

**CITY OF TORRANCE, CALIFORNIA**

**ADDENDUM NO. 1**

**Issued: February 11, 2016**

**TO**

**PROPOSAL, SPECIFICATIONS, BOND AND  
AFFIDAVIT FOR THE CONSTRUCTION OF**

**NORTH TORRANCE WELL FIELD PROJECT, PHASE II, I-108  
AND RECYCLED WATER RETROFITS FOR  
SOUTH HIGH SCHOOL AND CALLE MAYOR MIDDLE SCHOOL**

**B2016-03**

Please note the following changes and/or additions to the Bidder's Submittal, Plans and/or Specifications for the project indicated above. The bidder shall execute the Certification at the end of this addendum, and shall **attach this addendum to the Contract Documents submitted with the Bid**. In addition, the bidder shall complete and submit the "Acknowledgment of Addenda Received" Form provided in Section C of the Specifications.

1. **Refer to Bidder's Submittal on pages C-1 through C-9 of the Specifications and in the official Bidder's Submittal package provided by the City Clerk:**

Bidder's Submittal Pages C-1 through C-9 (9 pages) including Bid Schedules A and B is hereby deleted in its entirety and replaced with the new Bidder's Submittal pages C-1, Addendum No. 1 through C-9, Addendum No. 1 (9 pages) which is attached to this addendum and includes revised Bid Schedule A and Bid Schedule B. A Bidder must use the new Bidder's Submittal pages C-1, Addendum No.1 through C-9, Addendum No. 1 in its bid.

2. **Add to the Specifications: Appendix XI: ADS HP Storm 12"-60" Pipe Specification. See documents attached to this Addendum.**

By Order of the City Engineer



---

**CRAIG BILEZERIAN**  
City Engineer

Attachment:

Bidder's Submittal Pages C-1, Addendum No. 1 through C-9, Addendum No.1 including Revised Bid Schedule A & Bid Schedule B and Appendix XI.

BIDDER'S CERTIFICATION

I acknowledge receipt of the foregoing Addendum No. 1 and accept all conditions contained therein.

\_\_\_\_\_  
Bidder

\_\_\_\_\_

By

\_\_\_\_\_

Date

**\*\*\*\*\* Submit this executed form with the bid \*\*\*\*\***

**Please fill out and submit the  
"Acknowledgment of Addenda Received" form  
Provided in Section C of the Specifications**

## BIDDER'S SUBMITTAL

Company: \_\_\_\_\_ Total Bid: \_\_\_\_\_  
(Bid Schedule A + B)

### PROPOSAL, SPECIFICATIONS, BOND AND AFFIDAVIT FOR THE CONSTRUCTION OF NORTH TORRANCE WELL FIELD PROJECT, PHASE II, I-108, AND RECYCLED WATER RETROFITS FOR SOUTH HIGH SCHOOL AND CALLE MAYOR MIDDLE SCHOOL

B2016-03

Honorable Mayor and Members  
 of the Torrance City Council  
 Torrance, California

Members of the Council:

In accordance with the Notice Inviting Bids pertaining to the receiving of sealed proposals by the City Clerk of the City of Torrance for the above titled improvement, the undersigned hereby proposes to furnish all Work to be performed in accordance with the Plans, Specifications, Standard Drawings, and the Contract Documents, for the unit price or lump sum set forth in the following schedule.

#### BID SCHEDULE A - REVISED NORTH TORRANCE WELL FIELD PROJECT, PHASE II, I-108

Item #	Est. Qty	Unit	Bid Item Description	SPEC. SECTION	Unit Price	Total Bid
1	1	LS	MOBILIZATION (5% MAX. OF TOTAL BID SCHEDULE COST) AND PERMITS	7-5,7-5.1 7-5.2,9-3.4	\$	\$
2	3	EA	SURVEY MONUMENTS	2-9.1	\$	\$
3	1	LS	TRAFFIC CONTROL	7-10.2.3 7-10.6	\$	\$
4	1	LS	NPDES COMPLIANCE AND POST CONST. BMP'S	7-8.6.1 7-8.6.2	\$	\$
5	1	LS	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	7-8.6.3	\$	\$
6	2	EA	PROJECT CONSTRUCTION SIGNS	7-15	\$	\$
7	6	EA	PORTABLE CHANGEABLE MESSAGE SIGNS	7-15	\$	\$

