. 0	**INSULATING FLANGE**	STD. PLAN **537-F**



PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**METALLIC PIPE APPURTENANCE AND FITTING CATHODIC PROTECTION**	STD. PLAN **537-G.1**

NOTES:

1. APPLY DIELECTRIC COATING TO ALL METALLIC FITTINGS, VALVES, PIPE, AND VALVE BOXES UNLESS SPECIFIED OTHERWISE.

2. GALVANIC ANODES SHALL BE H1 ALLOY MAGNESIUM ANODES AT THE BARE WEIGHT LISTED IN THE SCHEDULE, SUPPLY PREPACKAGED IN A CLOTH BAG AT 2.5 TIMES BARE WEIGHT IN 75% GYPSUM, 20% BENTONITE, AND 5% SODIUM SULFATE BACKFILL WITH MANUFACTURER'S STANDARD 10-FOOT LONG, NO. 12 AWG LEAD WIRE.

3. INSTALL ANODES IN PIPE TRENCH APPROXIMATELY 2 FEET FROM THE FITTING WHERE POSSIBLE, BUT NOT CLOSER THAN 12-INCHES FROM THE METALLIC FITTING.

4. ANODE PLACEMENT IS INDICATED BY NUMBER NEXT TO EACH ANODE SHOWN IN DETAILS, FIRST ANODE IS PLACED AT ONE, SECOND AT TWO, ETC.

5. LOCATE MULTIPLE ANODES AT EQUAL SPACING ALONG PIPE FITTING ASSEMBLY AND ON OPPOSITE SIDES OF PIPE WHEN MORE THAN FOUR ANODES ARE REQUIRED.

6. 32-LB GALVANIC ANODES MAY BE SUBSTITUTED FOR 17-LB ANODES AT THE CONTRACTOR'S OPTION, BUT THE TOTAL QUANTITY OF ANODES REQUIRED WILL NOT CHANGE.

7. ANODE QUANTITY AND BARE WEIGHT REQUIRED FOR SOME PIPE AND FITTING COMBINATIONS ARE LISTED IN THE SCHEDULE.

8. ADDITIONAL ANODES ARE REQUIRED ON METALLIC PIPE ASSEMBLIES THAT EXCEED THE MAXIMUM COMBINED LENGTH LISTED IN THE SCHEDULE FOR ALL FITTINGS, VALVES, PIPE SPOOLS, AND OTHER METALLIC APPURTENANCES IN THE ASSEMBLY, EXCLUDING THRUST RESTRAINT, ADD ONE ANODE FOR EACH EXTRA PIPE LENGTH AND ONE ANODE FOR FRACTIONAL EXTRA PIPE LENGTH TO THE LISTED QUANTITY OF ANODES.

9. PIPE ASSEMBLIES FOR BLOW-OFFS, AIR RELEASE, AND FIRE HYDRANTS ARE BASED ON STANDARD CONSTRUCTION DETAILS AND INCLUDES ONE RESTRAINED MAINLINE TEE FITTING AND ALL OFFSET PIPE, FITTINGS, AND RISERS AS SHOWN ON THE APPLICABLE CONSTRUCTION DETAILS, ADDITIONAL ANODES ARE REQUIRED FOR - 1) OFFSET PIPE LENGTH IN EXCESS OF THE MAXIMUM COMBINED LENGTH FOR THE OFFSET PIPE DIAMETER, AND 2) ADDITIONAL ANODES REQUIRED FOR EXTRA MAINLINE PIPE FITTINGS.

10. BOND ALL ADJACENT FITTING JOINTS WHERE MULTIPLE METALLIC FITTINGS ARE INSTALLED TOGETHER WITH JOINT BONDS AS SHOWN IN DETAIL 711-L,M,N.

11. BOND WIRES SHALL BE STRANDED COPPER WIRE WITH THHN INSULATION, USE NO. 2 AWG WIRE FOR BONDING OF PIPE OR FITTING JOINTS, USE NO. 8 AWG WIRE FOR BONDING FOLLOWER RINGS AND RESTRAINED JOINT RINGS TO FITTING AS SHOWN.

12. COAT ALL THERMITE WELDS, PIPE, AND EXPOSED COPPER WIRE WITH SCOTCHKOTE 206P THERMOPLASTIC PATCH MELT STICK COATING, THERMITE WELD CAP, OR COATING SYSTEM AS SPECIFIED.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**METALLIC PIPE APPURTENANCE AND FITTING CATHODIC PROTECTION**	STD. PLAN **537-G.2**

13. COATING MATERIAL FOR METALLIC PIPE AND FITTINGS

A. GENERAL:

1. ALL METALLIC FITTINGS AND METALLIC HARDWARE ASSOCIATED WITH NON-METALLIC PIPE CONSTRUCTION SHALL BE DIELECTRICALLY COATED WITH A BONDED COATING.

2. PREPARE SURFACE OF ITEMS TO BE COATED IN ACCORDANCE WITH COATING MANUFACTURER'S REQUIREMENTS.

B. DIELECTRIC COATING SYSTEMS FOR METALLIC PIPE, FITTINGS, AND APPURTENANCES

1. WAX TAPE COATING SYSTEM

a. METALLIC PIPING, FITTINGS, AND APPURTENANCES SHALL BE COATED IN ACCORDANCE WITH AWWA C217.

b. APPLY COATING SYSTEM TO ALL BURIED METALLIC PIPE APPURTENANCES, INCLUDING JOINTS, FITTINGS, BOLTS, AND IRREGULARLY SHAPED SURFACES.

c. FILLER MATERIAL:

(1) SHALL BE COMPRISED OF SATURATED PETROLEUM HYDROCARBONS (PETROLATUM) INERT FILLERS, REINFORCING FIBERS AND THERMAL EXTENDERS. VARIATIONS MAY CONTAIN BEADS OF CELLULAR POLYMER AND FLOW CONTROL ADDITIVES.

(2) WAX SHALL BE COLD APPLIED SELF SUPPORTING MASTICS FOR MOLDING AROUND IRREGULAR SHAPED FITTINGS TO PROVIDE A SUITABLE PROFILE FOR APPLYING ANTI-CORROSION TAPES.

d. TAPE COATING

(1) COMPOSED OF A NON-WOVEN SYNTHETIC FABRIC CARRIER, FULLY IMPREGNATED WITH A NEUTRAL COMPOUND BASED ON SATURATED PETROLEUM COMPOSED OF INERT SILICEOUS FILLERS. APPLY COATING IN ACCORDANCE WITH AWWA C217, EXCEPT AS MODIFIED HEREIN.

e. PROTECTIVE OUTER WRAP

(1) PROVIDE FIBER MESH FABRIC OUTER WRAP OVER WAX TAPE RESIN COATED, WOVEN FIBER-MESH FABRIC THAT IS .005 INCHES.

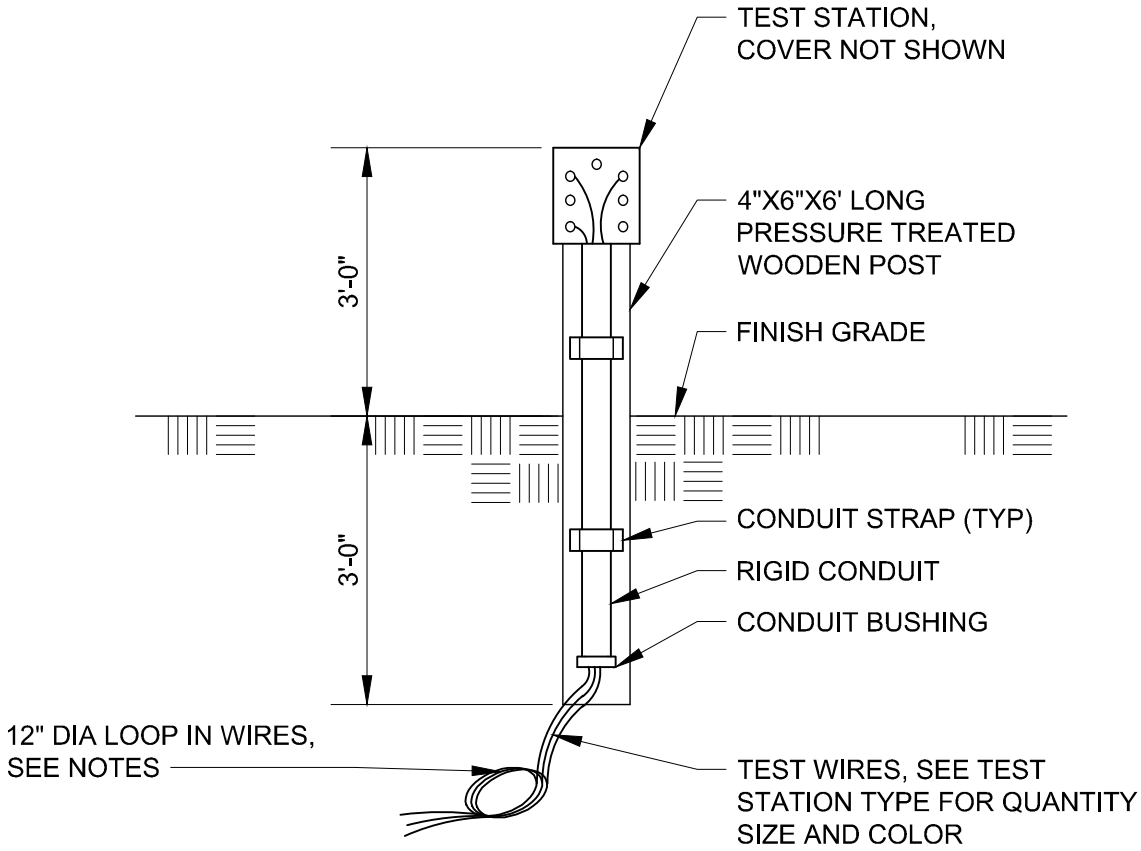
f. ALL COMPONENTS OF THE WAX TAPE COATING SYSTEM SHALL BE FROM A SINGLE MANUFACTURER AS MANUFACTURED BY DENSO NORTH AMERICAN, TRENTON, OR EQUAL.

SCHEDULE OF ANODE QUANTITIES AND BARE WEIGHT

PIPE AND FITTINGS DESCRIPTIONS	MAX. COMBINED LENGTH	PIPELINE DIAMETER			REFERENCE DETAIL
		6"-10"	12"-18"	20"-24"	
ONE JOINT RESTRAINT	0'	1 @ 17#	1 @ 17#	1 @ 17#	A
ONE FITTING W/0 RESTRAINT	0'	1 @ 17#	1 @ 17#	1 @ 17#	A
ONE FITTING W/ RESTRAINT	0'	1 @ 17#	1 @ 17#	1 @ 17#	B
ONE FLEXIBLE COUPLING	0'	1 @ 17#	1 @ 17#	1 @ 17#	A
3"-6" AIR RELEASE ASSEMBLY	20'	2 @ 17#	3 @ 17#	4 @ 17#	D
6" BLOW-OFF PIPE ASSEMBLY	20'	2 @ 17#	3 @ 17#	4 @ 17#	D
6" OR 8" FIRE HYDRANT	20'	2 @ 17#	3 @ 17#	4 @ 17#	D
BURIED MAINLINE VALVE	10'	1 @ 17#	1 @ 17#	2 @ 17#	C
MULTIPLE FITTINGS	10'	1 @ 17#	2 @ 17#	2 @ 17#	C
VALVED TURNOUT	0'	1 @ 17#	2 @ 17#	2 @ 17#	E
EXTRA PIPE LENGTH:					
1-17 LB ANODE FOR		30 FT	15 FT	10 FT	
EXTRA FITTING LENGTH:					
2-17 LB ANODES FOR		20 FT	12 FT	8 FT	

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	**METALLIC PIPE APPURTENANCE AND FITTING CATHODIC PROTECTION**	STD. PLAN
4/2014		**537-G.4**
REV.		
0		



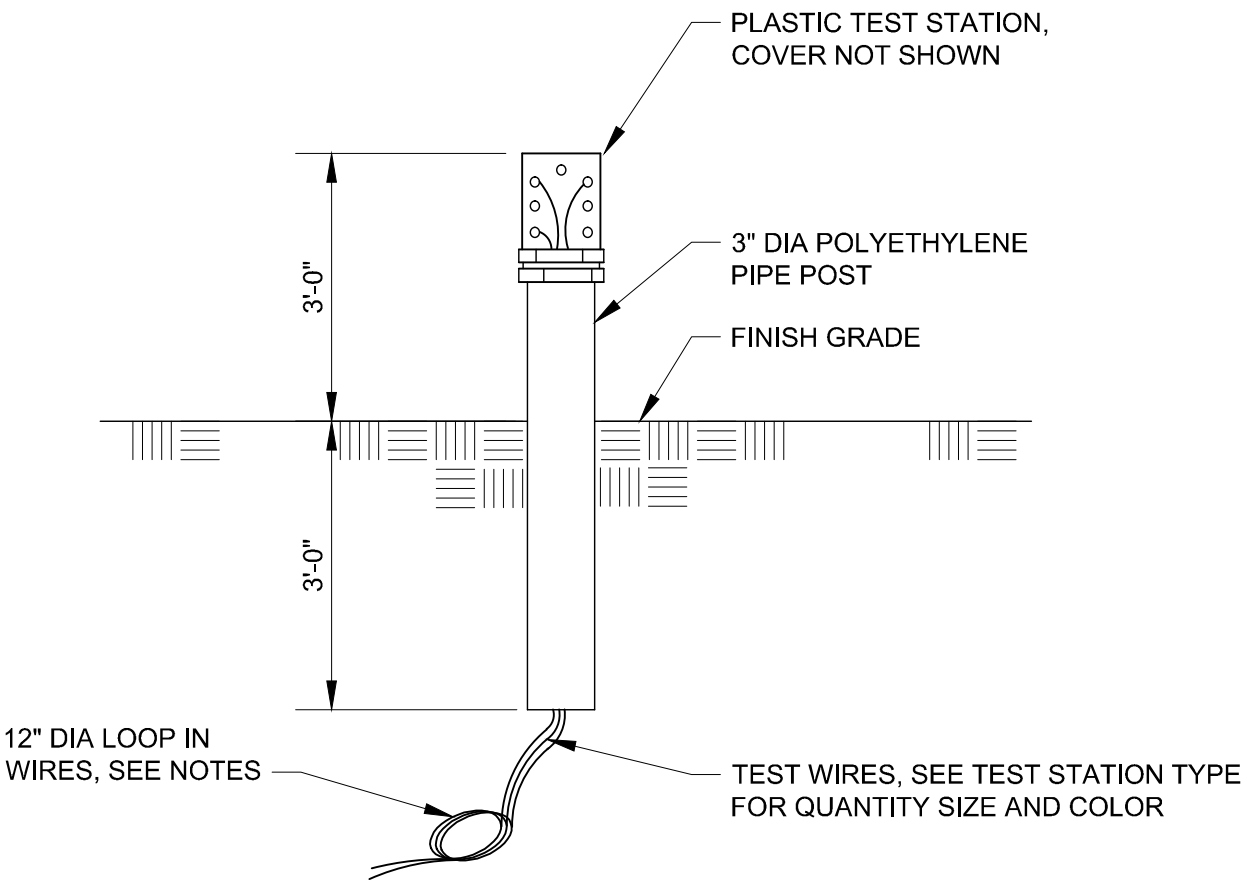
NOTES:

1. TEST STATION TO BE ALUMINUM BODY AND LID WITH THREADED CONNECTION FOR CONDUIT.

2. QUANTITY OF TERMINALS AND WIRING CONNECTIONS VARIES, SEE APPLICABLE TEST STATION DETAILS FOR TYPE OF TEST STATION.

3. PROVIDE WIRE LOP AT BASE OF POST MOUNTED TEST STATION TO MINIMIZE SETTLEMENT STRESSES ON WIRE.

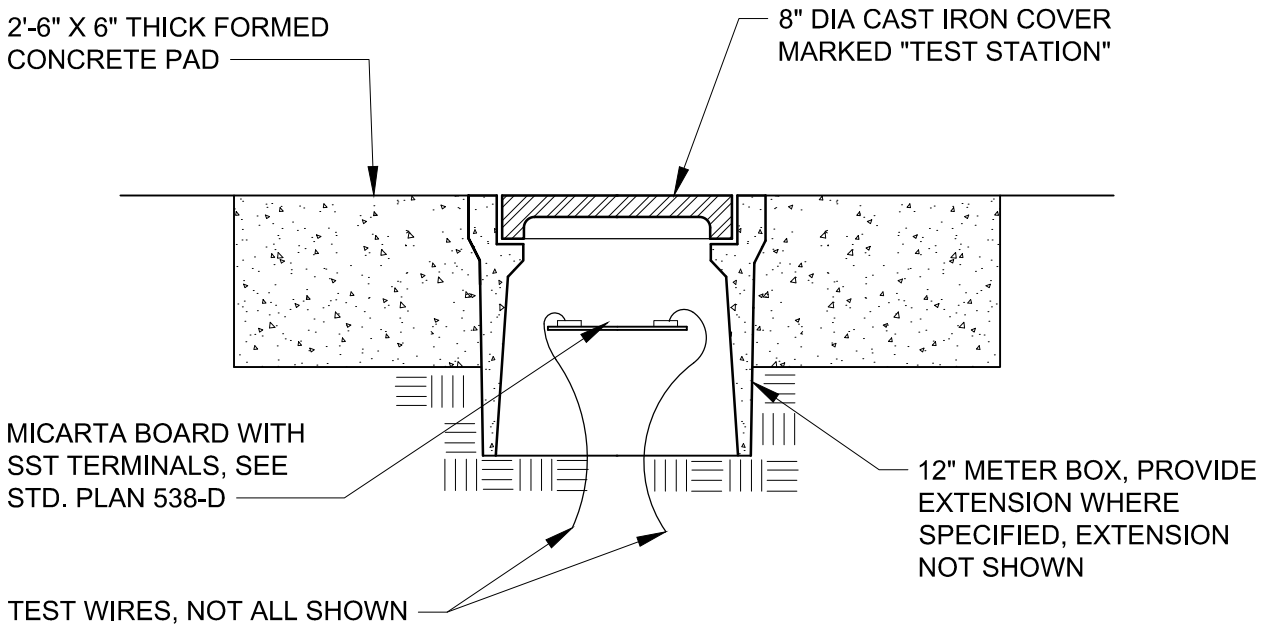
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**POST STYLE TEST STATION WOOD**	STD. PLAN **538-A**



NOTES:

1. COLOR OR TEST STATION AND POST AS SPECIFIED.
2. QUANTITY OF TERMINALS AND WIRING CONNECTIONS VARIES, SEE APPLICABLE TEST STATION DETAILS FOR TYPE OF TEST STATION.
3. PROVIDE WIRE LOP AT BASE OF POST MOUNTED TEST STATION TO MINIMIZE SETTLEMENT STRESSES ON WIRE

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**POST STYLE TEST STATION PLASTIC**	STD. PLAN **538-B**



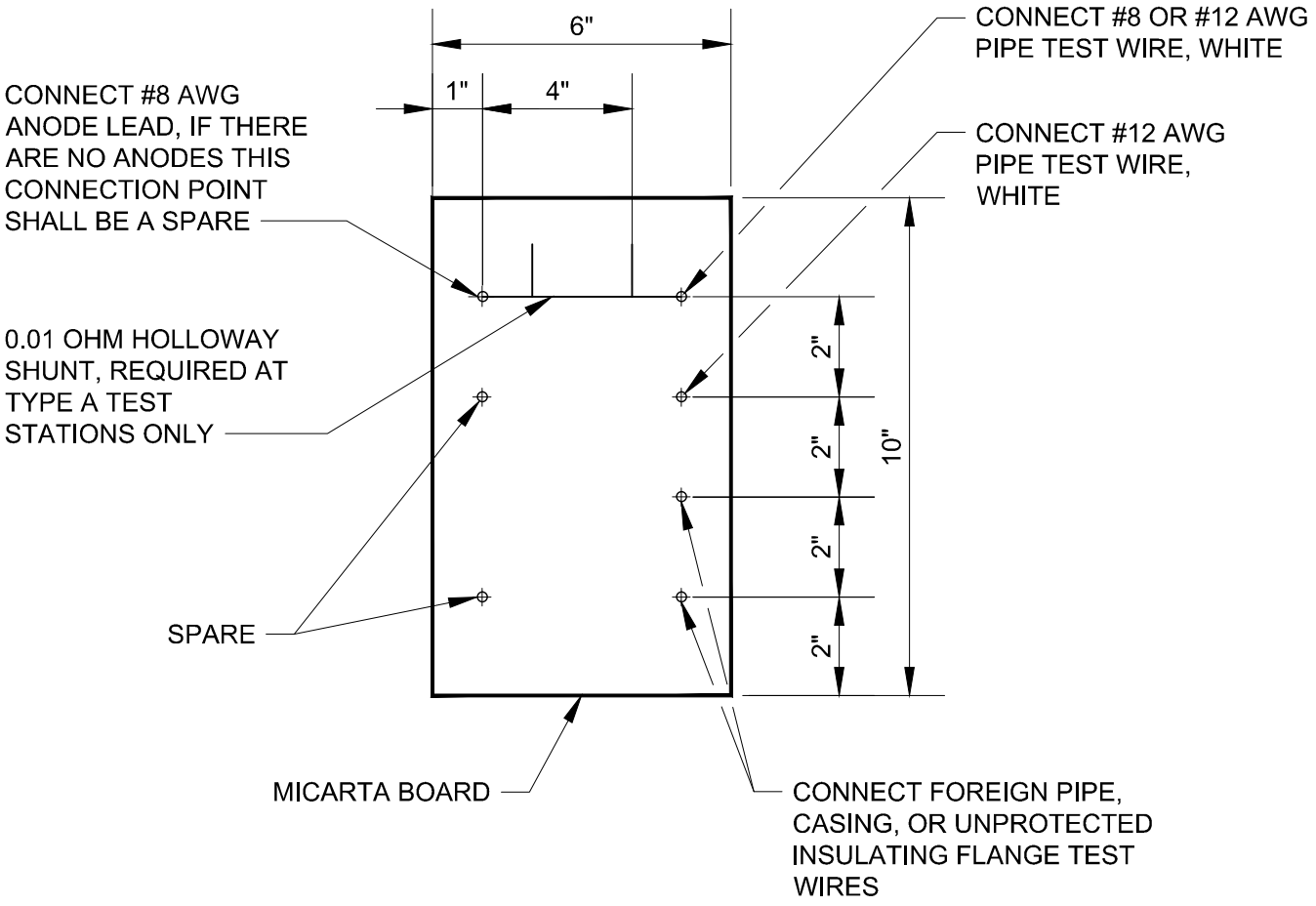
NOTES:

1. COLOR CODE WIRE INSULATION AS SHOWN IN APPLICABLE TEST STATION DETAILS, CONNECT EACH TEST WIRE TO SEPARATE TERMINAL.

2. WIRE CONFIGURATION FOR FLUSH MOUNTED TEST STATIONS SIMILAR TO POST MOUNTED TEST STATIONS.

3. PROVIDE 18 INCHES SLACK IN TEST WIRES, MINIMUM.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 03/2014 REV. 0	**FLUSH STYLE TEST STATION BOX**	STD. PLAN **538-C**



NOTES:

1. TERMINALS SHALL BE 1/4" STAINLESS STEEL WITH LOCKING WASHER, TWO FLAT WASHERS, AND DOUBLE NUTS.

2. ALL WIRE CONNECTIONS TO BE WITH RING TONGUE COMPRESSION TERMINALS.

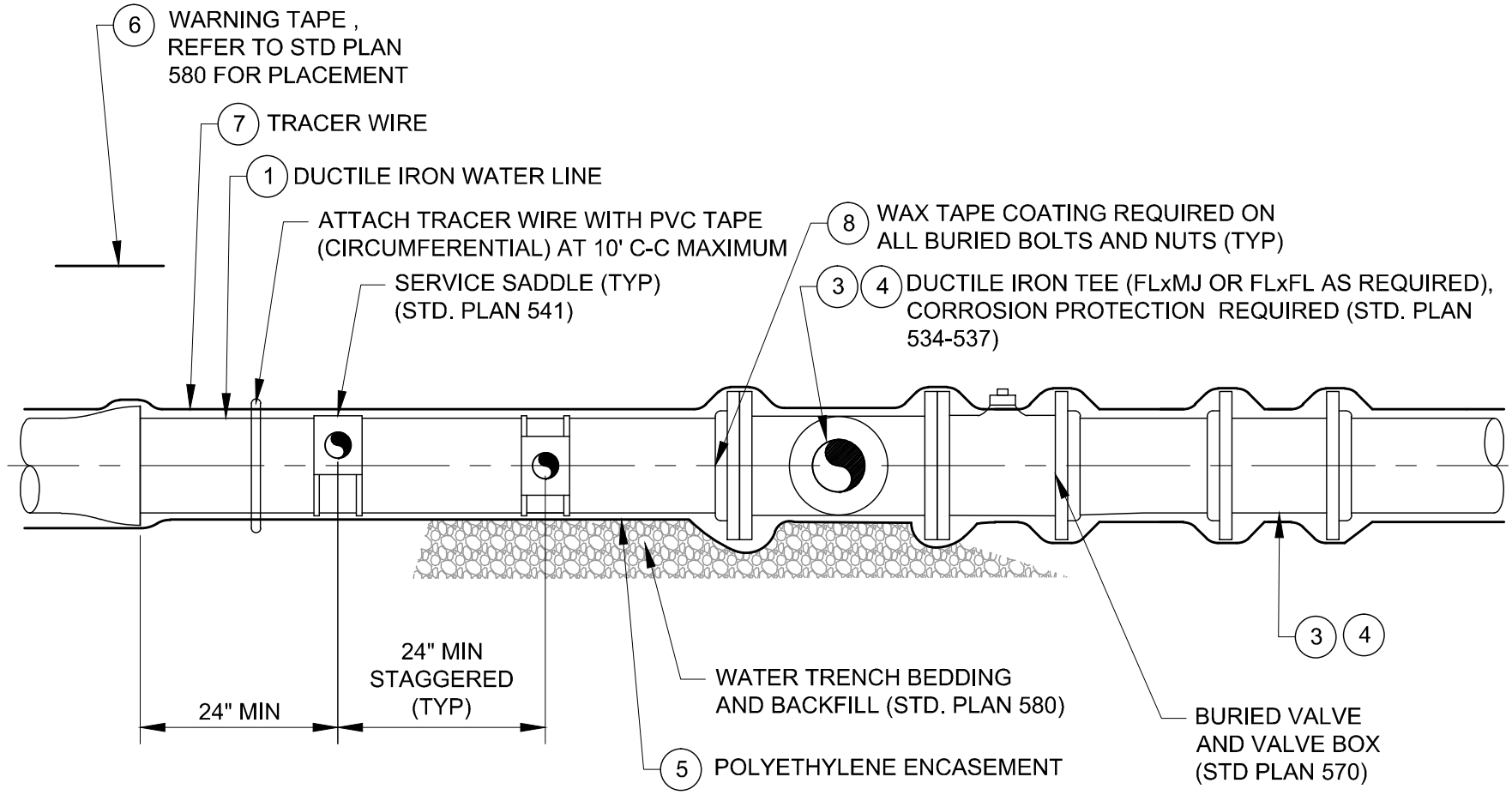
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 02/2014 REV. 0	**FLUSH STYLE TEST STATION TERMINAL BOARD**	STD. PLAN **538-D**

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	REV.
3/2014	0

WATER MAIN AND FIRE LINE
3" TO 12" DIAMETER

STD. PLAN
540-A



NOTES:

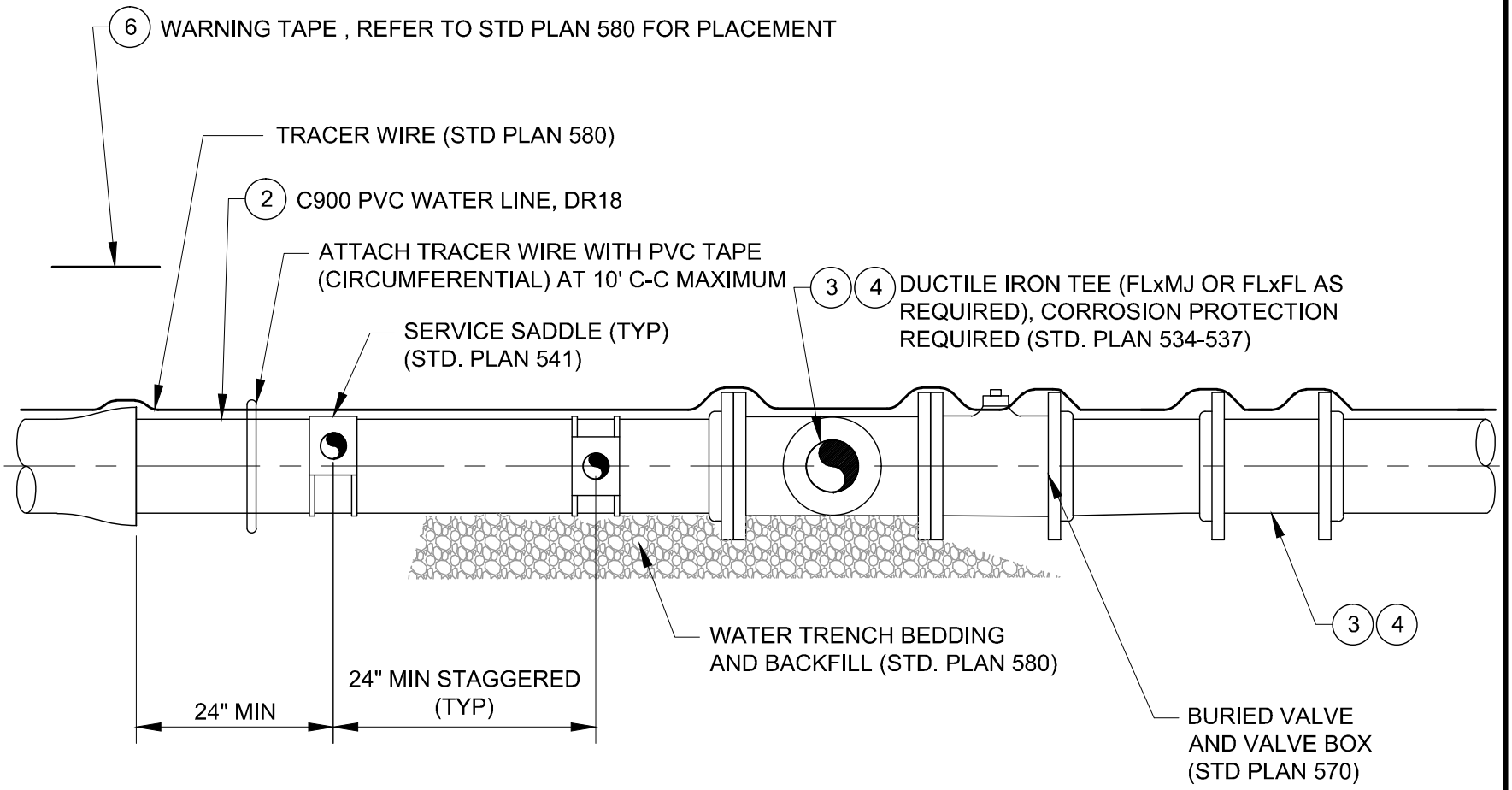
1. PROVIDE RETAINING GLANDS ON MECHANICAL JOINTS
2. STAGGER MULTIPLE TAPS 22-1/2 DEG. AND MAINTAIN 24" C-C MINIMUM SEPARATION
3. PROVIDE CORROSION PROTECTION AS REQUIRED. REFER TO STANDARD PLAN 534.
4. PROVIDE WATER LINE LOOPS AS REQUIRED TO MAINTAIN SEPARATION WITH OTHER UTILITIES, REFER TO STANDARD PLAN 544

