



City of Tigard

FINANCE AND INFORMATION SERVICES

Invitation to Bid

ADDENDUM #1

DIRKSEN NATURE PARK EDUCATION CENTER & PATHWAY IMPROVEMENTS CIP 2015-92016

Bids Due: Thursday, September 24 - 2:00 pm

Addendum Issue Date: September 17, 2015

Submit Bids To: City of Tigard – Contracts & Purchasing Office
Attn: Joe Barrett, Sr. Management Analyst
13125 SW Hall Blvd.
Tigard, Oregon 97223

Direct Questions To: Joe Barrett, Sr. Management Analyst
Phone: (503) 718-2477
Email: joseph@tigard-or.gov

Project Manager: Jeff Peck, Project Coordinator
Phone: (503) 718-2466
Email: jeffp@tigard-or.gov

Total Page of this Addendum: 7

BID FORM AND SCHEDULE

No changes were made to the bid form or bid schedule.

CHANGES TO PROJECT MANUAL

The following changes are made to the Project Manual contained in the Invitation to Bid packet material:

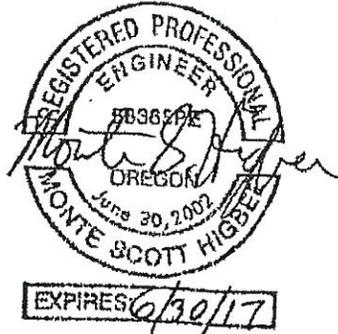
- 32 84 00 PLANTING IRRIGATION
Should not be included as part of this project. The City is not proposing irrigation in Phase 1
- 01 00 00 GENERAL REQUIREMENTS
Changed to 01 10 00 Summary
- 33 41 00 SITE STORM SEWER SYESTEMS
Missing from the original documents. This section needs to be included. It is attached to this Addendum.

Dirksen Nature Park

Phase 1
CSI Technical Specifications
 TABLE OF CONTENTS
 Section 00 01 10

01 10 00

	DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS	DATE
	Refer to the City of Tigard Public Improvement Contract for Procurement and Contracting Requirements	
	DIVISION 01 - GENERAL REQUIREMENTS	
01 00 00	General Requirements SUMMARY	
01 20 00	Price and Payment Procedures	
01 30 00	Administrative Requirements	
01 33 00	Submittal Procedures	
01 40 00	Quality Requirements	
01 50 00	Temporary Facilities and Controls	
01 60 00	Product Requirements	
01 70 00	Execution Requirements	
	DIVISION 31 - EARTHWORK	
31 05 13	Earth Work	
31 25 13	Erosion Control	
	DIVISION 32 - EXTERIOR IMPROVEMENTS	
32 11 23	Aggregate Base Course	
32 13 14	Concrete Curbs and Walks	
32 84 00	Planting Irrigation (NOT INCLUDED)	
32 91 13	Landscape Grading, Topsoil and Soil Preparation	
32 92 19	Seeding	
32 93 00	Plants	
	DIVISION 33 - UTILITIES	
33 41 00	Site Storm Sewer Systems	



EXPIRES 6/30/17

SECTION 33 41 00
SITE STORM SEWER SYSTEMS

PART 1 GENERAL

1.1 RELATED DOCUMENT

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division I Specification Sections, apply to this Section.
- B. Clean Water Services Design and Construction Standards, June 2007

1.2 SECTION INCLUDES

- A. Site storm sewerage drainage piping, fittings and accessories, and bedding.
- B. Catch basins, area drains, clean-outs, paved area drainage, site surface drainage, and water quality facilities.

1.3 RELATED SECTIONS

- A. Section 310513 - Earthwork
- B. Section 330513 - Manholes and Covers.
- C. Section 333100 - Site Sanitary Sewerage Systems

1.4 REFERENCES

- A. ASTM A74 - Cast Iron Soil Pipe and Fittings.
- B. ASTM C14 - Concrete Sewer, Storm Drain, and Culvert Pipe.
- C. ASTM C76 - Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
- D. ASTM C443 - Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
- E. ASTM C564 - Rubber Gaskets for Cast Iron Soil Pipe and Fittings.
- F. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort.
- G. ASTM D2751 - Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings.
- H. ASTM D3034 - Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- I. ASTM D2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- J. ASTM D3017 - Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.

1.5 SUBMITTALS FOR REVIEW

- A. Product Data: Provide data indicating pipe, pipe accessories, catch basins and cleanouts.

1.6 SUBMITTALS AT PROJECT CLOSEOUT

- A. Accurately record actual locations of pipe runs, connections, catch basins, cleanouts, and invert elevations.
- B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.7 COORDINATION

- A. Coordinate the Work with termination of storm sewer connection outside building, trenching, connection to foundation drainage system, if required, and discharge to sewer or stream.

1.8 REGULATORY REQUIREMENTS

- A. Conform to Uniform Plumbing Code for materials and installation of the Work of this section.
- B. Conform to Clean Water Services / City of Tigard requirements for Construction and connection to public storm sewer mains.

