

CHIPPENS MIDDLE SCHOOL

HEATING OIL/GENERATOR FUEL TANK REPLACEMENT

551 PEACEDALE STREET, BRISTOL, CONNECTICUT

AUGUST 28, 2023

BID SET

OWNER

Prepared For: **CITY OF BRISTOL**
 111 N. Main Street
 Bristol, CT 06010

CONSULTANTS

Prepared By: 
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 Glastonbury, CT 06033
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Prepared By: 
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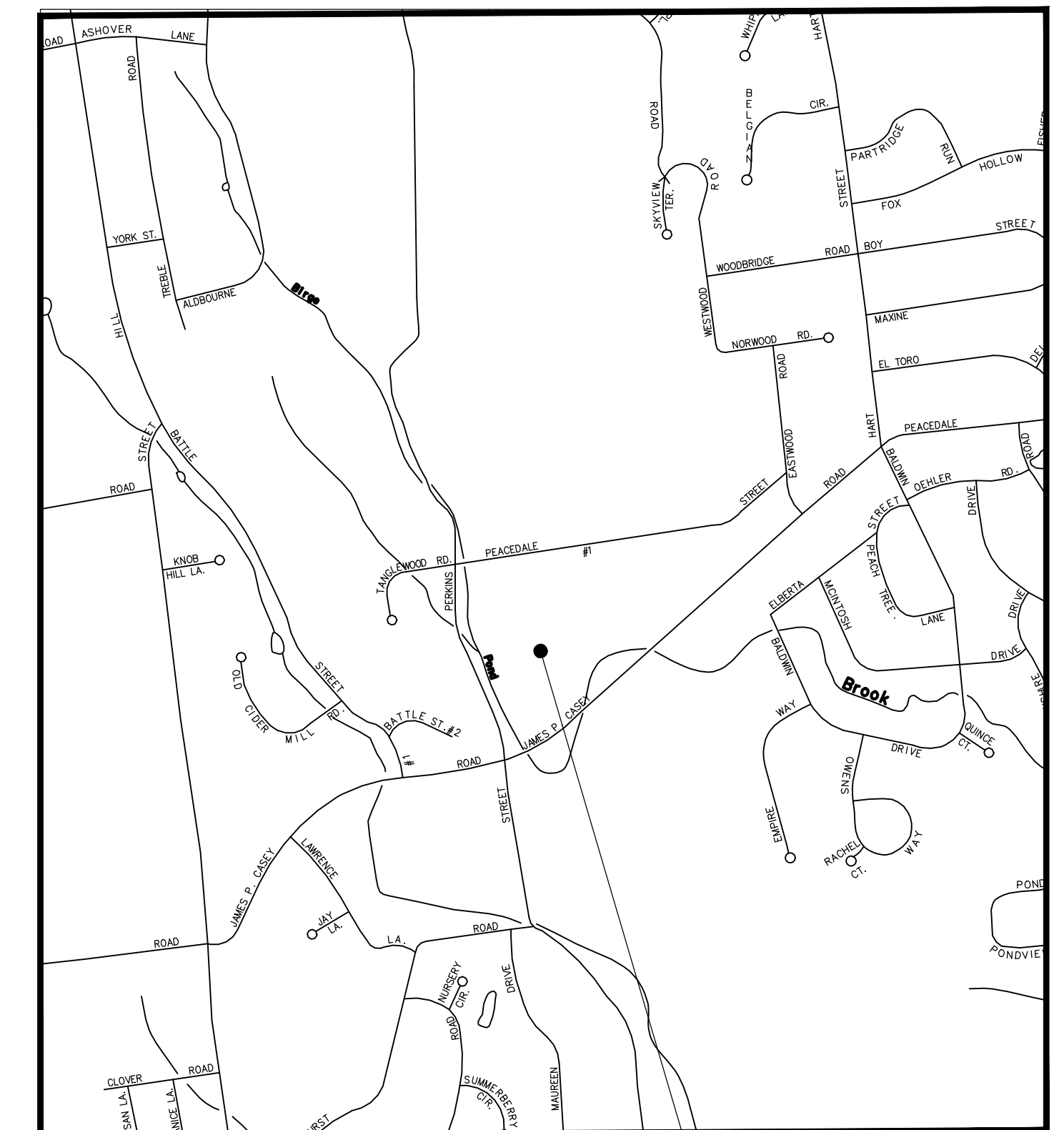
LIST OF DRAWINGS


- CS COVER SHEET
- C-0 EXISTING CONDITIONS PLAN
- C-1 DEMOLITION PLAN
- C-2 SITE PLAN
- C-3 GRADING PLAN
- UT-1 UST & PIPING PLAN
- UT-2 ELECTRICAL CONDUIT PLAN
- UT-3 UST DETAILS
- UT-4 UST DETAILS

LOCAL APPROVALS

Board of Education Chair	Signature _____	Date _____
School Building Committee Chair	Signature _____	Date _____
Local Buiding Official	Signature _____	Date _____
Local Fire Marshal	Signature _____	Date _____
Local Health Official	Signature _____	Date _____
Local Federal 504 Official	Signature _____	Date _____

LOCATION MAP



 SCALE: 1" = 1000' PROJECT SITE

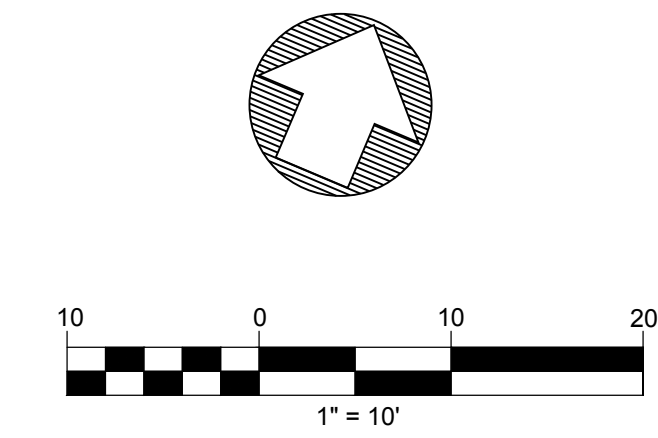
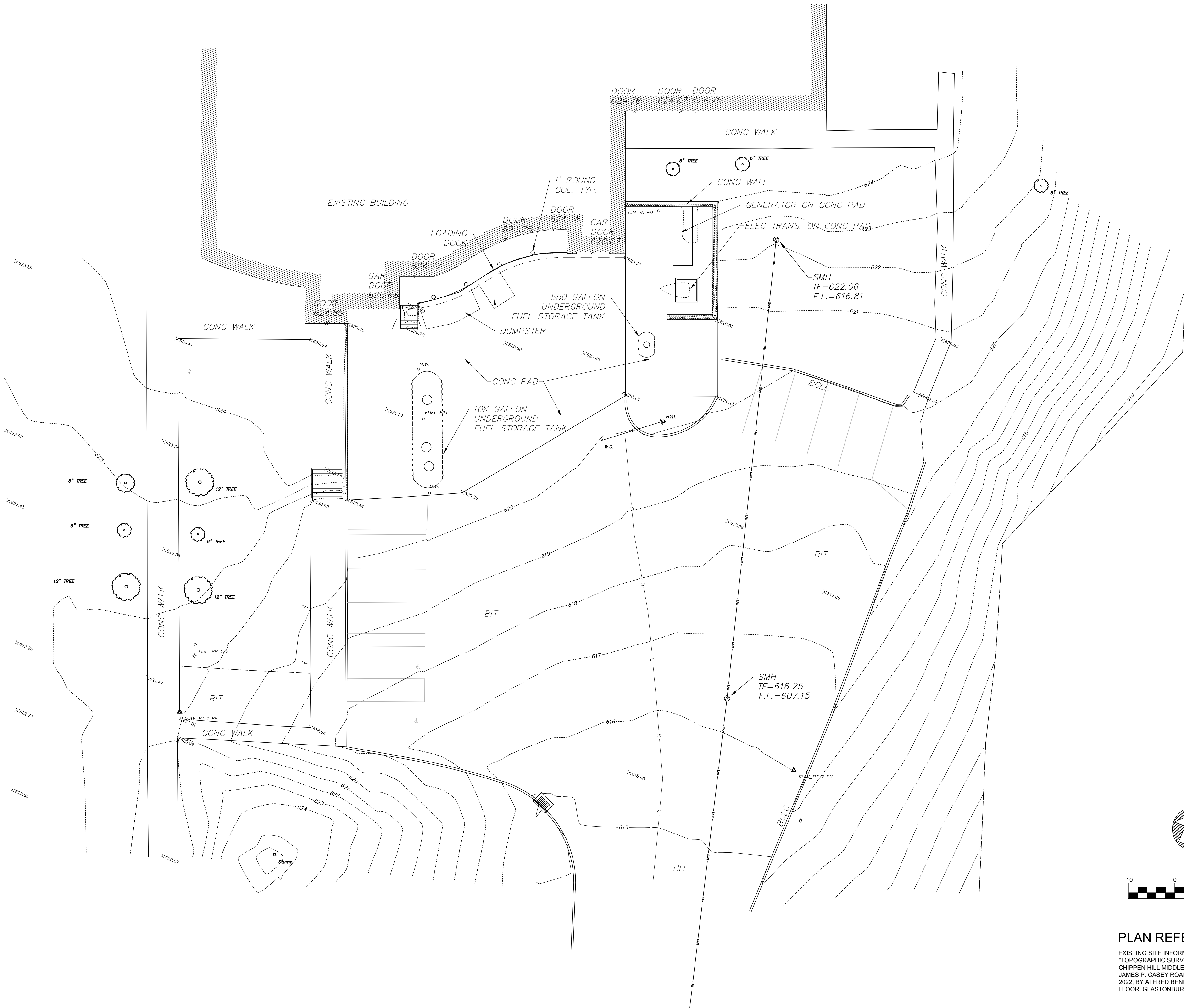
**CHIPPENS HILL MIDDLE
 SCHOOL FUEL STORAGE
 TANK REPLACEMENT**
 BRISTOL, CT
 551 PEACERDALE STREET