Item #	Est. Qty	Unit	Bid Item Description	SPEC. SECTION	Unit Price	Total Bid
8	1	LS	FURNISH AND INSTALL EXCAVATION SAFETY MEASURES, INCLUDING ADEQUATE SHEETING, SHORING AND BRACING OR EQUIVALENT METHODS FOR THE PROTECTION OF LIFE AND LIMB FOR THE CONSTRUCTION OF UTILITIES PER SECTION OF SECTION 6707 OF CALIFORNIA LABOR CODE	306-1.1.6	\$	\$
9	1390	LF	FURNISH AND INSTALL 16" HIGH DENSITY POLYELYETHENE WATER LINE (DR-9) INCLUDING FITTINGS, THRUST BLOCKS, RESTRAINED JOINTS, AND BACKFILL PER CITY STD No. 701, POTHOLING, AC PAVEMENT REPLACEMENT/BASE, RESTORATION OF SURFACE FEATURES, PRESSURE AND DISINFECTION TESTING AND ALL APPURTANENCES REQUIRED FOR A COMPLETE SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-6	\$	\$
10	460	LF	FURNISH AND INSTALL 18" CONCRETE MORTAR LINED & COATED (CMLC) STEEL WATER PIPE, INCLUDING FITTINGS, THRUST BLOCKS, RESTRAINED JOINTS, BACKFILL PER CITY STD No.T701, POTHOLING, AC PAVEMENT REPLACEMENT/BASE,REPLACEMENT OF SURFACE FEATURES, PRESSURE AND DISINFECTION TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-10 306-1.6	\$	\$
11	160	LF	FURNISH AND INSTALL 18" CONCRETE MORTAR LINED & COATED (CMLC) STEEL WATER PIPE IN PCC ROADWAY, INCLUDING FITTINGS, THRUST BLOCKS, RESTRAINED JOINTS, POTHOLING, BACKFILL PER CALTRANS ENCROACHMENT PERMIT TRENCH DETAIL TR-0153, PCC PAVEMENT REPLACEMENT, REPLACEMENT OF SURFACE FEATURES/BASE, PRESSURE AND DISINFECTION TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-10 306-1.6	\$	\$
12	195	LF	FURNISH AND INSTALL 18" CONCRETE MORTAR LINED & COATED (CMLC) STEEL WATER PIPE IN 30" STEEL CASING (TRENCH CONDITION), INCLUDING FITTINGS, SKIDS, CASING FILL, TRENCH, BACKFILL AND REPAIR PCC PAVEMENT PER CALTRANS ENCROACHMENT PERMIT TRENCH DETAIL TR-0153, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-10 306-1.6 306-2.1.2	\$	\$
13	150	LF	FURNISH AND INSTALL 24" CONCRETE MORTAR LINED & COATED (CMLC) STEEL WATER PIPE INCLUDING FITTINGS, THRUST BLOCKS, RESTRAINED JOINTS, BACKFILL PER CITY STD No.T701, POTHOLING, AC PAVEMENT REPLACEMENT, REPLACEMENT OF SURFACE FEATURES/BASE, PRESSURE AND DISINFECTION TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-10 306-1.6	\$	\$
14	40	LF	FURNISH AND INSTALL 12" DUCTILE IRON PIPE - CLASS 350 WATER INCLUDING FITTINGS, POLY WRAP, THRUST BLOCKS, RESTRAINED JOINTS,	207-9 306-1.6	\$	\$

Item #	Est. Qty	Unit	Bid Item Description	SPEC. SECTION	Unit Price	Total Bid
			BACKFILL PER CITY STD No.T701, POTHOLING, AND AC PAVEMENT REPLACEMENT, REPLACEMENT OF SURFACE FEATURES/BASE, PRESSURE AND DISINFECTION TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS			
15	1	LS	FURNISH AND INSTALL 4" PVC CONDUIT, SCH 40 PIPE FOR FIBER OPTICS CABLE, INCLUDING TUNNELING PROCESS, BORING/RECEIVING PITS AND INSTALLATION OF 2'X3'X3' CONCRETE BOXES, REPLACEMENT OF SURFACE FEATURES FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	210-1 306-8 306-8.5	\$	\$
16	18	LF	FURNISH AND INSTALL 12" DUCTILE IRON PIPE - CLASS 350 WATER INCLUDING FITTINGS, POLY WRAP, THRUST BLOCKS, RESTRAINED JOINTS, BACKFILL PER CALTRANS ENCROACHMENT PERMIT TRENCH DETAIL TR-0153, PCC PAVEMENT REPLACEMENT, REPLACEMENT OF SURFACE FEATURES/BASE, PRESSURE AND DISINFECTION TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-9 306-1.6	\$	\$
17	3	EA	FURNISH AND INSTALL 12" RESILIENT WEDGE GATE VALVE INCLUDING VALVE BOX ASSEMBLY PER CITY STD No. T 712, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	215-1.2 315-2	\$	\$
18	1	EA	FURNISH AND INSTALL 16" RESILIENT WEDGE GATE VALVE INCLUDING VALVE BOX ASSEMBLY PER CITY STD No. T 712, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	215-1.2 315-2	\$	\$
19	2	EA	FURNISH AND INSTALL 18" RESILIENT WEDGE GATE VALVE INCLUDING VALVE BOX ASSEMBLY PER CITY STD No. T 712, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	215-1.2 315-2	\$	\$
20	2	EA	FURNISH AND INSTALL 2" BLOW-OFF ASSEMBLY PER CITY STD No. T 707, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	215-3 315-5	\$	\$
21	1	EA	FURNISH AND INSTALL AIR AND VACUUM RELEASE VALVE PER CITY STD. NO. T-708, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	215-1.9 315-3	\$	\$
22	3	EA	SUPPORT POWER POLE INCLUDING POLE, WIRES, AND METER IN ACCORDANCE WITH OWNER REQUIREMENTS AND THESE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	5-2.1	\$	\$
23	40	CY	CRUSHED ROCK TO REPLACE UNSUITABLE TRENCH BOTTOM MATERIAL, INCLUDING EXCAVATION, IMPORT, DISPOSAL, AND COMPACTION COMPLETE. THIS IS AN ALLOWANCE.	306-1.1.7	\$	\$
STREET IMPROVEMENTS						

