

GAS STATION / CONVENIENCE STORE

PROPOSED ADDITION / BLDG. RENOVATION

SITE PLAN APPROVAL PACKAGE

4465 W. VIENNA ROAD
CLIO, MI 48420

PART OF THE NORTHWEST 1/4 OF SECTION 21
TOWNSHIP 09 NORTH, RANGE 06 EAST
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN

PROPERTY DESCRIPTION:

LAND SITUATED IN THE NORTHWEST 1/4 OF SECTION 21, TOWN 9-NORTH, RANGE 6-EAST, VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN MORE PARTICULARLY DESCRIBED AS:

THE NORTH 275 FEET OF THE EAST 200 FEET OF THE WEST 755.40 FEET OF SAID NORTHWEST 1/4.

DRAWING INDEX:

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○		C101 — SITE REMOVAL PLAN
●	04-03-2025	C200 — SITE LAYOUT PLAN
●	04-03-2025	C300 — SITE GRADING & STORM SEWER PLAN
●	04-03-2025	C301 — SOIL EROSION CONTROL PLAN
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●	04-03-2025	C400 — SITE UTILITY PLAN
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●	04-03-2025	C500 — SITE LANDSCAPE PLAN
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●	04-03-2025	A1 — CONCEPTUAL FLOOR PLAN
●	04-03-2025	A2 — CONCEPTUAL BUILDING ELEVATIONS
○		— WATER MAIN STANDARD DETAILS (COUNTY)
○		— SANITARY SEWER STANDARD DETAILS (COUNTY)
○		— STANDARD CONSTRUCTION NOTES (COUNTY)

● DATE MOST RECENT ISSUE / REVISION DATE
FILLED CIRCLE INDICATES SUBMITTED DRAWING

BENCHMARKS:

BW #1 TOP OF PK NAIL IN SOUTH FACE OF POWER POLE LOCATED APPROXIMATELY 32' EAST OF THE CENTERLINE OF THE WEST DRIVE APPROACH AND APPROXIMATELY 135' SOUTH OF CENTERLINE VIENNA ROAD.
ELEVATION = 702.31

GCDC-WWS CONTRACTOR ALERT STATEMENT:

THIS PROJECT HAS BEEN DESIGNED IMPLEMENTING THE LATEST GCDC-WWS DESIGN SPECIFICATIONS (8TH EDITION). CAREFULLY REVIEW THE NOTES, DETAILS, AND DESIGN PRIOR TO SUBMITTING A BID. FULL COMPLIANCE WITH THE STANDARDS WILL BE REQUIRED.

NPDES STATEMENT:

THE OWNER WILL NOT NEED TO OBTAIN AN NPDES STORM WATER DISCHARGE PERMIT FROM THE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY (EGLE).
TOTAL DISTURBED AREA: 0.95 ACRES

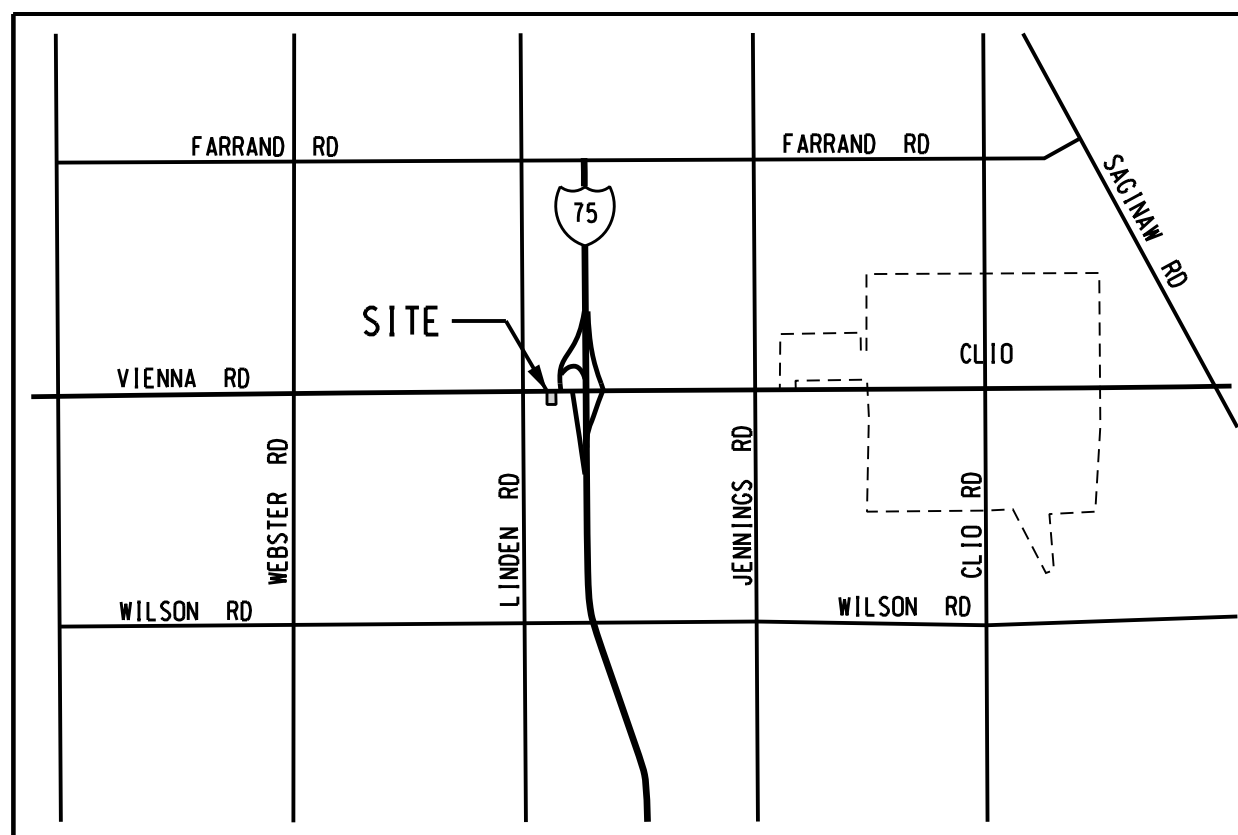
TOPOGRAPHIC SURVEY STATEMENT:

THE EXISTING FEATURES SHOWN ON THIS PLAN ARE FROM AN ACTUAL TOPOGRAPHIC SURVEY PERFORMED BY GRIGGS QUADERER, INC., IN DECEMBER OF 2024. THE UNDERGROUND UTILITIES SHOWN WERE EITHER VERIFIED BY THIS SURVEY OR WERE PLOTTED IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE. NO EXISTING UTILITIES WERE EXPOSED FOR VERIFICATION OF LOCATION AND ELEVATION. NO GUARANTEES ARE GIVEN THAT THE LOCATIONS ARE ABSOLUTELY ACCURATE OR THAT UTILITIES OTHER THAN THOSE SHOWN ARE NOT PRESENT.

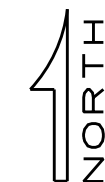
OWNER: ABDALLAH ABDALLAH
M66 INVESTMENTS LLC
2366 LOST CREEK CT.
FLUSHING, MI 48433
PHONE: (810) 265-0463
EMAIL: ABDALLAH5105@ICLOUD.COM

ARCHITECT: JOHN COSTA, AIA
ARCHITECTURAL DESIGN & CONSULTATION
417 OLDMILL DRIVE
FLUSHING, MI 48433
PHONE: (810) 659-5275
EMAIL: JNL.COSTA@SBCGLOBAL.NET

ENGINEER: RUDY QUADERER
GRIGGS QUADERER, INC.
8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48439
PHONE: (810) 695-0154
EMAIL: RQUADERER@GQINCORP.COM



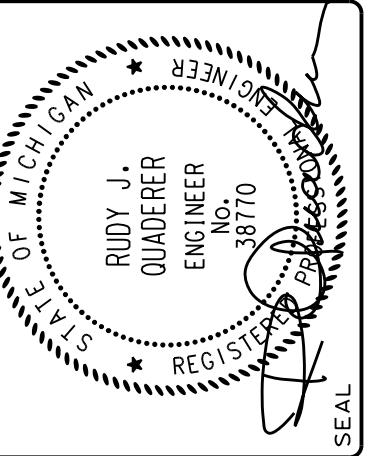
LOCATION MAP
NOT TO SCALE



STANDARD LEGEND		
DESCRIPTION	PROPOSED	EXISTING
BUILDING		
STORM SEWER		
SANITARY SEWER		
WATER		
GAS LINE		
ELECTRIC LINE		
TELEPHONE LINE		
MANHOLE		
CATCH BASIN		
FIRE HYDRANT		
GATE VALVE & WELL		
POWER POLE		
LIGHT POLE		
CURB & GUTTER		
FENCE		
DECIDUOUS TREE		
EVERGREEN TREE		
EASEMENT		
WETLAND BOUNDARY		
SIGN		
ASPHALT SURFACE		
CONCRETE SURFACE		
SOIL BORING		
SPOT ELEVATION		
CONTOUR LINE		



AGENCY CONTACT INFORMATION					
AGENCY	SUBMITTAL DATE	STATUS	AGENCY	SUBMITTAL DATE	STATUS
JENNIFER WOLFEILL BLDG. ADMINISTRATOR VIENNA TOWNSHIP 3400 W. VIENNA ROAD CLIO, MI 48420 PH: (810) 564-7053	02-10-2025 04-03-2025	UNDER REVIEW	SOIL EROSION CONTROL GCDC-WWS DION BURROUGHS G-4610 BEECHER RD. FLINT, MI 48532 PH: 810-732-7870	-	-
SANITARY GCDC-WWS LYNNETTE WEINZ, PE G-4610 BEECHER RD. FLINT, MI 48532 PH: 810-732-7870	-	-	IPP GCDC-WWS THAD DOMICK G-4610 BEECHER RD. FLINT, MI 48532 PH: 810-732-7870	-	-
STORM GCDC-SWM HEATHER KRONENBERG G-4608 BEECHER RD. FLINT, MI 48532 PH: 810-732-1590	-	-	ROAD GC ROAD COMMISSION GERRAD GODLEY, PE 211 W. OAKLEY ST. FLINT, MI 48503 PH: 810-767-4920	-	NOT REQUIRED



NO.	DATE	REVISION OR ISSUE
04-03-25	REISSUED TO VIENNA TWP.	
02-10-25	ISSUED TO VIENNA TWP.	
12-03-24	PRELIM. TOPOGRAPHY	SUBJECT

DRAWN	DESIGNED	CHECKED	FIELD CREW RD. / CB
			BRZEZINSKI

GAS STATION / CONVENIENCE STORE
PROPOSED ADDITION / BLDG. RENOVATION

4465 VIENNA ROAD
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN

COVER SHEET

Griggs Quaderer, Inc.