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	REV.
3/2014	0

WATER MAIN - PVC PIPE
8" TO 12" DIAMETER

STD. PLAN
540-B



NOTES:

1. PROVIDE A 10' MINIMUM PVC PIPE SECTION LENGTH BETWEEN FITTINGS, VALVES, AND COUPLINGS
2. PROVIDE RETAINING GLANDS ON MECHANICAL JOINTS
3. STAGGER MULTIPLE TAPS 22-1/2 DEG. AND MAINTAIN 36” C-C MINIMUM SEPARATION
4. PROVIDE CORROSION PROTECTION ON ALL METALLIC FITTINGS, VALVES, COUPLERS, ETC., AS REQUIRED. REFER TO STANDARD PLAN 534.
5. PROVIDE WATER LINE LOOPS AS REQUIRED TO MAINTAIN SEPARATION WITH OTHER UTILITIES, REFER TO STANDARD PLAN 544

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	DUCTILE IRON PIPE, 3" TO 12" DIAMETER, PRESSURE CLASS 350, CEMENT-MORTAR LINING, ASPHALTIC INTERIOR/EXTERIOR COATING, AWWA C150 / C151 / C104	U.S. PIPE (1) PACIFIC STATES	STANDARD JOINT PIPE: PUSH ON TYTON JOINT
		U.S. PIPE (1) PACIFIC STATES	RESTRAINED JOINT PIPE: THRUST-LOCK TR FLEX
②	POLYVINYL CHLORIDE (PVC) PIPE, C.I.O.D., C900, DR 18, INTEGRAL BELL JOINT	JM EAGLE (1)	STANDARD JOINT PIPE: BLUE BRUTE
③	DUCTILE IRON FITTINGS, 3" TO 12" DIAMETER, FULL BODY, PRESSURE CLASS 350, CEMENT MORTAR LINED, ASPHALTIC EXTERIOR COATING, AWWA C153 / C104 FLANGES: AWWA C110 / C115, CLASS 125 FLANGE WITH FULL FACE OR RING FLANGE-TYTE GASKETS	U.S. PIPE (1) PACIFIC STATES	PUSH ON STYLE FITTING: TYTON JOINT FLANGED FITTING:
		U.S. PIPE (1) PACIFIC STATES	RESTRAINED JOINT PIPE: THRUST-LOCK TR FLEX
④	FITTINGS – DUCTILE IRON MECHANICAL JOINT PIPE WITH RETAINER GLANDS OR SST TIE ROD / NUT RESTRAINTS, AWWA C110 / C111 / C104	EBBA IRON (1)	FITTINGS: MECHANICAL JOINT RETAINER GLANDS: MEGALUG SERIES 1100, STD T-BOLTS AND NUTS
⑤	POLYETHYLENE ENCASEMENT, HIGH DENSITY CROSS LAMINATED (HDCL) POLYETHYLENE FILM, AWWA C105 & AWWA C703E METHODS A & C	CHRISTY'S (1)	AWWA C703E METHOD A (4 MIL) AT PIPE AND AWWA C703E METHOD C (10 MIL) AT BOLT-TYPE JOINTS, FITTINGS, AND VALVES
⑥	DETECTABLE UNDERGROUND WARNING TAPE, 5-MIL MINIMUM, ALUMINUM BACKING, BLUE BACKGROUND, 6" WIDE	SETON (1)	85525
⑦	TRACER WIRE: 12 GA. SOLID, BLUE PVC INSULATION; WIRE-WIRE CONNECTORS SILICONE-FILLED WIRE NUTS	CONNECTORS: IDEAL INDUSTRIES (1)	TWISTER DB PLUS OR APP'D EQUAL
⑧	WAX TAPE COATING SYSTEM, APPLY TO ALL BURIED BOLTS AND NUTS INCLUDING MECHANICAL JOINT RESTRAINT SYSTEMS, AWWA C 217. REFER TO STD. PLAN 534.		

DETAIL NOTES

1. COORDINATE PIPE SIZE WITH APPROVED PLANS PRIOR TO ORDERING MATERIALS
2. LOCATE MAIN, FITTINGS, VALVES, AND FIRE LINES PER APPROVED PLANS
3. DUCTILE IRON PIPE IS REQUIRED WHEN WATER SYSTEM DESIGN PRESSURE EXCEEDS 150 PRESSURE RATING
4. PROVIDE "DOMESTIC" DUCTILE IRON FITTINGS
5. PROVIDE DUCTILE IRON RESTRAINED JOINT PIPE ON FIRE LINES, HYDRANT LINES, AND WHERE REQUIRED ON THE APPROVED PLANS
6. PROVIDE 316 STAINLESS STEEL BOLTS AND NUTS WITH ANTI-SEIZE LUBRICATION ON ALL FLANGED CONNECTIONS
7. REFER TO STANDARD PLAN 534 FOR SUPPLEMENTAL EXTERNAL CORROSION PROTECTION REQUIREMENTS. WHEN CATHODIC PROTECTION IS REQUIRED REFER TO STD. PLANS 534-538.
8. REFER TO SPECIFICATIONS FOR FLUSHING, HYDROSTATIC TESTING, AND DISINFECTING REQUIREMENTS
9. (1) DENOTES "OR EQUAL" MANUFACTURER AND MODEL. SUBMIT IN ACCORDANCE WITH CITY STANDARDS

PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION

WATER

DATE	STD. PLAN
4/2014	
REV.	
0	

WATER MAIN AND FIRE LINES

540 S

PARK CITY MUNICIPAL CORPORATION
WATER

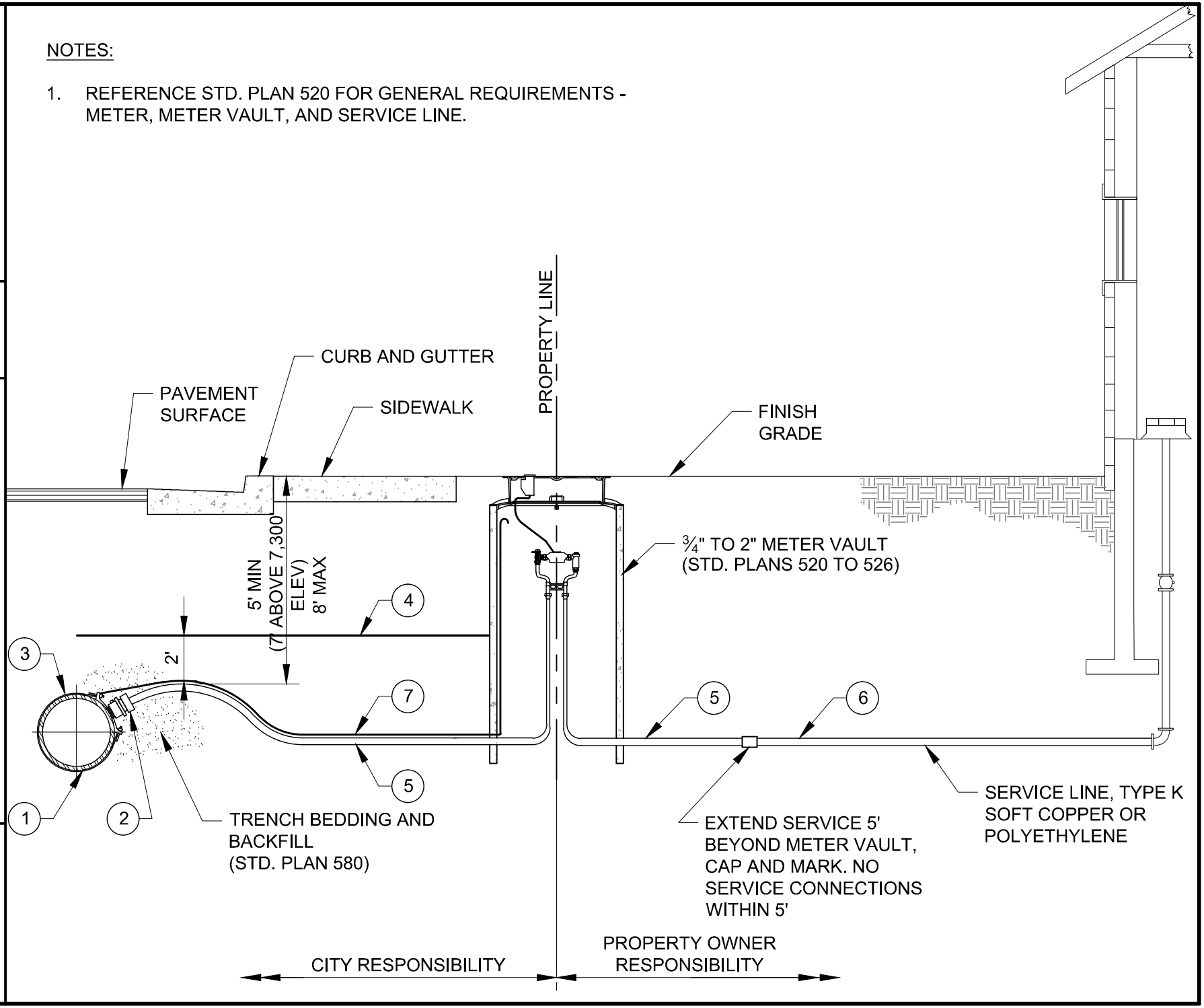
DATE	REV.
2/2014	0

WATER SERVICE LINE
3/4" TO 2" METERS

STD. PLAN
541

NOTES:

1. REFERENCE STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.



LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	BRONZE SERVICE SADDLE: DI & AC PIPE; DOUBLE STRAP PVC PIPE; TWO-PIECE BOLTED	MUELLER	DI & AC PIPE: BR2B SERIES, 1-1/2" SERVICE, CC THDS; 2" SERVICE FIP THDS PVC PIPE: H-13000 SERIES, 1-1/2" SERVICE, CC THDS; 2" SERVICE FIP THDS
		FORD	DI & AC PIPE: STYLE 202B 1-1/2" SERVICE, CC THDS; 2" SERVICE, FIP THDS PVC PIPE: 1-1/2" SERVICE, STYLE S902, CC THDS; 2" SERVICE, STYLE S912, FIP THDS
②	BRASS CORPORATION STOP, INLET CC THREAD, OUTLET CTS COMPRESSION	MUELLER	B-25008N
		FORD	FB1100-(SERVICE SIZE)-G-NL
③	POLYETHYLENE ENCASEMENT, HIGH DENSITY CROSS LAMINATED (HDCL) POLYETHYLENE FILM, AWWA C105 & AWWA C703E METHOD C	CHRISTY'S OR APPROVED EQUAL	AWWA C703E METHOD C (4 MIL)
④	DETECTABLE UNDERGROUND WARNING TAPE, 5-MIL MINIMUM, ALUMINUM BACKING BLUE BACKGROUND, 6" WIDE	SETON OR APPV'D EQUAL	85525
⑤	WATER SERVICE LINE: HIGH-DENSITY POLYETHYLENE TUBING (CTS), SDR 9, AWWA C901 1-1/2" DIA. SERVICE: 3/4" AND 1" SINGLE METER 1-1/2" DIA. SERVICE: 3/4" AND 1" DUAL METERS 2" DIA. SERVICE: 1-1/2" AND 2" SINGLE METER 2" DIA. SERVICE: 1-1/2" DUAL METERS	ADS OR APPV'D EQUAL	
⑥	WATER SERVICE LINE: HIGH-DENSITY POLYETHYLENE TUBING (CTS), SDR 9, AWWA C901; OR, TYPE K COPPER, SOFT, AWWA C800	ADS OR APPV'D EQUAL	
⑦	TRACER WIRE: 12 GA. SOLID, BLUE PVC INSULATION; WIRE-WIRE CONNECTORS SILICONE-FILLED WIRE NUTS	IDEAL INDUSTRIES	TWISTER DB PLUS OR APP'D EQUAL

DETAIL NOTES

1. COORDINATE SERVICE SIZE WITH CITY PRIOR TO ORDERING MATERIALS
2. LOCATE SERVICE PER APPROVED PLANS
3. NO SERVICE LINE FITTINGS BETWEEN CORPORATION STOP AND METER VAULT CURB STOP VALVE
4. APPLY WAX TAPE COATING SYSTEM TO SERVICE SADDLE BOLTS AND NUTS, AWWA C217. SYSTEM TO INLCUDE FILLER MATERIAL, TAPE COATING, AND PROTECTIVE OUTERWRAP. DENSO NORTH AMERICA, TRENTON, OR APPROVED EQUAL (STD. PLAN 534)

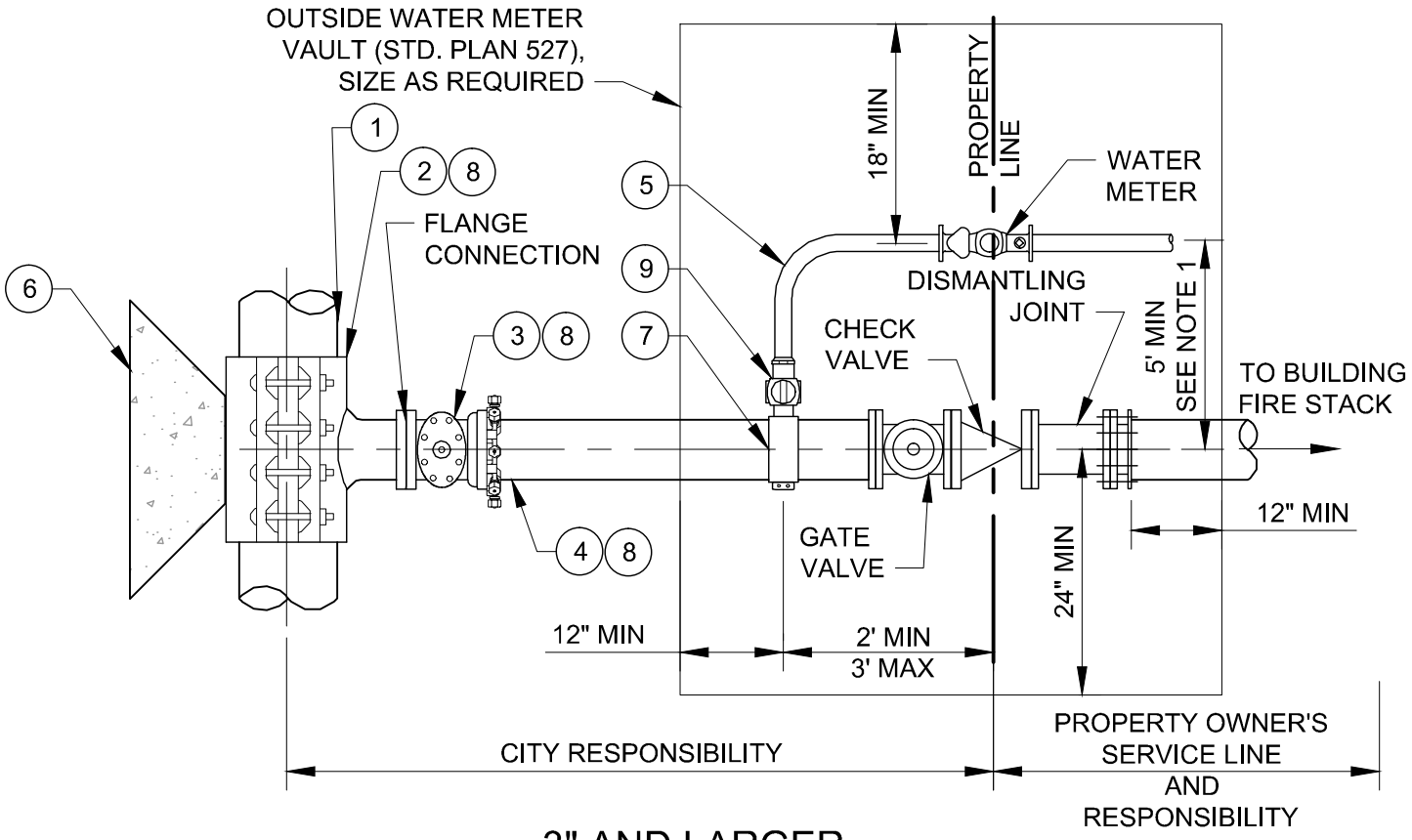
PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
2/2014	
REV.	

WATER SERVICE LINE
3/4" TO 2" METERS

541 S



3" AND LARGER

LEGEND	
ITEM	DESCRIPTION
1	EXISTING MAIN
2	DUCTILE IRON TAPPING SLEEVE OR DUCTILE IRON TEE
3	TAPPING VALVE OR FLG X MJ GATE VALVE (STD PLAN 570 AND 572)
4	DUCTILE IRON PIPE FULLY RESTRAINED (STD. PLAN 541)
5	WATER SERVICE LINE (STD. PLAN 541)
6	THRUST BLOCK (STD. PLAN 561)
7	BRONZE DOUBLE STRAP SERVICE SADDLE (STD. PLAN 541)
8	POLYETHYLENE WRAPPED (STD. PLAN 540-A)
9	CORPORATION STOP (STD. PLAN 541)

NOTES:

1. DOUBLE CHECK VALVE OR REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY TO BE DETERMINE BY BUILDING AND WATER DEPARTMENTS BASED ON DEGREE OF HAZARD POSED BY INTERNAL PLUMBING USE.

PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
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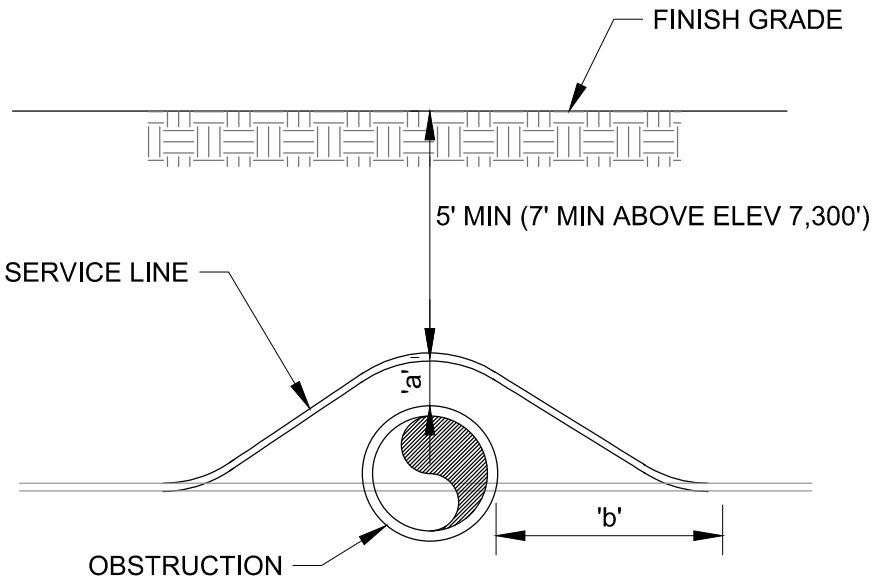
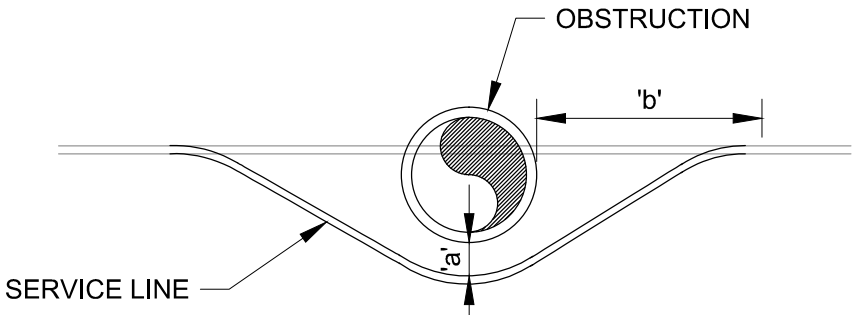
0	

FIRE SERVICE LINE

542



METHOD A



METHOD B

TABLE OF DIMENSIONS

	OBSTRUCTION		
	SEWER MAIN	STORM DRAIN OR CULVERT	OTHER
'a'	18"	SEE STD. PLAN 546	12" MIN
'b'	5'-0"		3'-0" MIN

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
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REV.	
0	

WATER SERVICE LINE LOOP

543

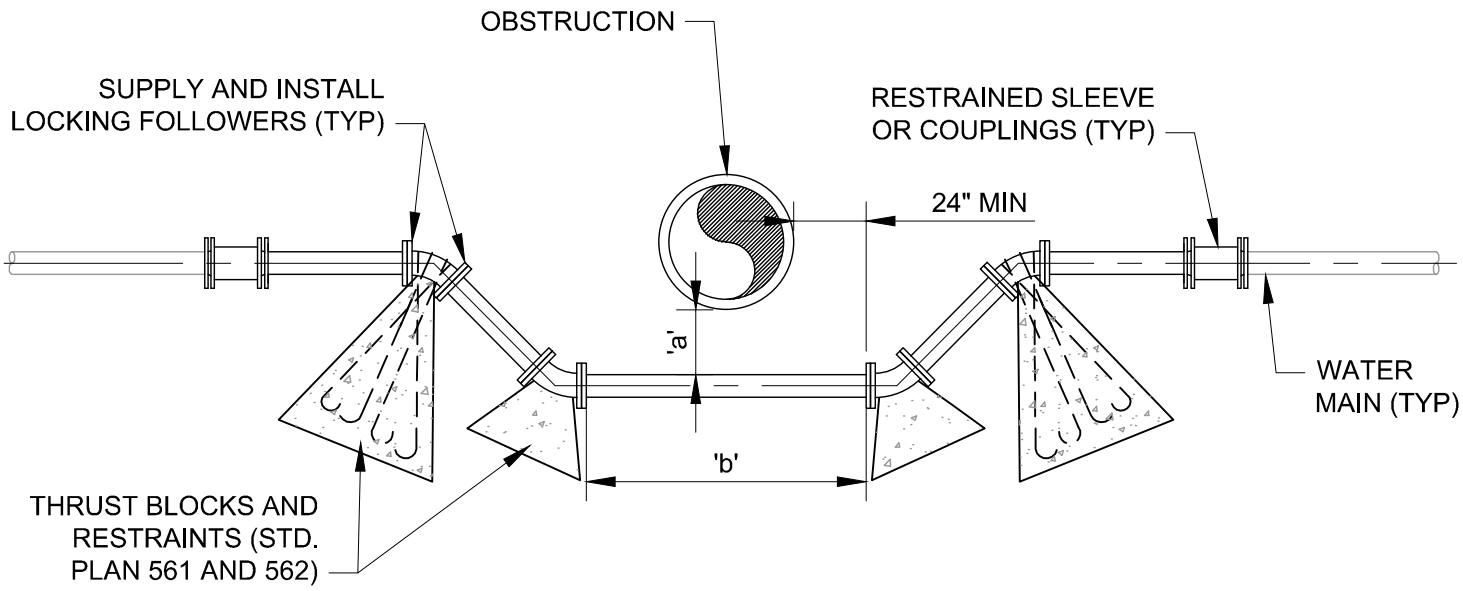


TABLE OF DIMENSIONS		
OBSTRUCTION	'a'	'b'
SEWER	18" MIN	20' MIN
STORM DRAIN OR CULVERT	SEE STD. PLAN 546	O.D. + 6'
OTHER	12" MIN	O.D. + 4'

METHOD A

NOTES:

1. RESTRAINED JOINT PIPE REQUIRED

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**WATER MAIN LOOP**	STD. PLAN **544-A**

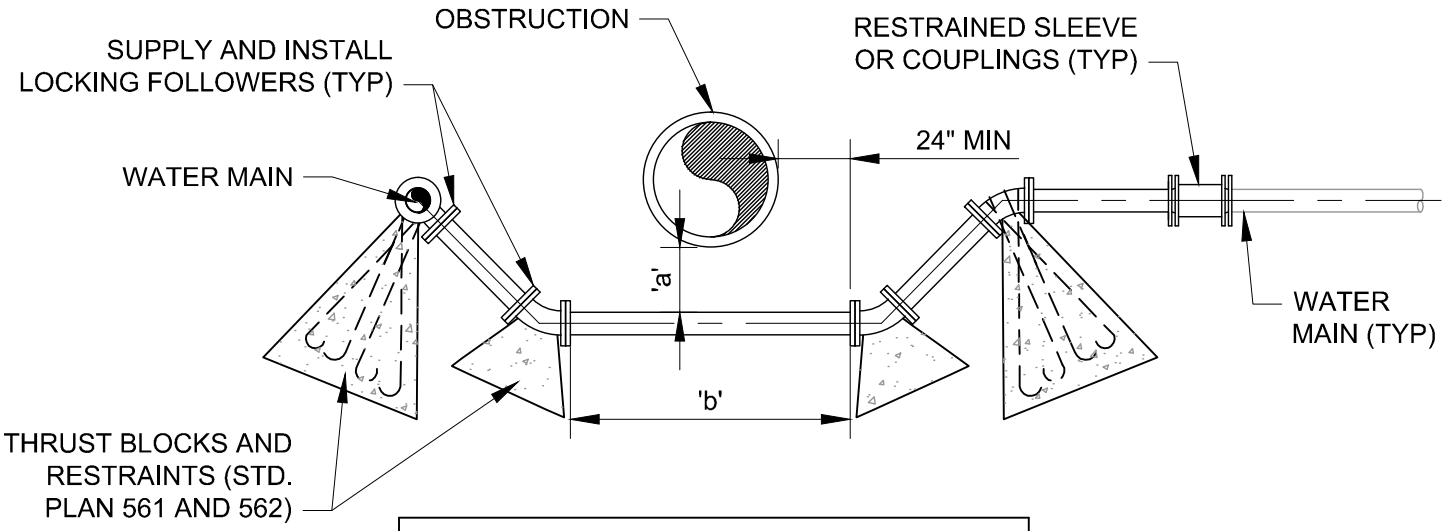


TABLE OF DIMENSIONS		
OBSTRUCTION	'a'	'b'
SEWER	18" MIN	20' MIN
STORM DRAIN OR CULVERT	SEE STD. PLAN 546	O.D. + 6'
OTHER	12" MIN	O.D. + 4'

METHOD B

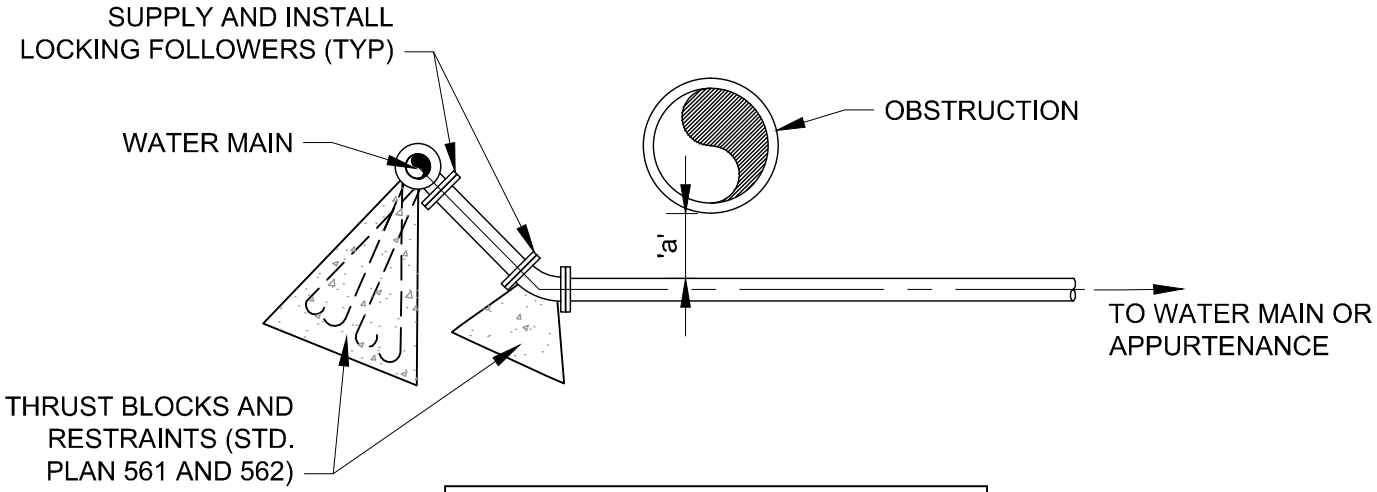


TABLE OF DIMENSIONS	
OBSTRUCTION	'a'
SEWER	18" MIN
STORM DRAIN OR CULVERT	SEE STD. PLAN 546
OTHER	12" MIN

METHOD C

NOTES:

1. RESTRAINED JOINT PIPE REQUIRED

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**WATER MAIN LOOP**	STD. PLAN **544-B**

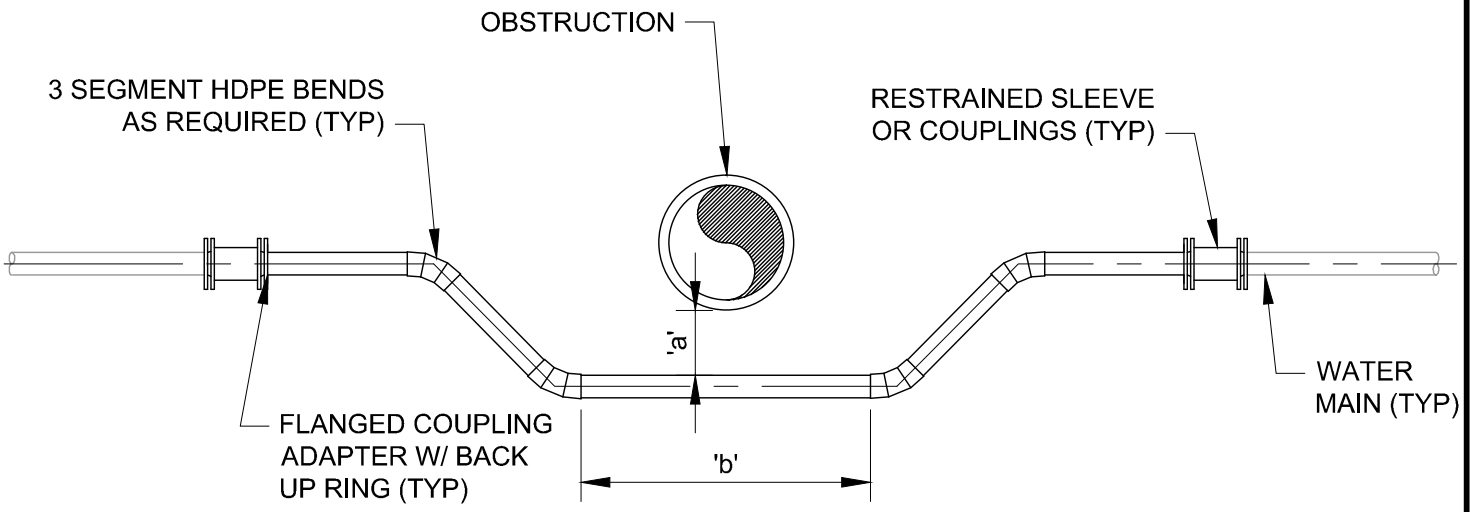


TABLE OF DIMENSIONS		
OBSTRUCTION	'a'	'b'
SEWER	18" MIN	20' MIN
STORM DRAIN OR CULVERT	SEE STD. PLAN 546	O.D. + 6'
OTHER	12" MIN	O.D. + 4'

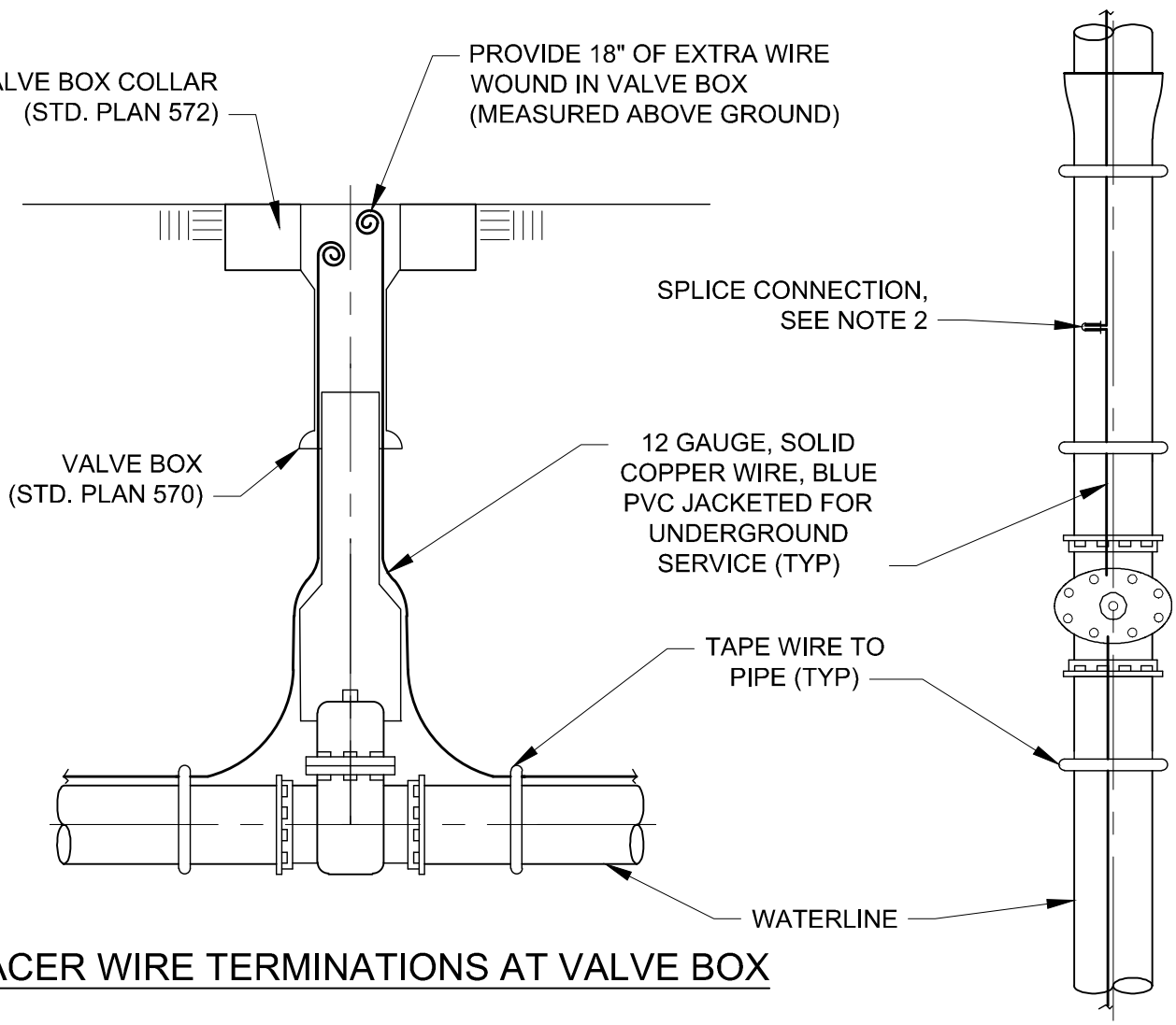
HDPE METHOD

NOTES:

HDPE PIPE WATERLINE LOOP MINIMUM REQUIREMENTS:

1. GENERAL: PIPE SHALL BE HDPE 4710 DR11 WITH AN INSIDE DIAMETER EQUAL TO OR GREATER THAN THE CONNECTING PIPE ON BOTH ENDS.
2. PIPE SHALL BE FUSION WELDED ALONG LENGTH AND FULLY RESTRAINED AT TRANSITIONS TO DIFFERING PIPE MATERIALS WITH FLANGES OR OTHER CITY APPROVED METHOD.
3. FITTINGS ALONG THE LOOP LENGTH SHALL BE HDPE UNLESS OTHERWISE APPROVED BY OWNER.
4. BENDING RADIUS NOT TO EXCEED PIPE MANUFACTURES RECOMMENDATIONS.
5. REDUCERS AND TRANSITION COUPLINGS SHALL BE PROVIDED ON BOTH ENDS AS REQUIRED AND SHALL BE HDPE OR DUCTILE IRON. CATHODIC PROTECTION REQUIRED ON FERROUS COMPONENTS PER STD. PLAN 534

	DATE		STD. PLAN
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	3/2014 REV. 0	**WATER MAIN LOOP**	**544-C**

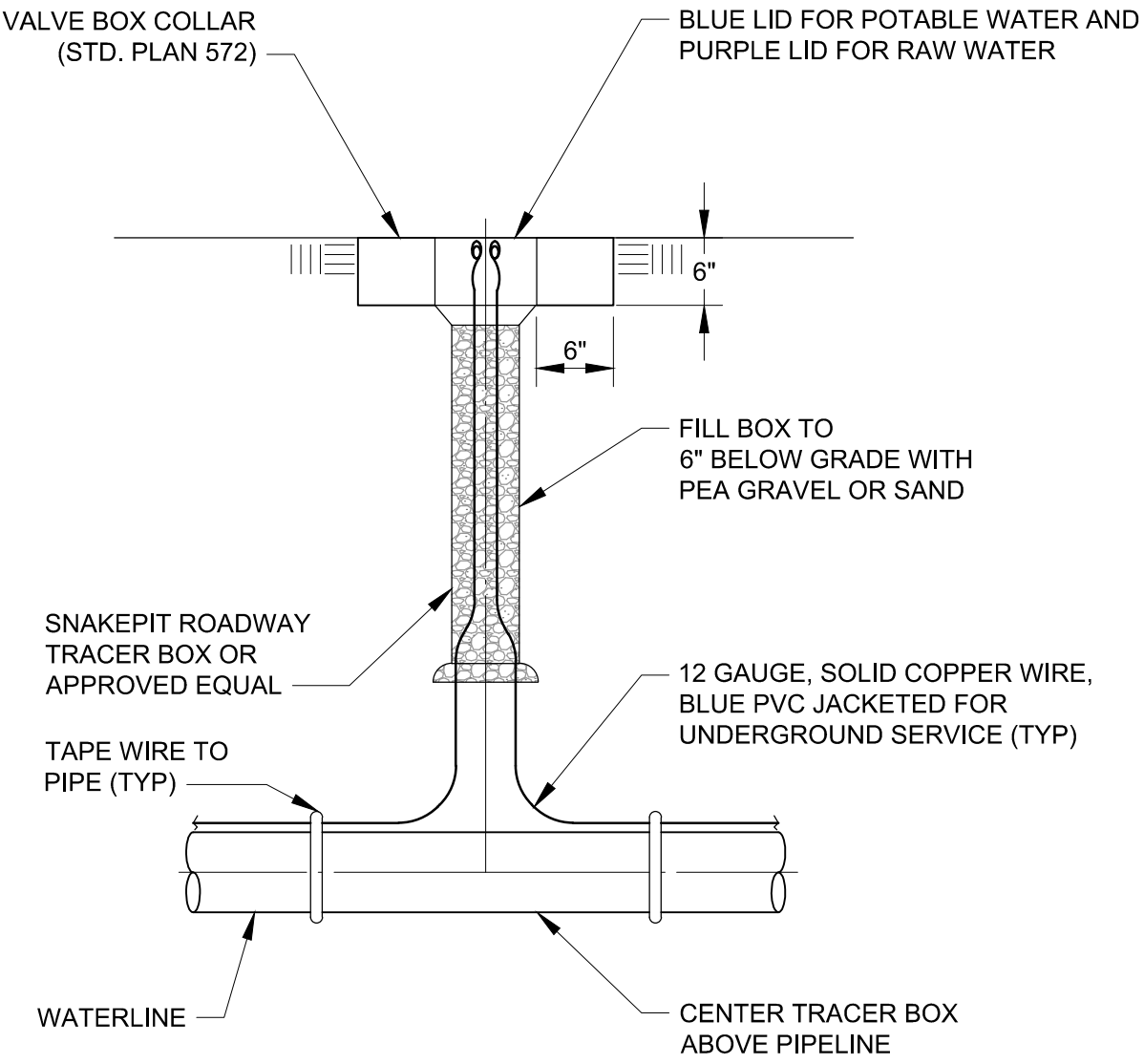


TRACER WIRE TERMINATIONS AT VALVE BOX

NOTES:

1. INSTALL TRACER WIRE ON ALL CONSTRUCTED (METALLIC AND NON-METALLIC) PIPE.
2. ALL SPLICES SHALL BE SILICONE FILLED WIRE CONNECTORS.
3. PROVIDE TRACER WIRE CONNECTIONS AT ALL VALVE BOXES AND PER STD. PLAN 545-B TO MAINTAIN A MAXIMUM DISTANCE BETWEEN CONNECTIONS OF NO GREATER THAN 500 FEET.
4. AT VAULT AND MANHOLE LOCATIONS COIL WIRE INSIDE.

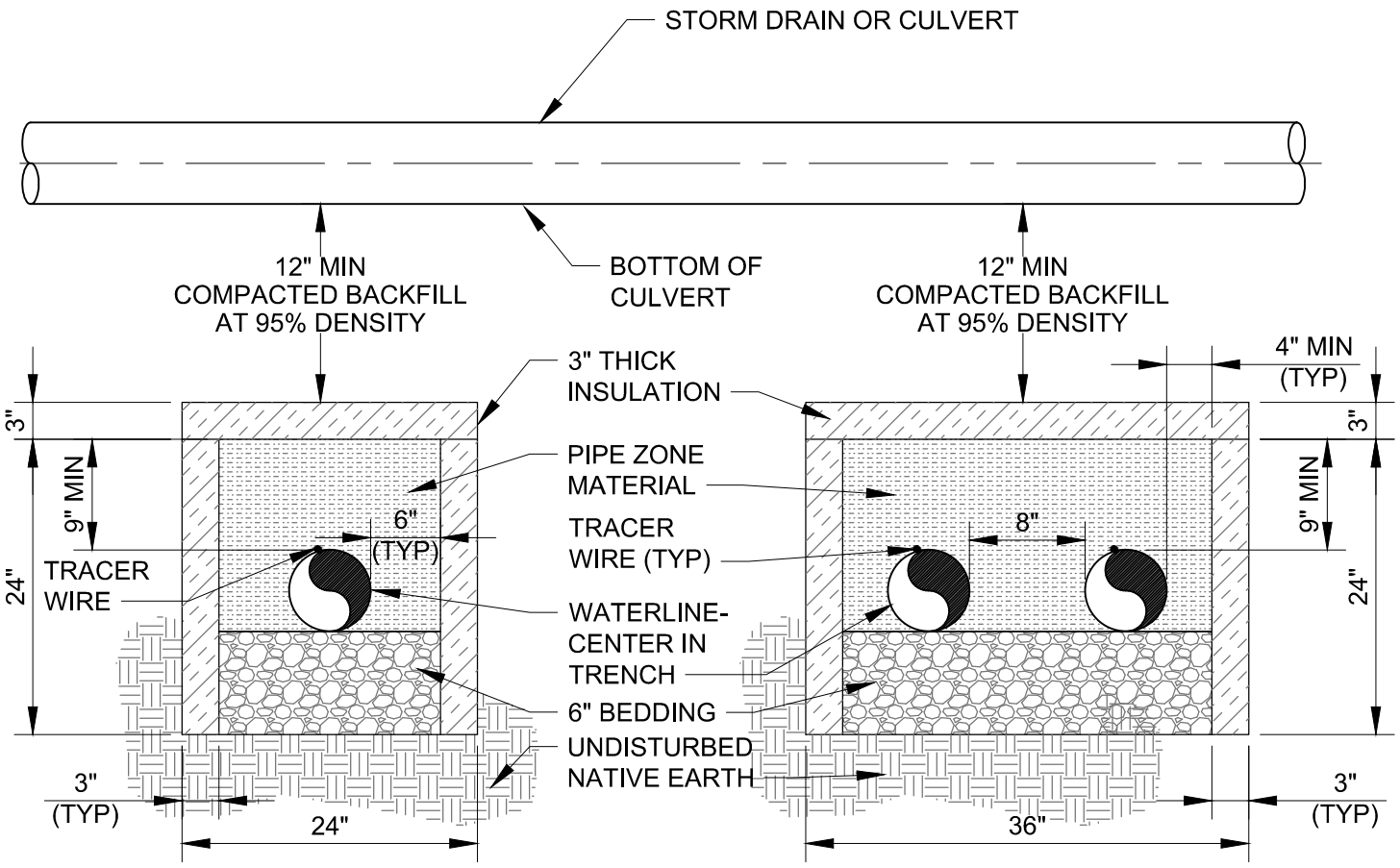
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**TRACER WIRE VALVE BOX TERMINATIONS**	STD. PLAN **545-A**



NOTES:

1. INSTALL LOCATOR WIRE ON ALL CONSTRUCTED (METALLIC AND NON-METALLIC) PIPE.
2. ALL SPLICES SHALL BE WITH SILICONE FILLED WIRE CONNECTORS.
3. PROVIDE LOCATOR WIRE CONNECTIONS PER THIS DETAIL AS REQUIRED TO MAINTAIN A MAXIMUM DISTANCE BETWEEN CONNECTIONS OF NO GREATER THAN 500 FEET. CONTRACTOR SHALL COORDINATE EACH LOCATION WITH OWNER.
4. LOCATOR WIRE AND WARNING TAPE NOT REQUIRED WHERE DIRECTIONAL DRILLING WILL TAKE PLACE.
5. AT VAULT LOCATIONS COIL WIRE INSIDE OF VAULT.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**TRACER WIRE ACCESS BOX TERMINATIONS**	STD. PLAN **545-B**



ONE LINE IN TRENCH

TWO LINES IN TRENCH

NOTES:

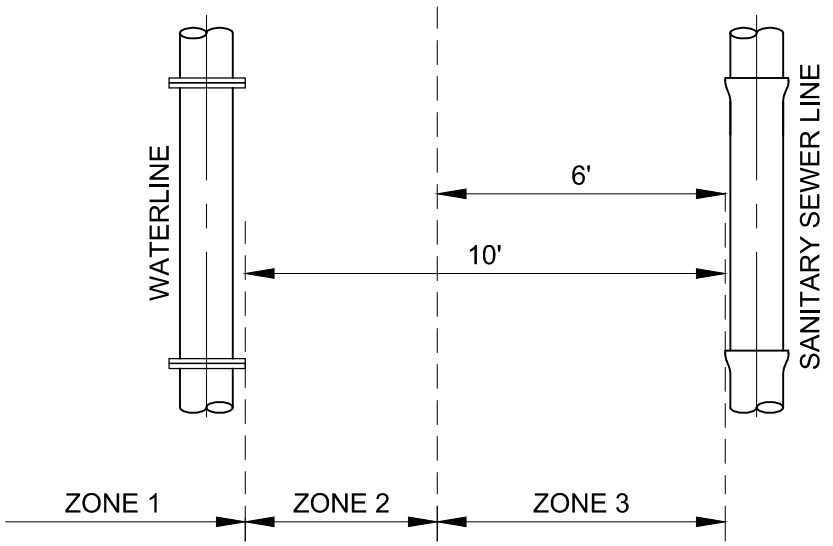
1. WHERE WATERLINES INTERSECT STORM DRAINS OR CULVERTS, INSTALL WATERLINE WITH FROST SHIELD. EXTEND FROST SHIELD A MINIMUM OF 3-FEET ON BOTH SIDES STORM DRAIN OR CULVERT.

2. INSULATION SHALL BE 3-INCH THICK INSULATION BOARD (DOW STYROFOAM HIGHLOAD - 60 INSULATION OR APPROVED EQUAL).

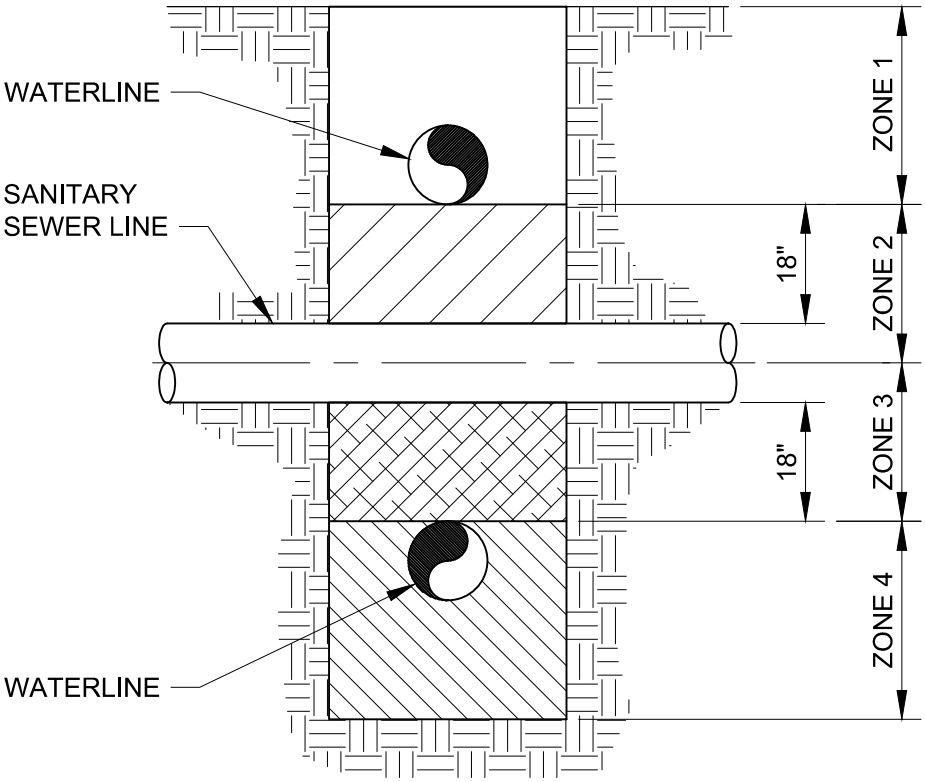
3. ALL BACKFILL MATERIAL, INCLUDING SPECIAL BEDDING AND PIPE ZONE MATERIAL, SHALL BE COMPACTED TO AT LEAST 95% DENSITY TO PROVIDE AN ADEQUATE FOUNDATION FOR THE CULVERT AND ROADWAY.

4. INSTALL TRACER WIRES AS REQUIRED (STD. PLAN 540, 541 AND 545)

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**PIPE INSULATION AT STORM DRAIN CROSSINGS**	STD. PLAN **546**



HORIZONTAL SEPARATION REQUIREMENTS



VERTICAL SEPARATION REQUIREMENTS

NOTES:

1. SEE STD. PLAN 547-B FOR HORIZONTAL AND VERTICAL SEPARATION REQUIREMENT NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**WATER - SANITARY SEWER SEPARATION**	STD. PLAN **547-A**

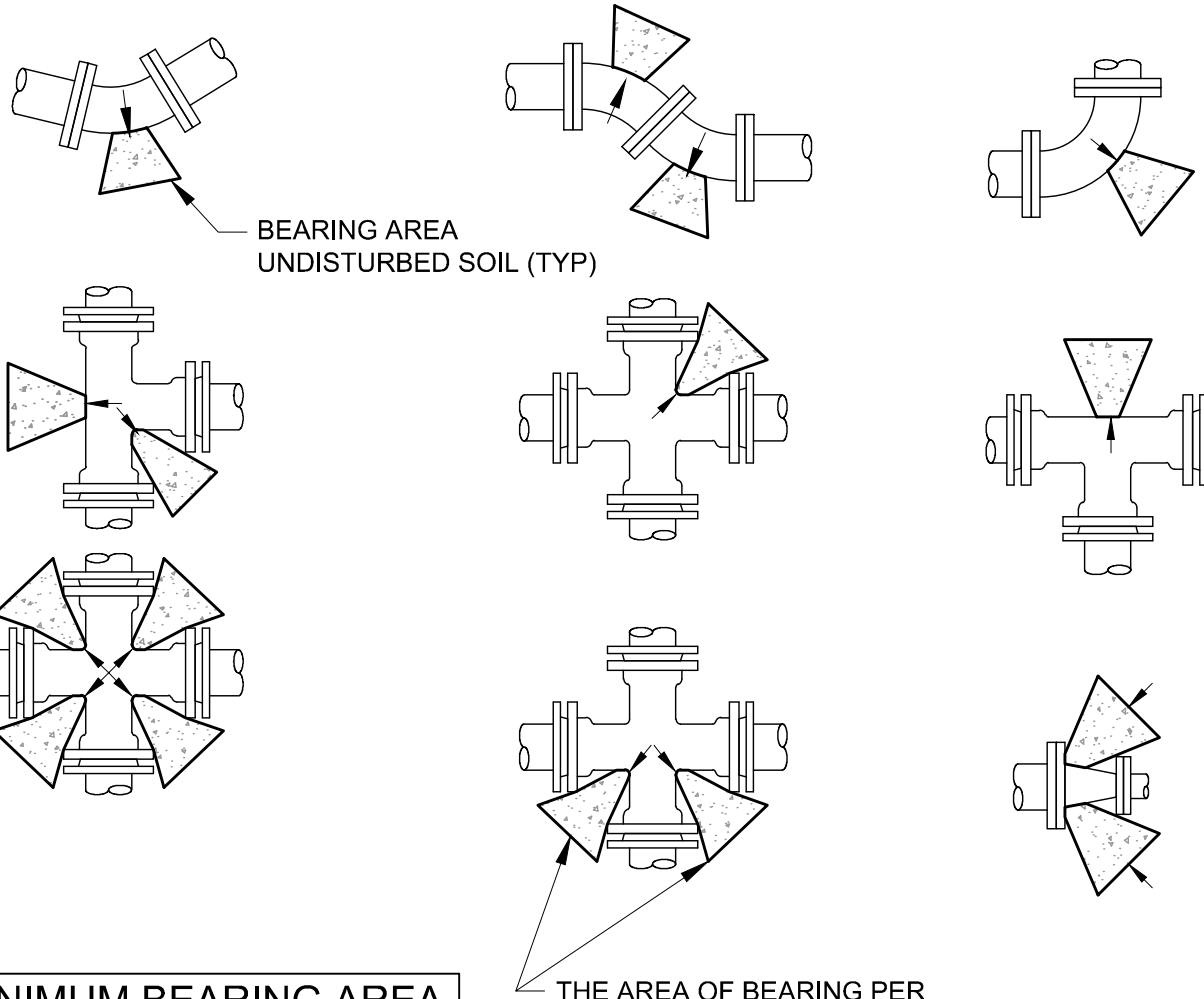
HORIZONTAL SEPARATION NOTES:

1. ZONE 1: WATER LINE AND SEWER LINE SEPARATED 10 FEET OR GREATER – NO SPECIAL REQUIREMENTS
   ZONE 2: A) WATER LINE SEPARATED BY AT LEAST 6 FEET AT OUTSIDE PIPE WALLS
   AND
   B) BOTTOM OF WATER LINE IS AT LEAST 18 INCHES ABOVE TOP OF SEWER LINE
   AND
   C) WATER LINE CONSTRUCTED WITH MECHANICAL, RESTRAINED JOINT PIPE
   AND
   SITE SPECIFIC REQUIREMENTS APPROVED BY DIVISION OF ENVIRONMENTAL QUALITY, DIVISION OF DRINKING WATER
   ZONE 3: WATER LINE AND SEWER LINE SEPARATION LESS THAN 6 FEET – NOT ALLOWED
2. SERVICE LINE TAPS NOT ALLOWED IN ZONE 2.
3. SERVICE LINE TAPS WITHIN ZONE 3 ALLOWED ONLY BY SITE SPECIFIC APPROVAL BY DIVISION OF ENVIRONMENTAL QUALITY, DIVISION OF DRINKING WATER
4. MAINTAIN 10 FEET HORIZONTAL SEPARATION AND 18 INCHES VERTICAL SEPARATION ABOVE SANITARY SEWER FORCE MAINS
5. CONSULT SNYDERVILLE BASIN WATER RECLAMATION DISTRICT FOR SANITARY SEWER REQUIREMENTS AND SEWER LINE MODIFICATIONS

VERTICAL SEPARATION NOTES:

1. ZONE 1: WATER LINE ABOVE SEWER LINE AND SEPARATED 18 INCHES OR GREATER – NO SPECIAL REQUIREMENTS
   ZONE 2: WATER LINE ABOVE SEWER LINE SEPARATED LESS THAT 18 INCHES – LOOP WATER LINE, REFER TO STD. PLAN 543. INSTALL CONTROLLED LOW-STRENGTH MATERIAL (CLSM), “FLOWABLE FILL”, 150 PSI MAXIMUM MIX DESIGN WITHIN WATER PIPE ZONE AND TO 18 INCHES ABOVE SEWER LINE
   ZONE 3: WATER LINE BELOW SEWER LINE SEPARATED LESS THAN 18 INCHES – LOOP WATER LINE, REFER TO STD. PLAN 543. INSTALL CONTROLLED LOW-STRENGTH MATERIAL (CLSM), “FLOWABLE FILL”, 150 PSI MAXIMUM MIX DESIGN WITHIN WATER PIPE ZONE AND TO 18 INCHES ABOVE SEWER LINE
   ZONE 4: WATER LINE BELOW SEWER LINE SEPARATED GREATER THAN 18 INCHES - CENTER ONE FULL UNCUT LENGTH OF WATER PIPE OVER THE CROSSING AND PROVIDE MECHANICAL RESTRAINED PIPE JOINTS UNTIL THE WATER PIPE EXTENDS TO A DISTANCE OF 10 FEET PERPENDICULAR TO EACH SIDE OF THE SEWER LINE. INSTALL CONTROLLED LOW-STRENGTH MATERIAL (CLSM), “FLOWABLE FILL”, 150 PSI MAXIMUM MIX DESIGN WITHIN WATER PIPE ZONE AND TO 18 INCHES ABOVE SEWER LINE
2. SERVICE LINE TAPS NOT ALLOWED IN ZONES 2 AND 3.
3. MAINTAIN 10 FEET HORIZONTAL SEPARATION AND 18 INCHES VERTICAL SEPARATION ABOVE SANITARY SEWER FORCE MAINS
4. CONSULT SNYDERVILLE BASIN WATER RECLAMATION DISTRICT FOR SANITARY SEWER REQUIREMENTS AND SEWER LINE MODIFICATIONS

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	**DATE** 2/2014 **REV.**	**WATER – SANITARY SEWER SEPARATION NOTES**	**STD. PLAN** **547-B**



MINIMUM BEARING AREA IN SQ. FT.					
SIZE OF PIPE	TEES, VALVES, DEAD ENDS	90° BENDS	45° BENDS	22 ½° BENDS	11 ¼° BENDS
4"	3.5	5	3	1.5	1
6"	7	10	5.5	3	1.5
8"	12.5	17	9.5	5	2.5
10"	18.5	26	14	7.5	3.8
12"	26	37	20	10	5
14"	35	49	26.5	13.5	7
16"	45	63	34	17.5	9

NOTE:

1. RESTRAINT SIZING IS BASED UPON A MAXIMUM OPERATING PRESSURE OF 150 PSI AND A TEST PRESSURE OF 250 PSI, AND A MINIMUM SOIL BEARING STRENGTH OF 2,000 PSF. OPERATING PRESSURES IN EXCESS OF 150 PSI OR SOILS WITH LESS THAN 2,000 POUND BEARING STRENGTH WILL REQUIRE SPECIAL DESIGN.
2. PIPE SIZE EXCEEDING 16" REQUIRES SPECIAL DESIGN.
3. SIDE WALLS OF THRUST BLOCK SHALL BE FORMED WITH VERTICAL SIDES.
4. DO NOT ENCASE ADJACENT FITTINGS AND BOLTS.
5. DO NOT THRUST AGAINST ADJACENT PIPES.
6. PLACE PE WRAP PRIOR TO INSTALLING BLOCKING.

