

TOWN OF ODON DAVIESS COUNTY, INDIANA

WATER UTILITY IMPROVEMENTS PROJECT DIVISION "B" - NEW WATER STORAGE TANK DECEMBER 2024

TOWN COUNCIL

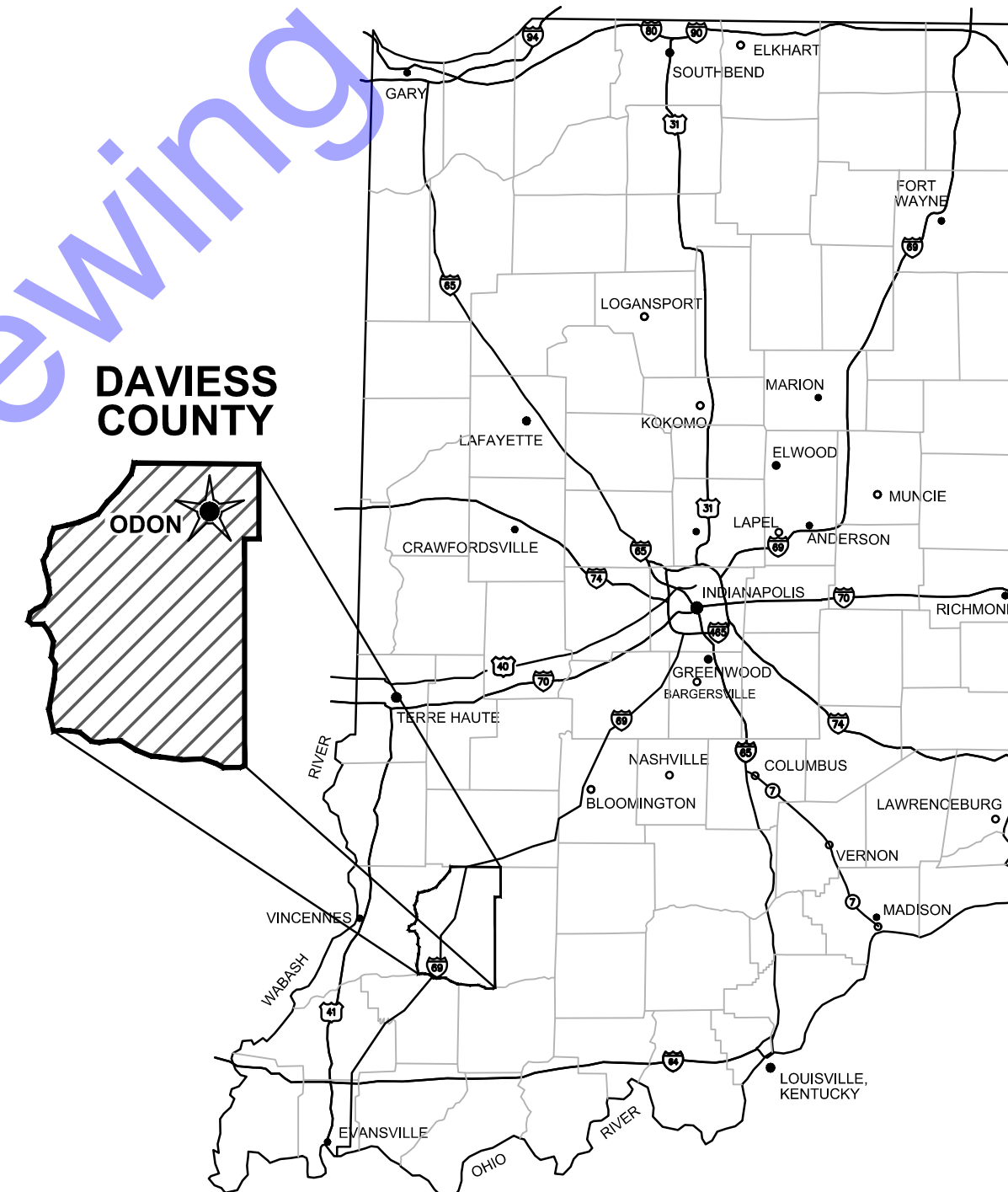
SUSIE ROACH PRESIDENT

BJ SANDERS MEMBER

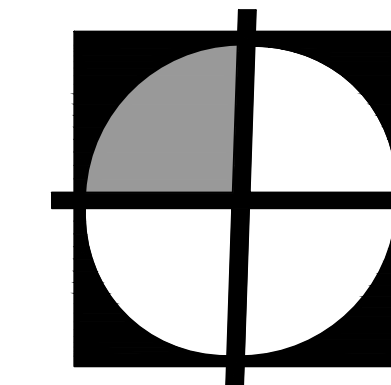
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GENERAL LOCATION MAP



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QA/QC BY :

Alan W. Leistner
ALAN W. LEISTNER, PE

04/22/2025

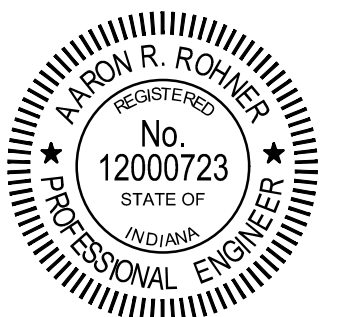
DATE :

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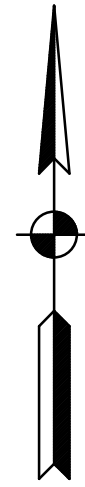
Aaron R. Rohner
AARON R. ROHNER
INDIANA P.E. No. 12000723

04/22/2025

DATE :



CONTRACT NO. : W21115



SCALE: 1"=800'-0"

0 800' 1600'

A horizontal graphic scale bar with alternating black and white segments. It is marked with '0' at the left end, '800'' in the middle, and '1600'' at the right end.

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30	E3-0	ELECTRICAL- GROUND STORAGE TANK MIXER
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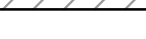






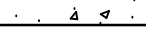
GENERAL ABBREVIATIONS

AIR	FLD	FILTRATE DRAIN	P/L	PROPERTY LINE
AB	FLG	FLANGE	POJ	PUSH ON JOINT
AFF	FL	FLUSHING LINE	PSF	POUNDS PER SQUARE FOOT
ALT	FLR	FLOOR	PSI	POUNDS PER SQUARE INCH
ALUM	FM	FORCE MAIN	PVC	POLYVINYL CHLORIDE
@	FRP	FIBER REINFORCED PLASTIC	PW	POTABLE WATER
APP.	FT	FEET OR FOOT		
ATT	FTG	FOOTING	R	RECIRCULATION
AUTO	FW	FINISHED WATER	RAD	RADIUS
AVG			RAS	RETURN ACTIVATED SLUDGE
	G	GAS	RCP	REINFORCED CONCRETE PIPE
B	GALV	GALVANIZED	RD	ROOF DRAIN
BLDG	GEN	GENERAL	REINF	REINFORCING
BM	GRD	GROUND OR GRADE	REQ'D	REQUIRED
BOT			R/W (ROW)	RIGHT-OF-WAY
BRG	HB	HOSE BIBB		
	HORIZ	HORIZONTAL	SAN	SANITARY
CFM	HP	HORSEPOWER	SAS	SANITARY SEWER
CL	HW	HOT WATER	SCH	SCHEDULE
CO			SECT	SECTION
COL/C	ID	INSIDE DIAMETER	SF	SQUARE FEET
CONC	IJ	ISOLATION JOINT	SHT	SHEET
COP	INV	INVERT	SL	SAMPLE LINE
CJ	IP	IRON PIN	SOS	STORM SEWER
CW			SP	STOP PLATE
CY	LAV	LAVATORY	SQ	SQUARE
	LB	POUND	STD	STANDARD
D	LL	LIVE LOAD	S STL, SS	STAINLESS STEEL
DEC	LLV	LONG LEG VERTICAL	STL	STEEL
DIA	LTG	LIGHTING	SUP	SUPERNATANT
DIM			SY	SQUARE YARD
DI	MAX	MAXIMUM		
DL	MCC	MOTOR CONTROL CENTER	TOS	TOP OF SLAB
DSPT	MGD	MILLIONS GALLONS PER DAY	TOW	TOP OF WALL
DWG	MH	MANHOLE	TW	TERTIARY WATER
	MIN	MINIMUM, MINUTE	TYP	TYPICAL
E	MJ	MECHANICAL JOINT		
EA			V	VACUUM OR VALVE
EF	NC	NORMALLY CLOSED	VAR	VARIES
EFFL	NG	NATURAL GAS	VERT	VERTICAL
EL	NIC	NOT IN CONTRACT		
EOP	NO	NORMALLY OPEN	W	WEIR
EW	NO.	NUMBER	W/	WITH
EX	NPW	NON-POTABLE WATER	W/O	WITHOUT
EXF			WAS	WASTE ACTIVATED SLUDGE
EXP JP	OC	ON CENTER	WC	WATER CLOSET
	OD	OUTSIDE DIAMETER	WH	WATER HEATER
F	OPG	OPENING	WL	WATER LINE
FCAR	OPP	OPPOSITE	WWF	WELDED WIRE FABRIC
FD	PB	PULL BOX	YH	YARD HYDRANT
FDN	PE	POLYETHYLENE EXP. JT.		
FH		MATERIAL		

GENERAL SCHEMATIC LEGEND

	QUICK DISCONNECT		BOOSTER PUMP
	FLANGED SPOOL SECTION		AIR RELIEF VALVE
	PRESSURE REDUCER VALVE		FLOW METER
	FLANGED COUPLING ADAPTER		GATE VALVE
	BALL CHECK VALVE		FLOW CONTROL VALVE
	MOTOR ACTUATOR		VALVE
	FLEXIBLE CONNECTION		ECCENTRIC PLUG VALVE
	FLANGE FILLER & S.S. MESH SCREEN		CHECK VALVE
	90° V-NOTCH WEIR		INCREASER / REDUCER
	MAGNETIC FLOW METER		BUTTERFLY VALVE
	ULTRASONIC SENSOR		PIPE THROUGH FLOOR / WALL
			BALL VALVE
	NEW PIPING AND EQUIPMENT		BLIND FLANGE OR PLUG
	EXISTING PIPING AND EQUIPMENT		HOSE BIBB
	FUTURE PIPING AND EQUIPMENT		STOP PLATE
			WEIR

HATCHING SYMBOLS

	-CMU WALL (PLAN VIEW)
	-GRANULAR BACKFILL (PROFILE VIEW)
	- DEMOLITION (CONTRACTOR SHALL REFER TO DETAILED SPECIFICATIONS)
	- GROUT
	- CONCRETE
	- STEEL
	- COMPACTED GRANULAR BACKFILL OR COMPACTED FOUNDATION
	- ABANDONED IN PLACE

GENERAL NOTES

1. ALL PROPERTY AND RIGHT-OF-WAY LINES INFORMATION SHOWN IN DRAWING SET ARE APPARENT AND SHALL NOT BE DEEMED EXACT LOCATIONS, UNLESS OTHERWISE NOTED. INFORMATION WAS OBTAINED VIA "INDIANA ON-LINE" GIS WEBSITE.
2. CONTRACTOR SHALL MAINTAIN 10'-0" HORIZONTAL AND 1'-6" VERTICAL SEPARATION BETWEEN SEWERS (INCLUDING SERVICE LATERALS & WATER MAINS IN ACCORDANCE WITH IDEM REQUIREMENTS, UNLESS SPECIFICALLY NOTED IN THE PLANS OTHERWISE.) MANHOLES AND WATER MAINS SHALL HAVE MIN. 8'-0" SEPARATION, UNLESS OTHERWISE NOTED IN PLANS.
3. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY PROPOSED WORK ACTIVITIES. IF UTILITY CONFLICTS OCCUR, CONTRACTOR SHALL NOTIFY RPR PRIOR TO PROCEEDING WITH WORK.
4. EXISTING UTILITY INFORMATION SHOWN IN DRAWING SET, MEETS "ASCE 36-02" QUALITY LEVEL "C", UNLESS OTHERWISE NOTED.

UTILITY COORDINATION AND PROJECT DEPICTION OF EXISTING SUBSURFACE UTILITY DATA:

UTILITY QUALITY LEVEL DESCRIPTIONS:

UTILITY QUALITY LEVEL A - PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATIONS OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. ACCURACY OF LOCATION MATCHES PROJECT SURVEY TOLERANCE.

UTILITY QUALITY LEVEL B - INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION SUBSURFACE UTILITIES. THE RELIABILITY OF THIS INFORMATION IS SURVEYED TO PROJECT CONTROL AND SUBJECT TO ACCURACY LEVELS OF THE GEOPHYSICAL TOLERANCE DEFINED BY THE PROJECT.

UTILITY QUALITY LEVEL C - INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE GROUND UTILITY FEATURES AND CORRELATING QUALITY LEVEL "D" INFORMATION.

UTILITY QUALITY LEVEL D - INFORMATION DERIVED FROM EXISTING RECORDS OR VERBAL RECOLLECTIONS.

THING AND EASTING COORDINATES SHOWN ON ALL MANHOLE, INLETS, ETC. ARE SHOWN FROM
TER OF STRUCTURE NOT CASTING, UNLESS OTHERWISE NOTED.

5. NORTHING AND EASTING COORDINATES SHOWN ON ALL MANHOLE, INLETS, ETC. ARE SHOWN FROM CENTER OF STRUCTURE NOT CASTING, UNLESS OTHERWISE NOTED.

PROJECT NOTES

1. CONTRACTOR TO LOCATE ALL EXISTING CUSTOMER WATER METERS AND REPLACE PER SPECIFICATIONS
2. IN THE AREAS WHERE WATER MAIN IS BEING REPLACED AND ABANDONED, CONTRACTOR TO RECONNECT ALL SERVICES FROM THE ABANDONED WATER MAINS TO THE NEW 6" WATER MAINS AND REPLACE THE LENGTH OF SERVICE LINE FROM THE CUSTOMER METER AND/OR RIGHT OF WAY PER SPECIFICATION.
3. CONTRACTOR TO LOCATE AND REPLACE ALL EXISTING CUSTOMER METERS PER SPECIFICATION.

UTILITY / PROJECT CONTACT INFORMATION

THIS SECTION SHALL BE USED FOR ANY SPECIFIC PROJECT CONTACT INFORMATION THE PROJECT MANAGER WOULD LIKE TO INCLUDE (REMINDER, THIS IS ALSO IN THE SPECIFICATIONS, SO UNLESS OTHERWISE DIRECTED, THIS SHOULD NOT BE ON THE PLANS)

DRAWING SET LEGEND

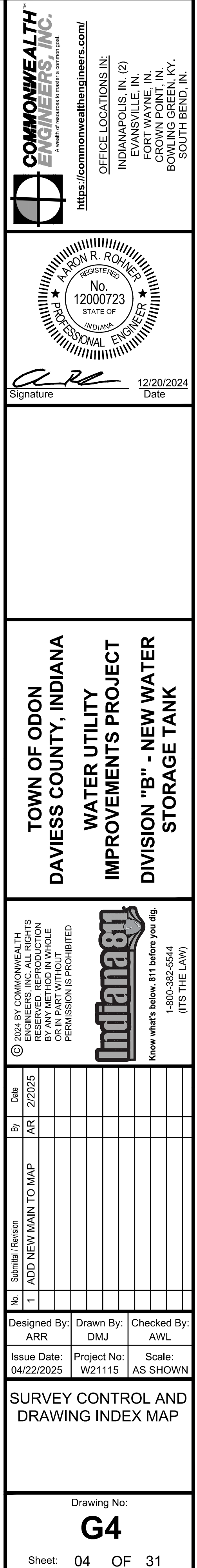
LEGEND		LEGEND		LEGEND	
	EXISTING OVERHEAD TELEPHONE LINE		MONUMENT		POWER POLE
	EXISTING GAS LINE AND VALVE		CONTROL POINT		POWER POLE WITH GUY WIRE
	EXISTING WATER LINE AND VALVE		FLAG POLE		GUY POLE WITH GUY WIRE
	EXISTING FIBER OPTIC LINE		POST		POWER POLE WITH UNDERGROUND ELECTRIC OR COMMUNICATIONS
	EXISTING OVERHEAD ELECTRIC LINE		STUMP		STREET LIGHT ON POWER POLE
	EXISTING BURIED ELECTRIC		BUSH / HEDGE		PARKING LOT LIGHT POLE
	EXISTING NON-POTABLE WATER LINE		DECIDUOUS TREE		ELECTRIC METER
	EXISTING POTABLE WATER LINE		CONIFEROUS TREE		UNDERGROUND ELECTRIC CONDUIT
	EXISTING BURIED TELEPHONE LINE		SIGN		TELEPHONE POLE
	EXISTING SANITARY SEWER		LARGE ROCK		TELEPHONE POLE WITH GUY WIRE
	EXISTING STORM SEWER		UTILITY LOCATE FLAG		TELEPHONE LINE MANHOLE
	EXISTING FENCE		GAS METER		COMMUNICATIONS BOX/PEDISTAL
	APPARENT RIGHT-OF-WAY		GAS LINE MARKER		FIBER OPTIC VAULT
	APPARENT PROPERTY LINE		POWER/LIGHT POLE		FIBER OPTIC MARKER
	EDGE OF ROAD		ELECTRIC METER		GAS VALVE
	EDGE OF ROAD WITH CURB		GUY WIRE		GAS METER
	EXISTING MAJOR CONTOUR LINE		ELECTRIC PANEL		UNDERGROUND GAS PIPE STUB
	EXISTING MINOR CONTOUR LINE		TEL/TV PEDESTAL		WATER VALVE WITH RIM AND VALVE ELEVATION
	NEW WATER LINE		WATER METER		WATER METER
	PROPOSED MAJOR CONTOUR LINE		VALVE		WATER LINE MARKER
	PROPOSED MINOR CONTOUR LINE		FIRE HYDRANT		FIRE HYDRANT
			FLUSH HYDRANT		SANITARY SEWER MANHOLE
			WALL SPIGOT		LIFT STATION MANHOLE
			EXISTING PIPE PLUG		VALVE PIT MANHOLE
			EXISTING STORM MANHOLE/INLET		FORCE MAIN VALVE WITH RIM AND VALVE ELEVATION
			EXISTING SANITARY MH		SANITARY CLEAN OUT
			TOP OF PIPE		AREA DRAIN
			CURB INLET		PIPE INVERT
			STORM INLET SQUARE		MAIL BOX
			STORM INLET ROUND		AIR CONDITIONER
			NEW VALVE		BASKETBALL POLE
			NEW FIRE HYDRANT		2" FENCE POST NEAR MONUMENTS
			NEW FLUSH HYDRANT		CONTROL POINT w/DESCRIPTION
			NEW WET SADDLE AND VALVE BODY		
			NEW PLUG		
			NEW LINE STOP		
			NEW SANITARY MH		

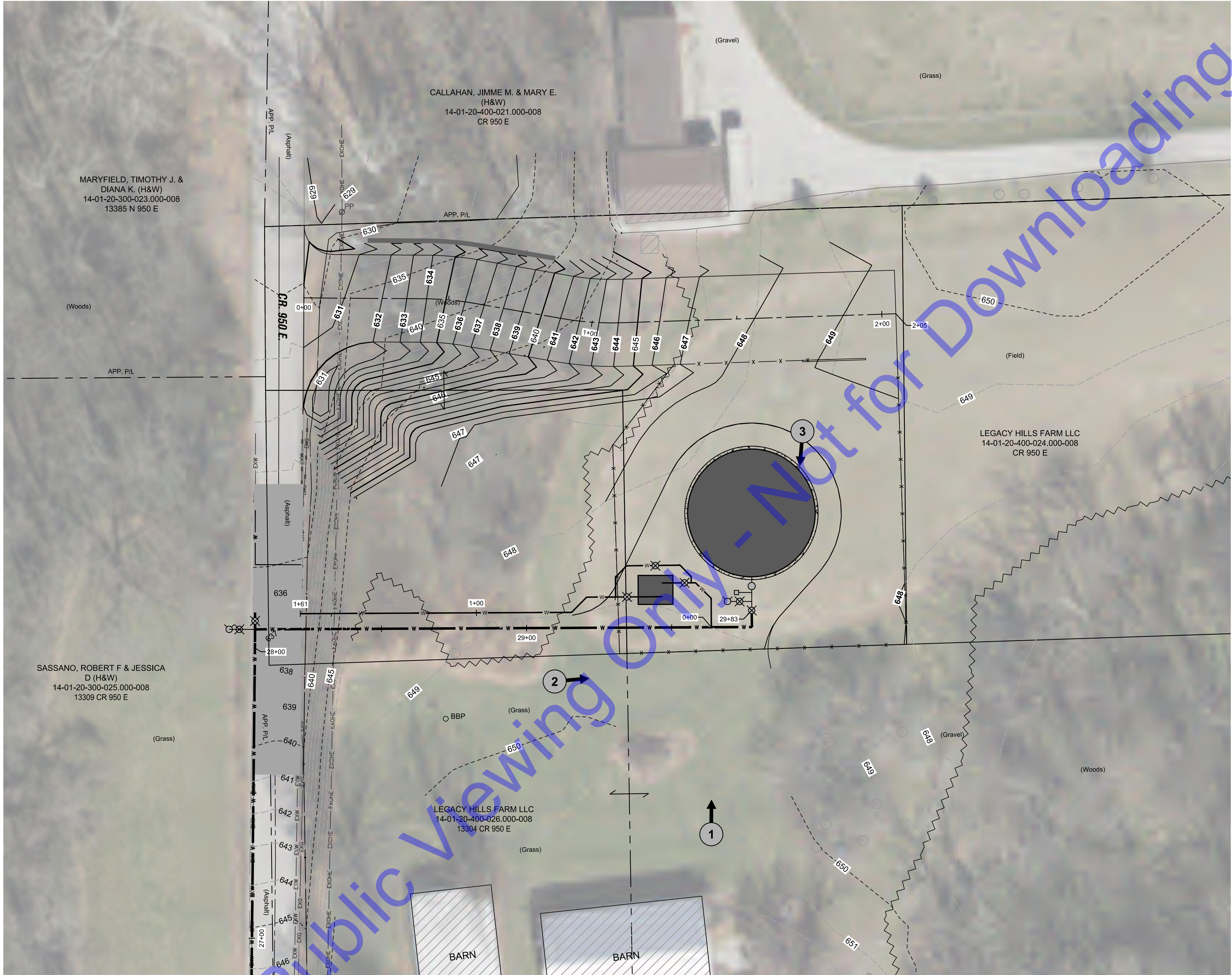


CONTROL POINT INFORMATION

IDENTIFIER	NORTHING	EASTING	DESCRIPTION
CP-1	1311298.74	2980056.10	5/8" IRON PIN W/ CAP
CP-2	1310557.92	2980013.00	5/8" IRON PIN W/ CAP
CP-3	1309820.38	2980054.71	5/8" IRON PIN W/ CAP
CP-4	1309812.06	2979063.20	MAG NAIL
CP-5	1309924.08	2980696.54	5/8" IRON PIN W/ CAP

