constructconnect insight

Cincinnatus Csd

Category:	Elementary, Pre Schools, High Schools	Project ID #:	1002042326
Street Address:	Various Locations Cincinnatus NY 13040	Confirmed Value	$3,229,000.00
County:	Cortland	Stage:	Low Bids Announced
Bid Date:	11/11/2015 , 01:00 PM		
Architect:	Hunt Engineers Architects & Land Surveyors PC		
Documents Available:	Plans, Specs available in Insight	Plans available from Hunt Engineers Architects & Land Surveyors PC	
Last Update:	11/14/2015	Fahs Construction Group was added as a bidder	

Personal Notes

User	Note	Update Date	Private?
Adam Sweet	ESAQ7418 (Cortland), 7419 (General Oil)	4/12/2016	False
Adam Sweet	FIND OUT IF WE GOT THE ORDER Assigned by: Adam Sweet on 04/06/2016 Assigned to: Adam Sweet	4/6/2016	False
Adam Sweet	Dave's Tab: 10k AST? split 7/3, JF	4/6/2016	False

Notes

Scope	Elementary School,Junior High School,Senior High School Roofing Replacements, Replace Windows, Science Classroom Improvements, Masonry Restoration, Door Hardware Upgrades , Large & Small Gymnasium Improvements, Including Bleacher Replacement, Asbestos Remediation, Bus Driveway & Parking Lot Pavement
Notes	1. Pre-Bid Conference 10/22/2015 1:00 PM 2. Pre-Bid Conference Location = The Wilbur Auditorium, CSD 2809 Cincinnatus Rd, Cinncinnatus NY. 3. Plans from Binghamton Dataflow upon $100 for complete set and a non-refundable $25 for S & H. Elec Files $25 Non-refundable. Make all checks for the Paper copies to Cincinnatus CSD. All S & H Fee and Elec Fees Make Checks Payable to Hunt Engineers. 4. Questions to: Keith Miller At Hunt fax 607-358-1820 or email millerk@hunt-eas.com 5. GE $3.6 Million Roofing $1 Million Mech $400,000 Plbg $360,000 Elec & Technology $1 Mil Theator Sound Contract $400,000 6. 6 Bids Received
Details	[Division 2]: Building Demolition, Hazardous Material Abatement, Earthwork, Grading, Slope Protection & Erosion Control, Paving & Surfacing, Water Systems, Sewerage & Drainage, Fences & Gates, Landscaping. [Division 3]: Concrete Formwork, Concrete Reinforcement, Structural Concrete, Architectural Concrete, Architectural Precast Concrete. [Division 5]: Structural Steel, Metal Fabrications, Expansion Joints. [Division 6]: Finish Carpentry, Custom Casework. [Division 7]: Firestopping, Manufactured Roofing & Siding, Membrane Roofing. [Division 8]: Metal Doors, Hardware, Glass & Glazing. [Division 9]: Ceiling Suspension Systems, Drywall/Gypsum, Tile, Terrazzo, Acoustical Ceilings, Carpet, Painting. [Division 10]: Interior Signs, Partitions, Operable Partitions, Toilet & Bath Accessories. [Division 11]: Athletic Equipment. [Division 12]: Manufactured Casework, Window Treatment, Multiple Seating. [Division 13]: Pre-Engineered Structures. [Division 15]: Mechanical Insulation, Fire Protection Systems, Plumbing Fixtures, Boilers, Air Handling, Ductwork. [Division 16]: Service/Distribution, Interior Lighting, Exterior Lighting, Emergency Lighting, Standby Power Generator Systems, Alarm & Detection Systems.

Additional Details

Listed On:	5/2/2014	Floor Area:	
Contract Type:	Construction Management, Design/Build, General contract, Project Management	Work Type:	Alteration
Stage Comments 1:	Low Bids Announced	Floors Below Grade:	
Stage Comments 2:	BIDS: 11/11/2015, 01:00 PM	Owner Type:	City
Bid Date:	11/11/2015	Mandatory Pre Bid Conference:	
Invitation #:	2912-002	Commence Date:	1/1/2016
Structures:		Completion Date:	
Single Trade Project:		Site Area:	
Floors:		LEED Certification Intent:	Unknown
Parent Project ID:		Units:	
Parking Spaces:			

© 2016 ConstructConnect. All Rights Reserved.

Project Participants

Company Role	Company Name	Contact Name	Address	Phone	Email	Fax
Architect, Civil Engineer, Landscape Architect, Structural, Mechanical and Electrical Engineer	Hunt Engineers Architects & Land Surveyors PC		100 Hunt Centre , Horseheads, NY 14845	(607) 358-1000		(607) 358-1800
Owner	Cincinnatus Central School District		2809 Cincinnatus Rd , Cincinnatus, NY 13040-9685	(607) 863-4101		(607) 863-4559
Architect, Civil Engineer, Landscape Architect, Structural, Mechanical and Electrical Engineer	Hunt Engineers Architects & Land Surveyors PC	Keith Miller	100 Hunt Centre , Horseheads, NY 14845	(607) 358-1000	millerk@hunt-eas.com	(607) 358-1800

Bidders

Company Name	Added Date	Address	Phone	Email	Bidding Role	Bid Rank	Bid Value	Fax Number
Louis N. Picciano & Son, Inc	11/13/2015	320 N. Jensen Road P. O. Box 448, Vestal, NY 13851	(607) 729-1111		General Contractor			(607) 797-6666
Murnane Building Contractors - Syracuse	10/27/2015	6728 Myers Road , East Syracuse, NY 13057	(315) 432-0490	pmurnane@murnanebuilding.com	General Contractor	2	$3,360,000.00	(315) 432-0655
Kimble Inc.	11/4/2015	1004 Sullivan St. , Elmira, NY 14901	(607) 734-4123		General Contractor			(607) 734-4199
J & B Installations	10/17/2015	732 Visions Drive P.O. Box 188, Skaneateles Falls, NY 13153	(315) 685-8993	service@jbinstallations.com	General Contractor			(315) 685-0508
Bouley Associates Inc.	10/27/2015	265 Genesee St. Ste 4, Auburn, NY 13021	(315) 253-4417		General Contractor			(315) 253-4419
Bette & Cring - Watertown Office	11/4/2015	18438 US Rte. 11 , Watertown, NY 13601	(315) 782-0074	info@bettecring.com	General Contractor			(315) 782-5159
Fahs Construction Group	11/14/2015	2224 Pierce Creek Road , Binghamton, NY 13901	(607) 724-1835	cguy@fahsconstruction.com	General Contractor	3	$3,591,000.00	(607) 724-7381
Andrew R. Mancini Associates, Inc.	10/27/2015	129 Odell Ave. , Endicott, NY 13760	(607) 754-7070	info@andrewmancini.com	General Contractor			(607) 786-0410
Daniel J. Lynch, Inc.	10/17/2015	3000 Wayne St. , Endwell, NY 13760	(607) 748-3342		General Contractor			(607) 748-3375
DeWald Roofing Company Inc.	11/4/2015	85 Corporate Park Dr. P.O. Box 479, Central Square, NY 13036	(315) 676-2744	office@dewaldroofing.com	General Contractor			(315) 676-2756
Apple Roofing Corp.	11/4/2015	124 Pickard Drive East , Syracuse, NY 13211	(315) 463-5482	appleinfo@appleroofing.com	General Contractor			(315) 437-5827
Nelcorp Elec	11/11/2015	2500 Watson Blvd , Endicott, NY 13760-3236	(607) 754-8428		General Contractor			(607) 785-8783
Bovis Lend Lease	10/17/2015	1451 Dryden Road , Freeville, NY 13068	(607) 327-1634		General Contractor			(607) 347-6711
JD Taylor Construction Corp	10/17/2015	406 N Midler Ave P.O.Box 155, Syracuse, NY 13206	(315) 463-5204	jdtcc@jdtaylorconstruction.com	General Contractor			(315) 496-4590
G.M. Crisalli & Associates	10/27/2015	843 Hiawatha Boulevard West , Syracuse, NY 13204	(315) 454-0000	msheneman@gmca.com	General Contractor			(315) 454-4622
AB Construction & Roofing, Inc.	10/28/2015	815 Hyde St. , Whitney Point, NY	(607) 692-2858		General Contractor			(607) 692-7639

© 2016 ConstructConnect. All Rights Reserved.