DATE:	REVISION:

PROJECT NO: 70617.06
 SCALE: AS SHOWN
 DATE: 08.28.2023
 DRAWN BY: LAW
 CHECKED BY: RGS

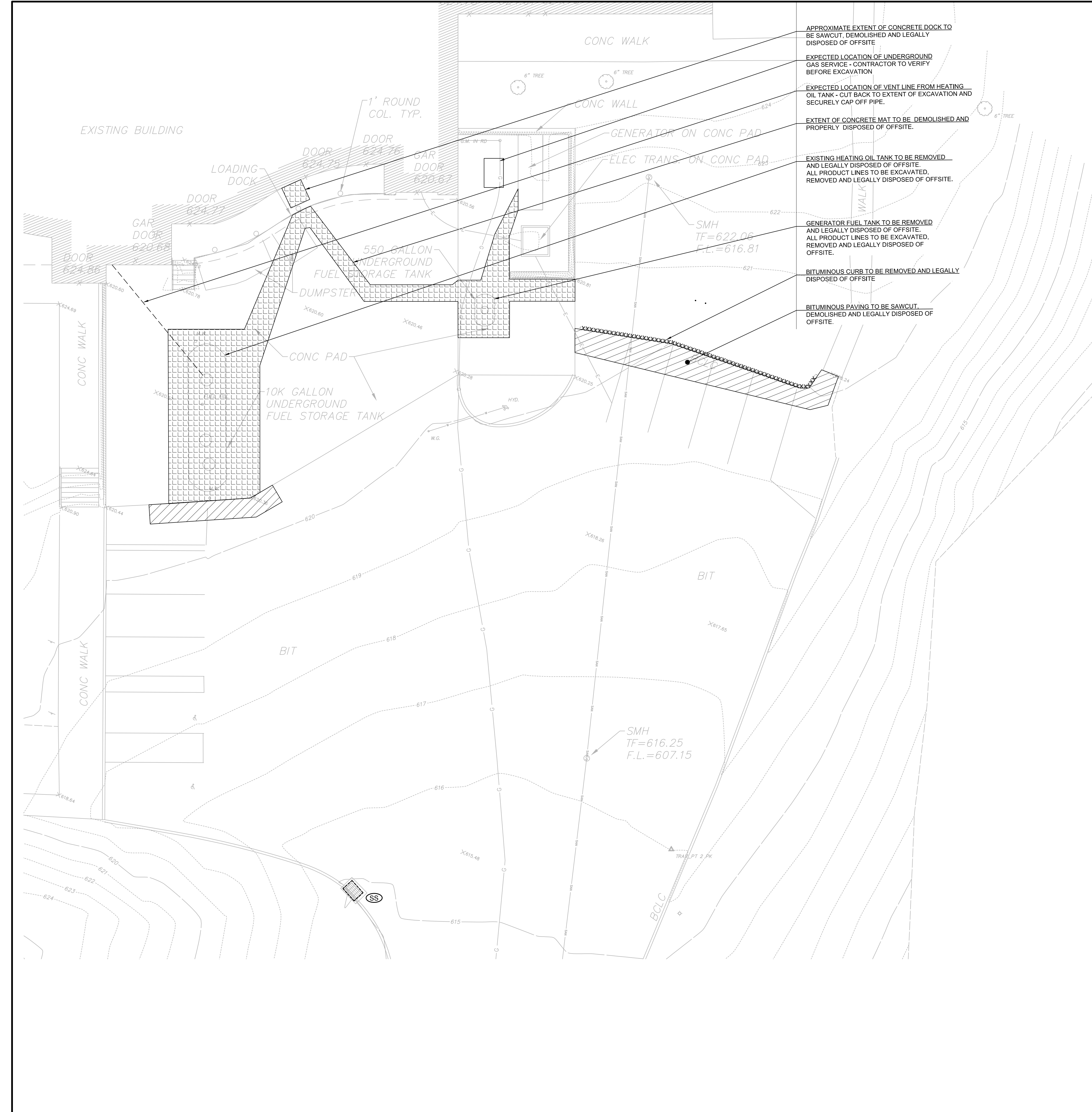
**EXISTING
 CONDITIONS**

DRAWING NO:
C0.0



PLAN REFERENCE

EXISTING SITE INFORMATION FROM PLAN ENTITLED
 \"TOPOGRAPHIC SURVEY PREPARED FOR CITY OF BRISTOL
 CHIPPEN HILL MIDDLE SCHOOL, 551 PEACERDALE STREET &
 JAMES P. CASEY ROAD, BRISTOL, CT\" SCALE 1\" = 20', MARCH,
 2022, BY ALFRED BENESCH & CO, 120 HEBRON AVENUE - 2ND
 FLOOR, GLASTONBURY, CT 06033



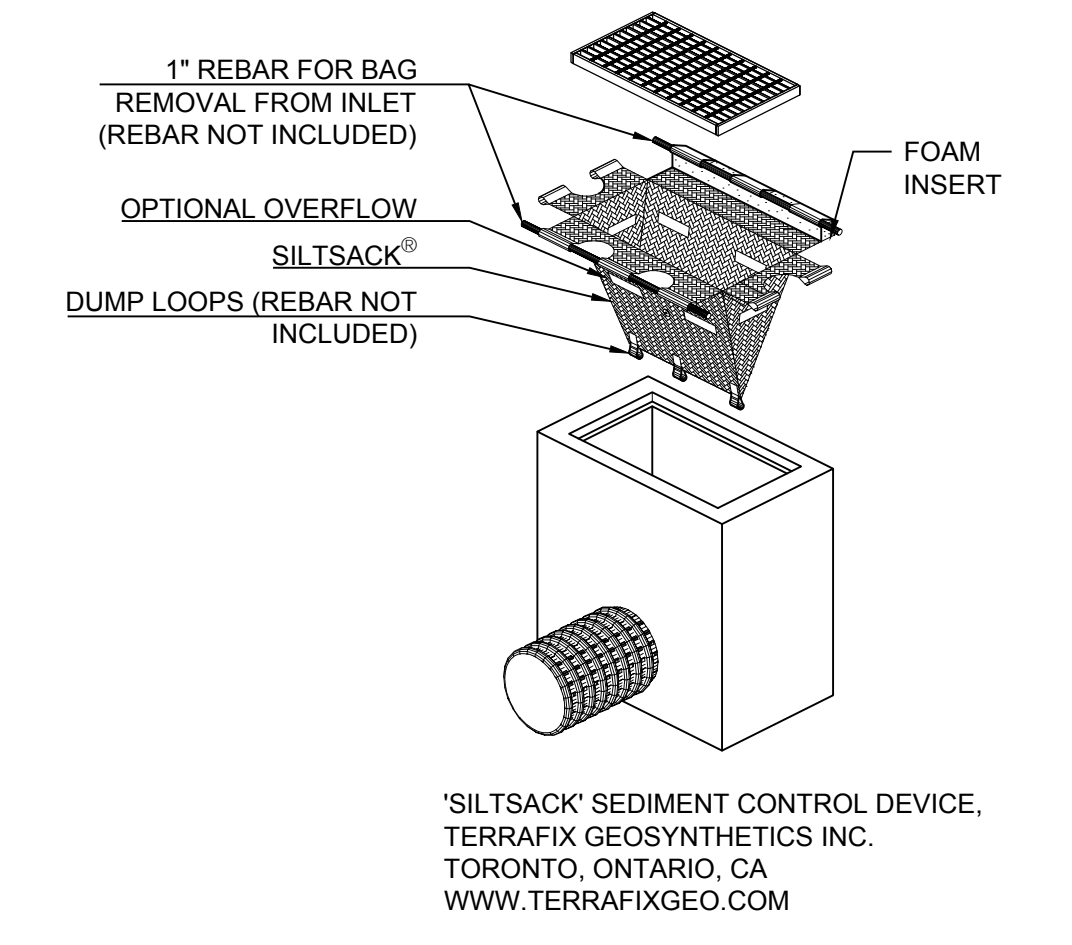
- APPROXIMATE EXTENT OF CONCRETE DOCK TO BE SAWCUT, DEMOLISHED AND LEGALLY DISPOSED OF OFFSITE.
- EXPECTED LOCATION OF UNDERGROUND GAS SERVICE - CONTRACTOR TO VERIFY BEFORE EXCAVATION.
- EXPECTED LOCATION OF VENT LINE FROM HEATING OIL TANK - CUT BACK TO EXTENT OF EXCAVATION AND SECURELY CAP OFF PIPE.
- EXTENT OF CONCRETE MAT TO BE DEMOLISHED AND PROPERLY DISPOSED OF OFFSITE.
- EXISTING HEATING OIL TANK TO BE REMOVED AND LEGALLY DISPOSED OF OFFSITE. ALL PRODUCT LINES TO BE EXCAVATED, REMOVED AND LEGALLY DISPOSED OF OFFSITE.
- GENERATOR FUEL TANK TO BE REMOVED AND LEGALLY DISPOSED OF OFFSITE. ALL PRODUCT LINES TO BE EXCAVATED, REMOVED AND LEGALLY DISPOSED OF OFFSITE.
- BITUMINOUS CURB TO BE REMOVED AND LEGALLY DISPOSED OF OFFSITE.
- BITUMINOUS PAVING TO BE SAWCUT, DEMOLISHED AND LEGALLY DISPOSED OF OFFSITE.