Project coordinates are based on the following:
HORIZONTAL-US State plane coordinates: NAD83 (*North American Datum*) Indiana West Zone (1302)
VERTICAL- USGS 1988 NAVD (North American Vertical Datum)-per GPS observations (Not verified by physical location of published USGS monuments)

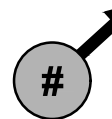




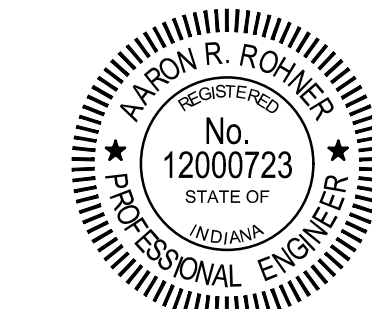
NEW TANK SITE PLAN AND PHOTO INDEX

SCALE: 1"=20'-0"
0 20' 40'

LEGEND:



INDICATES PHOTO NUMBER AND DIRECTION OF PHOTO
(PHOTOS TAKEN BY COMMONWEALTH ENGINEERS, INC. - MARCH, 2023)



Signature: *A. R. Rohner* Date: 12/20/2024

TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
IMPROVEMENTS PROJECT
DIVISION "B" - NEW WATER
STORAGE TANK

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No.	Submittal / Revision	By	Date
1	ADD SITE PICS 5, 6, & 7	ARR	2/20/25

Designed By: ARR Drawn By: DMJ Checked By: AVL
Issue Date: 04/22/2025 Project No: W21115 Scale: AS SHOWN

NEW TANK SITE PLAN
AND PHOTO INDEX

Drawing No:
G5
Sheet: 05 OF 31



PHOTO #1



PHOTO #2

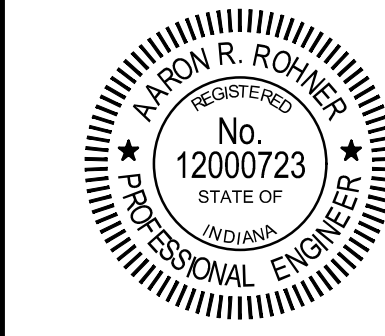


PHOTO #3



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OFFICE LOCATIONS IN:
INDIANAPOLIS, IN. (2)
EVANSVILLE, IN.
FORT WAYNE, IN.
CROWN POINT, IN.
BOWLING GREEN, KY.
SOUTH BEND, IN.



A. R. Rohner
Signature
12/20/2024
Date

TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
IMPROVEMENTS PROJECT
DIVISION "B" - NEW WATER
STORAGE TANK

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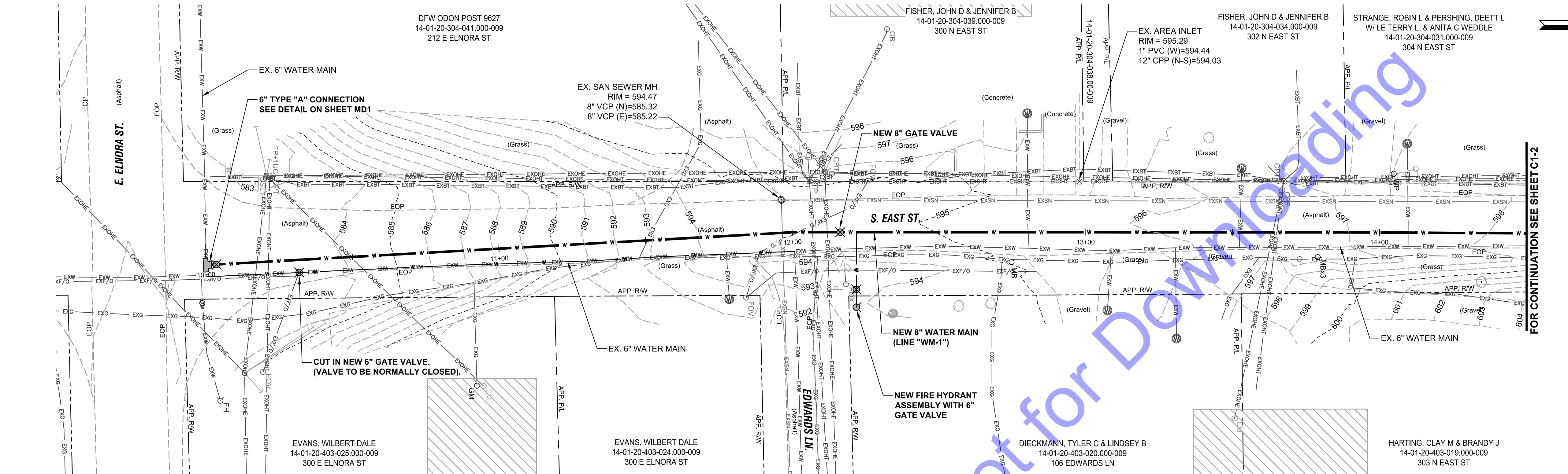
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Designed By: ARR	Drawn By: DMJ	Checked By: AWL
Issue Date: 04/22/2025	Project No: W21115	Scale: AS SHOWN

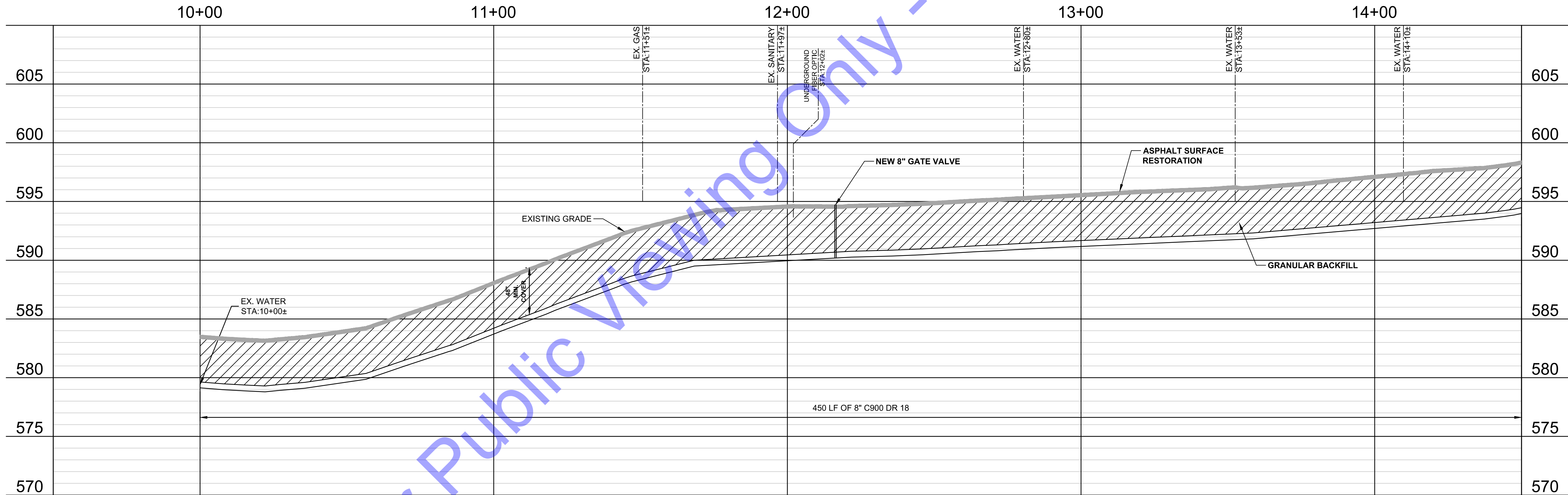
PHOTO LOG

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G6
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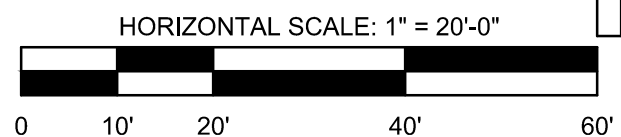
PLAN VIEW



PROFILE VIEW

GENERAL NOTES:

- CONTRACTOR TO AVOID AND PROTECT ANY EXISTING STORM MANHOLES, SEWER, OR CULVERTS. IF DISTURBED OR DAMAGED, CONTRACTOR TO REPLACE TO A CONDITION EQUAL TO OR BETTER THAN EXISTING.
- CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTH OF EXISTING SANITARY SEWER AND LATERALS PRIOR TO BORING NEW WATER MAIN OR WATER SERVICES.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL WATER SERVICES. LOCATIONS SHOWN ARE APPROXIMATE.



Signature: [Signature] Date: 12/20/2024

TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
IMPROVEMENTS PROJECT
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STORAGE TANK

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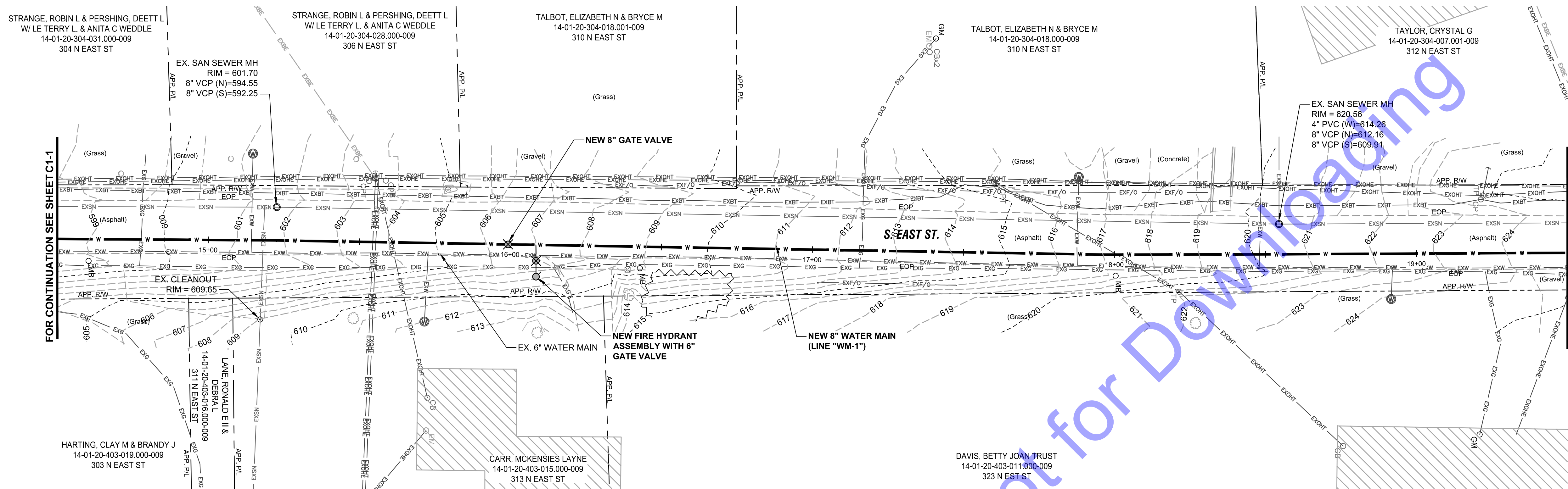
No.	Submittal / Revision	By	Date
1	SEVERAL SHEET EDITS	ARR	2/20/25

Designed By: ARR
Drawn By: DMJ
Checked By: AWL
Issue Date: 04/22/2025
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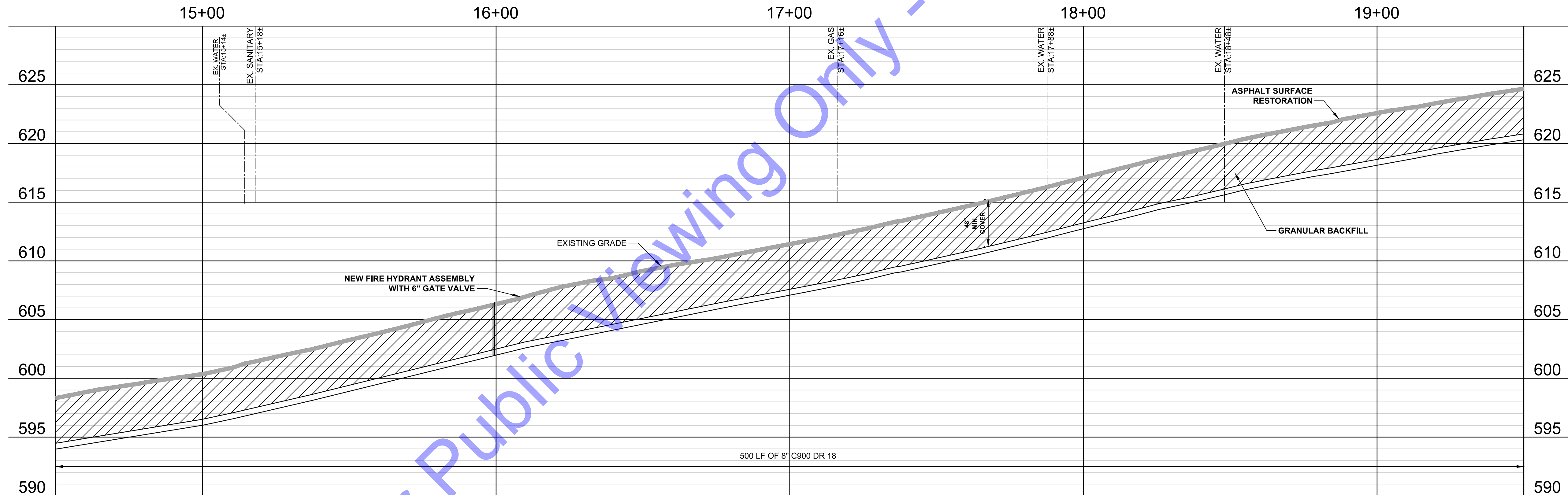
PLAN AND PROFILE
VIEWS - LINE "WM-1"

Drawing No:
C1-1
Sheet: 07 OF 31

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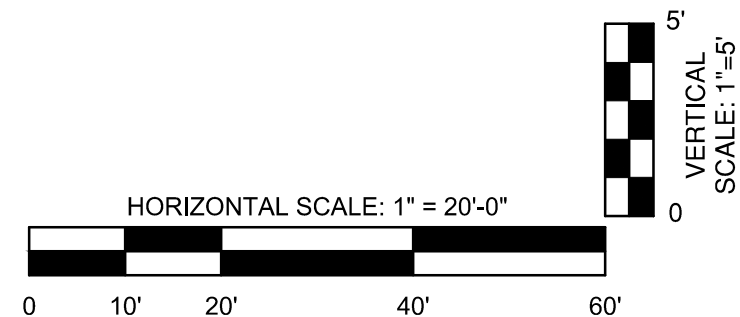
PLAN VIEW



PROFILE VIEW

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EVANSVILLE, IN
FORT WAYNE, IN
CROWN POINT, IN
BOWLING GREEN, KY
SOUTH BEND, IN

DAVID R. ROHNER
REGISTERED PROFESSIONAL ENGINEER
No. 12000723
STATE OF INDIANA

Signature: *DR* Date: 12/20/2024

TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
IMPROVEMENTS PROJECT
DIVISION "B" - NEW WATER STORAGE TANK

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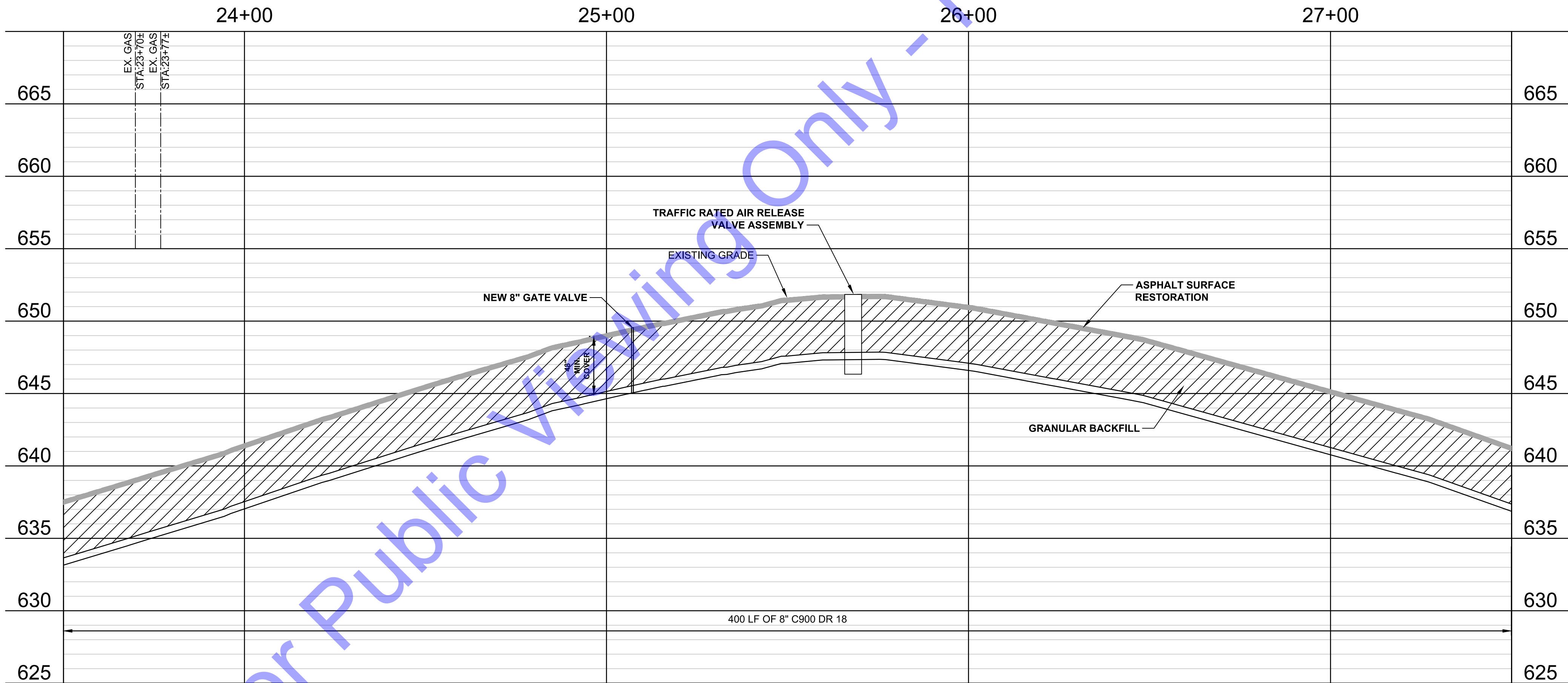
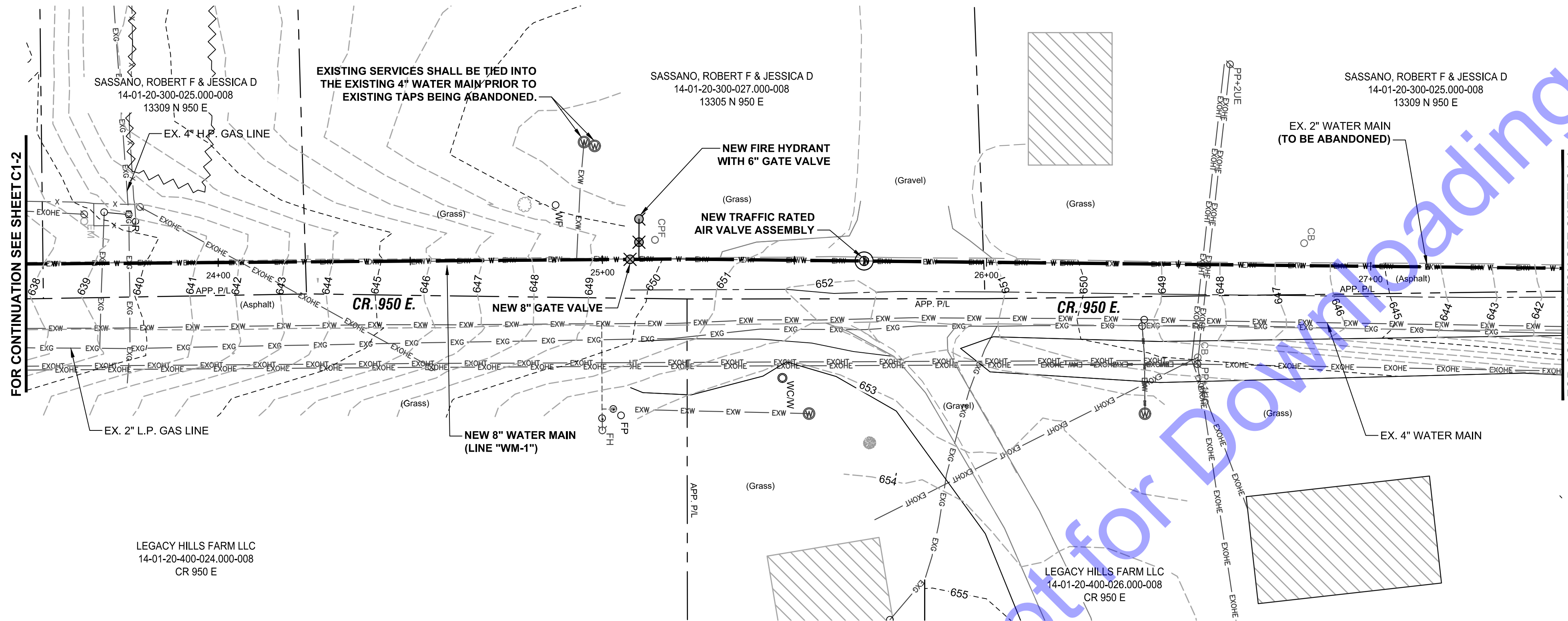
Designed By: ARR	Drawn By: DMJ	Checked By: AWL
Issue Date: 04/22/2025	Project No: W21115	Scale: AS SHOWN