		13862						
Diekow Electric	10/17/2015	375 Route 11 Ste Ste 1., Marathon, NY 13803	(607) 849-4343		General Contractor			(607) 849-4396
Lechase Construction - Binghamton Office	10/17/2015	31 Lewis Street Suite 303, Binghamton, NY 13901	(607) 772-2500		General Contractor			(607) 772-2504
Bette & Cring Construction Group - Headquarters	10/20/2015	22 Century Hill Drive Suite. 201, Latham, NY 12110	(518) 213-1010	info@bettecring.com	General Contractor	1	$3,229,000.00	(518) 213-1050
MG Industrial Insulation	10/28/2015	3525 Route 31 , Baldwinsville, NY 13027	(315) 652-1001		General Contractor			(315) 652-1466
Titan Roofing Inc.	11/4/2015	200 Tapley Street , Springfield, MA 01104	(413) 536-1624	mail@titanroofing.com	General Contractor			(413) 533-2560
Two Brothers Contracting Inc.	11/4/2015	11 Vreeland Ave , Totowa, NJ 07512	(973) 956-8700		General Contractor			(973) 956-8811
Bacon & Seiler Constructors Inc	10/27/2015	790 Sheldon Road , Skaneateles, NY 13152	(315) 291-3103	rbacon@baconandseilerconstr.com	General Contractor			(315) 291-3104
Lend Lease (US) Construction Inc. - Upstate New York	10/17/2015	360 W Jefferson St Ste. A, Syracuse, NY 13202	(315) 214-5140		General Contractor			(315) 214-3791
BEI - Bellucci Enterprises	10/27/2015	304 Barrett Ln. , Bridgeport, NY 13030	(315) 633-1234		General Contractor			(315) 633-1252
DW & Crew Mechanicals Incorporation	11/4/2015	5620 Business Ave Ste H8 , Cicero, NY 13039-9576	(315) 870-9804		General Contractor			(315) 870-9805

Planholders

Company Name	Address	Phone	Email	Fax
Louis N. Picciano & Son, Inc	320 N. Jensen Road P. O. Box 448, Vestal, NY 13851	(607) 729-1111		(607) 797-6666
Ridley Electric	5800 Court Street Road P.O. Box 316, Syracuse, NY 13206	(315) 463-8606	mmcbride@ridleyelectric.com	(315) 463-8638
Kimble Inc.	1004 Sullivan St. , Elmira, NY 14901	(607) 734-4123		(607) 734-4199
Blanding Electric Inc.	429 Commerce Road , Vestal, NY 13850	(607) 729-3545	mlabosky@blandingelectric.com	(607) 729-0700
J & K Plumbing & Heating Co. Inc.	24 Thorp St. PO Box 25, Binghamton, NY 13905	(607) 772-1666		(607) 724-4048
J & B Installations	732 Visions Drive P.O. Box 188, Skaneateles Falls, NY 13153	(315) 685-8993	service@jbinstallations.com	(315) 685-0508
Brosh Mechanical	7702 Maltlage Dr. , Liverpool, NY 13090	(315) 652-1300		(315) 652-1400
Patricia Electric	407 Brown Ave. , Syracuse, NY 13208	(315) 455-7410		(315) 455-7522
Apple Roofing Corp.	124 Pickard Drive East , Syracuse, NY 13211	(315) 463-5482	appleinfo@appleroofing.com	(315) 437-5827
Nelcorp Elec	2500 Watson Blvd , Endicott, NY 13760-3236	(607) 754-8428		(607) 785-8783
Titan Roofing	70 Orange St , Chicopee, MA 01013	(413) 536-1624		(413) 533-2560

Contracts

Classification	Conditions	Bonding	Bid Date	Bids To	Bid Type
General Contractor		Bid:5%,Perf:100%,Pay :100%	11/11/2015	Owner	Open Bidding

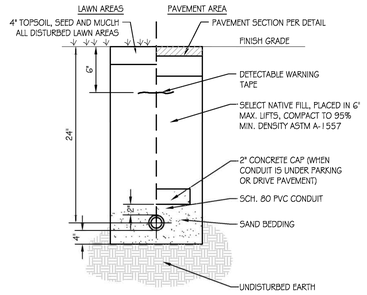
History

User	Viewed	First Viewed Date	Currently Tracked?	Date Tracked

© 2016 ConstructConnect. All Rights Reserved.

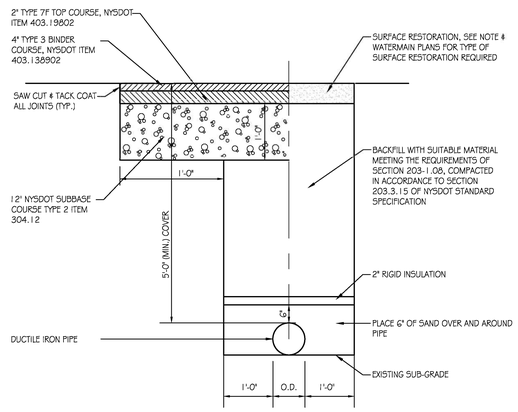
Adam Sweet	True	11/8/2015	True	4/6/2016
Bill McIndoo	True	10/19/2015	True	10/30/2015

© 2016 ConstructConnect. All Rights Reserved.



11 FIBER CONDUIT TRENCH DETAIL

SCALE: N.T.S.



10 WATER TRENCH DETAIL (ALT G-06)

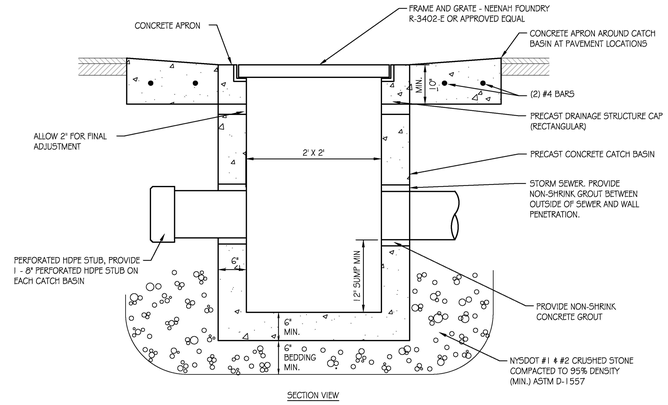
SCALE: N.T.S.

GENERAL NOTES

CAPACITY : 5000 GALLONS
TYPE : 1 360 DOUBLE WALL, UNDERGROUND

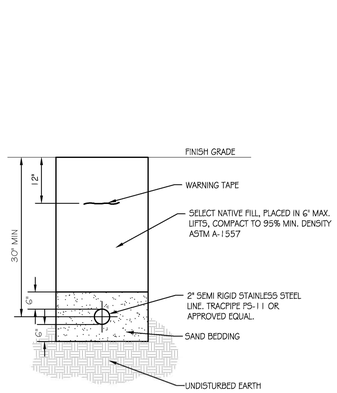
MATERIAL : POLYETHYLENE

SEE SPECIFICATIONS
PROVIDE PER MANUFACTURER'S INSTRUCTIONS.
H5-20 LOAD MIN.
OR APPROVED EQUAL.