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PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
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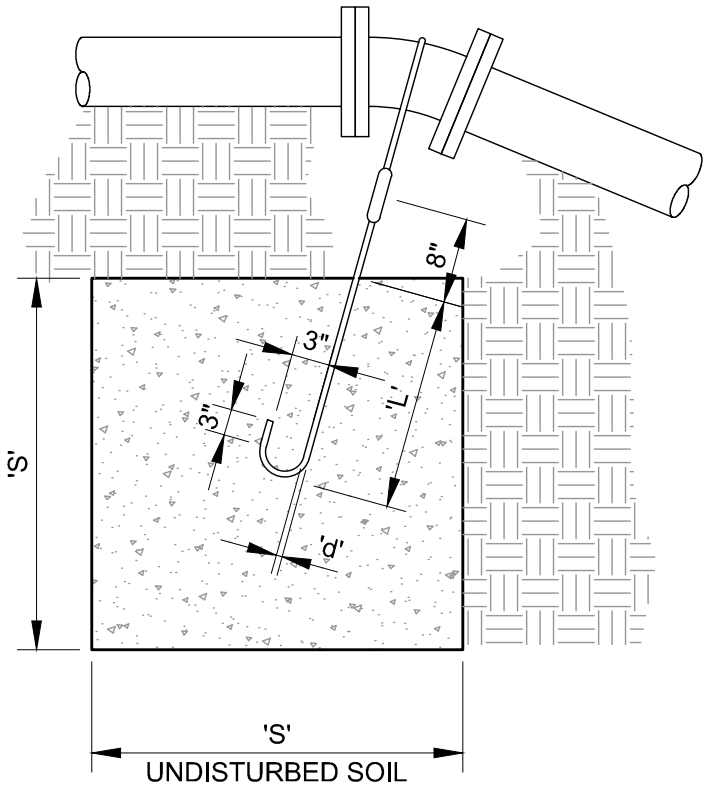
REV.	
0	

DIRECT BEARING THRUST BLOCK

561



TYPE A RESTRAINT

FOR 11 ¼° - 22 ½° VERTICAL BENDS

TABLE OF DIMENSIONS					
			'S'	'd'	'L'
SIZE OF PIPE (NOMINAL DIAMETER)	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	SIDE OF CUBE - FEET	DIAMETER OF SHANK OR REBAR RODS - INCH	DEPTH OF ROD IN CONCRETE - FEET
4"	11 1/4	9.5	2.2	⅝"	1.5
	22 1/2	19.0	2.7	⅝"	2.0
6"	11 1/4	20	2.7	⅝"	2.0
	22 1/2	40	3.4	⅝"	2.0
8"	11 1/4	34	3.3	⅝"	2.0
	22 1/2	68	4.1	⅝"	2.0
10"	11 1/4	51	3.8	⅝"	2.0
	22 1/2	102	4.7	¾"	3.0
12"	11 1/4	72	4.2	⅝"	2.0
	22 1/2	143	5.3	¾"	3.0
14"	11 1/4	97	4.6	⅞"	3.0
	22 1/2	193	5.8	⅞"	3.0
16"	11 1/4	125	5.0	⅞"	3.0
	22 1/2	249	6.3	⅞"	4.0

NOTE:

1. RESTRAINT SIZING IS BASED UPON A MAXIMUM OPERATING PRESSURE OF 150 PSI AND A TEST PRESSURE OF 250 PSI, AND A MINIMUM SOIL BEARING STRENGTH OF 2,000 PSF. OPERATING PRESSURES IN EXCESS OF 150 PSI OR SOILS WITH LESS THAN 2,000 POUND BEARING STRENGTH WILL REQUIRE SPECIAL DESIGN.
2. PIPE SIZE EXCEEDING 16" REQUIRES SPECIAL DESIGN.
3. SIDE WALLS OF THRUST BLOCK SHALL BE FORMED WITH VERTICAL SIDES.
4. DO NOT ENCASE ADJACENT FITTINGS AND BOLTS.
5. DO NOT THRUST AGAINST ADJACENT PIPES.
6. APPLY WAX TAP COATING SYSTEM TO EXPOSED SHANK AND REBAR RODS, AWWA C217. SYSTEM TO INCLUDE FILLER MATERIAL, TAPE COATING, AND PROTECTIVE OUTER WRAP. DENSO N.A., TRENTON, OR APPROVED EQUAL.
7. SHANK AND REBAR MATERIALS SHALL BE EPOXY COATED AT LEAST 15 MILS THICK.
8. REINFORCEMENT SHALL BE DEFORMED STEEL, ASTM A 615. MINIMUM STRESS YIELD STRENGTH OF STEEL TIE-DOWN BARS IS 70,000 KSI.

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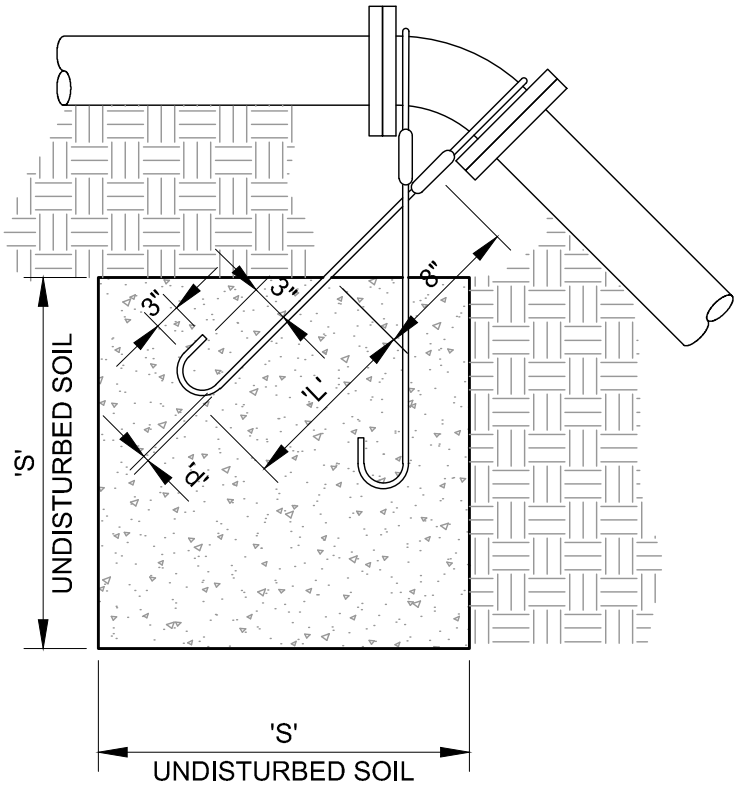
PARK CITY MUNICIPAL CORPORATION
WATER

DATE	TIE-DOWN THRUST RESTRAINTS	STD. PLAN
3/2014		562-A
REV.		
0		



TYPE B RESTRAINT

FOR 45° VERTICAL BENDS

TABLE OF DIMENSIONS					
			'S'	'd'	'L'
SIZE OF PIPE (NOMINAL DIAMETER)	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC YARDS	SIDE OF CUBE - FEET	DIAMETER OF SHANK OR REBAR RODS - INCH	DEPTH OF ROD IN CONCRETE - FEET
4"	45	1.4	3.4	5/8" 5/8"	2.0
6"	45	2.8	4.3	5/8" 5/8"	2.5
8"	45	4.9	5.1	5/8" 5/8"	3.0
10"	45	7.3	5.9	5/8" 5/8"	4.0
12"	45	10.4	6.8	3/4" 3/4"	4.0
14"	45	14.0	7.3	3/4" 3/4"	4.0
16"	45	18.1	7.9	3/4" 3/4"	4.0

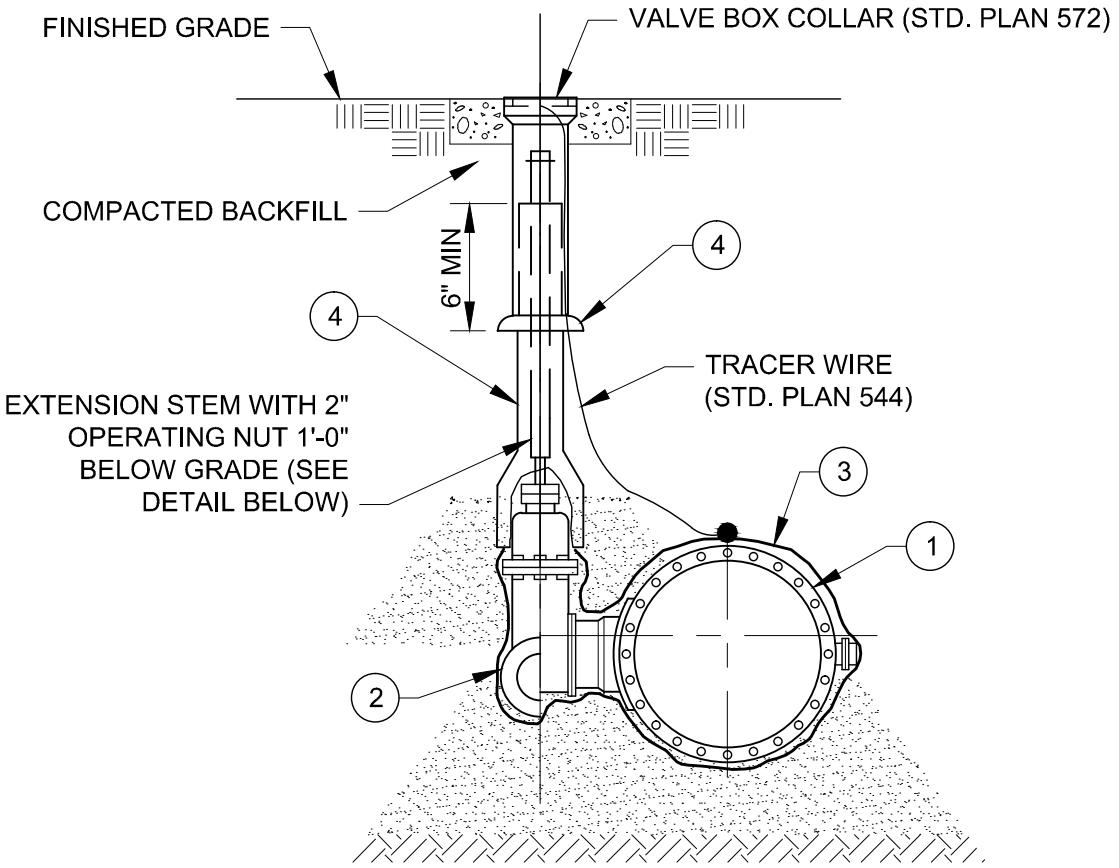
NOTE:

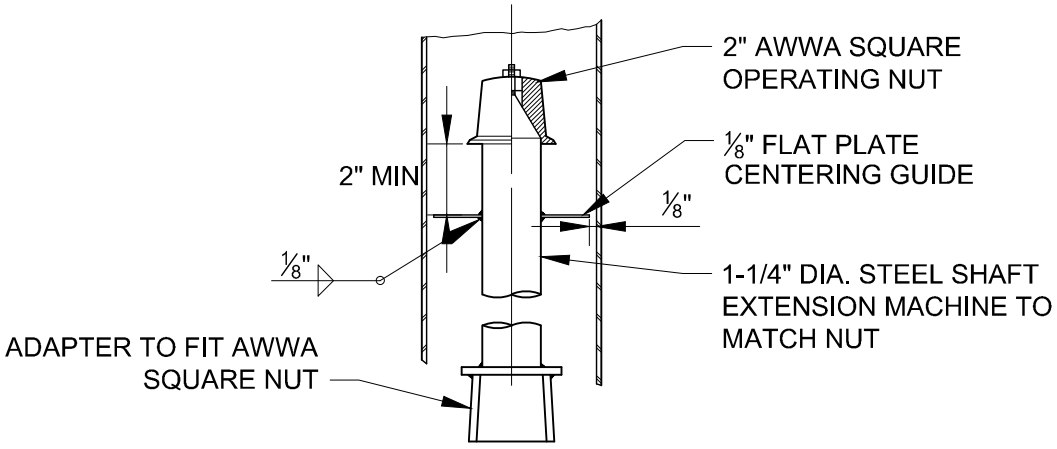
1. RESTRAINT SIZING IS BASED UPON A MAXIMUM OPERATING PRESSURE OF 150 PSI AND A TEST PRESSURE OF 250 PSI, AND A MINIMUM SOIL BEARING STRENGTH OF 2,000 PSF. OPERATING PRESSURES IN EXCESS OF 150 PSI OR SOILS WITH LESS THAN 2,000 POUND BEARING STRENGTH WILL REQUIRE SPECIAL DESIGN.
2. PIPE SIZE EXCEEDING 16" REQUIRES SPECIAL DESIGN.
3. SIDE WALLS OF THRUST BLOCK SHALL BE FORMED WITH VERTICAL SIDES.
4. DO NOT ENCASE ADJACENT FITTINGS AND BOLTS.
5. DO NOT THRUST AGAINST ADJACENT PIPES.
6. APPLY WAX TAP COATING SYSTEM TO EXPOSED SHANK AND REBAR RODS, AWWA C217. SYSTEM TO INCLUDE FILLER MATERIAL, TAPE COATING, AND PROTECTIVE OUTER WRAP. DENSO N.A., TRENTON, OR APPROVED EQUAL.
7. SHANK AND REBAR MATERIALS SHALL BE EPOXY COATED AT LEAST 15 MILS THICK.
8. REINFORCEMENT SHALL BE DEFORMED STEEL, ASTM A 615. MINIMUM STRESS YIELD STRENGTH OF STEEL TIE-DOWN BARS IS 70,000 KSI.

PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	TIE-DOWN THRUST RESTRAINTS	STD. PLAN
3/2014		562-B
REV.		
0		





EXTENSION STEM

NOTES:

1. REFER TO STD. PLAN 570 S FOR LEGEND ITEMS, APPROVED PARTS LIST, AND DETAIL NOTES.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**BURIED VALVE AND VALVE BOX**	STD. PLAN **570**

LEGEND AND APPROVED PARTS LIST

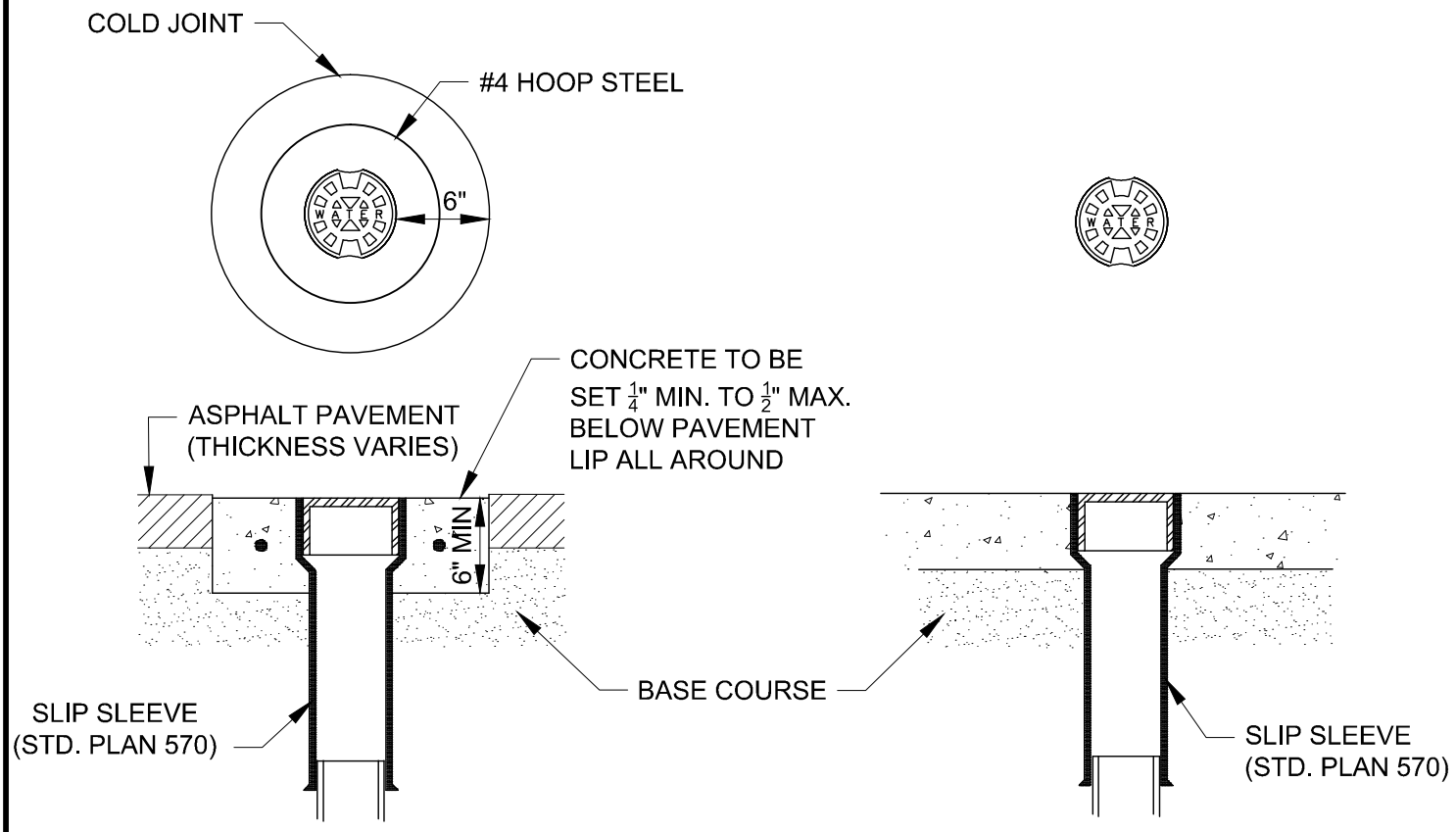
ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	BUTTERFLY VALVE, NRS, AWWA C504 CLASS 250B, 250 PSI, SST BONNET BOLTS, FLANGED END CONNECTIONS	MUELLER	LINESEAL XPII, 5227 SERIES
		CLOW	MODEL 4500
②	GATE VALVE, NRS, AWWA C509, 250 PSI, SST BONNET BOLTS, END CONNECTIONS PER FOLLOWING: ON TEES: FLG x FLG IN-LINE VALVES: MJ x MJ OTHERS: MJ x MJ, OR PER DESIGN	MUELLER	SERIES 2360
		CLOW	MODEL 2639
③	POLYETHYLENE ENCASEMENT, HIGH DENSITY CROSS LAMINATED (HDCL) POLYETHYLENE FILM, AWWA C105 & AWWA C703E METHOD C	CHRISTY'S OR APPROVED EQUAL	AWWA C703E METHOD C (4 MIL)
④	VALVE BOX, CAST IRON, TWO PIECE, SLIP TYPE WITH CAST IRON DROP-IN COVER MARKED AS FOLLOWS: ISOLATION VALVE: "WATER" BUTTERFLY VALVE: "BFV" ZONE VALVE: "ZONE" FIRE LINE VALVE: "FIRE" VALVE BOX RISER: LIMIT ONE PER VALVE BOX	D&L SUPPLY OR APPV'D EQUAL	BOX AND LID: M-8042 RISER: M-8049 THRU M-8055 EXTENSION: M-8070

DETAIL NOTES

1. VALVES TO BE RATED FOR WORKING AND TEST PRESSURE OF WATER MAIN
2. PROVIDE FUSION BONDED EPOXY COATING ON GATE VALVE AND BUTTERFLY VALVE INTERIOR AND EXTERIOR
3. PROVIDE 316 SST BOLTS AND NUTS WITH ANTI-SEIZE LUBRICANT ON FLANGED CONNECTIONS
4. DO NOT LOCATE VALVE AND VALVE BOX WITHIN CURB OR GUTTER
5. CENTER VALVE BOX ON VALVE OPERATING NUT
6. SET VALVE BOX PLUMB WITHOUT DEFLECTIONS IN VALVE BOX JOINTS
7. PROVIDE ADDITIONAL SLIP BASE FOR VALVE BOX ON 7' BURY WATER MAIN
8. APPLY WAX TAPE COATING SYSTEM TO VALVE BONNET BOLTS AND ALL OTHER BURIED BOLTS AND NUTS, AWWA C217. SYSTEM TO INCLUDE FILLER MATERIAL, TAPE COATING, AND PROTECTIVE OUTERWRAP. DENSO NORTH AMERICA, TRENTON, OR APPROVED EQUAL (STD. PLAN 534)

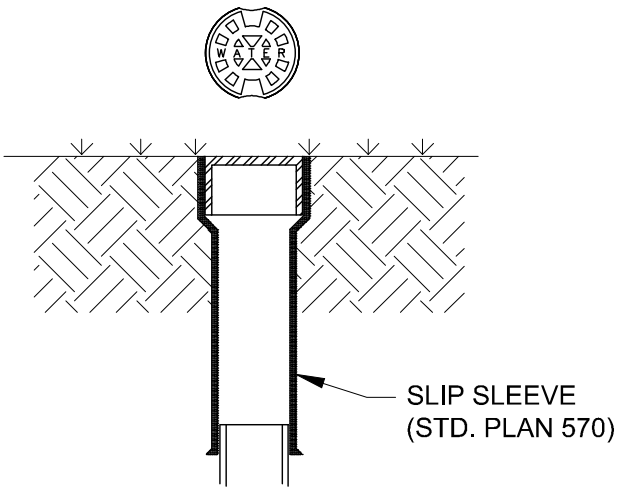
PARK CITY MUNICIPAL CORPORATION
WATER

DATE	BURIED VALVE AND VALVE BOX	STD. PLAN
4/2014		570 S
REV.		



ASPHALT PAVEMENT

CONCRETE PAVEMENT



LANDSCAPED AREA

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**VALVE BOX COLLAR**	STD. PLAN **572**

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO PARK CITY DESIGN STANDARDS, CONSTRUCTION SPECIFICATIONS, AND STANDARD DRAWINGS.

2. SUBMIT SHOP DRAWINGS TO DESIGN ENGINEER AND CITY ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. INCLUDE MECHANICAL, STRUCTURAL, ELECTRICAL AND INSTRUMENT DRAWINGS IDENTIFYING CONDUIT, CONDUCTOR, CABLE, SIZE AND ROUTINGS FOR POWER, GROUNDING, INSTRUMENTATION, AND CONTROLS, OPENINGS, PIPE, VALVES, HATCH, AND ALL VAULT COMPONENTS.

3. VAULT BACKFILL: STRUCTURAL FILL MATERIAL COMPACTED TO 95% MINIMUM OF MODIFIED PROCTOR DENSITY.

4. DUCTILE IRON PIPE, FITTINGS, COUPLERS, FLANGES, ETC. SHALL BE IN ACCORDANCE WITH AWWA C153, C111, AND C110 AND RATED FOR A MINIMUM 250 PSI WORKING PRESSURE.

5. FLANGED JOINTS: 125 LB FLANGES, ANSI/AWWA C115/A21.15. "FULL FACE FLANGE-TYTE" GASKET OR "RING FLANGE-TYTE" GASKET (OR PRE-APPROVED EQUAL). GASKETS TO BE HIGH-PERFORMANCE TYPE, 1/8" THICK, AND HAVE AT LEAST (3) BULB TYPE RINGS MOLDED INTO BOTH GASKET FACES, ANSI/AWWA C110/A21.11.

6. FITTINGS: FULL BODY AWWA C110. NO COMPACT FITTINGS. DOMESTIC "MADE IN USA".

7. DUCTILE IRON PIPE AND FITTINGS: UNCOATED. PRIME AND PAINT WITH NSF APPROVED HIGH SOLIDS EPOXY PAINT, TNEMEC POTA-POX N140 OR PRE-APPROVED EQUAL. HIGH PRESSURE SIDE, LIGHT BLUE. LOW PRESSURE SIDE, OFF WHITE.

8. ALL VALVES INSIDE VAULT SHALL BE RATED FOR 250 PSI WORKING PRESSURE, OR HIGHER IF REQUIRED FOR PROJECT.

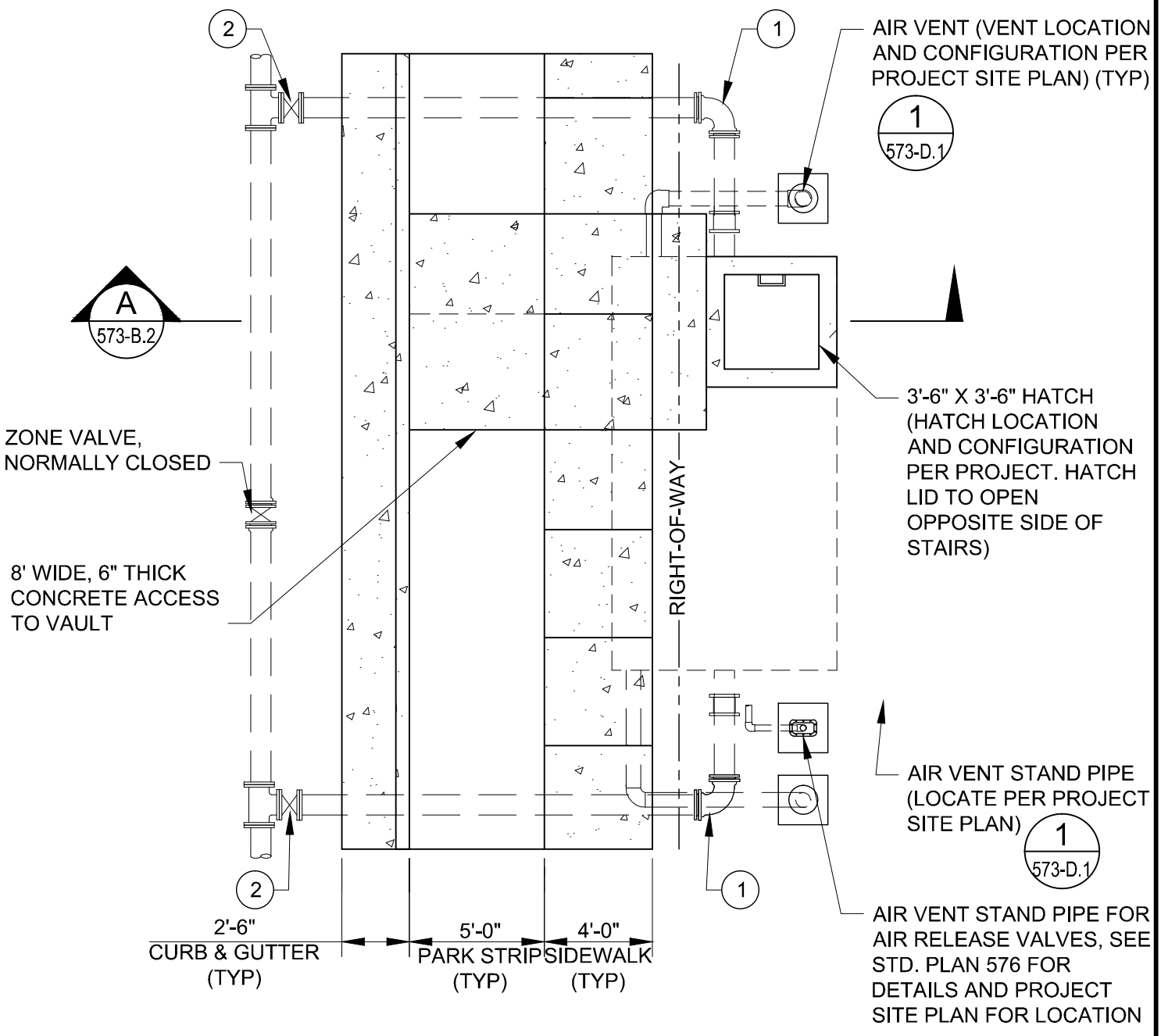
9. VAULT SHALL BE PRECAST CONCRETE. APPROVAL MUST BE GIVEN TO USE CAST IN PLACE CONCRETE. VAULT SHALL BE DESIGNED FOR HS-20 LOADING. THE LOCATION OF THE PRECAST JOINTS MUST BE APPROVED. SITE SPECIFIC APPROVAL REQUIRED.

10. SEAL ALL JOINTS WITH PREFORMED FLEXIBLE SEALANT CONFORMING TO ASTM C990, AND WRAP WITH EXTERNAL JOINT SEALANT MEETING ASTM C877. FILL JOINTS INSIDE VAULT WITH CAULK OR GROUT.

