



3121 E. Grand River Howell, MI 48843
517.546.4836 fax 517.548.1670
www.bosseng.com

February 23, 2022

Rick Boisvert, CFPS
Fire Marshal
Brighton Area Fire Authority
615 W. Grand River Ave.
Brighton, MI 48116

Re: A & J Cartage Site Plan Review letter dated January 19, 2022

Dear Mr. Boisvert,

Per the A & J Cartage Site Plan Review letter noted above, see the responses below.

1. Acknowledged.
2. A note regarding building address and letter height can be found on the Site Plan Sheet 3.
3. Building-mounted fire lane signs have been added to the Site Plan Notes on Sheet 3 and a detail of the sign has been added to Construction Detail Sheet 7. A note regarding access roads during construction has been added to the Grading, Drainage and SESC Sheet 4.
4. A note regarding the location of a Knox Box can be found on the Site Plan Notes Sheet 3.
5. Acknowledged. These requested names will be available when selected by the Owner.

Sincerely,

BOSS ENGINEERING COMPANY

A handwritten signature in cursive script that reads "Jennifer M. Austin".

Jennifer M. Austin, P.L.A.
Landscape Architect



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February 23, 2022

Kelly Van Marter, AICP
Planning Director and Asst. Township Manager
Genoa Township
2911 Dorr Road
Brighton, MI 48116

Re: A & J Cartage Site Plan Review letter by SAFEbuilt dated January 20, 2022

Dear Ms. Van Marter,

Per the A & J Cartage Site Plan Review letter noted above, see our responses to the SAFEbuilt comments below.

C. Special Land Use Review

1. More details regarding building materials are indicated on the Architectural drawings in this resubmittal. See drawings by Pucci & Volmar at the end of the drawing set. In addition, samples of proposed materials will be presented at the Planning Commission meeting.

D. Use Conditions

2. The impact statement information has been added to the Site Plan Sheet 3 under Impact Statement Notes. Approximately 20 gallons of motor oil for routine maintenance of a tractor trailer will be stored in the proposed building, in addition to typical tractor trailer maintenance materials and equipment.
4. No outdoor storage will be within the required 25-foot side yard setbacks nor any other required yard setback (See note on Site Plan Sheet 3.)
6. An additional tractor-trailer truck turning template has been added to Circulation Plan Sheet 6 as requested to demonstrate truck maneuvering on-site.
7. The buffer zone requirement for the east property line is not applicable as there is an existing 70-foot-deep woodland along that property line which will remain. The woodland is predominantly Boxelder and Ash trees with understory/brush screening. In addition, berms are provided as buffers along the west and north property lines. An existing berm on the adjacent south property which eliminates the need for a berm on our project site.
8. The height of tractor trailers to be stored outdoors are typically 13.5'. A note with this information has been added to Site Plan Sheet 3 Notes.

E. Site Plan Review

1. Calculations for Impervious surface lot coverage 31 % (0.62 acres). This information has been added to Site Details on the Site Plan Sheet 3.
2. More details regarding building materials are indicated on the Architectural drawings in this resubmittal. See Drawings by Others at the end of the drawing set. In addition, samples of proposed materials will be presented at the Planning Commission meeting.



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4. Acknowledged
5. Parking calculations have been adjusted to industrial use as required. 6 spaces are provided. See Site Plan Sheet 3.
6. See the response to #7 Use Conditions above.
7. Light fixtures have been changed to full cut off lights. See the revision on Sheet 6.
8. Waste generated at this site is minimal and typically disposed of off-site by owner. Should it become necessary, curbside pickup would be utilized.

Sincerely,

BOSS ENGINEERING COMPANY

A handwritten signature in black ink that reads "Jennifer M. Austin". The signature is written in a cursive, flowing style.

Jennifer M. Austin, P.L.A.
Landscape Architect



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February 23, 2022

Shelby Byrne
Project Engineer
Tetra Tech
3497 Coolidge Road
East Lansing, MI 48823

Re: A & J Cartage Site Plan Review No. 1 dated January 19, 2022

Dear Ms. Byrne,

Per the A & J Cartage Site Plan Review No. 1 letter noted above, see the responses below.

1. On-site detention basin with forebay has been added. See calculations on Utility Sheet 5.
2. ACKNOWLEDGED. According to Genoa Township Zoning Ordinance Article 8.02.02(b)(3) Industrial Districts Outdoor Sales or Storage, "...The Township Board, following a recommendation of the Planning Commission and the Township Engineer, may approve a gravel surface for all or part of the display or storage area for low intensity activities, upon finding that neighboring properties and the environment will not be negatively impacted." No new impacts are expected for the site. Existing use will continue with the same traffic volume: 2 tractor-trailers leaving the site Monday through Friday from 6-8 a.m. and returning to the site between 6-7 p.m.
2. This has been revised, see Utility Plan Sheet 5.
3. The water service has been changed to 1-inch, see Utility Plan Sheet 5.
4. Notes have been added to the Site Plan Sheet 3 that gravel areas adjacent to the new drive should be restored with topsoil, seed and mulch. In addition, gravel currently within the south side yard setback will be removed and re-stored with topsoil, seed and mulch.
5. The Grading Plan Sheet 4 has been updated with additional grades to show positive drainage.
6. MHOG Water and Sewer details have been added to drawing set on Sheet 8.
7. Sanitary Sewer Service notes on Detail Sheet 7 have been updated.

Sincerely,

BOSS ENGINEERING COMPANY

A handwritten signature in cursive script that reads "Jennifer M. Austin".

Jennifer M. Austin, P.L.A.
Landscape Architect

**IMPACT ASSESSMENT
For
A & J Cartage
GENOA TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN**

Prepared for:

**Applicant
A & J Cartage
1247 Fendt Rd.
Howell, Michigan 48843**

**Owner:
Mr. Al Halliday
1247 Fendt Rd.
Howell, MI, 48843**

Prepared by:



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**Jennifer M. Austin, PLA
Boss Engineering
3121 E Grand River
Howell, MI 48843**

Revised February 23, 2022
(January 6, 2022 original submittal)

SITE PLAN FOR A & J CARTAGE

PART OF NW QUARTER, SECTION 8 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

PROPERTY DESCRIPTION:

PROPERTY DESCRIPTION AS SUPPLIED BY LIVINGSTON COUNTY GIS:
SEC 8 T2N R5E GENTECH INDUSTRIAL PARK SITE CONDOMINIUM SITE 10

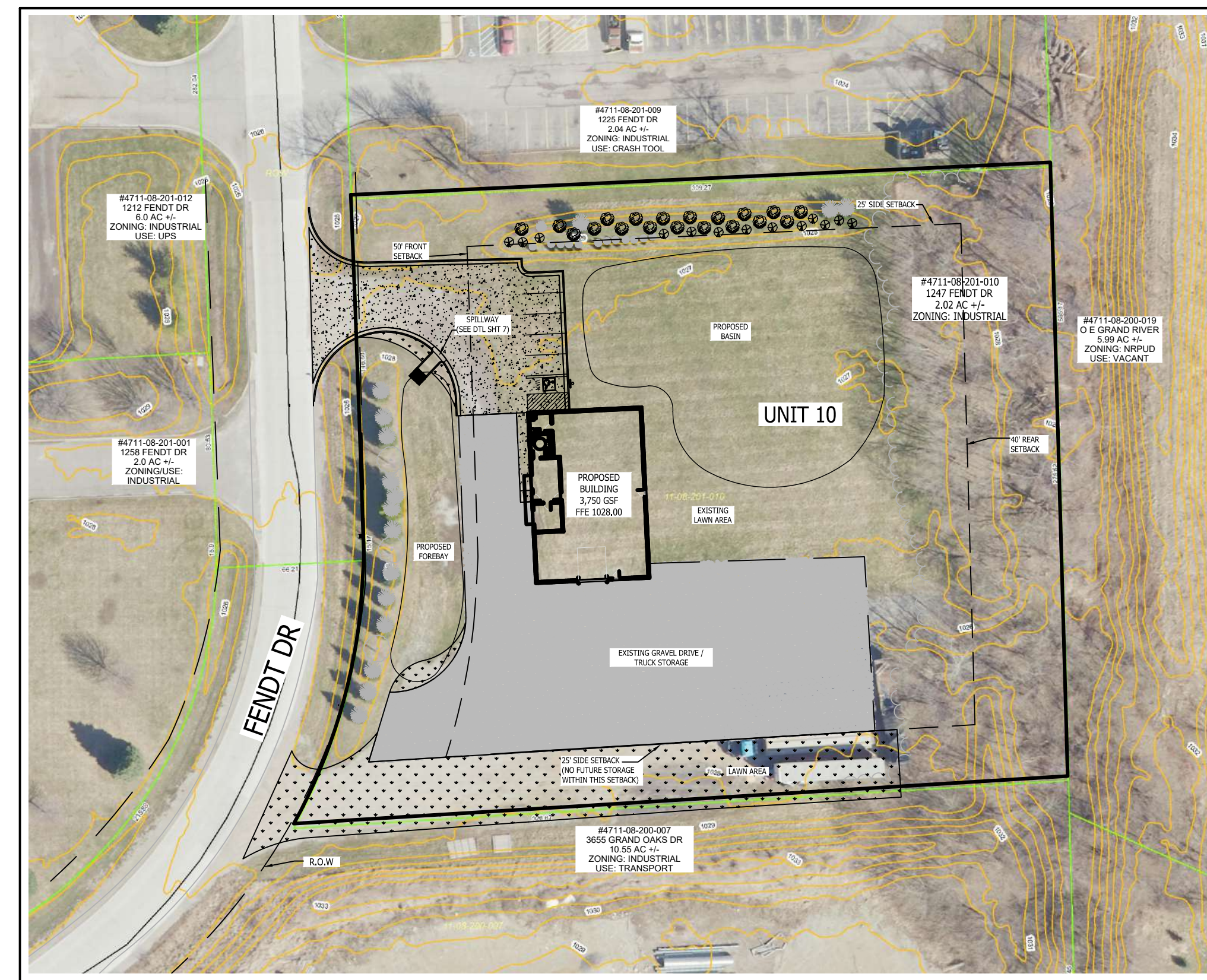
CONSTRUCTION NOTES

- THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING NOTES AND ANY WORK INVOLVED SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.
 - DO NOT SCALE THESE DRAWINGS AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
 - A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
 - IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
 - ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
 - PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
 - ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS.
 - ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
 - THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHTS-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
 - THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
 - THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
 - THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
 - THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 - ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).
 - ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
 - NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
 - DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
 - IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
 - NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
 - ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDER OR SEEDED AS SPECIFIED OR DIRECTED BY THE ENGINEER.
 - ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
 - TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
 - ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
 - AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.
 - ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
 - NO SEEDING SHALL BE DONE AFTER OCTOBER 15 WITHOUT APPROVAL OF THE ENGINEER.
 - ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
 - SOIL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
 - ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.



LOCATION MAP

NO SCALE



OVERALL SITE MAP

NO SCALE

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	SITE PLAN / LANDSCAPE PLAN
4	GRADING, DRAINAGE AND SESC PLAN
5	UTILITY PLAN
6	LARGE VEHICLE CIRCULATION PLANS / LIGHTING PLAN
7	CONSTRUCTION DETAILS
8	MHOG WATER AND SEWER DETAILS
SHEET NO.	DRAWINGS BY PUCCI + VOLLMAR ARCHITECTS, PC
A1	FLOOR PLAN
A2	COLOR EXTERIOR ELEVATIONS

PREPARED FOR:

A & J CARTAGE
1247 FENDT DRIVE
HOWELL, MI 48843
CONTACT: MR. AL HALLIDAY
517-861-0515

PREPARED BY:

BEBOSS
Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

ARCHITECT:

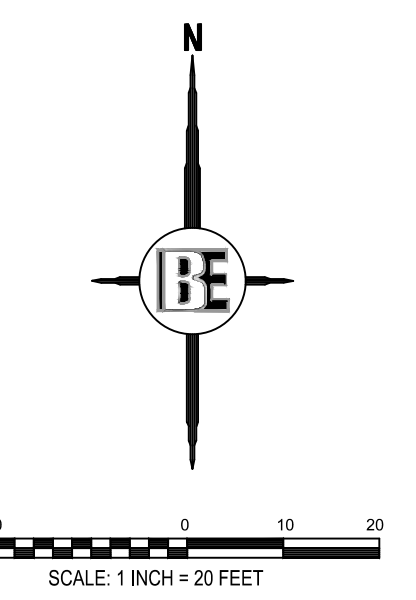
PUCCI + VOLLMAR ARCHITECTS, PC
508 E GRAND RIVER AVE, SUITE 100B
BRIGHTON, MI 48116
CONTACT: MR. KARL VOLLMAR
810-225-2930

INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

FOR SITE PLAN APPROVAL ONLY!
NOT FOR CONSTRUCTION

										1
1	JA	BL	PER TWP REVIEW		02/23/22	ISSUE DATE:	01/06/22			
	NO	BY	CK	REVISION		DATE				JOB NO: 21-581



LEGEND	
PROPOSED (PR)	EXISTING (EX)
FF	FF
FG	FG
T/A	T/A
T/W	T/W
F/L	F/L
T/P	T/P
B/P	B/P
RM	RM
INV	INV
MH	MH
IN	IN
CB	CB
RY	RY
ES	ES
OV	OV
HY	HY
UP	UP
SL	SL
FM	FM
PS	PS
ST	ST
WM	WM
WL	WL
FO	FO
OH	OH
C	C
E	E
T	T
F	F
D	D
SB	SB
NS	NS
TBR	TBR
SM	SM
SD	SD
SAT	SAT
CON	CON
ASP	ASP
MOD	MOD
SC	SC

SOIL NOTES:
 THE PROJECT SITE IS COMPRISED OF THE FOLLOWING SOIL TYPE ACCORDING TO THE USDA NATURAL RESOURCES CONSERVATION SERVICE:
 CvraaB -- CONOVER LOAM, 0 TO 4 % SLOPES
 MoB -- WAWASEE LOAM, 2 TO 6 % SLOPES

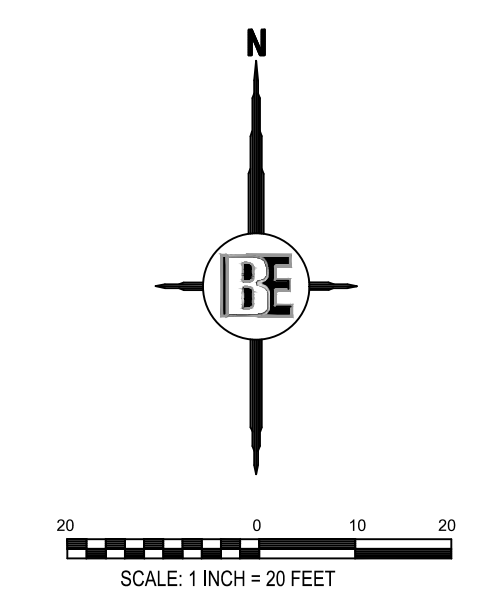
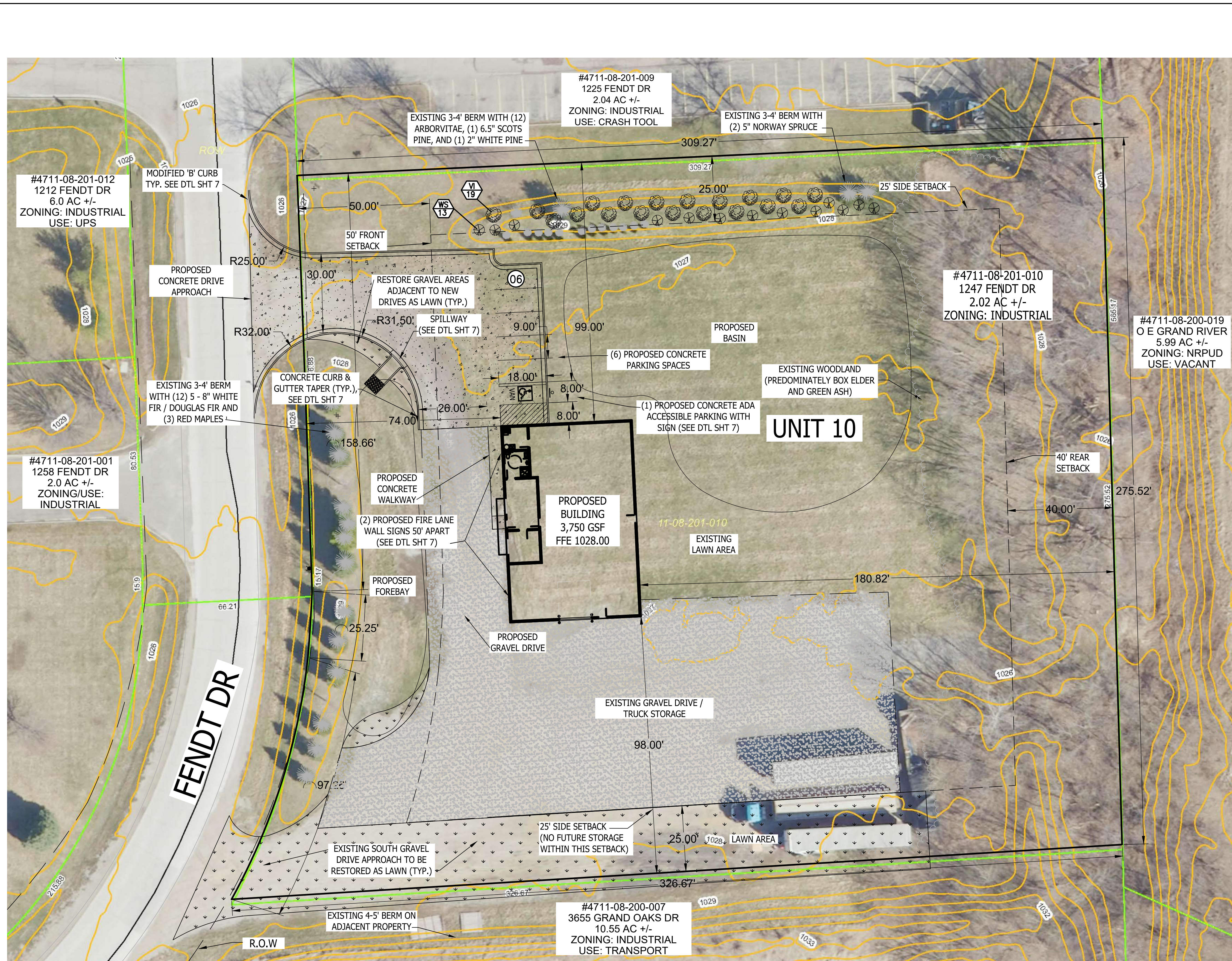
BEBOSS Engineering
 Engineers Surveyors Planners Landscape Architects
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 HOWELL, MI. 48843
 517.546.4836 FAX 517.548.1670