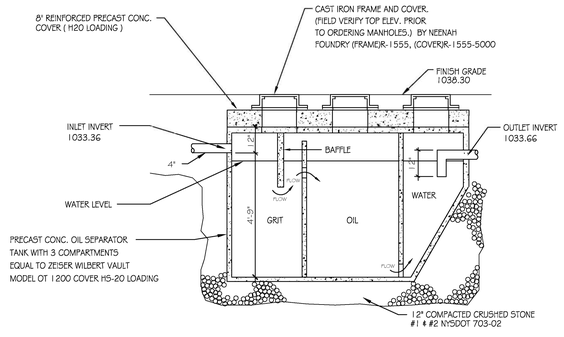
9 CATCH BASIN DETAIL

SCALE: N.T.S.



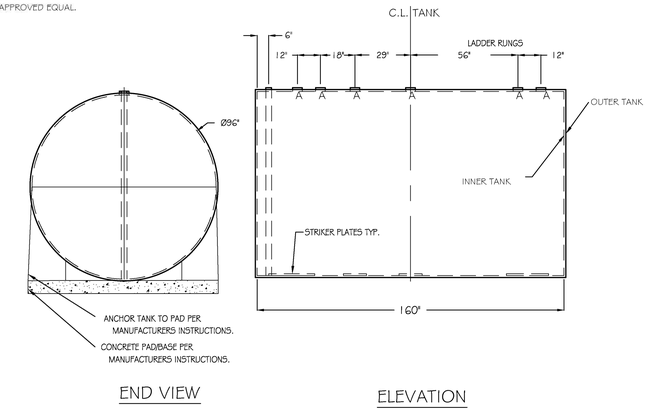
8 GAS PIPE TRENCH DETAIL

SCALE: N.T.S.



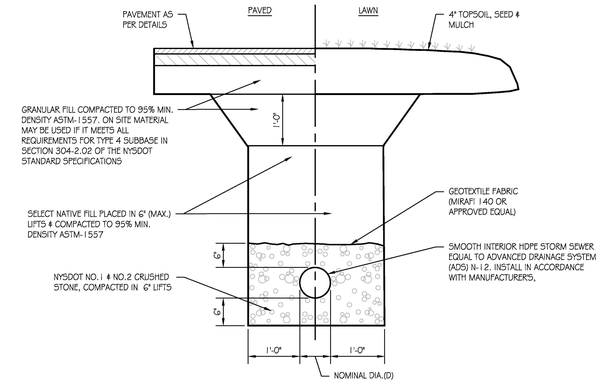
7 GRIT/OIL SEPARATOR DETAIL

SCALE: N.T.S.



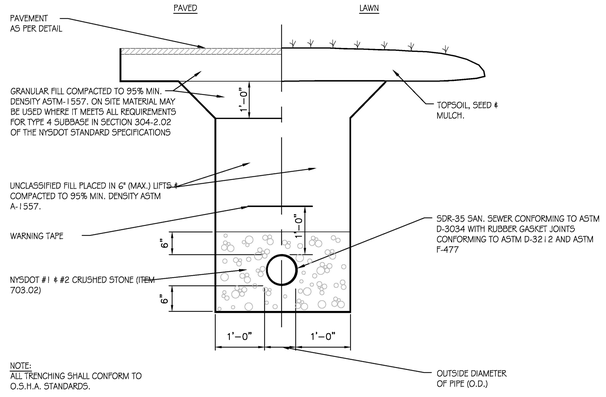
6 HOLDING TANK DETAIL

SCALE: N.T.S.



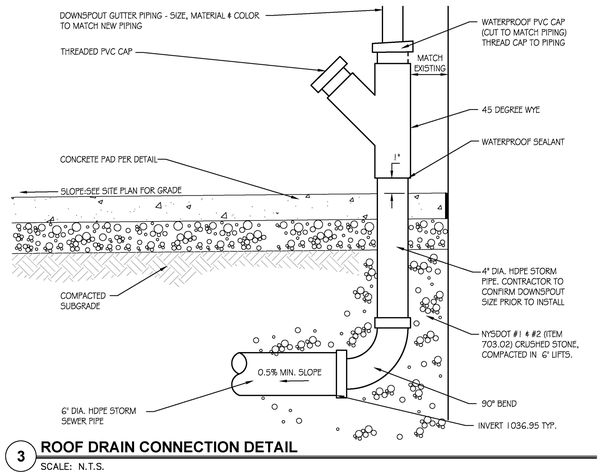
5 TYPICAL STORM SEWER TRENCH SECTION

SCALE: NOT TO SCALE



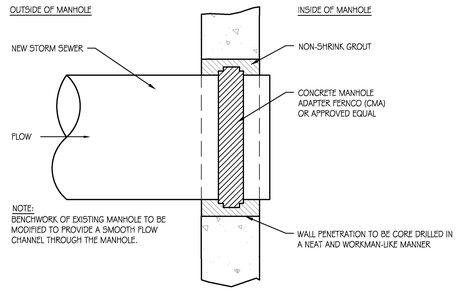
4 TYPICAL SANITARY SEWER TRENCH DETAIL

SCALE: N.T.S.



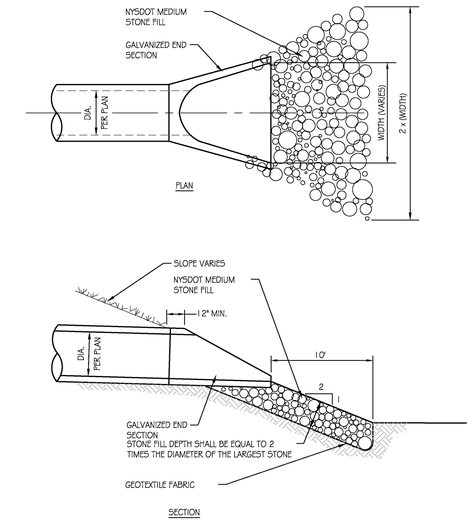
3 ROOF DRAIN CONNECTION DETAIL

SCALE: N.T.S.



2 EXISTING STORM MANHOLE CONNECTION DETAIL

SCALE: N.T.S.



1 STORM SEWER END SECTION DETAIL

SCALE: N.T.S.

DRAWN BY : LG
CHECKED BY : RMD
DATE : OCT. 12, 2015
SCALE : AS SHOWN

#	DATE:	DESCRIPTION OF REVISION:	BY:
1	10/1/2015	BID DOCUMENT DATE	

"Unauthorized Alteration Or Addition To Plans Bearing A Licensed Engineer's Or Architects Seal, Is A Violation Of Section 7209 Of The New York State Education Law."

Copyright: 2014

HUNT ENGINEERS, ARCHITECTS & SURVEYORS
AIRPORT CORPORATE PARK
100 HUNT CENTER
HORSEHEADS, N.Y. 14845
607 • 358 • 1000
FAX • 358 • 1800
HORSEHEADS, NY ROCHESTER, NY TOWANDA PA

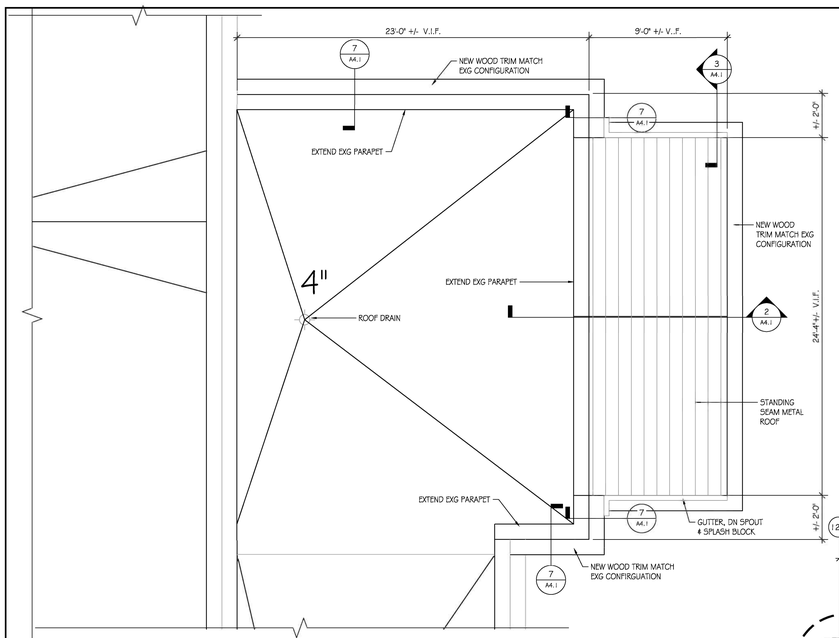
MAIN SCHOOL CAMPUS SED NO. 11-01-01-04-0-001-015 TRANSPORTATION FACILITY SED NO. 11-01-01-04-5-010-002