11. PROVIDE (2) 8 HR DAYS FOR TESTING, STARTUP, AND TRAINING FOR PRV VALVES WITH MANUFACTURER REPRESENTATIVE.

12. SEAL ALL VAULT PENETRATIONS WITH HYDROPHILIC NON-SHRINK GROUT.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-A**



VAULT LOCATION PLAN

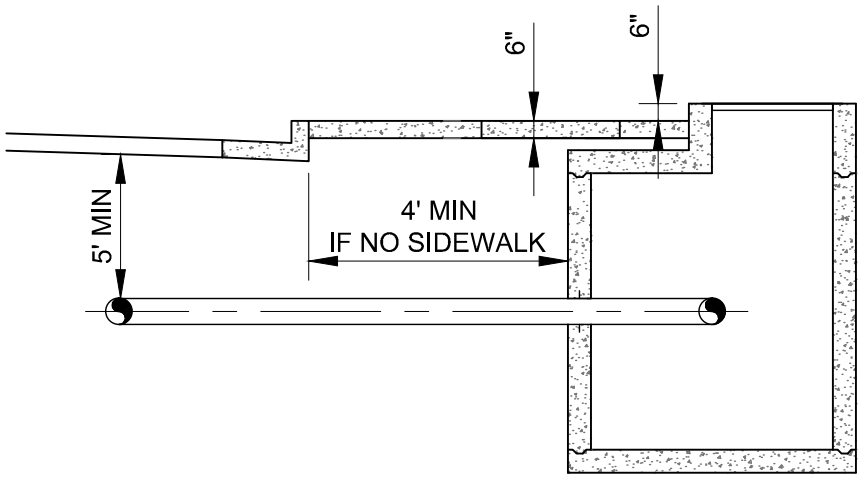
NTS

NOTES:

1. FOR GENERAL NOTES, SEE STD. PLAN 573-A, AND FOR (#) KEYED ITEMS, SEE STD. PLAN 573-C.3 AND C.4.

2. SITE SPECIFIC APPROVAL REQUIRED. NEW EASEMENTS WILL BE REQUIRED IF VAULT IS LOCATED OUTSIDE OF PROPERTY LINE.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-B.1**



VAULT SECTION A
NTS 573-B.1

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-B.2**

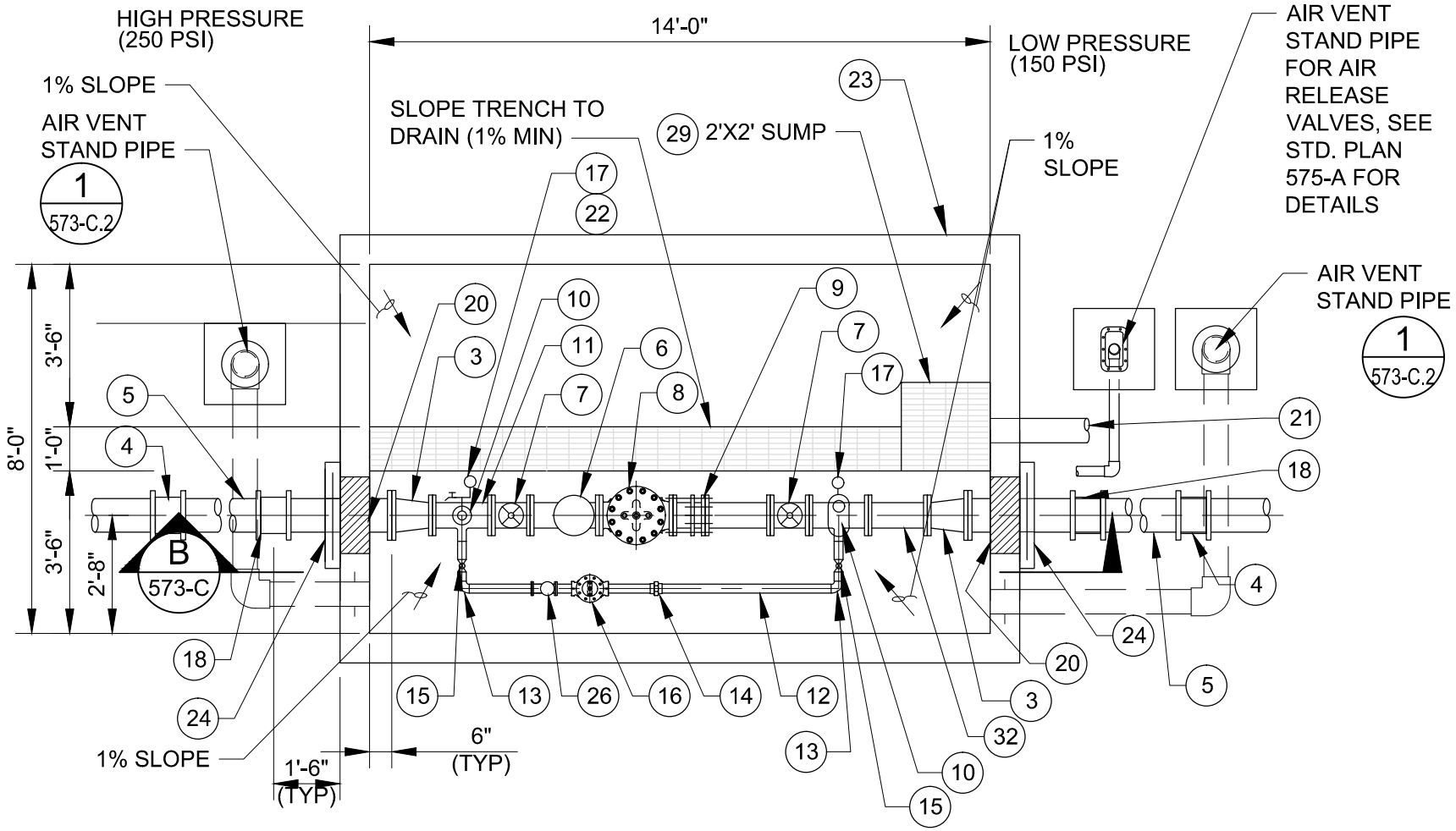
PARK CITY MUNICIPAL CORPORATION
WATER

DATE	REV.
2/2014	0

PRESSURE REDUCING VALVE VAULT

573-B

STD. PLAN



BASIC VAULT - PLAN VIEW

NTS

NOTE:

1. FOR GENERAL NOTES AND (#) KEYED ITEMS, SEE STANDARD PLAN 573-E.
2. SEE PROJECT SITE PLAN FOR ACTUAL LOCATION OF VENT STAND PIPES, HATCH, SUMP, AND HIGH/LOW PRESSURE SIDES.

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	REV.
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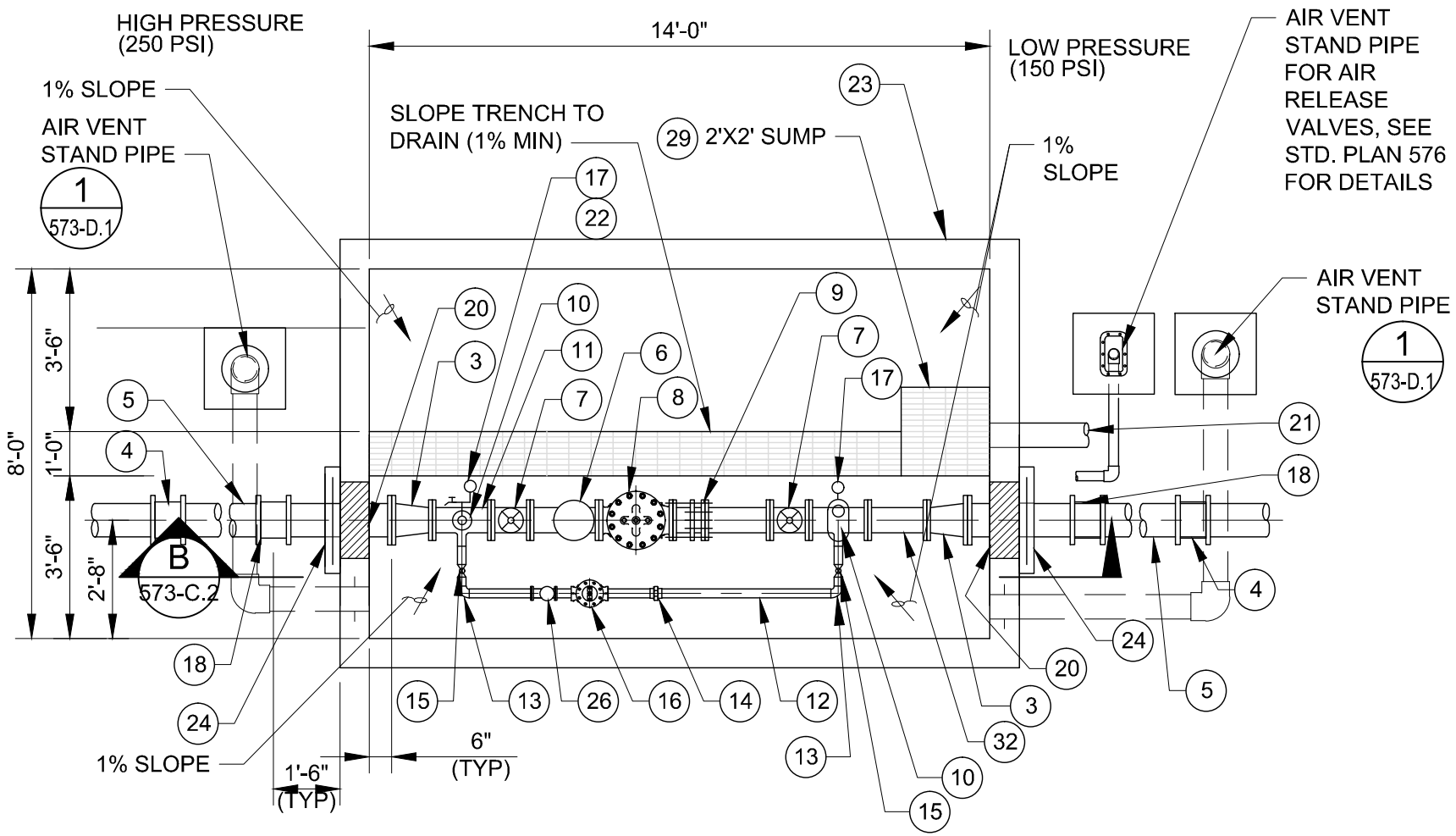
PRESSURE REDUCING VALVE VAULT

573-C.1

STD. PLAN

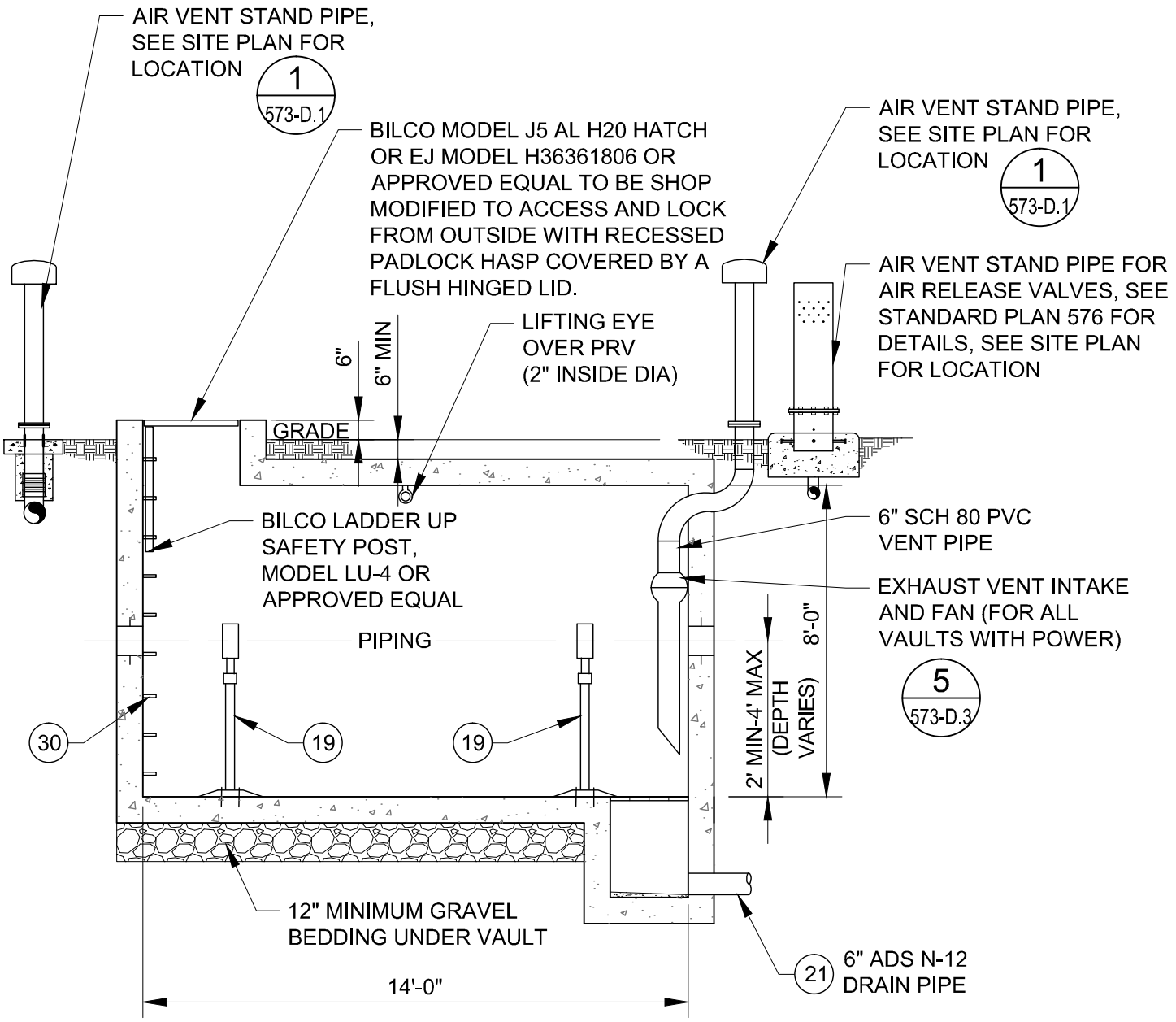


BASIC VAULT - PLAN VIEW

NTS

NOTE:

1. FOR GENERAL NOTES, SEE STD. PLAN 573-A, AND FOR (#) KEYED ITEMS, SEE STANDARD PLAN 573-C.3 AND C.4.
2. SEE PROJECT SITE PLAN FOR ACTUAL LOCATION OF VENT STAND PIPES, HATCH, SUMP, AND HIGH/LOW PRESSURE SIDES.



VAULT SECTION B
NTS
573-C.1

NOTES:
1. FOR GENERAL NOTES, SEE STD. PLAN 573-A, AND FOR (#) KEYED ITEMS, SEE STD. PLAN 573-C.3 AND C.4.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-C.2**

MATERIAL LIST

ITEM	PRESSURE REDUCING VALVE VAULT
1	INSTALL 8" WATER MAIN WITH 90° DI BENDS WITH RETAINER GLANDS AND THRUST BLOCKS
2	INSTALL 8" RESILIENT SEAT VALVE, FL X MJ, W/ TEE AND RETAINER GLANDS AND TRUST BLOCKS ON EXISTING WATER MAIN
3	8"X6" DI REDUCER FL X FL
4	8" DI WATER MAIN, USE FLEXIBLE OR DUCTILE IRON MJ SLEEVES (POWERSEAL MODEL 3506 POWERMAX OR EQUAL) AS NECESSARY TO LEVEL EXISTING LINES
5	8" DI PIPE
6	6" CLA-VAL X 43 H (H STYLE STRAINER), FLANGED ENDS, 10 MESH SCREEN, CAGE SUPPORT, AND O-RING
7	6" RESILIENT SEAT VALVE, FL X FL W/HAND WHEEL AND POSITION INDICATOR
8	6" PRESSURE REDUCING VALVE, CLA-VAL MODEL 92-01, STRAINERS, FLOW CONTROL SHUT OFF COCKS, FLOW STABILIZER, STAINLESS STEEL TRIM, FLANGE X FLANGE, AND E-FLOW METER MODEL X144 WITH 4-20mA OUTPUT TO READ AT SCADA (SUBMITTAL REQUIRED, PRESSURE SUSTAINING VALVE IS REQUIRED UNLESS NOTED OTHERWISE)
9	6" DISMANTLING JOINT, ROMAC DJ 400, OR EQUAL.
10	1" COMBINATION AIR VALVE WITH BALL VALVE ISOLATION, CLA-VAL MODEL 361-CAV564.3 OR EQUAL. VENT ABOVE GRADE. OBTAIN OWNER APPROVAL FOR VENT PIPE ROUTING. SEE STD. PLAN 576 FOR DETAILS (SIMILAR).
11	6" X 6" X 2" DI TEE FL X FL X IP THREAD WITH TAP FOR PRESSURE GAUGE (ITEM 17), AND HOSE BIBBS (ITEM 22), AND AIR VALVE (ITEM 10)
12	2" BRASS OR RIGID COPPER PIPE, SCHEDULE 40, THREADED, TYPICAL
13	2" BRONZE 90° ELBOW, THREADED
14	2" BRONZE UNION COUPLING, THREADED
15	2" THREADED BRONZE BALL VALVE WITH HANDLE, 300 PSI, MUELLER 300
16	2" PRESSURE REDUCING VALVE CLA-VAL 92-01, STRAINERS, FLOW CONTROL SHUT OFF COCKS, FLOW STABILIZER, STAINLESS STEEL TRIM, THD X THD, AND E-FLOW METER MODEL X144 WITH 4-20mA OUTPUT TO READ AT SCADA (SUBMITTAL REQUIRED, PRESSURE SUSTAINING VALVE IS REQUIRED UNLESS NOTED OTHERWISE)
17	2" LIQUID FILLED PRESSURE GAUGE, GRADE B, UPSTREAM (0-300 PSI) DOWNSTREAM (0-200 PSI), THREADED, WITH STEM VALVE - SEE STD. PLAN 573-D.1
18	8" MJ SOLID SLEEVE, MEGA-LUG RESTRAINTS WITH COR-TEN TEE BOLTS

PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

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PRESSURE REDUCING VALVE VAULT

STD. PLAN

573-C.3

MATERIAL LIST (CON'T)

ITEM	PRESSURE REDUCING VALVE VAULT
19	2" STEEL PIPE SUPPORT STAND, ADJUSTABLE (2 REQUIRED ON 6" PIPE SYSTEM, 2 REQUIRED ON 2" PIPE SYSTEM), SEE STD. PLAN 578
20	CORE DRILL OPENING WITH LINK-SEAL PIPE-TO-WALL SEAL. TYPICAL ON ALL OPENING. FILL OUTSIDE OPENINGS WITH NON-SHRINK GROUT AND CAULK
21	DRAIN SUMP, PIPE TO DAYLIGHT WITH DRAIN PIPE AND #4 SST RODENT PROTECTION SCREEN ON END OF PIPE. ROUTE AS SHOWN ON SITE PLAN. IF NO PIPE-TO-DAYLIGHT OPTION IS AVAILABLE, INSTALL A SUMP PUMP. SEE STD. PLAN 573-D.2
22	3/4" HOSE BIBBS, I.P. THREAD - SEE STD. PLAN 573-D.1
23	VAULT IN ACCORDANCE WITH 573-A AND 573-B A. PRECAST CONCRETE VAULT RATED FOR HS-20 LOADING. MAY BE CAST IN PLACE PER CITY APPROVAL. PROVIDE STAMPED STRUCTURAL DRAWINGS B. WATERPROOF OUTSIDE WALLS AND TOP SLAB PER IBC CODE FOR BURIED FOUNDATIONS
24	MECHANICAL JOINT DUCTILE IRON RETAINER GLAND WITH CONCRETE THRUST BLOCK, REINFORCE CONCRETE WITH (4) #4 EACH SIDE OF PIPE.
25	6"X6"X3" DI TEE FLANGE X FLANGE X FLANGE
26	2" CLA-VAC X 43H (H STYLE STRAINER), FLANGED ENDS, 10 MESH SST SCREEN, CAGE SUPPORT, AND O-RING
27	3" PRESSURE RELIEF VALVE, CLA-VAL MODEL 50A-01 BKCX WITH MOUNTED LIMIT SWITCH OR MICRO SWITCH WITH SCADA CONNECT FOR "OPEN" ALARM CONDITION, SEE STD. PLAN 573-D.2
28	IN-LINE GAUGE PRESSURE TRANSMITTER, ROSEMOUNT MODEL 3051TG 800 PSI ASSEMBLED TO INTEGRAL, 2-VALVE, ROSEMOUNT 306 MANIFOLD. SEE STD. PLAN 573-D.1. 4-20 MA ANALOG
29	FRP GRATING, 1-1/2" THICK MIN. AND RATED FOR 300 LB/FT PEDESTRIAN TRAFFIC. INSIDE TRENCH WIDTH TO BE 8" MINIMUM, AND 2-1/2" DEEP.
30	VAULT LADDER, SEE DETAIL 7 ON 573-D.4
31	SUMP PUMP: 2" SUMP PUMP, TSURUMI MODEL HSZ2.4S-62 OR EQUAL. SUMP PUMP REQUIRED IF DRAIN TO DAYLIGHT NOT AVAILABLE, SEE STD. PLAN 573-D.2
32	6" DI PIPE. IF VAULT HAS POWER, THIS ITEM SHALL BE REPLACED WITH ITEMS 25 AND 27.

PARK CITY 1884

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DATE	PRESSURE REDUCING VALVE VAULT	STD. PLAN
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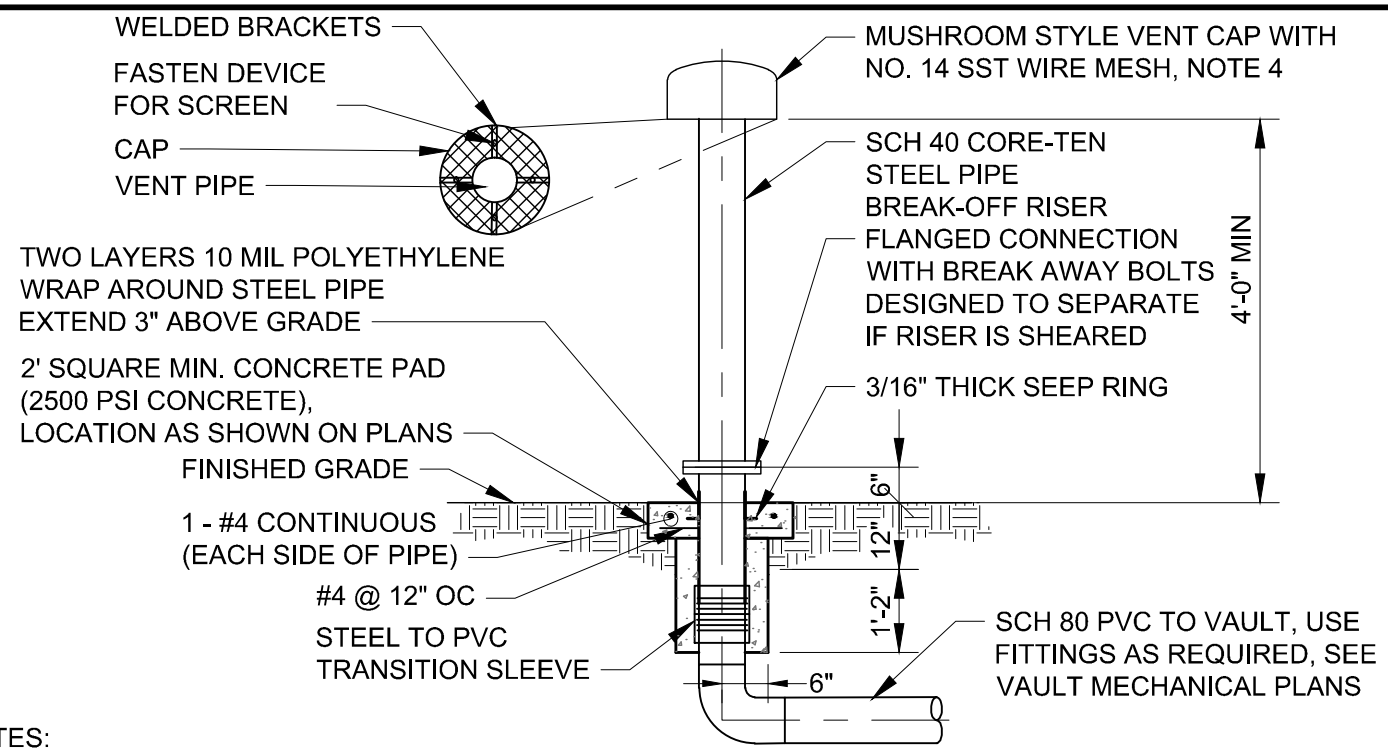


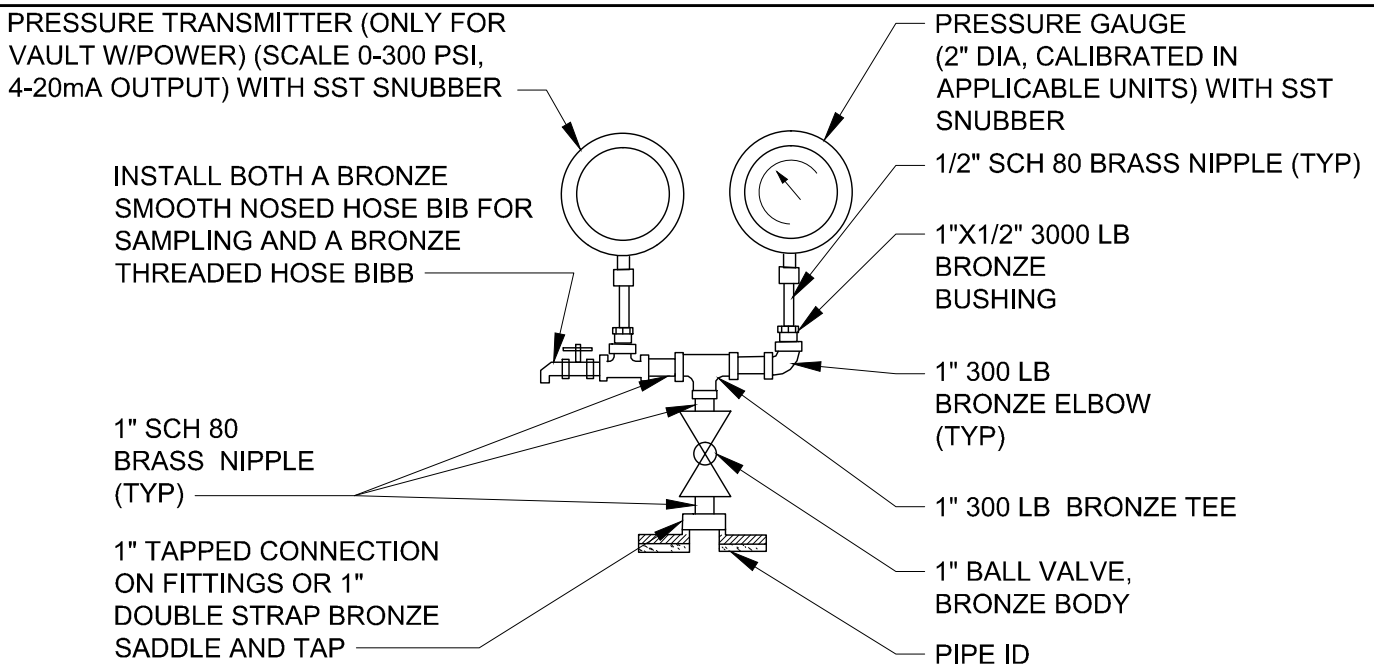
NOTES:

1. WELD ALL STEEL FITTINGS EXCEPT MATCHING BOLT ON FLANGE.
2. ALL ABOVE GRADE STEEL PIPING SHALL BE CORE-TEN.
3. VENT CAP SHALL BE 12" DIA FOR 6" VENT PIPE. OTHER SIZES SHALL BE PROJECT SPECIFIC.
4. STEEL WALL PIPE WITH SEEP RING SHALL BE CAST IN VAULT FOR VENT PIPES INSTALLED ON TOP OF VAULTS.