PROJECT: A & J CARTAGE PROPOSED BUILDING
 PREPARED FOR: A & J CARTAGE
 1247 FENDT DRIVE
 HOWELL, MI. 48843
 517-981-0515

TITLE: EXISTING CONDITIONS & DEMOLITION PLAN

REVISION PER	DATE	BY
1	2/23/2022	JA

DESIGNED BY: JA
 DRAWN BY: JA
 CHECKED BY: BL
 SCALE: 1" = 30'
 JOB NO: 21-581
 DATE: 01/06/2022
 SHEET NO. 2



LEGEND

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
FF	FF	FINISHED FLOOR ELEVATION
FG	FG	FINISHED GRADE ELEVATION
T/A	T/A	TOP OF ASPHALT
T/C	T/C	TOP OF CURB / CONCRETE
T/W	T/W	TOP OF WALK
F/L	F/L	FLOW LINE
T/P	T/P	TOP OF PIPE
B/P	B/P	BOTTOM OF PIPE
RM	RM	RIM ELEVATION
INV	INV	INVERT ELEVATION
MH	MH	MANHOLE STRUCTURE
IN	IN	INLET STRUCTURE
CB	CB	CATCHBASIN STRUCTURE
RY	RY	REAR YARD STRUCTURE
ES	ES	END-SECTION
OV	OV	GATE VALVE STRUCTURE
HY	HY	HYDRANT
UP	UP	UTILITY POLE
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
T	T	TELEPHONE
F	F	FENCE
D	D	SILT FENCE
W	W	WETLAND BOUNDARY
L	L	LIMITS OF GRADING/CLEARING
IN	IN	INLET / CATCHBASIN
FL	FL	FLARED END-SECTION
HY	HY	HYDRANT
UP	UP	UTILITY POLE
S	S	SIGN
NFV	NFV	NOT FIELD VERIFIED TO BE REMOVED
SS	SS	SANITARY SEWER LABEL
SS	SS	STORM SEWER LABEL
WM	WM	WATER MAIN LABEL
SE	SE	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
C	C	CONCRETE
A	A	ASPHALT
M	M	MODIFIED CURB

LANDSCAPE LEGEND

	EXISTING DECIDUOUS TREE
	PROPOSED DECIDUOUS TREE
	PROPOSED CONIFER TREE
	PROPOSED LARGE DECIDUOUS SHRUB
	PROPOSED DECIDUOUS SHRUB

SITE DATA:

GENOA TOWNSHIP
 PARCEL # 4711-08-201-010
 1247 FENDT DR
 HOWELL, MI 48843
 2.02 AC +/-

ZONING: INDUSTRIAL
 USE: CONTRACTORS YARD WITH OUTDOOR STORAGE
 BUILDING SQUARE FOOTAGE (FOOTPRINT): 3,750 GSF
 MIN. LOT AREA REQUIRED FOR ZONING: 1 ACRE
 TOTAL EX. LOT AREA: 2.02 AC +/- (-87,991.00 SQ. FT.)
 MIN. LOT WIDTH: 150 FT
 TOTAL EX. LOT WIDTH: 281.17 FT
 MAX. LOT COVERAGE: 40% BLDG, 85% IMPERVIOUS
 PROPOSED LOT COVERAGE: 4.2% BLDG, 31% IMPERVIOUS
 (IMPERVIOUS=EXISTING AND PROPOSED GRAVEL,
 PROPOSED CONCRETE PARKING AND SIDEWALK AND
 PROPOSED BUILDING)

MIN. SETBACKS REQUIRED:
 FRONT: 50-FT IF NO PARKING IN FRONT YARD
 REAR: 40-FT
 SIDES: 25-FT

PROPOSED SETBACKS:
 FRONT (WEST): 74 FT
 SIDE (NORTH): 99 FT
 SIDE (SOUTH): 98 FT
 REAR (EAST): 180 FT

PARKING CALCULATION:
 LIGHT INDUSTRIAL = 1.5 SPACE PER EACH 1,000 SF OF
 GROSS FLOOR AREA
 3,750 GSF / 1,000 SF = 3.75 * 1.5 = 5.625 SPACES

SPACES REQUIRED: 6 SPACES
 PROVIDED: 6 SPACES INCLUDING 1 ADA SPACE

SITE PLAN NOTES

- ALL GRAVEL AREAS ADJACENT TO THE NEW CONCRETE DRIVE SHOULD BE RESTORED AS LAWN WITH TOPSOIL, SEED AND MULCH FOR STABILIZATION.
- BUILDING ADDRESS SHALL CONSIST OF A MINIMUM OF 6" HIGH CHARACTERS OF CONTRASTING COLOR AND BE CLEARLY VISIBLE FROM THE STREET. THE FINAL SIZE AND LOCATION OF CHARACTERS SHALL BE VERIFIED WITH THE FIRE MARSHALL PRIOR TO INSTALLATION.
- A KEY BOX/KNOX BOX SHALL BE LOCATED NEAR THE FRONT ENTRY (FINAL LOCATION TO BE DETERMINED BETWEEN THE OWNER & FIRE MARSHALL).
- A MINIMUM VERTICAL CLEARANCE OF 13.5' SHALL BE MAINTAINED THROUGHOUT THE SITE FOR EMERGENCY VEHICLE ACCESS.
- ALL DRIVEWAYS AND PARKING LOT AISLES SHALL BE ACCESSIBLE AT ALL TIMES FOR EMERGENCY VEHICLES - REGULAR SNOW REMOVAL.
- THE HEIGHT OF SEMI-TRAILERS TO BE STORED OUTDOORS ARE TYPICALLY 13.5'.

IMPACT STATEMENT NOTES

- THIS USE IS COMPATIBLE WITH SURROUNDING INDUSTRIAL USES AS ONLY 4-6 TRAILERS WILL BE STORED ON SITE. THE PROJECT PROPOSES THE CONSTRUCTION OF AN OFFICE BUILDING WITH INTERMITTENT INDOOR PARKING/STORAGE OF A TRACTOR TRAILER AND RELATED MAINTENANCE MATERIAL/EQUIPMENT. THE SOUTH DRIVEWAY ENTRANCE WILL BE REMOVED AND REPLACED BY TOPSOIL AND GRASS SEED. THE NORTH DRIVEWAY ENTRANCE IS PROPOSED AS CONCRETE WITH CURB AND GUTTER TO INCLUDE NEW PARKING SPACES. NO NEW IMPACTS TO THE AREA ARE PROPOSED.
- TWO TOTAL EMPLOYEES ARE PLANNED AND IMPACT ON EXISTING PUBLIC FACILITIES AND SERVICES WILL HAVE A MARGINAL IMPACT. NORMAL POLICE AND FIRE PROTECTION SERVICES SHOULD REMAIN UNCHANGED.
- THE OFFICE BUILDING WILL NEED TO BE CONNECTED TO PUBLIC SANITARY AND MHOG WATER WHICH BOTH RUN ALONG THE FRONT OF THE SITE. TWO TOTAL EMPLOYEES ARE PLANNED AND IMPACT ON EXISTING PUBLIC FACILITIES AND SERVICES WILL BE MARGINAL.
- APPROXIMATELY 20 GALLONS OF MOTOR OIL FOR ROUTINE MAINTENANCE OF A TRACTOR TRAILER WILL BE STORED IN THE PROPOSED BUILDING. IN ADDITION TO TYPICAL TRACTOR TRAILER MAINTENANCE MATERIALS AND EQUIPMENT, NO OUTDOOR STORAGE WILL BE WITHIN THE REQUIRED 25-FOOT SIDE YARD SETBACKS NOR ANY OTHER REQUIRED YARD SETBACK.

GENOA TOWNSHIP LANDSCAPE REQUIREMENTS PER ARTICLE 12:

- GREENBELT: 20 FT WIDE GREENBELT ALONG PUBLIC STREET ROW INCLUDING (1) CANOPY TREE FOR EVERY FORTY LINEAR FEET OF FRONTAGE. OR SUBSTITUTE EVERGREEN TREES FOR 50% OF REQUIRED TREES.
 REQUIRED: 7 CANOPY TREES (281 LF /40 LF)
 PROVIDED: BERM WITH 3 CANOPY TREES AND 12 EVERGREEN TREES -- (3) RED MAPLE, (10) WHITE FIR TREES AND (2) DOUGLAS FIR.
- BUFFER: BUFFER ZONE B REQUIRED PER ORDINANCE (3 FOOT HIGH BERM, 20 FT WIDE) ALONG NORTH, EAST AND SOUTH PROPERTY LINES WITH 1 CANOPY TREE, 1 EVERGREEN AND 4 SHRUBS PER EACH 30 LF
 REQUIRED: (NORTH, SOUTH) 309.27 LF - 70' FOR EXISTING WOODLAND = 239.27 LF / 30 = 7.976 TREES
 8 CANOPY TREES, 8 EVERGREEN TREES AND 32 SHRUBS (EAST) 275.52 LF / 30 = 9.184 TREES
 PROVIDED: (NORTH) BERM WITH (16) EXISTING EVERGREENS INCLUDING ARBORVITAE, WHITE PINE, SCOTS PINE AND NORWAY SPRUCE AND (32) SHRUBS. AN EXISTING WOODLAND BUFFER SCREENS 70 LF OF THE EAST END OF THIS PROPERTY LINE.
 (SOUTH) AN EXISTING TALL BERM ON THE ADJACENT PARCEL PROVIDES COMPLETE SCREENING.
 (EAST) THE APPROX. 70' DEEP EXISTING WOODLAND (PREDOMINATELY BOXELDER TREES AND UNDERSTORY/BRUSH THAT PROVIDES SCREENING) ALONG EAST PROPERTY LINE TO BE PRESERVED.
- PARKING LOT: (N/A)

PLANT LIST

KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
DECIDUOUS SHRUBS					
VB	19	Viburnum lantana 'Mohican'	Mohican Viburnum	36" ht./#5	Cont.
WS	13	Weigela x 'Strobe'	Strobe Weigela	24" ht./#3	Cont.

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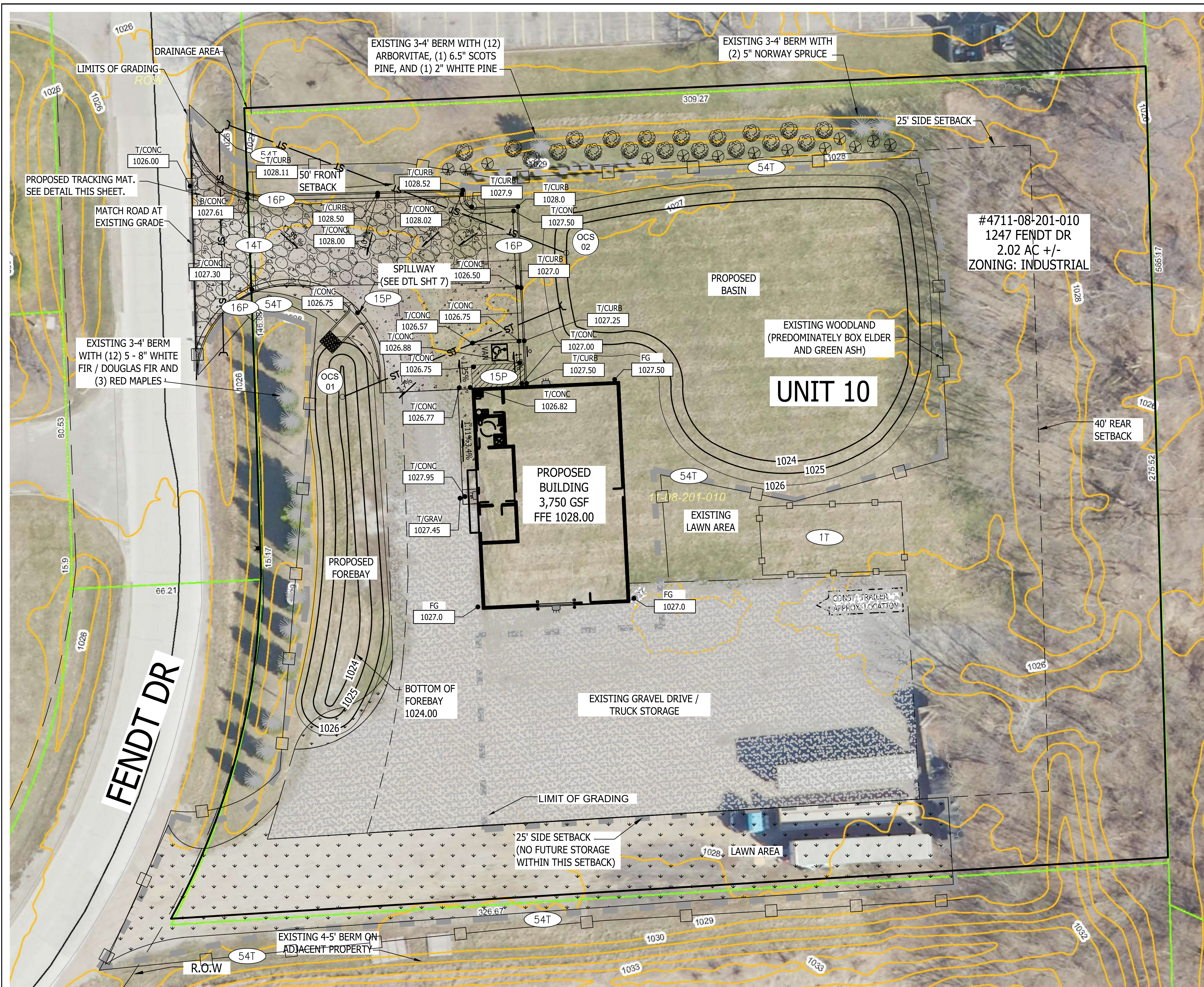
A & J CARTAGE PROPOSED BUILDING

PROJECT: A & J CARTAGE
 PREPARED FOR: 1247 FENDT DRIVE
 HOWELL, MI. 48843
 517-981-0515

TITLE: SITE PLAN & LANDSCAPE PLAN

REVISION PER	DATE	BY
1	2/23/2022	JA

DESIGNED BY: JA
 DRAWN BY: JA
 CHECKED BY: BL
 SCALE: 1" = 20'
 JOB NO: 21-581
 DATE: 01/06/2022
 SHEET NO: 3



#4711-08-201-010
1247 FENDT DR
2.02 AC +/-
ZONING: INDUSTRIAL

STORMWATER NARRATIVE:
A DETENTION BASIN AND FOREBAY HAVE BEEN ADDED TO MANAGE ON-SITE DRAINAGE. SHEET FLOW FROM THE WEST SIDE OF THE BUILDING AND THE CONCRETE AND GRAVEL SURFACES WILL BE DIRECTED TO A FOREBAY AT THE FRONT OF THE SITE. THE REST OF THE PARCEL DRAINAGE WILL FLOW TO THE DETENTION BASIN ON THE NORTH SIDE OF THE SITE. DISCHARGE FROM THE BASIN WILL OUTLET TO THE FENDT DRIVE R.O.W. WHICH THEN FLOWS NORTH TO THE 36" STORM SEWER AT THE NORTH LINE OF GEN TECH INDUSTRIAL PARK AND THE REGIONAL DETENTION BASIN.

DISTANCE FROM PROJECT SITE TO THE NEAREST...