SITE UTILITY DETAILS

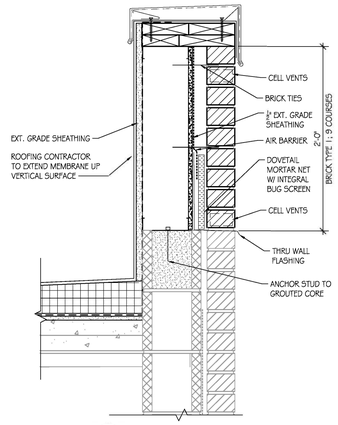
CINCINNATUS CENTRAL SCHOOL DISTRICT
DISTRICT WIDE ALTERATIONS
CINCINNATUS, NEW YORK

L4.1

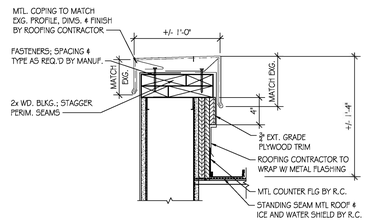
PROJECT NO: 2912-002



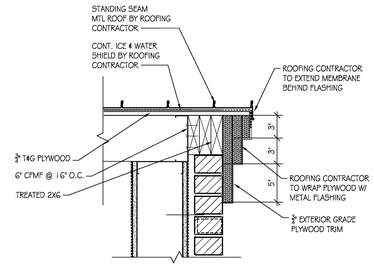
8 PLAN @ ENTRANCE ROOF ADDITION
1/4" = 1'-0"



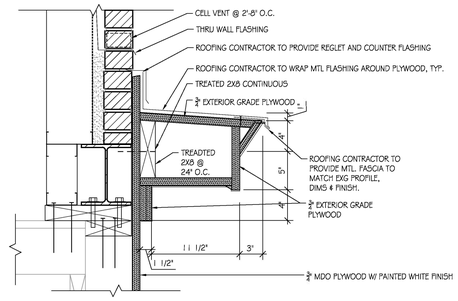
7 PARAPET DETAIL
1 1/2" = 1'-0"



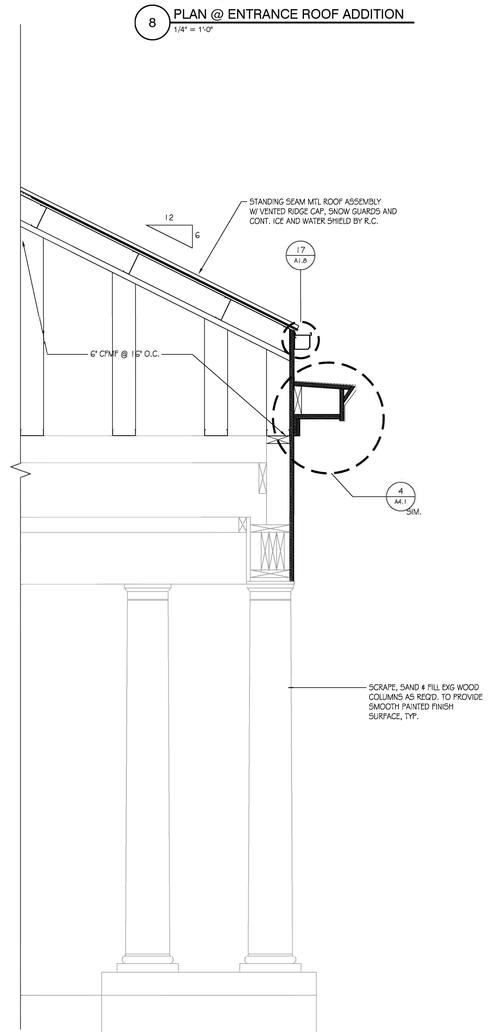
6 PARAPET DETAIL
1 1/2" = 1'-0"



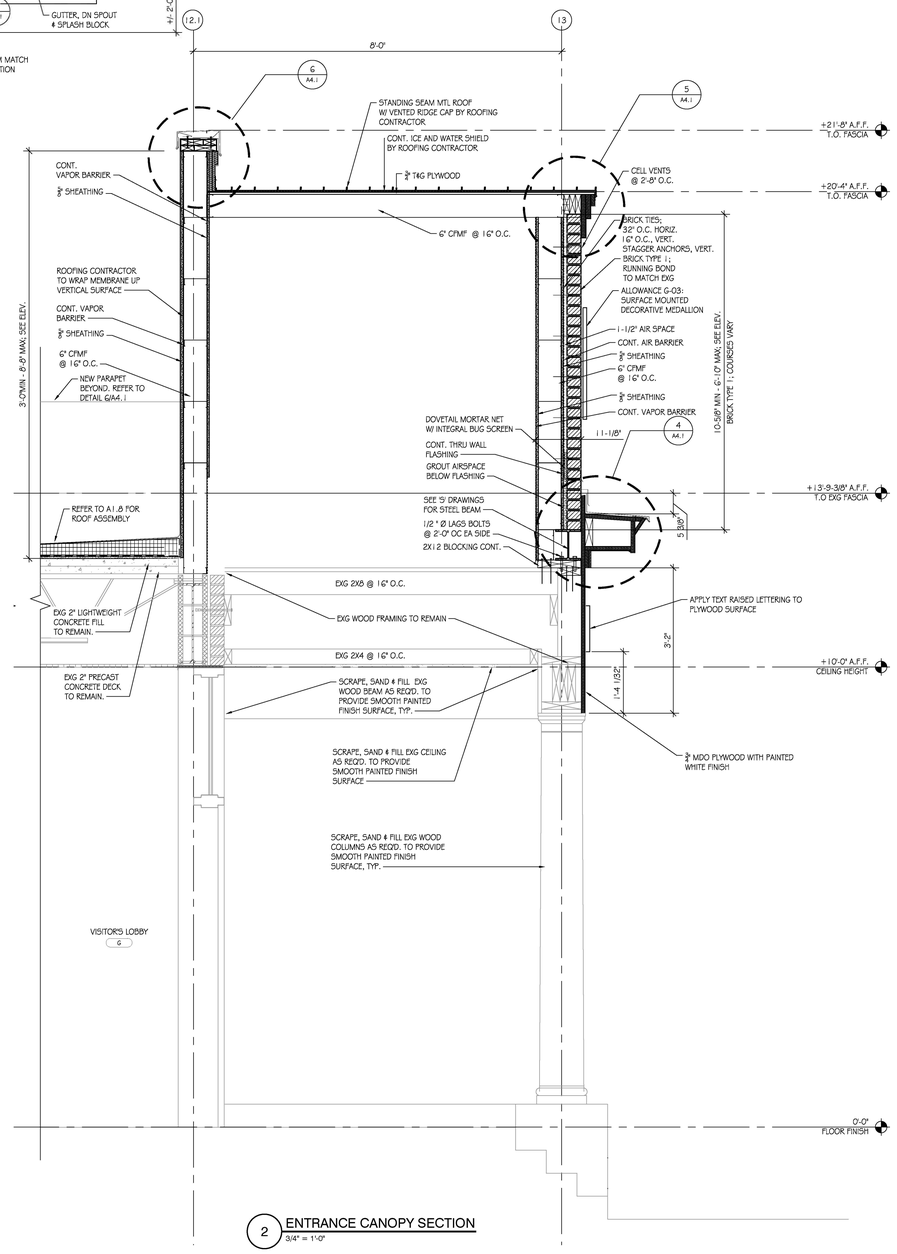
5 ROOF EDGE DETAIL
1 1/2" = 1'-0"