Item #	Est. Qty	Unit	Bid Item Description	SPEC. SECTION	Unit Price	Total Bid
24	26,000	SF	PAVEMENT REMOVAL AND REPLACEMENT WITH 6"AC / 12"CMB AS DIRECTED BY THE ENGINEER INCLUDING SAWCUTTING, EXCAVATION, DISPOSAL, SUBGRADE PREPARATION, CRUSHED MISCELLANEOUS BASE (CMB), ASPHALT CONCRETE (B-PG 64-10 RAP) BASE COURSE, ASPHALT CONCRETE (C2-PG 64-10 RAP) SURFACE COURSE	300-2.2.1 301-2.4 302-5.9 306-1.5.2	\$	\$
25	300	SF	HANDICAP ACCESS RAMP PER SPPWC STD PLAN 111-4	303-5.9	\$	\$
26	5	EA	ADJUST MANHOLE TO GRADE (ADDITIONAL RESURFACING ONLY)	302-5.8	\$	\$
27	5	EA	ADJUST UTILITY COVER TO GRADE (ADDITIONAL RESURFACING ONLY)	302-5.8	\$	\$
28	68,000	SF	TYPE II SLURRY SEAL YUKON AVE TO 182 <sup>ND</sup> STREET AND INTERSECTION OF 182 <sup>ND</sup> STREET AND YUKON AVE INCLUDING STREET STRIPING AND MARKINGS	203-5 302-4.5 314	\$	\$
28 A	530	LF	REMOVE EXISTING CHAIN LINK FENCE INCLUDING POSTS ON EAST SIDE OF YUKON AVE., NORTH AND SOUTH OF 405 FREEWAY AND INSTALL 6-FOOT HIGH CHAIN LINK FENCE IN CONCRETE PER SPPWC STD PLAN 600-3	304-3	\$	\$
<b>DRAINAGE IMPROVEMENTS</b>						
29	1	EA	MODIFIED CATCH BASIN PER SPPWC STD PLAN 300-3, W=10', V= 12.5'	306-1.6	\$	\$
30	1	EA	LOCAL DEPRESSION PER SPPWC STD PLAN 313-3, WD=10', OVER 6"CAB	303-5.9	\$	\$
31	20	LF	FURNISH AND INSTALL 24" DIA. REINFORCED CONCRETE PIPE PER COT STD PLAN T302-1 BACKFILL PER CITY STD No.T701, REPLACEMENT OF SURFACE FEATURES/BASE, PRESSURE TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-2 306-1.6	\$	\$
32	330	LF	FURNISH AND INSTALL 30" DIA. REINFORCED CONCRETE PIPE OR HP STORM PIPE PER COT STD PLAN T302-1. BACKFILL PER CITY STD No. T701, REPLACEMENT OF SURFACE FEATURES/ BASE, PRESSURE TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	207-18 207-2 306-1.6	\$	\$
33	80	LF	FURNISH AND INSTALL 30" DIA. REINFORCED CONCRETE GASKETED PIPE OR HP STORM PIPE PER COT STD PLAN T302-1. BACKFILL PER CITY STD No.T701, POTHOLING, AC PAVEMENT REPLACEMENT, REPLACEMENT OF SURFACE FEATURES/BASE, AND PRESSURE TESTING, AND ALL APPURTENANCES REQUIRED FOR A COMPLETE SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-18 207-2 306-1.6	\$	\$