DEMOLITION NOTES

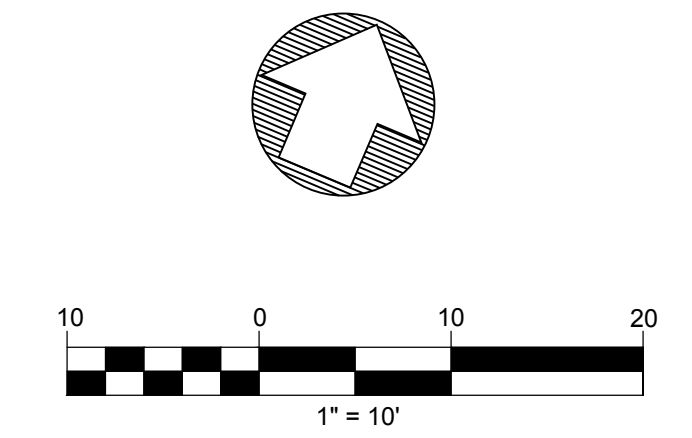
1. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ANY TANK REMOVAL PERMITS
2. ALL MATERIAL TO BE REMOVED SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR AWAY FROM THE SITE OR DELIVERED OFFSITE AS DIRECTED BY THE OWNER.
3. LOCATIONS OF ALL UTILITIES ARE SHOWN DIAGRAMMATICALLY & MAY BE INCOMPLETE. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES DONE BY THIS WORK SHALL BE REPAIRED BY THE CONTRACTOR.
4. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING TREES AND VEGETATION. DAMAGE TO VEGETATION SHALL BE REPAIRED BY THE CONTRACTOR.
5. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" AT 811 OR 800-922-4455, THE RESPECTIVE UTILITY COMPANIES, AND LOCAL AUTHORITIES TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES. ANY COSTS INCURRED BY THE CONTRACTOR AS A RESULT OF FAILURE TO CONTACT PROPER AUTHORITIES SHALL BE BORN BY THE CONTRACTOR.
6. OWNER'S REPRESENTATIVE SHALL BE CONSULTED BEFORE ANY WORK SHALL COMMENCE.
7. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FROM ANY UTILITY COMPANY OR OTHER GOVERNMENT AGENCIES HAVING JURISDICTION OVER THE WORK.
8. CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES.
9. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO HIS CONTRACT OPERATIONS.
10. CONTRACTOR SHALL PROTECT AND SUSTAIN IN NORMAL SERVICE ALL EXISTING UTILITIES, STRUCTURES, EQUIPMENT, ROADWAYS AND DRIVEWAYS.
11. CONTRACTOR SHALL MAINTAIN PROPER SIGNS, BARRICADES, AND FENCES TO PROPERLY PROTECT THE WORK EQUIPMENT, PERSONS AND PROPERTY FROM DAMAGE.
12. ALL ITEMS REQUIRING REMOVAL SHALL BE REMOVED TO FULL DEPTH TO INCLUDE BASE MATERIAL AND FOOTINGS OR FOUNDATIONS AS APPLICABLE, AND LEGALLY DISPOSED OF OFFSITE BY CONTRACTOR.

LEGEND

- AREA OF CONCRETE TO BE DEMOLISHED
- AREA OF BITUMINOUS TO BE DEMOLISHED
- CATCH BASIN FILTER INSERT (SILT SOCK)



'SILTSACK' SEDIMENT CONTROL DEVICE, TERRAFIX GEOSYNTHETICS INC. TORONTO, ONTARIO, CA WWW.TERRAFIXGEO.COM



PLAN REFERENCE

EXISTING SITE INFORMATION FROM PLAN ENTITLED "TOPOGRAPHIC SURVEY PREPARED FOR CITY OF BRISTOL CHIPPEN HILL MIDDLE SCHOOL, 551 PEACEDALE STREET & JAMES P. CASEY ROAD, BRISTOL, CT" SCALE 1" = 20', MARCH, 2022, BY ALFRED BENESCH & CO, 120 HEBRON AVENUE - 2ND FLOOR, GLASTONBURY, CT 06033

Prepared by:

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 120 Hebron Avenue
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 860-633-8341

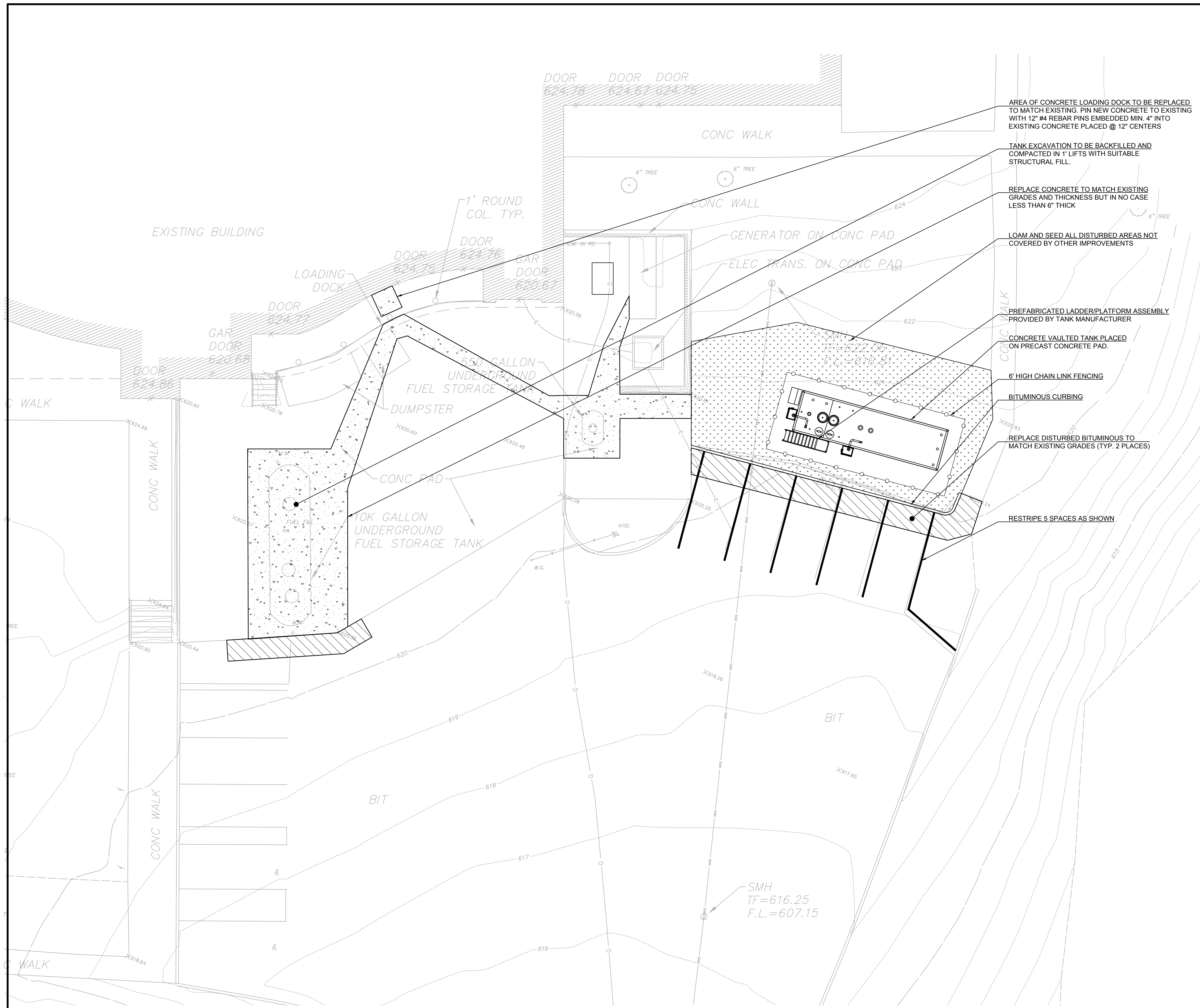
Prepared for:
CITY OF BRISTOL
BRISTOL PUBLIC SCHOOLS
 129 CHURCH STREET
 BRISTOL, CT

CHIPPENS HILL MIDDLE SCHOOL FUEL STORAGE TANK REPLACEMENT
BRISTOL, CT
551 PEACERDALE STREET

DATE:	REVISION:

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Demolition Plan

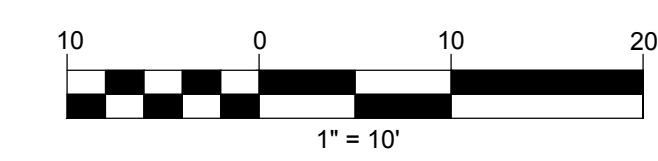
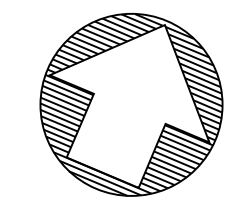