- COUNTY DRAIN (MARIAN GENOA COUNTY DRAIN S/E SIDE OF GRAND OAKS DR.) IS APPROXIMATELY 1,144 FT TO THE NORTHWEST,
- BASIN IS APPROXIMATELY 565 FEET TO NORTHEAST (AT WALMART/LOWES),
- LAKE CHEMUNG IS APPROXIMATELY 1.00 MILE TO THE NORTHEAST
- WETLAND IS APPROXIMATELY 0.37 MILES NORTHEAST AT PRENTIS ESTATES APARTMENTS, (ACCORDING TO NATIONAL WETLANDS INVENTORY WETLANDS MAPPER), AND
- RIVER (SOUTH BRANCH OF SHIWAESSEE RIVER) IS APPROXIMATELY 4.00 MILES TO THE WEST.

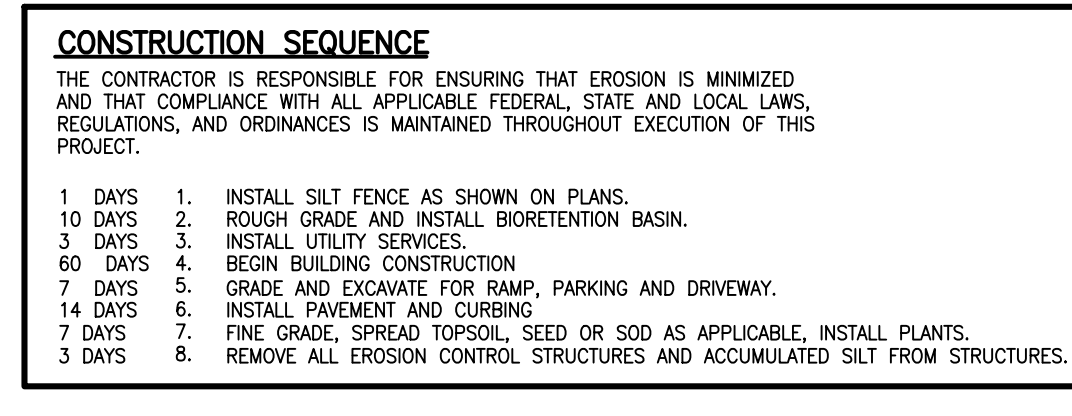
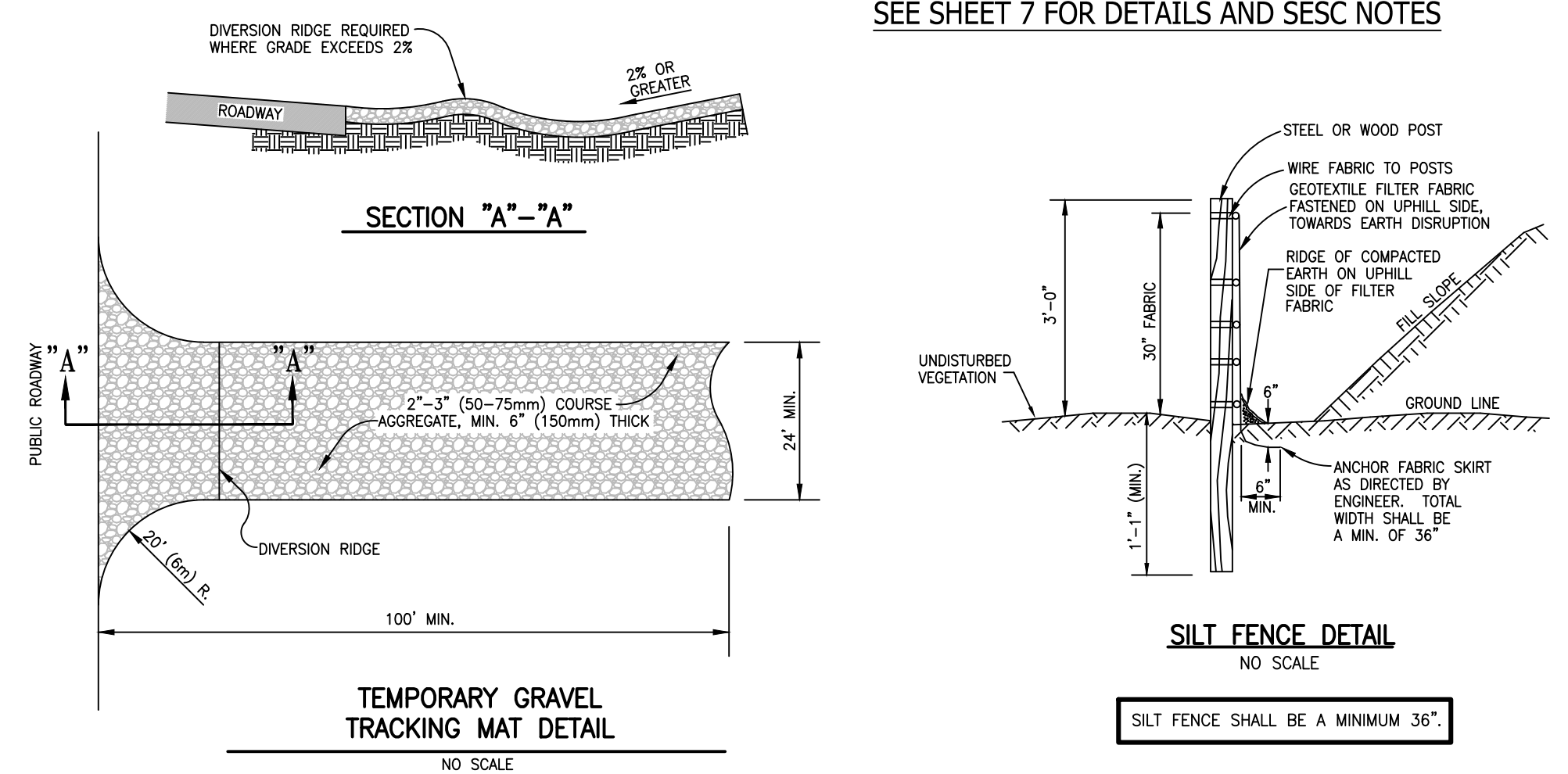
PROPOSED CONST. SCHEDULE FOR THE YEAR 2022

ACTIVITY	JUN	JUL	AUG
CLEAR, GRUB	█		
MASS GRADING	█		
UNDERGROUND UTILITY	█		
FINAL GRADING		█	
CURB & GUTTER		█	
PAVING		█	
SEED & MULCH		█	

NOTES

- ACCESS ROAD TO THE SITE SHALL BE PROVIDED AND MAINTAINED DURING CONSTRUCTION AND SHALL BE CONSTRUCTED TO BE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS WEIGHING AT LEAST 84,000 POUNDS.
- SOILS DATA CAN BE FOUND ON EXISTING CONDITIONS SHEET 2.

SEE SHEET 7 FOR DETAILS AND SESC NOTES

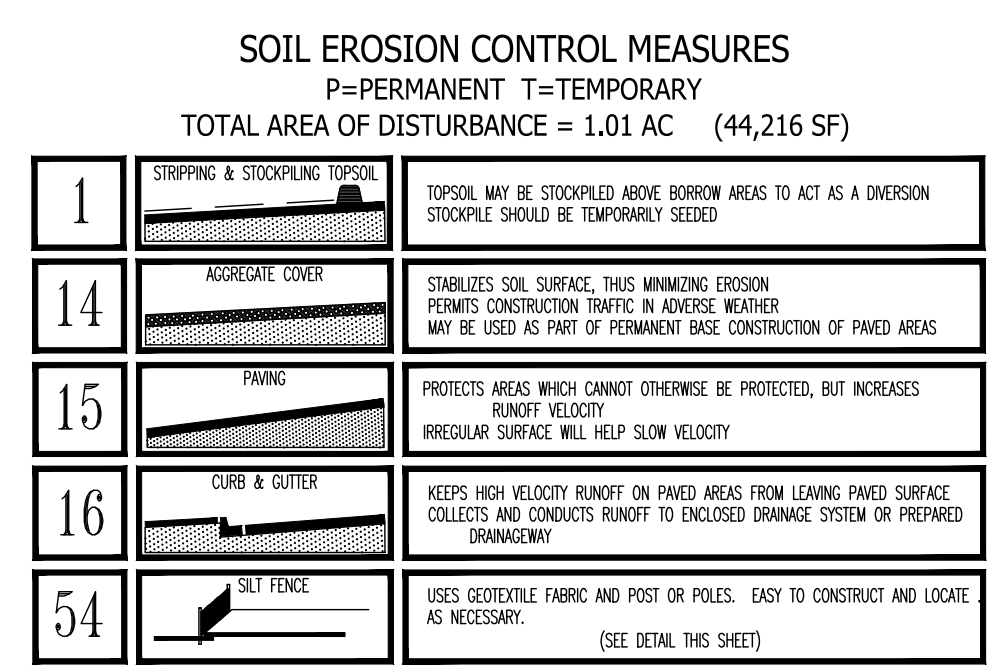


CONTROLS & MEASURES POST CONSTRUCTION SEQUENCE

ACTIVITY	WEEKLY	MONTHLY	AS REQUIRED
MAINTAIN LANDSCAPING, REPLACE MULCH	X	X	X
CLEAN INLETS		X	X
COLLECT LITTER	X		X
SWEEP PARKING LOT			X

CONTROLS & MEASURES NARRATIVE

ACTIVITY	DESCRIPTION
MAINTAIN LANDSCAPING, REPLACE MULCH	COLLECT GRASS, TREE, AND SHRUB CLIPPINGS; DISPOSE IN APPROVED CONTAINER; REPLACE DEAD SOO, TREES AND SHRUBS.
CLEAN INLETS	REMOVE LITTER, SEDIMENT, AND DEBRIS; DISPOSE OF IN APPROVED LANDFILL.
COLLECT LITTER	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING
SWEEP PARKING LOT	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING
BUST CONTROL	SPRINKLE WATER AS NEEDED



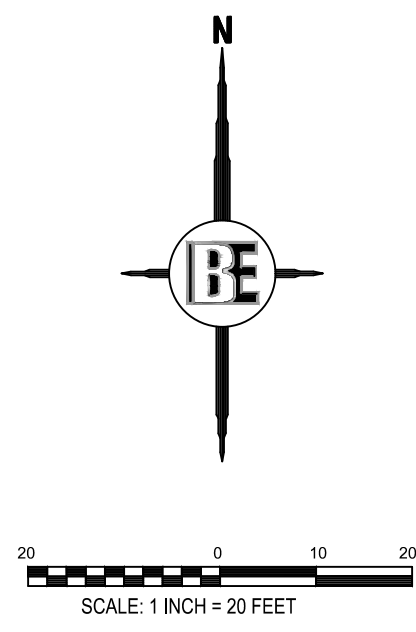
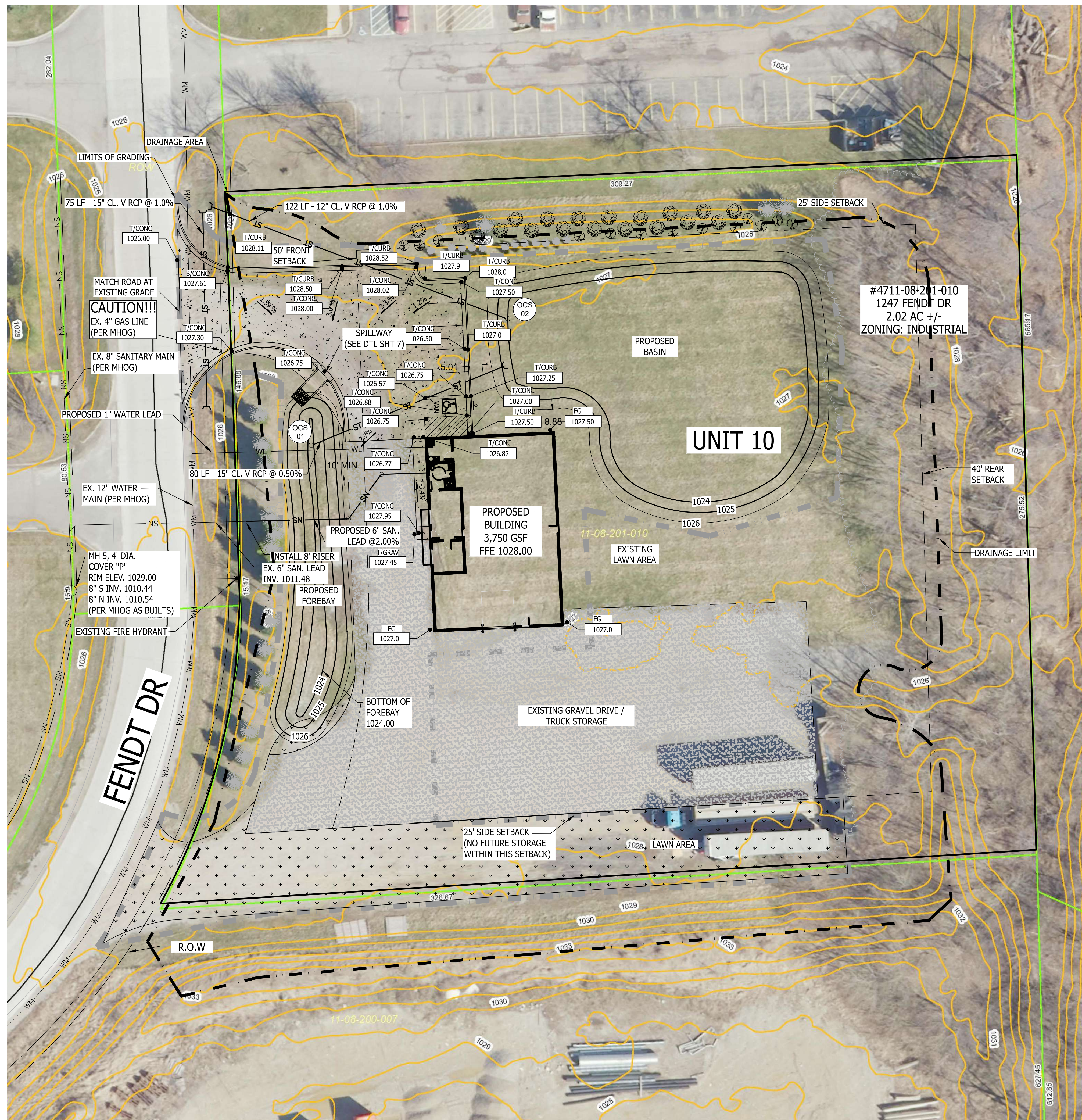
BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

PROJECT: A & J CARTAGE PROPOSED BUILDING
PREPARED FOR: A & J CARTAGE
1247 FENDT DRIVE
HOWELL, MI. 48843
517-981-1015

TITLE: GRADING, DRAINAGE, & SESC PLAN

NO.	REVISION PER	DATE
1	BY	2/23/2022

DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: 1" = 20'
JOB NO: 21-581
DATE: 01/06/2022
SHEET NO. 4



LEGEND

PROPOSED (PR)	EXISTING (EX)	CONTOUR
FF	FF	FINISHED FLOOR ELEVATION
FG	FG	FINISHED GRADE ELEVATION
T/A	T/A	TOP OF ASPHALT
T/C	T/C	TOP OF CURB / CONCRETE
T/W	T/W	TOP OF WALK
F/L	F/L	FLOW LINE
T/P	T/P	TOP OF PIPE
B/P	B/P	BOTTOM OF PIPE
RM	RM	RIM ELEVATION
INV	INV	INVERT ELEVATION
MH	MH	MANHOLE STRUCTURE
IN	IN	INLET STRUCTURE
CB	CB	CATCHBASIN STRUCTURE
RY	RY	REARWARD STRUCTURE
ES	ES	END-SECTION
OV	OV	GATEVALVE STRUCTURE
HY	HY	HYDRANT
UP	UP	UTILITY POLE
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
T	T	TELEPHONE
S	S	SIGN
X	X	NOT FIELD VERIFIED TO BE REMOVED
D	D	SANITARY SEWER LABEL
		STORM SEWER LABEL
		WATER MAIN LABEL
		SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
		CONCRETE
		ASPHALT
		MODIFIED CURB

LIVINGSTON COUNTY DETENTION BASIN CALCULATIONS

AREA (ACRES)	IMPERVIOUS FACTOR	ACRE IMPERVIOUS
0.23	0.9	0.21
0.39	0.7	0.27
1.15	0.2	0.23

COMPOUND C: 0.40
TOTAL DRAINAGE AREA: 1.77 ACRES

K1 = Ax C (Design Constant) 0.708
Qa = MAX ALLOW OUTFLOW (0.10 CFS / ACRE) 0.177 CFS

DURATION MINUTES	DURATION SECONDS	INTENSITY (IN/HR)	INCHES	INFLOW VOLUME IN RUNOFF x Ax C	OUTFLOW DURATION x Qa	STORAGE VOLUME INFLOW - OUTFLOW
5	300	9.17	2750	1947	53	1894
10	600	7.86	4714	3338	106	3232
15	900	6.88	6188	4381	159	4221
20	1200	6.11	7333	5192	212	4980
30	1800	5.00	9000	6372	319	6053
60	3600	3.24	11647	8246	637	7609
90	5400	2.39	12913	9142	956	8187
120	7200	1.90	13655	9668	1274	8393
180	10800	1.34	14488	10257	1912	8346