Item #	Est. Qty	Unit	Bid Item Description	SPEC. SECTION	Unit Price	Total Bid
34	270	LF	FURNISH AND INSTALL 30" DIA. REINFORCED CONCRETE PIPE OR HP STORM PIPE IN 48" STEEL CASING IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	207-18 207-2 306-2.3 306-2.6	\$	\$
35	2	EA	JACKING AND BORING PITS INCLUDING EXCAVATION, SAFETY MEASURES, ADEQUATE SHEETING, SHORING AND BRACING OR EQUIVALENT METHODS FOR THE PROTECTION OF LIFE AND LIMB IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	306-2.1.1 306-2.6.1	\$	\$
36	15	LF	FURNISH AND INSTALL 30" DIA. HIGH DENSITY POLYETHYLENE STORM DRAIN PIPE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	207-18 306-1.6	\$	\$
37	4	EA	FURNISH AND INSTALL MANHOLE PER SPPWC STD PLAN 321-2 IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	210-1 306-1.6 310-5.9	\$	\$
38	1	EA	FURNISH MANHOLE PIPE TO PIPE PER SPPWC STD PLAN 322-2 AND DETAIL ON SHEET 9 IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	306-1.6	\$	\$
39	110	SF	6' WIDE PCC "U" CHANNEL	303-5.9	\$	\$
STRIPING AND PAVEMENT MARKINGS						
40	1	LS	TRAFFIC STRIPING, MARKINGS AND PAVEMENT MARKERS (182 <sup>ND</sup> STREET) IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	84-2.06	\$	\$
PLANTING AND IRRIGATION						
41	4	EA	TREE REMOVAL	300-1.3.2	\$	\$

**TOTAL BID PRICE FOR SCHEDULE A : \$** \_\_\_\_\_  
(Figures)\*

**TOTAL BID PRICE FOR SCHEDULE A :** \_\_\_\_\_  
(Words)\*

**\*BID MAY BE REJECTED IF TOTAL IS NOT SHOWN IN FIGURES AND WORDS.**

**RECYCLED WATER RETROFITS FOR  
SOUTH HIGH SCHOOL AND CALLE MAYOR MIDDLE SCHOOL**

**BID SCHEDULE B**

CALLE MAYOR MIDDLE SCHOOL						
Item #	Est. Qty.	Unit	Description	Spec. Section	Unit Price	Total Bid
1	60	EA	INSTALL RECYCLED WATER IDENTIFICATION WITH LETTERS "RECYCLED WATER" ON ALL EXISTING VALVE BOXES (GATE VALVES, MANUAL CONTROL VALVES, ELECTRICAL CONTROLLED VALVES AND HYDRAULIC CONTROLLED VALVES) FOUND ON THE RECYCLED WATER SYSTEM IN THE CENTER OF THE BOX COVER IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	APPEN. A 207-26.14	\$	\$
2	2	EA	INSTALL RECYCLED WATER IDENTIFICATION SIGNS ON EXISTING ELECTRICAL CONTROL BOXES IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
3	60	EA	INSTALL RECYCLED WATER TAGS ON ALL EXISTING GATE VALVES, MANUAL CONTROL VALVES, ELECTRICAL CONTROLLED VALVES AND HYDRAULIC CONTROLLED VALVES FOUND ON THE RECYCLED WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	APPEN. A 207-26.14	\$	\$
4	25	EA	INSTALL POTABLE WATER TAGS ON ALL EXISTING GATE VALVES, MANUAL CONTROL VALVES, ELECTRICAL CONTROLLED VALVES AND HYDRAULIC CONTROLLED VALVES FOUND ON THE POTABLE WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
5	15	EA	INSTALL POTABLE WATER TAGS ON ALL EXISTING HOSE BIBS, QUICK COUPLERS. REPLACE EXISTING BRASS HOSE BIBS AND INSTALL NEW BRASS HOSE BIBS W/VACUUM BREAKER DEVICES ON POTABLE WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
6	7	EA	INSTALL RECYCLED WATER SIGNS IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
7	20	EA	REMOVE EXISTING QUICK COUPLERS TO COUPLERS IDENTIFIED FOR RECYCLED WATER USE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
8	1	LS	PAVEMENT REMOVAL AND REPLACEMENT WITH 4"AC / 8" CMB AS DIRECTED BY THE ENGINEER INCLUDING SAWCUTTING, EXCAVATION, DISPOSAL, SUBGRADE PREPARATION, CRUSHED MISCELLANEOUS BASE (CMB), ASPHALT CONCRETE (B-PG 64-10 RAP) BASE COURSE.		\$	\$