INSTALLATION REQUIREMENTS

- INSTALLATION MUST ADHERE TO:
 - NFPA 30 "FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE"
 - NFPA 31 "STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT"
 - CT DEEP "REGULATIONS OF CONNECTICUT STATE AGENCIES, UNDERGROUND STORAGE TANK REGULATIONS, SECTIONS 22a-449(d)-1, AND SECTIONS 22a-449(d) 101-113"
 - CONNECTICUT FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE: 29-320-1a REGULATIONS OF CONNECTICUT STATE AGENCIES (RCSA) TO 29-320-4a RCSA
 - CONNECTICUT OIL BURNING EQUIPMENT CODE 29-317-3a RCSA
 - CONNECTICUT STATE BUILDING CODE 2022 EDITION
 - FEDERAL UST REGULATIONS, SEE 40 CFR, PARTS 280 & 281 AS REVISED 10/2015
 - NFPA 70 2020 EDITION
 - PETROLEUM EQUIPMENT INSTITUTE GUIDELINES "RECOMMENDED PRACTICES FOR INSTALLATION OF ABOVEGROUND LIQUID STORAGE SYSTEMS"
 - APPLICABLE LOCAL CODES
 - MANUFACTURER'S RECOMMENDATIONS
- CONTRACTOR MUST COMPLETE ALL MANUFACTURER'S CHECK SHEETS AND PROVIDE COPIES TO OWNER AT COMPLETION OF WORK
- CONTRACTOR MUST USE PERSONNEL CERTIFIED BY ALL EQUIPMENT SUPPLIERS AS QUALIFIED TO PERFORM THE REQUIRED SCOPE OF WORK
- POST CONSTRUCTION FACILITY TESTING BY AN INDEPENDENT TESTING FIRM APPROVED BY OWNER TO INCLUDE:
 - PRE-BURIAL THIRD PARTY TESTING OF STP AND DISPENSER SUMPS PER CT DEEP REGS.
 - PRECISION TESTING OF PRODUCT LINES
 - PRESSURE DECAY TESTING OF SYSTEM
 - ALL RESULTS TO BE DOCUMENTED AND DOCUMENTS PROVIDED TO OWNER AND, AS REQUIRED, TO REGULATORY AUTHORITIES.

LEGEND

- CONCRETE DRIVE
- AREA OF NEW BITUMINOUS PAVING
- AREA TO BE SEEDED WITH GRASS
- BITUMINOUS CURB
- CHAIN LINK FENCE



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Prepared by:

Alfred Benesch & Company
120 Hebron Avenue
Glastonbury, Connecticut 06033
860-633-8341

Prepared for:

CITY OF BRISTOL
BRISTOL PUBLIC SCHOOLS
129 CHURCH STREET
BRISTOL, CT

CHIPPEN HILL MIDDLE SCHOOL FUEL STORAGE TANK REPLACEMENT

BRISTOL, CT

551 PEACEDALE STREET

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Site Layout Plan

**CHIPPENS HILL MIDDLE
 SCHOOL FUEL STORAGE
 TANK REPLACEMENT**

551 PEACERDALE STREET
 BRISTOL, CT

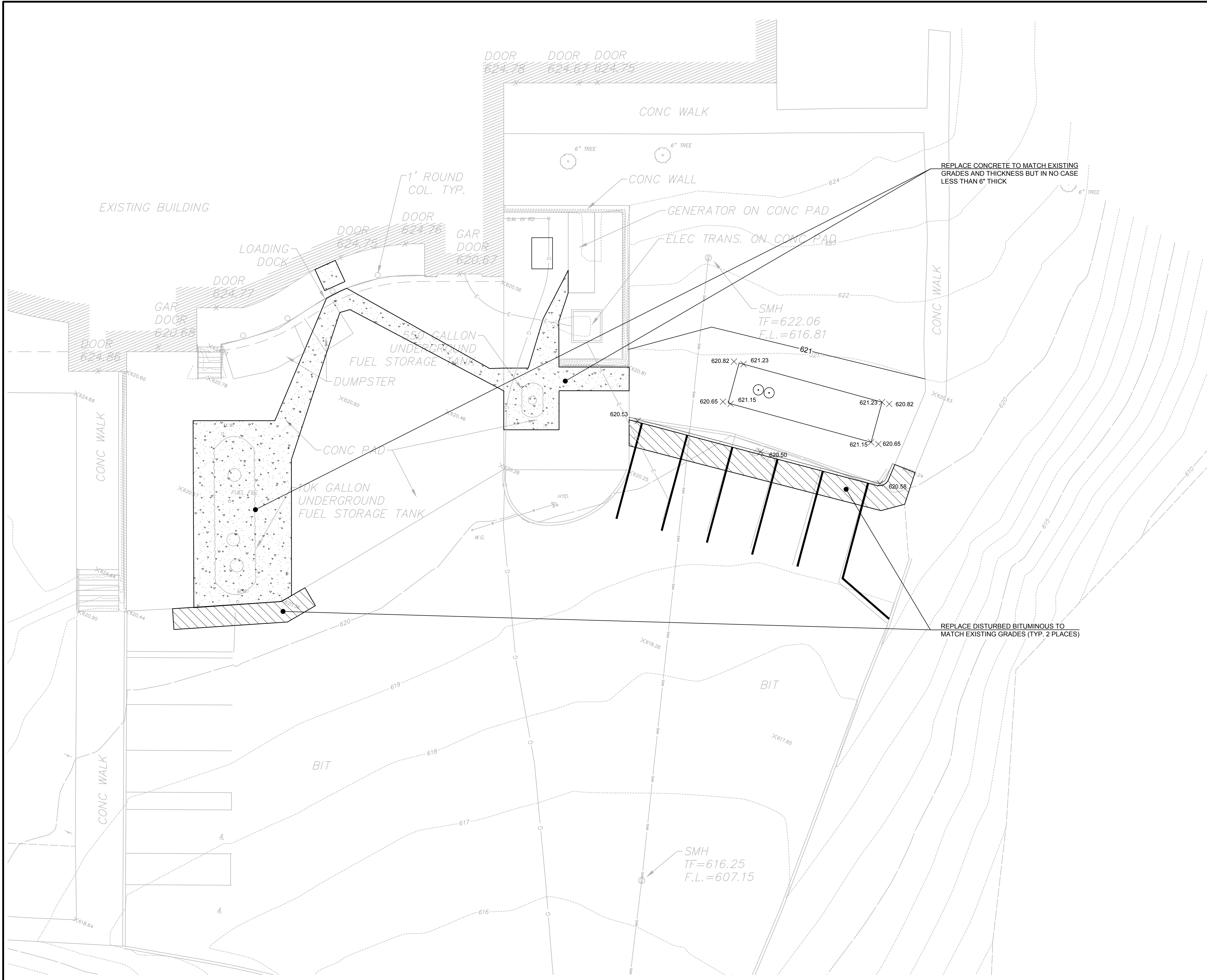
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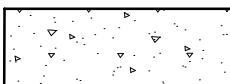

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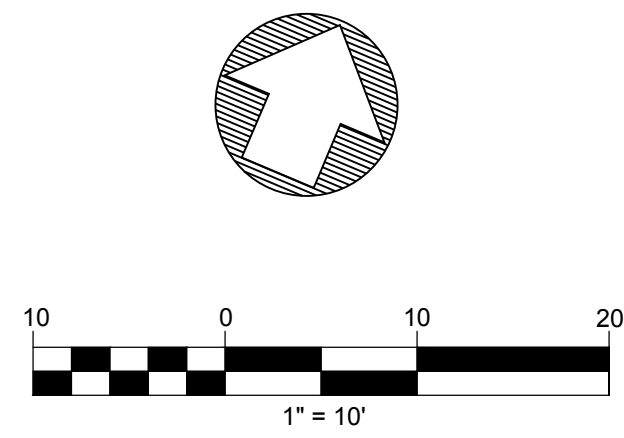
Grading Plan