REQUIRED 100 YEAR DETENTION VOLUME = 8393 CF

FOREBAY VOLUME
V(F) = 5% OF THE 100-YEAR STORM VOLUME BASED ON THE AREA TRIBUTARY TO THE INLET
V(F) = (.05)(V100) = 420 CF
FOREBAY STORAGE VOLUME REQUIRED: 420 CF

FOREBAY STORAGE VOLUME PROVIDED:

ELEV	AREA	VOLUME	CUMMULATIVE VOLUME
1026	2508	1959	2664
1025	1410	705	705
1024			
1023			

2-FT SUMP

BANKFULL FLOOD VOLUME
V_{BF} = 5160 x A x C = 3653 CF

FIRST FLUSH VOLUME
V_{FF} = 1815 x A x C = 1285 CF

BASIN STORAGE PROVIDED

ELEV.	AREA (FT ²)	DEPTH (FT)	VOLUME (FT ³)	TOTAL VOLUME (FT ³)
1026	10855.04	1	10,072	18,629
1025	9289.39	1	8,557	8,557
1024	7824.15	0	0	0

FREEBOARD ELEVATION
DESIGN HIGHWATER ELEVATION

BOTTOM OF BASIN = 1024.00

FIRST FLUSH X_{FF} = 1024.15

BANKFULL X_{BF} = 1024.43

100 YEAR X₁₀₀ = 1024.98

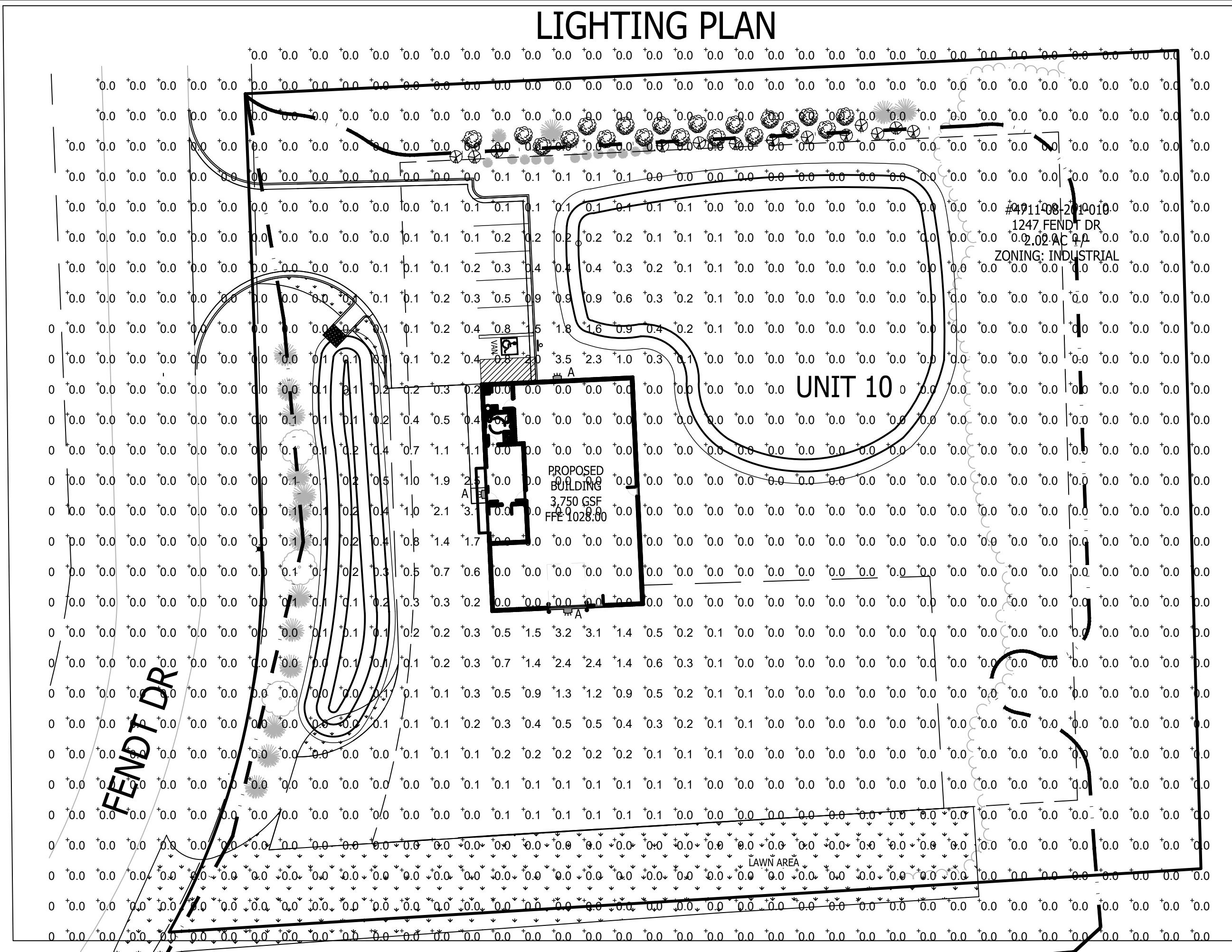
BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

PROJECT: A & J CARTAGE PROPOSED BUILDING
PREPARED FOR: A & J CARTAGE
1247 FENDT DRIVE
HOWELL, MI. 48843
517-981-1015

TITLE: UTILITY PLAN

REVISION	PER	DATE
1	JA	2/23/2022

DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: 1" = 20'
JOB NO: 21-581
DATE: 01/06/2022
SHEET NO. 5



SITE LIGHTING REQUIREMENTS FOR GENOA TOWNSHIP
 LIGHT LEVELS NO MORE THAN 0.5 FC AT A RESIDENTIAL LOT LINE AND 1.0 AT NON-RESIDENTIAL LOT LINE. MAXIMUM LIGHT LEVEL ON THE SITE IS 10 FC
 LIGHTS TO BE DOWNWARD DIRECTED AND SHIELDED.

GENERAL LIGHTING NOTES

- THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.

SITE LIGHTING SUMMARY
 AVERAGE LIGHTING LEVEL: 0.1 FC
 MAXIMUM LIGHT LEVEL: 3.5 FC
 MINIMUM LIGHT LEVEL: 0.0 FC

SYMBOL	LABEL	QTY.	DESCRIPTION	CATALOG NUMBER	LAMP	LUMENS	LLF	POLE HGT
	A	03	LITHONIA LIGHTING 11W 50K LED WALL PACK, FULL CUT OFF	WPX1 LED P1 50K DDB	LED	ABSOLUTE	.93	15' WALL MOUNTED

ALL LIES FILES PROVIDED BY MANUFACTURER FOR CALCULATION OF LIGHTING LEVEL.

WPX LED Wall Packs

Specifications

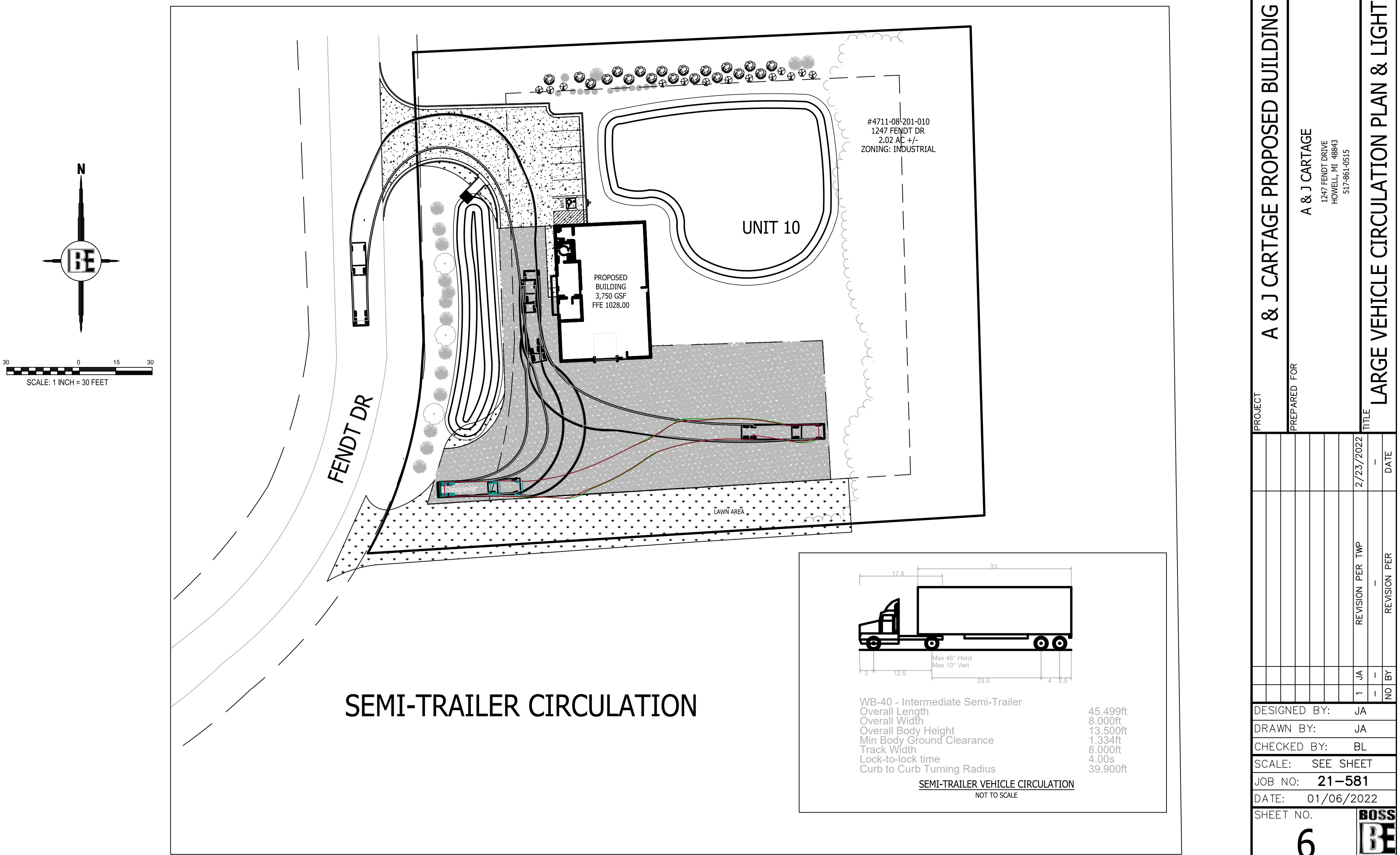
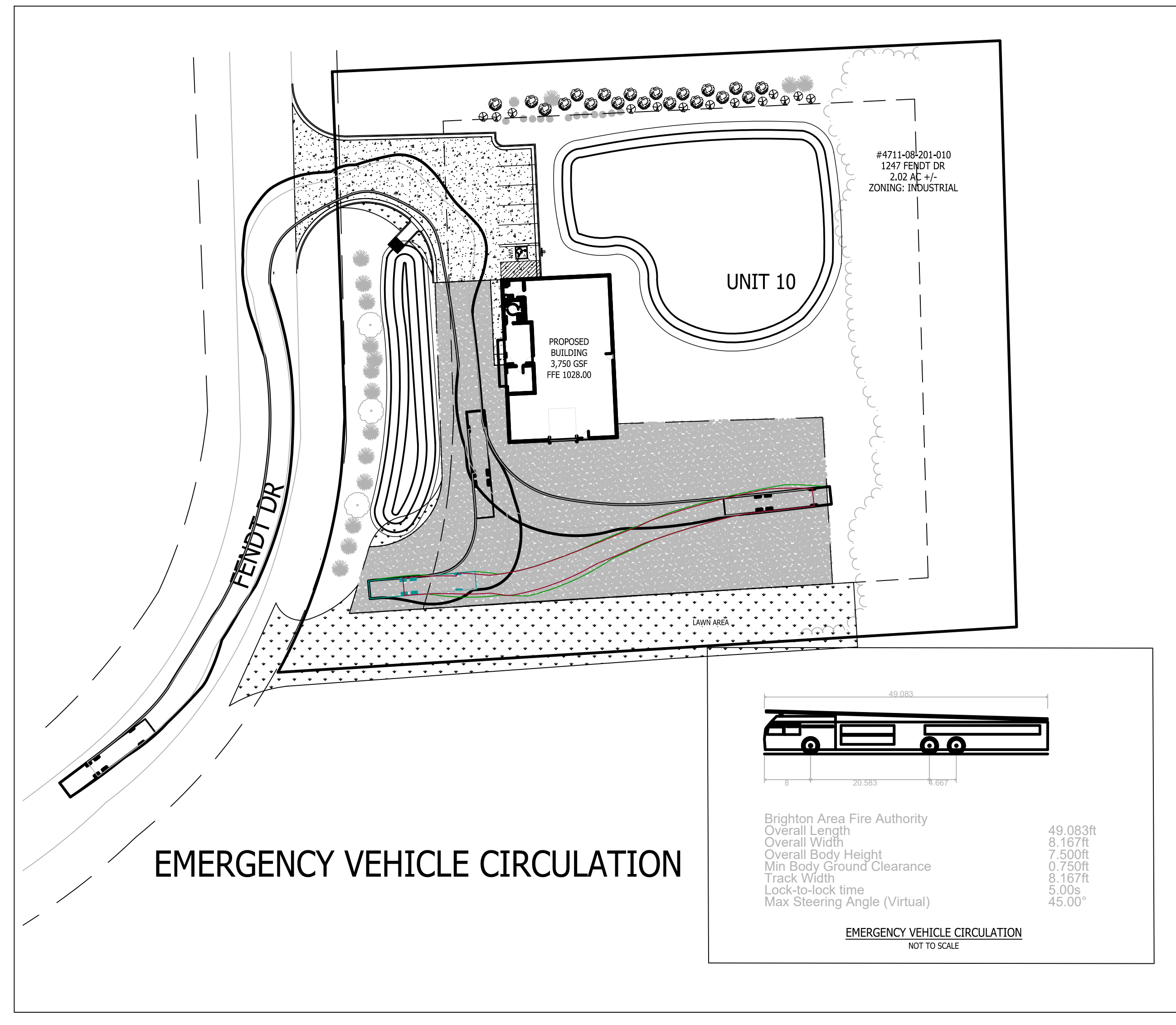
Model	Power	Beam Angle	Mounting	Color	Temp
WPX1	11W	30°	Wall	White	4000K
WPX2	11W	30°	Wall	White	5000K
WPX3	11W	30°	Wall	White	6500K
WPX4	11W	30°	Wall	White	8000K
WPX5	11W	30°	Wall	White	9000K
WPX6	11W	30°	Wall	White	10000K
WPX7	11W	30°	Wall	White	12000K
WPX8	11W	30°	Wall	White	15000K
WPX9	11W	30°	Wall	White	20000K
WPX10	11W	30°	Wall	White	25000K
WPX11	11W	30°	Wall	White	30000K
WPX12	11W	30°	Wall	White	35000K
WPX13	11W	30°	Wall	White	40000K
WPX14	11W	30°	Wall	White	45000K
WPX15	11W	30°	Wall	White	50000K
WPX16	11W	30°	Wall	White	55000K
WPX17	11W	30°	Wall	White	60000K
WPX18	11W	30°	Wall	White	65000K
WPX19	11W	30°	Wall	White	70000K
WPX20	11W	30°	Wall	White	75000K
WPX21	11W	30°	Wall	White	80000K
WPX22	11W	30°	Wall	White	85000K
WPX23	11W	30°	Wall	White	90000K
WPX24	11W	30°	Wall	White	95000K
WPX25	11W	30°	Wall	White	100000K

LEGEND

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
FF	FF	FINISHED FLOOR ELEVATION
FS	FS	FINISHED GRADE ELEVATION
T/A	T/A	TOP OF ASPHALT
T/C	T/C	TOP OF CURB / CONCRETE
T/W	T/W	TOP OF WALK
F/L	F/L	FLOW LINE
T/P	T/P	TOP OF PIPE
B/P	B/P	BOTTOM OF PIPE
RM	RM	RIM ELEVATION
INV	INV	INVERT ELEVATION
MH	MH	MANHOLE STRUCTURE
IN	IN	INLET STRUCTURE
CB	CB	CATCHBASIN STRUCTURE
RY	RY	REARWARD STRUCTURE
ES	ES	END-SECTION
OV	OV	GATEVALVE STRUCTURE
HY	HY	HYDRANT
UP	UP	UTILITY POLE
SN	SN	SANITARY SEWER
SL	SL	SANITARY LEAD
FM	FM	FORCE MAIN
PS	PS	PRESSURE SEWER
ST	ST	STORM SEWER
WM	WM	WATER MAIN
WL	WL	WATER LEAD
FO	FO	FIBER OPTIC
OH	OH	OVERHEAD WIRE
C	C	CABLE
E	E	ELECTRIC
G	G	GAS
T	T	TELEPHONE
F	F	FENCE
S	S	SILT FENCE
W	W	WETLAND BOUNDARY
L	L	LIMITS OF GRADING/CLEARING
M	M	MANHOLE
I	I	INLET / CATCHBASIN
V	V	FLARED END-SECTION
G	G	GATE VALVE
H	H	HYDRANT
U	U	UTILITY POLE
S	S	SOIL
N	N	NOT FIELD VERIFIED
R	R	TO BE REMOVED
SL	SL	SANITARY SEWER LABEL
ST	ST	STORM SEWER LABEL
WM	WM	WATER MAIN LABEL
S	S	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
C	C	CONCRETE
A	A	ASPHALT
M	M	MODIFIED CURB

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO ASSURANCE IS MADE BY THE CONTRACTOR THAT THE UTILITIES SHOWN ARE COMPLETELY ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

BEBOSS
 BEBOSS ENGINEERING AND SURVEYING
 3121 E. GRAND RIVER AVE.
 HOWELL, MI 48843
 517-546-4836 FAX 517-548-1670



A & J CARTAGE PROPOSED BUILDING

PREPARED FOR
A & J CARTAGE
 1247 FENDT DRIVE
 HOWELL, MI 48843
 517-981-0515

TITLE
LARGE VEHICLE CIRCULATION PLAN & LIGHTING PLAN

NO.	DATE	REVISION PER	BY
1	2/23/2022	JA	JA

DESIGNED BY: JA
 DRAWN BY: JA
 CHECKED BY: BL
 SCALE: SEE SHEET
 JOB NO: 21-581
 DATE: 01/06/2022
 SHEET NO. **6**

**LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE
TEMPORARY CONTROLS AND SEQUENCE**

1. NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
2. IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.

PERMITTING STANDARDS

3. (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
4. 36" M.D.O.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.

5. ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.
6. PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.

RETENTION PONDS

7. RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
8. DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKES SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.
9. THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SODDED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.
10. DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.
11. RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4' CHAIN LINK FENCE, INCLUDING A 12' ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM 5 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.
12. ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ONSITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.
13. SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.

SLOPES AND DITCHES

14. ON SITE DITCHES SHALL BE OF THE FLAT BOTTOM TYPE MINIMUM WIDTH OF 2' WITH A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL SIDE SLOPES, 3:1.
15. DITCHES WITH STEEP SLOPES WILL NEED FLOW CHECKS TO PREVENT SCOURING OF THE DITCH BOTTOM. THESE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR INSPECTOR.
16. SLOPES IN EXCESS OF 3 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE.

STORM DRAINS

17. ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.
18. STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.
19. BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
20. COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.
21. ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.

22. ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
23. ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE RETENTION/DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH COBBLE STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.
24. STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KEYED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER COBBLE STONE.
25. RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS DISTANCE FROM THE OUTLET POINT INCREASES AT A 3:1 RATIO.
26. RIP RAP SHALL BE OF COBBLE STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE COBBLE SET IN THE CEMENT SLURRY.
27. STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.
28. IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.

STABILIZATION

29. ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
30. IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.
31. PERMIT FEES DURING THE WINTER PERIOD OF NON-CONSTRUCTION, (DECEMBER 1 THROUGH MARCH 31), SHALL NOT BE IMPOSED IF THE PERMIT HOLDER TEMPORARILY STABILIZES THE EXPOSED AREAS WITH STRAW MATTING, AND OTHER APPROVED CONTROLS, AND OBTAINS A WINTER STABILIZATION CERTIFICATE FROM THIS OFFICE.
32. PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
33. THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES AND IS NOT FOR ANY SINGLE FAMILY RESIDENCE. ALL RESIDENTIAL BUILDERS WILL NEED TO SECURE WAIVERS AND OR PERMITS AS NECESSARY FOR EACH LOT IN THIS DEVELOPMENT AT THE TIME APPLICATION FOR SINGLE FAMILY RESIDENCE IS MADE.
34. THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.
35. PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:
TOP-SOIL 3" IN DEPTH
GRASS SEED 210 LBS. PER ACRE
FERTILIZER 150 LBS. PER ACRE
STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TIE DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.)

36. HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

SANITARY SEWERS

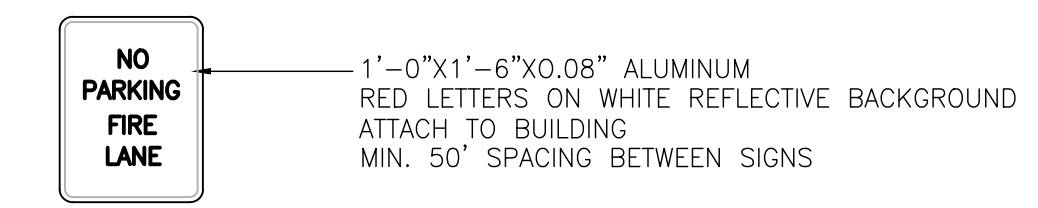
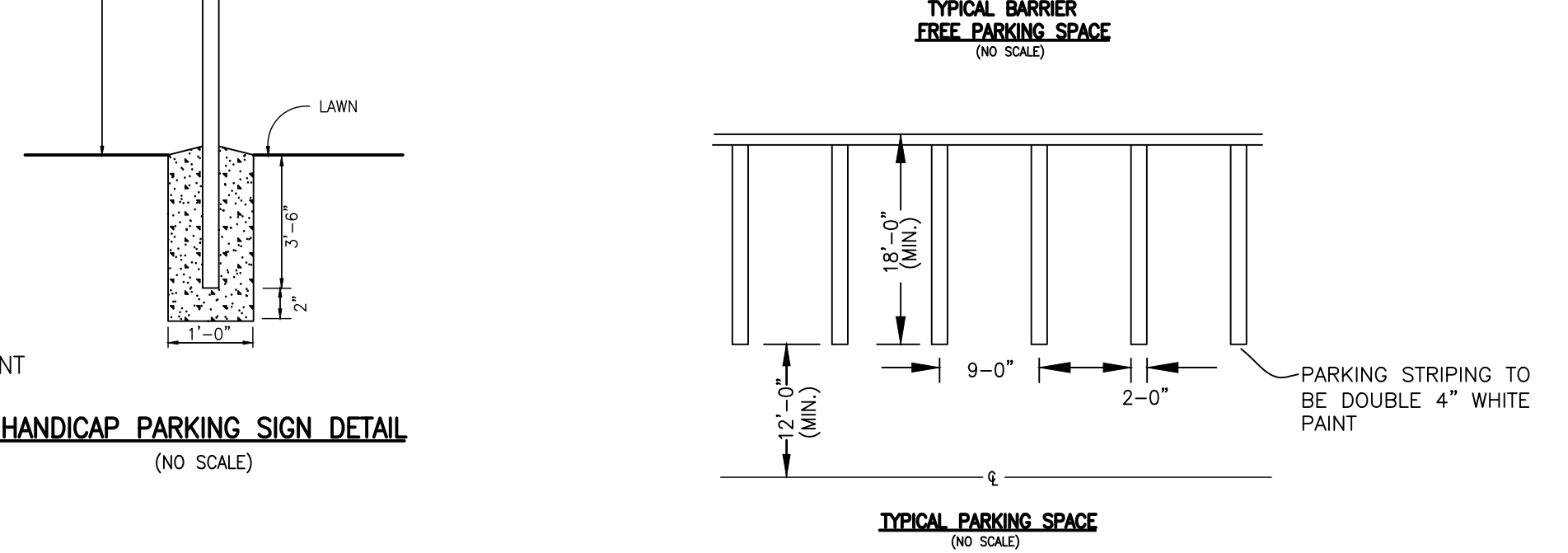
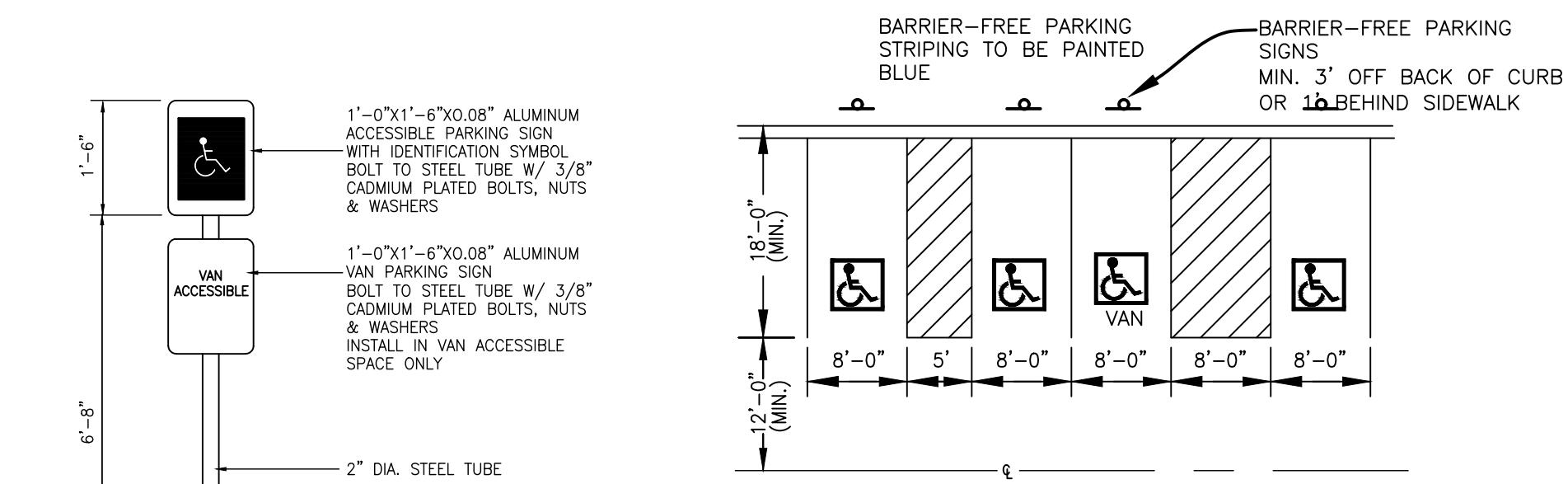
37. SANITARY SEWER TAP TO THE MHOG SANITARY SEWER SYSTEM, SHALL ONLY BE MADE AFTER SECURING IN WRITING CLEARANCE FROM GENOA TOWNSHIP AND A SEWER TAP PERMIT FROM THE LIVINGSTON COUNTY DEPARTMENT OF BUILDING & SAFETY.
38. A TAP PERMIT WILL BE NEEDED BY THE OWNER/DEVELOPER OF THIS PROJECT TO TAP TO THE LEGALLY ESTABLISHED COUNTY STORM DRAIN. THE OWNER/DEVELOPER SHALL MAKE A WRITTEN REQUEST TO THE DRAIN COMMISSIONER TO REQUEST THE TAP TO THE STORM SEWER. THE FEES FOR SUCH TAP ARE AS FOLLOWS:
A. NON REFUNDABLE ADMINISTRATIVE FEE OF \$50.00, TO BE PAID AT THE TIME OF APPLICATION.
B. INSPECTION FEES ARE BASED ON TIME AND MATERIAL BASIS FROM PORT TO PORT FOR THE ON-SITE INSPECTOR. INSPECTORS RATE, VEHICLE MILEAGE, AND 0.5 HOURS OF REPORT PREPARATION TIME WILL BE CHARGED, AS WELL AS ANY NECESSARY MATERIALS. TIME AND MATERIAL FEES ARE PAID AT THE COMPLETION OF THE TAP INSTALLATION.

SINGLE FAMILY RESIDENCE CONSTRUCTION

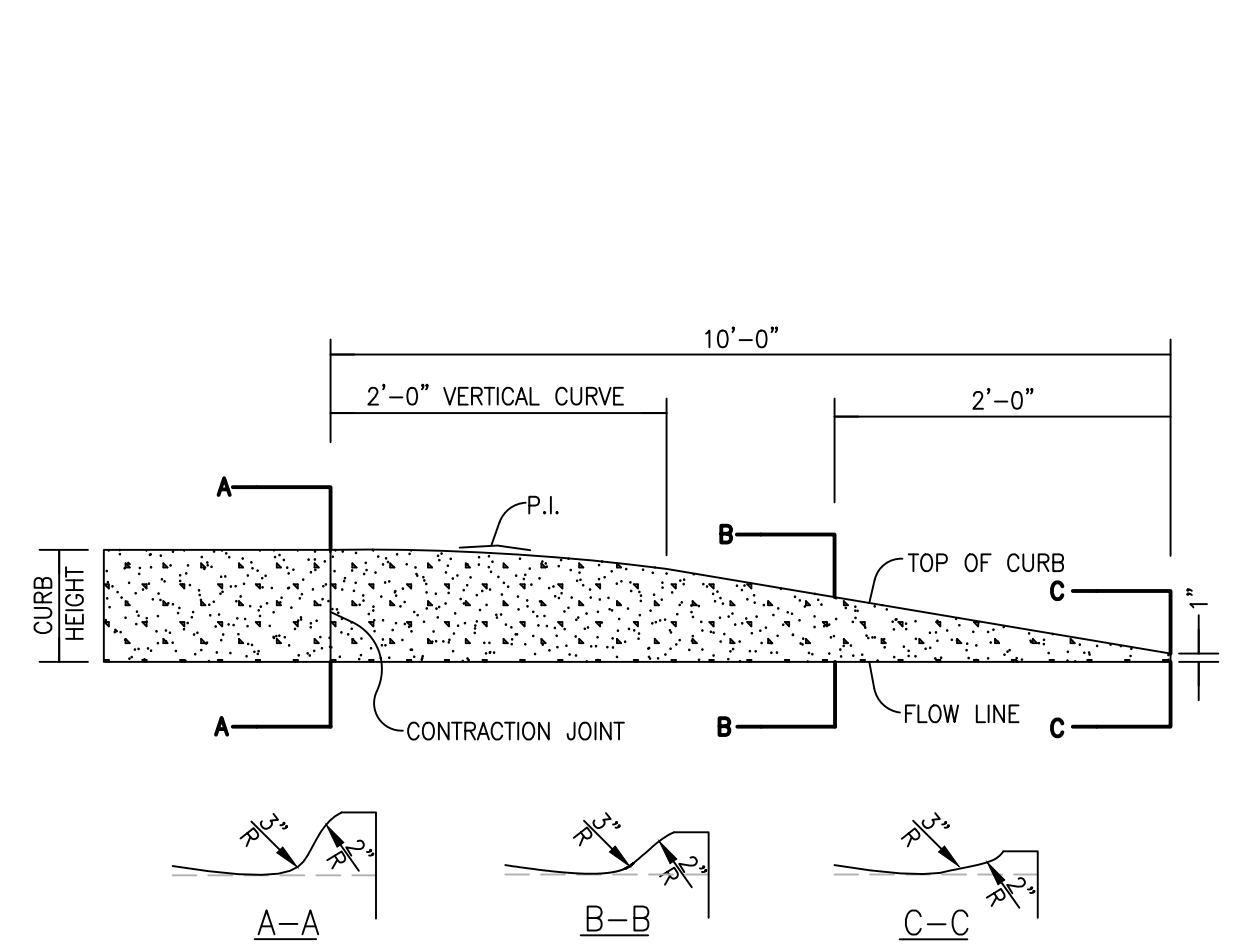
39. PRIOR TO THE START OF SINGLE FAMILY RESIDENCES, THE BUILDER OR HOMEOWNER SHALL INSTALL A STRAW BALE BARRIER AND/OR SILT FENCE BEHIND THE CURB, OR BEHIND THE CROWN OF THE ROAD DITCH BACK SLOPE. PRIOR TO THE START OF THE DWELLING, THE HOMEOWNER OR BUILDER SHALL INSTALL THE DRIVEWAY CULVERT AND AGGREGATE MATERIAL TO ALLOW FOR ENTRANCE TO THE LOT.
40. IF THE LIVINGSTON COUNTY HEALTH DEPARTMENT REQUIRES A MOUNDED SEPTIC FIELD, THE HOMEOWNER/BUILDER SHALL INSTALL POSITIVE DRAINAGE FROM THE MOUNDED AREA SO AS NOT TO ALLOW EXCESSIVE FLOW ONTO ADJACENT LOTS.
41. DRAINAGE EASEMENTS WITHIN THE SUBDIVISION SHALL NOT BE ENCLOSED UPON. OPEN SWALES SHALL NOT BE FILLED OR ENCLOSED UPON. STRAW BALE BARRIERS OR SILT FENCES SHALL BE INSTALLED BETWEEN THE CONSTRUCTION AND THE OPEN DRAIN TO PREVENT SILTATION OF THE SYSTEM. ENCLOSED DRAINS WILL HAVE PERIODIC CATCH BASINS OR MANHOLES, LOT GRADES SHALL NOT BE RAISED OVER THE ESTABLISHED STRUCTURE TOPS.

MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS

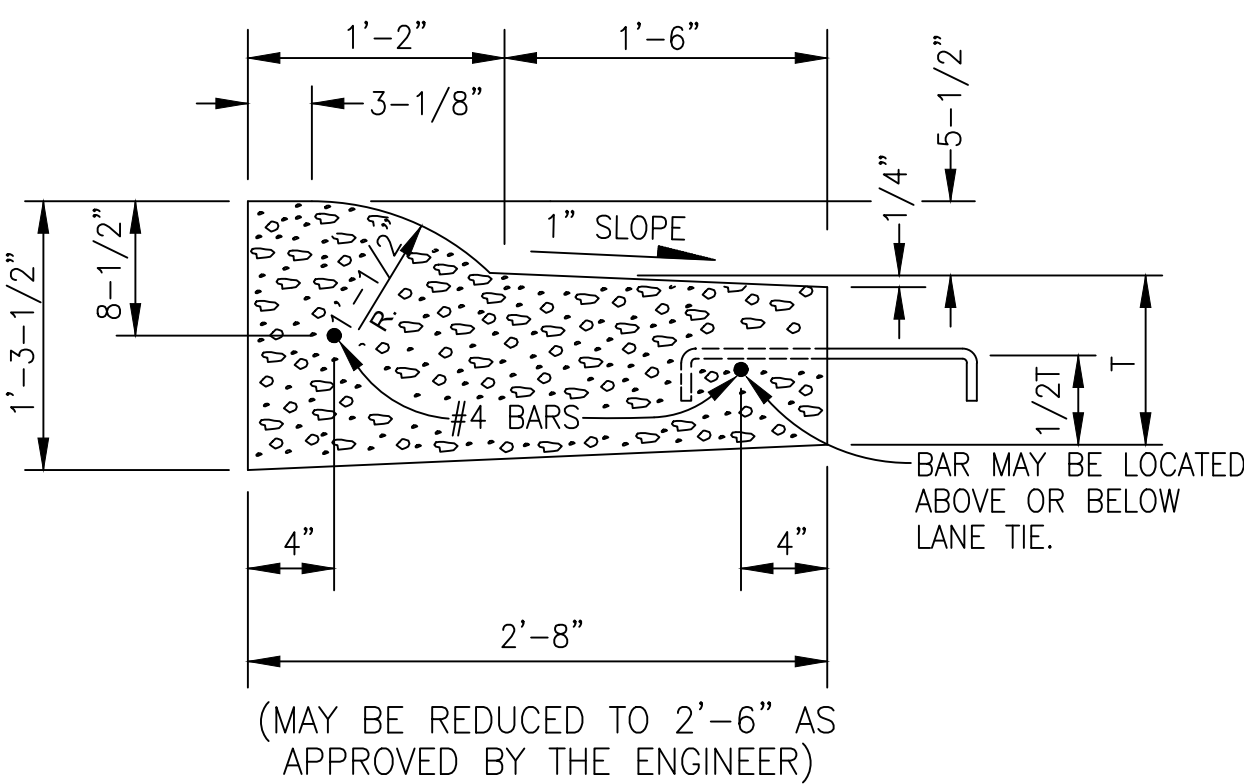
1. SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
2. TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHOKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.
3. DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.
4. CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.
5. COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).



NO PARKING SIGN DETAIL
(NO SCALE)

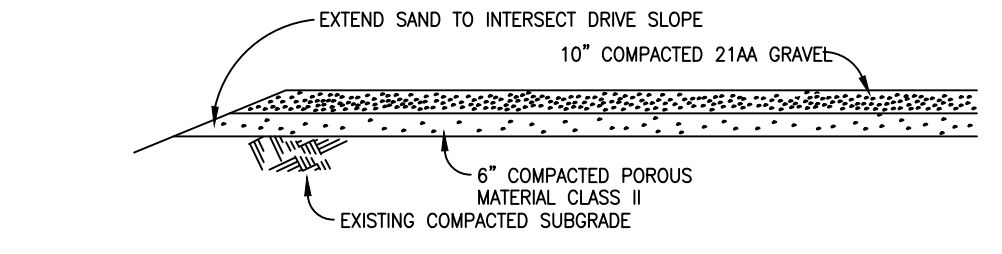
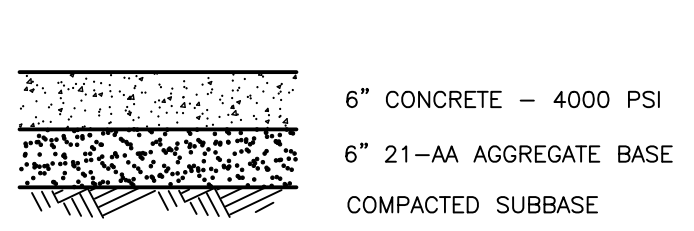
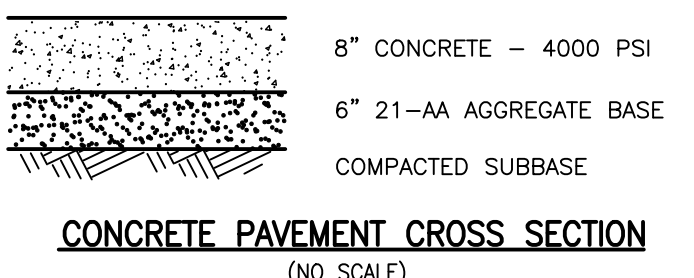


CONCRETE CURB AND GUTTER TAPER
(NO SCALE)



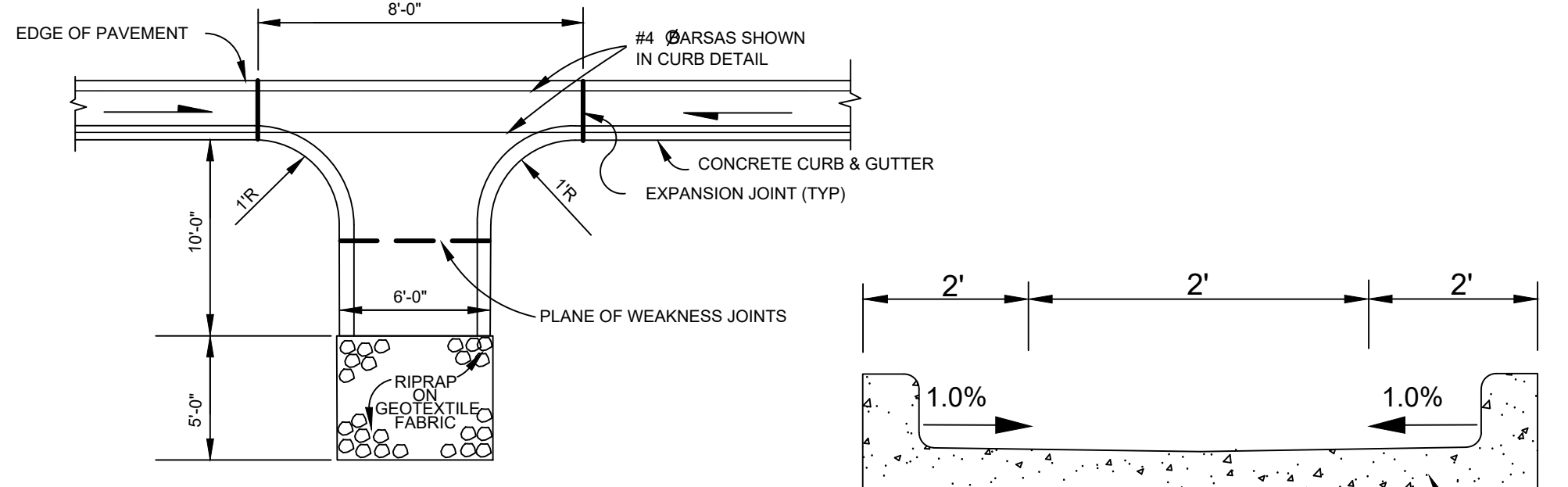
DETAIL	DIMEN.	LANE TIES	CONCRETE CU.YD./LIN.FT.
B1	9"	AS SHOWN	0.0900
B2	9"	OMITTED	0.0900
B3	10"	AS SHOWN	0.0941

MODIFIED B-2 CURB DETAIL
(NO SCALE)

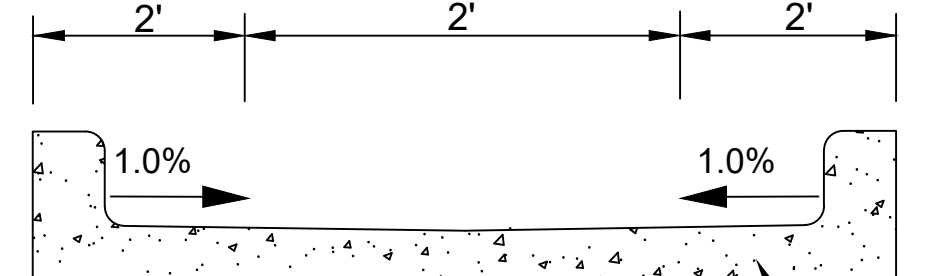


CONCRETE PAVEMENT CROSS SECTION
(NO SCALE)

GRAVEL DRIVE & PARKING CROSS SECTION
(NO SCALE)



SPILLWAY DETAIL
(NO SCALE)



SECTION
(NO SCALE)

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

BEBOSS Engineering
Engineers Surveyors Planners Landscape Architects
3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

A & J CARTAGE PROPOSED BUILDING

PROJECT: A & J CARTAGE
1247 FENOT DRIVE
HOWELL, MI. 48843
517-981-0515

PREPARED FOR: A & J CARTAGE

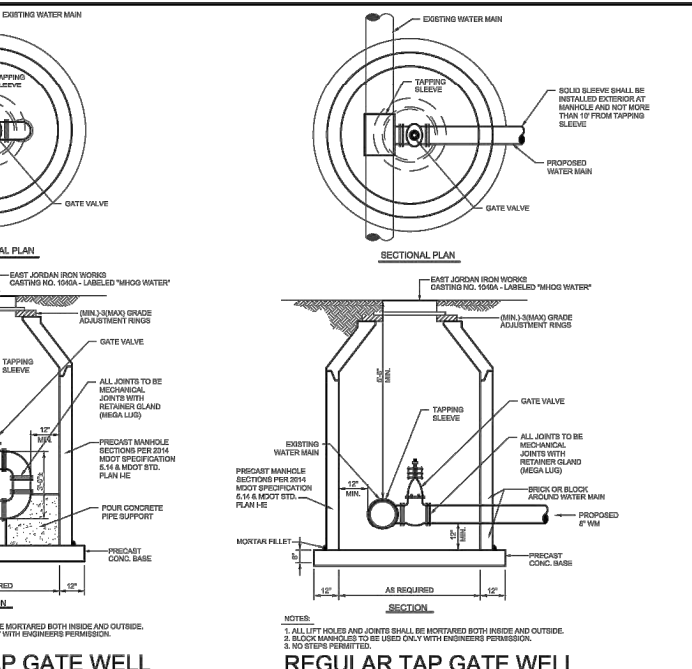
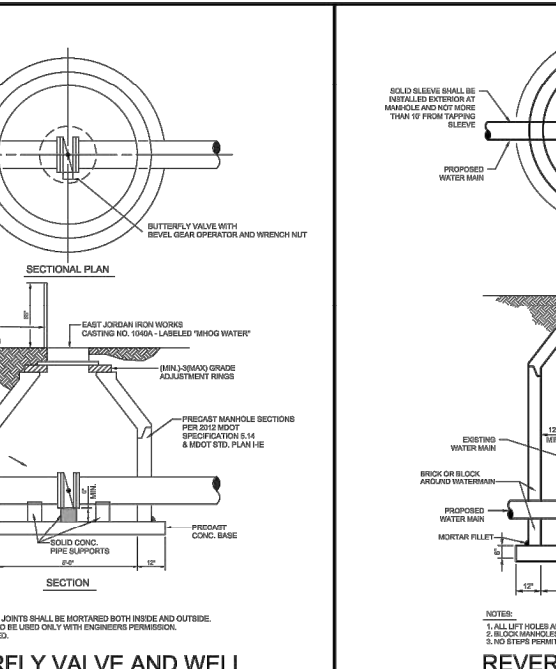
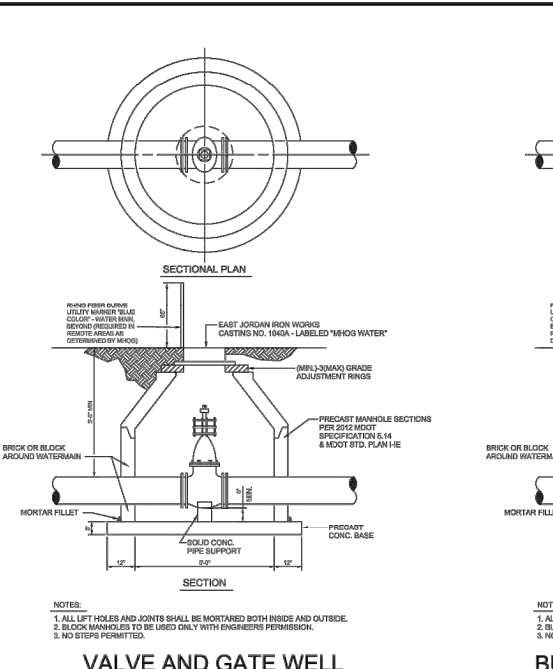
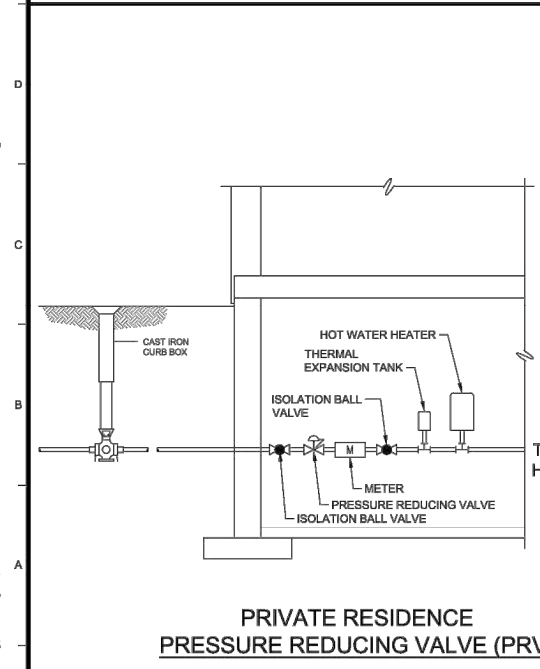
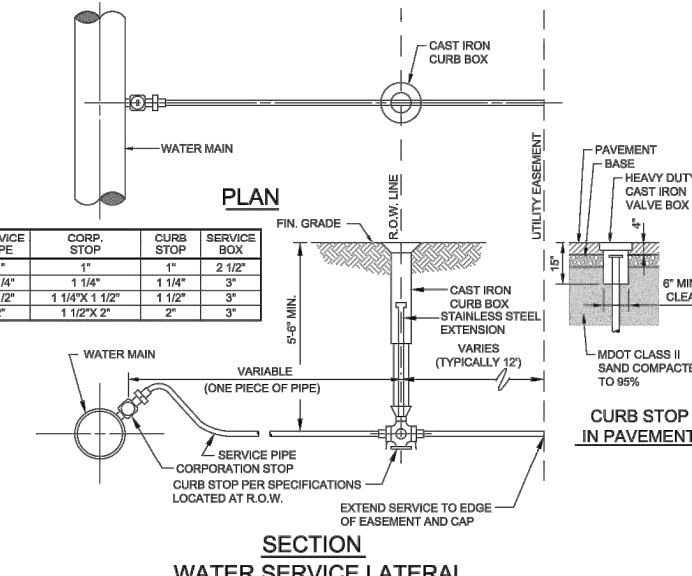
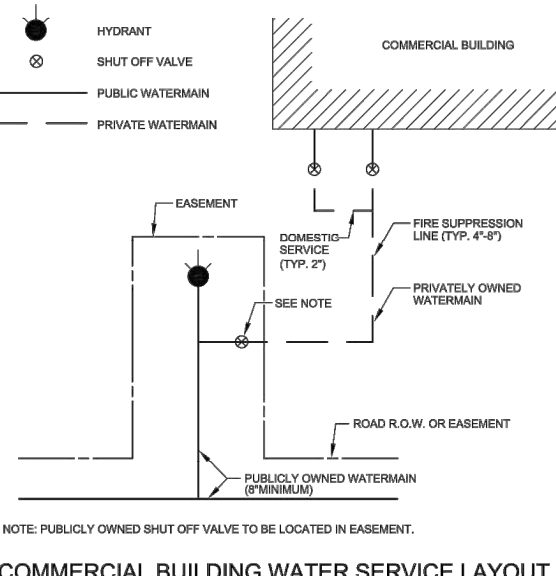
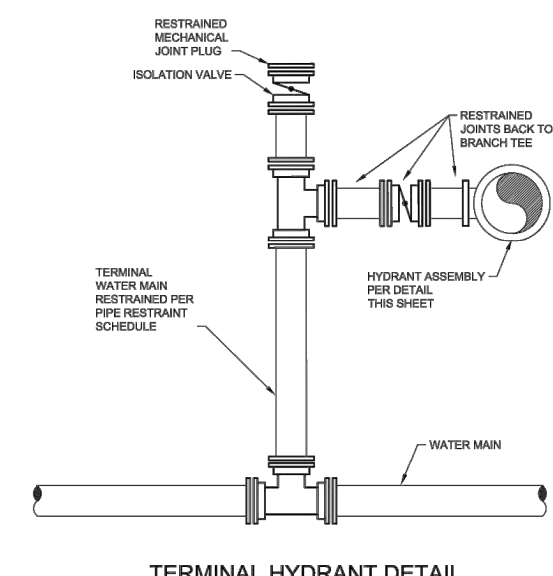
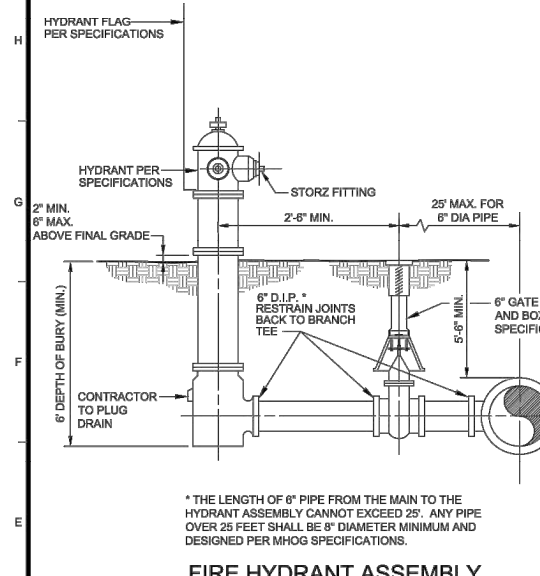
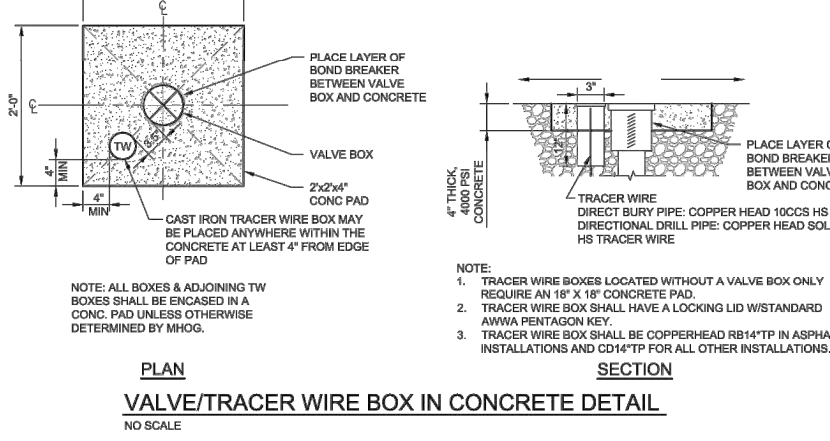
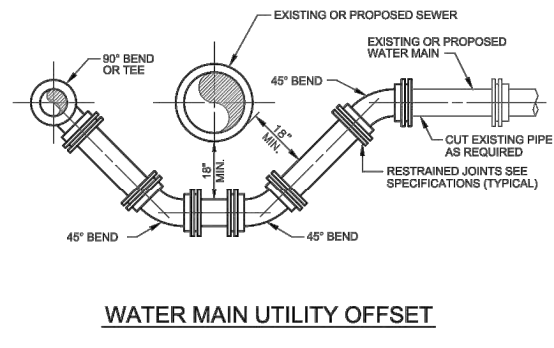
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REVISION	PER	DATE
1	JA	2/21/2022