9	1	LS	REPLACE 4 INCH DOUBLE DETECTOR CHECK VALVE BACKFLOW PREVENTOR. INSTALL NEW 2 INCH REDUCED PRESSURE PRINCIPLE DETECTOR W/ Y-STRAINER IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	SHEET C-3	\$	\$
10	1	LS	CUT AND CAP EXISTING 4 INCH POTABLE WATER MAIN A MINIMUM OF 10 FEET FROM EXISTING RECYCLED WATER MAIN AND CONNECT 6 INCH AND 3 INCH PVC RECYCLED WATER PIPE W/THRUST BLOCK TO EXISTING RECYCLED WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	SHEET C-3	\$	\$
11	1	LS	INSTALL 4 INCH REDUCED PRESSURE PRINCIPAL TO EXISTING POTABLE WATER METER IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	SHEET D-2, DETAIL 1	\$	\$
12	1	LS	INSTALL TWO NEW 3 INCH RECYCLED WATER METER ABOVE GRADE W/PIPING, CONCRETE PAD AND CONCRETE WALL IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	SHEET D-2, DETAIL 3	\$	\$

**Sub-Total for Calle Mayor Middle School**      \$ \_\_\_\_\_

SOUTH HIGH SCHOOL						
13	1	LS	INSTALL 6 INCH REDUCED PRESSURE PRINCIPAL DETECTOR N-TYPE FOR POTABLE WATER (WEST CONNECTION) W/ CONCRETE PAD AND BOLLARDS IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	SHEET D-1, DETAIL 5, DETAIL 6	\$	\$
14	1	LS	INSTALL 6 INCH REDUCED PRESSURE PRINCIPAL DETECTOR N-TYPE FOR POTABLE WATER (SOUTH CONNECTION) W/ CONCRETE PAD AND BOLLARDS IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS	SHEET D-1, DETAIL 2 DETAIL 4	\$	\$
15	1	LS	CUT AND CAP EXISTING 4 INCH POTABLE WATER MAIN A MINIMUM OF 10 FEET FROM EXISTING RECYCLED WATER MAIN AND CONNECT 6 INCH AND 3 INCH PVC RECYCLED WATER PIPE W/THRUST BLOCK TO EXISTING RECYCLED WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	SHEET C-3	\$	\$
16	65	EA	INSTALL RECYCLED WATER IDENTIFICATION WITH LETTERS "RECYCLED WATER" ON ALL EXISTING VALVE BOXES (GATE VALVES, MANUAL CONTROL VALVES, ELECTRICAL CONTROLLED VALVES AND HYDRAULIC CONTROLLED VALVES) FOUND ON THE RECYCLED WATER SYSTEM IN THE CENTER OF THE BOX COVER IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.	APPEN. A 207-26.14	\$	\$
17	65	EA	INSTALL RECYCLED WATER TAGS ON ALL EXISTING GATE VALVES, MANUAL CONTROL VALVES, ELECTRICAL CONTROLLED VALVES AND	APPEN. A 207-26.14	\$	\$

			HYDRAULIC CONTROLLED VALVES FOUND ON THE RECYCLED WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.			
18	7	EA	INSTALL RECYCLED WATER SIGNS IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS		\$	\$
19	35	EA	INSTALL POTABLE WATER TAGS ON ALL EXISTING HOSE BIBS, QUICK COUPLERS. REPLACE EXISTING BRASS HOSE BIBS AND INSTALL NEW BRASS HOSE BIBS W/VACUUM BREAKER DEVICES ON POTABLE WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS		\$	\$
20	60	EA	INSTALL POTABLE WATER TAGS ON ALL EXISTING GATE VALVES, MANUAL CONTROL VALVES, ELECTRICAL CONTROLLED VALVES AND HYDRAULIC CONTROLLED VALVES FOUND ON THE POTABLE WATER SYSTEM IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
21	30	EA	REMOVE EXISTING QUICK COUPLERS TO COUPLERS IDENTIFIED FOR RECYCLED WATER USE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
22	10	EA	INSTALL RECYCLED WATER IDENTIFICATION SIGNS ON EXISTING ELECTRICAL CONTROL BOXES IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$
23	1	LS	INSTALL NEW 3 INCH RECYCLED WATER ABOVE GRADE W/PIPING, CONCRETE PAD AND BOLLARDS IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND STANDARD DRAWINGS.		\$	\$

**Sub-Total for South High School**      \$ \_\_\_\_\_

**TOTAL BID PRICE FOR SCHEDULE B : \$** \_\_\_\_\_  
(Figures)\*

**TOTAL BID PRICE FOR SCHEDULE B :** \_\_\_\_\_  
(Words)\*

**TOTAL BID PRICE FOR SCHEDULE A AND B : \$** \_\_\_\_\_  
(Figures)\*

**TOTAL BID PRICE FOR SCHEDULE A AND B :** \_\_\_\_\_  
(Words)\*

**\*BID MAY BE REJECTED IF TOTAL IS NOT SHOWN IN FIGURES AND WORDS.**

**B2016-03**  
**BIDDER'S SUBMITTAL (Continued) B2016-03**

The undersigned furthermore agrees to enter into and execute a contract, with necessary bonds, at the unit prices set forth herein and in case of default in executing such contract, with necessary bonds, the check or bond accompanying this bid and the money payable thereon shall be forfeited thereby to and remain the property of the City of Torrance.

