CITY OF BURTON

BURTON PLANNING COMMISSION MEETING

FEBRUARY 13, 2018

AGENDA

Council Chambers | **Regular Meeting** | **5:00 PM**

4303 S. CENTER ROAD
BURTON, MI 48519

A. PLEDGE OF ALLEGIANCE

B. ROLL CALL

C. STAFF PRESENT

D. APPROVAL OF MINUTES

1. Planning Commission - Regular Meeting - Jan 9, 2018 5:00 PM

E. SITE PLAN REVIEW

1. SPR #18-06

   By: ABRD, LLC.
   5121 Flushing Rd.
   Flushing, MI

   Re: 3245 Card Dr. Burton, MI 48529
   59-33-501-027 M-2 zone

   For: Addition to building and construction of an additional building for medical marijuana

F. MASTER PLAN UPDATE

G. ADMINISTRATIVE SITE PLAN REVIEW

1. SPR #18-02

   By: Mark O'Brien
   8152 Rose Ln.
   Goodrich, MI 48438

   Re: 5490 Davison Rd.

   For: Change of use – Storage only

2. SPR #18-03

   By: T-Rex Corp.
   3245 Card Dr.
   Burton, MI 48529

Re: 3245 Card Dr. Burton, MI 48529

For: Change of ownership of existing medical marijuana grow facility

3. SPR #18-04

By: The Barn, LLC.
3491 E. Bristol Rd.
Burton, MI 48529

Re: 3491 E. Bristol Rd. Burton, MI 48529

For: Change of use to comply with new City Ord. for a medical marijuana provisioning center

4. SPR #18-05

By: Michael Joubran
2259 Ridgemoor Ct.
Burton, MI 48509

Re: 3380 Warehouse Dr. Burton, MI 48529

For: Change of ownership/use of an existing medical marijuana processing facility

H. AUDIENCE PARTICIPATION

Now is the time set-aside for members of the audience to address the Burton Planning Commission. I would ask each individual to give their name and address for the record and to limit their comments to three (3) minutes and to speak on the topics germane to City business.

I. BOARD DISCUSSION

1. The next regularly scheduled meeting will be held on Tuesday, March 13, 2018 at 5:00 PM.

CITY OF BURTON

BURTON PLANNING COMMISSION MEETING

JANUARY 9, 2018

MINUTES

Council Chambers | **Regular Meeting** | **5:00 PM**

4303 S. CENTER ROAD
BURTON, MI 48519

This meeting was opened by Chairman Deb Walton at 5:00 PM.

A. PLEDGE OF ALLEGIANCE WAS LED BY DEB WALTON.

B. ROLL CALL

ame	Title	Status	A ved
n	Councilman	Present	
	Vice Chair	Present	
	Commissioner	Excused	
	Chairman	Present	
	Commissioner	Excused	
	Commissioner	Present	
ite	Commissioner	Present	
on	Commissioner	Present	
o	Mayor	Present	

C. STAFF PRESENT

Amber Abbey, Planning/Zoning
Rik Hayman, Chief of Staff
Steve Phillips, IT Director
Marcy Kimball, Clerk's Office

D. APPROVAL OF MINUTES

1. Planning Commission - Workshop - Nov 13, 2017 10:00 AM

RESULT:	**ACCEPTED [UNANIMOUS]**
MOVER:	Robert Johnson, Commissioner
SECONDER:	Vaughn Smith, Councilman
AYES:	Smith, Burge, Walton, Johns, White, Johnson, Zelenko
EXCUSED:	Gorang, Benthall

2. Planning Commission - Regular Meeting - Dec 12, 2017 5:00 PM

Minutes Acceptance: Minutes of Jan 9, 2018 5:00 PM (APPROVAL OF MINUTES)

RESULT:	**ACCEPTED [UNANIMOUS]**
MOVER:	Robert Johnson, Commissioner
SECONDER:	Vaughn Smith, Councilman
AYES:	Smith, Burge, Walton, Johns, White, Johnson, Zelenko
EXCUSED:	Gorang, Benthall

E. PUBLIC HEARING

1. SPR #18-01 / ZC# 319

By: Wilson Boji
3761 Coolidge
Troy, MI 48084

Re: 4312 S. Dort Hwy., Burton, MI 48529
Parent Parcel# 59-32-400-030 – Split approved parcel number pending

For: Zoning Change from C-2 General Business to M-1 Light Industrial

Mayor Zelenko stated this is the Public Hearing for SPR #18-01 / ZC# 319 regarding 4312 S. Dort Hwy., Burton, MI 48529, zoning change from C-2 general business to M-1 light industrial.

David Boji stated he and his father Wilson Boji are the owners of Southmoor Golf Course. We are here today to request, with the approval of the land split, that two out of three parcels on our property get rezoned from the current C-2 zoning to M-1 Zoning. The golf course has been losing money for the last seven years and we have been looking for other options for the course. We have found a development that not only helps us but also will be good for the City of Burton. If rezoned to M-1 we will have the opportunity to bring in a medical marijuana provisioning center, processing center and large grow facility. This development has the potential to create a large amount of tax revenue and jobs for the City of Burton.

Engineer Garrett Greenley stated if approved, this would be a two phase development. The first phase would consist of 5 class C grow houses, approximately 42,000 sq. ft. facility. The redevelopment and repurposing of the Club house would be renovated into a dispensary, provisioning center and processing center. Currently the golf course is about 93 acres. We would occupy about half of that and leave the rest of the area as green space to offer a buffer. We would have a chilled water plant which would be a more industrial and efficient way to cool the buildings. After the permitting phase, there would be about a 6 month construction time. We will then be able to gauge the market accordingly. Phase 2 would begin in 12 to 18 months. We would add another 5 buildings, a central utility park power generation plant. This would be the first carbon negative commercial cannabis center in the country. We would be producing our own electricity and sequestering more carbon dioxide than we omit. We would not be using any electricity from the grid. This plant would be completely fenced in with security gates. We have been working on this plan for 5 years. No pesticides will be used and there will be no smell. It will be some of the highest quality medicine and research Michigan has ever seen.

Minutes Acceptance: Minutes of Jan 9, 2018 5:00 PM (APPROVAL OF MINUTES)

Mrs. Abbey said if approved by City Council, the applicant will submit a site plan approval. At that time the Planning Commission may add any additional site conditions if any. The applicants request is to only rezone the portion that fronts Dort Hwy and Judd Rd. It would not impact this frontage, it is all industrial uses. There is a minimal of 300 ft. from the nearest residential property and over a 1000 ft. from the school. These distances between the property lines will allow the Planning Commission to set buffers in the future and would protect those uses from any use within the M-1 zone that he chooses to move forward with. Any use within the M-1 zone would be appropriate for this zoning change. The administration recommends approval.

Mr. Burge asked if the citizens have been notified of this zoning change.

Mrs. Abbey stated yes they have been notified 15 days prior to the meeting as required by the Zoning Enabling Act. We are not acting on the use. If they are approved for this zoning change they can act on any permitted use within that zone.

Mr. Smith asked what the property taxes would be if this property were to go vacant.

Mr. Boji said the property taxes are now around $33,000 per year.

Mr. Johns said regardless of what goes on this property, I think this would be a benefit for the citizens of Burton and the taxpayers of Burton.

Mayor Zelenko stated the change to this zoning is conducive to the area. There is M1 zoning across the street and on Judd Road, as well. Southmoor has been a good public partner with the City and a good community supporter. They are coming to us, telling us they want to be here and that they want to save their business. They are trying to diversify and with a zoning change they have other options. I do not think this is unreasonable and I support the zoning change.