PLAN AND PROFILE VIEWS - LINE "WM-1"

Drawing No:
C1-2

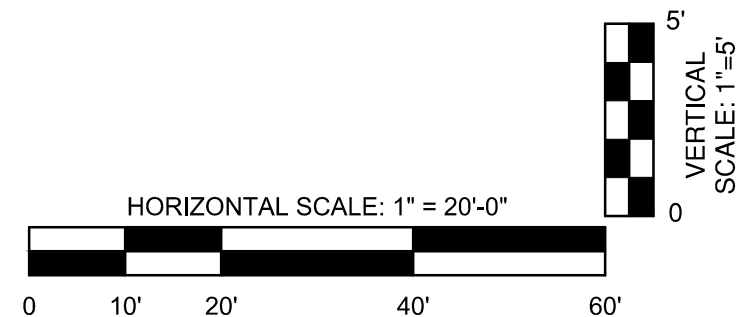
Sheet: 08 OF 31


FILE: Z:\SHARED\CLIENTS\2025\01\15\WATER\UTILITY IMPROVEMENTS\8-CUDA\CURRENT FILES\DRAWINGS\DWG 800-PLAN AND PROFILE DRAWINGS.DWG
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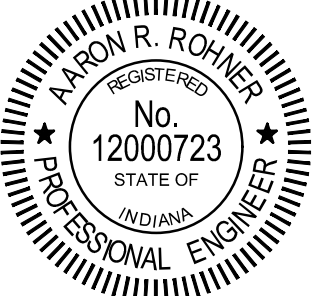

GENERAL NOTES:

- CONTRACTOR TO AVOID AND PROTECT ANY EXISTING STORM MANHOLES, SEWER, OR CULVERTS. IF DISTURBED OR DAMAGED, CONTRACTOR TO REPLACE TO A CONDITION EQUAL TO OR BETTER THAN EXISTING.
- CONTRACTOR TO FIELD VERIFY LOCATIONS AND DEPTH OF EXISTING SANITARY SEWER AND LATERALS PRIOR TO BORING NEW WATER MAIN OR WATER SERVICES.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL WATER SERVICES. LOCATIONS SHOWN ARE APPROXIMATE.




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FORT WAYNE, IN
CROWN POINT, IN
BOWLING GREEN, KY
SOUTH BEND, IN


Signature:  Date: 12/20/2024

**TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
IMPROVEMENTS PROJECT
DIVISION "B" - NEW WATER
STORAGE TANK**

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No.	Submital / Revision	By	Date
1	SEVERAL SHEET EDITS	ARR	2/20/2025

Designed By: ARR

Drawn By: DMJ

Checked By: AVL

Issue Date: 04/22/2025

Project No: W21115

Scale: AS SHOWN

PLAN AND PROFILE
VIEWS - LINE "WM-1"

Drawing No:
C1-4

Sheet: 10 OF 31

FILE: Z:\SHARED\IN\CLIENTS\4-2025\11-15 WATER UTILITY IMPROVEMENTS\8-CUDA\CURRENT FILES\DRAWINGS\DWG\BOL-PLAN AND PROFILE DRAWINGS.DWG
Saved: 4/22/2025 5:54:47 PM Plotted: 4/22/2025 5:07:03 PM. Current User: Dave Janssen User: davejanssen@commonwealth-engineers.com

IN ACCORDANCE WITH THE DAVIESS COUNTY HIGHWAY DEPARTMENT, THE TRENCH ACROSS CR 950 E. SHALL BE BACKFILLED WITH COMPACTED #8 STONE TO A POINT 12-INCHES ABOVE THE TOP OF THE PIPE, THEN FILLED WITH FLOWABLE FILL TO A POINT 2-INCHES TO 4-INCHES BELOW THE EXISTING PAVEMENT SURFACE, THEN FILLED TO THE SURFACE WITH COMPACTED #53 STONE.

WHEN ASPHALT RESTORATION IS READY TO BEGIN, REMOVE THE COMPACTED #53 STONE AND REPLACE WITH HMA TYPE B SURFACE. THE EXISTING ROADWAY FROM THE TRENCH TO A POINT AT LEAST 50' ON EACH SIDE OF THE ROAD CUT SHALL BE OVERLAYED WITH A MINIMUM OF 2" OF HMA TYPE B SURFACE. PROVIDE TRANSITION MILLING AT EACH TIE-IN LOCATION. USE TACK COAT BETWEEN ALL NEW AND EXISTING ASPHALT LAYERS.

MARYFIELD, TIMOTHY J. & DIANA K.
14-01-20-300-023.000-008
13385 N 950 E

CALLAHAN, JIMME M. & MARY E. (H/W)
14-01-20-400-021.000-008
CR 950 E

SASSANO, ROBERT F & JESSICA D
14-01-20-300-025.000-008
13309 N 950 E

LEGACY HILLS FARM LLC
14-01-20-400-026.000-008
CR 950 E

LEGACY HILLS FARM LLC
14-01-20-400-024.000-008
CR 950 E

MINIMUM EXTENTS OF HMA OVERLAY

2" TYPE "B" CONNECTION TO EXISTING 2" MAIN

NEW 2" WATER MAIN

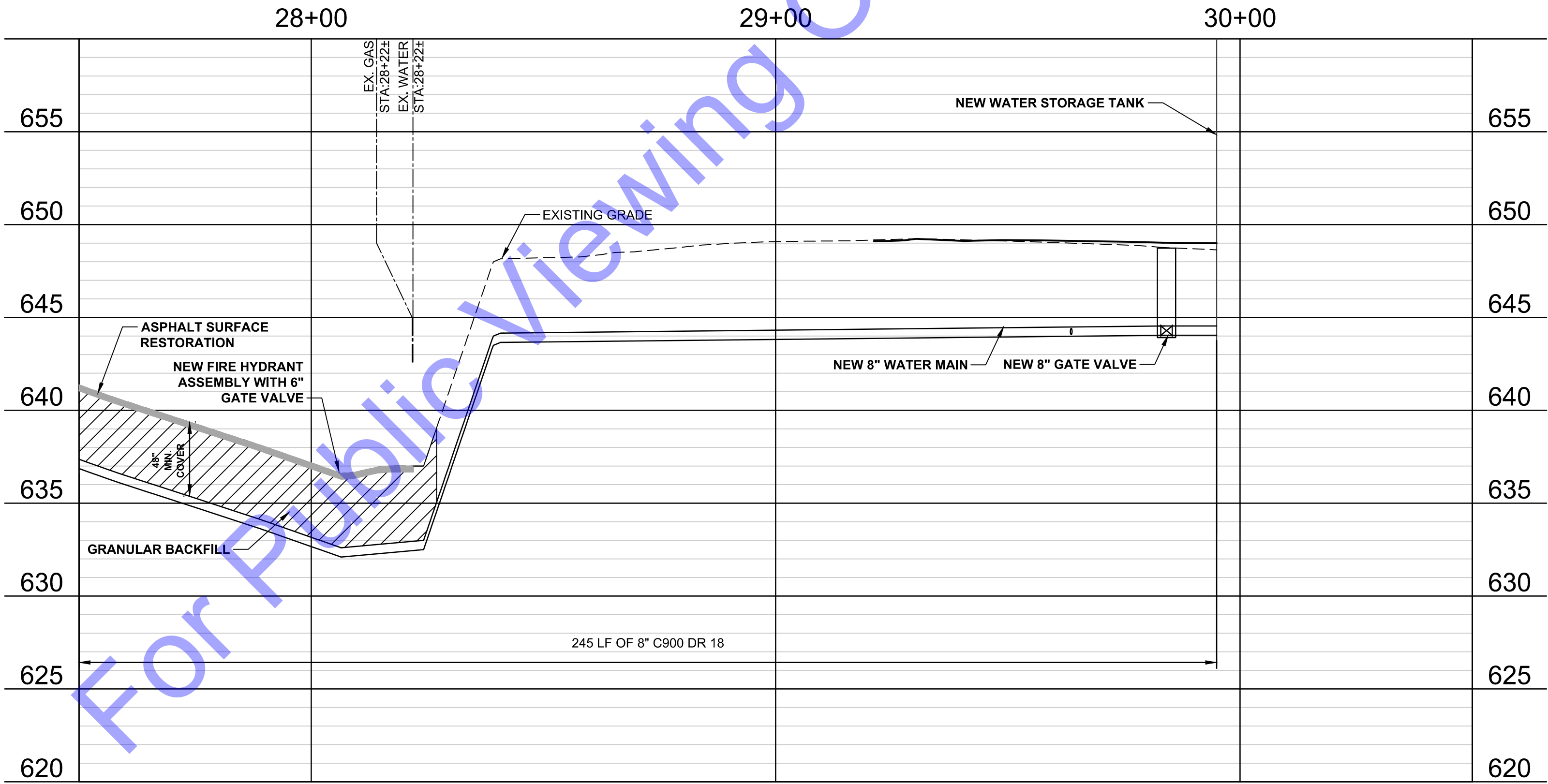
NEW 8" GATE VALVE WITH PLUG

NEW FIRE HYDRANT WITH 6" GATE VALVE

EX. 2" WATER MAIN (TO BE ABANDONED)

FOR CONTINUATION SEE SHEET C1-4

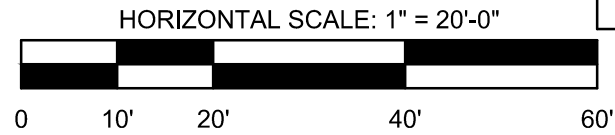
PLAN VIEW



PROFILE VIEW

GENERAL NOTES:

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CROWLING GREEN, KY.
SOUTH BEND, IN.

Signature: *Aaron R. Rohner*
Date: 12/20/2024
Professional Engineer
No. 12000723
STATE OF INDIANA

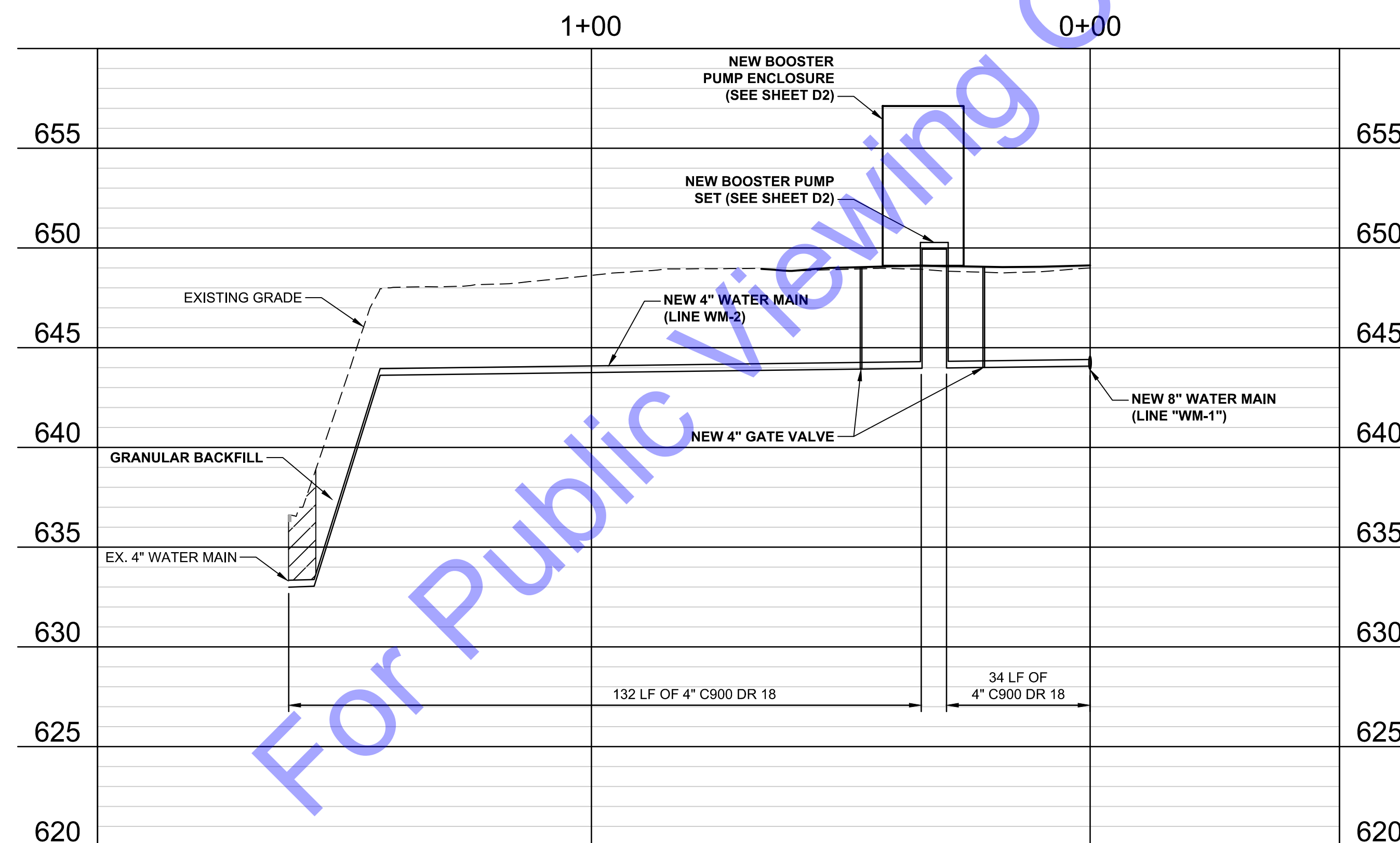
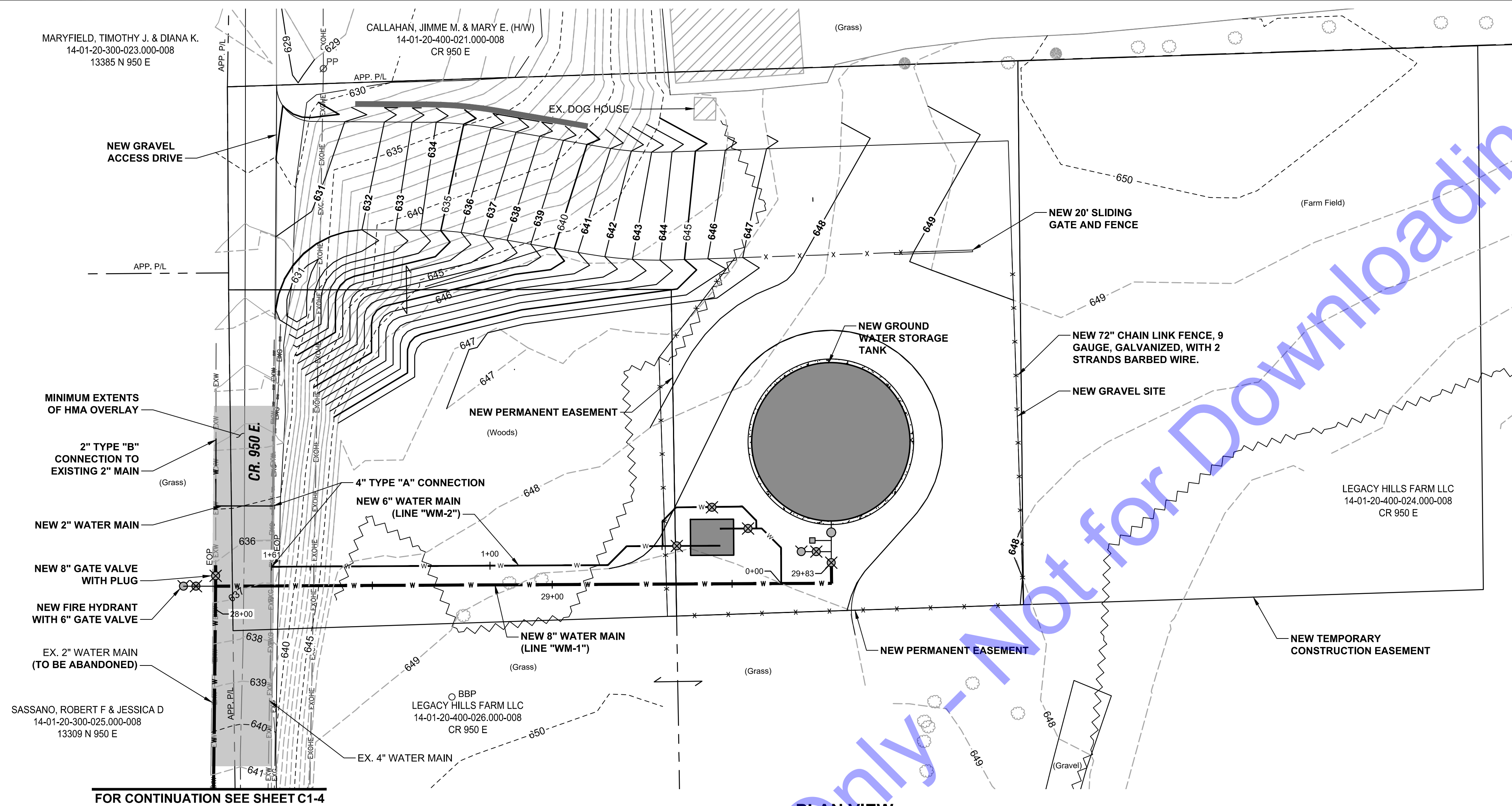
TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
IMPROVEMENTS PROJECT
DIVISION "B" - NEW WATER STORAGE TANK

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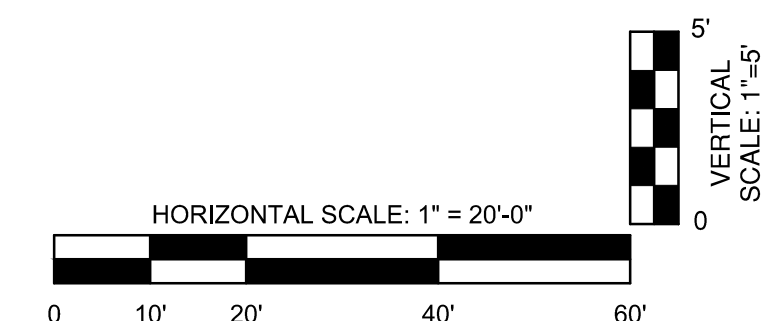
Designed By: ARR
Drawn By: DMJ
Checked By: AVL
Issue Date: 04/22/2025
Project No: W21115
Scale: AS SHOWN