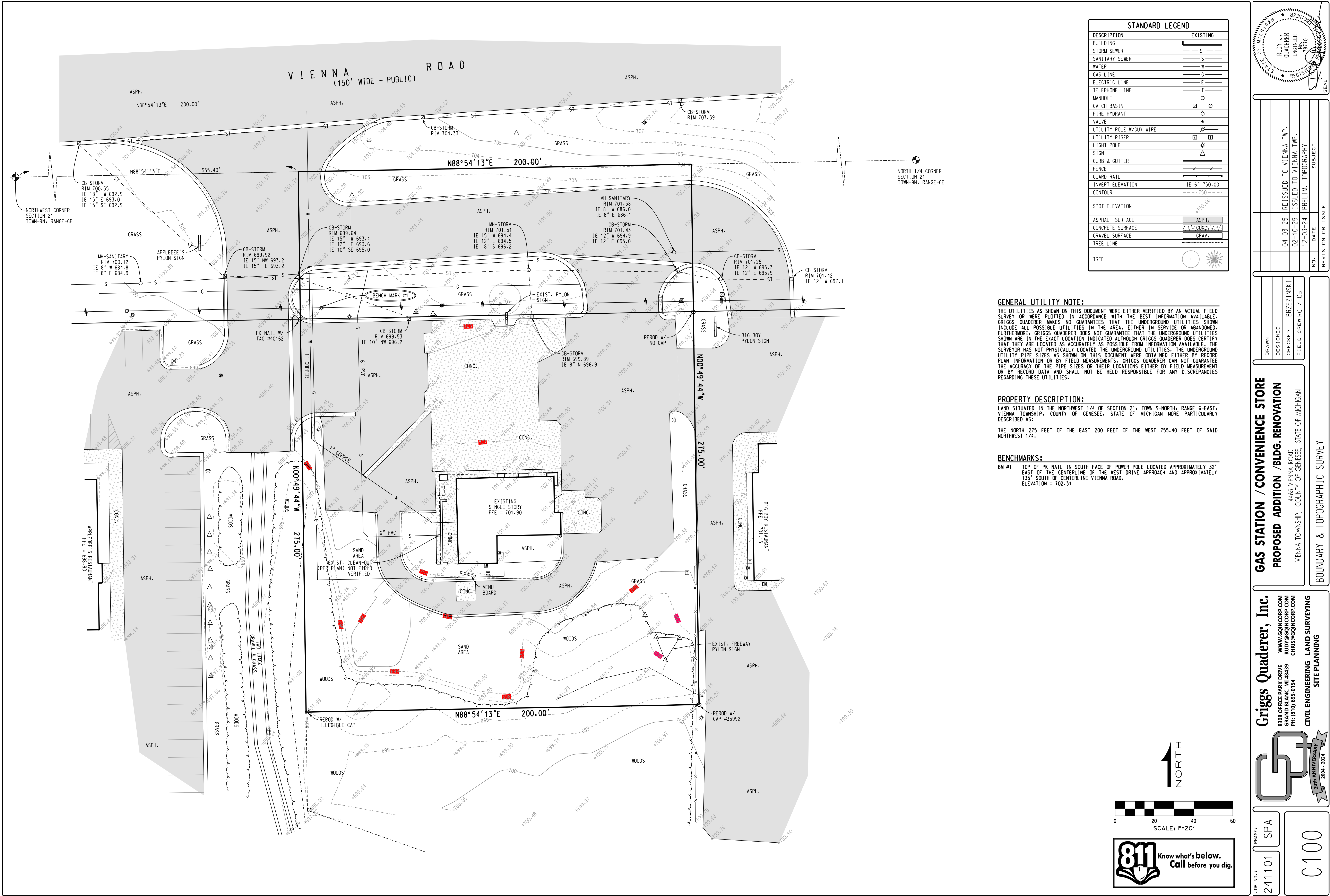
8308 OFFICE PARK DRIVE
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WWW.GQINCORP.COM
RUDY@GQINCORP.COM
CHRIS@GQINCORP.COM

CIVIL ENGINEERING - LAND SURVEYING
SITE PLANNING



JOB NO.: 241101
PHASE: SPA

C000

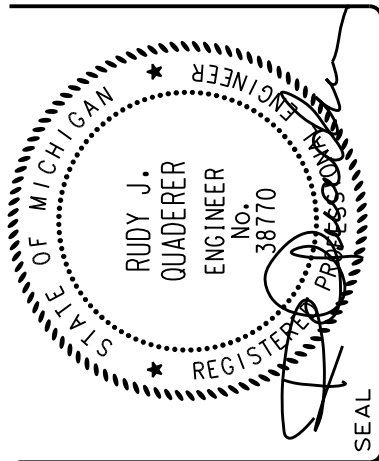


STANDARD LEGEND	
DESCRIPTION	EXISTING
BUILDING	
STORM SEWER	ST
SANITARY SEWER	S
WATER	W
GAS LINE	G
ELECTRIC LINE	E
TELEPHONE LINE	T
MANHOLE	
CATCH BASIN	
FIRE HYDRANT	
VALVE	
UTILITY POLE W/GUY WIRE	
UTILITY RISER	
LIGHT POLE	
SIGN	
CURB & GUTTER	
FENCE	
GUARD RAIL	
INVERT ELEVATION	IE 6" 750.00
CONTOUR	750
SPOT ELEVATION	
ASPHALT SURFACE	ASPH.
CONCRETE SURFACE	CONCR.
GRAVEL SURFACE	GRAV.
TREE LINE	
TREE	

GENERAL UTILITY NOTE:
THE UTILITIES AS SHOWN ON THIS DOCUMENT WERE EITHER VERIFIED BY AN ACTUAL FIELD SURVEY OR WERE PLOTTED IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE. GRIGGS QUADERER MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN INCLUDE ALL POSSIBLE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, GRIGGS QUADERER DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH GRIGGS QUADERER DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE UNDERGROUND UTILITY PIPE SIZES AS SHOWN ON THIS DOCUMENT WERE OBTAINED EITHER BY RECORD PLAN INFORMATION OR BY FIELD MEASUREMENTS. GRIGGS QUADERER CAN NOT GUARANTEE THE ACCURACY OF THE PIPE SIZES OR THEIR LOCATIONS EITHER BY FIELD MEASUREMENT OR BY RECORD DATA AND SHALL NOT BE HELD RESPONSIBLE FOR ANY DISCREPANCIES REGARDING THESE UTILITIES.

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THE NORTH 275 FEET OF THE EAST 200 FEET OF THE WEST 755.40 FEET OF SAID NORTHWEST 1/4.

BENCHMARKS:
BM #1 TOP OF PK NAIL IN SOUTH FACE OF POWER POLE LOCATED APPROXIMATELY 32' EAST OF THE CENTERLINE OF THE WEST DRIVE APPROACH AND APPROXIMATELY 135' SOUTH OF CENTERLINE VIENNA ROAD. ELEVATION = 702.31

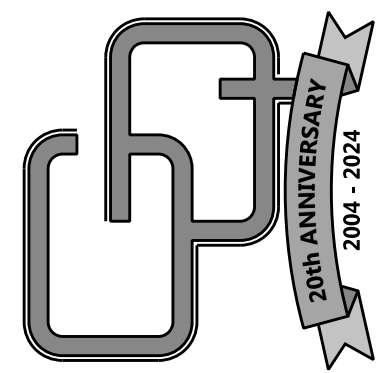


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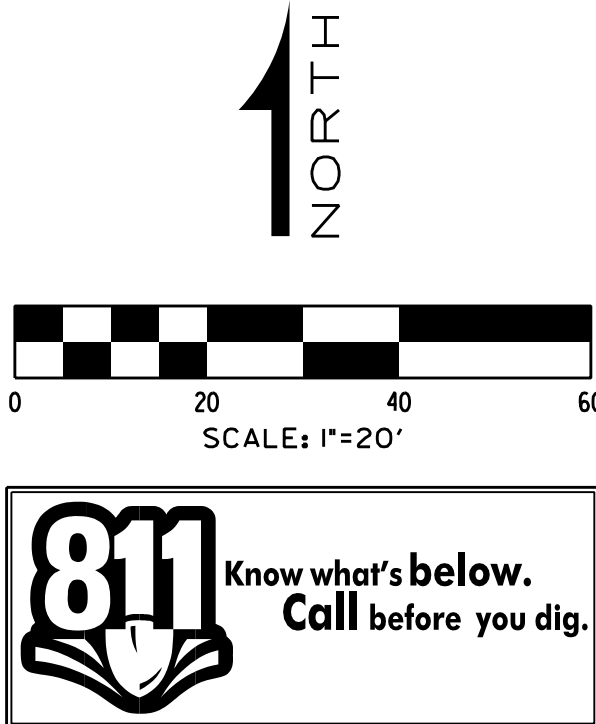
DRAWN	DESIGNED	CHECKED	FIELD CREW
	BRZEZINSKI		RD / CB

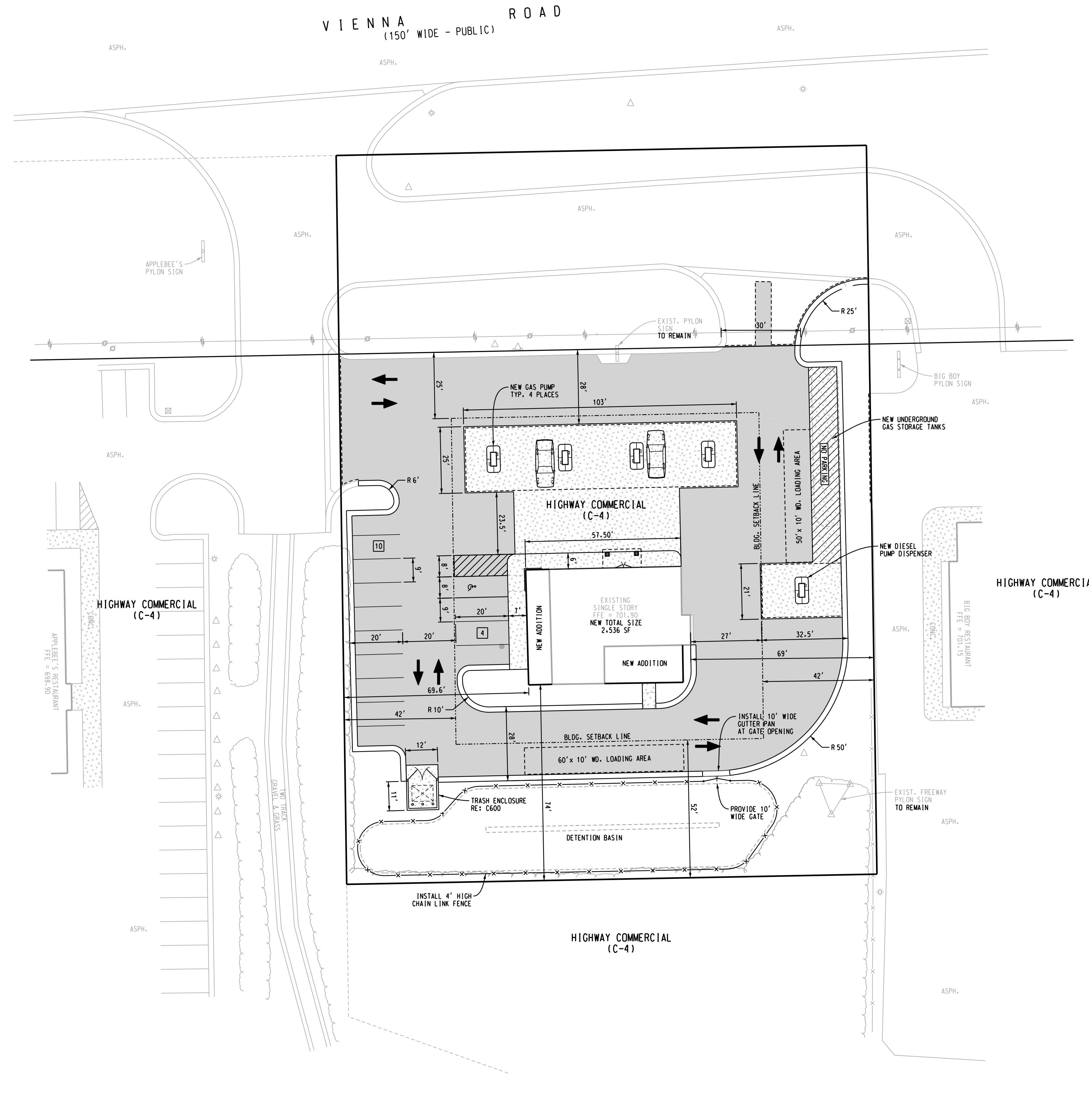
GAS STATION / CONVENIENCE STORE
PROPOSED ADDITION / BLDG. RENOVATION
4465 VIENNA ROAD
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN
BOUNDARY & TOPOGRAPHIC SURVEY