PART 2 - PRODUCTS

2.1 STORM SEWER PIPE MATERIALS

- A. Cast Iron Pipe:
 - 1. ASTM A74, Service type, inside nominal diameter as indicated.
 - 2. Cast Iron Pipe Joint Device: ASTM C564, rubber gasket joint devices.
- B. Concrete Pipe:
 - 1. ASTM C14, Class 3; unreinforced; inside nominal diameter as indicated.
 - 2. Reinforced Concrete Pipe: ASTM C76, Class IV; inside nominal diameter as indicated.
 - 3. Pipe Joint Device: ASTM C443, rubber compression gasket joint.
- C. Plastic Pipe:
 - 1. ASTM D2751, Acrylonitrile-Butadiene-Styrene (ABS) material; inside nominal diameter as indicated, bell and spigot style solvent sealed joint end.
 - 2. ASTM D3034, Type PSM, Poly(Vinyl Chloride) (PVC) material; inside nominal diameter as indicated, bell and spigot style rubber ring sealed gasket joint.
 - 3. ASTM D1784, Rigid Poly (Vinyl Chloride)(C900 PVC) compounds and Chlorinated Poly(Vinyl Chloride)(CPVC) Compounds. Inside nominal diameter as indicated, bell and spigot style rubber sealed gasket joint.
- D. Corrugated Polyethylene Pipe:
 - 1. Smooth lined high-density polyethylene pipe; ADS N-12, Hankor Sure-Loc or equal.

2.2 ACCESSORIES

- A. Pipe Joints: Mechanical clamp ring type, stainless steel expanding and contracting sleeve, neoprene ribbed gasket for positive seal.
- B. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps and other configurations required.
- C. Filter Fabric: Non-biodegradable, non-woven.
- D. Trace Wire: Magnetic detectable conductor, brightly colored plastic covering, imprinted with "Storm Sewer Service" in large letters.

2.3 CATCH BASINS

- A. Catch Basins: Lynch style catch basins or equal.
 - 1. Lid Design: Square or round Linear grill.
 - 2. Nominal Lid and Frame Size: 24 inch.

2.4 AREA DRAINS

- A. Nyloplast 12" drains or approved equal, ductile iron grates as indicated on drawings.

2.5 CLEANOUTS

- A. Cleanout Lid and Frame: Cast iron construction, as indicated on drawings.
 - 1. Lid Design: As indicated.
- B. Shaft Construction: Of the same material as the pipe, nominal shaft diameter of eight inches.
- C. Concrete: 3000 psi concrete.

2.6 BEDDING AND COVER MATERIALS

- A. Bedding and Backfill: As specified in Section 310513.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that trench cut is ready to receive work and excavations, dimensions, and elevations are as indicated on drawings.

3.2 PREPARATION

- A. Hand trim excavations to required elevations. Correct over excavation with pipe bedding and backfill material.
- B. Remove large stones or other hard matter which could damage piping or impede consistent backfilling or compaction.

3.3 BEDDING

- A. Excavate pipe trench in accordance with Section 310513 for work of this section. Hand trim excavation for accurate placement of pipe to elevations indicated.
- B. Place bedding material at trench bottom, level materials in continuous layer not exceeding 6 inches compacted depth.
- C. Maintain optimum moisture content of bedding material to attain required compaction density.

3.4 INSTALLATION - PIPE

- A. Install pipe, fittings, and accessories in accordance with manufacturer's instructions. Seal joints watertight.
- B. Place pipe on minimum four inch deep bedding and backfill material.
- C. Lay pipe to slope gradients noted on drawings with maximum variation of 0.05%. Excavate for pipe bells to provide for uniform support along its full length.
- D. Install aggregate at sides and over top of pipe. Provide top cover to minimum compacted thickness of 12 inches, compact to 92 percent.
- E. Refer to Section 310513 for trenching requirements. Do not displace or damage pipe when compacting.
- F. Refer to Section 330513 for manhole requirements.
- G. Connect to building rain drains, municipal storm sewer system, manholes, or discharge.
- H. Install trace wire continuous over top of pipe, below finish grade, above pipe line.

3.5 INSTALLATION - CATCH BASINS AND CLEANOUTS

- A. Form bottom of excavation clean and smooth to correct elevation.
- B. Support the catch basin on a minimum of six inches of compacted pipe bedding and backfill material.
- C. Level top surface of base pad to assure level top.
- D. Establish elevations and pipe inverts for inlets and outlets as indicated.

3.6 FIELD QUALITY CONTROL

- A. Request inspection prior to and immediately after placing aggregate cover over pipe.
- B. Compaction testing will be performed in accordance with ASTM D1557, ASTM D2922, and ASTM D3017.
- C. If tests indicate Work does not meet specified requirements, remove Work, replace and retest.

3.7 PROTECTION

- A. Protect pipe and aggregate cover from damage or displacement until backfilling operation is in progress.

3.8 SCHEDULE

- A. Storm Sewer Main: From 5 feet (1 525 mm) beyond building walls, to municipal sewer or designated outfalls.

END OF SECTION