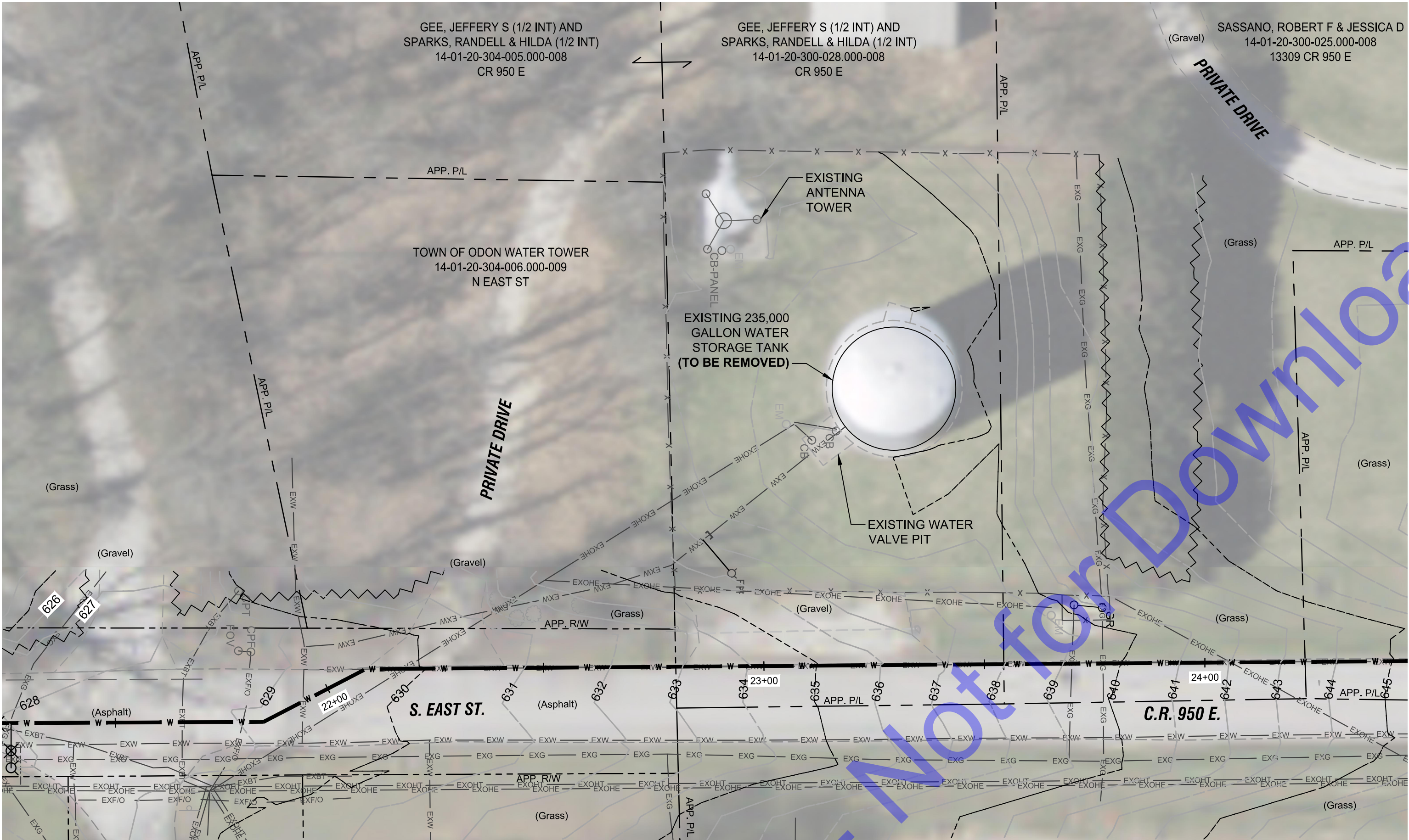
PLAN AND PROFILE VIEWS - LINE "WM-1"
Drawing No: C1-5
Sheet: 11 OF 31



GENERAL NOTES:

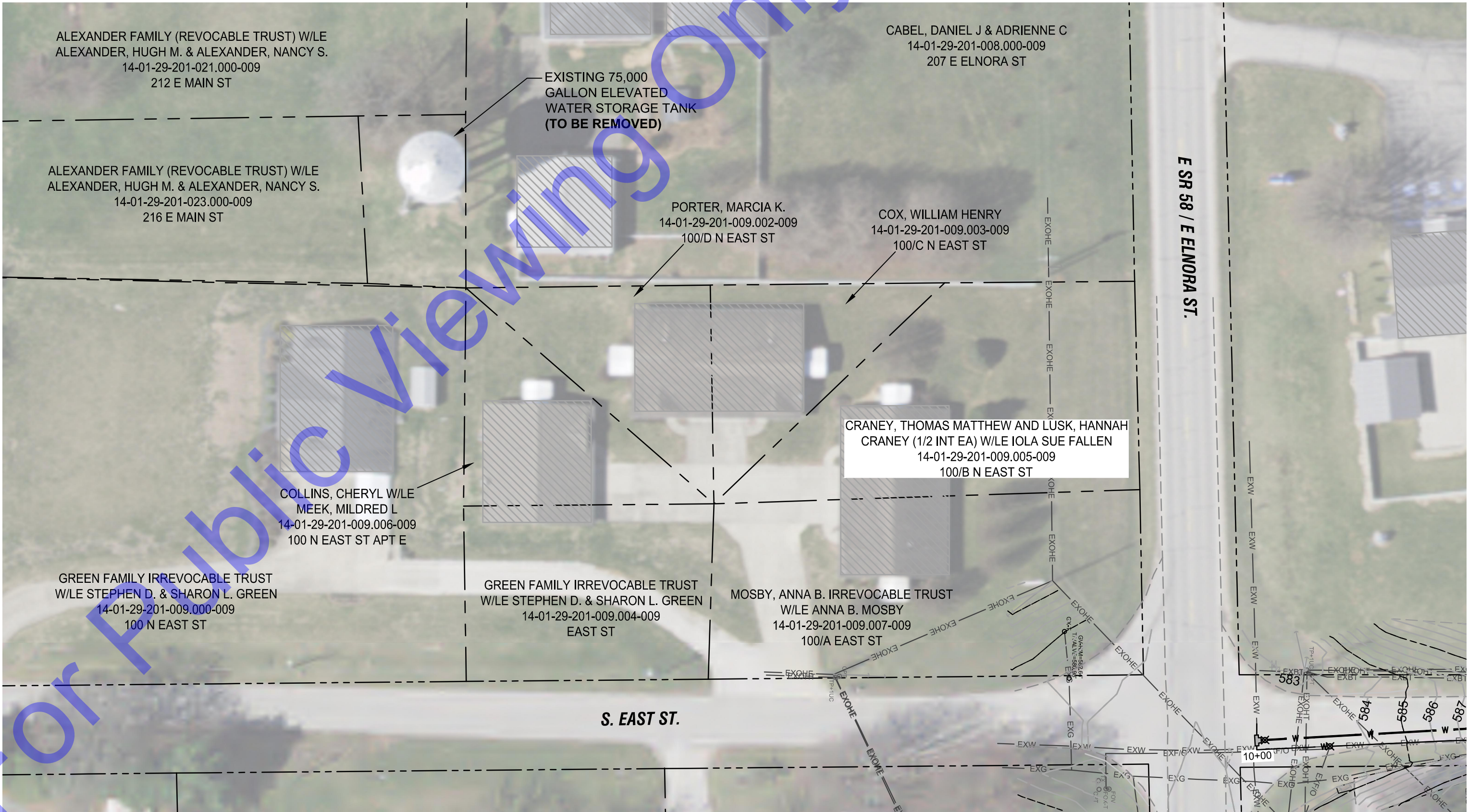
1. CONTRACTOR TO AVOID AND PROTECT ANY EXISTING STORM MANHOLES, SEWER, OR CULVERTS. IF DISTURBED OR DAMAGED, CONTRACTOR TO REPLACE TO A CONDITION EQUAL TO OR BETTER THAN EXISTING.
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3. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL WATER SERVICES. LOCATIONS SHOWN ARE APPROXIMATE.





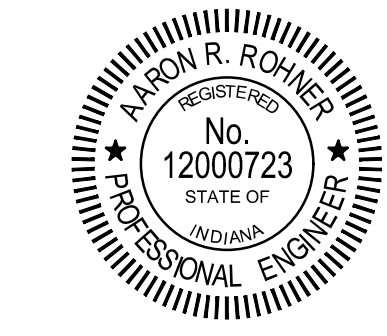
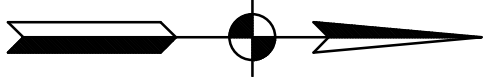
EX. TANK SITE DEMOLITION PLAN (BASE BID)

SCALE: 1"=20'-0"
0 20' 40'



EX. ELEVATED TANK SITE DEMOLITION PLAN
(MANDATORY ALTERNATE BID)

SCALE: 1"=40'-0"
0 40' 80'



Signature: *ARR* Date: 12/20/2024

TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
IMPROVEMENTS PROJECT
DIVISION "B" - NEW WATER
STORAGE TANK

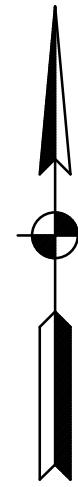
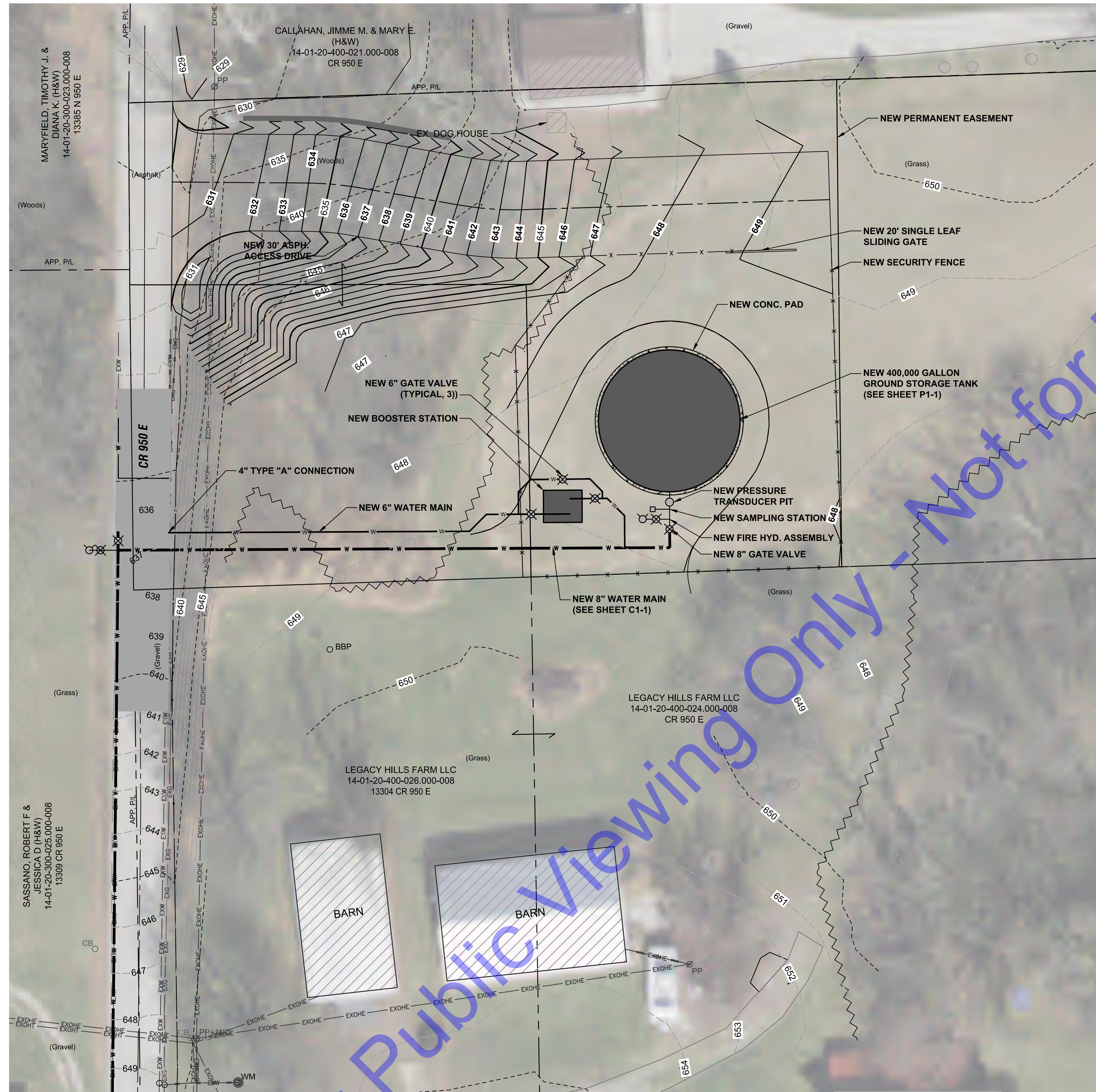
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No.	Submit / Revision	By	Date
1	ADD MAN. ALT. BID PLAN	ARR	2/20/25

Designed By: ARR Drawn By: DMJ Checked By: AVL
Issue Date: 04/22/2025 Project No: W21115 Scale: AS SHOWN

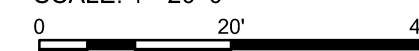
EXISTING TANK SITE
DEMOLITION PLAN

Drawing No:
C2-1
Sheet: 13 OF 31



NEW TANK SITE IMPROVEMENTS AND PIPING PLAN

SCALE: 1"=20'-0"



- SHEET NOTES:**

1. JOINT RESTRAINTS ON EXISTING AND NEW PIPE SHALL BE PER JOINT RESTRAIN MANUFACTURER.
2. CONTRACTOR SHALL NOT UTILIZE EXISTING GRAVEL PARKING AREA OR DRIVE FOR STAGING/STORAGE DURING CONSTRUCTION. EXISTING GRAVEL DRIVE SHALL BE USED ONLY FOR ACCESS TO/FROM PROJECT SITE, UNLESS OTHERWISE APPROVED BY OWNER AND PROPERTY OWNER.
3. CONTRACTOR SHALL RESTORE GRAVEL PARKING AREA AND DRIVE TO CONDITION PRIOR TO CONSTRUCTION OR BETTER.
4. CONTRACTOR SHALL POUR A 6" THICK CONCRETE RING, 6" IN DIAMETER AROUND VALVE BOXES WITH ARROWS STAMPED IN DIRECTION OF OPENING.

[illegible]

Designed By:	Drawn By:	Checked By:
--------------	-----------	-------------

ARR	DMJ	AWL
-----	-----	-----

Issue Date:	Project No:	Scale:
04/22/2025	W21115	AS SHOWN

NEW TANK SITE IMPROVEMENTS AND PIPING PLAN

Drawing No:

C2-2

Sheet: 14 OF 31

Diagram illustrating the components of a circular roof tank:

- 6" DIA. OVERFLOW PIPE
- CONCRETE SPLASH PAD
- 8" DIA. INLET / OUTLET PIPE
- ROOF VENT AT CENTER OF TANK
- ROOF HANDRAIL AND WALKWAY
- 24" DIA. ROOF HATCH
- RINGWALL FOUNDATION

SCALE: 1/8"=1'-0"

0 4' 8' 16'

A horizontal graphic scale bar with alternating black and white segments. It is marked with the values 0, 4', 8', and 16' at regular intervals.

Diagram illustrating the layout of a roof tank with various components labeled:

- CONCRETE SPLASH PAD
- 6" DIA. OVERFLOW PIPE
- 42" HIGH ROOF HANDRAIL APPROX. 20' DIA.
- 8" DIA. INLET / OUTLET PIPE
- ROOF VENT AT CENTER OF TANK
- ROOF MANHOLE
- EXHAUST FAN MANHOLE
- ROOF HANDRAIL OR ROOF LADDER W/OSHA COMPLIANT SAFETY CLIMB DEVICE
- RINGWALL FOUNDATION


SCALE: 1/8"=1'-0"

0 4' 8' 12'

A horizontal scale bar with alternating black and white segments. It is marked with the numbers 0, 4, 8, and 12, representing feet. The total length of the bar is 12 feet.

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Issue Date: 4/22/2025	Project No: W21115	Scale: AS SHOWN

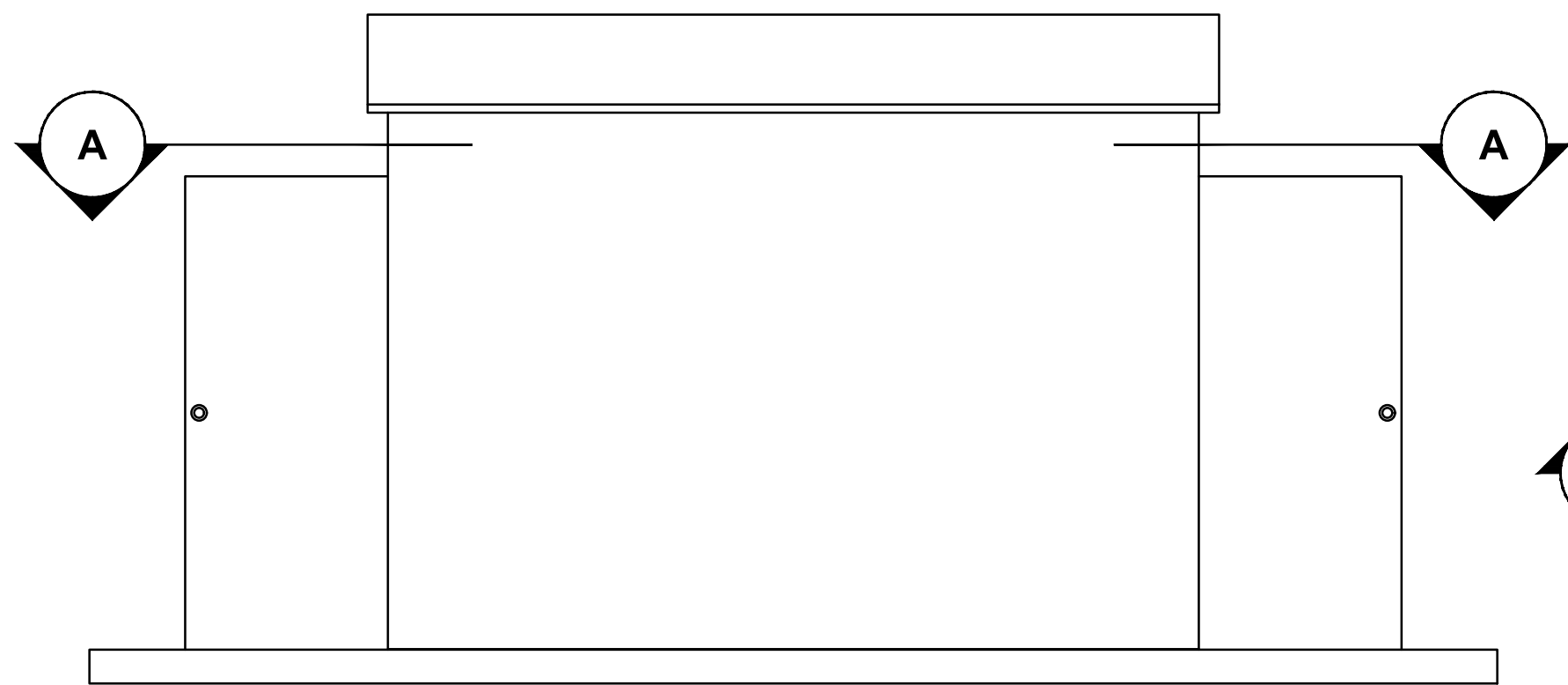
NEW TANK PLAN AND
ELEVATION VIEWS

Drawing No:

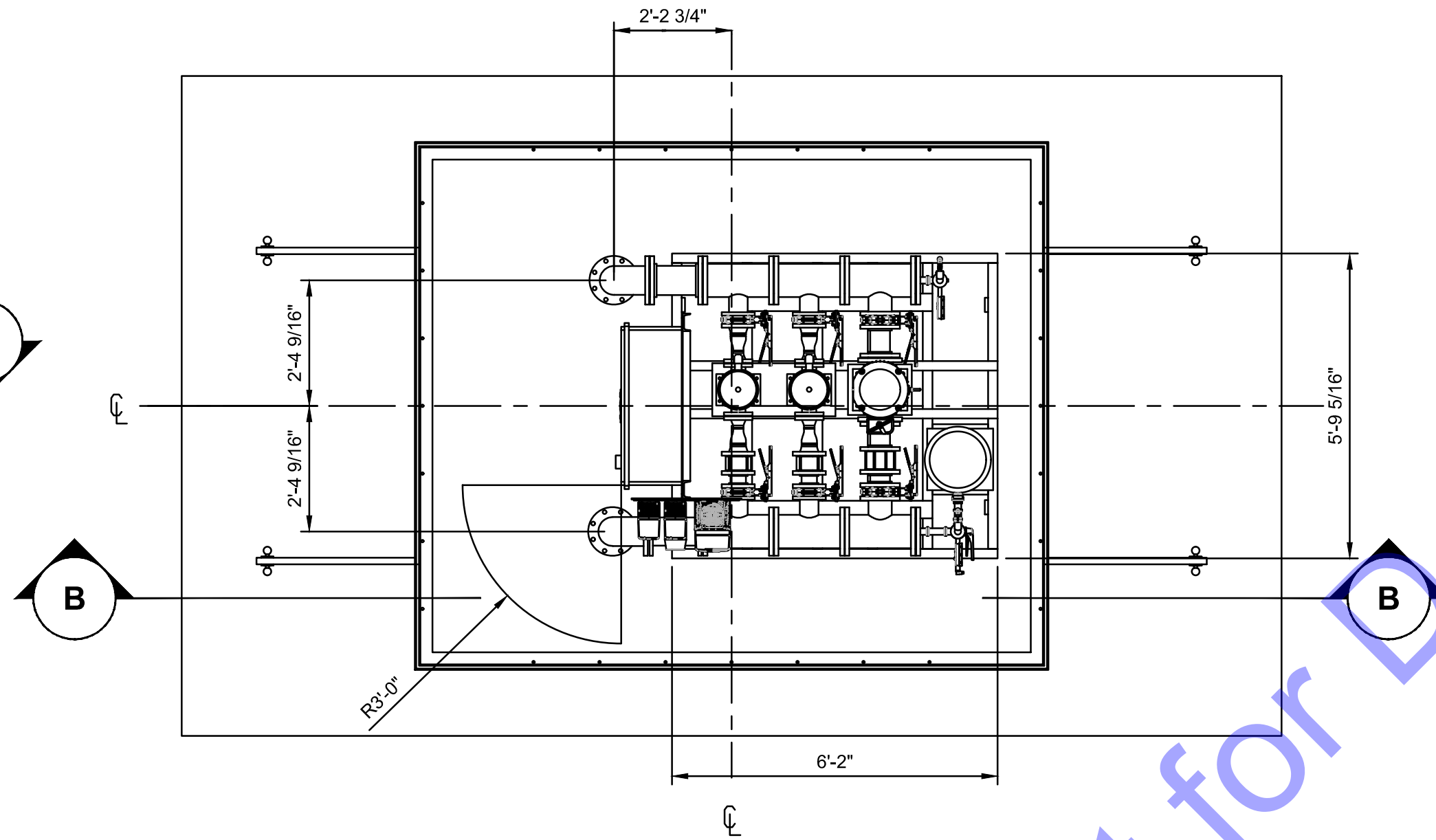
D1

Sheet: 17 OF 31

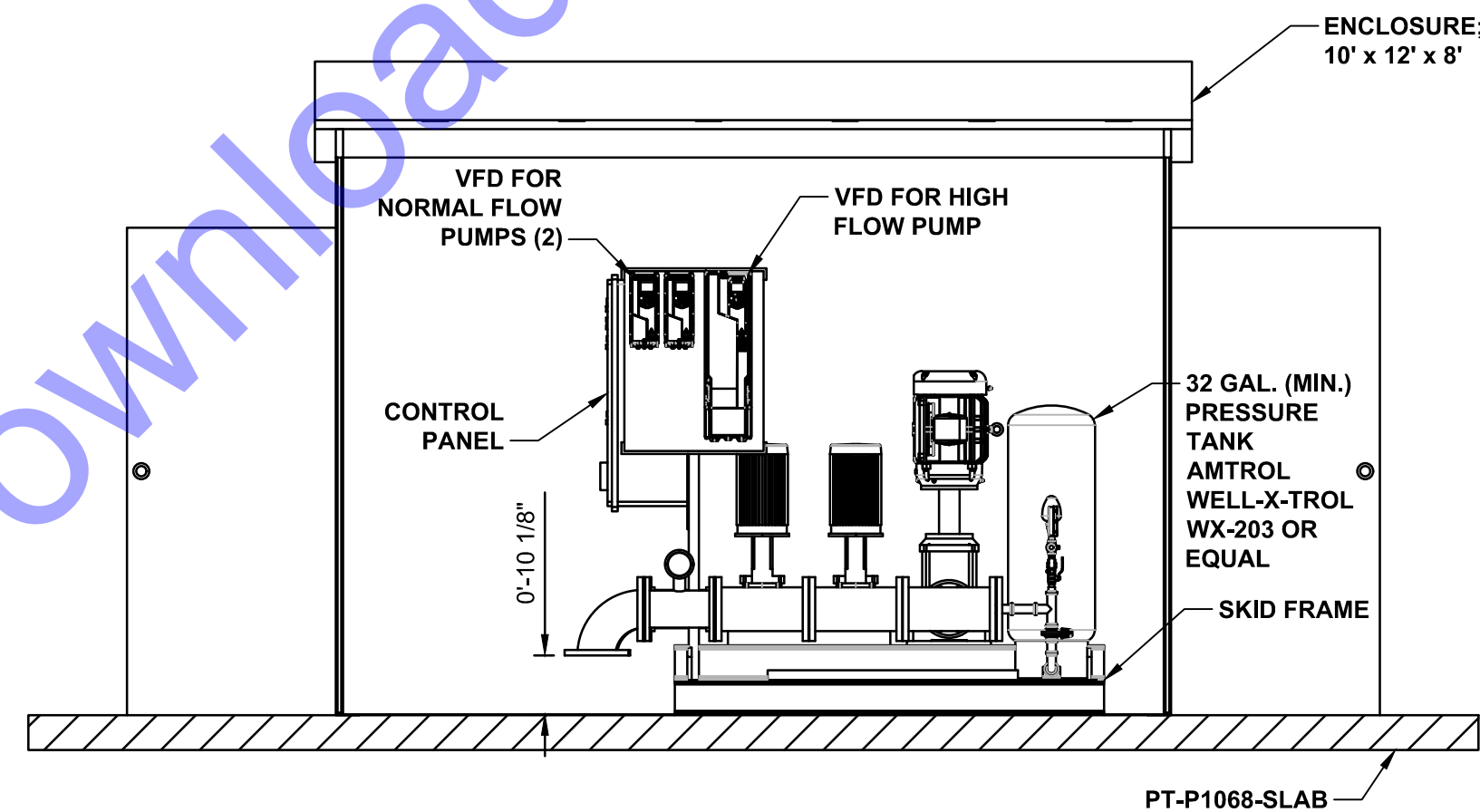
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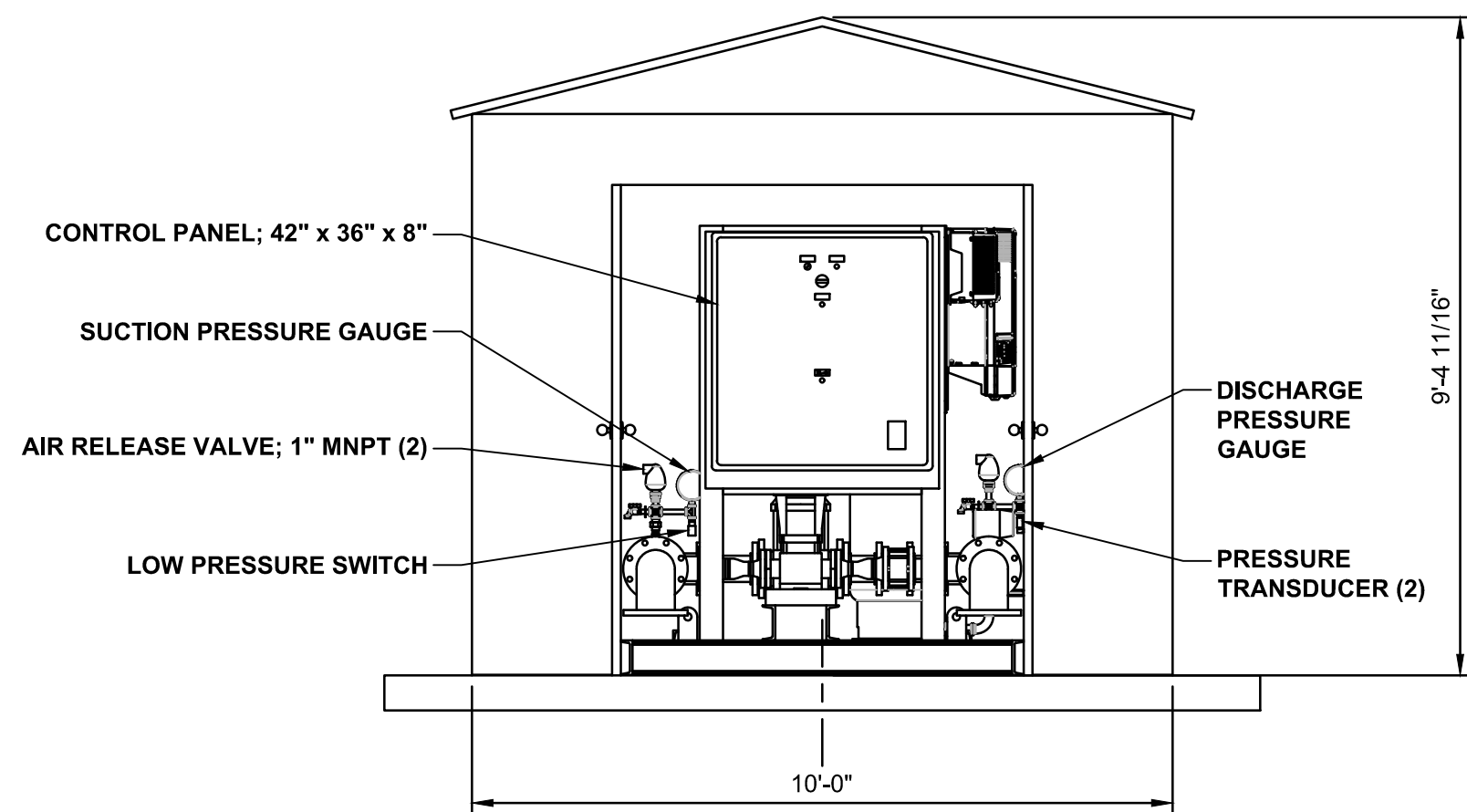
SIDE ELEVATION VIEW
NOT TO SCALE



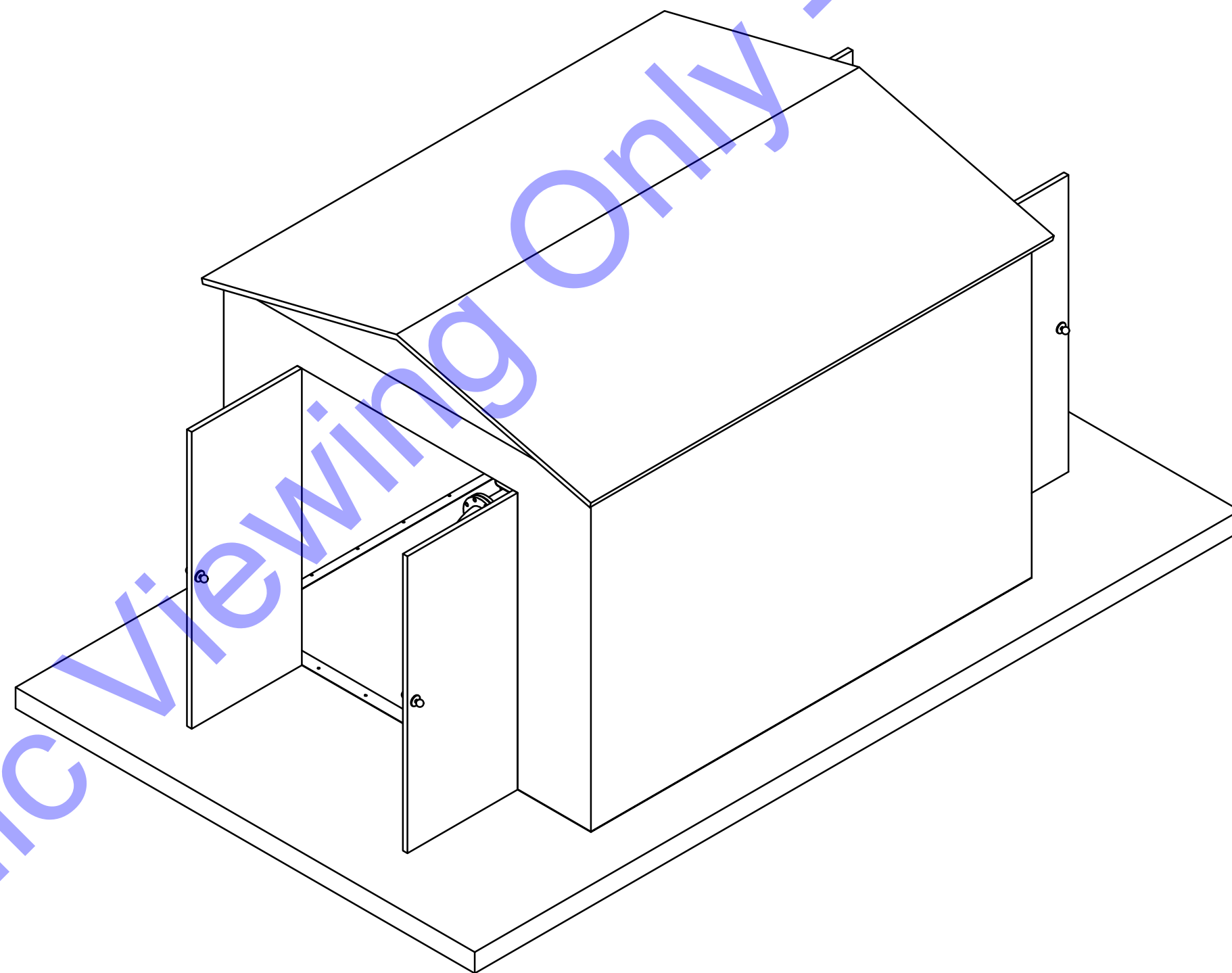
SECTION A-A
NOT TO SCALE



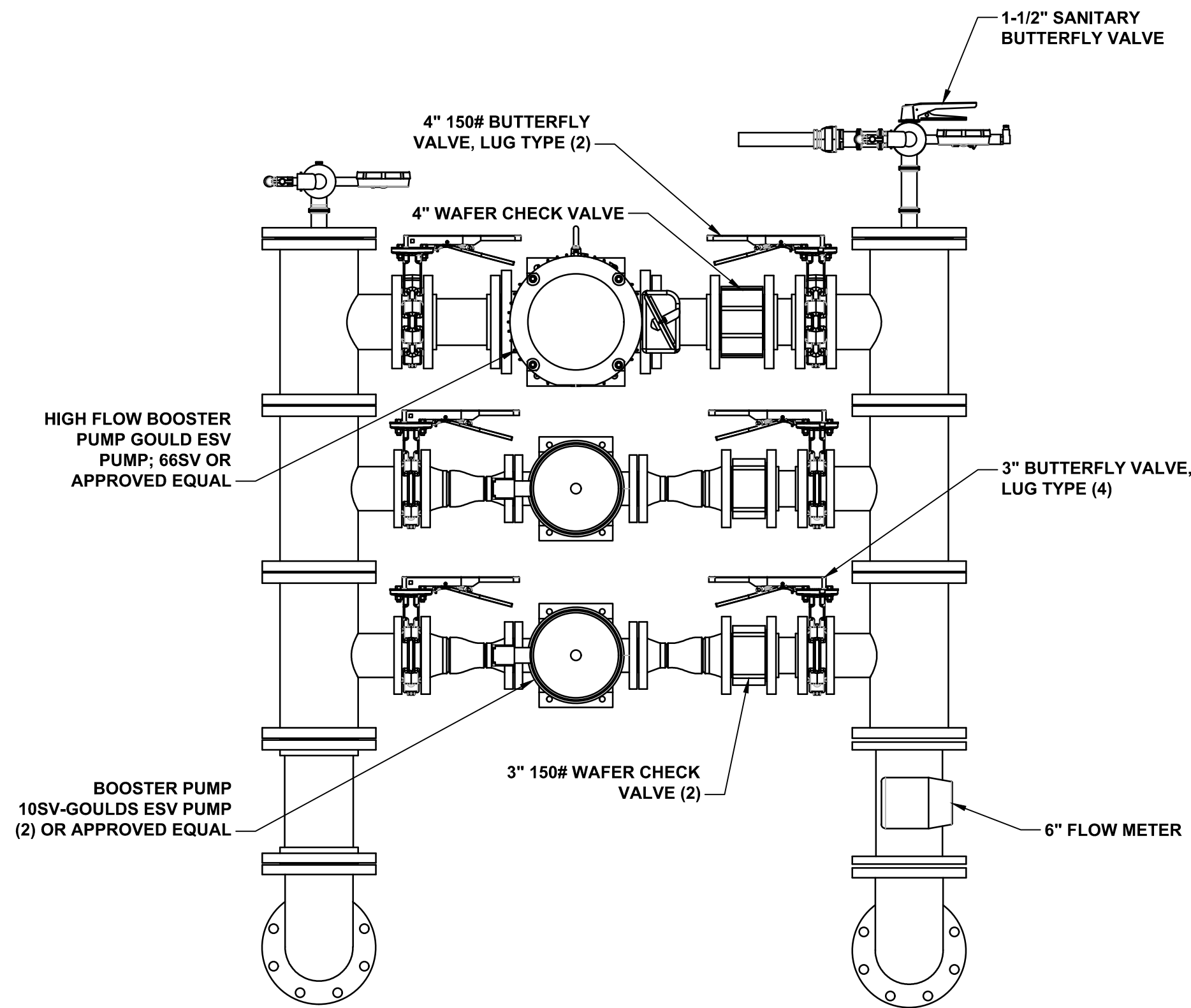
SECTION B-B
NOT TO SCALE



FRONT ELEVATION VIEW
NOT TO SCALE



ISOMETRIC VIEW
NOT TO SCALE



PUMPS AND PIPING DETAIL
NOT TO SCALE

SHEET NOTES:

1. DIMENSIONS OF CONCRETE FOUNDATION ARE DEPENDENT UPON THE BUILDING DIMENSIONS AND THE REQUIREMENTS OF THE PRE-FABRICATED BUILDING MANUFACTURER.



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SOUTH BEND, IN.



Signature: *A. Rohner* Date: 12/20/2024

**TOWN OF ODON
DAVIESS COUNTY, INDIANA
WATER UTILITY
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DIVISION "B" - NEW WATER
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No.	Submit / Revision	By	Date
1	UPDATE EQUIPMENT PLANS	ARR	2/20/25

Designed By: ARR	Drawn By: DMJ	Checked By: AVL
Issue Date: 04/22/2025	Project No: W21115	Scale: AS SHOWN

**NEW BOOSTER PUMP
PLAN AND ELEVATION
VIEWS**

Drawing No:

D2

Sheet: 18 OF 31



PLAN VIEW

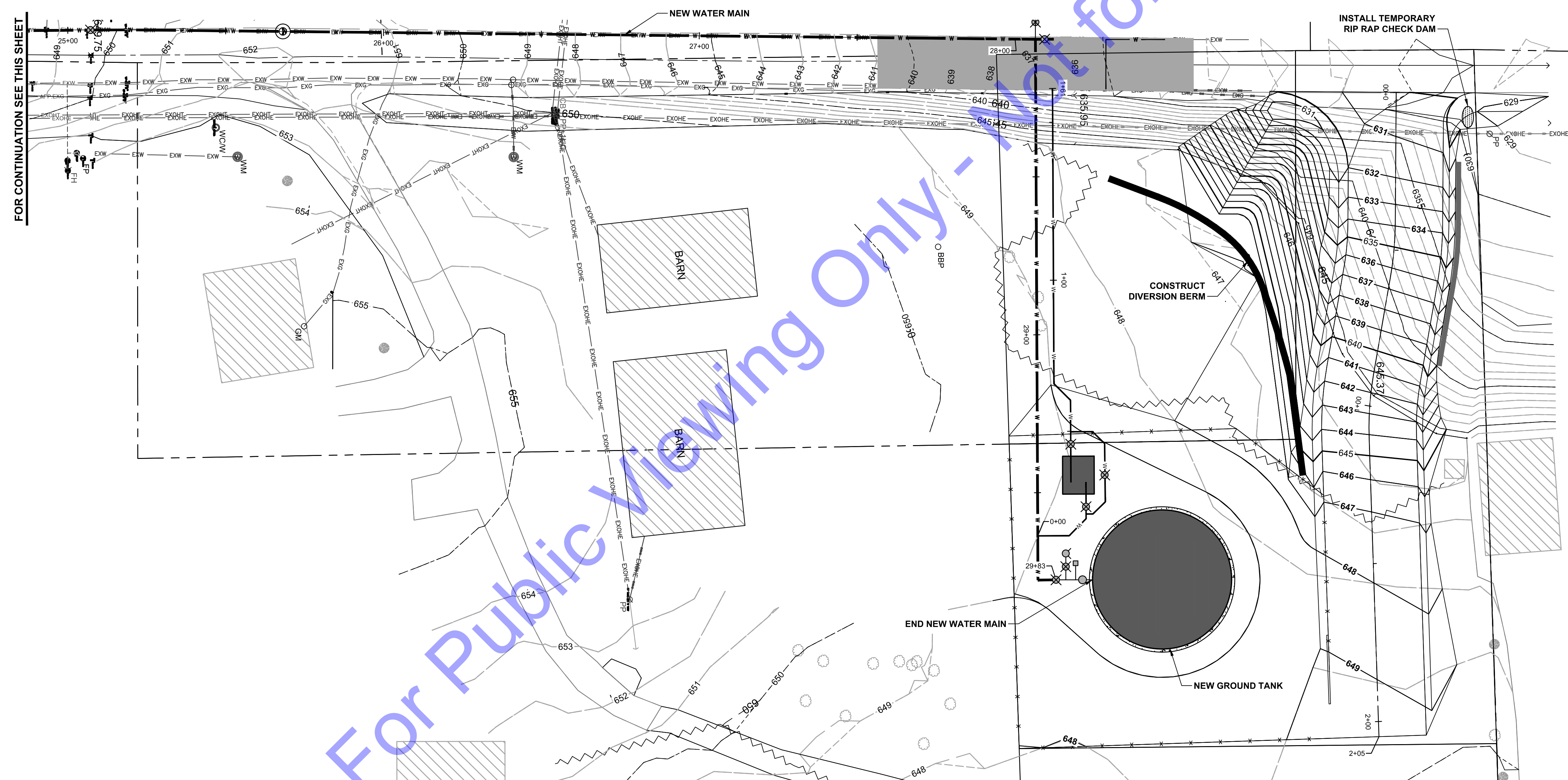
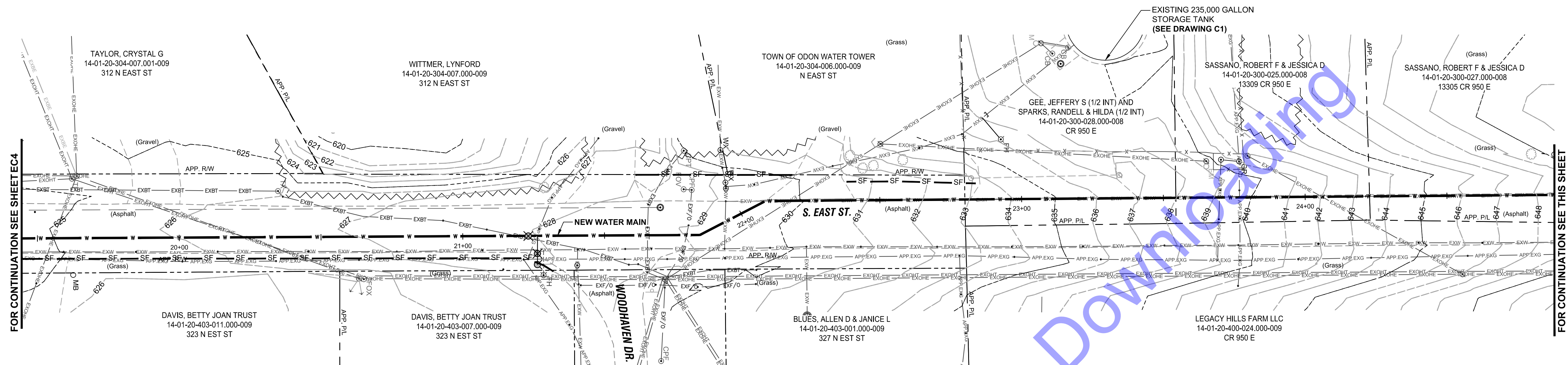


1. CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION CONTROL MEASURES AS SPECIFIED IN THE DETAILED SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO CONCRETE WASHOUT STATIONS, TEMPORARY CONSTRUCTION ENTRANCES, TEMPORARY SEEDING, ETC. AS REQUIRED DURING THE DURATION OF THE PROJECT TO MAINTAIN COMPLIANCE WITH THE GENERAL STORM WATER CONSTRUCTION PERMIT. CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF THE GENERAL STORM WATER CONSTRUCTION PERMIT, INCLUDING PROVIDING REQUIRED NOTIFICATIONS TO THE REQUIRED AGENCIES.
2. SEE SHEET EC7 FOR EROSION CONTROL DETAILS.