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CHRIS@GQINCORP.COM
CIVIL ENGINEERING - LAND SURVEYING
SITE PLANNING



JOB NO.: 241101
PHASE: SPA
C100





- GENERAL NOTES:**
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM WITH THE REQUIREMENTS OF ALL GOVERNING AGENCIES HAVING JURISDICTION (LOCAL, COUNTY, STATE). UNLESS OTHERWISE NOTED, CONSTRUCTION MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND PROJECT SPECIFICATIONS. IN CASE OF DISCREPANCIES BETWEEN REQUIREMENTS, THE MOST STRINGENT SHALL APPLY.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING TO ACCOMPLISH ALL WORK INDICATED ON PLANS AND TO PERFORM REQUIRED COMPACTION OPERATIONS. CONTRACTOR TO PROVIDE TESTING CONSULTANT TO VERIFY DENSITY REQUIREMENTS FOR SUBGRADE.
 - PROVIDE ADEQUATE BARRICADES AT DRIVES, ENTRANCES, EXCAVATIONS AND OTHER OPENINGS TO KEEP OUT UNAUTHORIZED PERSONS AND FOR PUBLIC SAFETY AND TRAFFIC CONTROL. SAFETY PROVISIONS OF APPLICABLE LAWS INCLUDING REQUIREMENTS SET FORTH BY OSHA SHALL BE OBSERVED AT ALL TIMES. BARRICADES LEFT IN PLACE AT NIGHT SHALL BE LIGHTED.
 - NO EQUIPMENT OR MATERIAL STORAGE IS PERMITTED WITHIN THE ROAD RIGHT-OF-WAY.
 - CONTRACTOR'S MANNER AND METHOD OF INGRESS AND EGRESS WITH RESPECT TO THE PROJECT AREA SHALL IN NO WAY PROHIBIT OR DISTURB NORMAL PEDESTRIAN OR VEHICULAR TRAFFIC IN THE VICINITY AND IS SUBJECT TO REGULATION AND WRITTEN APPROVAL OF APPROPRIATE GOVERNING AGENCIES.
 - RESTORE ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE DITCHES, AND OTHER PUBLIC OR PRIVATE STRUCTURES THAT ARE DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS AND TO THE SATISFACTION OF THOSE HAVING JURISDICTION.
 - CONTRACTOR SHALL PULL EROSION CONTROL PERMIT FROM GOVERNING AGENCY AND SET TEMPORARY EROSION CONTROL MEASURES AS INDICATED ON THESE DOCUMENTS PRIOR TO BEGIN OF ANY DEMOLITION OR EARTHWORK.
 - THE CONTRACTOR SHALL NOTIFY MISS DIG (811) THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION WITH POWER EQUIPMENT.
 - THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL CONSTRUCTION LAYOUT AND GRADE ELEVATIONS FOR THEIR WORK IN ACCORDANCE WITH DATA SHOWN ON DOCUMENTS.
 - EXCAVATED AREAS WITHIN PROPOSED BUILDING AND PAVEMENT AREAS SHALL BE BACKFILLED TO FINISHED SUBGRADE ELEVATION WITH STRUCTURAL FILL (MOOT CLASS II SAND). THE SAND SHALL BE COMPACTED IN CONTINUOUS LAYERS NOT EXCEEDING 8 INCH LOOSE LIFTS, COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ANSI/ASTM D 1557 MODIFIED PROCTOR.
 - COORDINATES AND/OR DIMENSIONS SHOWN ON THIS DOCUMENT ARE TO BACK OF CURB, OUTSIDE FACE OF BUILDING FOUNDATIONS, EDGE OF PAVEMENT, CENTER OF STRUCTURE, CENTERLINE OF STRIPING UNLESS NOTED OTHERWISE.
 - NO DIMENSIONS SHALL BE SCALED OFF THE DOCUMENTS. REFER UNCLER ITEMS TO THE ENGINEER FOR INTERPRETATION.
 - REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS, SLAB AND UNDERBED THICKNESS.

LAND USE INFORMATION:

CURRENT ZONING:	HIGHWAY COMMERCIAL (C-4)
PROPOSED ZONING:	HIGHWAY COMMERCIAL (C-4)
CURRENT USE:	FORMER GAS STATION (CLOSED)
PROPOSED USE:	GAS STATION / CONVENIENCE STORE
TOTAL SITE AREA:	55,000 SF, 1.26 AC.
TOTAL BUILDING AREA:	2,536 SF
LOT COVERAGE BY BLDG:	5.0%

YARD SETBACKS:	BUILDING
	FRONT YARD 25LF
	SIDE YARD 42LF
	REAR YARD 52LF

PARKING DATA:

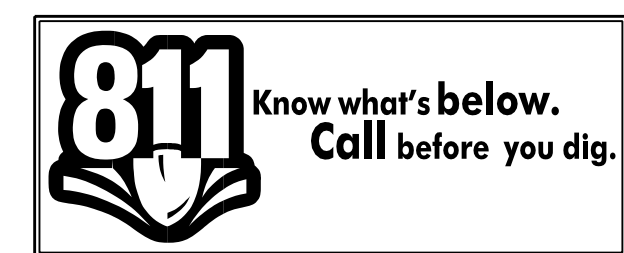
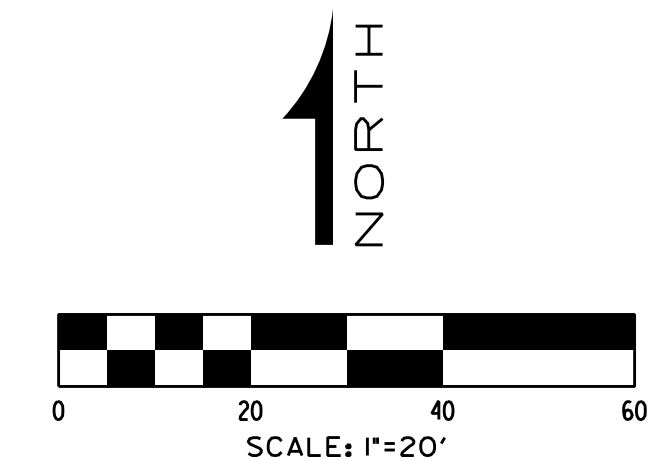
USE	REQUIREMENTS	PARKING REQUIRED	PARKING PROVIDED
GAS STATION (SELF SERVE)	1 SPACE + 1 SPACE PER EMPLOY.	4 SPACES	14 SPACES
RETAIL STORE (MINIMARKET)	1 SPACE PER 150 SF OF UFA	8 SPACES	
BARRIER FREE (TOTAL)	1 - 25 SPACES	1 SPACE	1 SPACE
TOTAL		12 SPACES	14 SPACES
LOADING / UNLOADING	LOADING/UNLOADING FOR LIQUID FUELS, 50' x 10' AREA	500 SF	500 SF
	FOR SALE OF CONVENIENCE ITEMS 10 SF PER EACH FRONT FOOT OF BLDG. = 10 (57.5) =	575 SF	600 SF

- MARKING / SIGNAGE LEGEND:**
- ① STOP SIGN (R1-1)
 - ② ACCESSIBLE SIGN W/ VAN ACCESSIBLE (R7-8 & R7-8A)
 - ③ NO PARKING - FIRE LANE
 - NO PARKING / NO DRIVING AREAS
 - 4" WIDE WHITE PAINT STRIPING
 - 2" ON CENTER @ 45°, REFER TO PAVEMENT MARKING NOTE #2 FOR BARRIER FREE PARKING

- PAVEMENT MARKING & SIGNAGE NOTES:**
- PARKING STALL WIDTH DIMENSIONS ARE TO CENTERLINE OF STRIPING.
 - ALL PAVEMENT MARKINGS SHALL BE 4" WIDE WHITE PAINT STRIPING UNLESS OTHERWISE INDICATED. ALL BARRIER FREE STRIPING SHALL BE COLORED BLUE AND IN ACCORDANCE WITH THE LATEST ADA STANDARDS FOR ACCESSIBLE DESIGN.
 - CONTRACTOR SHALL NOT APPLY TRAFFIC MARKING PAINT ON NEW ASPHALT UNTIL PAVEMENT HAS CURED A MINIMUM OF SEVEN (7) DAYS.
 - PAINT SHALL BE APPLIED WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. APPLY IN TWO COATS AT MANUFACTURER'S RECOMMENDED RATES TO PROVIDE MINIMUM 10.0 TO 15.0 MILS WET THICKNESS.
 - ALL TRAFFIC CONTROL SIGNS SHALL CONFORM WITH ALL REQUIREMENTS AS STIPULATED IN THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - ⑤ NUMBER OF PARKING SPACES (FOR INFORMATION ONLY)

PAVEMENT LEGEND:

ASPHALT PAVEMENT SECTION (ON-SITE) RE:
CONCRETE PAVEMENT SECTION RE:



Griggs Quaderer, Inc.
8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48409
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WWW.GQINCORP.COM
RUDY@GQINCORP.COM
CHRIS@GQINCORP.COM

CIVIL ENGINEERING - LAND SURVEYING
SITE PLANNING

20th ANNIVERSARY
2004 - 2024

PHASE: SPA
JOB NO.: 241101

200

GAS STATION / CONVENIENCE STORE
PROPOSED ADDITION / BLDG. RENOVATION
4465 VIENNA ROAD
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN

SITE LAYOUT PLAN

DESIGNED
CHECKED
FIELD CREW

04-03-25
02-10-25
12-03-24

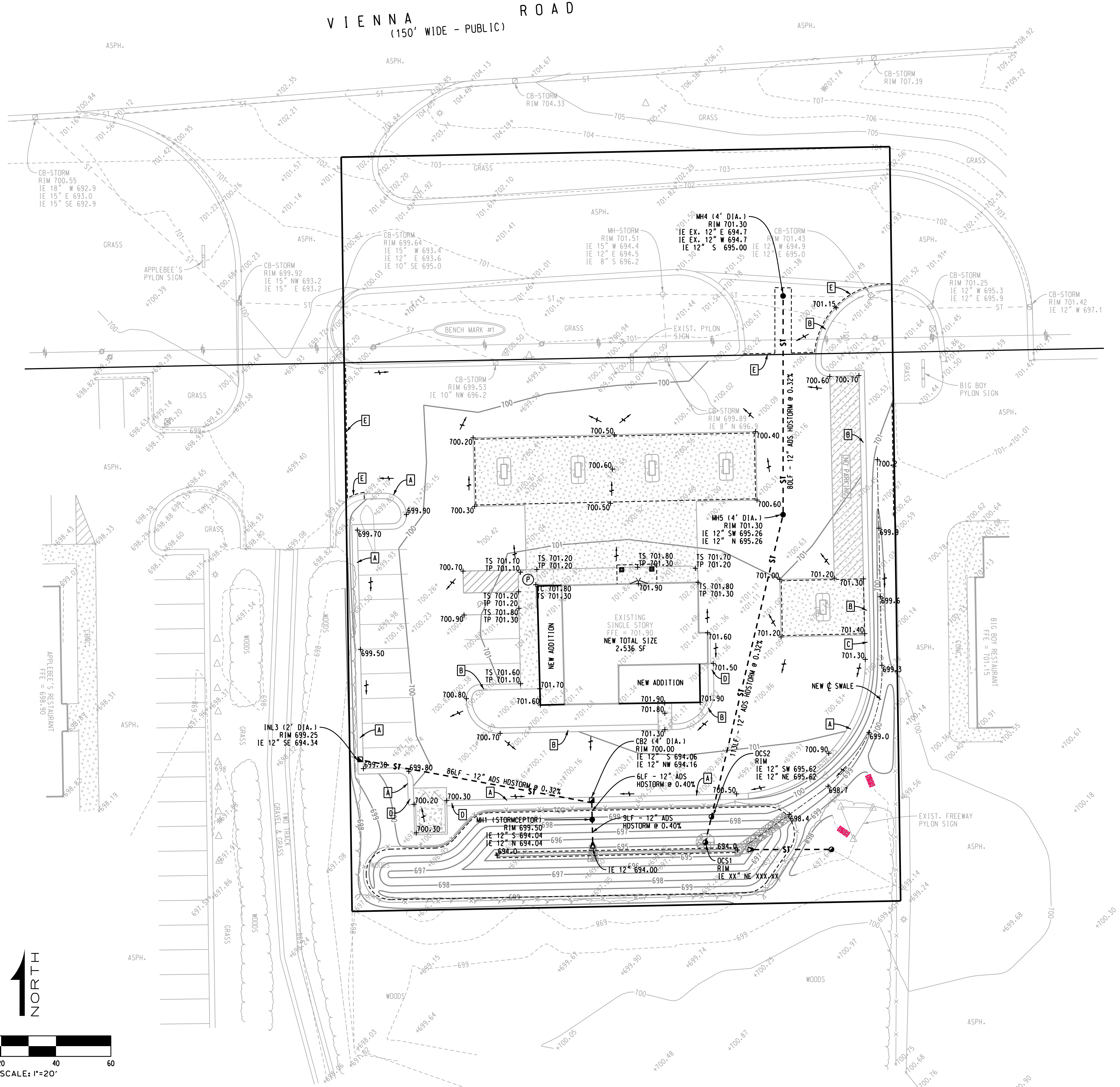
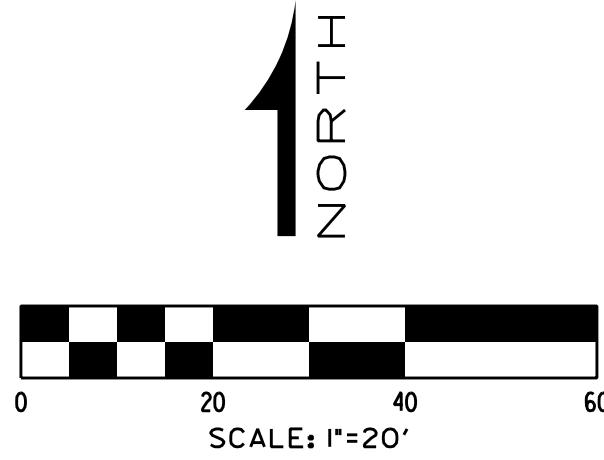
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NO.
DATE
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REVISION OR ISSUE

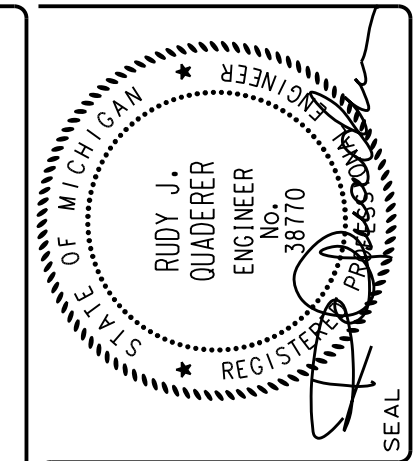
SEAL

REGISTERED PROFESSIONAL ENGINEER
STATE OF MICHIGAN
RUDY J. QUADERER
ENGINEER
NO. 18710



- GRADING NOTES:**
1. ALL PROPOSED SPOT ELEVATIONS IN PAVED AREAS ARE TO TOP OF PAVEMENT UNLESS NOTED OTHERWISE.
TS - TOP OF SIDEWALK
TP - TOP OF PAVEMENT
 2. CONTOURS SHOWN ARE FOR REFERENCE ONLY. BASE CONSTRUCTION EFFORTS ON PROPOSED SPOT ELEVATIONS ONLY.
 3. "BARRIER FREE" PARKING AND SIDEWALK RAMPS SHALL CONFORM IN ALL RESPECTS TO THE MICHIGAN ADA (AMERICANS WITH DISABILITIES ACT) REQUIREMENTS.
 4. CONTRACTOR SHALL ADJUST ANY UTILITY ELEMENT/STRUCTURE MEANT TO BE FLUSH WITH GRADE (CLEAN OUT, VALVE BOXES, MANHOLES, CATCH BASINS, INLETS, ETC.) WHICH ARE AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT. NO ADDITIONAL COSTS FOR THIS WORK WILL BE ACCEPTED. THE CONTRACTOR SHALL OBTAIN ANY NECESSARY PERMITS FOR ADJUSTMENT AT THE CONTRACTOR'S EXPENSE.
 5. CONTRACTOR IS RESPONSIBLE FOR CUT AND FILL QUANTITIES. ADDITIONAL COMPENSATION WILL NOT BE ACCEPTED FOR HAULING OF EXCESS AND BORROW MATERIAL TO AND FROM SITE AS WELL AS LABOR COSTS FOR PLACEMENT AND/OR REMOVAL. OFF-SITE BORROW MATERIAL MUST BE CLEAN COMPACTIBLE STRUCTURAL FILL MATERIAL (NO ORGANIC MATERIAL) WHICH WILL BE INSPECTED PRIOR TO USE FOR ON-SITE FILL MATERIAL.
 6. SITE CONTRACTOR IS RESPONSIBLE TO PROVIDE A STABLE SUBGRADE AT DESIGN ELEVATIONS. ALL PAVED AREAS INCLUDING BUILDING PAD SHALL BE PRODFOLLED & COMPACTED TO MEET 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ANSI/ASTM D1557.
 7. CONTRACTOR SHALL STORE SUFFICIENT TOPSOIL MATERIAL ON-SITE FOR RE-USE IN ALL DISTURBED GREEN AREAS AND NEW LANDSCAPE AREAS.
 8. PROVIDE POSITIVE DRAINAGE AT ALL TIMES TO ENSURE NO STANDING WATER. MAINTAIN A MINIMUM SLOPE OF 1.00% IN ALL NEW BITUMINOUS AREAS.

- CURB, GRADING & SIDEWALK RAMP NOTATIONS:**
- A** STANDARD CURB AND GUTTER
 - B** STANDARD CURB AND GUTTER WITH REVERSE SLOPE
 - C** 10 FOOT TRANSITION BETWEEN TYPE **A** AND TYPE **B**
 - D** 5 FOOT CURB END TRANSITION.
 - E** MATCH EXISTING PAVEMENT OR CURB ELEVATION.
 - P** TYPE P RAMP, PER MDOT DETAIL R-28-J



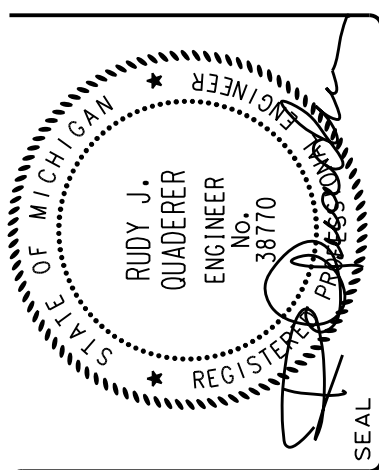
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DRAWN	DESIGNED	CHECKED	FIELD
	BRZEZINSKI		CREW RO / CB

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4465 VIENNA ROAD
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN
SITE GRADING & STORM SEWER PLAN

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CIVIL ENGINEERING - LAND SURVEYING
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20th ANNIVERSARY 2004 - 2024

PHASE: SPA
JOB NO.: 241101
C300

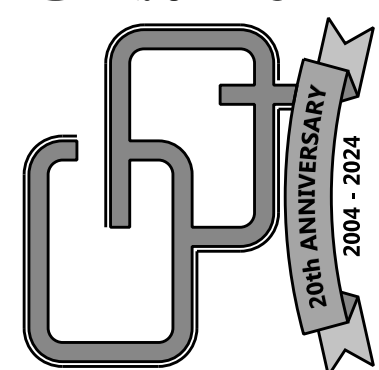
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DRAWN
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CHECKED BRZEZINSKI
FIELD CREW RQ / CB

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SOIL EROSION CONTROL PLAN

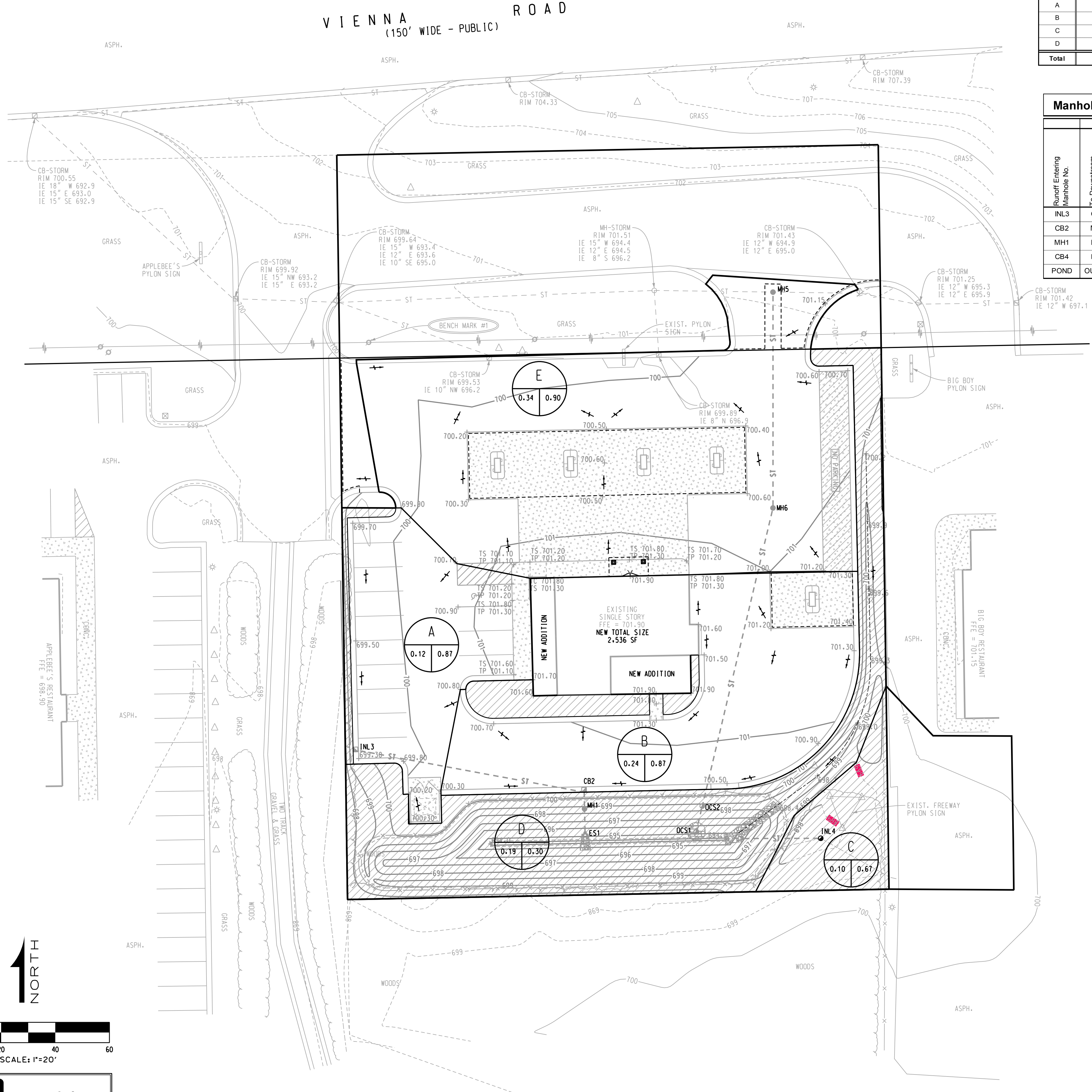
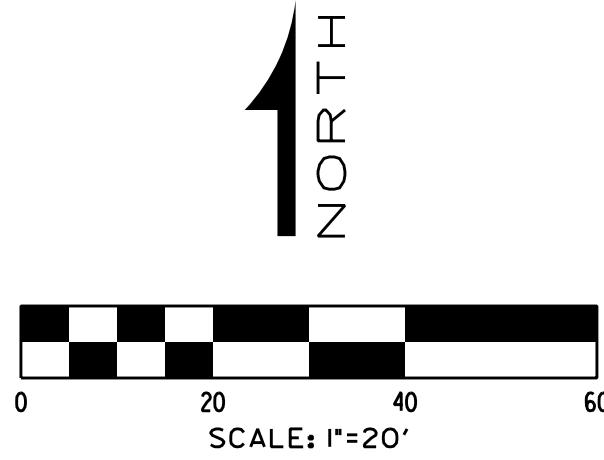
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**CIVIL ENGINEERING • LAND SURVEYING
SITE PLANNING**