Mr. Smith said I am also in favor of this zoning change. This could be a big savior for our city. Everything is regulated by the state. I think this is good for our county, our city and our state.

Mrs. Abbey said the first reading of the ordinance for city council will be January 10, 2018 at 6:30 PM. The second reading will be January 18, 2018 at 7 PM.

RESULT:	**CARRIED [5 TO 2]**
MOVER:	Robert Johnson, Commissioner
SECONDER:	Kris Johns, Commissioner
AYES:	Smith, Walton, Johns, Johnson, Zelenko
NAYS:	Burge, White
EXCUSED:	Gorang, Benthall

F. ADMINISTRATIVE SITE PLAN REVIEW

1. SPR #17-55

Minutes Acceptance: Minutes of Jan 9, 2018 5:00 PM (APPROVAL OF MINUTES)

By: Mike Maehala
5150 Candlewood Dr.
Grand Blanc, MI 48439

Re: 4470 Saginaw St. Burton, MI 48529

For: Wholesale Vehicles Sales

2. SPR #17-56

By: Kurt Pfeiffer
5223 Wishing Well Dr.
Grand Blanc, MI 48439

Re: 4274 Davison Rd. Burton, MI 48509

For: Parking lot repairs for drainage issue

3. SPR #17-57

By: Domestic Imports Exotic Cars Chevrolet, LLC.
1096 N. Center Rd. Ste 131
Burton, MI 48509

Re: 1096 N. Center Rd. Ste 131 Burton, MI 48509

For: Wholesale Vehicle Sales

4. SPR #17-58

By: The Vine P.C., LLC.
1952 Howland Blvd.
White Lake, MI 48386

Re: 4086 S. Dort Hwy. Burton, MI 48529

For: Medical Marijuana Provisioning Center

5. SPR #17-59

By: Michael George
7003 Clintonville Rd.
Clarkston, MI 48348

Re: 3323 Associates Dr. Burton, MI 48529

Minutes Acceptance: Minutes of Jan 9, 2018 5:00 PM (APPROVAL OF MINUTES)

For: Medical Marijuana Grow Facility

6. SPR #17-60

By: Michael George
7003 Clintonville Rd.
Clarkston, MI 48348

Re: 3365 Associates Dr. Burton, MI 48529

For: Medical Marijuana Provisioning Center

7. SPR #17-61

By: Lon Neville
4199 Davison Rd.
Burton, MI 48509

Re: 4218 Davison Rd. Burton, MI 48509

For: Parking lot expansion

8. SPR #17-62

By: Michigan Vendco // Bigfoot Wellness
4045 E. Court St.
Burton, MI 48509

Re: 4045 E. Court St. Burton, MI 48509

For: Medical Marijuana Provisioning Center

G. AUDIENCE PARTICIPATION

None.

H. DISCUSSION ON MASTER PLAN

None.

I. BOARD DISCUSSION AND OR ACTION

Mrs. Abbey said Ms. White asked me to check into the underground tanks at 4274 Davison Rd. I have researched this and the earliest record was July 1966. They pulled a permit to move a home onto the property. At this point, I assume the gas station had been closed. No underground tanks were shown in the records at this time. If the tanks are there we could not make them remove them. If a gas station was approved to go in at the present

Minutes Acceptance: Minutes of Jan 9, 2018 5:00 PM (APPROVAL OF MINUTES)

time and went out of business, the tanks would be required to be removed. Mr. Burge was concerned about the downed trees along the Bristol Road Bridge. I spoke to the project engineer and he said that they did not remove any trees and that the trees that Mr. Burge was referring to were on private property not in the project right-of-way. He thinks they have been there for quite some time.

Meeting was adjourned at 5:50 PM.

Minutes Acceptance: Minutes of Jan 9, 2018 5:00 PM (APPROVAL OF MINUTES)

City of Burton
Department of Public Works
4093 Manor Drive
Genesee County, Burton, Michigan 48519
(810) 742-9230

APPLICATION FOR SITE PLAN REVIEW

DATE FILED: 1-30-18
FEE: $200.00
RECEIPT NO: ____
CHECK NO: ed.

SPR #: 18-06

PLEASE PRINT

DATE OF PLANNING COMMISSION MEETING: February 13, 2018
APPLICANTS NAME: ABRD, LLC
APPLICANTS ADDRESS: G-5121 Flushing Road Flushing, MI
APPLICANTS PHONE NO: 810-732-8500
PROPOSED NAME OF BUSINESS: Great Lakes C
SITE ADDRESS: 3245 Carol Drive Burton, MI
SUBDIVISION & LOT # OR PARCEL NUMBER: Lot 30 Bristol Road Industrial Park Tax Parcel Number 59-33-501-027
RE: February 13, 2018 Planning Commission Meeting

APPLICANT: IT IS TO YOUR ADVANTAGE TO ATTEND THE ABOVE SCHEDULED MEETING. THE PLANNING COMMISSION MAY HAVE QUESTIONS THAT DIRECTLY AFFECT APPROVAL, DENIAL, OR POSTPONING UNTIL THESE QUESTIONS CAN BE ANSWERED.

APPLICANTS SIGNATURE: Managing Member

NOTE: All site plans must be filed at least two (2) weeks prior to the Planning Commission hearing and **MUST** comply with the procedures set forth in Section 157.092 of Codified Ordinance as attached. Must include **twelve (12) sets** of prints in order to process the application.

Attachment: Back up 18-06 (3518 : SPR #18-06)

SITE PLAN FOR

GREAT LAKES C

LEGAL DESCRIPTION (AS PROVIDED)

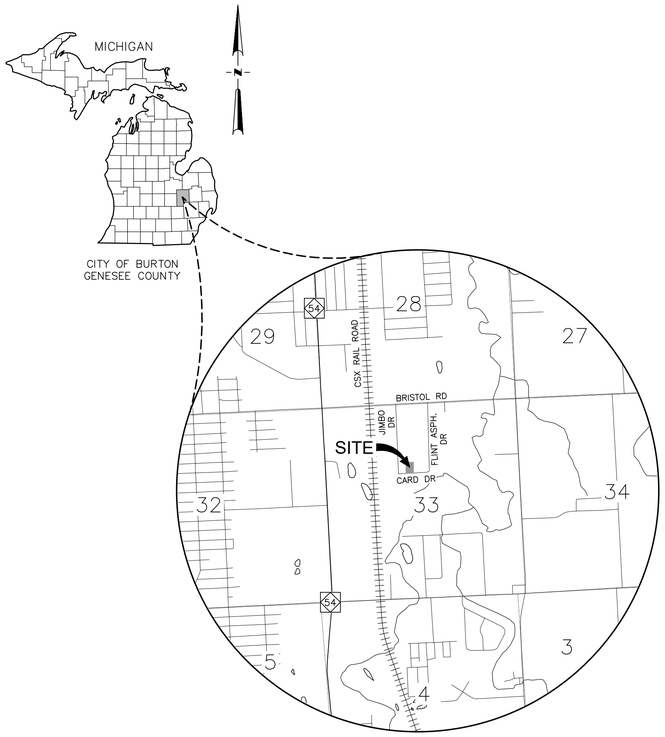
(Per Tax Description by: Genesee County GIS Map)

Parcel Tax Number: 59-33-501-027

LOT 30 BRISTOL ROAD INDUSTRIAL PARK.

BEARING REFERENCE

Bearings are based on Project Coordinate System:
Michigan State Plane Coordinate System, NAD83 (Conus) (MoI) (GRS80), South Zone 2113, International Feet, Ground (Lat: 42-5-11.9, Lon: 83-38-38.5, Elev: 813, Scale Factor: 1.0000391219).