Drawing No:
EC-4
Sheet: 19 OF 31

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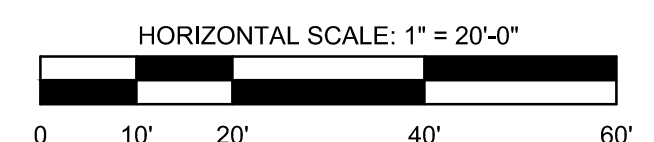


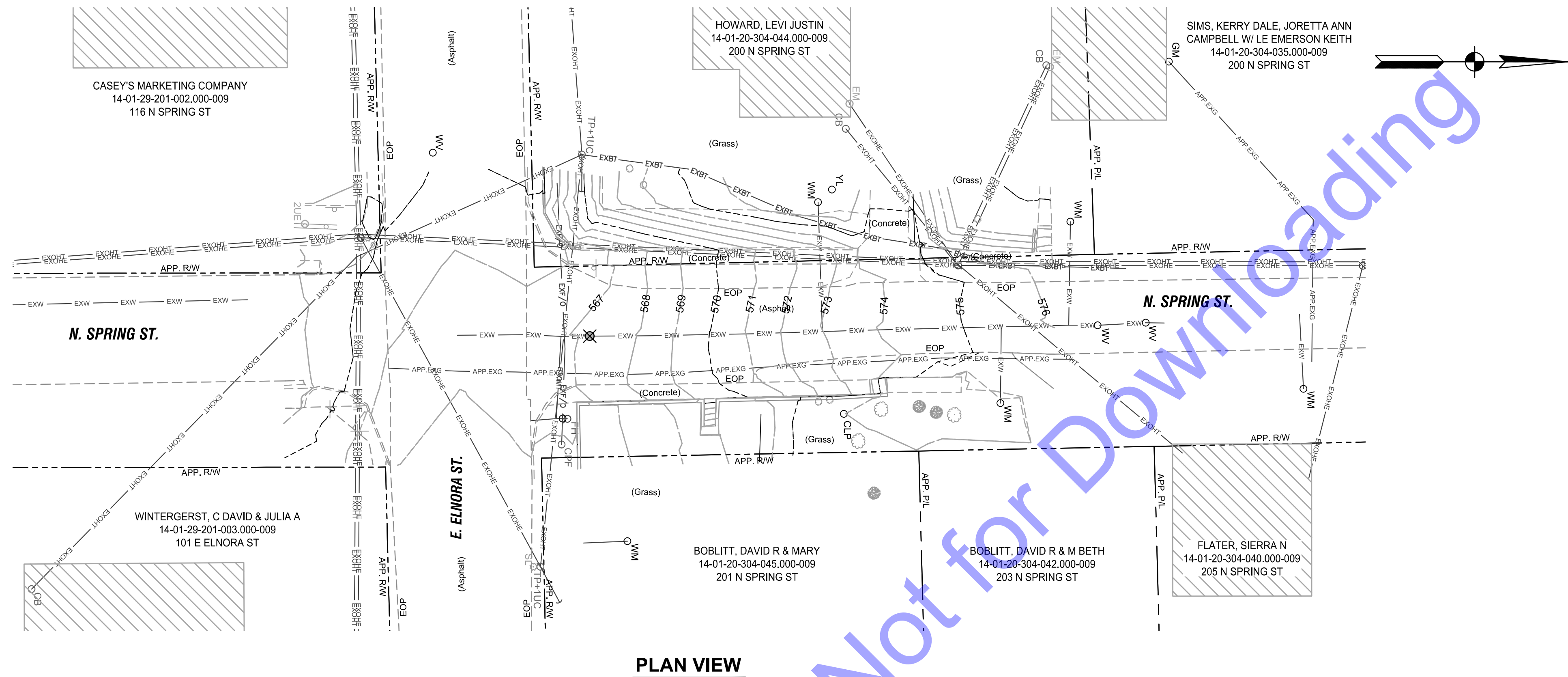
LEGEND:

- | | |
|---|-------------------------|
|  | PERMANENT SEEDING |
|  | SILT FENCE |
|  | CONCRETE WASHOUT |
|  | STOCK PILE |
|  | STAGING AREA |
|  | TEMP. RIP RAP CHECK DAM |

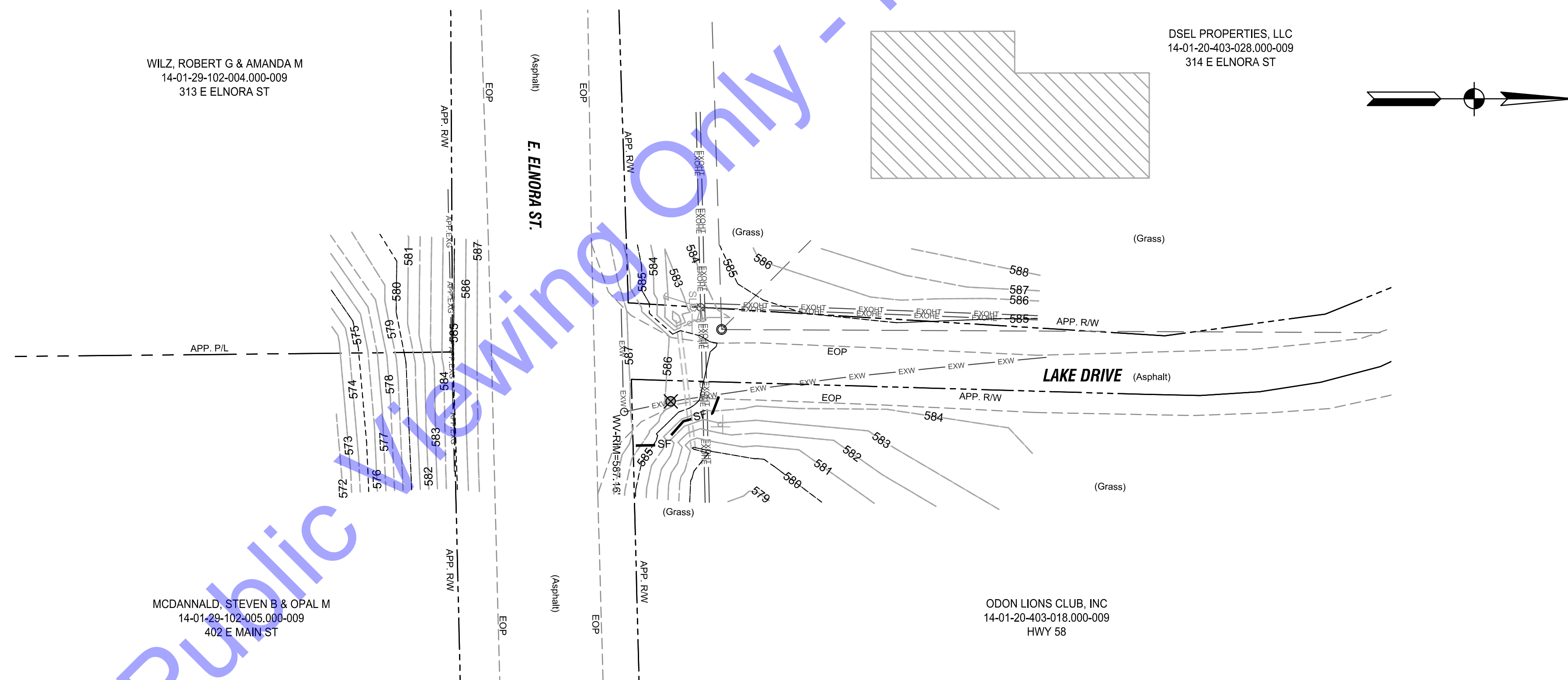
GENERAL NOTES:

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2. SEE SHEET EC7 FOR EROSION CONTROL DETAILS.
3. IMMEDIATELY STABILIZE ALL DISTURBED SLOPES STEEPER THAN 10:1 WITH SEED AND EROSION CONTROL BLANKETS.










PLAN VIEW

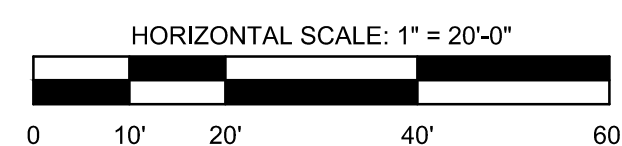


PLAN VIEW

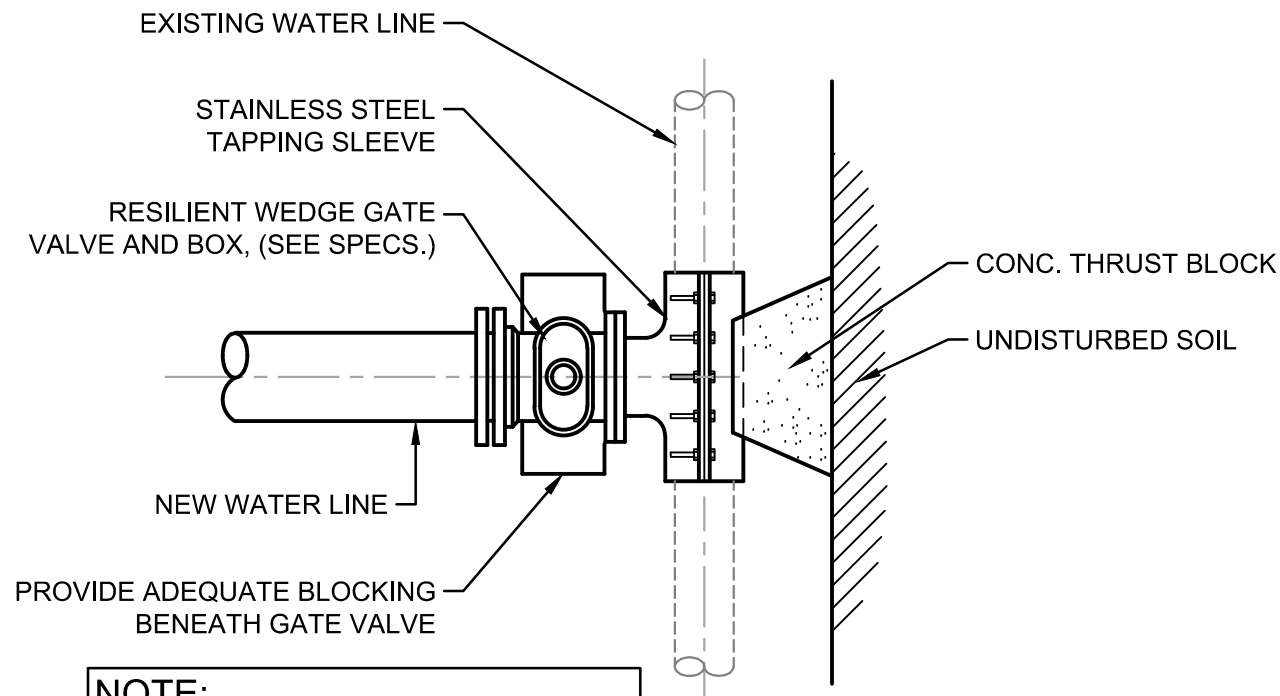
- LEGEND:**
- | | |
|---|-------------------|
|  | PERMANENT SEEDING |
|  | SILT FENCE |
|  | CONCRETE WASHOUT |
|  | STOCK PILE |
|  | STAGING AREA |

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2. SEE SHEET EC7 FOR EROSION CONTROL DETAILS.



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NOTE:
BENDS AND FITTINGS AS REQUIRED.

TYPE "A" CONNECTION TO EXISTING WATER MAIN

NOT TO SCALE

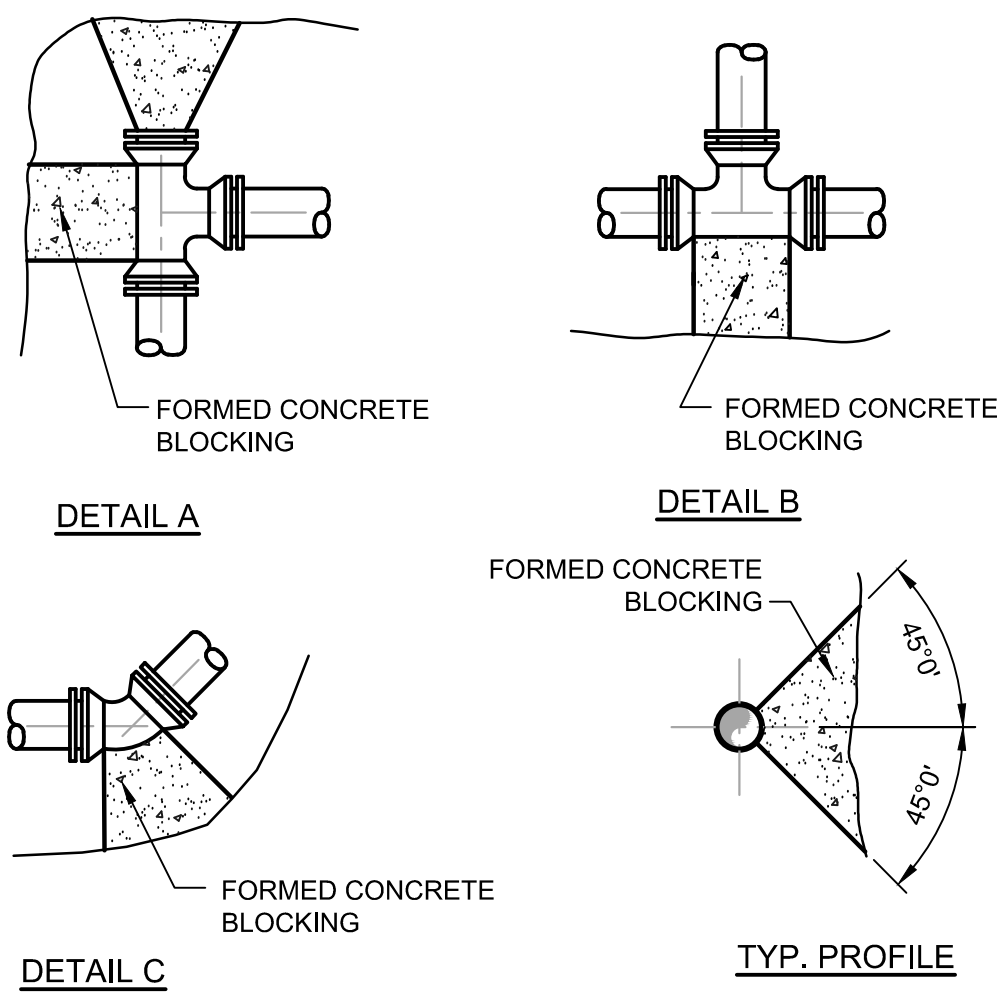


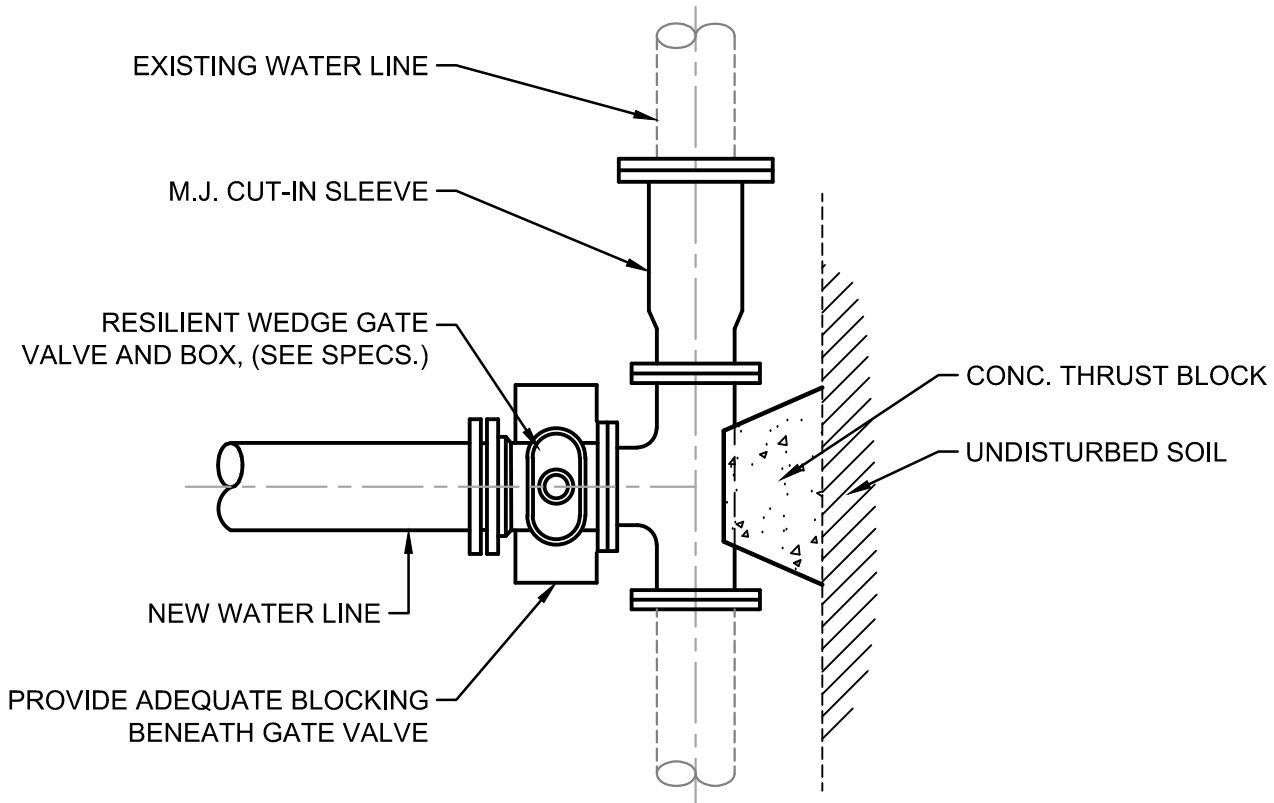
TABLE OF DIMENSION FOR CONCRETE BLOCKING																									
SIZE	TEE				PLUG					90° BEND				45° BEND				22° BEND				11° BEND			
PIPE	L	T	W	D	L	T	W	D	s	L	T	W	D	L	T	W	D	L	T	W	D	L	T	W	D
4"	18"	12"	12"	8"	18"	12"	18"	18"	2"	24"	12"	24"	8"	18"	8"	12"	8"	18"	8"	12"	8"	15"	8"	12"	6"
6"	18"	12"	12"	8"	18"	12"	18"	18"	2"	24"	15"	24"	8"	18"	10"	12"	8"	18"	10"	12"	8"	18"	10"	18"	6"
8"	30"	12"	24"	8"	30"	18"	30"	24"	4"	36"	16"	30"	8"	24"	12"	18"	8"	24"	18"	18"	8"	24"	12"	18"	8"
10"	36"	18"	30"	10"	36"	18"	36"	24"	4"	48"	20"	36"	10"	30"	14"	24"	10"	30"	14"	24"	10"	24"	14"	18"	8"
12"	48"	18"	36"	10"	42"	18"	42"	24"	4"	54"	24"	48"	10"	36"	16"	30"	10"	36"	16"	30"	10"	30"	16"	24"	10"
14"	54"	24"	42"	12"	48"	18"	48"	30"	6"	60"	28"	60"	12"	42"	16"	42"	12"	42"	16"	42"	12"	33"	16"	27"	12"
16"	60"	24"	48"	12"	54"	18"	54"	30"	6"	66"	32"	63"	12"	48"	18"	48"	12"	48"	18"	48"	12"	36"	18"	30"	12"
18"	66"	30"	60"	14"	60"	24"	60"	36"	6"	66"	36"	66"	14"	54"	18"	54"	14"	54"	18"	54"	14"	39"	18"	33"	14"
20"	72"	30"	60"	14"	66"	24"	66"	36"	8"	72"	40"	69"	14"	60"	20"	60"	14"	60"	20"	60"	14"	42"	20"	36"	14"
24"	84"	36"	72"	18"	78"	30"	78"	42"	8"	84"	48"	75"	18"	72"	22"	72"	18"	72"	22"	72"	18"	48"	22"	42"	18"
30"	96"	42"	78"	24"	96"	36"	78"	48"	10"	108"	54"	96"	24"	84"	24"	72"	24"	72"	26"	72"	24"	54"	26"	48"	24"
42"	144"	48"	96"	36"	144"	42"	96"	60"	10"	180"	66"	144"	36"	120"	36"	96"	36"	84"	34"	72"	36"	60"	34"	48"	36"