AIR VENT STAND PIPE

NTS

1 — 573-B, 573-C



PRESSURE GAUGE AND TRANSMITTER DETAIL

NTS

2 — 573-C

PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION

WATER

DATE	STD. PLAN
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REV.	
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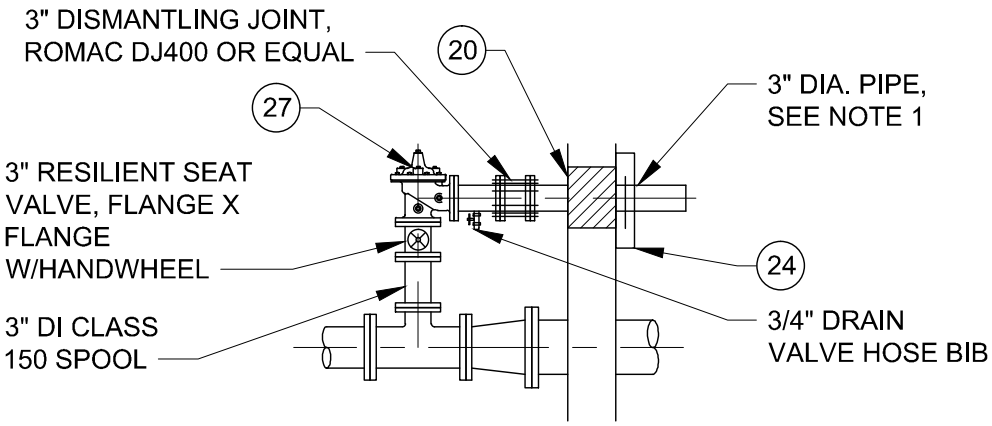
PRESSURE REDUCING VALVE VAULT

573-D.1



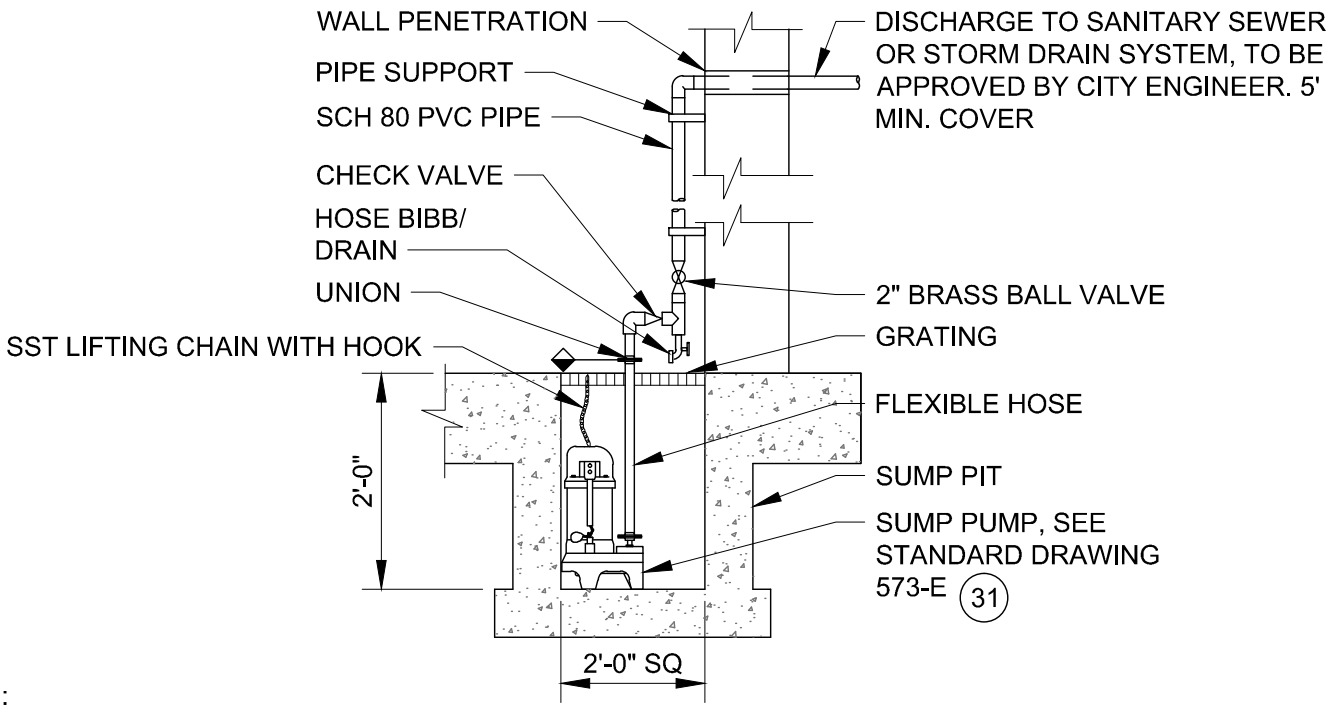
NOTES:

1. ROUTE TO NEAREST APPROVED DISCHARGE LOCATION WITH 12" AIR GAP AND #4 SST MESH SCREEN BETWEEN FLANGES AND EROSION CONTROL. ALL FITTINGS MUST BE FLANGED OR RESTRAINED. 5' MIN COVER.

2. FOR GENERAL NOTES, SEE STD. PLAN 573-A, AND FOR (#) KEYED ITEMS, SEE STD. PLAN 573-C.3 AND C.4

3" PRESSURE RELIEF VALVE DETAIL (3 / 573-C)

NTS



NOTES:

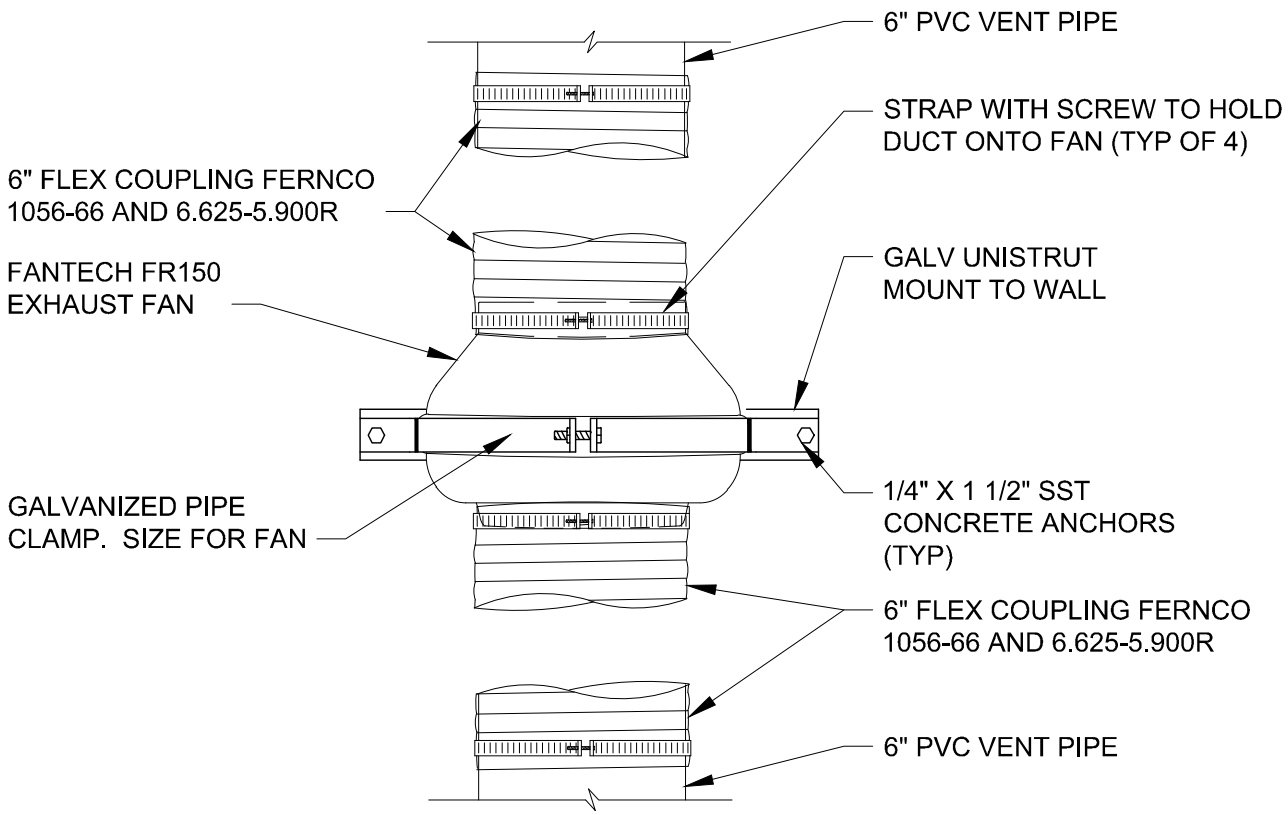
1. SUMP PUMP AND DISCHARGE PIPING SHALL NOT BE USED UNLESS SPECIFICALLY APPROVED BY THE CITY. SUMP SHALL DRAW TO DAYLIGHT UNLESS OTHERWISE APPROVED.

2. FOR GENERAL NOTES, SEE STD. PLAN 573-A, AND FOR (#) KEYED ITEMS, SEE STD. PLAN 573-C.3 AND C.4

TYPICAL SUMP SECTION DETAIL (4 / 573-C)

NTS

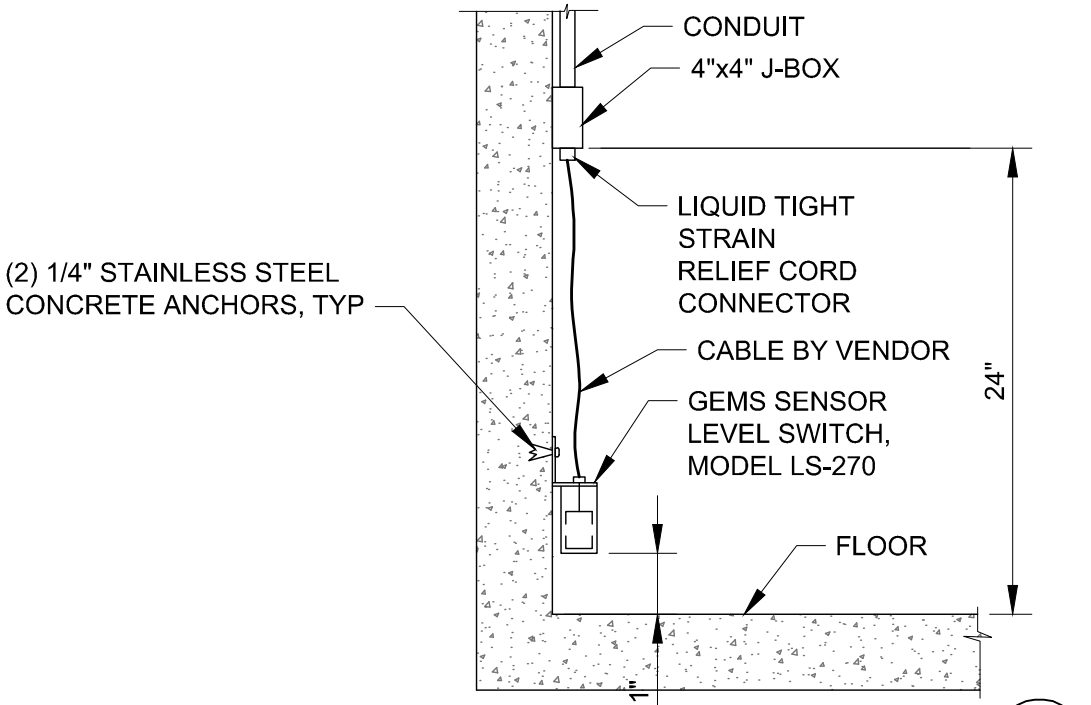
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-D.2**



IN-LINE EXHAUST FAN DETAIL 5

NTS

573-C, 573-E



FLOOD SWITCH INSTALLATION DETAIL 6

NTS

573-E

PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION

WATER

DATE	STD. PLAN
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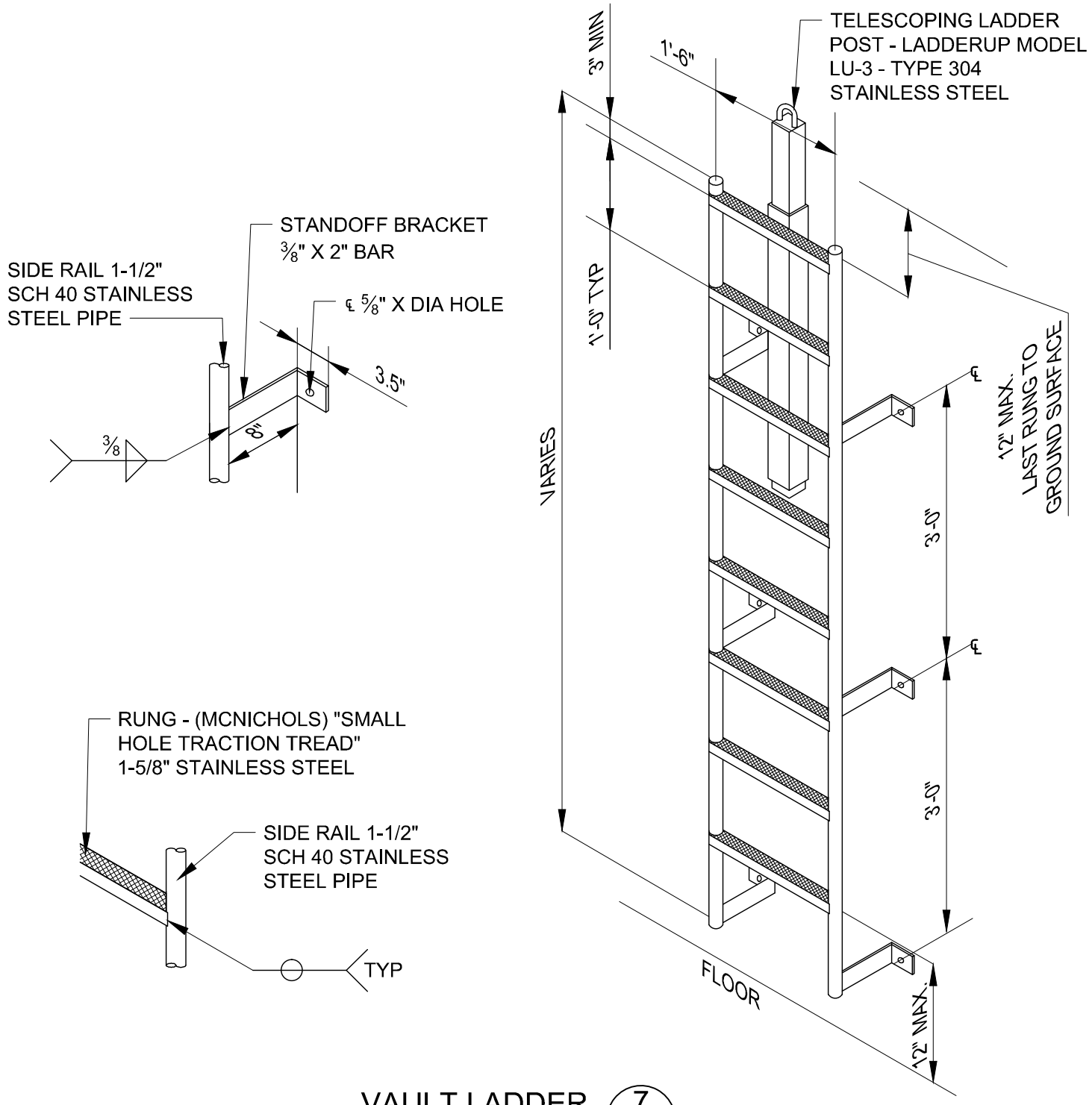
PRESSURE REDUCING VALVE VAULT

573-D.3



VAULT LADDER 7
NTS 573-C

NOTE:
1. LADDER, ANCHORS, AND BOLTS TO BE STAINLESS STEEL

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-D.4**

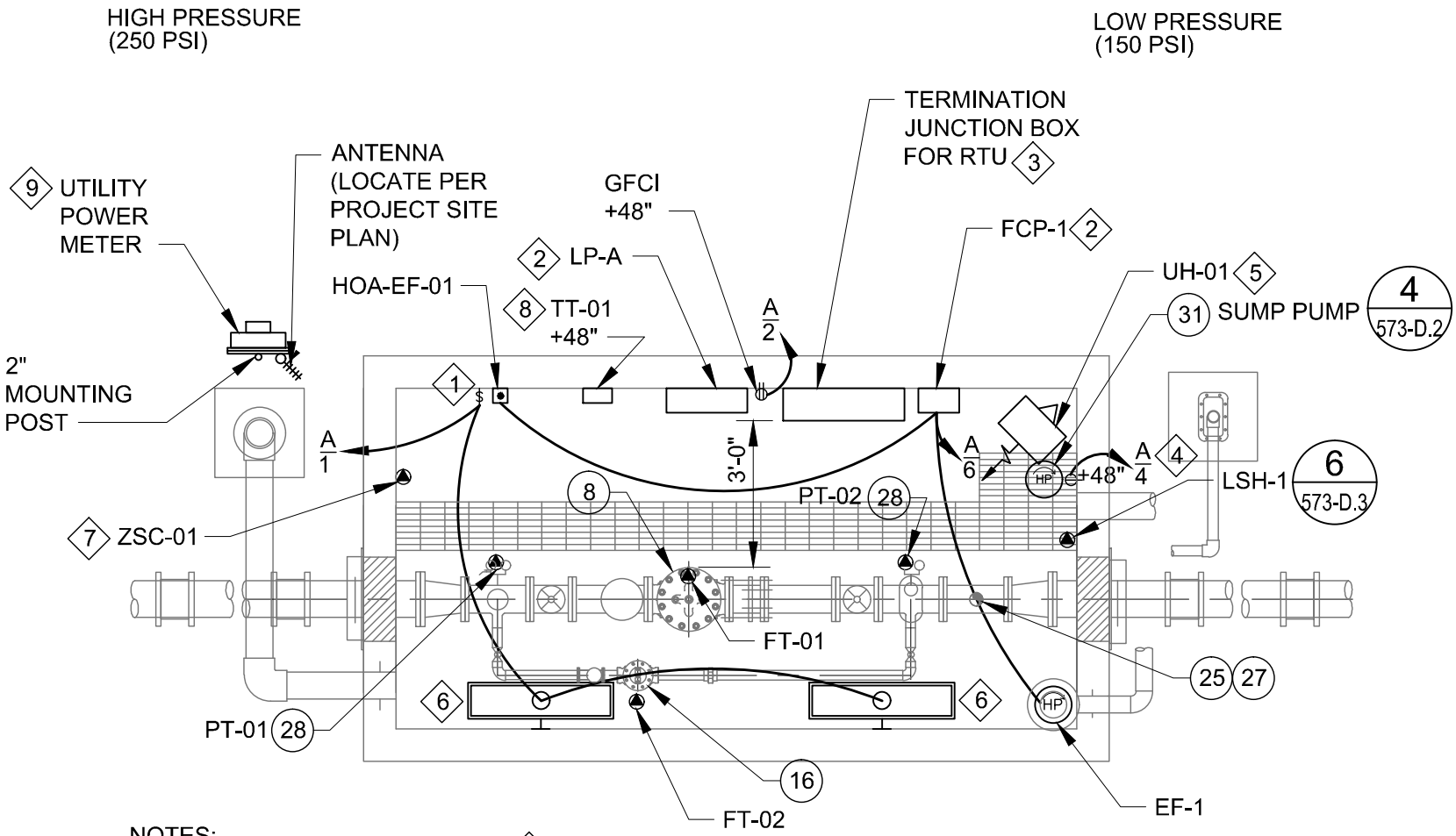
PARK CITY MUNICIPAL CORPORATION
WATER

DATE	REV.	
4/2014	0	

PRESSURE REDUCING VALVE VAULT

573-E.1

STD. PLAN



NOTES:

1. SEE STD. PLAN 573-E.3 FOR ◇# KEYED ITEMS.
2. FOR GENERAL NOTES, SEE STD. PLAN 573-A, AND FOR (#) KEYED ITEMS, SEE STD. PLAN 573-C.3 AND C.4
3. SEE STD. PLAN 573-E.2 FOR PANEL SCHEDULE.
4. SEE STD. PLANS 573-E.4 AND 573-E.5 FOR ONE LINE DIAGRAMS.

TYPICAL VAULT WITH POWER - PLAN VIEW

NTS

PANEL SCHEDULE LP-A

LOCATION: IN VAULT	MFGR: CULTER HAMMER OR EQUAL	100 AMPS	VOLTS: 120/240
DIMENSIONS: SIZE BY CONTRACTOR	TYPE: PANELBOARD	M.L.O.	PHASE: 1
MOUNTING: SURFACE	NEMA: 3R	50 M.C.B.	WIRES: 3
FEED: TOP		10000 A.I.C.	

					PHASE LOADS							
BRKR		DESCRIPTION	CONT. WATTS	N-CONT. WATTS	NO	A		B		NO	N-CONT. WATTS	CONT. WATTS	DESCRIPTION	BRKR	
A	P					CONT.	N-CONT.	CONT.	N-CONT.					A	P
20	1	LIGHTS		148	1	0	328			2	180		OUTLETS	15	1
20	1	RTU		500	3			0	1246	4	746		SUMP PUMP OUTLET	20	1
20	2	UNIT HEATER (UH-1)	1300		5	1300	560			6	560		FAN CONTROL PANEL	20	1
20	-	-	1300		7			1300	0	8			SPARE	20	1
20	1	SPARE			9	0	0			10			SPARE	20	1
20	1	SPARE			11			0	0	12			SPACE		
		SPACE			13	0	0			14			SPACE		
		SPACE			15			0	0	16			SPACE		
		SPACE			17					18			SPACE		
TOTAL WATTS:			2600	648		1,300	888	1,300	1246		1,486	0			

CONTINUOUS LOAD:	2600
CONTINUOUS LOAD *125%:	3,250
NON-CONTINUOUS LOAD:	2,134
DESIGN WATTS:	5,384
MIN. RATING (AMPS):	15

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
4/2014	
REV.	
0	

PRESSURE REDUCING VALVE VAULT

573-E.2

PANEL NOTE:

1. INSTALL WEATHERPROOF LIGHT SWITCH AND NEMA 4X HOA CONTROL BOX IN HATCH OPENING ABOUT 8" FROM TOP OF CONCRETE.

2. MAINTAIN NATIONAL ELECTRICAL CODE REQUIRED CLEARANCE AND WORKING SPACE AROUND PANELS.

3. COORDINATE WITH PCMC FOR RTU PANEL, ANTENNA, AND CABLE REQUIREMENTS. CONTRACTOR TO FURNISH AND INSTALL RTU PANEL, ANTENNA, ANTENNA MAST, CONDUIT, CONDUCTOR, AND CABLE WITH WIRING TERMINATIONS INSIDE THE RTU PANEL. CONTRACTOR TO SIZE RTU RELATED EQUIPMENT FOR 11 I/O POINTS INCLUDING 3 SPARES. (2 FLOW METERS, 2 PRESSURE TRANSDUCERS, 1 TEMPERATURE SENSOR, 1 FLOOD ALARM, 1 ENTRY SECURITY ALARM, 1 PRESSURE RELIEF OPEN ALARM, 2 SPARE DIGITAL INPUTS AND 1 SPARE ANALOG INPUT). PCMC WILL PROVIDE AND INSTALL A PRE-ASSEMBLED AND PRE-WIRED BACKPANEL IN RTU PANEL AND PROVIDE SCADA PROGRAMMING.

4. SUMP PUMP RECEPTACLE TO BE A 20 AMP, SIMPLEX, NON-GFCI OUTLET.

5. UNIT HEATER TO BE A 2600W, 240V, COMFORT HEATER WITH FAN AND INTEGRAL THERMOSTAT CHROMALOX LUH02 21 34 40 1 OR EQUAL. MOUNT ON CEILING USING CEILING MOUNT KIT. LOCATE ON OPPOSITE SIDE OF VAULT FROM HATCH DAYTON MODEL 24U58.

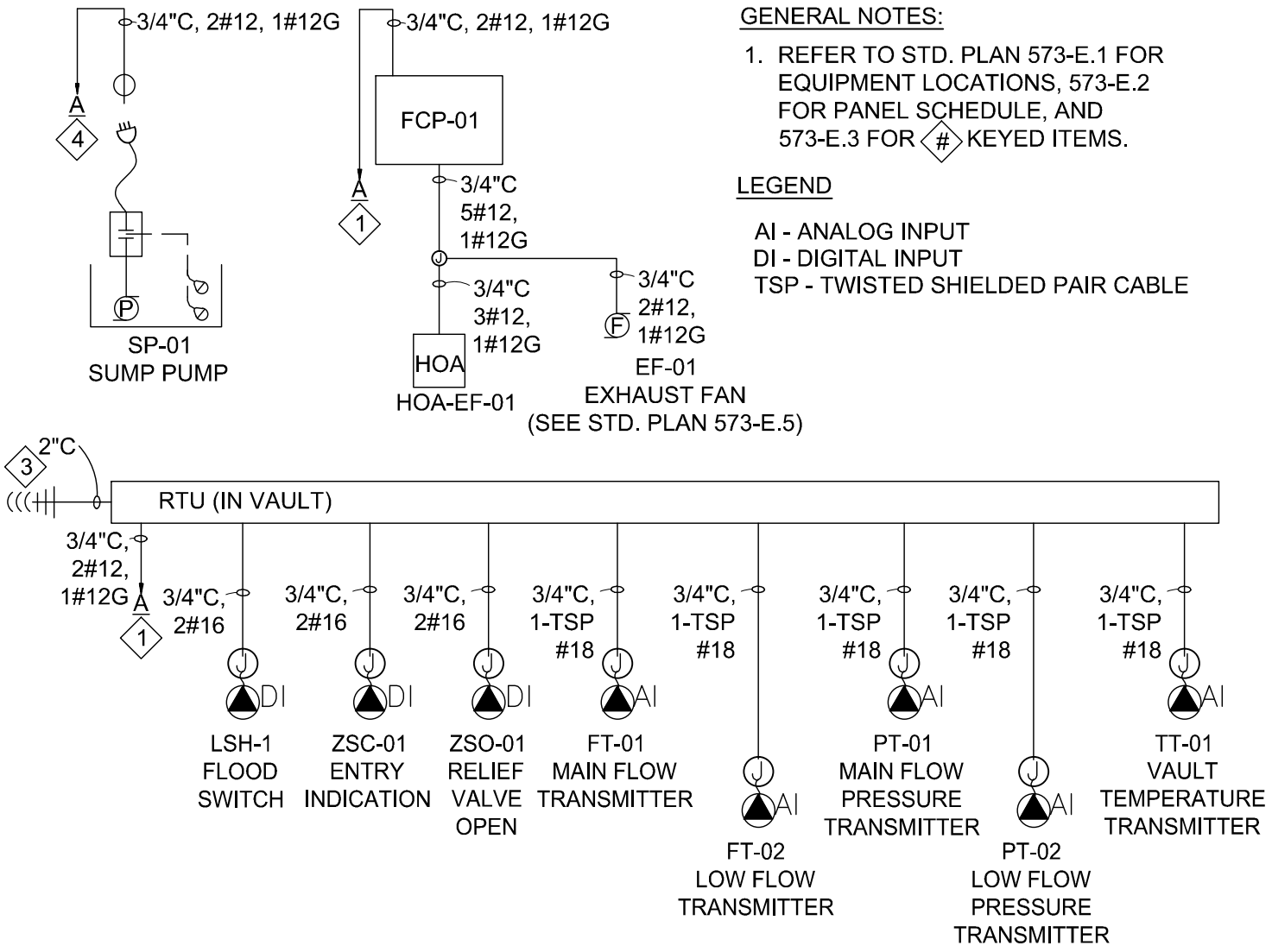
6. GASKETED AND ENCLOSED INDUSTRIAL FIXTURE, FIBERGLASS HOUSING, WET LOCATION TWO LAMP FLUORESCENT, 120 VOLT, INSTANT START ELECTRONIC BALLAST METALUX VT3-232DR-120V-EB81-WL-U OR EQUAL. MOUNT FIXTURE ON WALL AT ABOUT 7 FEET ABOVE FINISHED FLOOR.

7. NEMA 4 HEAVY-DUTY LIMIT SWITCH WITH 1NO 1NC CONTACT 5A 120 VAC. SQUARE D COMPANY, CLASS 9007 OR EQUAL.

8. ROOM TEMPERATURE DISPLAY AND 4-20 mA TRANSMITTER WITH 100 OHM PLATINUM RTD. DEVAR MODEL D-RTTI-0024.

9. INSTALL UTILITY POWER METER WITH 50 AMP BREAKER ON BACK TO BACK UNISTRUT TO 2" GALVANIZED STEEL POLE ACCORDING TO UTILITY COMPANY STANDARDS.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-E.3**



GENERAL NOTES:

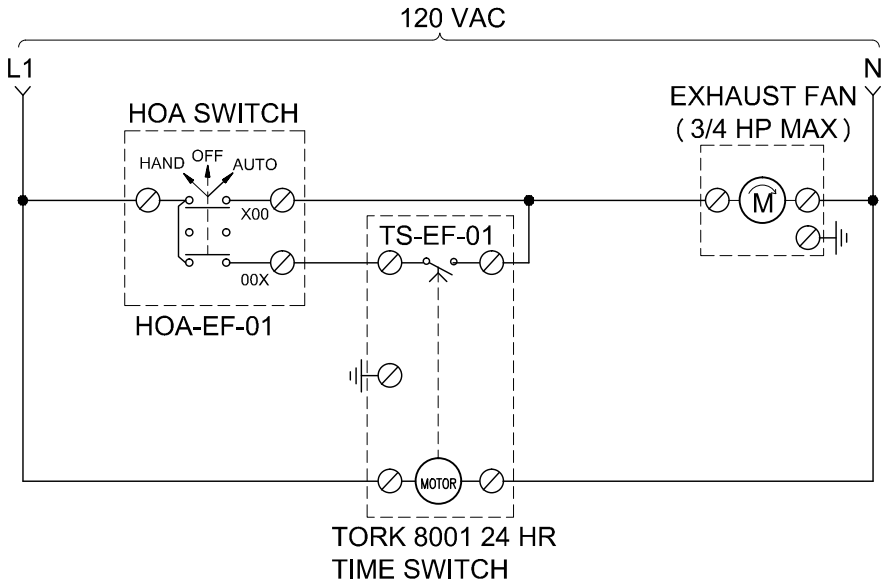
1. REFER TO STD. PLAN 573-E.1 FOR EQUIPMENT LOCATIONS, 573-E.2 FOR PANEL SCHEDULE, AND 573-E.3 FOR # KEYED ITEMS.