LOCATION MAP

DESIGN ENGINEER

MONUMENT ENGINEERING GROUP ASSOCIATES, INC

ENGINEERS - SURVEYORS - CONSULTANTS
LANDSCAPE ARCHITECTS - LAND PLANNERS

638 S GRAND AVE.,
FOWLERVILLE, MI 48836
ALLAN W PRUSS, PE, PS
PHONE: 517-223-3512

CLIENT

BRIVAR CONSTRUCTION COMPANY

7258 KENSINGTON ROAD
BRIGHTON, MI 48116
PHONE: (248) 446-8000

ARCHITECT

MICHAEL MCKELVEY ARCHITECT

5900 CREEKVIEW COURT
ANN ARBOR, MI 48108
PHONE: (734) 418-2554

SHEET INDEX

			PLAN SUBMITTALS: 1/30/2018 SITE PLAN SUBMITTAL
			INCLUDED SHEETS
		GENERAL	
SHEET	G-1.0	COVER	●
		SURVEY	
SHEET	V-1.0	TOPOGRAPHIC SURVEY & DEMOLITION PLAN	●
SHEET	V-2.0	TREE SURVEY & INVENTORY	●
		SITE PLAN	
SHEET	C-1.0	DIMENSION & PAVING	●
		VEHICLE CIRCULATION PLAN	
SHEET	C-2.0	VEHICLE CIRCULATION PLAN	●
		UTILITY PLAN	
SHEET	C-3.0	UTILITY PLAN	●
SHEET	C-3.1	STORM SEWER PROFILES	
		GRADING, SOIL EROSION & SEDIMENTATION CONTROL PLAN	
SHEET	C-7.0	GRADING, SOIL EROSION & SEDIMENTATION CONTROL PLAN	●
		STORM WATER MANAGEMENT PLAN	
SHEET	C-9.0	DRAINAGE AREA PLAN	
SHEET	C-9.1	STORM WATER CALCULATIONS	
SHEET	C-9.2	DETENTION BASIN DETAILS	
		DETAILS	
SHEET	C-11.0	DETAILS	●
		SPECIFICATIONS	
SHEET	C-12.0	SPECIFICATIONS	●
SHEET	C-12.1	SPECIFICATIONS	●
		LANDSCAPE	
SHEET	L-1.0	LANDSCAPE PLAN	●
SHEET	W-1.0	WOODLAND IMPACT PLAN	

CITY OF BURTON, GENESEE COUNTY STANDARD DETAILS

ENGINEERS · SURVEYORS
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CLIENT :

BRIVAR CONST. CO.
7258 KENSINGTON ROAD
BRIGHTON, MI 48116
(248) 446-8000

COVER

GREAT LAKES C
3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N-R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/30/18

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18-003

SCALE: N/A
0 1/2" 1"

FIELD: SE, SS, DH
DRAWN BY: DC
DESIGN BY: BS
CHECK BY: AP

G-1.0

NOT FOR CONSTRUCTION

Attachment: Back up 18-06 (3518 : SPR #18-06)

3245 CARD DRIVE
TOPOGRAPHIC SURVEY & DEMOLITION PLAN

BENCHMARKS

Datum: NAVD88

BM A:
RAIL ROAD SPIKE ON NORTH SIDE UTILITY POLE, 27'± SOUTH OF CENTERLINE CARD DRIVE & 85'± WEST OF SUBJECT'S SOUTHWEST PROPERTY CORNER.
Elev = 795.76

BM B:
RAIL ROAD SPIKE ON NORTH SIDE UTILITY POLE LOCATED AT SUBJECT'S SOUTHEAST PROPERTY CORNER.
Elev = 794.98

DEMOLITION LEGEND

- ABANDON IN PLACE
- ABANDON LINEAR FEATURE
- SAWCUT
- REMOVE LINEAR FEATURE
- REMOVE OBJECT
- REMOVE PAVEMENT

EXISTING PARKING

22	Regular Spaces
0	Barrier Free Spaces
22	Total Parking Spaces

XX / XX — REGULAR SPACES / BARRIER FREE SPACES

EXISTING LEGEND

- DECIDUOUS TREE, CONIFEROUS TREE, SHRUB
- TREE LINE/ CANOPY
- DITCH/ DRAINING COURSE
- UG TELE, MH, TELE PED, CABLE PED
- UG FIBER, PED, LINE MARKER, VAULT
- UG ELEC, MH, TRANSFORMER, AC UNIT, METER
- OH ELEC, UTIL POLE, GUY WIRE
- GROUND LIGHT, POLE, POLE W/ ARM LT
- LIGHT MH, LT CTRL BOX, PH, BOOTH, PARK. METER
- ELEC HAND HOLE, OUTLET, SIGNAL MH, SIGNAL BOX
- UG GAS, MH, VALVE, LINE MARKER
- GAS WELL, METER, VENT
- WATER MAIN, MH, VALVE IN BOX, HYDRANT, FDC
- WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
- IRRIGATION CONTROL VALVE, SPRINKLER HEAD
- STORM SEWER, MH, CB, INLET, YARD DRAIN
- CULVERT/ END SECTION
- SANITARY SEWER, MH, CLEAN OUT
- COMBINED SEWER, MH
- STEAM LINE, MH
- MISC. MANHOLE, HAND HOLE, HAND BOX
- SIGN, FLAG POLE, GUARD POST, ROCK
- SECTION LINE, SECTION CORNER
- SURVEY CONTROL POINT, BENCHMARK
- FOUND IRON ROD (FIR), FD MON, FD PK
- SET IRON ROD (SIR), SET PK, MAG NAIL
- SPOT ELEVATION
- CONTOUR
- FENCE
- GUARD RAIL
- RAILROAD SIGNAL, SIGNAL BOX
- ROW MARKER
- SOIL BORING
- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL

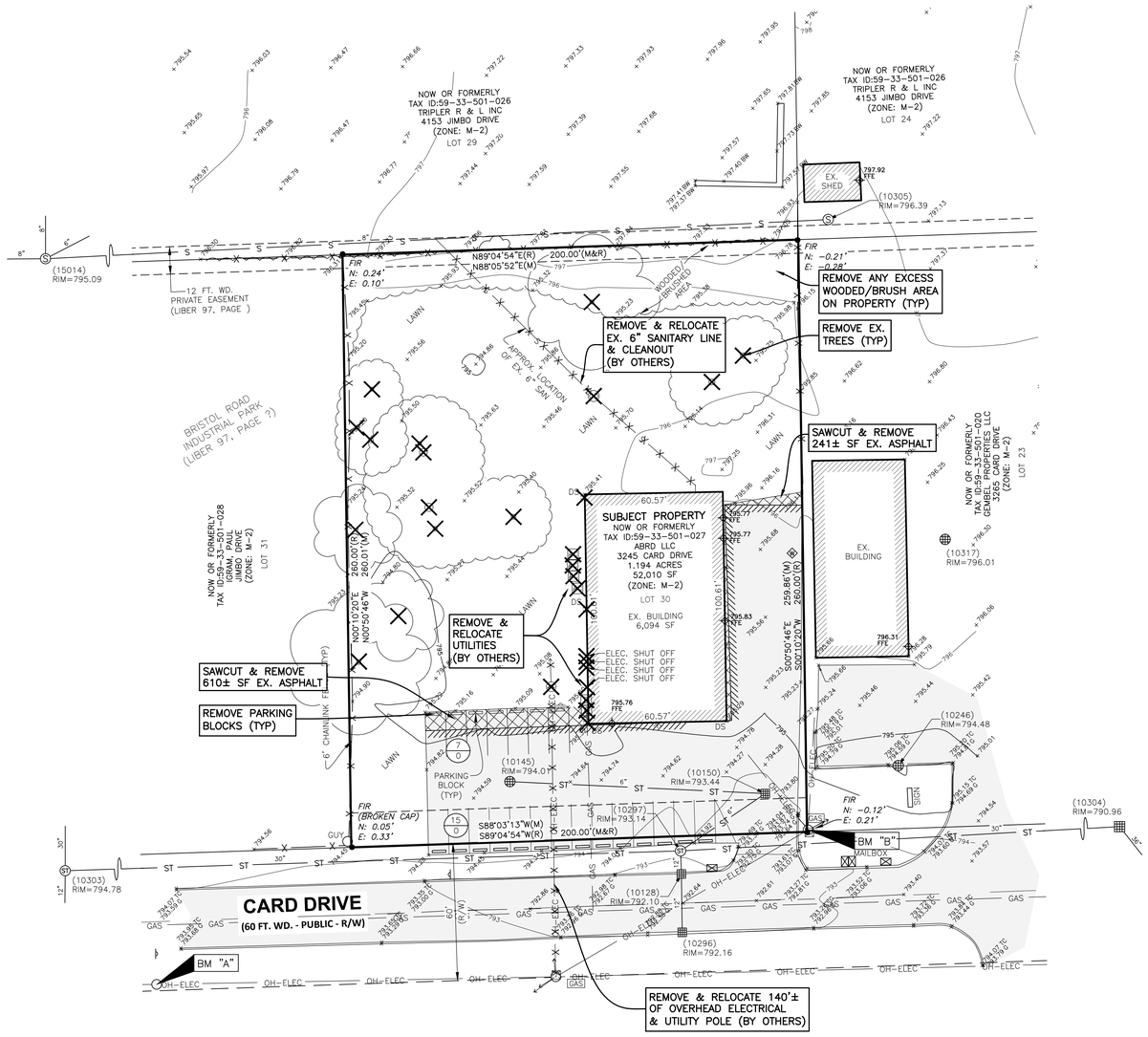
STRUCTURE SCHEDULE

EX. STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
(10128) CBS	792.10	12" S IE= 787.13 12" N IE= 787.11
(10145) CBR	794.01	6" E IE= 791.06
(10150) CBS	793.44	6" W IE= 791.19 6" SW IE= 791.19
(10246) CBR	794.48	NOT INVENTORIED AT TIME OF SURVEY
(10296) CBS	792.16	12" N IE= 787.81
(10297) STMH	793.14	6" NE IE= 790.14 30" W IE= 782.22 30" E IE= 782.07 12" S IE= 786.64
(10303) STMH	799.16	12" S IE= 787.81 30" N IE= 783.41 30" E IE= 782.91
(10304) CBS	790.96	30" W IE= 781.74 36" SE IE= 781.64
(10317) CBR	796.01	NOT INVENTORIED AT TIME OF SURVEY

EX. SANITARY SEWER		
STRUCTURE	RIM ELEV.	PIPES
(10295) SAN	794.93	8" W IE= 790.19 8" N IE= 790.06 8" S IE= 790.14
(10305) SAN	796.39	8" W IE= 790.09 *END OF LINE* NO PIPES TO E
(15014) SAN	795.09	6" NE IE= 789.67 8" N IE= 787.92 8" W IE= 787.92 8" E IE= 787.92

REFERENCE INFO

WM: Received:	"WELL" (GENESEE CO. HEALTH DEPT.) N/A
SAN: Received:	CITY OF BURTON 1/16/18
STORM: Received:	CITY OF BURTON 1/16/18
GAS: Received:	CONSUMERS ENERGY 1/15/18
ELEC: Received:	CONSUMERS ENERGY 1/15/18
PHONE/CABLE: Received:	AT&T 1/19/18



FLOOD ZONE

FEMA map scales do not supply sufficient level of detail to plot accurately. Zones if plotted herein are approximate.

By scaled map location and graphic plotting only, the subject property appears to lie entirely in Zone (X) Areas determined to be outside of the 0.2% annual chance floodplain according to the Flood Insurance Rate Map for the County of Genesee, Community Panel No. 26049C0307D, Effective Date September 25, 2009.

WINTER NOTE

This survey was performed under winter conditions. All reasonable measures were taken during the survey to obtain all information necessary. However, some information may not be shown due to snow cover.

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Monumental Engineering Group Associates, Inc.

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FOWLERVILLE,
MICHIGAN 48836
(OFFICE) 517-223-3512
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THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED THAT THESE ARE THE ONLY UTILITIES. ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

BRIVAR Construction Company

BRIVAR CONST. CO.
7258 KENSINGTON ROAD
BRIGHTON, MI 48116
(248) 446-8000

TOPO SURVEY & DEMO PLAN

GREAT LAKES C
3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N-R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/30/18

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18-003

SCALE: 1" = 30'
0 1/2" 1"

FIELD: SE, SS, DH
DRAWN BY: DC
DESIGN BY: BS
CHECK BY: AP

V-1.0

NOT FOR CONSTRUCTION

Attachment: Back up 18-06 (3518 : SPR #18-06)

TREE INVENTORY

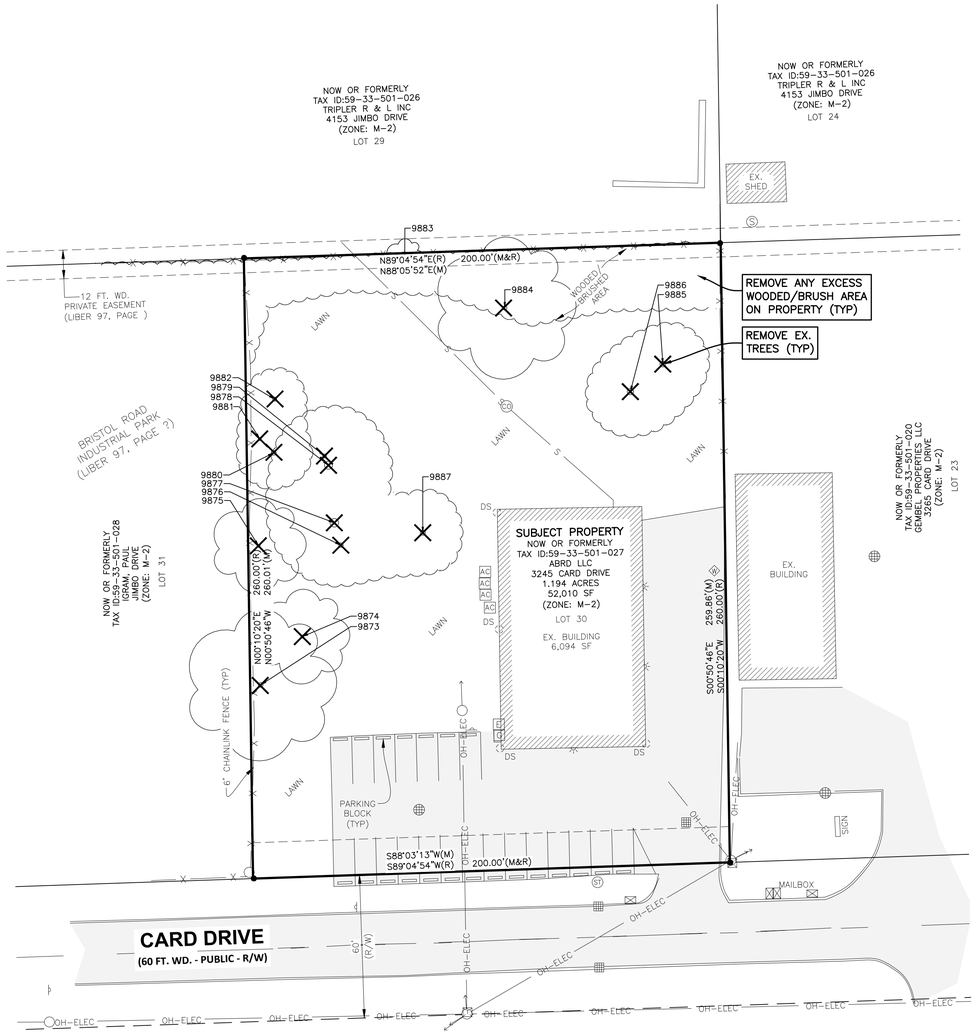
Monument Engineering Group Associates, Inc.
638 S. Grand Ave, Fowlerville, MI
(517) 223-3512
www.monumentengineering.com