The above unit prices include all work appurtenant to the various items as outlined in the Specifications and all work or expense required for the satisfactory completion of said items. In case of discrepancies between unit prices and totals, the unit prices shall govern.

The undersigned declares that it has carefully examined the Plans, Specifications, and Contract Documents, and has investigated the site of the work and is familiar with the conditions thereon.

Contractor: \_\_\_\_\_

Date: \_\_\_\_\_ By: \_\_\_\_\_

Contractor's State License No. \_\_\_\_\_ Class \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

# **APPENDIX XI**

## **ADS HP STORM 12" - 60" PIPE SPECIFICATION**

## ADS HP STORM 12" - 60" PIPE SPECIFICATION

### Scope

This specification describes 12- through 60-inch (300 to 1500 mm) ADS HP Storm pipe for use in gravity-flow storm drainage applications.

### Pipe Requirements

- 12- through 30-inch (300 to 750 mm) pipe shall have a smooth interior and annular exterior corrugations and meet or exceed ASTM F2736 and AASHTO M330
- 36- through 60-inch (900 to 1500 mm) pipe shall have a smooth interior and annular exterior corrugations and meet or exceed ASTM F2881 and AASHTO M330
- Manning's "n" value for use in design shall be 0.012

### Joint Performance

Pipe shall be joined with a gasketed integral bell & spigot joint meeting the requirements of ASTM F2736 or F2881, for the respective diameters.

12- through 60-inch (300 to 1500 mm) shall be watertight according to the requirements of ASTM D3212. Spigots shall have gaskets meeting the requirements of ASTM F477. Gasket shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket is free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.

12- through 60-inch (300 to 1500 mm) diameters shall have a reinforced bell with a polymer composite band installed by the manufacturer.

### Fittings

Fittings shall conform to ASTM F2736, ASTM F2881 and AASHTO M330, for the respective diameters. Bell & spigot connections shall utilize a spun-on, welded or integral bell and spigot with gaskets meeting ASTM F477. Bell & spigot fittings joint shall meet the watertight joint performance requirements of ASTM D3212. Corrugated couplings shall be split collar, engaging at least 2 full corrugations.

### Field Pipe and Joint Performance

To assure watertightness, field performance verification may be accomplished by testing in accordance with ASTM F1417 or ASTM F2487. Appropriate safety precautions must be used when field-testing any pipe material. Contact the manufacturer for recommended leakage rates.

### Material Properties

Polypropylene compound for pipe and fitting production shall be impact modified copolymer meeting the material requirements of ASTM F2736, Section 4, ASTM F2881, Section 5 and AASHTO M330, Section 6.1, for the respective diameters.

### Installation

Installation shall be in accordance with ASTM D2321 and ADS recommended installation guidelines, with the exception that minimum cover in traffic areas for 12- through 48-inch (300 to 1200 mm) diameters shall be one foot. (0.3 m) and for 60-inch (1500 mm) diameters, the minimum cover shall be 2 ft. (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1, Class 2 (minimum 90% SPD) or Class 3 (minimum 95%) material. Maximum fill heights depend on embedment material and compaction level; please refer to Technical Note 2.04. Contact your local ADS representative or visit our website at [www.ads-pipe.com](http://www.ads-pipe.com) for a copy of the latest installation guidelines.