LEGEND

AI - ANALOG INPUT
DI - DIGITAL INPUT
TSP - TWISTED SHIELDED PAIR CABLE

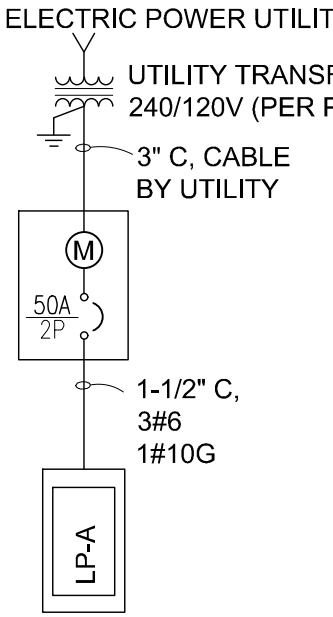
CONTROL ONE-LINE DIAGRAM

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**PRESSURE REDUCING VALVE VAULT**	STD. PLAN **573-E.4**



TYPICAL VAULT EXHAUST FAN CONTROL SCHEMATIC

NTS



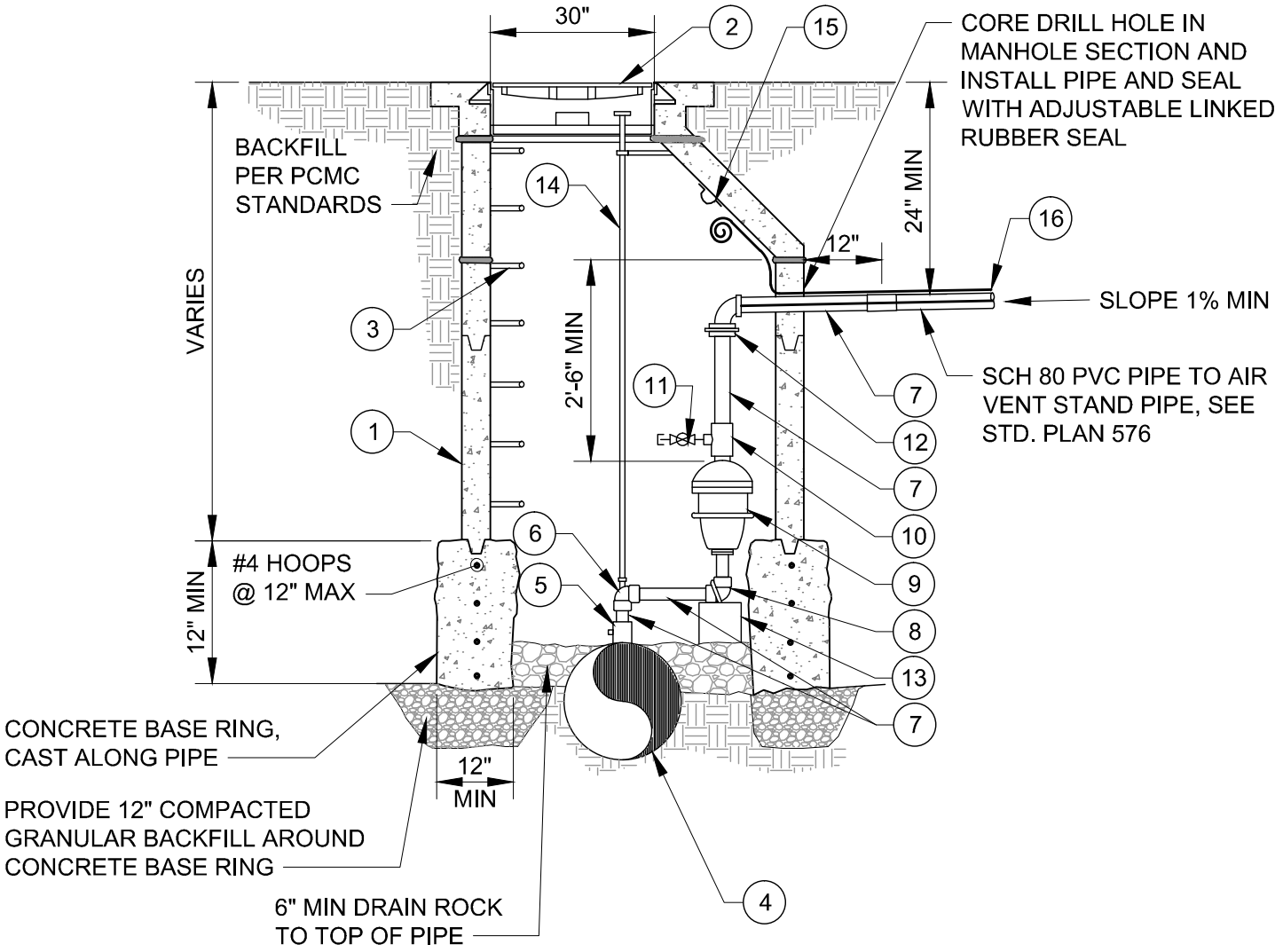
NOTE:
LARGER CONDUITS AND CONDUCTORS MAY BE REQUIRED TO MEET INDUSTRY STANDARD ACCEPTABLE VOLTAGE DROP CRITERIA.

POWER ONE-LINE

NTS

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	PRESSURE REDUCING VALVE VAULT	STD. PLAN
4/2014		573-E.5
REV.		
0		



PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**AIR RELEASE / CAV VALVE MANHOLE**	STD. PLAN **574**

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	5' DIA. MANHOLE, PRECAST CONCRETE ECCENTRIC CONE AND WALL SECTIONS		ASTM C 478
②	MANHOLE FRAME AND COVER (STD. PLAN 529)		
③	POLYPROPYLENE ENCASED GRADE 60 STEEL STEPS AT 13" C-C, 13-1/2" TREAD WIDTH	M.A. INDUSTRIES OR APP'D EQUAL	PS2-PFDF
④	VALVE LARGER THAN 2": DUCTILE IRON FLANGED TEE WITH 4" BLIND FLANGE BRONZE AND NPT SERVICE TAP VALVE 2" AND SMALLER: BRONZE SERVICE SADDLE DI MAIN; DOUBLE STRAP PVC MAIN; TWO-PIECE BOLTED	MUELLER	DI PIPE SADDLE: BR2B SERIES, I.P. THDS; PVC PIPE SADDLE: H-13000 SERIES, I.P. THDS
		FORD	DI PIPE SADDLE: STYLE 202B I.P. THDS; PVC PIPE SADDLE: STYLE S902, I.P. THDS
⑤	BRASS CORPORATION STOP, INLET I.P. THREAD, OUTLET F.I.P. THREAD (VALVE INLET SIZE)	MUELLER	B-20046N
		FORD	FB1100-(SERVICE SIZE)-G-NL
⑥	BRONZE ANGLE VALVE, 300 PSI (VALVE INLET DIAMETER)		
⑦	BRASS NIPPLES X LENGTH AS REQUIRED, M.I.P., (VALVE INLET DIAMETER)		
⑧	BRASS 90^0 ELBOW, F.I.P. (VALVE INLET/OUTLET DIAMETER)		
⑨	COMBINATION AIR VACUUM / RELEASE VALVE, NPT, SIZE PER ENGINEER DESIGN AND APPROVED PLANS		
⑩	BRONZE TEE, F.I.P., THREADED, (VALVE OUTLET DIAMETER X 3/4" DIA.)		
⑪	DRAIN ASSEMBLY: 3/4" DIA. BRASS CLOSE NIPPLE, M.I.P.; 3/4" BRONZE BALL VALVE; 3/4" BRONZE PLUG	MUELLER	SERIES 300 VALVE; H-10035
⑫	BRONZE UNION, (VALVE OUTLET DIAMETER)		
⑬	CAV ASSEMBLY SUPPORT, (1) 16"X8"X8" CMU BLOCK		
⑭	5/8" DIAMETER GALVANIZED STEEL ROD WITH 3" DIAMETER HAND WHEEL TO FORM EXTENSION, TOGETHER WITH A GALVANIZED EYELET STANDOFF		
⑮	LIFTING EYE ABOVE AIR VALVE, GALVANIZED		
⑯	TRACER WIRE: 12 GA. SOLID, BLUE PVC INSULATION; WIRE-WIRE CONNECTORS SILICONE-FILLED WIRE NUTS	IDEAL INDUSTRIES	TWISTER DB PLUS OR APP'D EQUAL

DETAIL NOTES

1. ALL VALVES AND FITTINGS SHALL BE RATED FOR THE SAME WORKING AND TEST PRESSURES AS THE CONNECTED WATERLINE
2. LOCATE VALVE, VAULT, AND AIR VENT PER APPROVED PLANS AND SET VAULT PLUMB
3. REFER TO STD. PLAN 575 FOR HEAT TRACE REQUIREMENTS

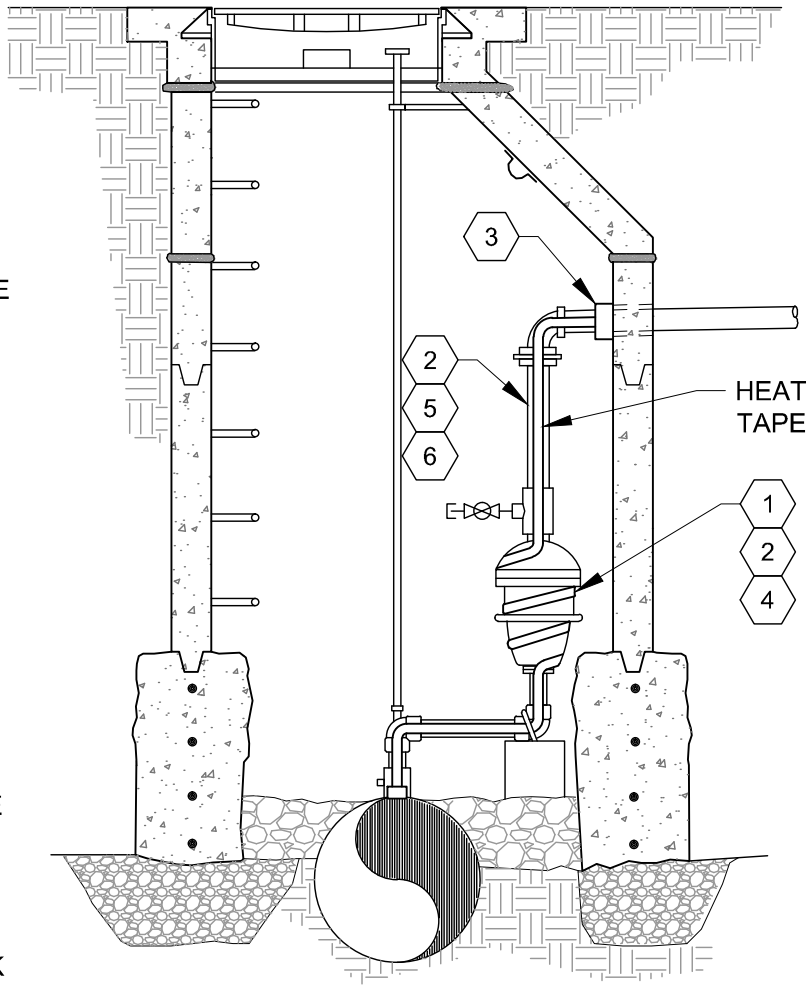
PARK CITY 1884

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	AIR RELEASE / CAV MANHOLE	STD. PLAN
4/2014		574 S
REV.		

KEY NOTES:

1. WRAP HEAT TAPE AROUND THE AIR/VAC VALVE. USE MANUFACTURER'S RECOMMENDATIONS FOR THE NUMBER OF WRAPS.
2. SECURE THE HEATING CABLE IN PLACE WITH CHROMALOX FT-3 FIBERGLASS TAPE.
3. END KIT WITH INDICATING LIGHT.
4. INSULATE THE ISOLATION VALVE AND THE COMBINATION AIR VACUUM RELEASE VALVE WITH A REMOVABLE AND REUSABLE INSULATING BLANKET. ENERGY-WRAP INSULATION SYSTEM AS MANUFACTURED BY THERMAL ENERGY PRODUCTS.
5. INSTALL CHROMALOX AT-1 ALUMINUM TAPE NEXT TO PVC PIPE BEFORE INSTALLING HEAT TAPE AND THEN THE HEAT TAPE WILL CONTINUE FROM THE AIR/VAC VALVE AND LAY ALONG THE ALUMINUM TAPE.
6. INSULATE THE PIPE WITH 2 INCH THICK FIBERGLASS PIPE INSULATION.



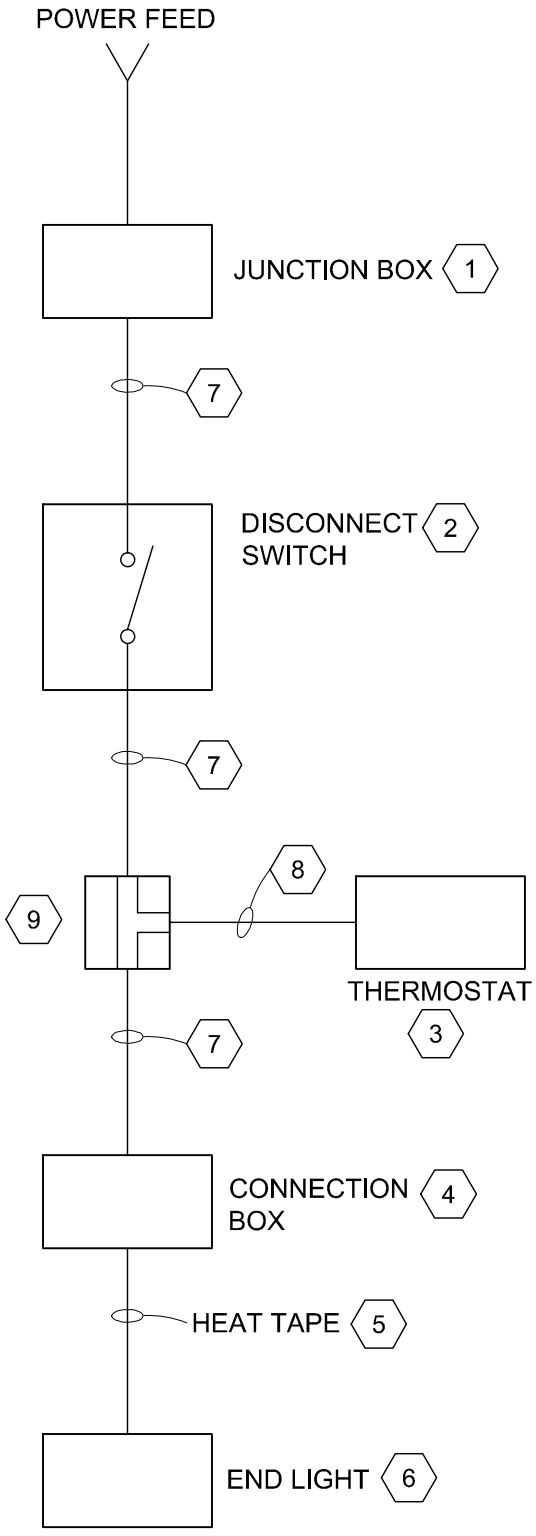
NOTES:

1. INSTALL HEAT TAPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. REFER TO STD. PLAN 575-B FOR POWER ONE-LINE DETAIL.
3. SEE AIR RELEASE / CAV VALVE MANHOLE, STD. PLAN 574

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**HEAT TAPE INSTALLATION FOR AIR RELEASE / CAV VALVE**	STD. PLAN **575-A**

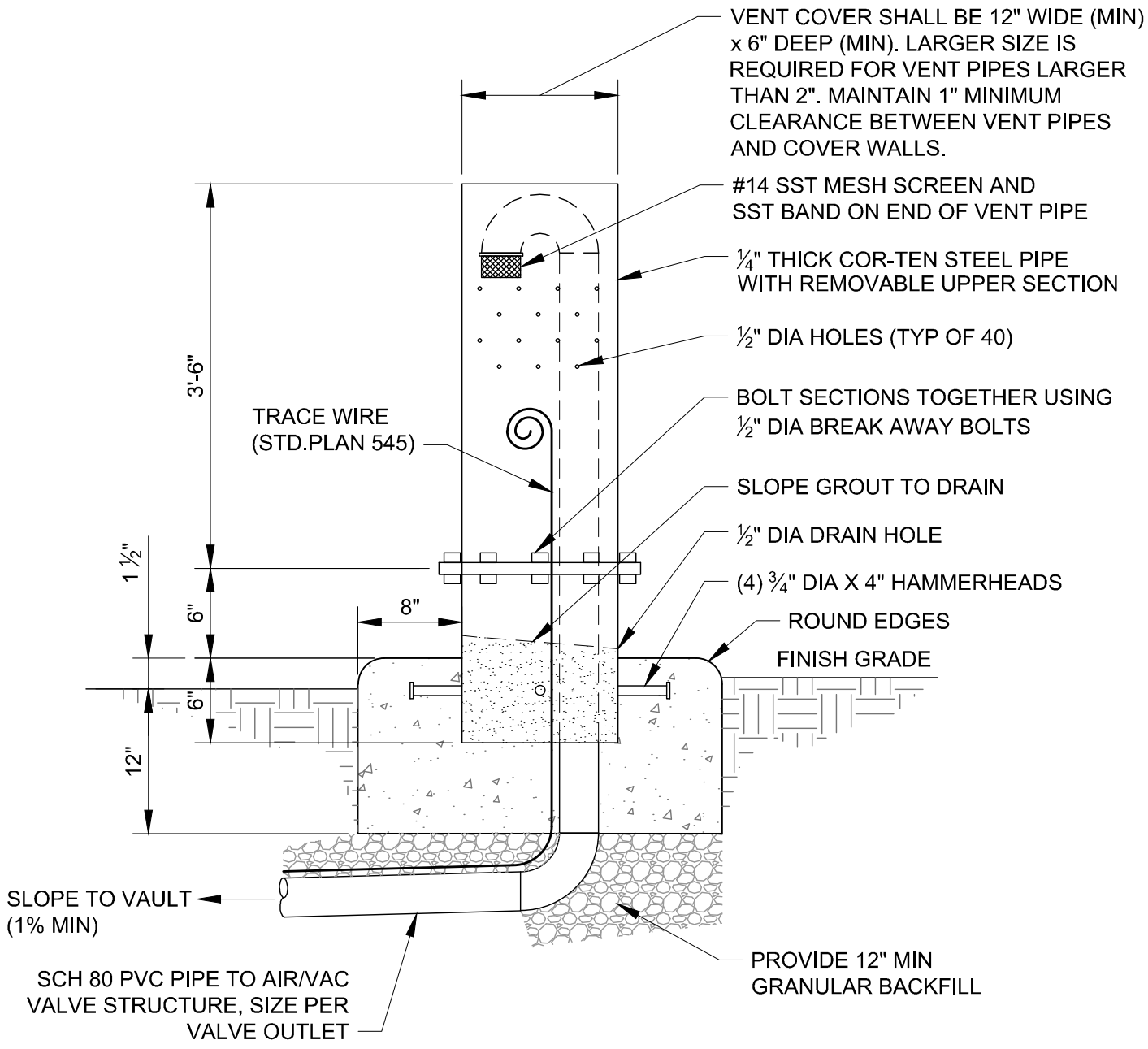
KEY NOTES:

1. TYPE 4X NONMETALLIC J-BOX FOR WIRE CONNECTIONS AS NEEDED.
2. CROUSE HINDS FS BOX, WITH 20 AMP SINGLE POLE SWITCH, AND A CROUSE HINDS P/N DS185 COVER.
3. CHROMALOX NON INDICATING TEMPERATURE CONTROL, 0 TO 150 DEGREES F, P/N PIT-15.
4. CHROMALOX PIPE MOUNTED POWER CONNECTION BOX NEMA 4X, P/N RTPC.
5. HEAT TAPE 120 VOLT, 5 WATTS PER FOOT, SELF-REGULATING, TINNED COPPER BRAID, WITH A FLUOROPOLYMER OVERJACKET. CONNECT GROUNDING CONDUCTOR TO COPPER BRAID. CHROMALOX P/N SRL 5-1CT HEATING CABLE.
6. END KIT WITH INDICATING LIGHT 120 VOLT, CHROMALOX P/N RTPC-SL1.
7. 3/4" RIGID CONDUIT GALVANIZED WITH TWO #12 CONDUCTORS AND ONE #12 GROUND.
8. 1/2" RIGID CONDUIT GALVANIZED WITH TWO #12 CONDUCTORS AND ONE #12 GROUND.
9. 3/4" RIGID T CONDUIT GALVANIZED BODY WITH ONE REDUCER FOR 1/2" CONDUIT.



HEAT TRACE POWER ONE-LINE DETAIL

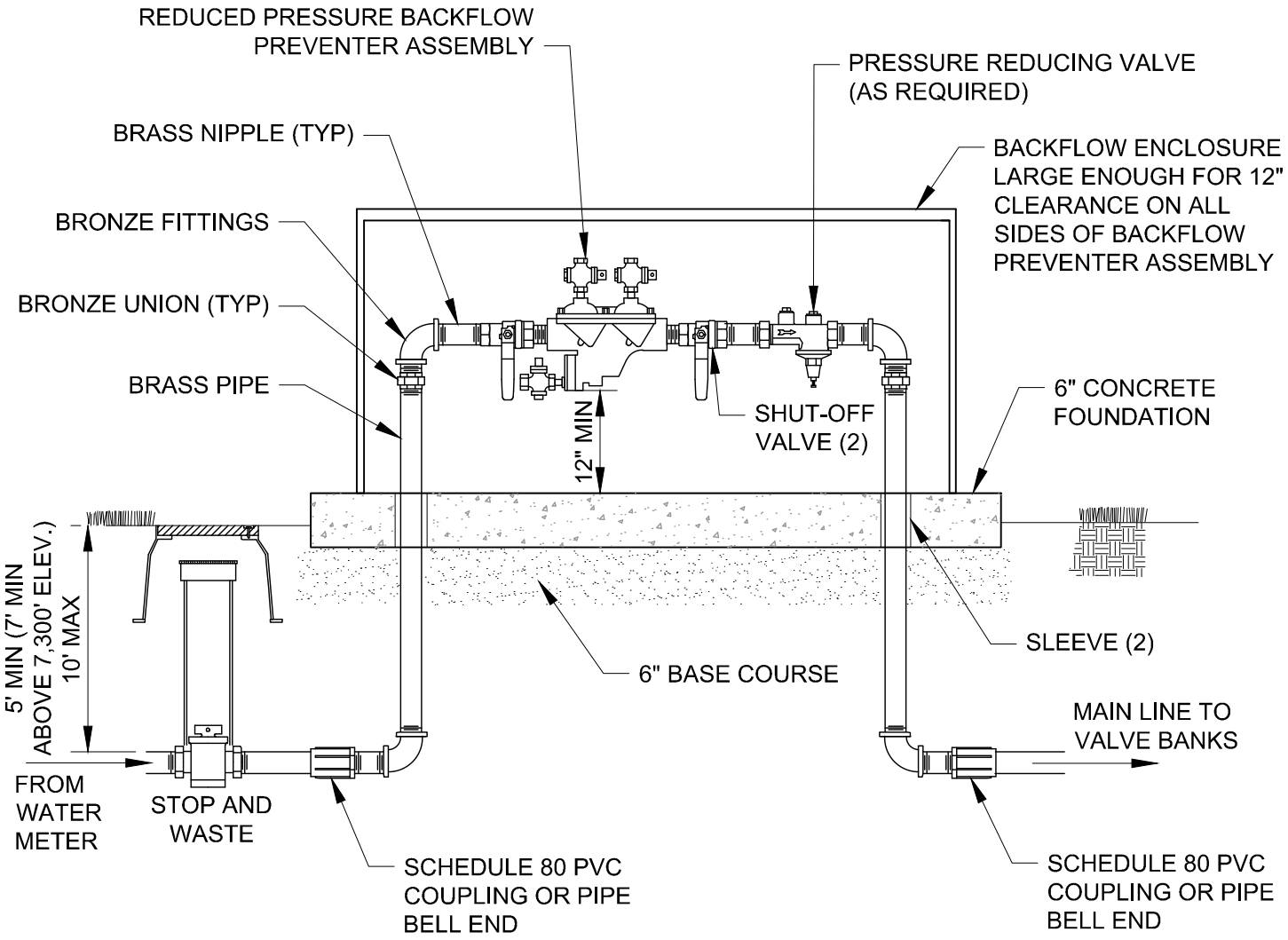
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**HEAT TAPE INSTALLATION FOR AIR RELEASE / CAV VALVE**	STD. PLAN **575-B**



NOTES:

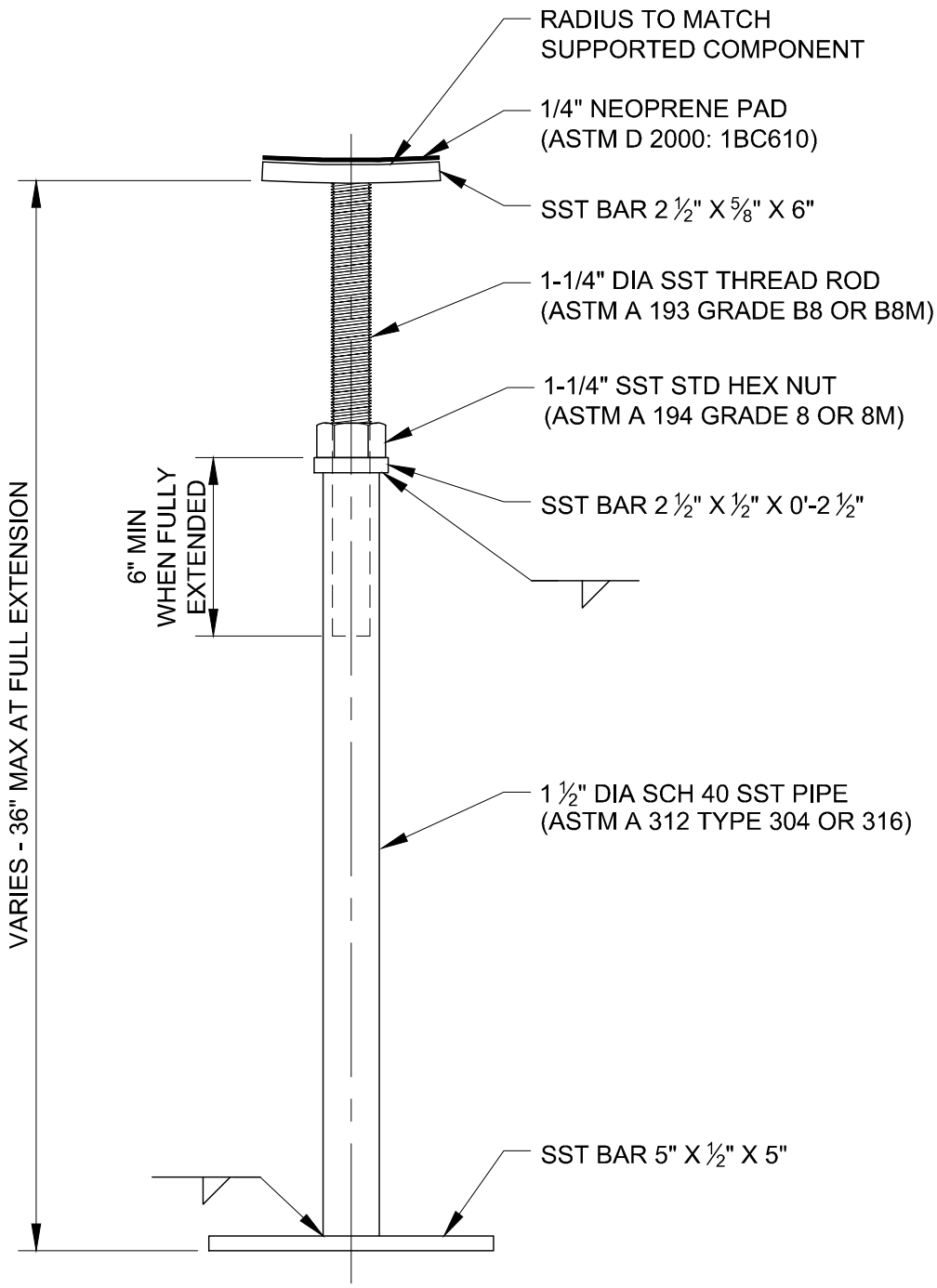
1. LOCATE VENT AS SHOWN ON APPROVED PLANS, 1'-6" MINIMUM BEHIND TOP BACK OF CURB / GUTTER OR SIDEWALK.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**AIR VENT STAND PIPE**	STD. PLAN **576**



LESS THAN 3" DIAMETER

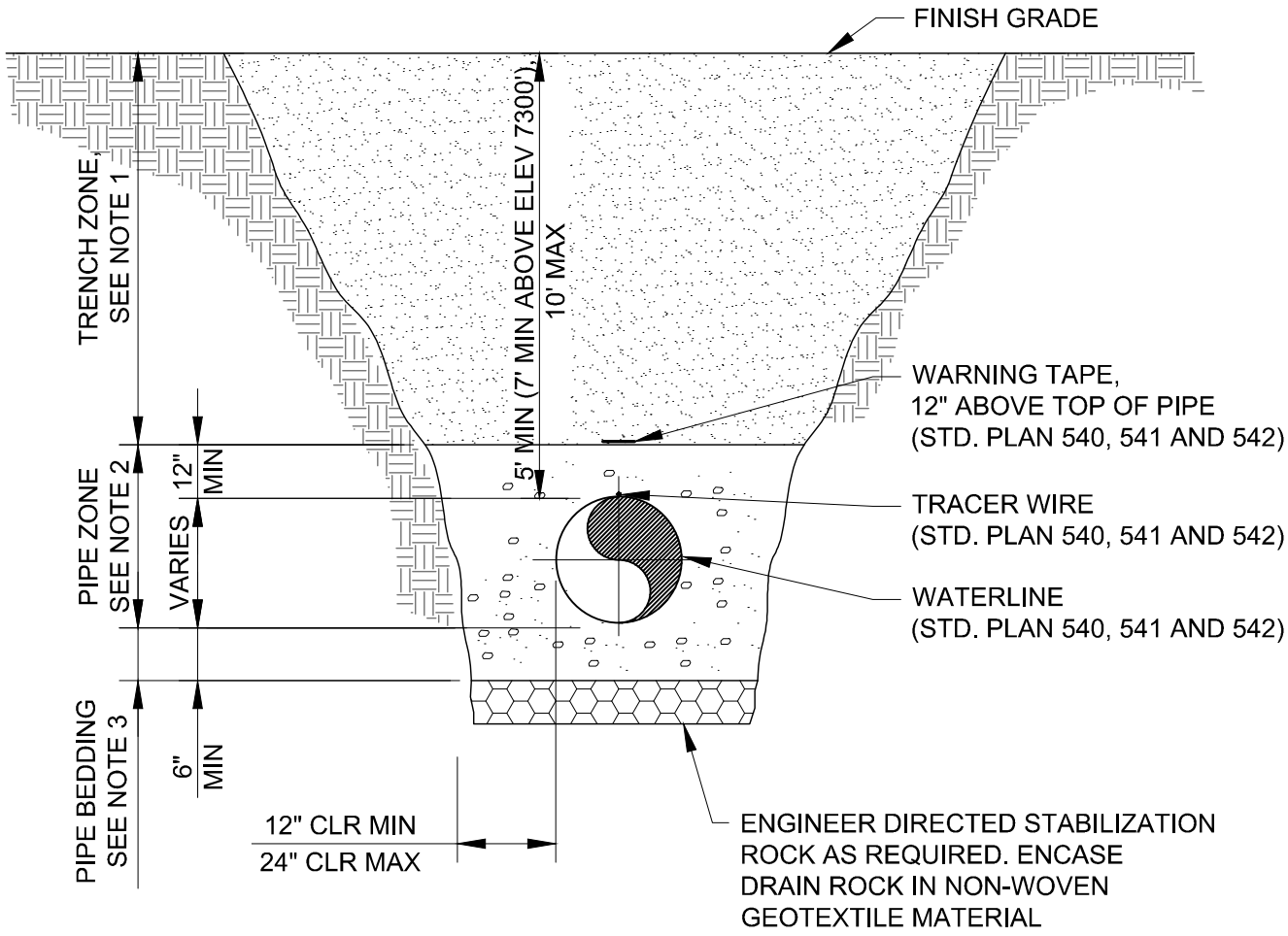
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**IRRIGATION BACKFLOW PREVENTER - OUTSIDE SETTING**	STD. PLAN **577**