Tree Survey

Project No./Name: 18-003 Card Drive Date: January 23, 2018

Tag No.	Scientific Name	Common Name	D.B.H.	Condition	Notes
9873	Populus deltoides	Cottonwood, Poplar	32	Good	
9874	Populus deltoides	Cottonwood, Poplar	20	Good	
9875	Acer negundo	Box Elder	20	Poor	Cerioporus squamosus present
9876	Ulmus americana	American Elm	16	fair	
9877	Populus deltoides	Cottonwood, Poplar	30	fair	
9878	Acer negundo	Box Elder	28	fair	
9879	Acer negundo	Box Elder	14	fair	
9880	Acer negundo	Box Elder	17	fair	
9881	Acer negundo	Box Elder	10	fair	
9882	Acer negundo	Box Elder	12,6,3	Poor	Vines present, many dead branches
9883	Acer negundo	Box Elder	8,4	fair	
9884	Acer saccharinum	Silver Maple	8,10,6,20	fair	
9885	Populus deltoides	Cottonwood, Poplar	20	fair	
9886	Populus deltoides	Cottonwood, Poplar	22	fair	
9887	Acer negundo	Box Elder	18,6,3	Poor	Cerioporus squamosus present

3245 CARD DRIVE
TREE SURVEY & INVENTORY



TREE SURVEY LEGEND

- DECIDUOUS TREE
- CONIFEROUS TREE
- TREE LINE/ CANOPY
- (900) TREE TAG NUMBER (SEE TREE SCHEDULE)
- TREE TO BE REMOVED

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FOWLERVILLE,
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CLIENT :

BCC BRIVAR Construction Company

BRIVAR CONST. CO.
7258 KENSINGTON ROAD
BRIGHTON, MI 48116
(248) 446-8000

TREE SURVEY & INVENTORY

GREAT LAKES C
3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N-R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/30/18

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18-003

SCALE: 1" = 30'
0 1/2" 1"

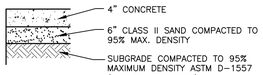
FIELD: SE, SS, DH
DRAWN BY: DC
DESIGN BY: BS
CHECK BY: AP

V-2.0

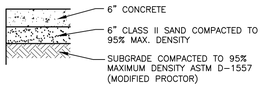
NOT FOR CONSTRUCTION

Attachment: Back up 18-06 (3518 : SPR #18-06)

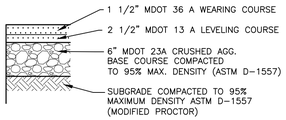
CONCRETE SIDEWALK SECTION



DUMPSTER PAVEMENT SECTION

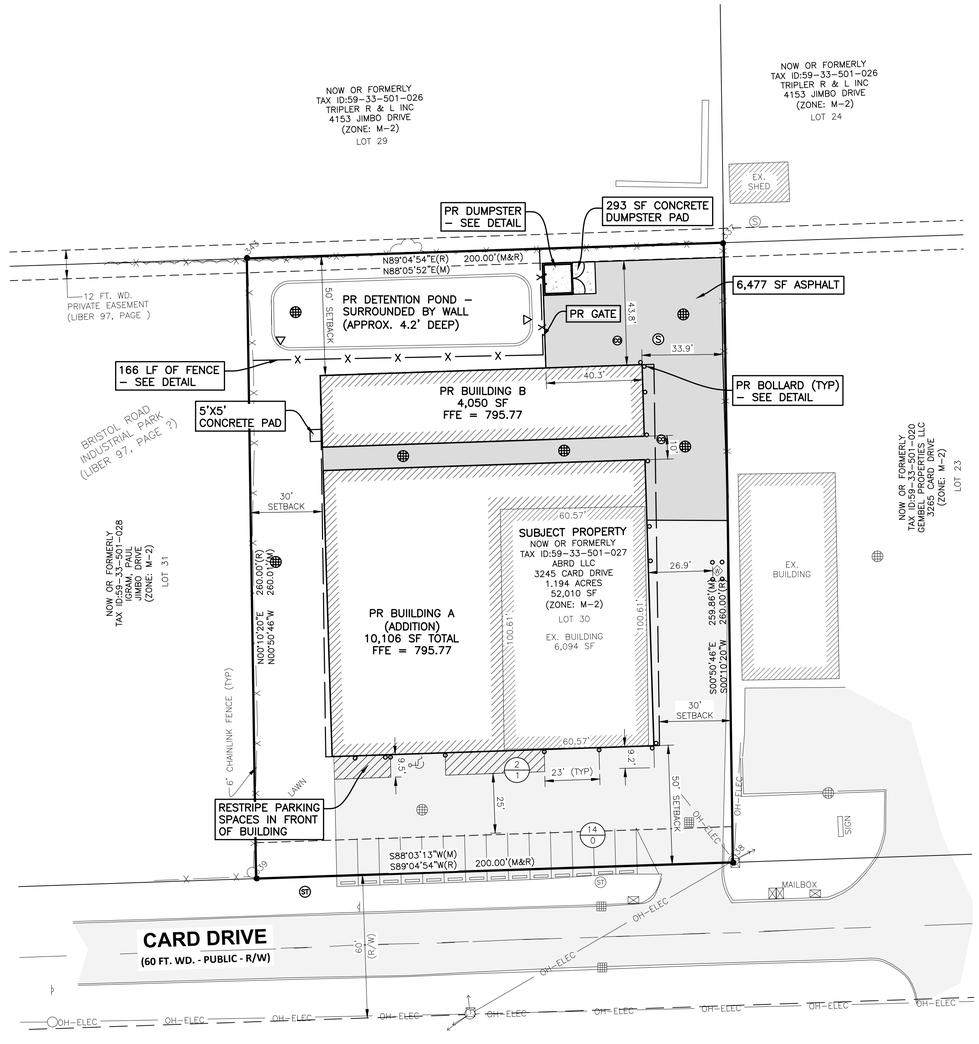


STANDARD DUTY PAVEMENT SECTION



3245 CARD DRIVE

DIMENSION & PAVING PLAN



PAVEMENT LEGEND

- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL
- PR. STANDARD DUTY ASPHALT
- PR. HEAVY DUTY ASPHALT
- PR. CONCRETE
- PR. GRAVEL
- STANDARD CURB AND GUTTER
- REVERSE CURB AND GUTTER

ZONING INFORMATION

This zoning information is taken from Burton, MI Code of Ordinances - Chapter 157: Zoning
Dated: 10/01/2012

Subject Parcel Zoning Classification: (M-2) (General Industrial)
Building Setbacks:

Front (South):	50'
Side (East):	30'
Side (West):	30'
Rear (North):	50'

Subject Parcel Area: 1.19 Acres

Proposed Building:

Building A (Addition):	10,106 SF
Building B:	4,050 SF

Lot Coverage:

Building:	39%

ADJACENT ZONING:

North:	M-2
South:	M-2
East:	M-2
West:	M-2

PROPOSED PARKING

5 + 1:1 MAX EMPLOYEE ON SHIFT
5 + 12 = 17 MIN

Total Parking Required: MIN 17

Parking spaces:	16
Barrier free parking spaces:	1
Total parking provided:	17

XX REGULAR SPACES
XX BARRIER FREE SPACES

NOTES

1. Dumpster enclosures shall be constructed of the same brick material as the adjacent buildings.
2. Screening shall be provided for all mechanical equipment.
3. Parking lot islands shall be finished in grass, ground cover or mulch.