JOB NO.: 241101

PHASE: SPAN

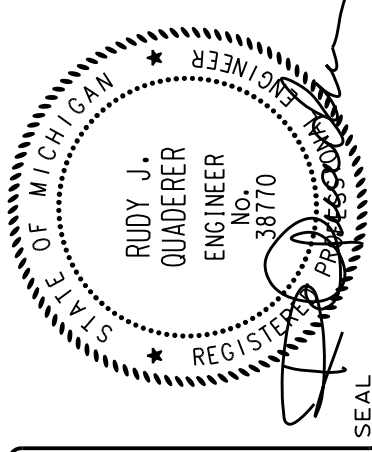
C301



Runoff Coefficient Calculations										
Drainage Area	Pervious			Impervious			Roof Top			Drainage Area
	Area (ft²)	Area (Acre)	C	Area (ft²)	Area (Acre)	C	Area (ft²)	Area (Acre)	C	
A	288.0	0.01	0.30	4841.0	0.11	0.90	0.0	0.00	0.95	5129.0
B	778.0	0.02	0.30	7028.0	0.16	0.90	2536.0	0.06	0.95	10342.0
C	1768.0	0.04	0.30	2774.0	0.06	0.90	0.0	0.00	0.95	4542.0
D	8170.0	0.19	0.30	0.0	0.00	0.90	0.0	0.00	0.95	8170.0
Total	11004.0	0.25	0.30	14643.0	0.34	0.90	2536.0	0.06	0.95	28183.0

Manholes		Storm Design													Discharge Capacity (cfs)
Runoff Entering Manhole No.	To Downstream Manhole No.	Area Designated For Added Area	Increment of Area (acres) Added	Imperviousness	Equivalent Area	Accumulative Totals of Equivalent Areas	Time of Concentration (min)	10yr. Rainfall Intensity (in. / hr.)	Quantity of Rainfall (cfs)	Diameter (inch) of Pipe Out of Manhole	Slope (%) of Individual Gradient	Length (ft) of Line Between M.H.'s	Velocity (ft/s) Flowing Full	Time (min) of Flow to Next M.H.	
INL3	CB2	A	0.12	0.87	0.10	0.10	20.00	3.80	0.38	12 in.	0.32%	87	2.79	0.52	2.19
CB2	MH1	B	0.24	0.87	0.21	0.31	20.52	3.76	1.16	12 in.	0.32%	6	2.79	0.04	2.19
MH1	ES1	-	-	-	-	0.31	20.56	3.75	1.16	12 in.	0.32%	9	2.79	0.05	2.19
CB4	ES2	C	0.10	0.67	0.07	0.07	20.00	3.80	0.27	12 in.	0.32%	30	2.79	0.18	2.19
POND	OUTLET	D	0.19	0.30	0.06	0.44	20.61	3.75	1.65	12 in.	0.32%	193	2.79	1.15	2.19

Detention Capacity			
Average End Method			
Contour	Area (ft²)	Volume (ft³)	Total Volume (ft³)
694	74.0		0
Average	229.5	230	
695	385.0		230
Average	704.0	704	
696	1023.0		934
Average	1354.5	1355	
697	1686.0		2288
Average	2142.0	2142	
698	2598.0		4430
Average	3182.5	3183	
699	3767.0		7613
Average	4178.5	4179	
700	4590.0		11791
Total Detention Capacity			11791
Requirement A (Volume)		1380	
Requirement A (Elevation)		696.63	
Requirement B (Volume)		2956	
Requirement B (Elevation)		697.49	
Requirement C (Volume)		4544	
Requirement C (Elevation)		698.05	

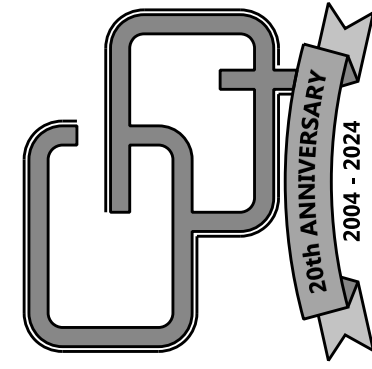


NO.	DATE	SUBJECT	REVISION OR ISSUE
04-03-25	RE-ISSUED TO VIENNA TWP.		
02-10-25	ISSUED TO VIENNA TWP.		
12-03-24	PRELIM. TOPOGRAPHY		

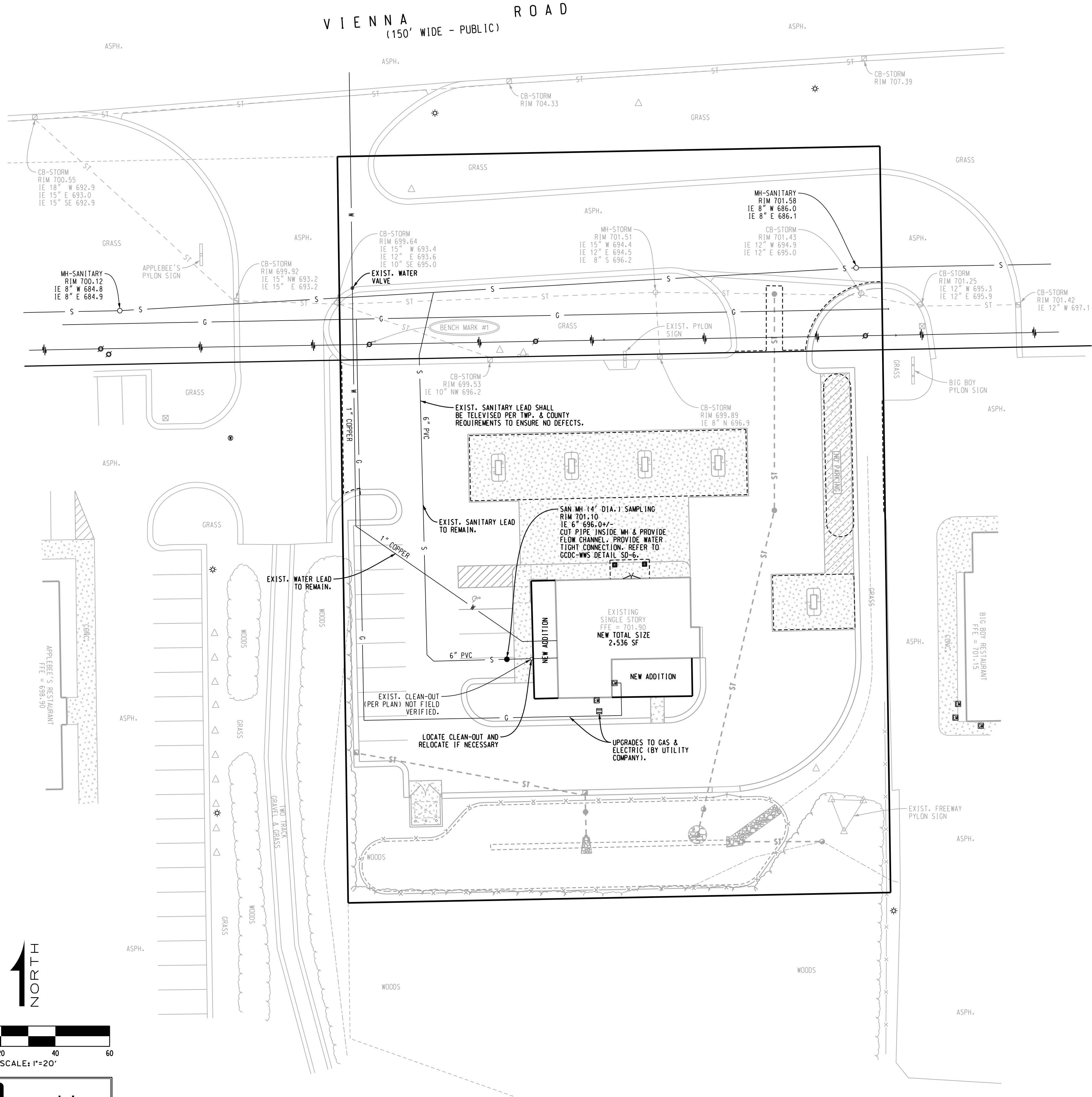
DRAWN	DESIGNED	CHECKED	FIELD
	BRZEZINSKI		CREW RD / CB

GAS STATION / CONVENIENCE STORE
PROPOSED ADDITION / BLDG. RENOVATION
4465 VIENNA ROAD
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN
DRAINAGE AREA MAP & STORM SEWER CALCULATIONS