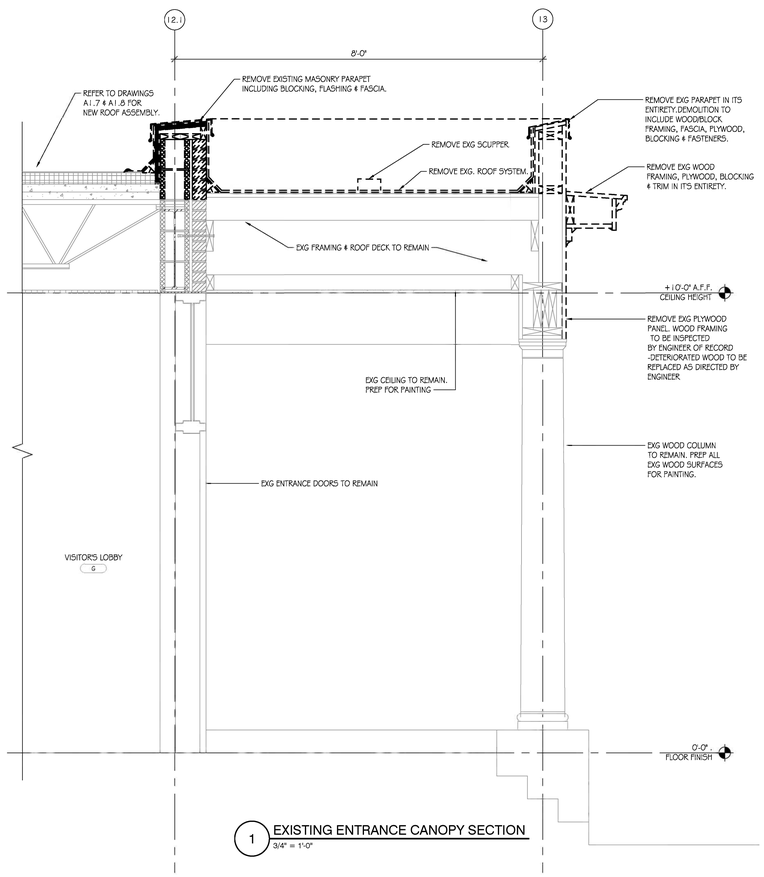
4 WOOD TRIM DETAIL
1 1/2" = 1'-0"



3 ENTRANCE CANOPY SECTION
3/4" = 1'-0"



2 ENTRANCE CANOPY SECTION
3/4" = 1'-0"



1 EXISTING ENTRANCE CANOPY SECTION
3/4" = 1'-0"

#	DATE:	DESCRIPTION OF REVISION:	BY:
1	10/27/15	BID DOCUMENT DATE	

DRAWN BY : KCM
CHECKED BY : KEM
DATE : OCT. 12, 2015
SCALE : AS NOTED

Unauthorized Alteration Or Addition To Plans Bearing A Licensed Engineer's Or Architects Seal, Is A Violation Of Section 7209 Of The New York State Education Law.

Copyright: 2014

HUNT ENGINEERS · ARCHITECTS · SURVEYORS
AIRPORT CORPORATE PARK
100 HUNT CENTER
HORSEHEADS, N.Y. 14845
607 • 358 • 1000
FAX • 358 • 1800
HORSEHEADS, NY ROCHESTER, NY TOWANDA, PA

MAIN SCHOOL CAMPUS SED NO. 11-01-01-04-0-001-015 TRANSPORTATION FACILITY SED NO. 11-01-01-04-5-010-002

WALL SECTIONS & DETAILS

CINCINNATUS CENTRAL SCHOOL DISTRICT
DISTRICT WIDE ALTERATIONS
CINCINNATUS, NEW YORK

A4.1

PROJECT NO: 2912-002

SECTION 33 51 13
GASOLINE AND DIESEL FUEL DISTRIBUTION SYSTEM

PART I GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes Gasoline and Diesel fuel distribution systems and the following:
   1. Piping.
   2. Valves.
   3. Horizontal, steel, dual fuel , AST meeting UL 2085.
   4. Liquid-level gage systems.
   5. Leak-detection and -monitoring systems.
   6. Gasoline and Diesel Fuel Dispensers.
   7. Gasoline and Diesel Fuel Site Controller and Pump Control Terminal.
   8. Fuel Island Canopy System

B. Related Sections include the following:

1.3 DEFINITIONS

A. Diesel Fuel: Includes diesel fuel for automotive diesel engines.

B. Dispenser: Gasoline or Diesel fuel dispensing terminal unit with dual hoses and nozzles.

C. Fuel Control System: Dual Card terminal used for fleet fueling, monitoring, and recording actions at Gasoline or Diesel fuel dispensing terminal units. Includes pump control terminal, printers, fuel site controller, and PC.

D. Gasoline Fuel: Includes gasoline fuel (Regular) for automotive gas engines

E. Pumps: Suction pumps placed inside each dispenser to pressurize fuel flow.

F. Tank Gauging System: AST gauging system capable of monitoring tank fluid level.

G. The following are industry abbreviations for storage tanks:
   1. AST: Aboveground storage tank.

1.4 PERFORMANCE REQUIREMENTS

A. Minimum working-pressure ratings for piping are the following, unless otherwise indicated:
   1. Gasoline and Diesel Fuel Distribution Piping: 150 psig (1035 kPa).
   2. Vent, Gage, and Fill Piping Minimum Working-Pressure Rating: 100 psig (690 kPa).

B. Seismic Performance: Provide AST supports capable of withstanding the effects of earthquake motions determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads."

1.5 SUBMITTALS

A. Product Data:
   1. Gasoline and diesel fuel storage tank accessories.

2. Gasoline and diesel fuel storage tank pumps.
3. Gasoline and diesel fuel storage tank piping specialties.
4. Liquid-level gage systems.
5. Leak-detection and -monitoring systems.

B. Shop Drawings: For AST supports and anchors. Include plans, elevations, sections, and details.
   1. Wiring Diagrams: Power, signal, and control wiring.

C. Material Certificates: For each fuel oil storage tank, signed by manufacturers.

D. Field quality-control test reports.

E. Operation and Maintenance Data: For gasoline and diesel suction pumps, liquid-level gages, and -monitoring systems to include in emergency, operation, and maintenance manuals.

F. Warranties: Special warranties specified in this Section.

1.6 QUALITY ASSURANCE

A. Product Options: Drawings indicate size, profiles, and dimensional requirements of Gasoline and diesel fuel storage tanks and are based on specific units indicated. Refer to Division 1 Section "Product Requirements."
   1. Do not modify intended aesthetic effects of ASTs, as judged solely by Engineer, except with Engineers approval. If modifications are proposed, submit comprehensive explanatory data to Engineer for review.

B. Welding: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. Comply with ASME B31.3 and/or B31/.4 "Process Piping," for fuel system piping.

E. Comply with NFPA 30, "Flammable and Combustible Liquids Code," and NFPA 30A, "Installation of Automotive and Marine Service Station Code," for design, construction, installation, testing, and inspection of fuel distribution systems.