DRAWING NO.:
C2.0



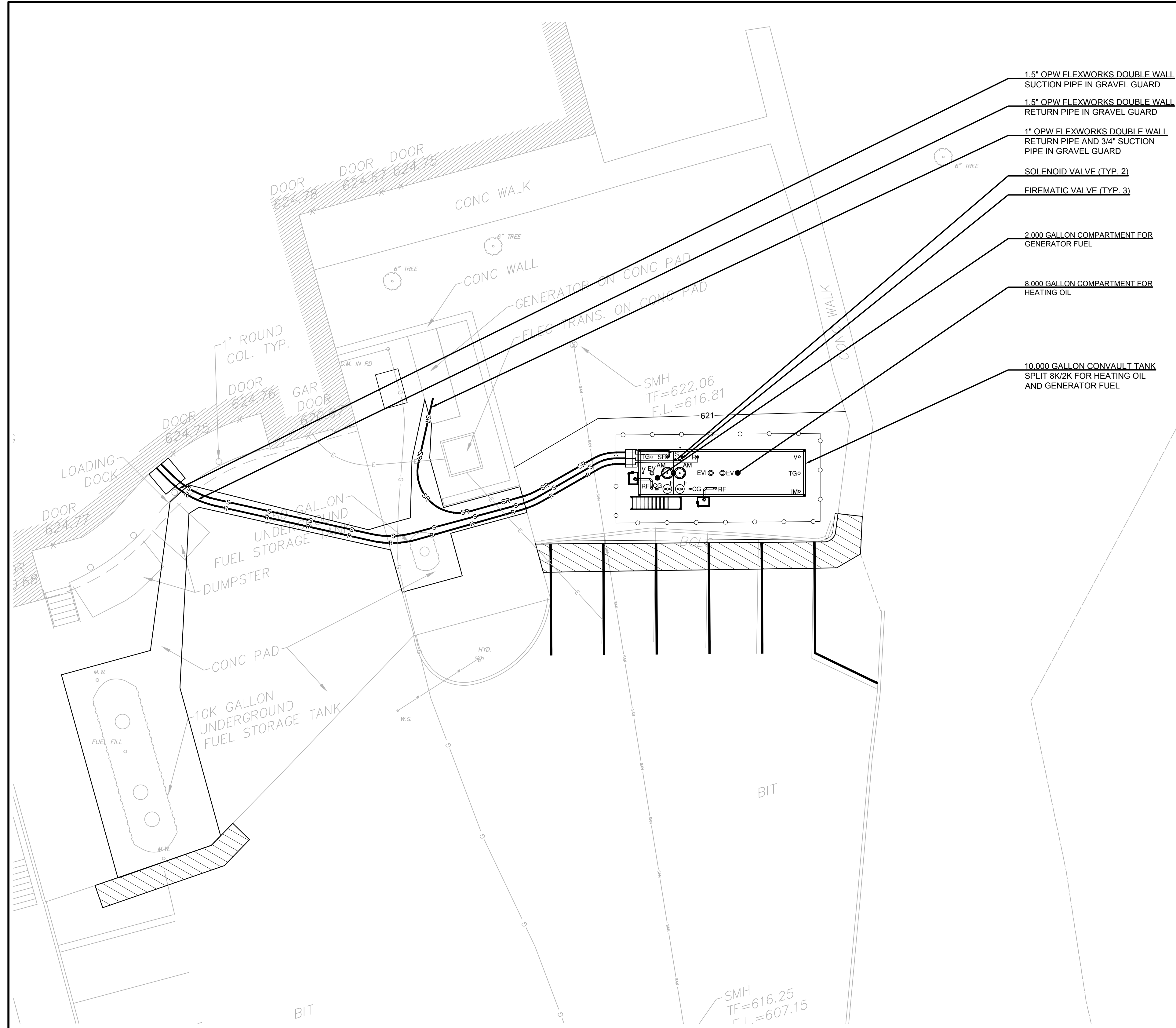
LEGEND

- CONCRETE DRIVE 
- AREA OF NEW BITUMINOUS PAVING 
- CONCRETE WALK 



PLAN REFERENCE

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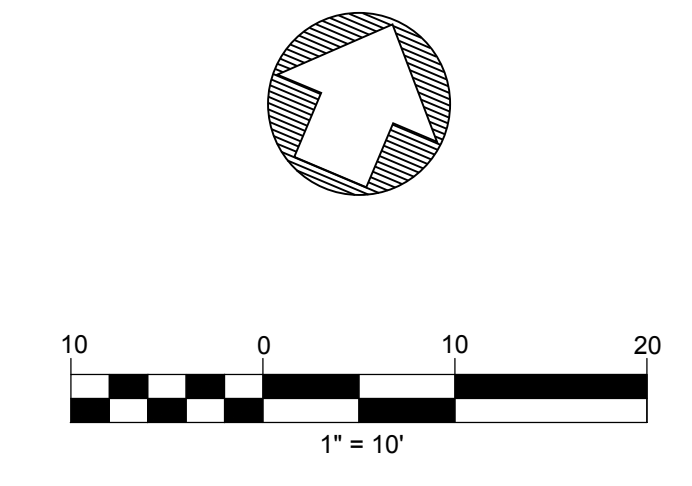


AST KEY COMPONENTS

NO.	QTY.	ITEM	MAKE/MODEL	COMMENTS
1	1	Protected 10,000 gallon Aboveground Tank	Convault (split 8k/2k)	or approved equal
2	1	Precast slab for 10,000 Convault	Convault	or approved equal
3	1	Galvanized platform stair	Convault	or approved equal
4	1	Precast concrete slab for stair	Convault	or approved equal
5	1	Freight for above	Convault	or approved equal
6	2	Remote Fill Spill Containment for Diesel	Fairfield ARFP-3-TOP	or approved equal
7	2	Wall Mount Bracker for Spill Containment	Fairfield WMB	or approved equal
8	2	Tank Top Fill/Gauging Spill Manway	Morrison 516F-0400ACPW	or approved equal
9	1	1" Full Port Ball Valve	Morrison 691-0500 1V	or approved equal
10	1	1.5" Full Port Ball Valve	Morrison 691-0700 1V	or approved equal
11	2	1.5" x 12" Flex Connector Male x Male Swivel	Hosemaster Fireshield FSMS120150	or approved equal
12	1	Solenoid Valve - *Includes pressure relief valve	Morrison 710-0150 1V*	or approved equal
13	1	Solenoid Valve - *Includes pressure relief valve	Morrison 710-0100 1V*	or approved equal
14	2	1.5" Emergency Fire Valve	Morrison 346DI 0400AV	or approved equal
15	2	1" Emergency Fire Valve	Morrison 346DI 1100AV	or approved equal
16	1	Transition sump for piping	BRAVO B944-S48	or approved equal
17	200	Underground piping for heating oil 1.5"	OPW C15A	or approved equal
18	65	Underground piping for generator 3/4"	OPW C075A	or approved equal
19	65	Underground piping for generator 1"	OPW C10A	or approved equal
20	250	Corrugated Ducting	OPW AXP40	or approved equal
21	4	Clamshell Coupling 1.5" Swivel	OPW SBC-2150	or approved equal
22	1	Clamshell Coupling 1" Swivel	OPW SBC-2100	or approved equal
23	2	Clamshell Coupling 3/4" Swivel	OPW SBC-2075	or approved equal
24	1	Fuel Oil Piping Transition Assy.	OPW PTA 4175	or approved equal
25	1	Fuel Oil Piping Pipe Joint Kit	OPW PJK 4175	or approved equal
26	1	3/4" and 1" Double Entry Boot	OPW DEB-4175	or approved equal
27	4	4 x 1 x 1 double tap bushing	OPW PDT-411	or approved equal
28	2	Vent Cap Diesel	OPW 23-0033	or approved equal
29	2	Overfill Protection valve	OPW 61STOP-3050	or approved equal
30	2	Drop Tube Assy. For Overfill Valve	OPW 61FT-0312	or approved equal
31	1	Emergency Vent Valve 2000 Compartment	Morrison 244O-0200 AV	or approved equal
32	2	Emergency Vent Valve Interstitial & 8K comp.	Morrison 244O-0600 AV	or approved equal
33	2	Clock Gauge (optional)	Morrison 818F 0100AGEVR	or approved equal
34	1	Veeder Root Monitoring Console	TLS 4C	
35	1	Application Software	Veeder Root	
36	2	Tank Gauging Probe	Veeder Root 846396-107	Mag 1 8'
37	2	Diesel Float Kits for Mag 1 probe	Veeder Root 846400-001	
38	2	Aboveground Storage Tank Install Kit	Veeder Root 312020-984	
39	1	Interstitial Sensor	Veeder Root 794390-420	
40	1	Sensor Containment Sump	Veeder Root	
41	1	Veeder Root	8 Hr. Start up and Training	
42		Vent Piping	2" Sch. 40 black steel	
43		Aboveground Heating oil piping	1.5" Sch. 40 black steel	
44		Aboveground Generator piping	1" and 3/4" Sch. 40 black steel	
45	1	Misc. components not listed above		

LEGEND

VENT	V
DIRECT FILL/STICK PORT LOCATION	F
REMOTE FILL LOCATION	RF
SUCTION PORT	S
RETURN PORT	R
INTERSTITIAL MONITOR	IM
AUTOMATIC TANK GAUGE	TG
CLOCK GAUGE	CG
EMERGENCY VENT	EV
EMERGENCY VENT INTERSTITIAL	EVI



PLAN REFERENCE

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benesch
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 860-633-8341

Prepared for:
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CHIPPEN HILL MIDDLE SCHOOL FUEL STORAGE TANK REPLACEMENT