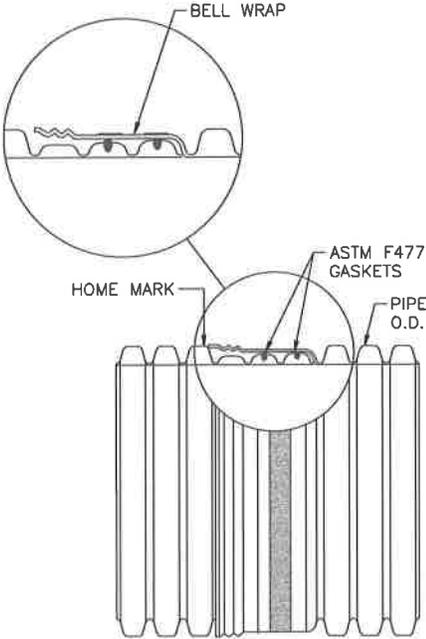
### Pipe Dimensions

Nominal Pipe I.D. in (mm)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Average Pipe I.D. in (mm)	12.1 (307)	14.9 (378)	18.0 (457)	24.1 (612)	30.1 (765)	35.7 (907)	41.8 (1062)	47.3 (1201)	59.3 (1506)
Average Pipe O.D. in (mm)	14.5 (368)	17.6 (447)	21.2 (538)	28.0 (711)	35.4 (899)	41.1 (1044)	47.2 (1199)	53.8 (1367)	66.5 (1689)
Minimum Pipe Stiffness * @ 5% Deflection* #/in./in. (kN/m <sup>2</sup> )	75 (520)	60 (411)	56 (385)	50 (343)	46 (320)	40 (275)	35 (240)	35 (240)	30 (205)

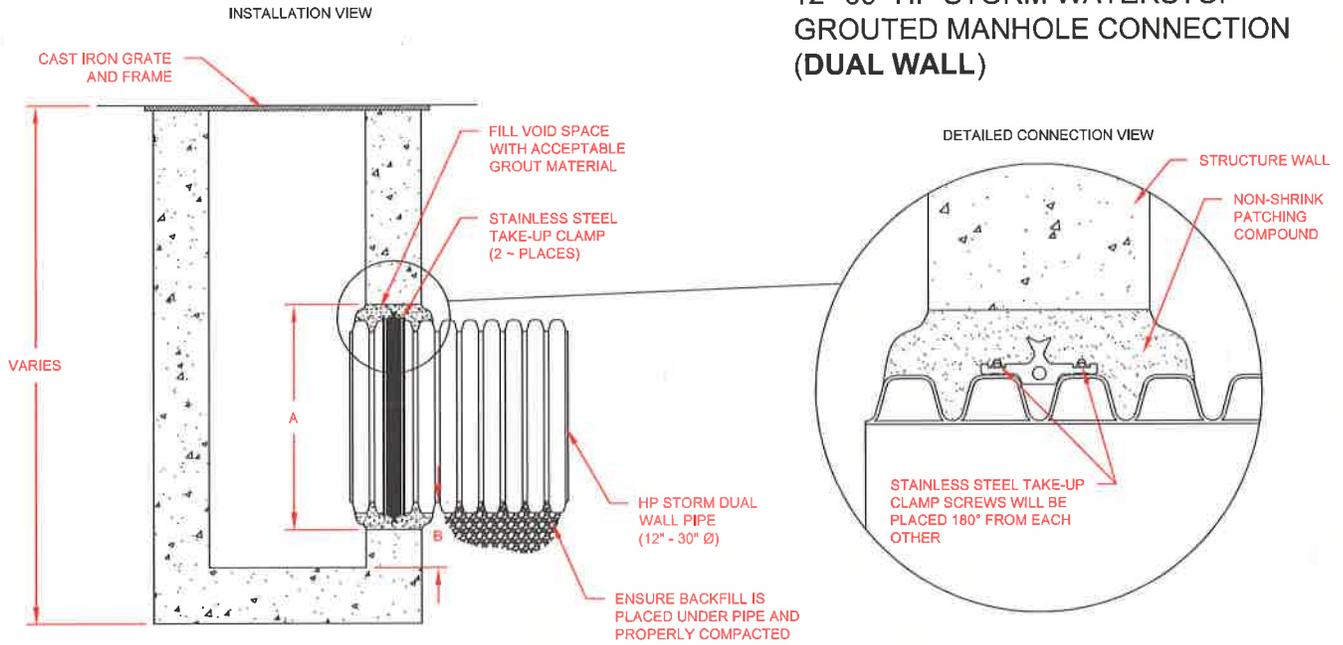
\* Minimum pipe stiffness values listed; contact a representative for maximum values

### HP STORM 12" – 60" PIPE JOINT SYSTEM

*(Joint configuration & availability subject to change without notice. Product detail may differ slightly from actual product appearance.)*



## 12"-60" HP STORM WATERSTOP GROUDED MANHOLE CONNECTION (DUAL WALL)



PIPE SIZE (IN)	PIPE OD (IN)	"A" MIN. HOLE Ø (IN)	"B" MIN. DISTANCE PIPE INVERT TO STRUCTURE INVERT (IN)	ADS PRODUCT CODE
12	14.5	19.50	3.7	1202PS
15	17.6	23.00	4.0	1502PS
18	21.2	26.50	4.2	1802PS
24	27.8	33.25	4.5	2402PS
30	35.1	40.50	5.2	3002PS
36	41.1	47.00	5.5	3602PS
42	47.7	53.00	5.7	4202PS
48	53.6	59.00	5.7	4802PS
60	66.3	72.00	6.4	6002PS