F. Comply with reqgulations of AST within the New York State Fire Code chapeter 22 and 30.

G. Comply with requirements of the EPA, NYS Fire Code, and NYDEC environmental-protection authorities having jurisdiction on environmental requirements. Include recording of fuel storage tanks and monitoring of tanks and piping with NYSDEC.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Lift and support fuel storage tanks only at designated lifting or supporting points, as shown on Shop Drawings. Do not move or lift tanks unless empty.

1.8 PROJECT CONDITIONS

A. Perform site survey, research public utility records, and verify existing utility locations. Contact utility-locating service for area where Project is located.

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of fuel storage tanks that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following when used for storage of Gasoline and diesel fuels at temperatures not exceeding 150 deg F (66 deg C):
   a. Structural failure including cracking, breakup, and collapse.
   b. Corrosion failure including external and internal corrosion of steel tanks.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to manufacturers specified.

2.2 PIPING MATERLALS

A. Refer to Part 3.2 – “Piping Applications" Article for applications of pipe, tube, fitting, and joining materials.

2.3 PIPES, TUBES, AND FITTINGS

A. Transition Couplings:
   1. Aboveground, Gasoline and Diesel Fuel Piping: Manufactured coupling or fitting or companion flanges same size as, with pressure rating at least equal to and ends compatible with, piping to be joined.
   2. Underground, Gasoline and Diesel Fuel Piping: Sleeve-type coupling or manufactured fitting same size as, with pressure rating at least equal to and ends compatible with, piping to be joined.

B. Flexible Connectors: UL-listed, flexible piping 96 inches (2438mm) or less in length.
   1. Metallic Connectors: For connection to gasoline and diesel fuel tanks and/or underground piping and sumps according to UL application listing.
      a. Available Manufacturers:
         1) FLEX-ING, Inc.
         2) Hose Master, Inc.
         3) American Polymer Technology, Inc.

2.4 JOINING MATERIALS

A. Refer to Division 2 Section "Piped Utilities -- Basic Materials and Methods" for joining materials not in this Section.

2.5 VALVES

A. Bronze Gate Valves: MSS SP-80, Type 2, Class 200. Include ends threaded according to ASME B1.20.1. Valves with solder ends may be furnished for use with copper tube.

B. Bronze Ball Valves: MSS SP-110; 3-piece bolted-body; 400-psig- (2760-kPa-) minimum, WOG, nonshock, working-pressure rating. Include full-port, cast-bronze, chrome-plated bronze ball; PTFE seats; lever handle; and threaded ends according to ASME B 1.20.1. Valves with solder ends may be furnished for use with copper tube.

C. Bronze Check Valves: MSS SP-80, Type 3, Class 200. Include ends threaded according to ASME B1.20.1. Valves with solder ends may be furnished for use with copper tube.

D. Bronze Vertical Ball Check Valves: ASTM B 61 or ASTM B 62, 2-piece construction; and 400-psig (2760-kPa) WOG, nonshock, working-pressure rating. Include integral bronze seats, replaceable stainless-steel ball, and threaded ends according to ASME B1.20.1.

E. Bronze check valves shall be installed in each fill pipe, with 24-inches of the fill ports.

F. UL Valves: UL 842, listed for fuel oil service.

2.6 STEEL, DOUBLE WALL, DUAL FUEL (GASOLINE AND DIESEL) AST MEETING UL 2085

A. Manufacturers:
1. Highland (Fireguard)
2. ConVau!t, Inc.
3. Or approved equal

B. Description: UL 2085, and STI F941, thermally insulated and fire-resistant, double-wall, horizontal, steel tank; with primary- and secondary-containment walls and insulation and with interstitial space for leak-detection sensor.

C. Construction: Fabricated with welded, carbon steel and insulation; suitable for operation at atmospheric pressure and for storing fuel oil with specific gravity up to 1.1 and with test temperature according to UL 2085.

D. Tank shall be a 10,000 gallon dual fuel tank, 7,000 gallon Diesel and 3,000 gallon Gasoline.

2.7 FUEL MANAGEMENT SYSTEM

A. Manufacturers:
1. Dresser Wayne iX
2. Or approved equal

B. FUEL MANAGEMENT EQUIPMENT:
1. Provide two (2) in-dispenser terminals (IDT) fleet fuel management systems, one for the diesel dispenser and one for the unleaded dispenser with a iX Fleet gateway server:
2. Server base software that continuously updates and consolidates all employee, vehicle, fuel, and other information in one place.
   a. Software to provides tank inventories from dispenser transactions, tank delivery, and adjustment entries.
   b. SYSTEM CONTROLLER:
      1) - System shall include a central controller for controlling & reporting fueling activity from the dispensers.
      2) - Only one controller shall be required for all sites.
      3) - Controller shall be designed for industrial applications & include a fan-less SBC with 120GB solid state drive.
      4) - Controller shall include battery back-up for graceful shutdown with loss of power.
      5) - Controller shall include Windows POS Ready operating system.
      6) - Controller shall include 17" color LCD monitor, keyboard, & mouse; 2 USB ports; & Ethernet port.
      7) - USB printer will be supplied by site owner or network printer will be available.
      8) - Controller shall be designed to be either desk or wall-mounted.
      9) - Controller shall use SQL Server database and all necessary software shall be pre-installed on the controller.
      10) - Controller shall communicate to the dispensers via a direct LAN cable connection.
      11) - Data for authorizing & controlling fueling transactions shall be entered at the controller & downloaded to each dispenser.

h. Power Requirements 120/230 V AC 60 HZ 50 watts Max

3. Provide all required interconnecting Power and Control wiring between Pump Control Terminal, Fuel Site Controller, Garage Building, and Fuel Pumps per all applicable codes.

2.8 FUEL DISPENSERS WITH SUCTION PUMPS

A. Manufacturers:
1. Dresser Wayne
2. Or approved equal

B. Dispenser and Fuel Island Equipment:
1. Fuel Dispenser Specification for Single Suction Pump Dispenser, Lane-Oriented
2. Fuel dispenser specification for enhanced capacity single suction pump dispenser with lane-oriented nozzle boot, which is rated up to 22 GPM/83 LPM at the discharge. Designed for dispensing gasoline, including standard oxygenated blends; diesel, including biodiesel blends up to 20%; and kerosene. Dispenser shall include an integral fuel control system to control access and record fuel usage.
3. Provide one (1) each, for Gasoline and Diesel, Dresser Wayne Select Electronic Registration Fleet Dispenser 3/G7207P/2JR/D1JS3W single product. , single hose, lane -oriented nozzle, commercial fuel dispenser.
4. - Electronic display. Mechanical register is not acceptable.
   a. - On side with nozzle boot, backlit 6-digit 1" liquid crystal (LCD) gallons display.
   b. 14-ft 1-inch hose with high hose retracters
   c. - Display backup for a minimum of 15 minutes in the event of power loss.
   d. - Four-character 1/2" LCD operator message display to denote authorization status, cut-off limit, etc.
   e. - All displays covered with tempered or double-strength glass (plastic not acceptable).
   f. - Electronic register and lights - 115VAC, 60 hz.
   g. - Electromechanical totalizer, 7-digit non-resettable, located on dispenser side for inventory control.
   h. - Electronic 6-digit non-resettable and resettable totalizers.
   i. - Diagnostics including log of last 50 errors/events. Dispenser software configurable and downloadable from PC.
   j. - Hand held remote control for accessing totals, diagnostics, & configuring dispenser via LCD w/o opening cabinet.
   k. - Cabinet: Lower hydraulic cabinet top, sides, and base constructed from stainless steel.
   l. - Top register cabinet constructed from galvannealed steel with powder-coated black finish.
   m. - Stainless steel lower doors.
   n. - Hinged lower doors for easy service access without having to remove panels.
   o. - Lighted brand panel labeled one for Unleaded and one for Diesel
   p. - Lane-oriented nozzle boot with lift-to-start nozzle hook to turn on/off dispenser.
   q. - Nozzle boot shall accommodate UL standard interchangeable nozzles and short spout vapor recovery nozzles.
   r. - Hose mast with heavy duty spring base and top swivel connector to ease handling of hose.
   s. - One (1) positive displacement, two-piston meter with integral hall effect pulser with no moving parts to wear out.
   t. - Electronic calibration without the need to set mechanical adjusters.
   u. - One (1) belt-driven gear type pumping unit with integral air separator. Vane pumps are unacceptable.
   v. - One (1) 1-HP minimum 115VAC/230VAC continuous duty motor.
   w. - One (1) 1" discharge outlet with a ¾" reducing bushing so that either a ¾" or 1" hose may be used.

g. - Model & Manufacturer: Wayne RFID Fuel Tags p/n WP000362-0001 (box of 25) (Wayne, Austin, TX).