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CIVIL ENGINEERING · LAND SURVEYING
SITE PLANNING

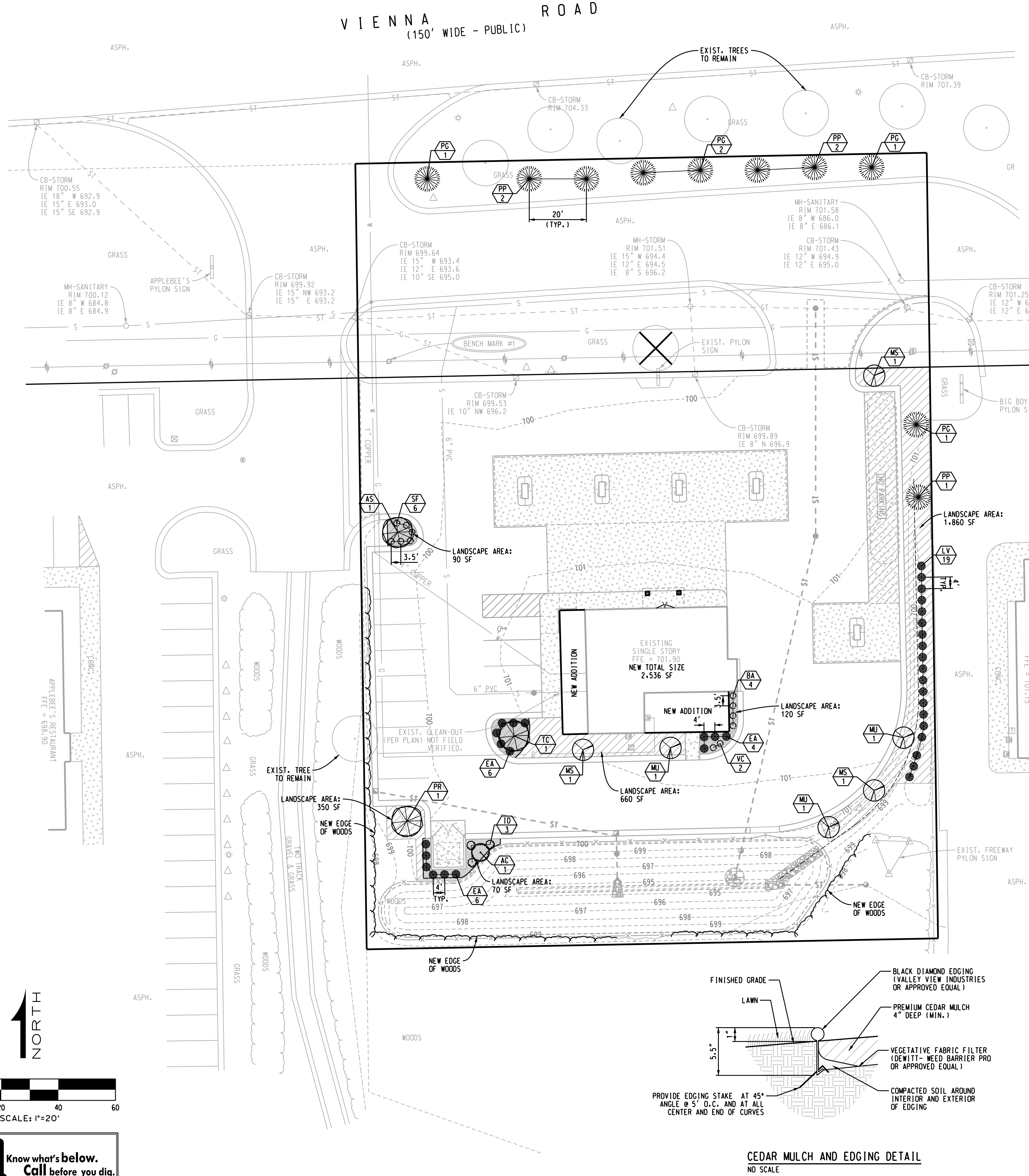
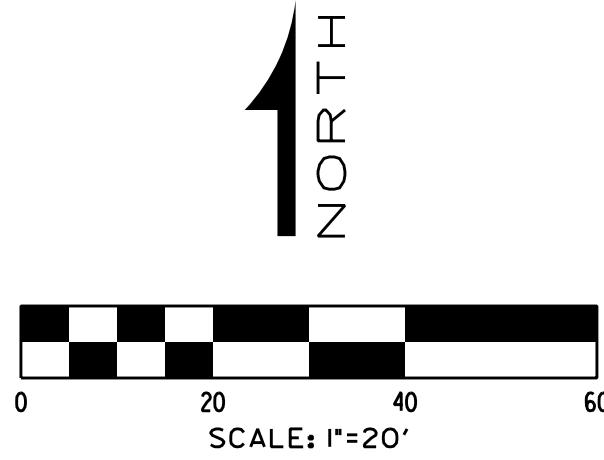


JOB NO.:	241101	PHASE:	SPA
C302			

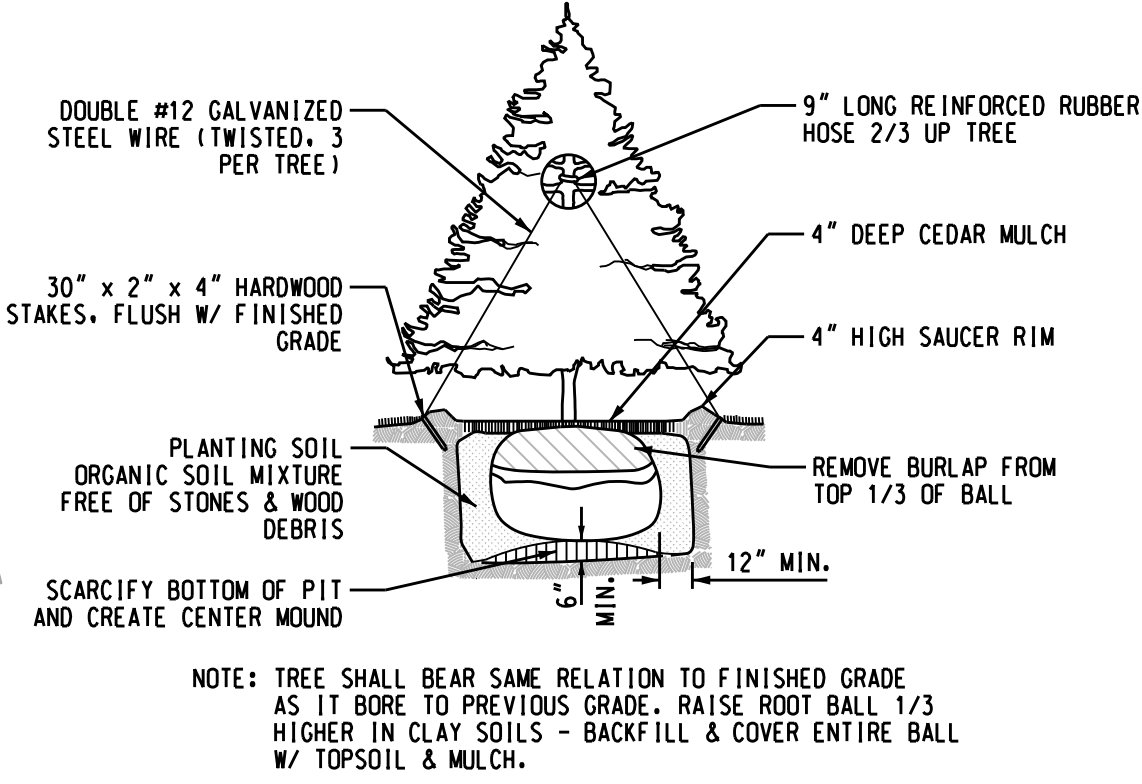


10 STANDARD NOTES (7th EDITION):

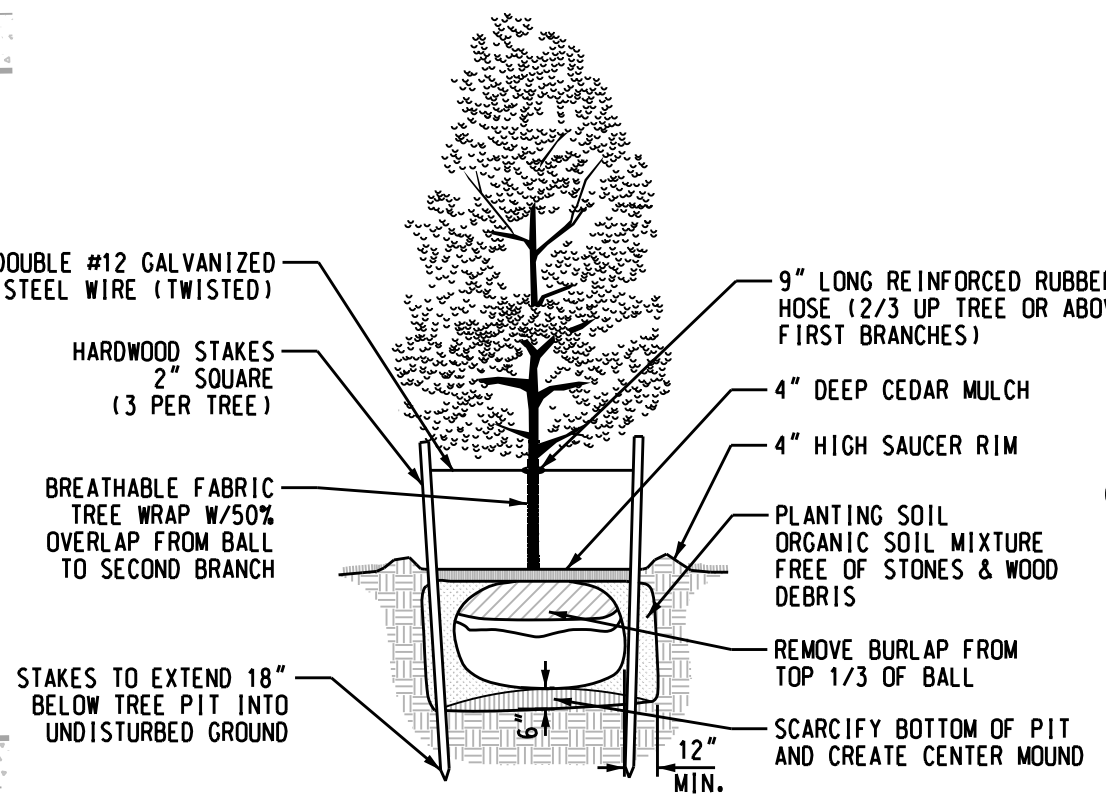
- EXTENSION OF PUBLIC UTILITIES: ALL PUBLIC SANITARY SEWER AND/OR WATERMAIN SHALL BE EXTENDED TO THE FURTHEST LIMITS OF THE PROPERTY, INCLUDING CORNER LOTS, WITH THE PIPE SIZE AND MATERIAL APPROVED BY CDCC-WWS. THIS IS NECESSARY FOR PLAN APPROVAL. FOR WATER SERVICE OF 1" OR LESS OR A BUILDING ON A CORNER LOT, THE REQUIREMENTS TO EXTEND THE PUBLIC WATERMAIN AND/OR SANITARY SEWER ALONG BOTH PROPERTY LINES WILL BE REVIEWED. FINAL DETERMINATION SHALL BE MADE BY CDCC-WWS. N/A
- WATERMAIN LOOPING: ALL PUBLIC WATERMAINS SHALL BE LOOPED WHENEVER POSSIBLE. THE PIPE SIZING SHALL BE APPROVED BY CDCC-WWS. N/A
- INDUSTRIAL PRETREATMENT PROGRAM (IPP): THIS PERMIT IS REQUIRED FOR ALL COMMERCIAL AND INDUSTRIAL DISCHARGES. THE OWNER SHALL OBTAIN AN INDUSTRIAL PRETREATMENT DISCHARGE PERMIT PRIOR TO THE ISSUANCE OF A SEWER CONNECTION PERMIT. INDUSTRIAL DISCHARGE PERMITS ARE NON-TRANSFERABLE. CHANGES IN FACILITY USE WILL REQUIRE A NEW INDUSTRIAL DISCHARGE PERMIT. IN PROGRESS
- SOIL EROSION: THE DEVELOPER SHALL SUBMIT A DETAILED SOIL EROSION AND SEDIMENTATION CONTROL PLAN AND OBTAIN AN ACT 451 PART 91, SOIL EROSION AND SEDIMENTATION CONTROL PERMIT. THIS INCLUDES THE PAYMENT OF FEES AND THE PROVIDING OF NECESSARY BONDS. NO EARTH CHANGES OR EXCAVATION SHALL BE STARTED PRIOR TO THE ISSUANCE OF THIS PERMIT. THE DEVELOPER SHALL PROTECT ALL EXISTING AND PROPOSED STORM SEWER FACILITIES ON AND ADJACENT TO THE SITE DURING EXCAVATION AND CONSTRUCTION. ALL SEDIMENT SHALL BE CONTAINED ON SITE. ANY SILT IN COUNTY DRAINS, STORM SEWER, CULVERTS, ETC., AS A RESULT OF THIS PROJECT, SHALL BE REMOVED BY THE DEVELOPER AT THE COST OF THE DEVELOPER. IN PROGRESS
- FLOOD PLAIN OR WETLAND CONSTRUCTION: THE DEVELOPER SHALL APPLY TO THE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY (EGLE) FOR A PERMIT FOR THE ALTERATION AND/OR OCCUPATION OF A FLOOD PLAIN OR FLOODWAY, AS REQUIRED UNDER PA 451. EVIDENCE OF THIS PERMIT MAY BE REQUIRED PRIOR TO PLAN APPROVAL BY CDCC-WWS. N/A
- NPDES STORM WATER DISCHARGE PERMIT: THE OWNER OF THE PROPERTY SHALL OBTAIN A NPDES STORM WATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES FROM EGLE AS REQUIRED UNDER PUBLIC ACT 451. THE NOTICE OF COVERAGE FORM SHALL BE SUBMITTED THROUGH CDCC-WWS WITH THE SOIL EROSION CONTROL PERMIT APPLICATION. ALL EGLE FEES SHALL ACCOMPANY THE NOTICE OF COVERAGE. EVIDENCE OF THIS PERMIT MAY BE REQUIRED PRIOR TO PLAN APPROVAL BY CDCC-WWS. N/A
- GENESEE COUNTY PERMIT TO CONSTRUCT A PUBLIC UTILITY: AFTER THE APPROVAL OF THIS PRELIMINARY PLAT OR SITE PLAN, THE DEVELOPER SHALL SUBMIT A DETAILED PLAN FOR CONSTRUCTION OF ALL PUBLIC SANITARY SEWER AND WATERMAIN. THE PLANS MUST HAVE CDCC-WWS APPROVAL, AN S-PERMIT ISSUED, AND APPROVAL FROM THE EGLE PRIOR TO BEGINNING OF CONSTRUCTION. N/A
- GENESEE COUNTY ROAD COMMISSION PERMIT: THE DEVELOPER SHALL OBTAIN A PERMIT FROM THE GENESEE COUNTY ROAD COMMISSION TO PERFORM WORK WITHIN THE GENESEE COUNTY ROAD COMMISSION RIGHT-OF-WAY. ALL FEES FOR THE PERMIT, BONDS AND INSURANCES ARE THE RESPONSIBILITY OF THE DEVELOPER. N/A
- MUNICIPALITY SANITARY SEWER AND WATER PERMIT: PRIOR TO THE ISSUANCE OF A BUILDING PERMIT BY THE LOCAL MUNICIPALITY, THE DEVELOPER SHALL BE REQUIRED TO OBTAIN A SANITARY SEWER AND/OR WATER TAP-IN PERMIT FROM THE LOCAL MUNICIPALITY, IF AUTHORIZED, OR CDCC-WWS. IN PROGRESS
- STATE CONSTRUCTION PERMITS: THE SANITARY SEWER AND WATERMAIN CONSTRUCTION PERMIT APPLICATION FROM THE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES & ENERGY (EGLE) SHALL BE SUBMITTED TO THE EGLE AFTER RECEIVING APPROVAL FROM CDCC-WWS. CONSTRUCTION SHALL NOT BEGIN UNTIL THESE STATE PERMITS ARE ISSUED. N/A