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DIMENSION & PAVING PLAN

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3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N-R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/30/18

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18-003

SCALE: 1" = 30'
0 1/2" 1"

FIELD: SE, SS, DH
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DESIGN BY: BS
CHECK BY: AP

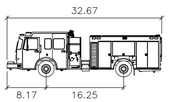
C-1.0

NOT FOR CONSTRUCTION

Attachment: Back up 18-06 (3518 : SPR #18-06)

3245 CARD DRIVE
VEHICLE CIRCULATIONS PLAN

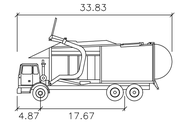
EMERGENCY VEHICLE



Toyne Pumper

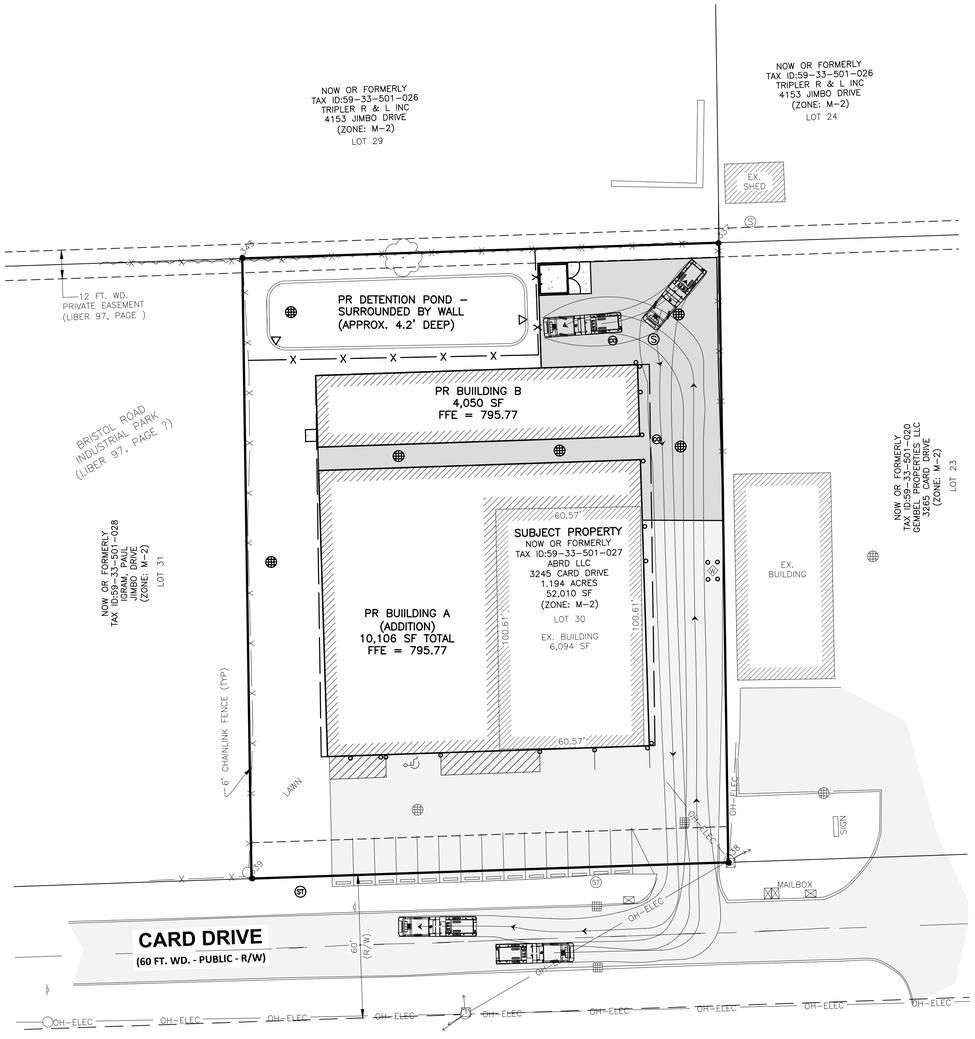
	feet
Width	: 8.35
Track	: 7.93
Lock to Lock Time	: 6.0
Steering Angle	: 50.0