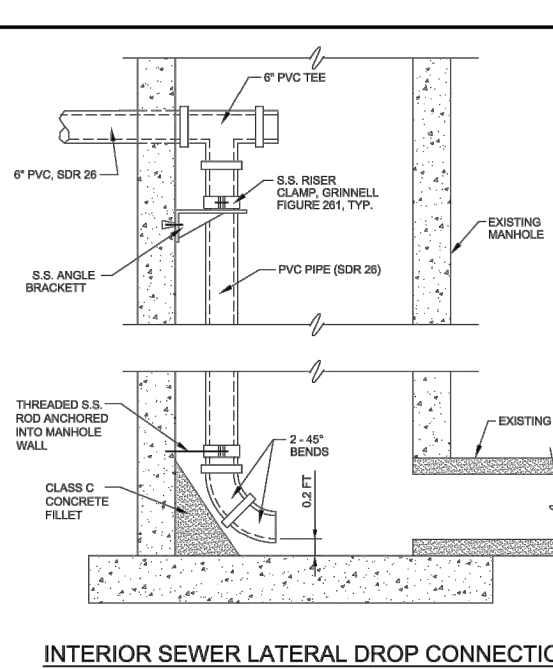
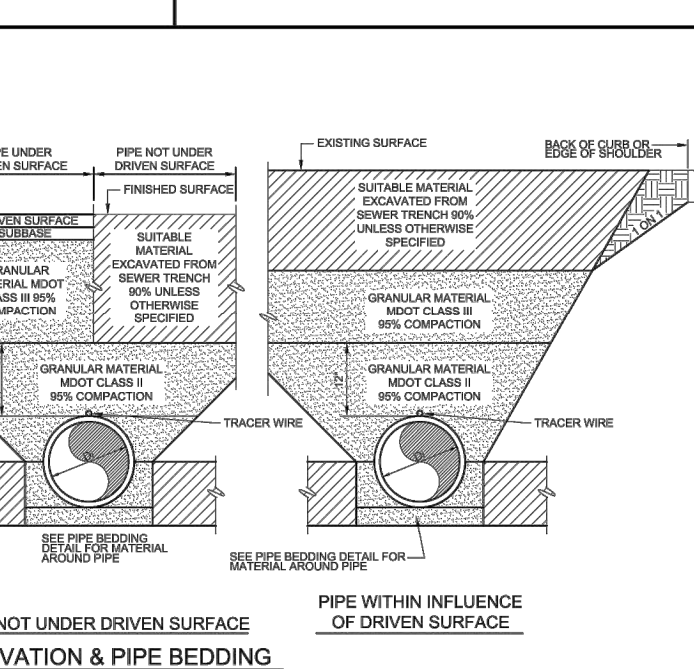
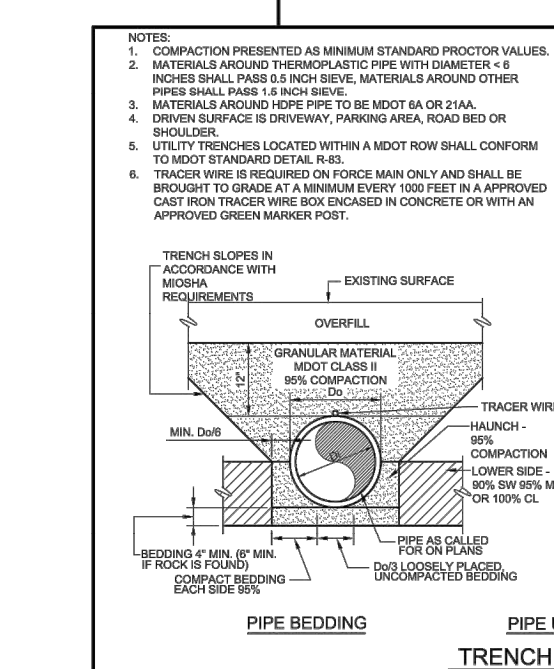
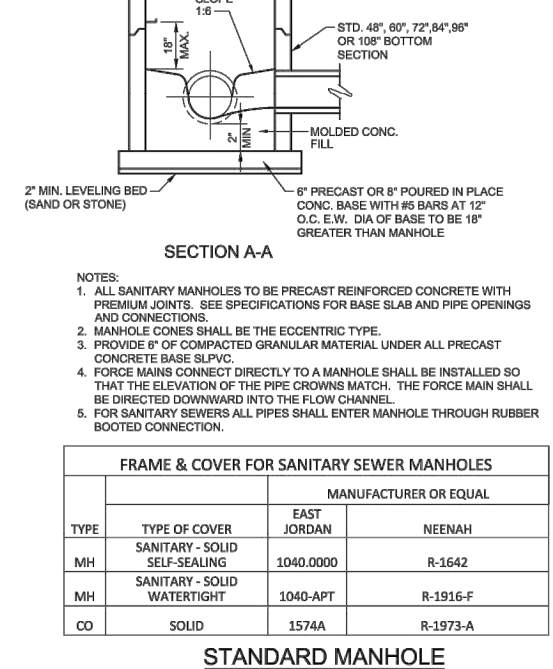
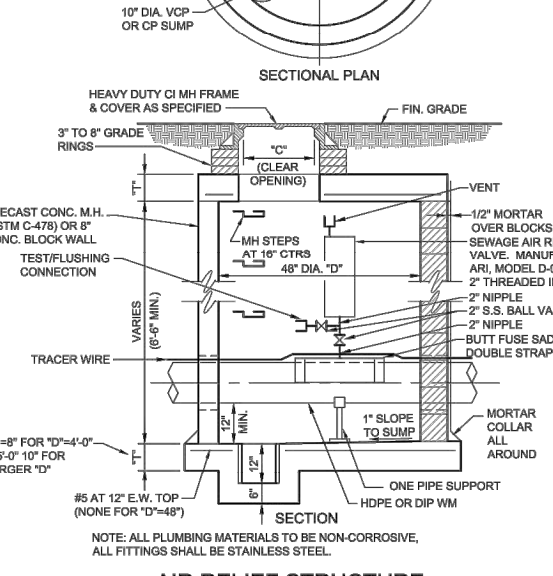
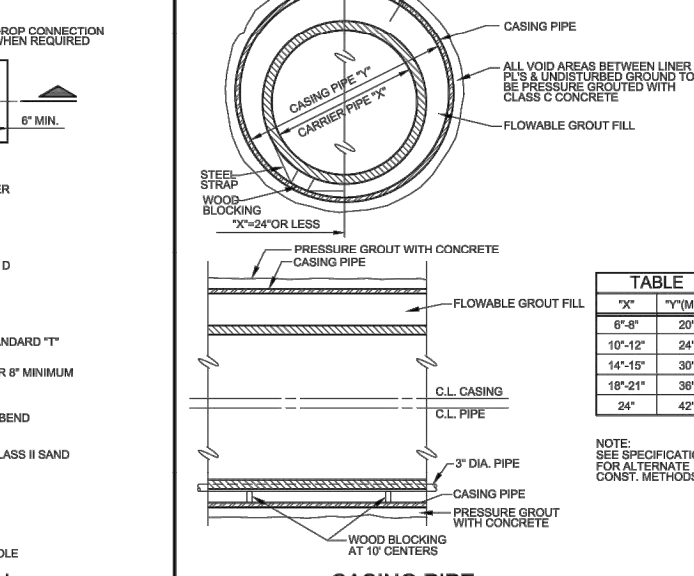
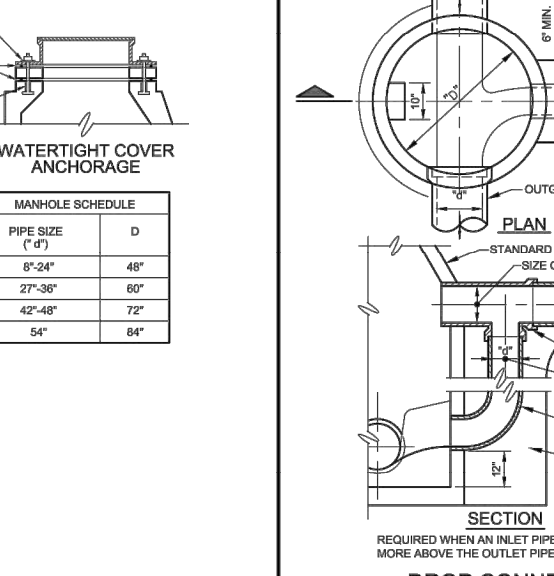
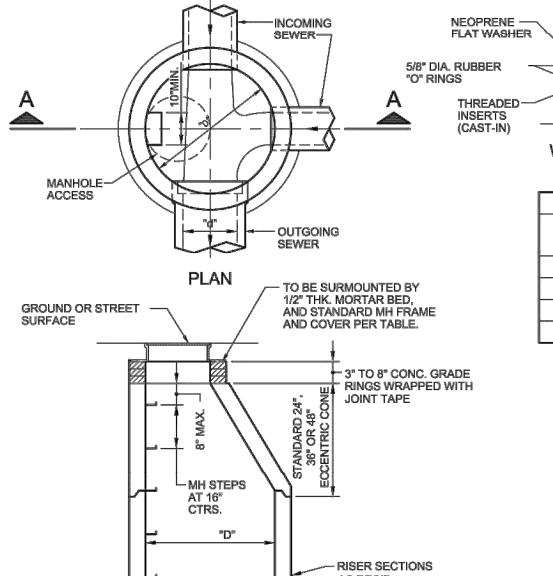
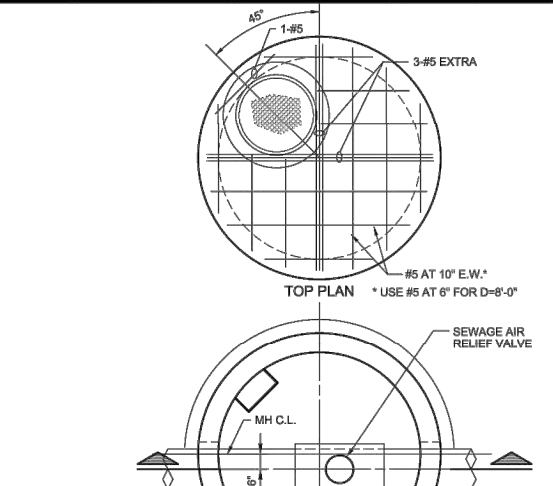
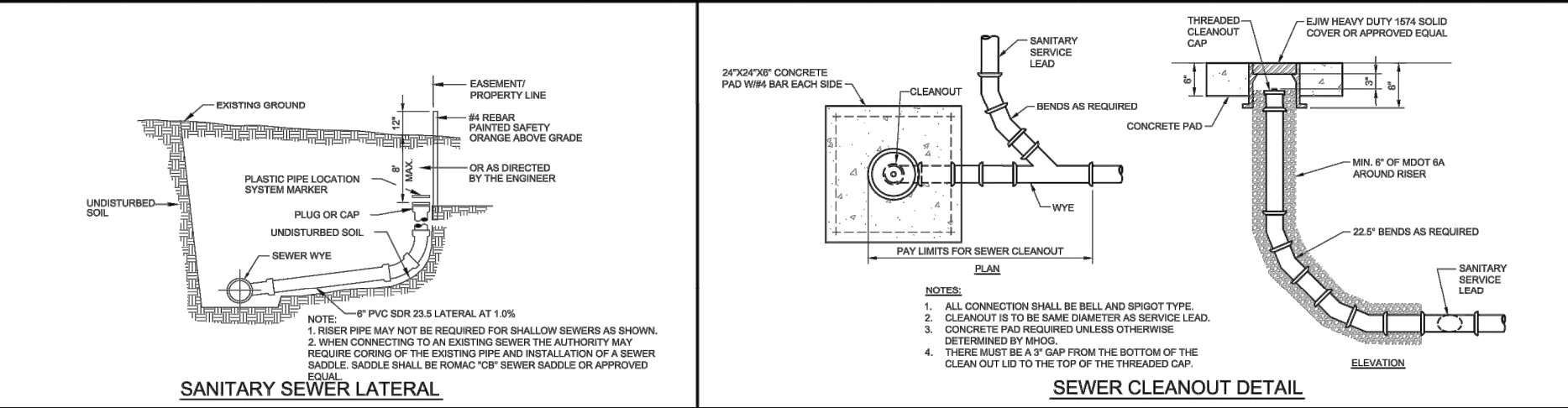
DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: NTS
JOB NO: 21-581
DATE: 01/06/2022
SHEET NO. 7

PIPE RESTRAINT SCHEDULE									
PIPE DIAMETER	GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE					REDUCERS (ONE SIZE REDUCTION)	REDUCERS (TWO SIZE REDUCTION)		
	TEES	90° BENDS	45° BENDS	25-30° BENDS	15-14° BENDS				
4	15	4	3	1	40	31	-		
6	19	5	4	2	50	41	31		
8	24	10	8	3	70	50	70		
12	34	14	7	3	100	87	118		
16	43	19	8	4	130	99	137		
20	52	23	10	5	160	107	156		
24	61	28	12	6	190	120	172		
30	72	33	15	7	240	140	188		
36	84	39	17	8	300	164	210		

1. LENGTH OF PIPE RESTRAINT ARE GIVEN IN FEET.
2. REQUIRED FOR CONNECTIONS NOT LISTED IN THIS TABLE, THE NEXT LARGEST PIPE DIAMETER SHALL BE USED.
3. THIS TABLE IS BASED ON A 100' LENGTH OF PIPE.
4. THIS TABLE IS BASED ON A 100' LENGTH OF PIPE.
5. THIS TABLE IS BASED ON A 100' LENGTH OF PIPE.
6. THIS TABLE IS BASED ON A 100' LENGTH OF PIPE.