NOTES:

- FOR TEE WITH BRANCH UNEQUAL TO RUN USE TEE TYPE KICKER WITH D, L, AND W DIMENSIONS THE SAME AS THOSE FOR PLUG WITH SAME DIAMETER AS BRANCH OF TEE, SELECT "T" DIMENSIONS FROM TEE TABLE UNDER COLUMN HEADED BY THE SIZE OF THE BRANCH
- IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN USE NEXT LARGER SIZE
- DEPTH "D" MAY BE GREATER THAN SPECIFIED TO ALLOW WORKING SPACE BLOCKING MUST BE PLACED AGAINST UNDISTURBED EARTH OR ROCK
- CONCRETE BLOCKING SHALL BE CLASS "B"

THRUST BLOCKING DETAIL

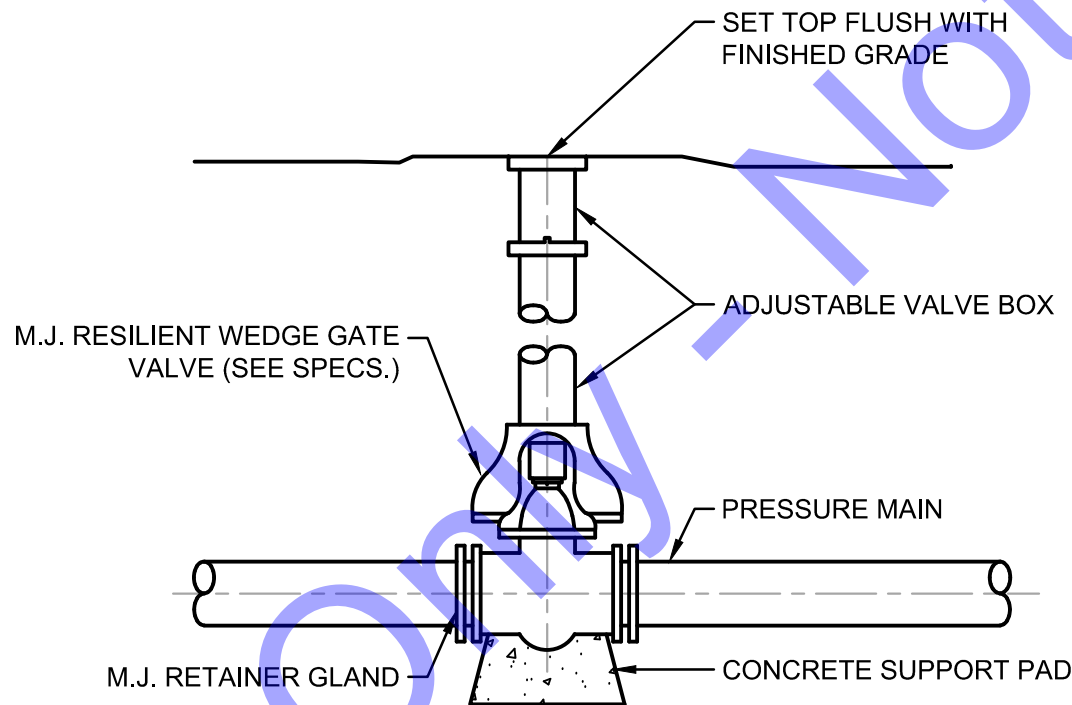
NOT TO SCALE



NOTE:
BENDS AND FITTINGS AS REQUIRED.

TYPE "B" CONNECTION TO EXISTING WATER MAIN

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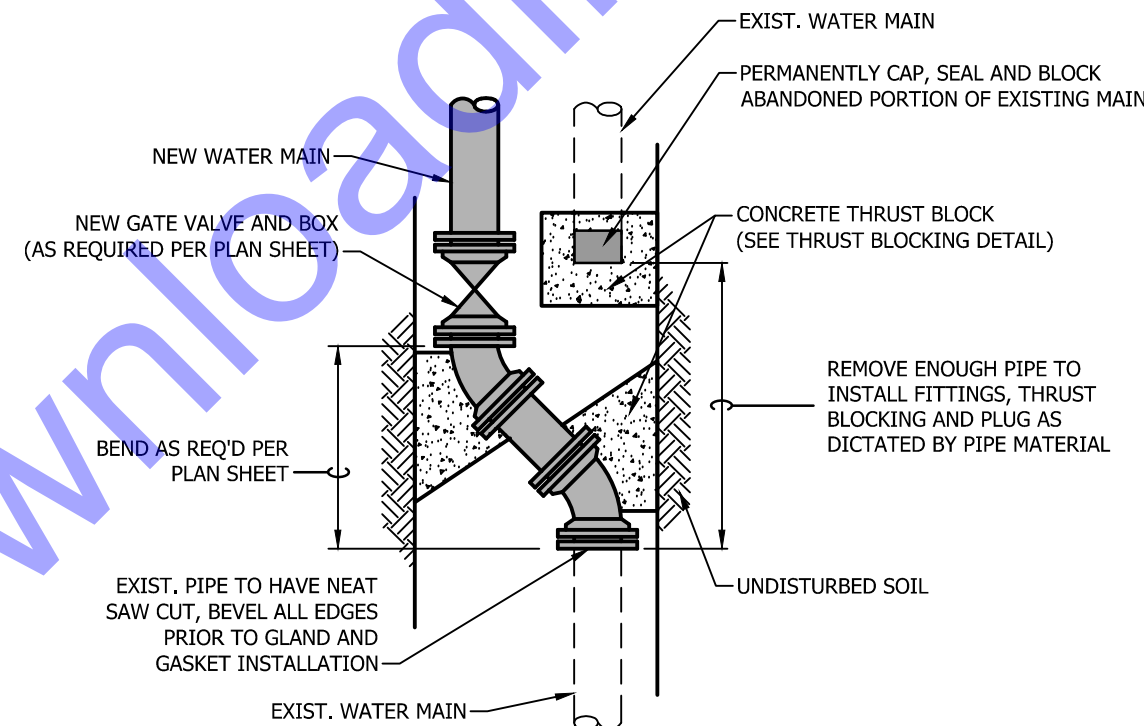
BURIED GATE VALVE AND BOX DETAIL

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LENGTH IN FEET REQUIRED FOR RESTRAINING JOINTS						
	A		B			
SIZE	TEE & PLUG	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	
6"	12'-0"	12'-0"	10'-0"	6'-0"	3'-0"	
8"	16'-0"	22'-0"	13'-0"	8'-0"	4'-0"	
10"	19'-0"	27'-0"	16'-0"	9'-0"	5'-0"	
12"	23'-0"	32'-0"	19'-0"	11'-0"	6'-0"	
14"	26'-0"	36'-0"	21'-0"	12'-0"	7'-0"	
16"	29'-0"	41'-0"	24'-0"	14'-0"	8'-0"	
18"	32'-0"	45'-0"	26'-0"	15'-0"	8'-0"	
20"	35'-0"	50'-0"	29'-0"	16'-0"	9'-0"	
24"	41'-0"	58'-0"	34'-0"	19'-0"	10'-0"	
30"	50'-0"	70'-0"	40'-0"	22'-0"	12'-0"	
36"	58'-0"	82'-0"	46'-0"	26'-0"	14'-0"	
42"	66'-0"	93'-0"	52'-0"	29'-0"	15'-0"	

NOTE:

- THE LENGTHS OF PIPE WITH RESTRAINED JOINTS ARE BASED ON A COMPACTED SILTY SOIL SURROUNDING THE PIPE.
- CONCRETE THRUST BLOCKS ARE STILL REQUIRED.



TYPE "B" CONNECTION

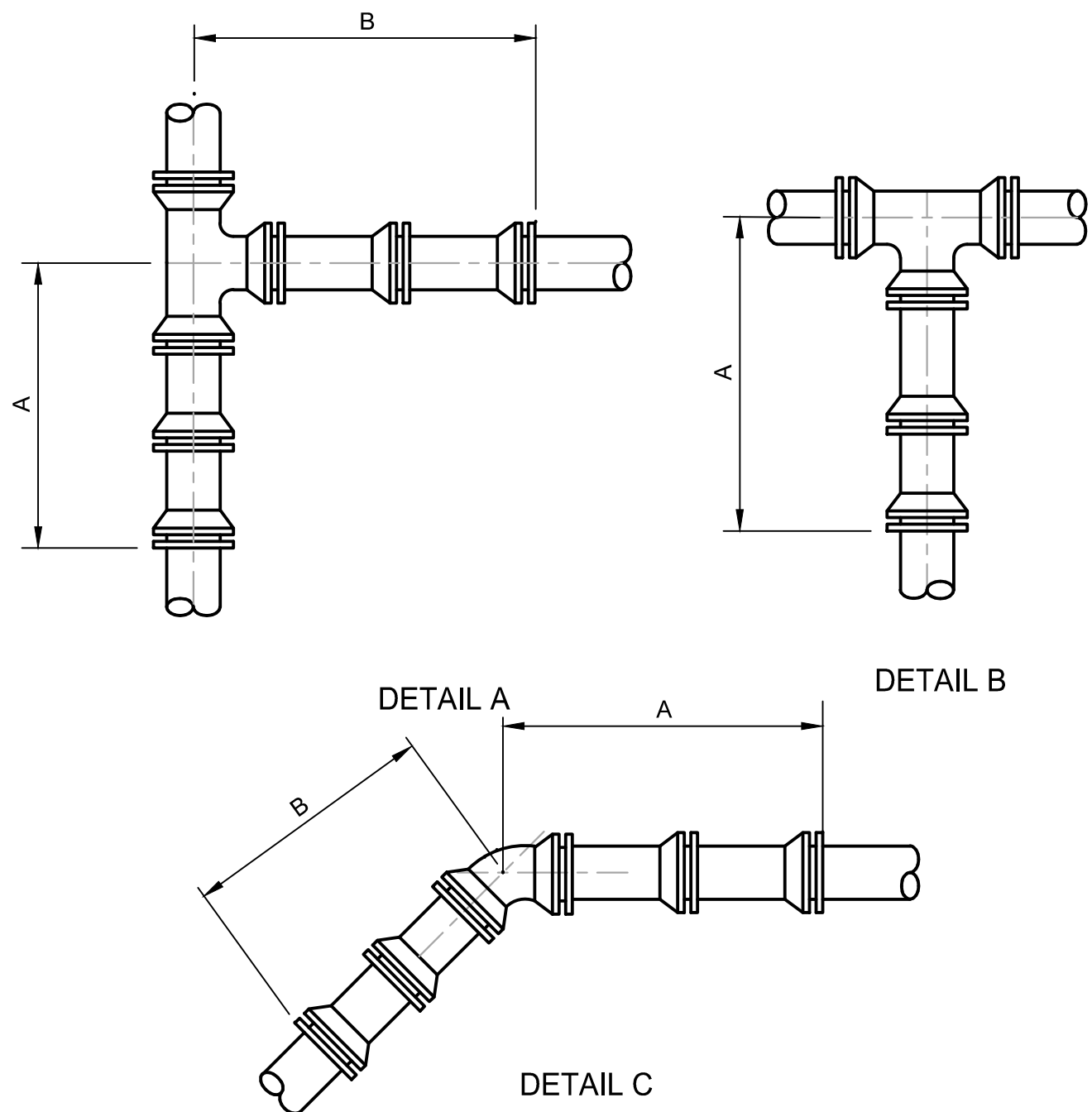
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TYPE "B" GENERAL CONNECTION NOTES:

- CONNECTIONS/POSITION OF NEW AND EXISTING MAINS WILL VARY.
- FULLY RESTRAIN ALL NEW BRANCH WATER MAIN TO EXISTING WATER MAIN PIPE CONNECTION.
- FULLY RESTRAIN EXISTING WATER MAIN JOINTS PER EBAA IRON RESTRAINT LENGTH CALCULATOR.

GENERAL RECONNECTION NOTES:

- NO CONNECTION SHALL BE MADE WITHOUT OWNER, ENGINEER, OR RPR APPROVAL.
- THE USE OF M.J. FITTINGS WILL BE AT THE DISCRETION OF THE OWNER AND RPR.



RESTRAINED JOINT DETAILS

NOT TO SCALE



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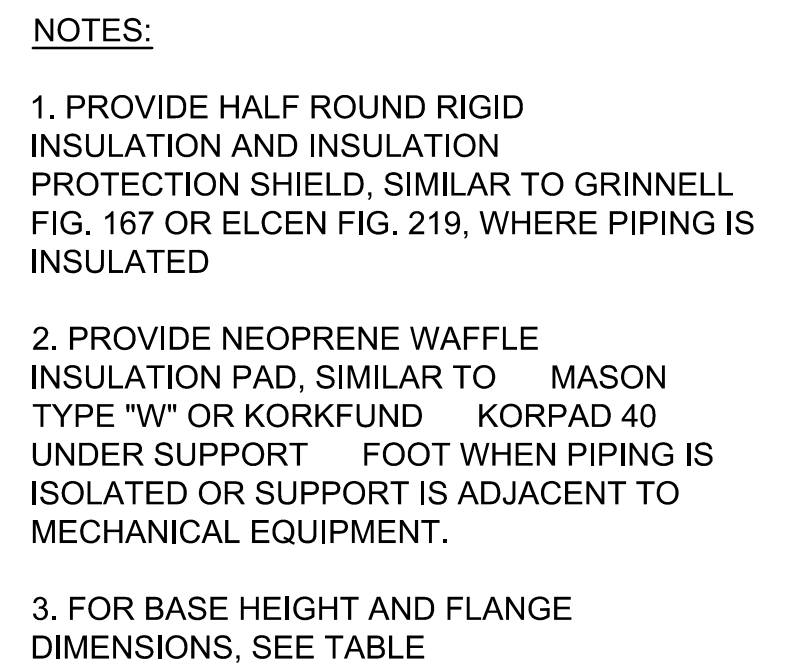
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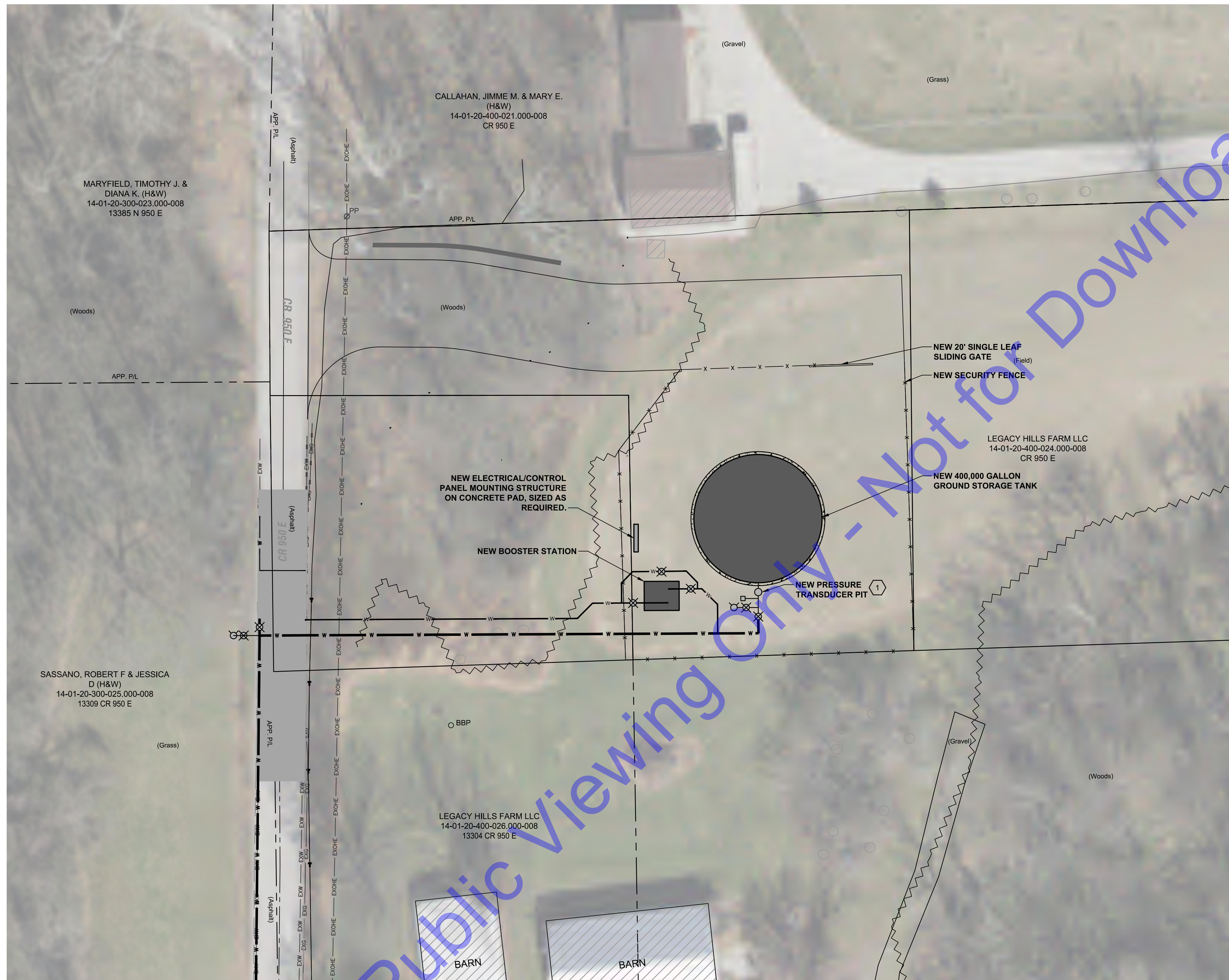


DIMENSION TABLE			
PIPE SIZE	A	B	C
4"	3"	4-3/16"	9"
5"	3"	4-13/16"	9"
6"	3"	5-7/16"	9"
8"	3"	6-15/16"	9"
10"	3"	8-7/16"	9"
12"	3"	9-15/16"	9"
14"	4"	10-15/16"	11"
16"	4"	12-3/8"	11"
18"	4"	13-7/8"	11"
20"	6"	15-3/8"	13-1/2"
22"	6"	16-5/8"	13-1/2"
24"	6"	17-15/16"	13-1/2"
26"	6"	19-1/8"	13-1/2"
30"	6"	21-5/16"	13-1/2"
32"	6"	22-1/2"	13-1/2"
36"	8"	24-1/2"	16"

PIPE SUPPORT AND TABLE DETAIL

NOT TO SCALE





NEW TANK SITE PLAN

SCALE: 1"=20'-0"

0 20' 40'

ELECTRICAL NOTES

- 1 CONTRACTOR TO PROVIDE AND INSTALL E+H WATERPILOT FMX21 SERIES TRANSMITTER, 0-30 PSIG WITH 100' OF CABLE. CONTRACTOR TO RUN CABLE IN CONDUIT BACK TO THE ELECTRICAL/CONTROL PANEL MOUNTING STRUCTURE AND STUB UP AND CAP.