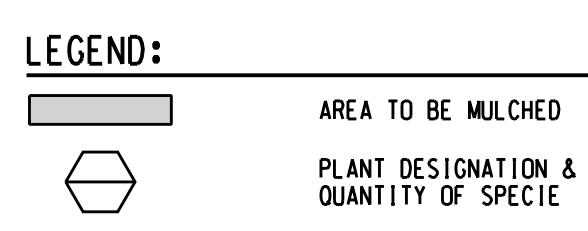
PLANTING REQUIREMENTS		
LOCATION	MINIMUM REQUIREMENT	PROVIDED
ROAD R/W GREENBELT	GREENBELT LANDSCAPING TO PROVIDE OBSCURING EFFECT	6 EXIST. DECIDUOUS TREES, 8 NEW CONIFEROUS TREES
PARKING LOT AREA	ONE (1) TREE PER 3,000 SF OF PARKING AREA TOTAL PARKING & DRIVE AREA = 18,360 SF NO. OF TREES REQ'D. = 7	TOTAL TREES PROVIDED WITHIN OR AROUND PARKING AREA = 11 TREES
BUFFER ZONE (WEST)	NONE REQUIRED	EXIST. WOODS 2 DECIDUOUS TREE
BUFFER ZONE (EAST)	NON REQUIRED	2 CONIFEROUS TREES 4 DECIDUOUS TREES 19 SHRUBS
INTERIOR LANDSCAPING	LOT AREA: 40,000 SF (NET) REQUIRED LANDSCAPE AREA: 7.5% OF LOT AREA = 3,000 SF	PROVIDED LANDSCAPE AREA: 3,080 SF



EVERGREEN TREE DETAIL
NO SCALE

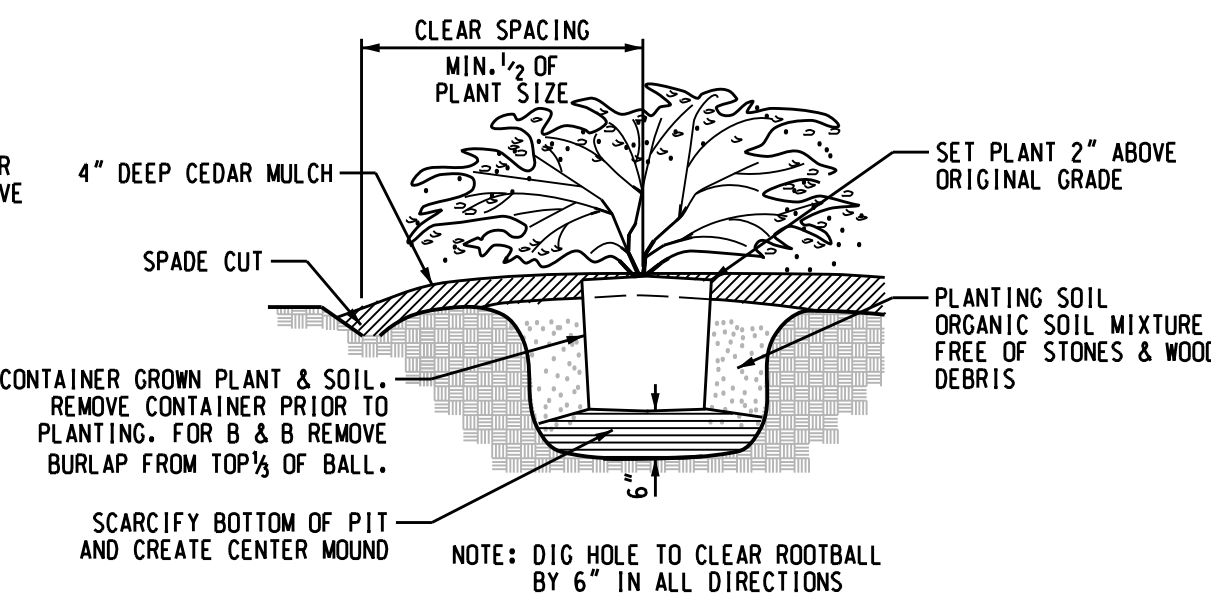


TREE PLANTING DETAIL
NO SCALE



LANDSCAPING NOTES:

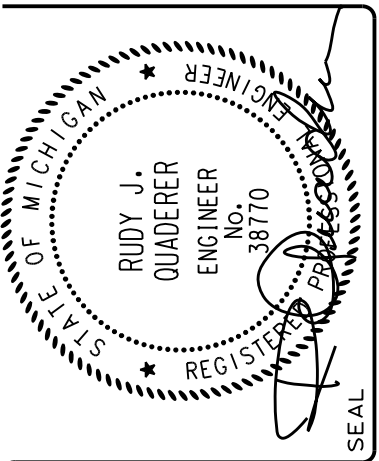
- INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERMEN LANDSCAPE STANDARDS LATEST EDITION.
- PRIOR TO BEGIN OF LANDSCAPE WORK, CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES. CONTRACTOR SHALL CONTACT MISS DIG (811) FOR LOCATIONS OF ALL PRIVATE UTILITIES. ANY DAMAGE OR INTERRUPTIONS OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COORDINATE ALL RELATED WORK ACTIVITIES WITH OTHER TRADES AND REPORT ANY UNACCEPTABLE WORK CONDITIONS TO OWNER PRIOR TO COMMENCING WORK.
- NUMERICAL VALUE OF PLANT MATERIAL SHOWN SHALL TAKE PRECEDENCE OVER GRAPHIC REPRESENTATION. VERIFY AND REPORT ANY DESCENDANTS WITH LANDSCAPE ARCHITECT.
- SUBSTITUTIONS OR DEVIATIONS FROM THE LANDSCAPE PLAN MUST BE APPROVED BY THE MUNICIPALITY AND/OR GOVERNING AGENCY PRIOR TO COMMENCING.
- NEW LANDSCAPE BEDS WITHIN PREVIOUS BUILDING AND PAVEMENT AREAS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A MINIMUM DEPTH OF 24" AND BACKFILLED WITH GOOD MEDIUM TEXTURED ORGANIC PLANTING SOIL FREE OF ROCKS LARGER THAN 1".
- PROTECT EXISTING TREES TO REMAIN WITH TEMPORARY FENCING PLACED AT THE DRIP LINE. NO GROUND DISTURBANCE OR STORAGE OF MATERIAL SHALL OCCUR WITHIN THE DRIP LINE LIMITS.
- COORDINATE PLACEMENT OF PLANTS WITH UNDERGROUND UTILITY LOCATIONS. MAKE ADJUSTMENTS AS REQUIRED TO AVOID PLANTING OVER THE UTILITIES. DO NOT PLANT SHADE OR EVERGREEN TREES BELOW OVERHEAD WIRES. IF CONFLICT OCCURS, CONTACT LANDSCAPE ARCHITECT TO ADJUST LOCATION OF TREES.
- BACKFILL ISLANDS FROM SUBGRADE TO THE TOP OF CURB WITH ON-SITE TOPSOIL UNLESS OTHERWISE NOTED ON PLAN. FINISHED GRADE IN CENTER OF ISLAND SHALL BE 4" TO 6" HIGHER THAN TOP OF CURB TO PROVIDE POSITIVE DRAINAGE TO PERIMETER OF CURB ISLAND.
- PLACE 4" THICK BY 4' DIAMETER SHREDDED CEDAR OR CYPRESS BARK MULCH RING AT THE BASE OF ALL NEW TREES IN LAWN AREA. CUT LAWN AREA IN A SMOOTH UNIFORM CIRCULAR LINE.
- ALL GREEN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE GRADED AND TOPPED WITH MINIMUM 4" DEEP TOPSOIL AND SEEDED & MULCHED. REFER TO PLAN FOR SEED MIXTURE AND APPLICATION RATE.
- ALL EXISTING TREES AND SHRUBS NOTED TO REMAIN SHALL BE PROPERLY PRUNED, TRIMMED, THINNED AND SHAPED BY A QUALIFIED NURSESMAN OF ARBORIST. ALL DEAD LIMBS AND BRANCHES SHALL BE REMOVED FROM SITE.
- UNLESS NOTED OTHERWISE, LANDSCAPE BEDS ADJACENT TO LAWN AREAS SHALL RECEIVE LANDSCAPE EDGING AS DETAILED ON PLAN.
- ALL LANDSCAPING SHALL BE COMPLETED WITHIN 6 MONTHS OF COMPLETION OF BUILDING.
- ALL STAKING MATERIALS AND WRAPPING SHALL BE REMOVED OFF SITE WITHIN ONE YEAR AFTER INSTALLATION.
- LANDSCAPING ITEMS SHALL NOT INTERFERE WITH THE CLEAR VISION AREAS. TREES WITHIN PARKING LOT ISLANDS SHALL HAVE A CLEAR VIEW OF 4'-6" MINIMUM TO THE FIRST BRANCH AT MATURITY.
- ALL PLANT MATERIALS INCLUDING LAWN AREAS SHALL BE WATERED, FERTILIZED, TRIMMED, MOWED AND GENERALLY MAINTAINED BY THE CONTRACTOR TO A HEALTHY GROWING CONDITION FOR A PERIOD OF 30 DAYS AFTER FINAL COMPLETION AND AFTER LAWN IS CUT FOR FIRST TIME. CONTRACTOR SHALL SUBMIT A ONE (1) YEAR WARRANTY FROM COMPLETION DATE AND BE RESPONSIBLE TO REPLACE ANY DISEASED OR DEAD PLANT MATERIAL WITHIN THAT PERIOD OF TIME WITHOUT ANY COST TO THE OWNER.