BRISTOL, CT
551 PEACEDALE STREET

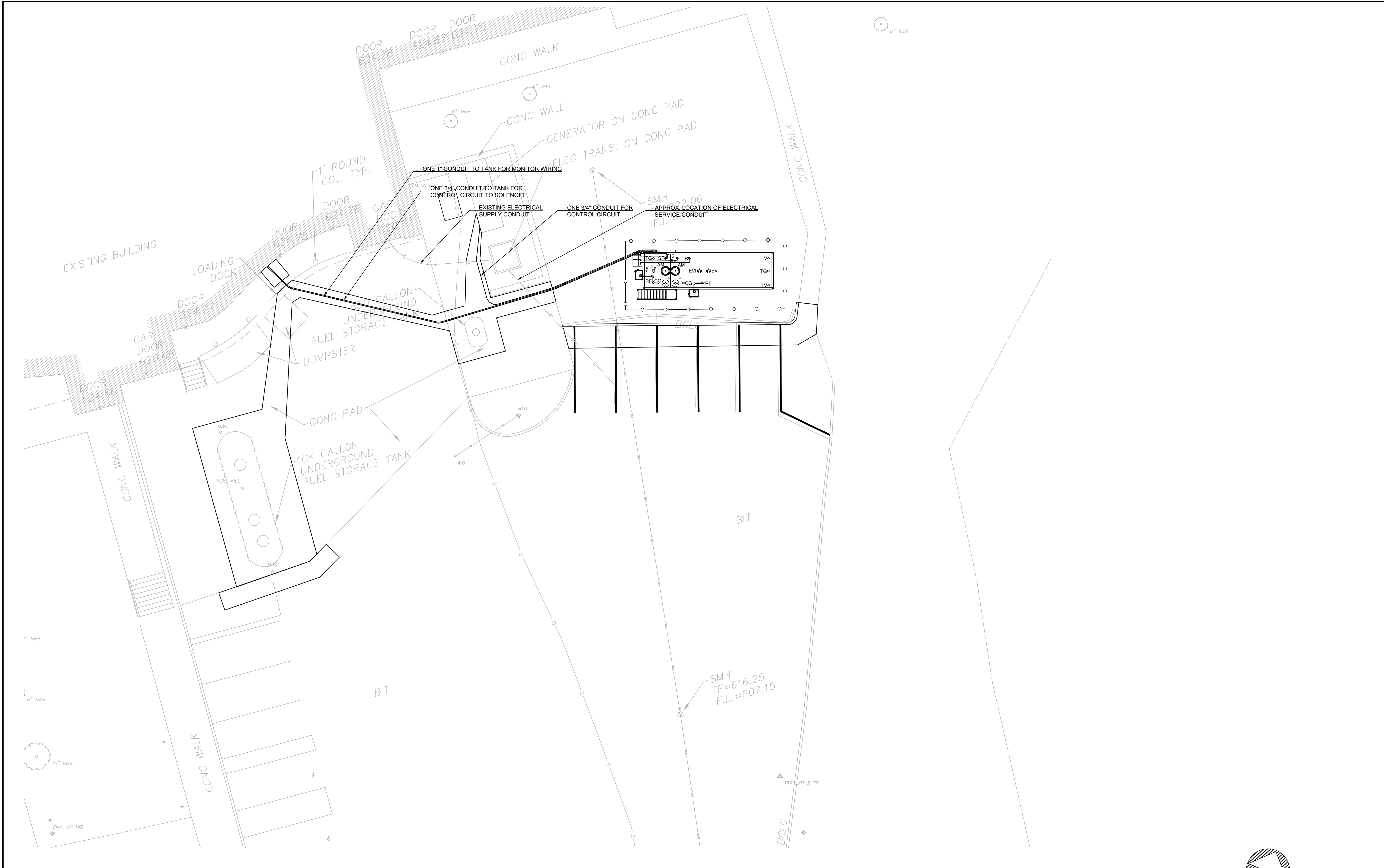
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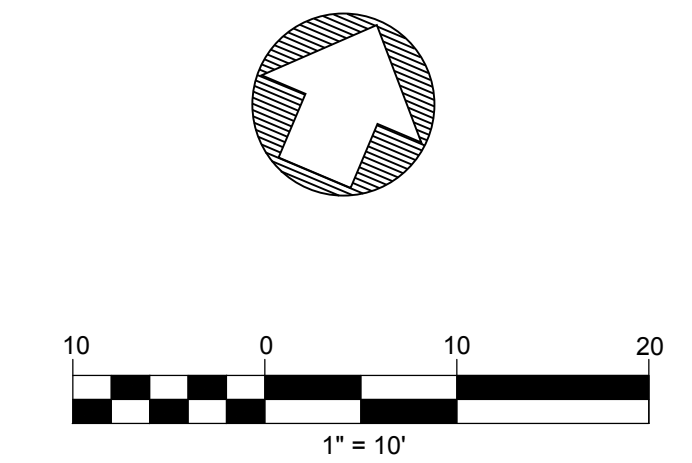
DRAWN BY: LW
 CHECKED BY: RCS

Piping Plan

DRAWING NO.:
UT-1



- ELECTRICAL CONDUIT NOTES**
1. PROVIDE ONE (1) 3/4" CONDUIT FROM BOILER ROOM TO TANK FOR AC AND CONTROL CIRCUITS.
 2. PROVIDE ONE (1) 3/4" CONDUIT FROM GENERATOR TO TANK FOR CONTROL CIRCUIT.
 3. PROVIDE ONE (1) 1" CONDUIT TO TANK FOR MONITORING EQUIPMENT.
 4. INSTALL SEAL FITTINGS (EYS) AT BOTH ENDS OF ALL CONDUITS TO TANK FIELD EQUIPMENT.
 5. UNDERGROUND CONDUITS TO BE SCH. 40 PVC, WITH 24" MINIMUM BURIAL AND TRANSITION TO STEEL NOT LESS THAN 24" BEFORE EMERGENCE.



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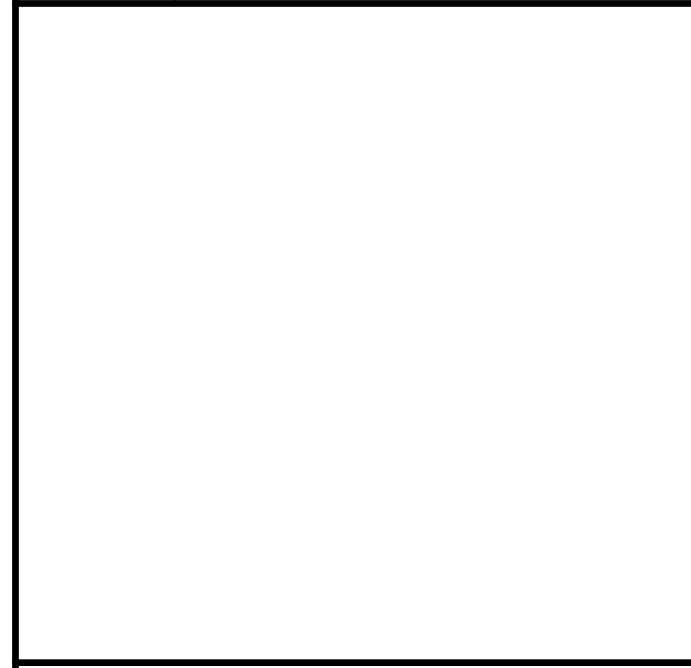
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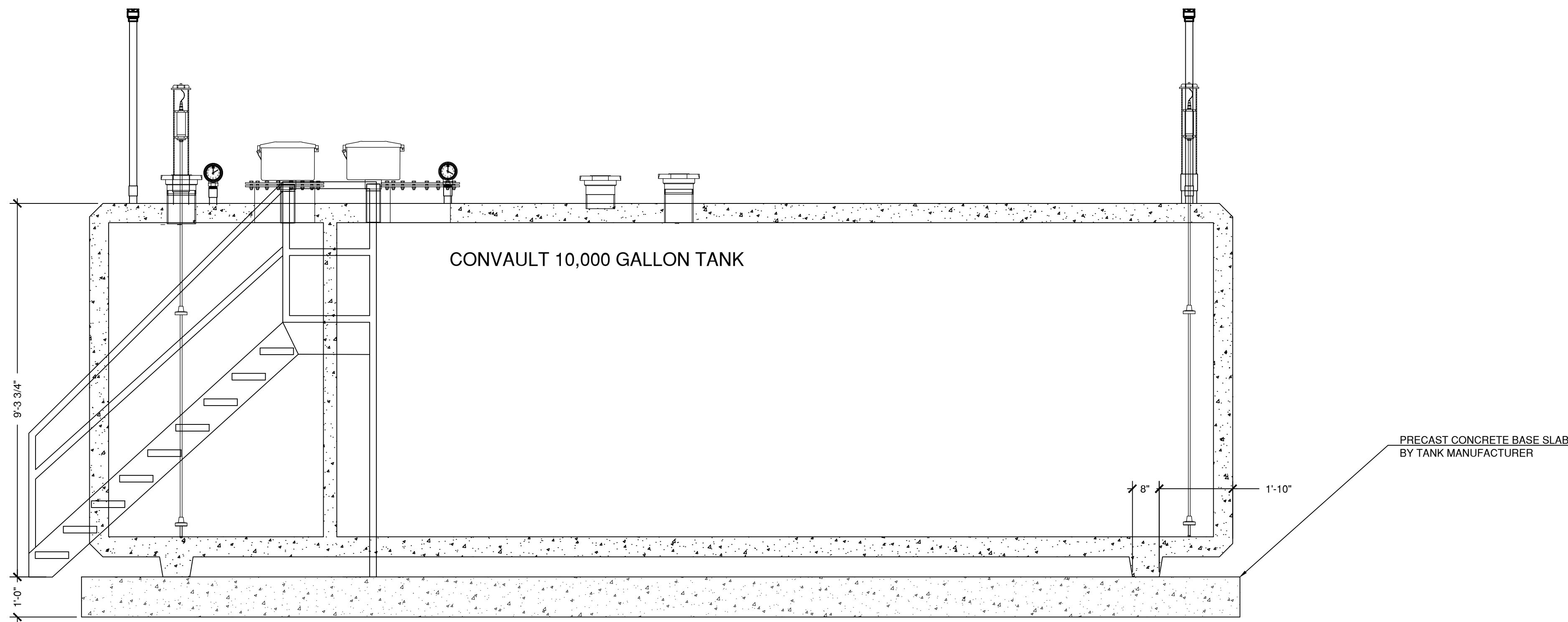
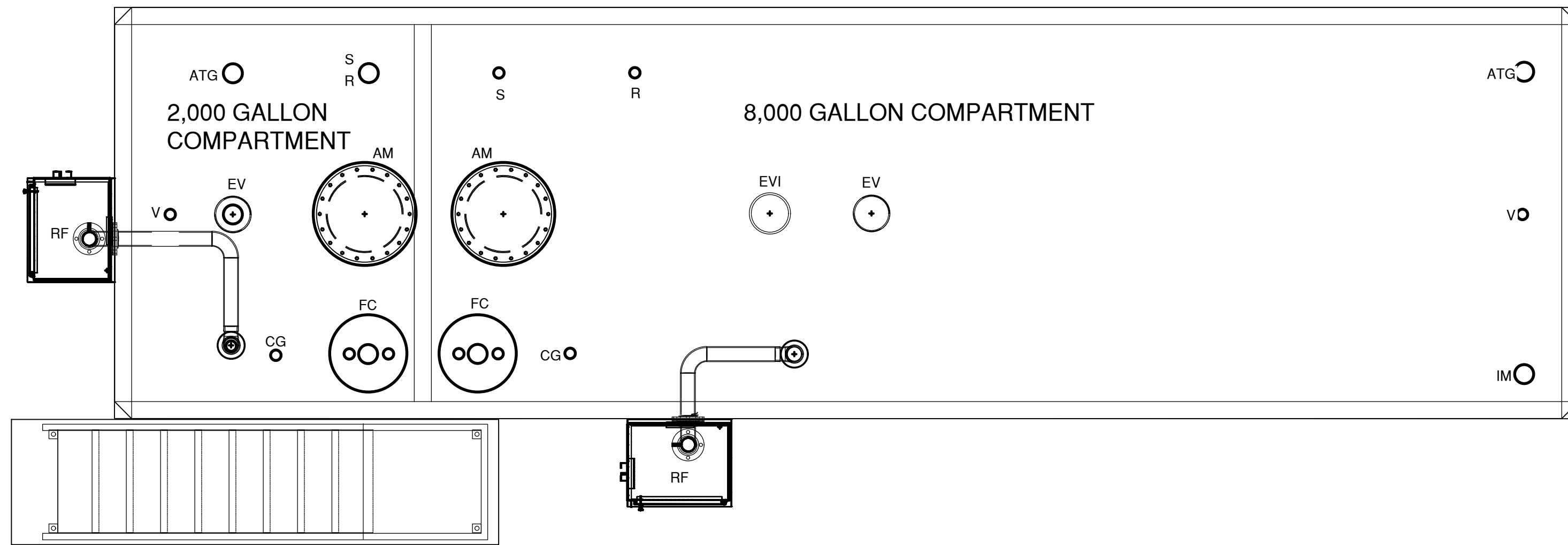
Electrical Conduit Plan