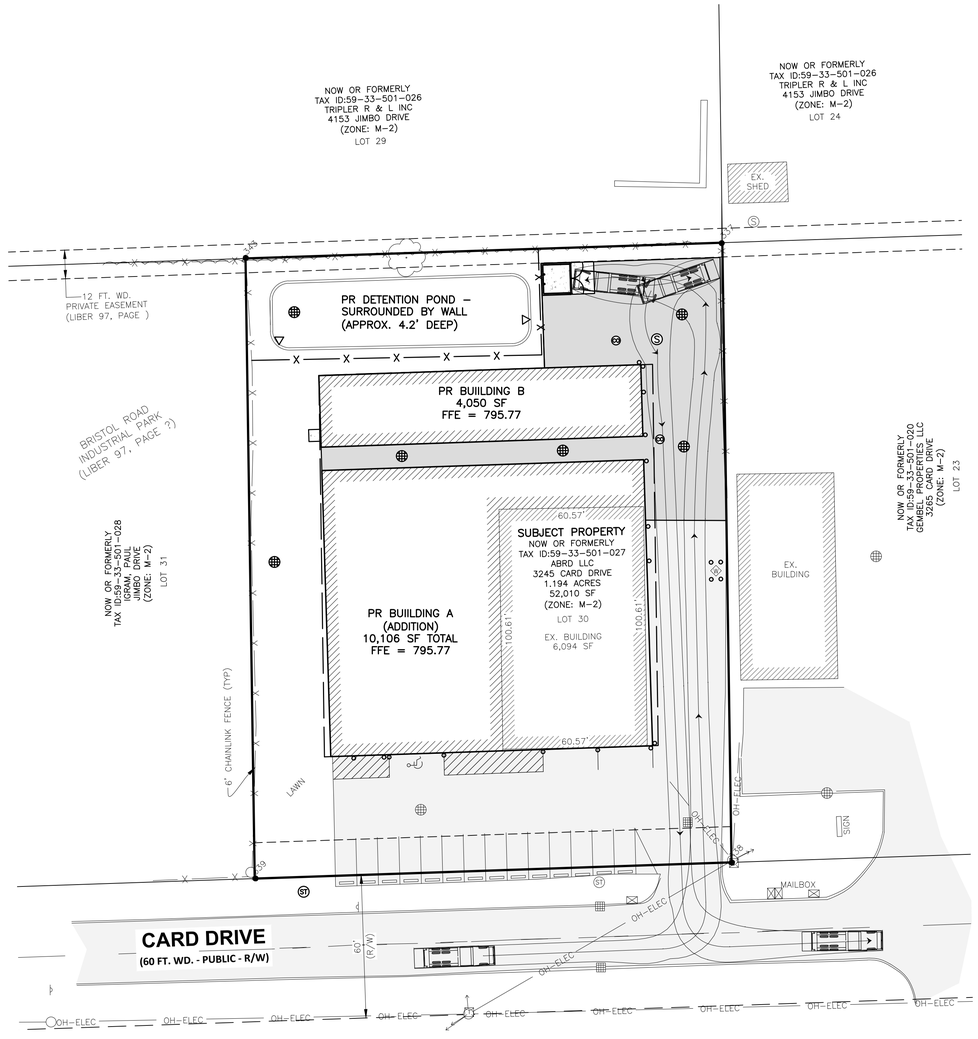
REFUSE VEHICLE



Wayne Titan

	feet
Width	: 8.46
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 45.0





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VEHICLE CIRCULATION PLAN

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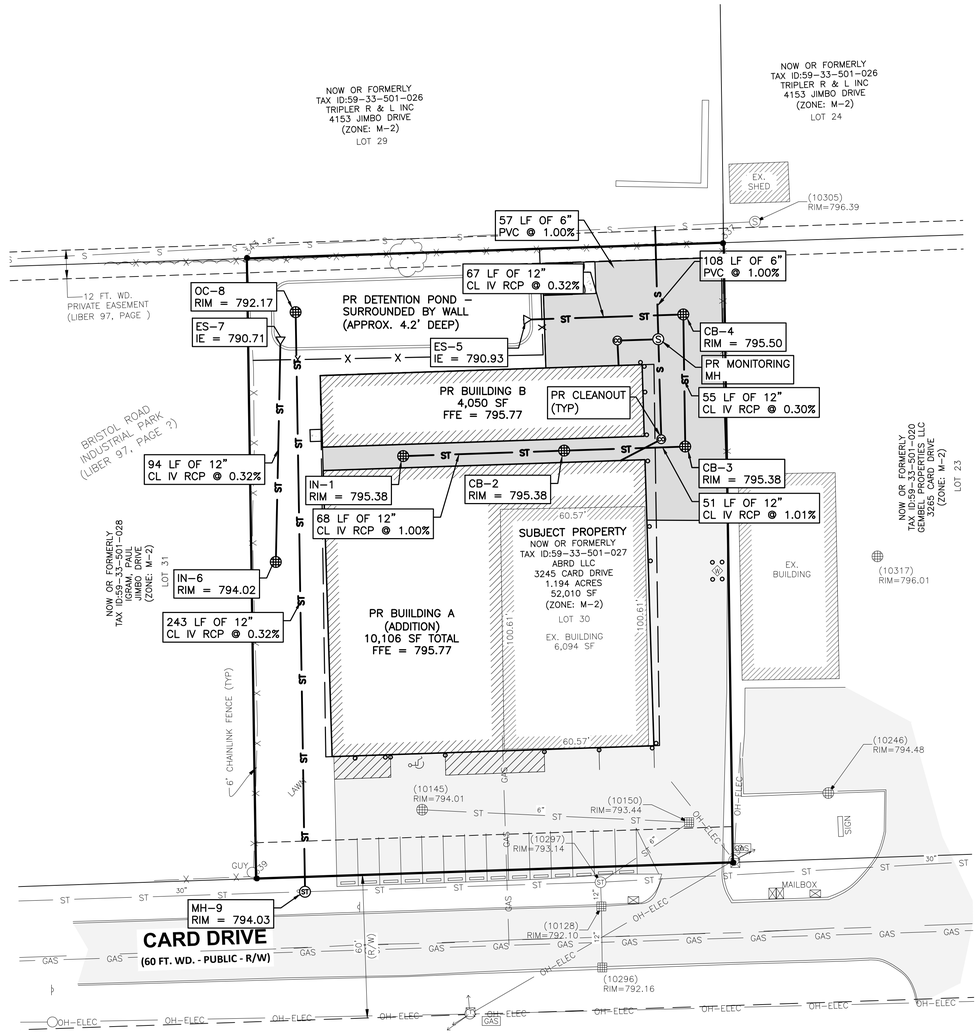
UTILITY LEGEND

PROPOSED	EXISTING	
WM	WM	WATER MAIN, MH, VALVE IN BOX, HYDRANT
W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST Y.D. ST	ST Y.D. ST	STORM SEWER, MH, CB, INLET, YARD DRAIN
		CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG-ELEC	UG-ELEC	UG ELEC (ELEC, CABLE, FIBER)

3245 CARD DRIVE
UTILITY PLAN



NOTES

2. "IN" & "CB" structures shall have EJIW 1020 frame with type M1 grate. Curb "IN" & "CB" structures shall have EJIW 7010 frame with type M1 grate and T1 BACK. "MH" shall have EJIW 1020 frame with type A cover.

STRUCTURE SCHEDULE

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
CB-2	795.38	12" W IE= 790.54 12" E IE= 790.44
CB-3	795.38	12" N IE= 791.41 12" W IE= 789.93
CB-4	795.50	12" S IE= 791.24 12" W IE= 790.93
ES-5	792.40	12" E IE= 791.14
ES-7	791.96	12" S IE= 790.71
IN-1	795.38	12" E IE= 791.22
IN-6	794.02	12" N IE= 791.02
MH-9	794.03	12" N IE= 789.72
OC-8	792.17	12" S IE= 790.50

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UTILITY PLAN

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BENCHMARKS

Datum: NAVD88

BM A:
RAIL ROAD SPIKE ON NORTH SIDE UTILITY POLE, 27'± SOUTH OF CENTERLINE CARD DRIVE & 85'± WEST OF SUBJECT'S SOUTHWEST PROPERTY CORNER.
Elev = 795.76

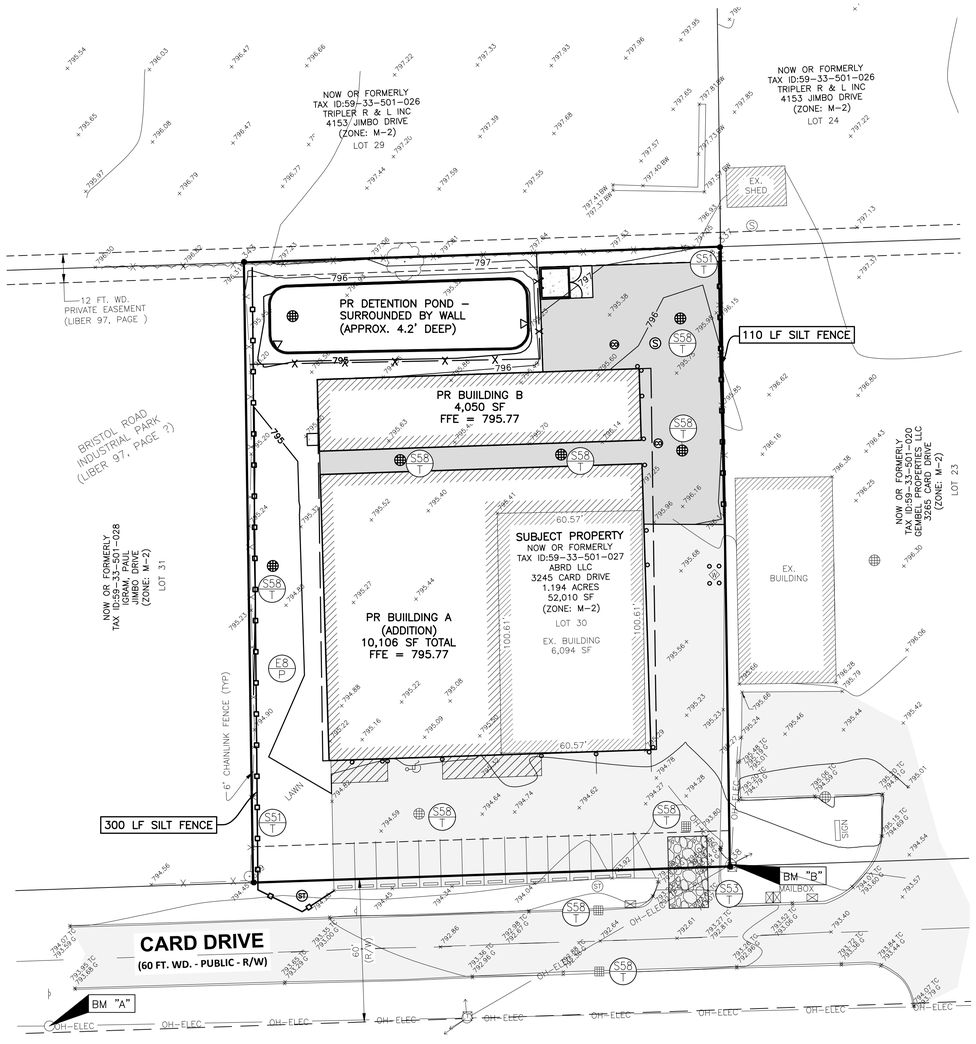
BM B:
RAIL ROAD SPIKE ON NORTH SIDE UTILITY POLE LOCATED AT SUBJECT'S SOUTHEAST PROPERTY CORNER.
Elev = 794.98