### NOTES:

PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

INSTALLATION RECOMMENDATIONS ARE ALSO SPECIFIED IN INSTALLATION GUIDE 1.05: WATERSTOP INSTALLATION

1	UPDATED TO HP STORM	TJR	04/08/14		
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D	

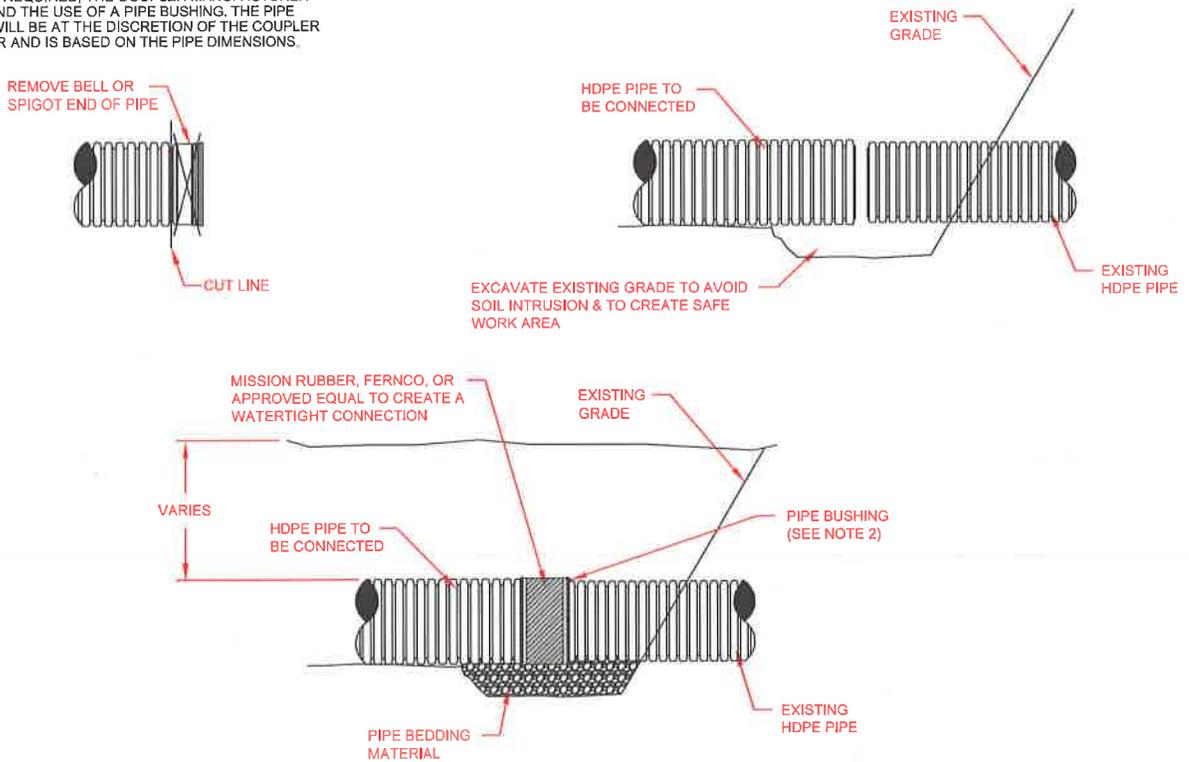
© 2010 ADS, INC

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

<b>WATERSTOP STRUCTURE</b>			4840 TRUEMAN BLVD HILLIARD, OHIO 43026	DESIGNED BY	JAB
<b>12"-60" HP STORM DETAIL</b>				DATE	4/07/12
DRAWING NUMBER: STD-206A				CHECKED BY	NTS
				SCALE	1 OF 1

**NOTES:**

1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321, LATEST EDITION.
2. FOR CONNECTIONS WHERE THE OUTSIDE DIAMETERS OF THE TWO CONNECTING PIPES ARE DIFFERENT AND A WATERTIGHT CONNECTION IS REQUIRED, THE COUPLER MANUFACTURER MAY RECOMMEND THE USE OF A PIPE BUSHING. THE PIPE BUSHING SIZE WILL BE AT THE DISCRETION OF THE COUPLER MANUFACTURER AND IS BASED ON THE PIPE DIMENSIONS.



© 2015 ADS, INC.

REV	DESCRIPTION	BY	MM/DD/YY	CHKD

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

**HDPE TO HDPE  
CONNECTION DETAIL**  
DRAWING NUMBER: STD-607



4640 TRUEMAN BLVD  
HILLIARD, OHIO 43026

DESIGNER	RJS
DATE	1/20/15
CHECKED	
SCALE	NTS
SHEET	1 OF 1