DRAWING NO.:
UT-2

DATE:	REVISION:

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UST Details



1 CONVAULT 10,000 GALLON A/G COMPARTMENT TANK
 SCALE: N.T.S.

LEGEND

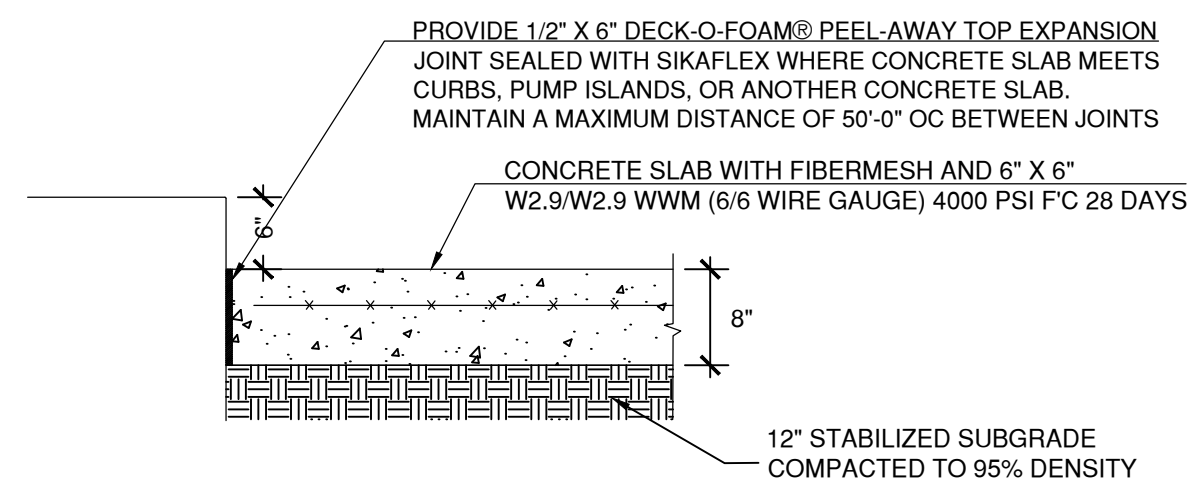
AUTOMATIC TANK GAUGE	ATG
EMERGENCY VENT	EV
EMERGENCY VENT INTERSTITIAL	EVI
SUCTION PORT	S
RETURN PORT	R
VENT RISER	V
CLOCK GAUGE	CG
TANK TOP FILL CONTAINMENT	FC
REMOTE FILL CONTAINMENT	RF
INTERSTITIAL MONITOR	IM
ACCESS MANWAY	AM

NOTES
 DRAWINGS ARE SCHEMATIC IN NATURE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ACTUAL CONFIGURATION OF PORTS AND ACCESS MANWAYS. LAYOUT OF TANK TOP PIPING IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR.

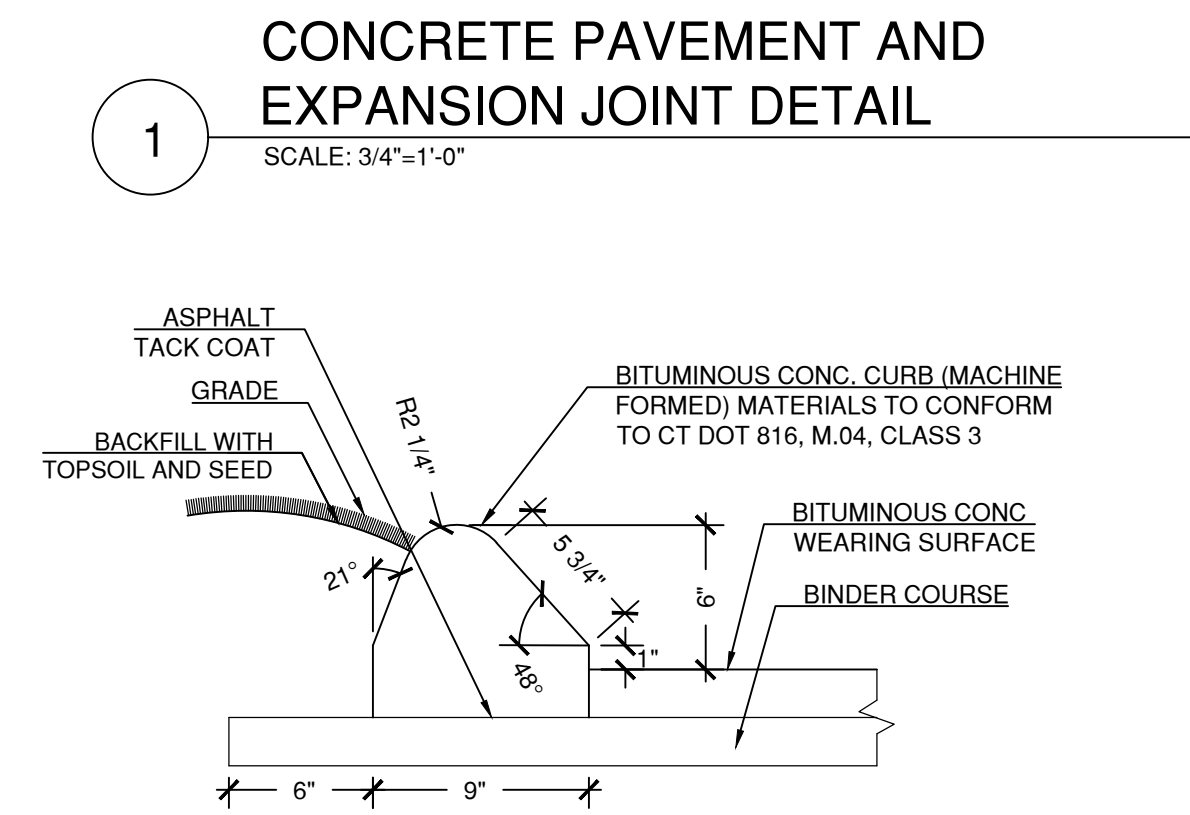
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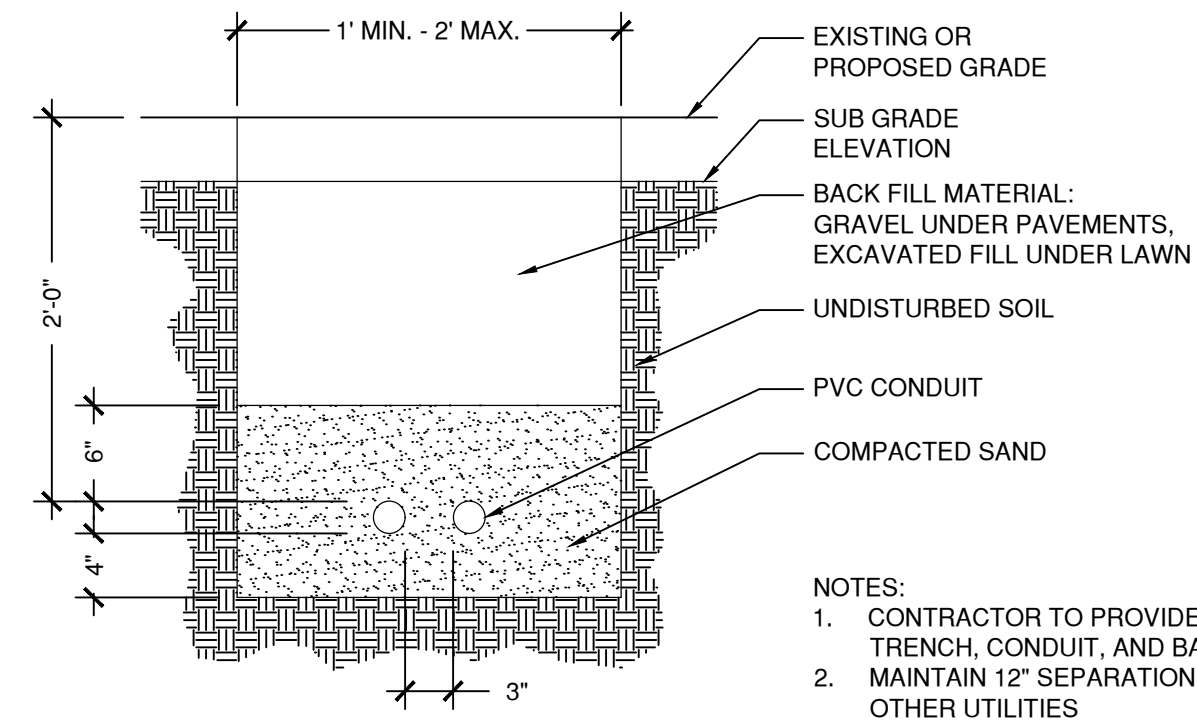
UST Details