SHRUB PLANTING DETAIL
NO SCALE

TREE SCHEDULE				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
AS	ACER SACCHARUM 'COMMEMORATION'	COMMEMORATION SUGAR MAPLE	2.5" CAL	1
MS	MALUS 'SNOWDRIFT'	SNOWDRIFT CRABAPPLE	2" CAL	3
MU	MALUS 'SPRING SNOW'	SPRING SNOW CRABAPPLE	2" CAL	3
PG	PICEA GLAUCA	WHITE SPRUCE	6'-8" HT	5
PP	PICEA PUNGENS	COLORADO SPRUCE	6'-8" HT	5
PR	PYRUS CALLARYANA 'REDSPIRE'	REDSPIRE PEAR	2.5" CAL	1
TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5" CAL	1

SHRUB SCHEDULE				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY
AC	AMELANCHIER LAEVIS 'CUMULUS'	CUMULUS SERVICEBERRY	4' HT	1
BA	BERBERIS ATROPURPUREA 'CRUIZAM'	CRIMSON RUBY BARBERRY	18" HT	4
EA	EUONYMUS ALATUS 'COMPACTUS'	COMPACT BURNING BUSH	24" HT	16
ID	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY MICHIGAN HOLLY	24" HT	3
LV	LIGUSTRUM VICARYI	GOLDEN VICARY PRIVET	18" HT	19
SF	SPIREA JAPONICA 'GOLDMOUND'	GOLD MOUND SPIREA	NO. 3 CONT	6
VC	VIBURNUM X BURKWOODII	BURKWOOD VIBURNUM	NO. 5 CONT	2



DESIGNED	04-03-25	REISSUED TO VIENNA TWP.
CHECKED	02-10-25	ISSUED TO VIENNA TWP.
FIELD CREW	12-03-24	PRELIM. TOPOGRAPHY
NO.	DATE	SUBJECT
		REVISION OR ISSUE

DRAWN	BRZEZINSKI
CHECKED	BRZEZINSKI
FIELD CREW	RD / CB

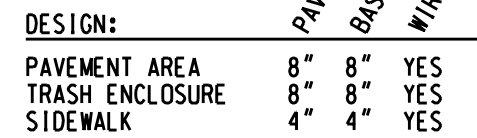
GAS STATION / CONVENIENCE STORE
PROPOSED ADDITION / BLDG. RENOVATION
4465 VIENNA ROAD
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN
SITE LANDSCAPE PLAN

Griggs Quaderer, Inc.
8308 OFFICE PARK DRIVE
GRAND BLANC, MI 48499
PH: (517) 695-0154
WWW.GQINCORP.COM
RUDY@GQINCORP.COM
CHRIS@GQINCORP.COM
CIVIL ENGINEERING - LAND SURVEYING
SITE PLANNING
20th ANNIVERSARY 2004 - 2024

PHASE: SPA
JOB NO.: 241101
C500



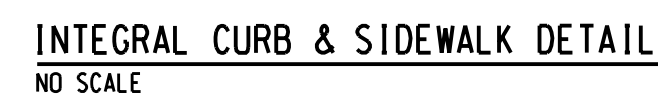
NOTE: AS AN ALTERNATE, CONTRACTOR IS ALLOWED TO SUBSTITUTE
MOOT 21AA CRUSHED CONCRETE FOR THE AGGREGATE BASE.



CONCRETE PAVEMENT SECTION
NO SCALE



CURB & GUTTER DETAIL
NO SCALE ONSITE ONLY



GUTTER PAN DETAIL
NO SCALE ON-SITE ONLY



TRASH ENCLOSURE DETAIL
NO SCALE



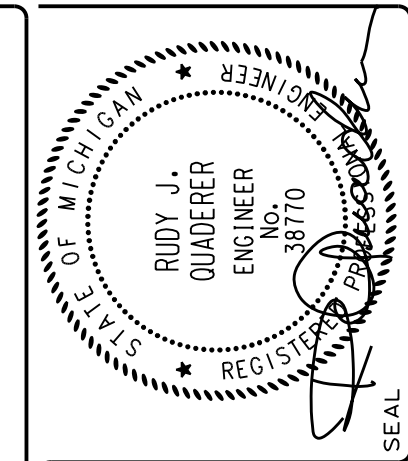
FRONT ELEVATION



GUARD POST DETAIL
NO SCALE



UNDERDRAIN (UD)
NO SCALE

[illegible]

DRAWN	
DESIGNED	
CHECKED	BRZEZINSKI
FIELD CREW	R0 / CB

**GAS STATION / CONVENIENCE STORE
PROPOSED ADDITION / BLDG. RENOVATION**

4465 VIENNA ROAD
VIENNA TOWNSHIP, COUNTY OF GENESEE, STATE OF MICHIGAN

SITE DETAILS

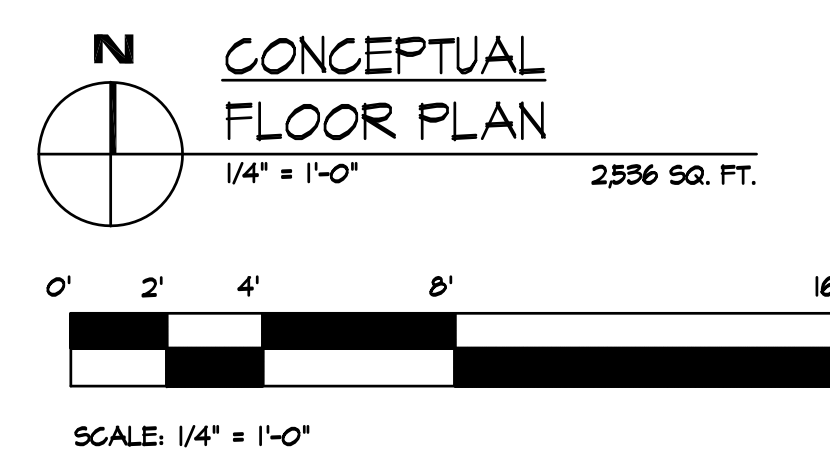
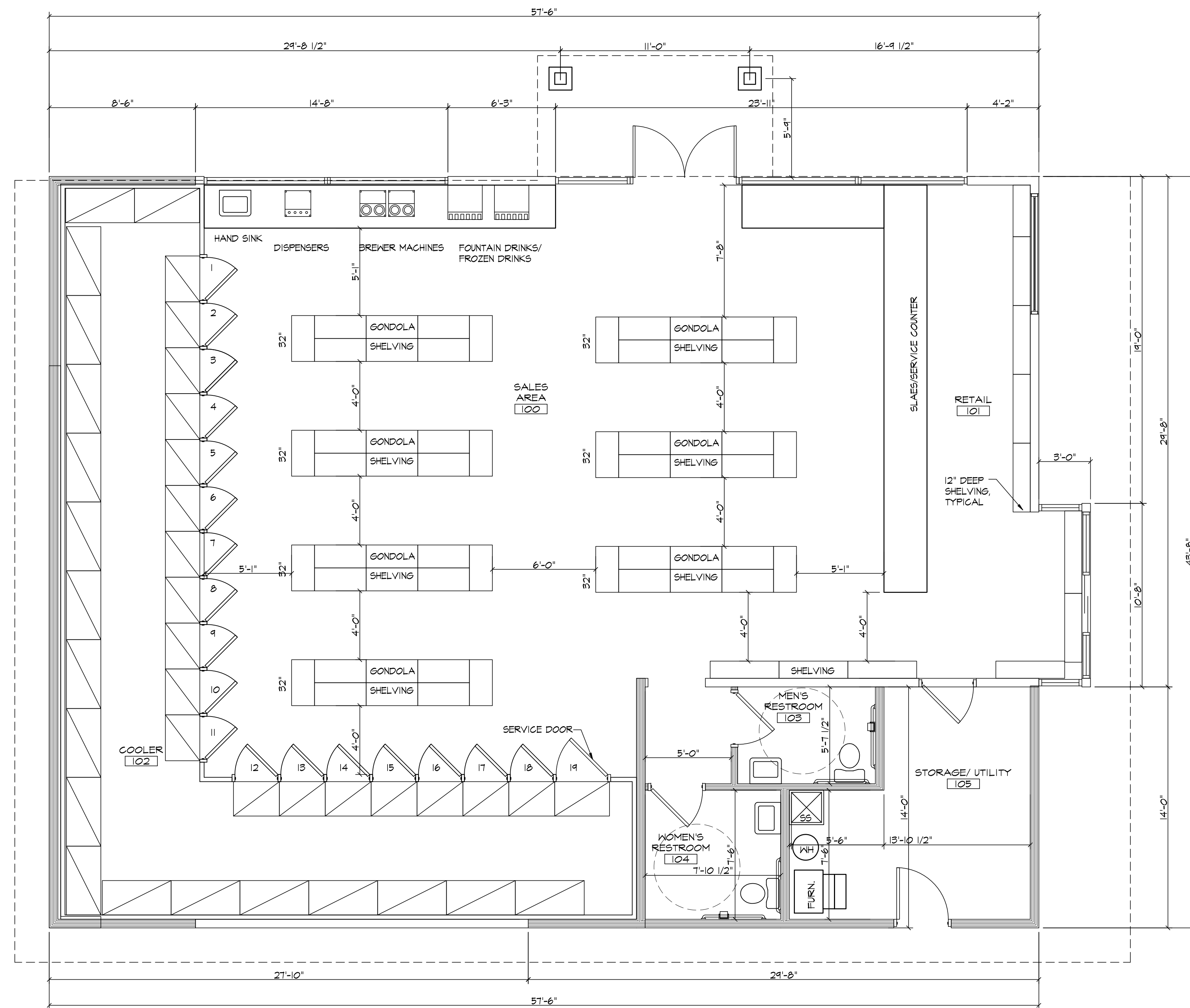
Griggs Quaderer, Inc.

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**CIVIL ENGINEERING · LAND SURVEYING
SITE PLANNING**

JOB NO.: 241101 PHASE: SPA

0060



REVISIONS	
▲	
▲	
▲	
▲	
JOB NO: 024-010	
DATE: 2-15-2024	
DRAWN BY: JKC	
SCALE: AS NOTED	
SHEET NO:	