MARION HOWELL OCEOLA GEORGIA
Standard and Water Utility Authority



MARION HOWELL OCEOLA GEORGIA
Standard and Water Utility Authority

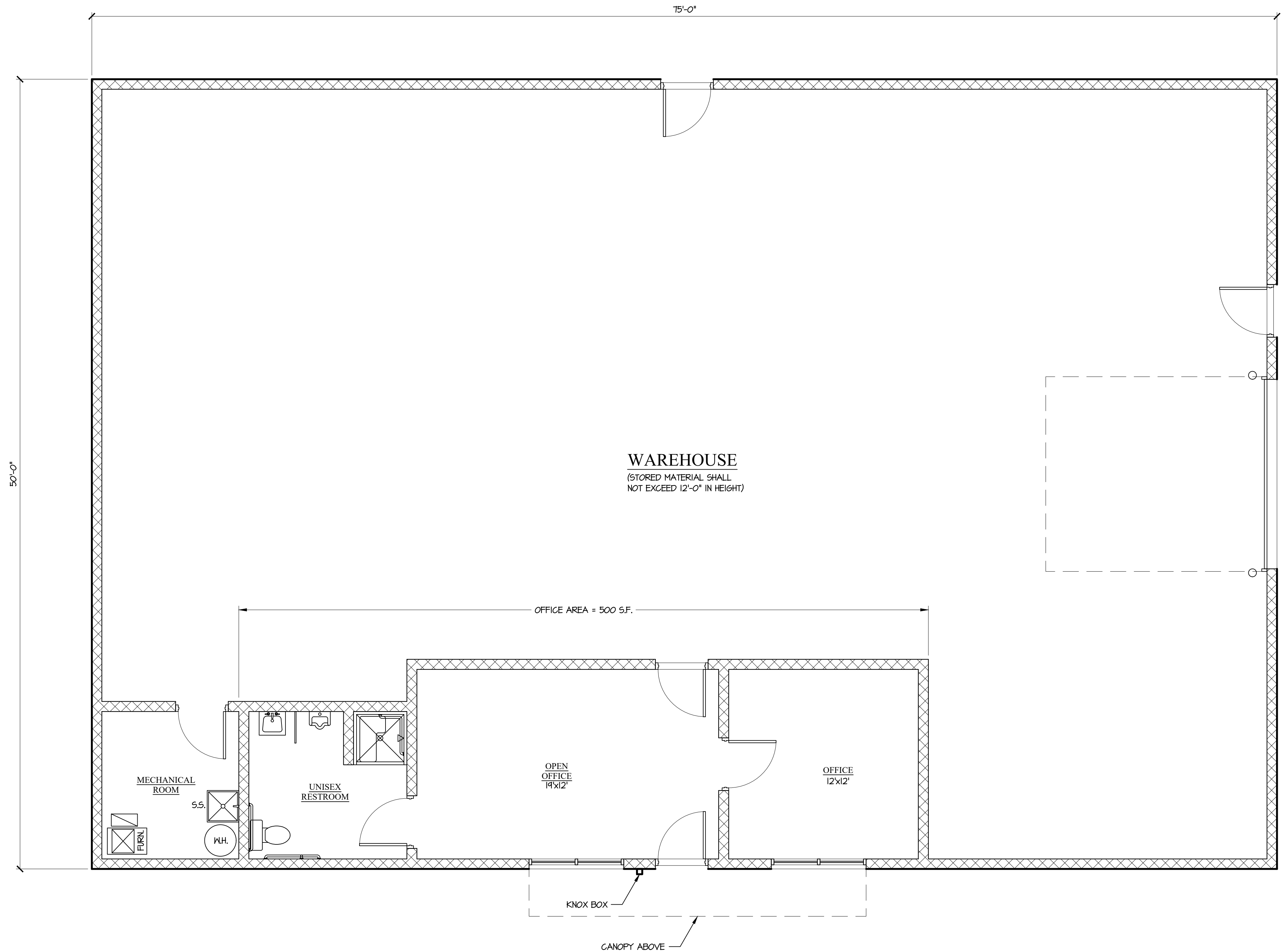
PROJECT: A & J CARTAGE PROPOSED BUILDING
PREPARED FOR: A & J CARTAGE
1247 FENOT DRIVE
HOWELL, MI. 48843
517-981-0515

NO.	REVISION	DATE
1	BY	DATE
2	BY	DATE
3	BY	DATE
4	BY	DATE
5	BY	DATE

DESIGNED BY: JA
DRAWN BY: JA
CHECKED BY: BL
SCALE: NTS
JOB NO: 21-581
DATE: 01/06/2022
SHEET NO. 8

NO.	REVISION	PER	DATE
1	BY	DATE	
2	BY	DATE	
3	BY	DATE	
4	BY	DATE	
5	BY	DATE	

BOSS ENGINEERING



FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 3,750 GSF



PUCCI + VOLLMAR ARCHITECTS, PC
 ARCHITECTURE + DESIGN + PLANNING
 508 E. GRAND RIVER AVE., SUITE 100B, BRIGHTON, MI 48116-1566
 PHONE (810) 225-2930
 www.pv-a.com



PROJECT: **A+J CARTAGE**
 1247 FENDT DRIVE
 GENOA TOWNSHIP, MICHIGAN

SHEET TITLE: **FLOOR PLAN**

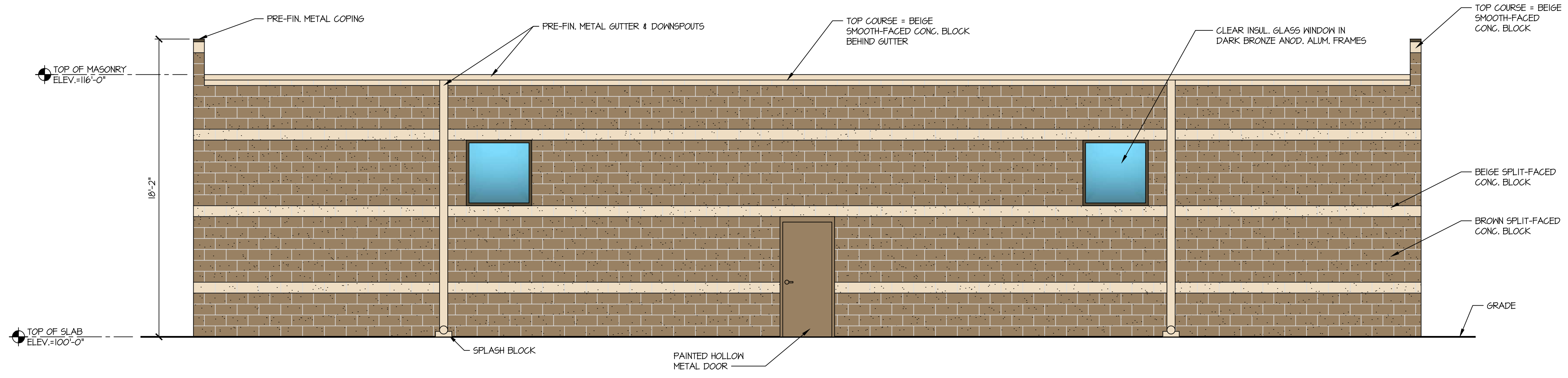
DATE	ISSUED FOR	OWNER REVIEW	PER OWNER REVIEW	SITE PLAN SUBMITTAL	REVISED PER TOWNSHIP REVIEW
12-11-2023					
1-9-2023					
1-6-2023					
2-14-2022					

DO NOT SCALE THIS PRINT, USE DIMENSIONS SHOWN ONLY

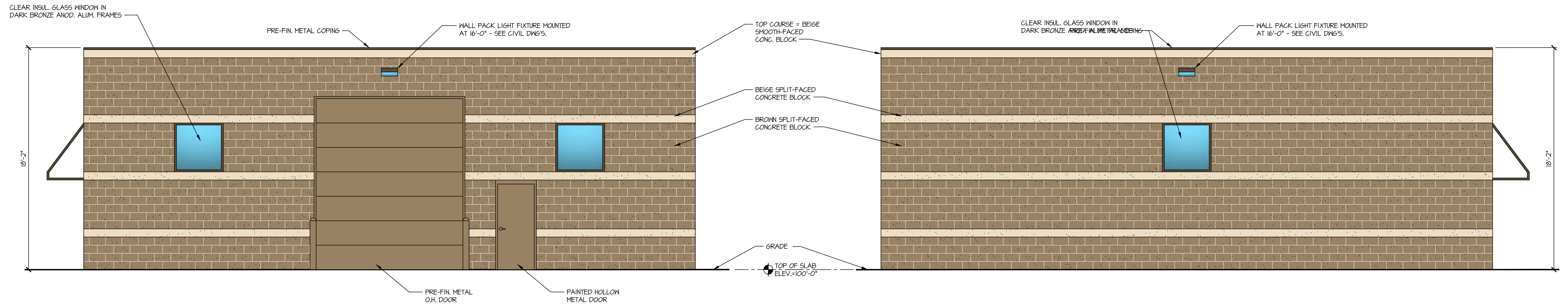
DRAWN BY: KY
 APPROVED BY: KY

PROJECT: 2144

SHEET: **A1**

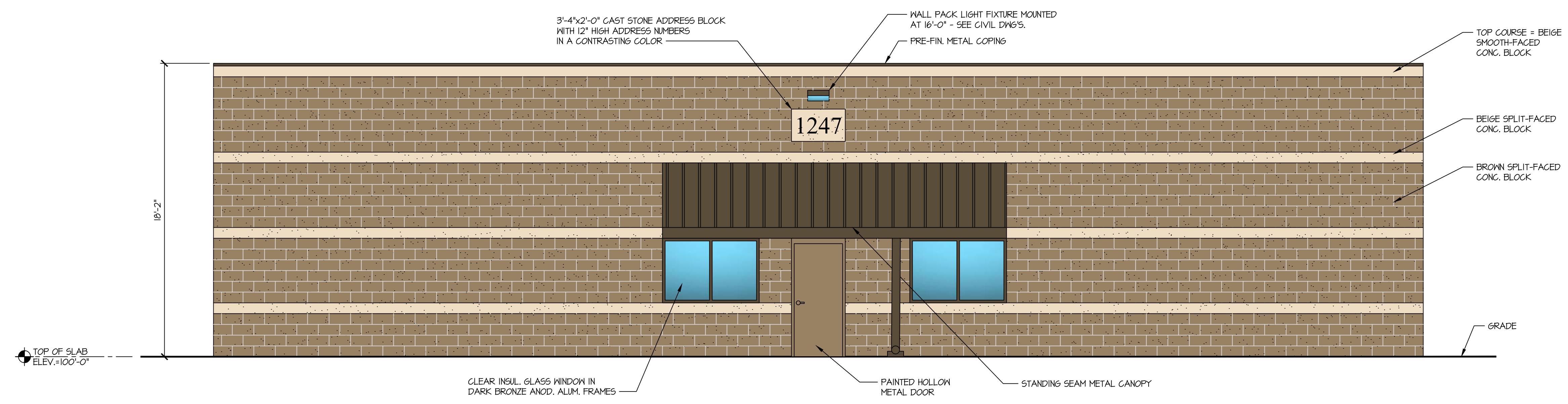


EAST (REAR) ELEVATION
SCALE: 1/4" = 1'-0"



SOUTH (SIDE) ELEVATION
SCALE: 1/4" = 1'-0"

NORTH (SIDE) ELEVATION
SCALE: 1/4" = 1'-0"



WEST (FRONT) ELEVATION
SCALE: 1/4" = 1'-0"

TOWNSHIP REQMT'S.
ZONED: IND
MAX. HEIGHT: 30 FT./2 STORIES
PROPOSED = 18'-2" / 1 STORY
MATERIALS: SPLIT FACED CONCRETE BLOCK
PERCENTAGE = 100% MAX. (COMPLIES)

NOTES
1) THERE WILL NOT BE ANY ROOF TOP MECHANICAL EQUIPMENT.
2) THERE WILL NOT BE ANY SIGNAGE.
3) ALL LIGHTING SHALL BE DIRECTED DOWNWARD AND SHIELDED.



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ARCHITECTURE + DESIGN + PLANNING
508 E. GRAND RIVER AVE., SUITE 100B, BRIGHTON, MI 48116-1566
PHONE: (810) 225-2930
www.pv-a.com



PROJECT: A+J CARTAGE 1247 FENDT DRIVE GENOA TOWNSHIP, MICHIGAN
SHEET TITLE: COLOR EXTERIOR ELEVATIONS

REVISION	DATE	BY	DESCRIPTION
1	12-11-2023	KV	OWNER REVIEW
2	12-11-2023	KV	OWNER REVIEW
3	12-11-2023	KV	OWNER REVIEW
4	12-11-2023	KV	OWNER REVIEW
5	12-11-2023	KV	OWNER REVIEW
6	12-11-2023	KV	OWNER REVIEW
7	12-11-2023	KV	OWNER REVIEW
8	12-11-2023	KV	OWNER REVIEW
9	12-11-2023	KV	OWNER REVIEW
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46	12-11-2023	KV	OWNER REVIEW
47	12-11-2023	KV	OWNER REVIEW
48	12-11-2023	KV	OWNER REVIEW
49	12-11-2023	KV	OWNER REVIEW
50	12-11-2023	KV	OWNER REVIEW

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DRAWN BY: KV
APPROVED BY: KV
PROJECT: 2144
SHEET: **A2**

DISCUSSION ITEMS

A. Name(s) and address(es) of person(s) responsible for preparation of the Impact Assessment and a brief statement of their qualifications.

Prepared by:

Jennifer M. Austin, PLA
Boss Engineering
3121 E Grand River
Howell, MI 48843

Prepared for:

Applicant & Owner:
Al Halliday
1247 Fendt Dr.
Howell, MI 48843

B. Description of the site, including existing structures, man-made facilities, and natural features, all-inclusive to within 10' of the property boundary.

The subject property is part of Tax ID # 4711-08-201-010 in the NW ¼ of Section 8, Genoa Township, Livingston County, MI, and is Unit 10 of the GenTech Industrial Park on Fendt Drive, just off Grand Oaks Drive.

The subject site is bordered:

- North by a parcel occupied by Crash Tool zoned IND, East by a vacant parcel zoned NRPUD, West by UPS zoned IND and South by another parcel zoned IND.

Current zoning of the subject site is IND (Industrial) and has two gravel driveway entrances, and parking for 4-6 tractor trailers. The parcel is wooded along the east property line and has planted berms along the north and west property lines. A screening berm is located along the property line on the adjacent parcel to the south. See Existing Conditions Sheet 2 for an aerial of the parcel with these features noted.

C. Impact on natural features: A written description of the environmental characteristics of the site prior to development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.

Topography of the parcel is generally flat, soils are classified as loam by the USDA Natural Resources Conservation Service map and is depicted on Sheet 2. The parcel is mostly grass with a wooded area along the east property line that is predominantly Boxelder trees, Ash trees and understory/brush screening. Berms have been constructed previously on the north and west property lines and are planted with various deciduous and evergreen trees ranging in height from 8-20'. A lower area can be found on the east property line at the edge of the woodland.

SPECIFIC OVERVIEW

The soils and natural features throughout the site are specified on the Existing Conditions Sheet 2.

D. Impact on storm water management: description of soil erosion control measures during construction.

A detention basin and forebay have been designed to manage on-site drainage. Sheet flow from the west side of the building and the concrete and gravel surfaces will be directed to the forebay in the front of the site. The remaining parcel drainage will flow to the detention basin on the north side of the site. Discharge from the basin will outlet to the Fendt Drive R.O.W. which then flows north to the 36" storm sewer at the north line of Gen Tech Industrial Park and the regional detention basin.

E. Impact on surrounding land use: Description of proposed usage and other man-made facilities; how it conforms to existing and potential development patterns. Effects of added lighting, noise or air pollution which could negatively impact adjacent properties.

This use is compatible with surrounding Industrial uses as only 4-6 trailers will be stored on site. The project proposes the construction of an office building with intermittent indoor parking/storage of a tractor trailer and related maintenance material/equipment. The south driveway gravel entrance will be removed and restored as grass. The north driveway entrance is proposed as concrete that continues to the parking area. No new impacts to the area are proposed.

F. Impact on public facilities and services: Description of number of residents, employees, patrons, and impact on general services, i.e., schools, police, fire.

A total of two employees use the site currently and are expected to continue. The impact on existing public facilities and services will have a marginal impact.

Normal police and fire protection services should remain unchanged.

G. Impact on public utilities: description of public utilities serving the project, i.e., water, sanitary sewer, and storm drainage system. Expected flows projected in residential units.

The office building will need to be connected to public sanitary and MHOG water which both run along Fendt Drive at the front of the site.

A total of two employees are planned and impact on existing public facilities and services will have a marginal impact.

H. Storage or handling of any hazardous materials: Description of any hazardous materials used, stored, or disposed of on-site.

Approximately 20 gallons of motor oil for routine maintenance of a tractor trailer will be stored in the proposed building, in addition to typical tractor trailer maintenance materials and equipment.

No outdoor storage will be located within the required 25-foot side yard setbacks nor any other required yard setback.

I. Impact on traffic and pedestrians: Description of traffic volumes to be generated and their effect on the area.

Current traffic volume to the site is minimal with two tractor trailers leaving the site Monday through Friday from 6:00-8:00 a.m. and returning to the site between 6:00-7:00 p.m. No increase in this traffic volume is planned.

J. Special provisions: Deed restrictions, protective covenants, etc.

None.

K. Description of all sources:

- Genoa Township Zoning Ordinance
- Natural Resources Soil Conservation Services, USDA