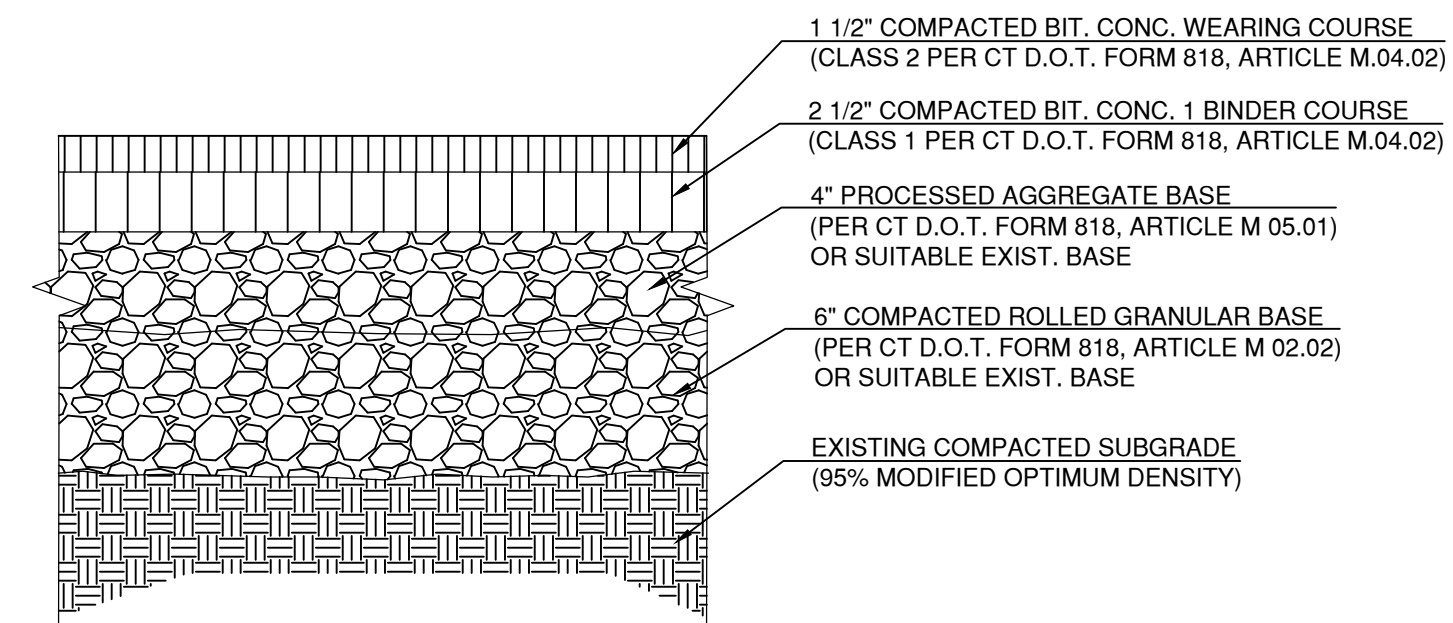
1 CONCRETE PAVEMENT AND EXPANSION JOINT DETAIL
 SCALE: 3/4"=1'-0"



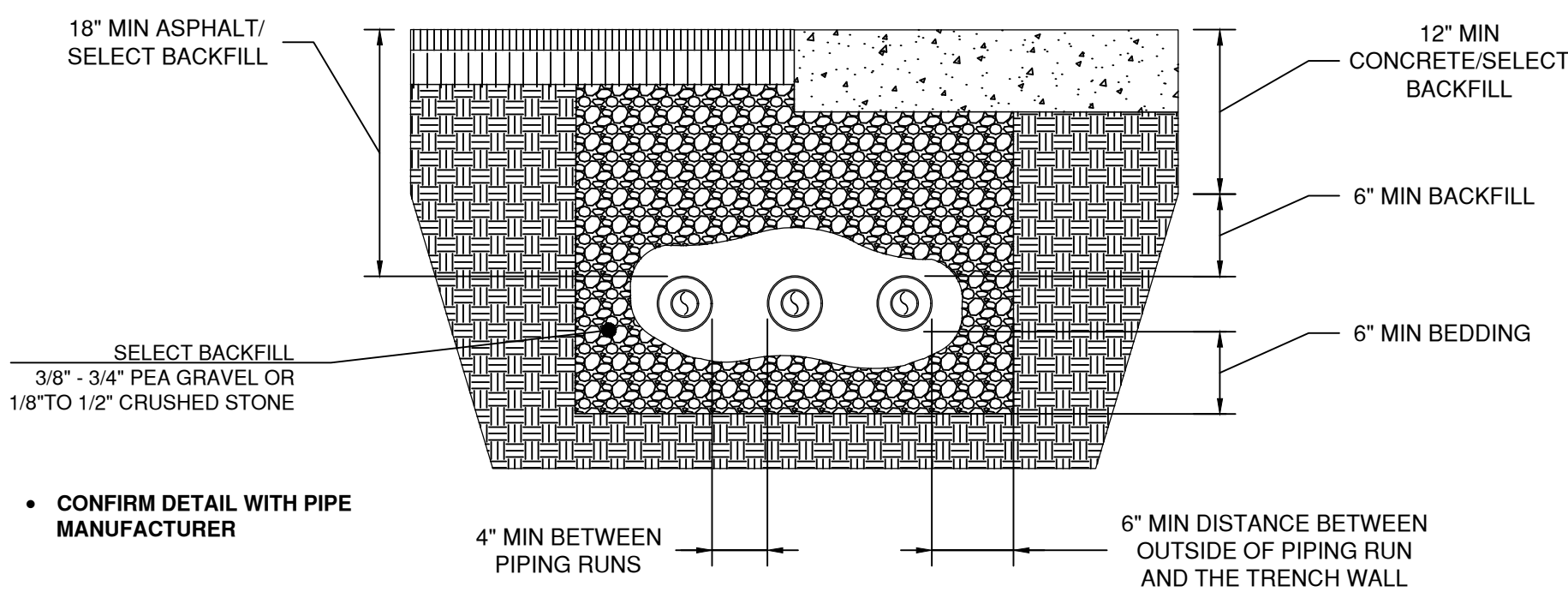
2 6" BIT. CONC. LIP CURB
 SCALE: 1/5" = 1'-0"



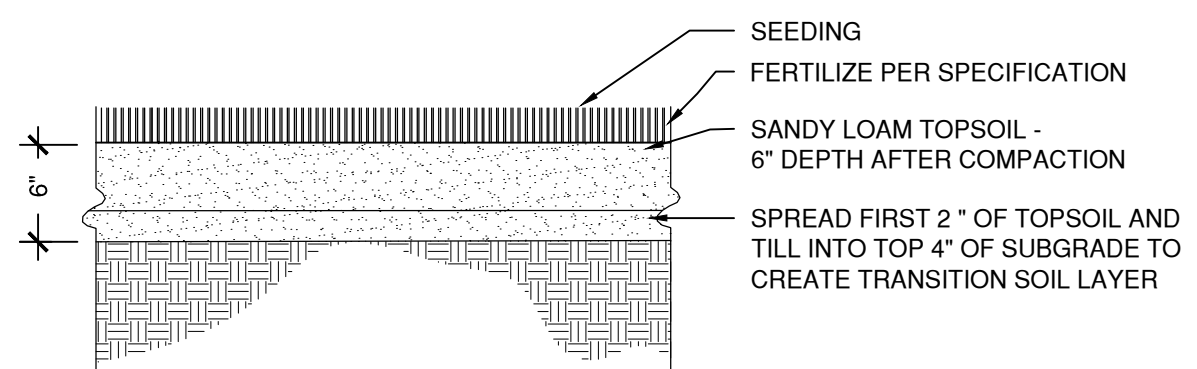
4 ELECTRICAL TRENCH DETAIL
 SCALE: 1"=1'-0"



5 BITUMINOUS CONC. PAVEMENT (VEHICULAR)
 SCALE: 1 1/2" = 1'-0"



3 OPW FLEXWORKS PIPING TRENCH DETAIL
 SCALE: 1" = 1'-0"



6 TOPSOIL/LAWN
 SCALE: 1" = 1'-0"

LAWN SEED MIX:
 33.3% KENTUCKY BLUEGRASS
 33.3% CHEWINGS RED FESCUE
 33.3% PERENNIAL RYEGRASS
 (SUBMIT SEED MIX FOR APPROVAL)

TOPSOIL:
 TOPSOIL SHALL BE PER ASTM D 5268 WITH A PH RANGE OF 5.5 - 7, MINIMUM 6% ORGANIC MATERIAL CONTENT, FREE OF STONES 1" OR LARGER AND OTHER EXTRANEIOUS MATERIALS HARMFUL TO PLANT GROWTH AND FREE OF FOREIGN MATERIAL SUCH AS BROKEN GLASS, TRASH, ROOTS, ETC.

NOTE: CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND WATERING OF GRASS UNTIL FINAL ACCEPTANCE.