11.
a. One (1) 14-ft 1-inch diameter hose with automatic nozzles
b. Stainless steel front cover
c. High hose retractors
d. shear valves
e. Pressure Regulator Valve: EBW Model 664 placed below suction pump
f. Stainless steel dispenser platform for each dispenser with spill storage and shear valve mounting bracket.
g. Double filter system for diesel and single filter system for unleaded.
h. One (1) inch discharge

2.9 DUEL FUEL AST ACCESSORIES (GASOLINE AND DIESEL)

A. Galvanized threaded pipe connection fittings on top of tank, for fill, supply, tank primary vent and secondary vent. Include cast-iron plugs for pressure relief. Duplicate connections required for gasoline and diesel tank AST sections.

B. Provide New clock gages (2) for tank capacity monitoring with overfill warning. (gas and diesel)

C. Supply Tube: Extension of supply piping fitting into tank, terminating 6 inches (150 mm) above tank bottom and cut at a 45-degree angle (1:1 slope).

2.10 **SUCTION PUMPS**

A. Description: Provide two (2) gear-type motor with one (1) horsepower motor.
1. Manufacturers:
2. Dresser Wayne
a. Or approved equal
Pump controller panel, complying with UL 353 and UL508C arid with terminals for connections to Gasoline and Diesel fuel dispenser.
3. Vacuum Breakers: For installation in pump discharge piping.
4. Emergency disconnect placed on exterior of building for shutdown of all fuel pumps in case of emergency.

2.11 FUEL TANK PIPING SPECLALTIES

A. Spill-Containment Fill Boxes: (2) Above ground, surface mounting onto concrete pad, with drainage feature to drain spill into portable container storage container, threaded fill-pipe connection, and wrench operation.

B. Pipe Adapters and Extensions: Compatible with piping and fittings.

C. Suction Strainers and Check Valves: Bronze or corrosion-resistant metal components.

D. Foot Valves and Antisiphon Valves: Poppet-type, bronze or corrosion-resistant metal components.

E. Weatherproof Vent Cap: Increaser fitting with corrosion-resistant wire screen, with free area at least equal to cross-sectional area of connecting pipe and threaded-end connection.

2.12 LEAK-DETECTION AND -MONITORING SYSTEMS

A. Manufacturers:
1. Veeder-Root.
2. Franklin Fueling Systems -Incon

3. Or approved equal

B. Description: Calibrated, leak-detection and -monitoring system complying with UL 1238 with probes and other sensors and remote alarm panel for fuel storage tanks and fuel piping. Include fittings and devices required for testing.

C. Description: Calibrated, leak-detection and -monitoring system and liquid-level gage system complying with UL 1238 with probes and other sensors and remote alarm panel for combined Gasoline and Diesel fuel storage tank and fuel piping.

D. Hydrostatic-Monitoring System: Comply with UL 1238, float switch interstitial sensor riser cap, sensor, electronic control panel to monitor leaks in inner and outer tank walls, and electrical controls operating on 120-VAC power.

2.13 SOURCE QUALITY CONTROL

A. Test and inspect 5,000 gallon dual fuel (3,000 diesel and 2,000 unleaded gasoline) storage tanks, after fabrication and before shipment, according to the following:
1. Horizontal, Double-Wall Steel ASTs: UL 142, STI F921, and STI R931.
2. Horizontal, Concrete-Vaulted and/or Insulated, Steel ASTs: UL 142 and UL 2085.

B. Verification of Performance: Rate fuel systems storage tank according to applicable standards.

2.14 FIRE SUPRESSION SYSTEM

A. Existing fire supression system to be replaced as alternate ALT-G-04 See specification 283200.

2.15 FUEL ISLAND CANPOPY SYSTEM

A. Existing canopy system to remain.

B. Items to be provided:
1. Canopy lighting. See electrical drawings for fixtures and mounting locations.
2. Roof/Ceiling and fascia covering including trim, flashing, weather sealing materials, fasteners, and drainage system.
3. Gutters and downspout.
4. Foundation design.
5. Drawings, professionally sealed, that are acceptable for building permit.

2.16 SYSTEM DESCRIPTION

A. Type, size, canopy height, and depth.
1. 24’ wide.
2. 23’ long.
3. 2 columns at 12.5’ centers.
4. 36” white fascia and decking.
5. 15’ - 6” clearance from finish grade and 1’ - 2” subset.
6. External drains.
7. Ground snow loads, PG for New York State (PSF).
8. Shall meet or exceed the requirements of the most current building code of international and New York State.
9. (4) 320 W Scottsdale Canopy Lights.
10. Canopy shall be a Long Royal manufactured by TFC or Equal.

B. Structural Design Criteria:
1. Except as stated herein or noted on drawings, primary and secondary framing and covering shall be designed for applicable codes.
2. Basic Design Criteria: Conform to requirements of the following:

a. AISC Specification for the design, fabrication and erection of structural steel for building (Current Edition).
b. AISC Code of Standard Practice for buildings and bridges.
c. AISI Specification for the design of Cold-Formed Steel Structure Members.
d. AWS Structural Welding Code.

3. Performance requirements minimum standards for the design of the canopies are as follows:
   a. Foundations shall be designed per owner supplied soils report and foundation recommendations.
   b. Weather resistance: installations shall be weatherproof.
   c. Movement: Make provisions for expansion and contraction of all metal so that undue stresses, buckling, opening of joints, or shearing of fasteners will not occur.

2.17 REFERENCE STANDARDS

A. Organizations whose standards are referenced.
1. AAMA American Architectural Manufactures Association.
2. AISC American Institute of Steel Construction.
3. AISI American Iron and Steel Institute.
4. ANSI American National Standards Institute.
5. ASTM American Society of Testing and Materials.
6. AWS American Welding Society.
7. FS Federal Specifications.
8. MIL Military Specifications.

B. Other organizations referenced without mention of a specific standard.
1. AA Aluminum Association.
2. UL Underwriters Laboratories.

2.18 SUBMITTALS

A. Shop Drawing: Submit electronic copies of all sunbmittal to engineer for approval. Resubmit corrected material until final approval is obtained. Provide 3 prints of all sumbittal material to owner for owners record and distribution. All information submitted to owner shall bear evidence that submittal has been reviewed by engineer.

B. Certifications: Submit a structural drawing signed and sealed by a professional engineer who is registered in the state where the canopy will be erected showing all design loads that location. Calculations can be provided upon request.

2.19 MATERIALS AND FABRICATION

A. General: Standard of quality shall be canopies as manufactured by: TFC Canopy, 1107 North Taylor Road, Garrett, IN 46738 or equal.

B. Structural Framing:
1. Materials: Minimum yield strength: Structural Shapes 50.0 ksi; ASTM 572 Grade 50; Rounds A500 Grade B 420 ksi; Square and Rectangular A500-93, 46.0 ksi; cold formed structural members, 33.0 ksi.
2. Fabrication: Perform in shop as much as possible for bolted field assembly. Note on drawings all field cutting or drilling required. Steel shall be straight, true and within AISC tolerances. Make cold-formed sections by precision brake forming to produce accurately dimensioned members, free of distortion. Surfaces shall be free of fins, burrs, deep gouges, and other irregularities; sharp edges shall be reduced by grinding to ½ inch radius; and welds shall be made smooth, uniform, and free of projections, undercuts, overlaps, inclusions, and other detrimental defects.