GENERAL NOTES:

1. SEE E0.0 FOR PROJECT CONDUIT REQUIREMENTS.
2. CONTRACTOR SHALL EXAMINE NOT ONLY PLANS AND SPECIFICATIONS FOR ELECTRICAL AND INSTRUMENTATION, BUT PLANS AND SPECIFICATIONS FOR OTHER RELATED SECTIONS. VISIT THE SITE TO BECOME ACQUAINTED WITH ALL PROJECT CONDITIONS INCLUDING EXISTING CONDITIONS. EXECUTION OF CONTRACT IS EVIDENCE THAT THE CONTRACTOR HAS EXAMINED ALL DRAWINGS AND SPECIFICATIONS AND THAT ALL CONDITIONS OF INSTALLING THE WORK IN THIS SECTION ARE VERIFIED. CLAIMS FOR LABOR, MATERIAL, OR TIME EXTENSIONS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATIONS BEEN MADE WILL NOT BE RECOGNIZED.



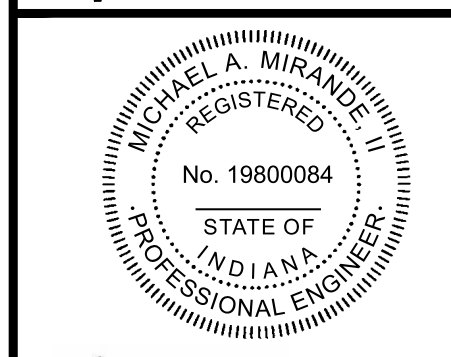
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<u>Michael A. Minko II</u>	<u>04/24/2025</u>
Signature	Date

**TOWN OF ODON
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WATER UTILITY
IMPROVEMENTS PROJECT
DIVISION "B" - NEW WATER
STORAGE TANK**

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ELECTRICAL- SITE PLAN

Drawing No:
E1-0

Sheet: 28 OF 31



1. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY TO INSTALL NEW 120/240 VAC, 1-PHASE, 200-AMP SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL AND LABOR NOT PROVIDED BY UTILITY. THE CONTRACTOR SHALL COORDINATE WITH UTILITY DURING BIDDING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR BUT NOT LIMITED TO: INSTALLATION AND PROVISION OF PRIMARY CONDUIT AND SECONDARY CONDUIT AND WIRE AS REQUIRED.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW SERVICE ENTRANCE RATED NEMA 4X 120/240 VAC, 1-PHASE, 200-AMP MANUAL TRANSFER SWITCH (MTS-1) WITH EMERGENCY RECEPTACLE WITH ANGLE ADAPTER. COORDINATE WITH OWNER FOR EXACT PART NUMBER BEFORE ORDERING.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE METER BASE AND MOUNTING AS REQUIRED BY LOCAL UTILITY. COORDINATE DURING BIDDING AND CONSTRUCTION.
4. PROVIDE TRIAD GROUNDING SYSTEM.

1. SEE E0.0 FOR PROJECT CONDUIT REQUIREMENTS.



The diagram illustrates the electrical setup for a GS Mixer. A vertical dashed line separates the 'Ixom Supplied Equipment' (to the left) from the 'Provided by General Contractor or local certified Electricians' (to the right). On the left, a 'Junction Box & Cord Fixture supplied with GS Mixer. Located within arms reach of the hatch.' is shown. A conduit runs from this junction box to the right, where it is terminated with a male thread end for a panel mount. This conduit contains 'Exterior Conduit and 3-Electrical Conductors (2-Power + 1-Ground)'. The power conductors connect to an 'Optional Mixer Control Panel' and a '120 VAC, 20Amp GFCI Circuit Breaker'. A 'Remove Power: Cord for Conduit Connection' is shown between the control panel and the circuit breaker. An 'Optional Customer SCADA' connection is shown as a dashed line from the control panel. A callout shows a close-up of the GFCI breaker's internal components.

**Provided by General Contractor or local certified Electricians.
Not included with Ixom supplied equipment or labor.**

Power Requirement
120 VAC, 20 amp GFCI protected service and means of quick power disconnect recommended.

Hatch Requirement
A 12 inch (305 mm) diameter hatch opening is required to fit the GS Mixer through.

Junction Box & Cord Fixture
supplied with GS Mixer.
Located within arms reach of the hatch.

Terminate conduit using flex conduit with male thread end for panel mount.

Exterior Conduit and 3-Electrical Conductors (2-Power + 1-Ground)

Optional Mixer Control Panel

Optional Customer SCADA

Remove Power: Cord for Conduit Connection

120 VAC, 20Amp GFCI Circuit Breaker

NOTE: A class B GFPE may be required if a class A GFCI results in nuisance tripping. Follow local and NEC codes.

RATING					FULL LOAD		MAXIMUM LOAD		WINDING (1) RES. IN OHMS		EFFICIENCY %		POWER FACTOR %		LOCKED ROTOR AMPS	KVA CODE
HP	KW	VOLTS	HZ	S.F.	(2) AMPS	WATTS	(2) AMPS	WATTS	M-MAIN RES. S-START RES.	F.L.	S.F.	F.L.	S.F.			
1/2	0.37	115	60	1.6	7.9	910	9.8	1120	1.4-2.0	42	54	99	99	28		H

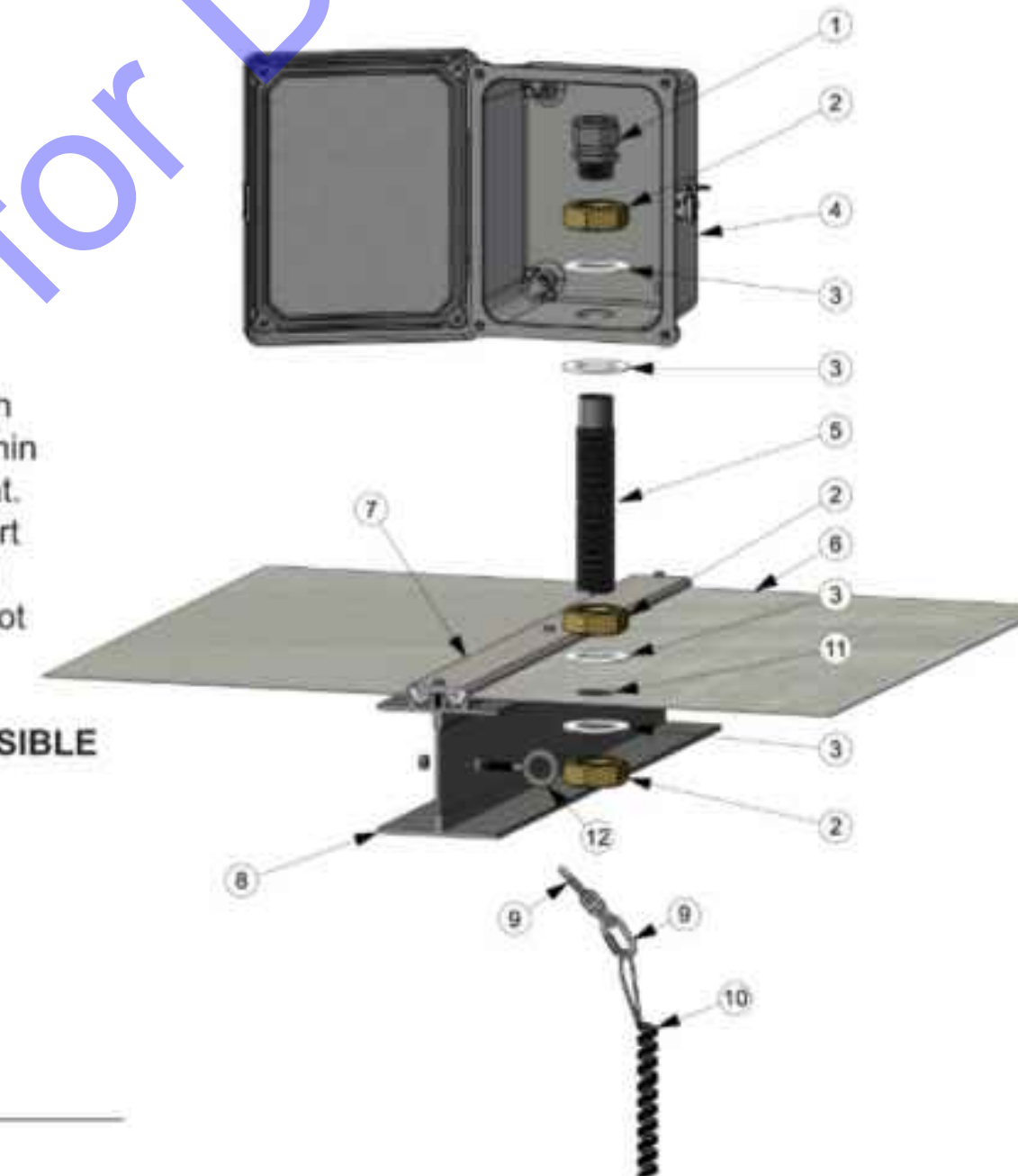
(1) Main winding - yellow to black, Start winding - yellow to red
 (2) Y = Yellow lead (White) - line amps, B = Black lead - main winding amps, R = Red lead - start or auxiliary winding amps

Service Entrance to Motor - Maximum Length In Feet
 Based on Service Factor Amps, and 5% Voltage Drop


Motor Rating				60° C and 75° C Insulation - AWG Copper Wire Size											
Volts	HP	kW	14	12	10	8	6	4	3	2	1	0	00	000	0000
115	1/2	0.37	100	160	250	390	620	960	1190	1460	1780	2160	2630	3140	3770

GS Series

1. Cord seal fitting.
2. Brass nut.
3. Plastic seal washer with Lexel.
4. Top of tank junction box.
5. Penetration fixture.
6. Aluminum geodesic dome panel.
7. Aluminum geodesic dome batten bar.
8. Support I-beam.
9. Quick link.
10. Kellem grip.
11. A 1-5/16" dia. hole drilled through panel and sealed with Lexel. Locate penetration within arms reach of an access point.
12. Eyebolt drilled through support I-beam to support kellem grip and retrieval chain. Eyebolt not included.



1. MIXER TO BE INSTALLED AT THE NEW GROUND STORAGE TANK.
2. GRIDBEE MIXERS IS THE BASIS OF DESIGN. COORDINATE DURING BIDDING AND CONSTRUCTION WITH MANUFACTURERS FOR DETAILS ON MIXER INSTALLATION AND INTERLOCK WIRING REQUIREMENTS. REFER TO THE MIXER SPECIFICATION FOR FURTHER DETAIL.
3. RUN CONDUIT/WIRE UP TO TOP OF THE TANK ADJACENT TO LADDER. CONDUIT SHALL NOT IMPEDE CLIMBING OF LADDER IN ANY MANNER. CONDUIT SHALL EXTEND THROUGH TOP OF TANK THROUGH SEALED TANK PENETRATION FITTING TO MIXER J-BOX.



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MICHAEL A. MIRANDA II
 REGISTERED
 No. 19800084
 STATE OF
 INDIANA
 PROFESSIONAL ENGINEER

Michael A. Miranda II
 Signature Date 04/24/2025

**TOWN OF ODON
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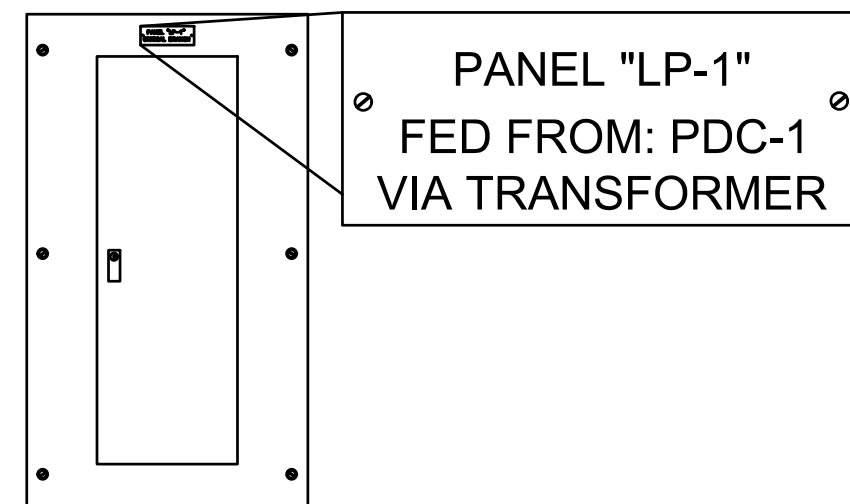
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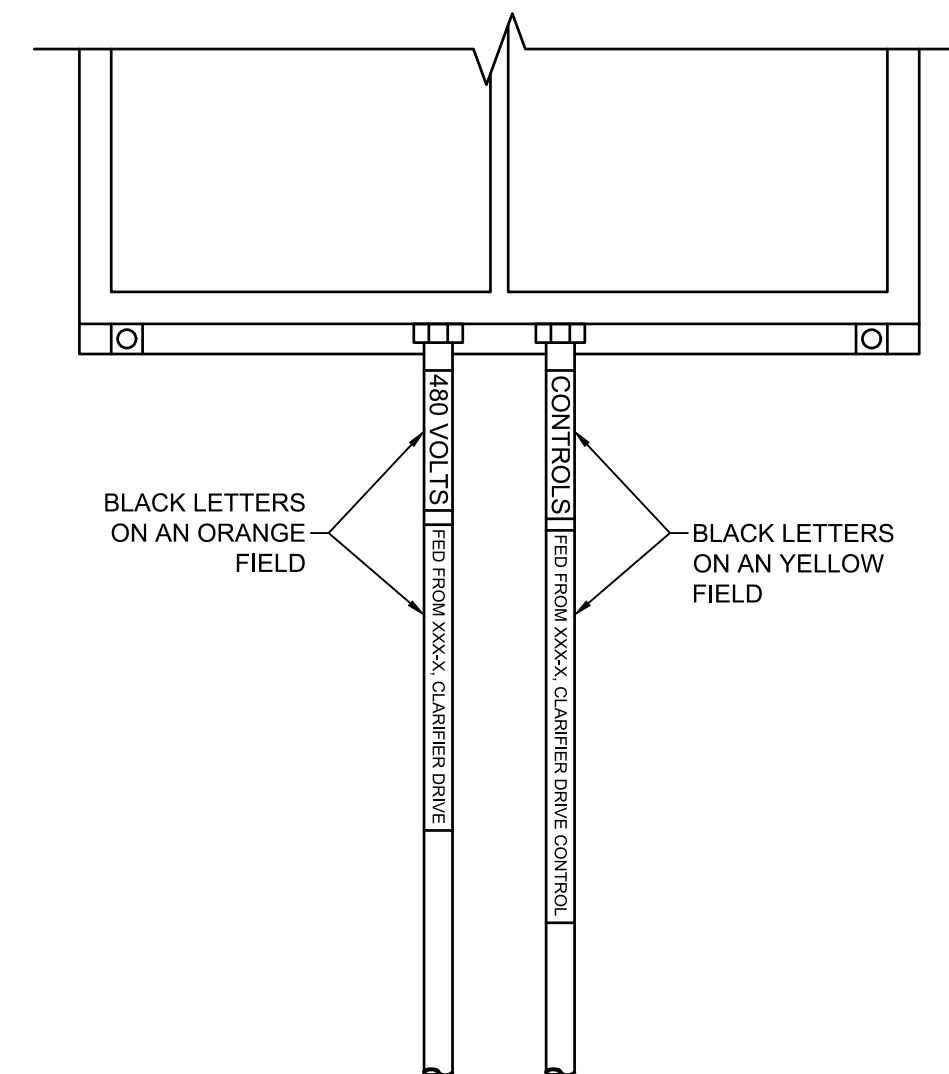
ELECTRICAL- GROUND
STORAGE TANK MIXER

Drawing No:
E3-0

Sheet: 30 OF 31

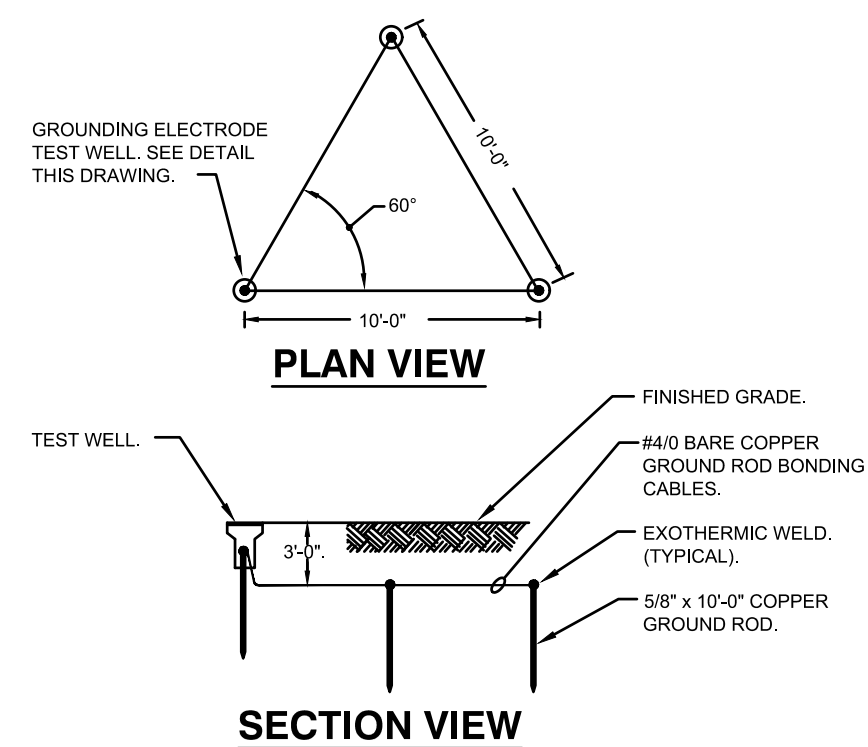


NOTE:
ALL PANELBOARDS INVOLVED IN THIS PROJECT SHALL BE IDENTIFIED BY THE PANEL NAME AND SOURCE OF THE PANEL'S POWER. REFER TO THE SPECIFICATIONS FOR COLORS AND ADDITIONAL REQUIREMENTS.



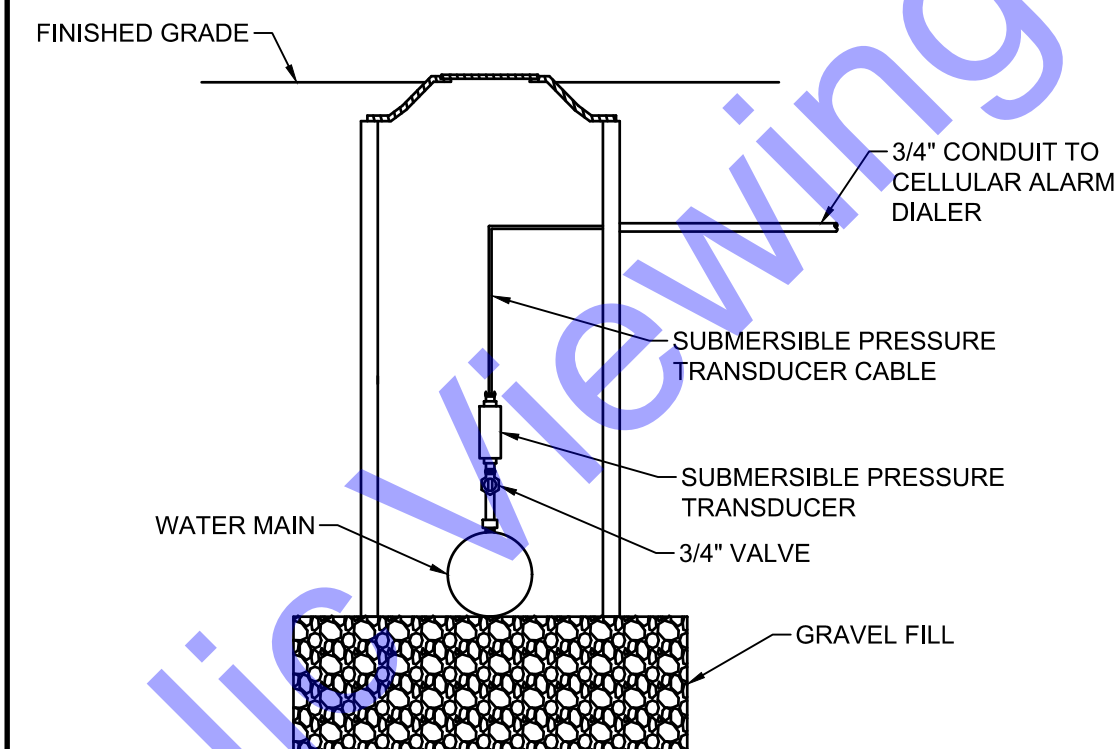
PANELBOARD IDENTIFICATION

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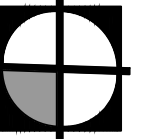
GROUNDING ELECTRODE SYSTEM

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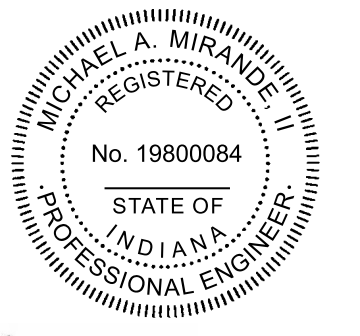
PRESSURE TRANSDUCER PIT DETAIL

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ELECTRICAL- DETAILS

Drawing No:

E4-0

Sheet: 31 OF 31