NOTES:

1. BAR MATERIAL TO BE ASTM A 240 TYPE 304 OR 316 (Fy= 30 KSI MIN.)

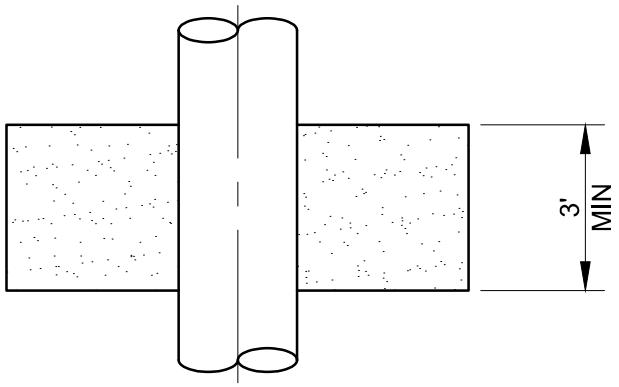
PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**PIPE SUPPORT**	STD. PLAN **578**



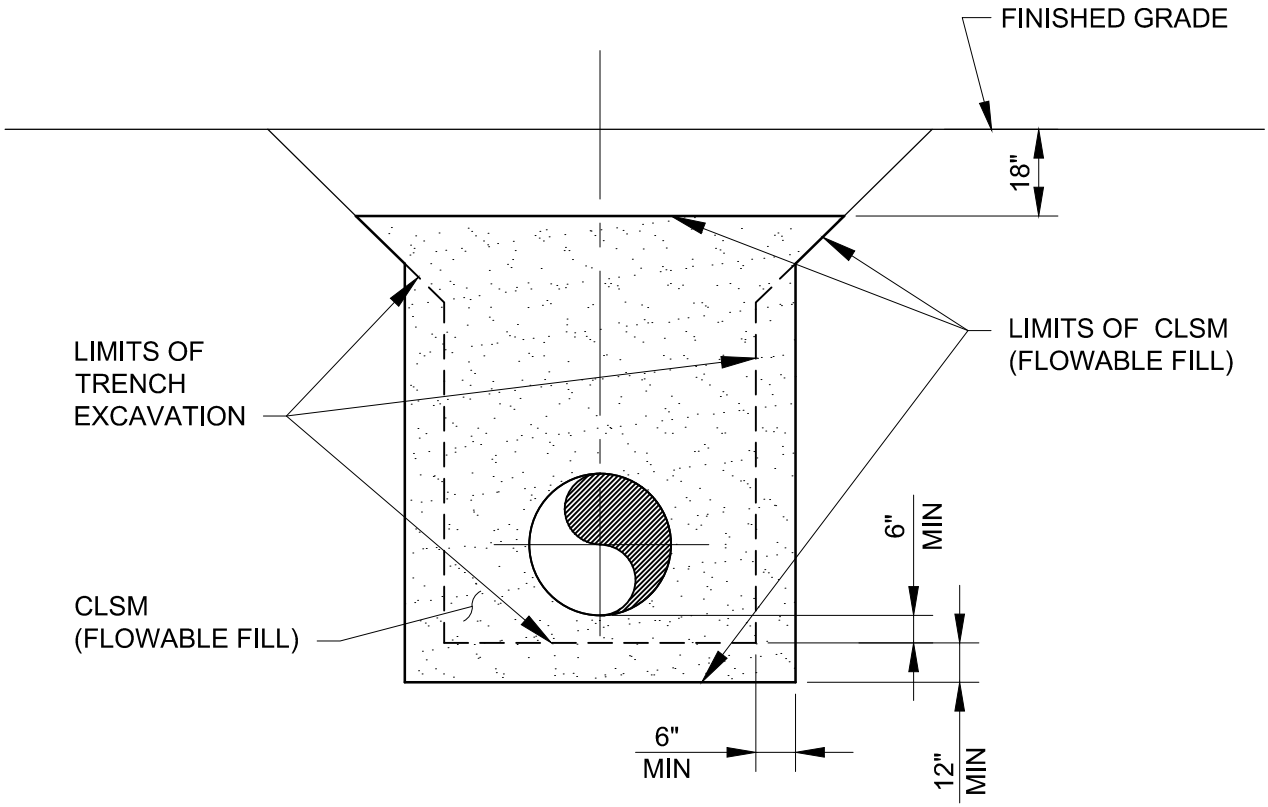
NOTES:

1. TRENCH ZONE
   WATER MAIN, FIRE LINE, AND APPURTENANCES:
   BACKFILL AND COMPACT PER PCMC DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS UNLESS OTHERWISE REQUIRED BY SPECIAL CONDITIONS
   WATER SERVICE - NEW PAVEMENT AND LANDSCAPE AREA:
   BACKFILL AND COMPACT PER PCMC DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS UNLESS OTHERWISE REQUIRED BY SPECIAL CONDITIONS
   WATER SERVICE - EXISTING ROADWAY AND PAVED AREA:
   BACKFILL TO PAVEMENT DEPTH WITH CONTROLLED LOW-STRENGTH MATERIAL (CLSM), "FLOWABLE FILL", 100 PSI MINIMUM AND 150 PSI MAXIMUM MIX DESIGN.
2. PIPE ZONE
   WATER MAIN, FIRE LINE, AND APPURTENANCES:
   SAND OR 3/4" ROADBASE COMPACT TO 96% OF MODIFIED PROCTOR DENSITY
   WATER SERVICE:
   SAND COMPACTED TO 96% OF MODIFIED PROCTOR DENSITY
3. PIPE BEDDING
   WATER MAIN, FIRE LINE, AND APPURTENANCES:
   SAND OR 3/4" ROADBASE COMPACT TO 96% OF MODIFIED PROCTOR DENSITY
   WATER SERVICE:
   SAND COMPACTED TO 96% OF MODIFIED PROCTOR DENSITY
4. PROVIDE TRENCH PLATING AS REQUIRED FOR CLSM BACKFILL INSTALLATIONS
5. COMPLY WITH APPLICABLE PARK CITY SOILS ORDINANCE REQUIREMENTS

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**WATER TRENCH BEDDING AND BACKFILL**	STD. PLAN **580**



PLAN
NTS

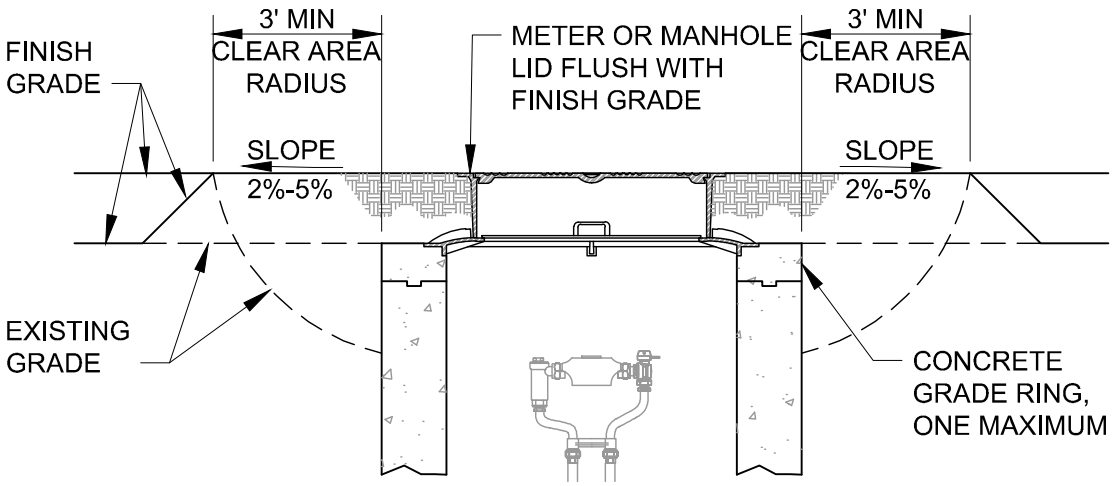


SECTION
NTS

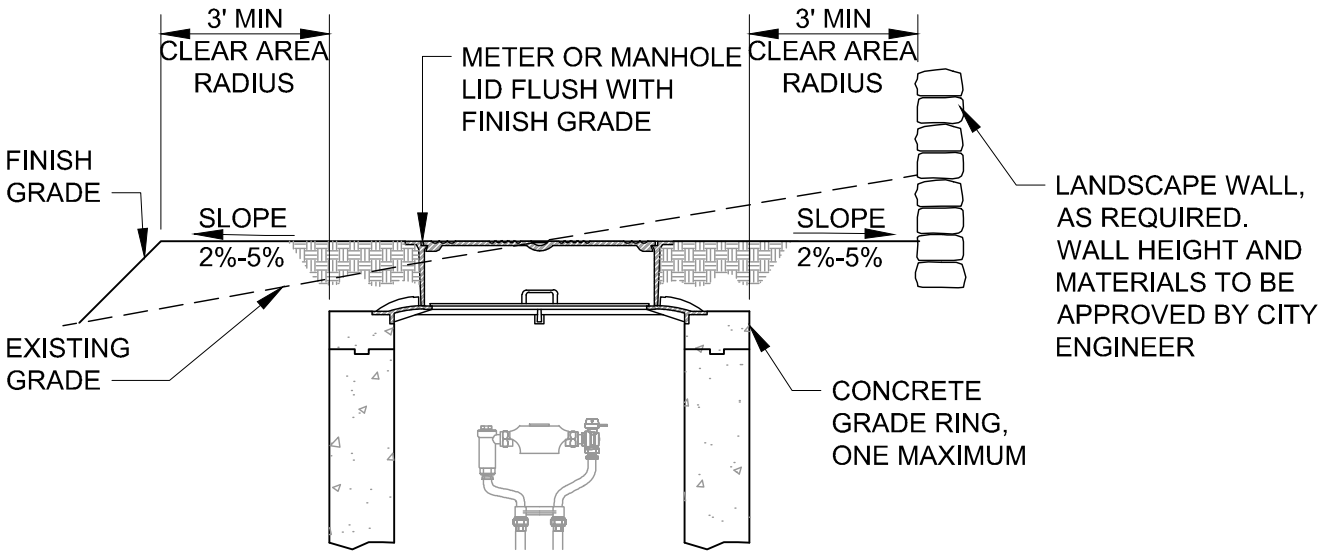
NOTES:

1. CLSM - CONTROLLED LOW STRENGTH MATERIAL, DESIGN MIX 100-150 PSI

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**WATER TRENCH CUT-OFF WALL**	STD. PLAN **581**



LOW/HIGH GRADE ADJUSTMENT



SLOPE GRADE ADJUSTMENT

NOTES:

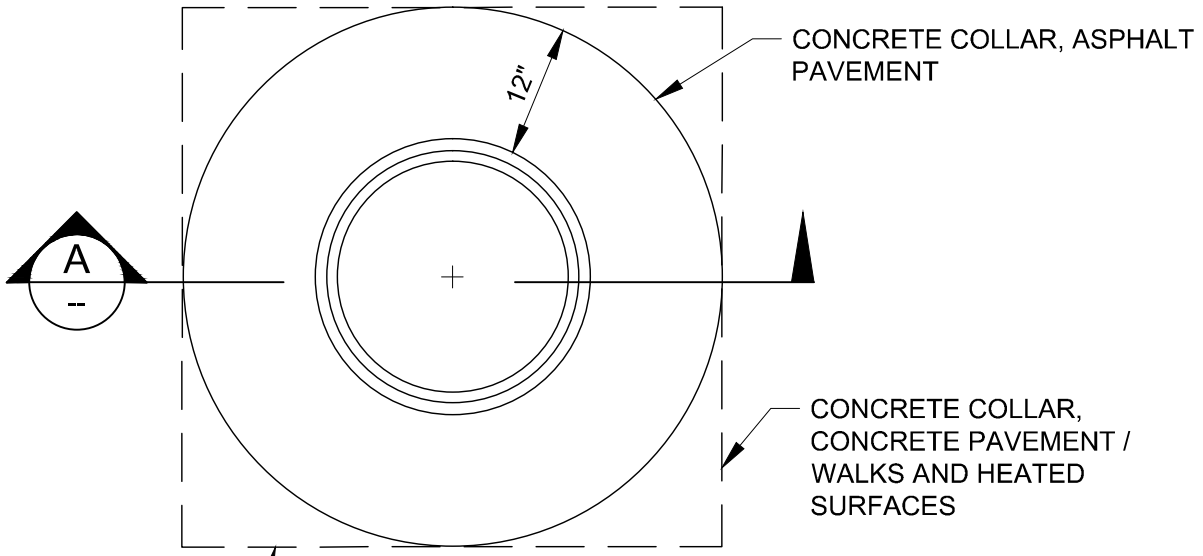
1. REFER TO STD. PLAN 520 FOR GENERAL REQUIREMENTS - METER, METER VAULT, AND SERVICE LINE.

2. METER YOKE DEPTH MUST MEET THE METER VAULT REQUIREMENTS. (PLAN 521 THRU 525)

3. METER LID HIGHER THAN THE SURROUNDING FINISH GRADE:
   RAISE GRADE SURROUNDING METER LID TO THE TOP OF METER LID.
   PROVIDE DRAINAGE AWAY FROM THE METER LID.

4. METER LID LOWER THAN THE SURROUNDING FINISH GRADE:
   RAISE METER VAULT AND COMPONENTS TO MEET METER VAULT REQUIREMENTS.

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**METER VAULT AND WATER MANHOLE GRADING LANDSCAPE AREAS**	STD. PLAN **592**

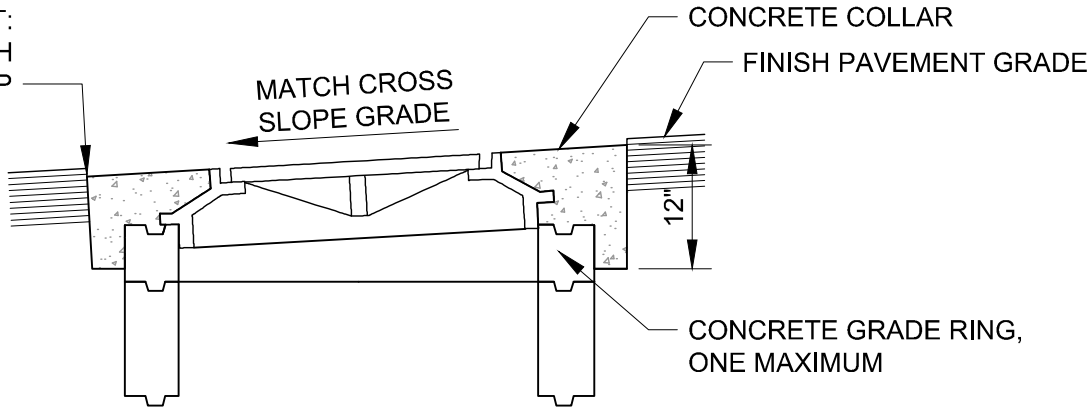


PLAN

PROVIDE HEATING SYSTEM DISCONNECT AT COLLAR LIMITS. 24" COLLAR REQUIRED FOR 4' AND 5' MANHOLES AND VAULTS

ASPHALT PAVEMENT: COLLAR SET ¼" MIN. TO ½" MAX. BELOW PAVEMENT LIP ALL AROUND.

CONCRETE PAVEMENT: SET COLLAR FLUSH WITH PAVEMENT LIP



SECTION A --
NTS

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**METER VAULT AND WATER MANHOLE COLLAR PAVEMENT AREAS**	STD. PLAN **593**

[1] WATER SERVICE LINE FLOW CHART

SYSTEM PRESSURE (PSI)	[2] MIN. SYSTEM RESIDUAL FIRE FLOW PRESSURE (PSI)	AVAILABLE PRESSURE DROP (PSI)	SERVICE SIZE (INCH) 0.75		1		1.5		2	
			AVAILABLE FLOW WITHOUT METER (GPM)	* RATED FLOW THROUGH METER (GPM)	AVAILABLE FLOW WITHOUT METER (GPM)	* RATED FLOW THROUGH METER (GPM)	AVAILABLE FLOW WITHOUT METER (GPM)	* RATED FLOW THROUGH METER (GPM)	AVAILABLE FLOW WITHOUT METER (GPM)	* RATED FLOW THROUGH METER (GPM)
150	20	130	53	30	113	50	328	100	700	160
145	20	125	52	30	111	50	322	100	686	160
140	20	120	51	30	108	50	315	100	671	160
135	20	115	50	30	106	50	307	100	655	160
130	20	110	48	30	103	50	300	100	640	160
125	20	105	47	30	101	50	293	100	624	160
120	20	100	46	30	98	50	285	100	608	160
115	20	95	45	30	95	50	277	100	591	160
110	20	90	43	30	93	50	269	100	574	160
105	20	85	42	30	90	50	261	100	557	160
100	20	80	41	30	87	50	253	100	539	160
95	20	75	39	30	84	50	244	100	520	160
90	20	70	38	30	81	50	235	100	501	160
85	20	65	36	30	78	50	226	100	482	160
80	20	60	35	30	74	50	216	100	461	160
75	20	55	33	30	71	50	206	100	440	160
70	20	50	32	28	67	50	196	100	418	160
65	20	45	30	26	64	50	185	100	395	160
60	20	40	28	24	60	50	174	100	370	160
55	20	35	26	23	56	48	162	100	345	160
50	20	30	24	21	51	44	149	100	317	160
45	20	25	22	19	46	40	135	100	287	160
40	20	20	19	17	41	36	119	88	255	158
35	20	15	16	14	35	30	102	76	218	135
30	20	10	13	12	28	24	82	62	175	110
25	20	5	9	8	19	17	56	43	120	77
20	20	0	0	0	0	0	0	0	0	0

NOTES:

1. REFER TO STD. PLAN 594.2 FOR NOTES AND REFERENCES.

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
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0	

WATER SERVICE LINE FLOW CHART

594.1

* VALUES DERIVED FROM SR WATER METERS TYPICAL PERFORMANCE CURVES AND THE METERS AWWA MAXIMUM CAPACITY

ASSUMED:

L (FT) = 40.0 (MAX LENGTH IN FEET FROM MAIN TO METER)

C = 135.0 (OLDER HDPE PIPE)

WHEN USED TO CALCULATE THE PRESSURE DROP USING THE US CUSTOMARY UNITS SYSTEM, THE EQUATION IS:

$$P_d = \frac{4.52 * L * Q^{1.85}}{C^{1.85} * d^{4.87}}$$

WHERE:

P_D = PRESSURE DROP OVER A LENGTH OF PIPE, PSIG (POUNDS PER SQUARE INCH GAUGE PRESSURE)

L = LENGTH OF PIPE, FT (FEET)

Q = FLOW, GPM (GALLONS PER MINUTE)

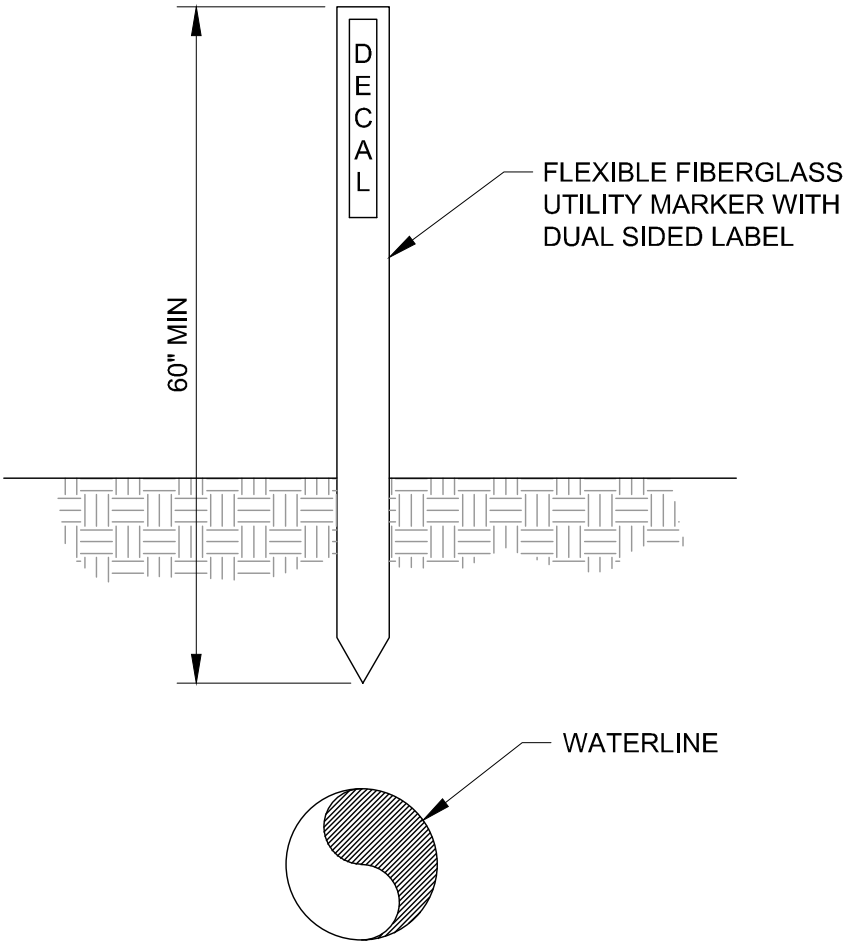
d = INSIDE PIPE DIAMETER, IN (INCHES)

C = HAZEN WILLIAMS COEFFICIENT OF FRICTION

NOTES:

1. THIS TABLE IS FOR REFERENCE PURPOSES ONLY AND REPRESENTS MAXIMUM ANTICIPATED FLOW TO THE POINT OF CONNECTION (40 FOOT MAXIMUM LENGTH) WITHOUT ADDITIONAL VALVES AND PIPING. HOMEOWNERS, ARCHITECTS, ENGINEERS, FIRE SPRINKLER DESIGNERS, ETC., ARE RESPONSIBLE TO VERIFY EXISTING WATER SYSTEM PRESSURES PRIOR TO DESIGN AND INCORPORATE THE INFORMATION INTO THE WATER SERVICE AND FIRE SERVICE LINE DESIGN. ADDITIONAL PRESSURE LOSSES WILL OCCUR THROUGH ADDITIONAL REQUIRED VALVES AND PIPING.
2. THE MINIMUM WATER PRESSURE AT THE POINT OF CONNECTION SHALL BE ABOVE 20 PSI WITH FIRE FLOW AND PEAK DAY DEMANDS, ABOVE 30 PSI WITH PEAK INSTANTANEOUS DEMANDS, AND ABOVE 40 PSI WITH PEAK DAY DEMANDS. SEE UTAH ADMINISTRATIVE CODE R309-105-9. MINIMUM WATER PRESSURE.
3. INDIVIDUAL HOME BOOSTER PUMPS SHALL NOT BE ALLOWED FOR ANY INDIVIDUAL SERVICE FROM THE PUBLIC WATER SUPPLY MAIN, SEE UTAH ADMINISTRATIVE CODE R309-105-9 AND R309-540-5(4)(C)

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 4/2014 REV. 0	**WATER SERVICE LINE FLOW CHART**	STD. PLAN **594.2**



NOTES:

1. INSTALL REFERENCE POST WHEN WATERLINE IS LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAYS WHEN DIRECTED BY CITY ENGINEER AND WATER DEPARTMENT.

2. BURIED WATER LINE MARKER SHALL BE CONSTRUCTED ON 4" RHINO 3-RAIL FIBERGLASS UTILITY MARKER POSTS WITH VERBIAGE AS SHOWN ON THIS DETAIL. BY "RHINO" OR EQUAL. (WWW.RHINOMARKERS.COM)

3. PARK CITY LOGO IS WHITE PMS CL GY, 5CCV, 282CV AND 180CV. ALL TEXT AND GRAPHICS SHALL BE SET AGAINST A WHITE BACKGROUND. (RHINO MARKERS SHALL REFER TO SD-7964K DECAL)

4. MOUNT MARKERS PER MANUFACTURERS RECOMMENDATIONS.

5. INSTALL MARKERS AT LOCATIONS INDICATED ON PLANS BUT TYPICALLY EVERY 500 FT AND AT VALVES, TRACER WIRE BOXES, AND BENDS IN ALIGNMENT.

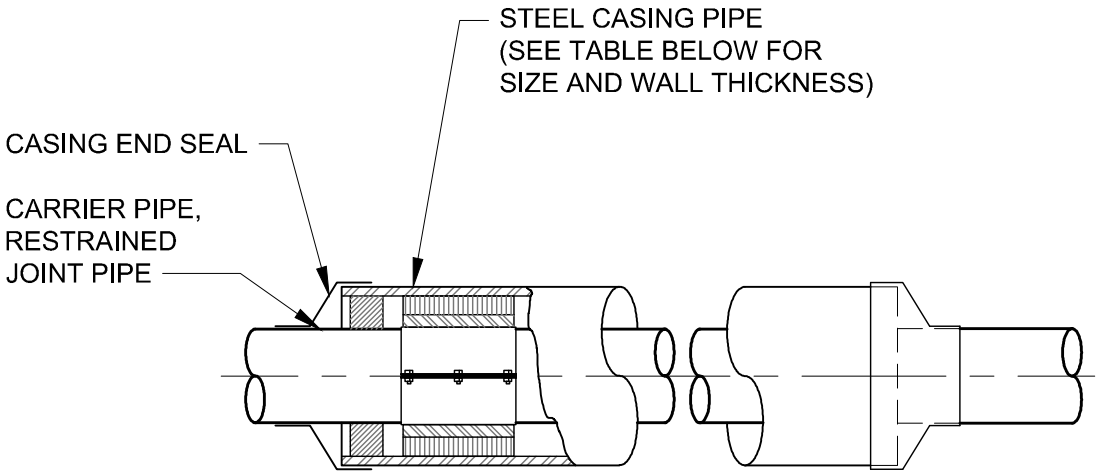
6. PLACE MARKER ON PIPE CENTERLINE.

7. OBTAIN LOGOS FROM PARK CITY TO PROVIDE TO SIGN MANUFACTURER.

8. PRINTING MATERIAL AND SIGN MATERIAL SHALL BE WATER-RESISTANT.

9. LABEL TO READ "CAUTION WATER PIPELINE - BEFORE DIGGING CALL 811"

PARK CITY 1884 PARK CITY MUNICIPAL CORPORATION **WATER**	DATE 3/2014 REV. 0	**WATER LINE REFERENCE MARKER**	STD. PLAN **596**



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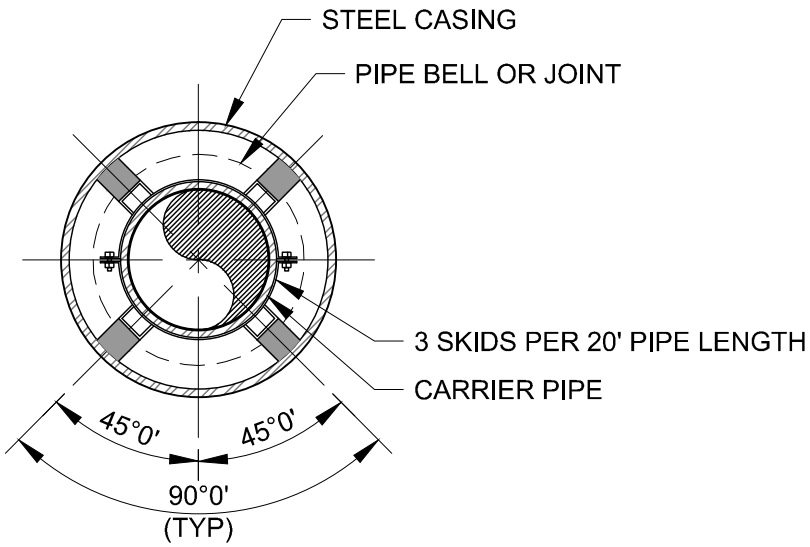

PIPE CASING

CARRIER PIPE NOMINAL DIAMETER	CASING PIPE	
	MIN OD	MIN WALL THICKNESS
4"	12"	0.25"
6"	16"	0.3125"
8"	18"	0.3125"
12"	22"	0.375"
16"	28"	0.50"
20"	32"	0.50"

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
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0	

WATERLINE CASING

597

LEGEND AND APPROVED PARTS LIST

ITEM	DESCRIPTION	ACCEPTABLE MANUFACTURER	MODELS
①	CASING END SEAL	PIPELINE SEAL AND INSULATOR, INC	MODEL “S”
②	CASING SPACER	PIPELINE SEAL AND INSULATOR, INC.	C12G-2 OR APPROVED EQUAL
③	CARRIER PIPE: DUCTILE IRON RESTRAINED JOINT (STD. PLAN 540)		

DETAIL NOTES

1. PROVIDE CARRIER AND CASING SIZE, LOCATION, AND DEPTH PER APPROVED PLANS
2. INSTALL MECHANICAL JOINT A MAXIMUM OF 18” FROM EACH END OF CASING
3. IF REQUIRED BY APPROVED PLANS, INSTALL CLOSED CELL INSULATION IN ANNULAR SPACE BETWEEN CARRIER PIPE AND CASING. INSTALLATION METHOD TO BE APPROVED BY CITY.

PARK CITY MUNICIPAL CORPORATION
WATER

DATE	STD. PLAN
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REV.	

WATERLINE CASING