3. Welding: Perform in accordance with AWS Code, by welders and welding operators who have been previously qualified for the type of welding involved. Perform welding preferably in flat position, by shielded or submerged electric arc methods only. Avoid welding members while incorporating slag or scale, and of full area required to develop joint strength.
4. Bolting: High strength ASTM A325-86 or A490-85 type for primary framing connections; low carbon steel ASTM A307-86a type for secondary framing connections. The facing surfaces of all bolted connections shall be smooth and free from burrs or distortions. High strength bolted connections shall conform to AISC Specification for Structural Joints (1978).

C. Roof / Ceiling Deck:
1. Type: 3” deep x 16” wide x 22 gage, flush face, standing seam, interlocking with an ASTM G-60 galvanized coating and smooth finish. Deck shall have a gloss factor of 80 as manufactured by TFC Canopy of Garrett, Indiana.

D. Fascia System:
1. Type: Pre-finished .040 aluminum or 24 gage steel, laminated to 1 inch foam core center with 24 gage galvanized steel backer.

E. Gutters, trim and flashing, minimum 24 gage galvanized ASTM G-60 coating. Finish quality shall match roof/ceiling deck.
1. Attachment devices:
a. Provide manufacture’s standard device such as subgirts, clips, pop-rivets and other devices necessary for assembly and attachment.
b. Attach fascia panel to structural frame with a 1 inch x 2 inch backer channel.

2.20 ACCESSORIES

A. Gutters: Concealed perimeter system to match roof/ceiling deck.

B. Downspout: Fabricate of same type, thickness and finish as gutter material, sized to adequately drain roof areas involved. Down spout shall be concealed to underground sewer, as noted, and be attached to column at 10’ maximum spacing.

C. Clashing and Trim: Match fascia panel.

2.21 PAINTING

A. Framing Members:
1. General Requirements: Prepare surfaces and prime paint framing members. All steel shall be prime painted.

PART 3 EXECUTION

3.1 EARTHWORK

A. Refer to "Earthwork" section for excavating, trenching, and backfilling.

3.2 PIPING APPLICATIONS

A. Use flanges, unions, transition and special fittings, and valves with pressure ratings same as or higher than system's pressure rating in aboveground and containment applications, unless otherwise indicated.

B. Aboveground, Gasoline and Diesel system Piping: Use NPS galvanized steal piping.

1. NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Steel pipe, steel or malleable-iron threaded fittings, and threaded joints.

3.3 VALVE APPLICATIONS

A. Drawings indicate valve types to be used. Where specific valve types are not indicated, the following requirements apply:
   1. Shutoff Duty: Use gate or ball valves.
   2. Throttling Duty: Use ball valves.
   3. Provide submittal to engineer for all valves before installation.

3.4 PIPING INSTALLATION

A. Install piping free of sags and bends.

B. Locate groups of pipes parallel to each other, spaced to permit valve servicing.

C. Install fittings the changes in direction and branch connections. Install fittings with containment sumps.

D. Assemble and install bulkhead fittings for pipe penetrations through sump sidewalls. Follow fitting manufacturer's written instructions and use components required for liquid tight joints.

E. Install reductions in pipe sizes using eccentric reducer fittings. Install fitting with level side down.

F. Install flexible pipe connectors at piping connections to ASTs and vibration-producing equipment. Use according to the following applications:
   1. Steel Piping: Stainless-steel-hose, flexible connectors.

3.5 VALVE INSTALLATION

A. Install valves in accessible locations. Protect valves from physical damage, and install metal tag attached with metal chain indicating fuel piping systems.

3.6 GASOLINE AND DIESEL, DUAL FUEL, DOUBLE WALL, AST INSTALLATION

A. Install ASTs according to manufacturer's written instructions and standards specified.

B. Install tank bases and supports.

C. Set tanks on bases and supports.

D. Install piping connections and vent fittings.

E. Install ground connections.

F. Install tank leak-detection and -monitoring devices.

G. Install insulated and concrete-vaulted steel ASTs according to STI R912 and STI R942.

3.7 CONNECTIONS

A. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to equipment to allow service and maintenance.

C. Install unions, in piping NPS 2 (DN 50) and smaller, adjacent to each valve and at final connection to each piece of equipment having threaded pipe connection.

D. Install flanges, in piping NPS 2-1/2 (DN 65) and larger, adjacent to flanged valves and at final connection to each piece of equipment having flanged pipe connection.

E. Ground equipment according to Section "Grounding and Bonding" if grounding and bond of tank is not provided then tank shall be grounded and bonded to laocal and NYSDEc and NEC standards and requirements for above ground fuel storage tanks and equipment.

F. Connect wiring according to "Conductors and Cables."

G. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.8 CONCRETE BASES

A. Construct concrete tank and equipment bases according to supported tank and equipment manufacturer's setting templates for anchor-bolt and tie locations. Use 3000 psi (20 700 kPa) Insert other, 28-day, compressive-strength concrete.

3.9 LIQUID-LEVEL GAGE SYSTEM INSTALLATION

A. Install new liquid-level clock gage (2) on AST according to manufacturer's written instructions. gages are to match the existing in diameter and nipple size.

3.10 LEAK-DETECTION AND -MONITORING SYSTEM INSTALLATION

A. Install leak-detection and -monitoring systems according to manufacturer's written instructions. Install alarm panel inside building where indicated.
   1. Double-Wall Fuel Storage Tanks: Install probes or use factory-installed integral probes in interstitial space.
   2. Double-Contained Fuel Piping: Install leak-detection sensor probes in fuel storage tank containment sumps and at low points in piping.
   3. Install liquid-level gage systems according to manufacturer's written instructions.

3.11 LABELING AND IDENTIFYING

A. Refer to "Earthwork" for warning tapes.

B. Warning Tapes: Arrange for installation of continuous underground detectable warning tape during backfilling of trenches.
   1. Piping: Over underground, Gasoline and diesel fuel system distribution piping.

C. Install new nameplates and Signs on existing AST (4): Install engraved plastic-laminate equipment nameplates and signs on each AST.
   1. Text: In addition to identifying unit, distinguish between multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warnings of hazards and improper operations according NYS Fire Code chapter 22 and 30.
   2. New tank identification numbers shall be provided on each end of tank. Number configuration shall match the existing tank numbers.

3.12 FIELD PAINTING OF ABOVEGROUND PIPING

A. Paint exposed metal piping, valves, and piping specialties except units with factory-applied paint or protective coating. Color per code.

3.13 FIELD QUALITY CONTROL

A. Perform the following field tests and inspections and prepare test reports:
   1. Test Gasoline and Diesel piping according to NFPA 30, "Piping Systems" Chapter on testing or NFPA 31, "Piping, Pumps, and Valves" Chapter on tests of piping.

2. Test AST Double Wall, Duel Fuel (Gasoline and Diesel) according to NFPA 30, "Tank Storage" Chapter on testing and maintenance or NFPA 31, "Tank Storage" Chapter on testing and maintenance.
3. Test liquid-level gage systems for accuracy by manually measuring fuel levels at not less than three different depths while filling tank and checking against gage indication.

B. Test leak-detection and -monitoring systems for accuracy by manually operating sensors and checking against alarm panel indication.
   1. Remove and replace units and retest as specified above.

3.14 ADJUSTING

A. Adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

3.15 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain liquid-level gage systems, Gasoline and Diesel fuel-monitoring systems, Gasoline and Diesel pumps and fuel dispenser systems. Refer to Division 1 Section "Closeout Procedures and Demonstration and Training."

END OF SECTION