GRADING LEGEND

940.00 TP	PROPOSED TOP OF PAVEMENT GRADE
940.00 SW	PROPOSED SIDEWALK GRADE
940.00 FG	PROPOSED FINISH GRADE
940.00 TC 939.50 GP	PROPOSED TOP CURB GRADE PROPOSED GUTTER PAN GRADE
940.0 MA	MATCH EXISTING
940.00 RIM	PROPOSED RIM GRADE
940.00 ADJ-RIM	ADJUSTED RIM GRADE
940.00 X	EXISTING ELEVATION
900	EXISTING CONTOUR
900	PROPOSED CONTOUR
	LIMITS OF DISTURBANCE

3245 CARD DRIVE

GRADING, SOIL EROSION & SEDIMENTATION CONTROL PLAN



SESC LEGEND

SILT FENCE

MUD MAT

EROSION CONTROL QUANTITIES

Disturbed Area: 0.78 Acres

QTY	UNIT	ITEM
410	LF	SILT FENCE
9	EA	INLET FILTER

MDMB SOIL EROSION & SEDIMENTATION CONTROL MEASURES

MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET (MDMB)

EROSION CONTROLS

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).

SEDIMENT CONTROLS

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S55	SEDIMENT BASIN		At the outlet of disturbed areas and at the location of a permanent detention basin.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.

EROSION & SEDIMENT CONTROLS

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
ES31	CHECK DAM		Used to reduce surface flow velocities within constructed and existing flow corridors.

XX (T) TEMPORARY XX (P) PERMANENT

EROSION CONTROL STANDARDS

1. All erosion and sediment control work shall conform to the standards and specifications of Genesee County Drain Commissioner office.
2. Daily inspection shall be made by the contractor for effectiveness of erosion and sedimentation control measures, and any necessary repairs shall be performed without delay.
3. Erosion and any sedimentation from work on this site shall be contained on the site and not allowed to collect on any off-site areas or in waterways. Waterways include both natural and man-made open ditches, streams, storm drains, lakes and ponds.
4. Contractor shall apply temporary erosion and sedimentation control measures when required and as directed on these plans. Contractor shall remove temporary measures as soon as permanent stabilization of slopes, ditches and other changes has been accomplished.
5. Staging of the work will be done by the contractor as directed in these places and as required to insure progressive stabilization of disturbed areas.
6. Soil erosion control practices will be established in early stages of construction by the contractor. Sediment control practices will be applied as a perimeter defense against any transporting of silt off the site.
7. A certified storm water operator will be named on the MDEQ notice of coverage for NPDES as required.
9. All disturbed areas are to be top soiled and seeded with the following min ratio: top-soil 3" in depth, grass seed 210 lbs per acre, fertilizer 150 lbs per acre, straw mulch 3" depth 1.5 to 2 tons per acre.

SOIL EROSION CONTROL MAINTENANCE SCHEDULE AND NOTES.

1. Contractor must obtain a soil erosion and sedimentation control permit from Genesee County Drain commissioner office prior to commencing work.
1. Earthwork shall be limited to the proposed site as shown on the plan.
2. Contractor shall inspect the soil erosion/sedimentation control devices once a week and/or within 24 hours of a rainfall event which results in a storm water discharge from the site. Any damage to erosion control measures must be repaired immediately.
3. All mud or debris tracked onto existing public roads from the site due to construction shall be promptly removed by the contractor.
4. Silt fence maintenance shall include the removal of any built-up sediment when the sediment height accumulates to 1/3 to 1/2 of the height of the fence. The contractor is responsible to remove, replace, retrench or re-backfill the siltation fence should it fail or be damaged during construction.
5. Permanent stabilization bust be completed within 30 days of final grading.
6. Access roads must be maintained as necessary, to keep them effective, new layers of stone may be added as old layers become compacted. Steps should also be taken to repair the access roads if ruts or ponding water appears.
7. Inlet filters should be inspected for buildup of silt and other debris. This is evident if geotextile/sod structure is causing flooding. Maintenance would consist of removing of sediments with a stiff bristle broom or square point shovel. If inlet filter is beyond this level of repair, it may be necessary to replace both the sod and geotextile filter.
8. If soil erosion/sediment control measures are inadequate for the site. The proper erosion control authority must be notified.

SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION

1. The contractor shall install silt fence as shown on approved plans.
2. Remove all topsoil and organic matter. Topsoil may be stored on site in designated area to be used for future planting and fill areas. Truck remaining top soil offsite and properly dispose.
3. Rough grade and install new underground utilities including detention basin. Place inlet filters at proposed catch basins throughout site.
4. Detention basin shall be excavated, top soiled, and seeded immediately after demolition work is completed.
5. Construct buildings.
6. Finish grade around buildings and stabilize as soon as possible. Stabilize all disturbed areas with Class A seed and mulch. In areas of slopes of 1:4 or steeper, contractor to seed and install pegged in place erosion control blankets.
7. Repair/clean inlet filters as required.
8. Install final landscaping per separate landscape plan.
9. Stone around outlet standpipe structure shall be refreshed.
10. Remove temporary soil erosion measures once seeded vegetation has established. Clean all affected storm structures as necessary.

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GRADING & SESC PLAN

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3245 CARD DRIVE
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ORIGINAL ISSUE DATE: 1/19/2018

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0 1/2" 1"

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DESIGN BY: BS
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C-7.0

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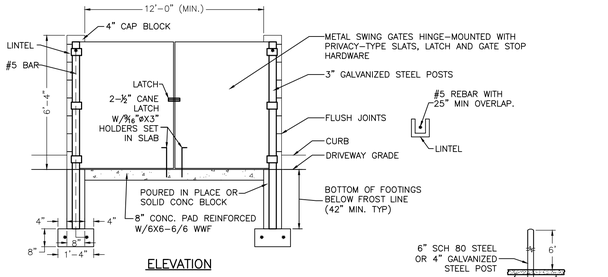
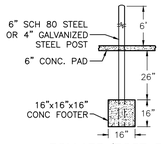
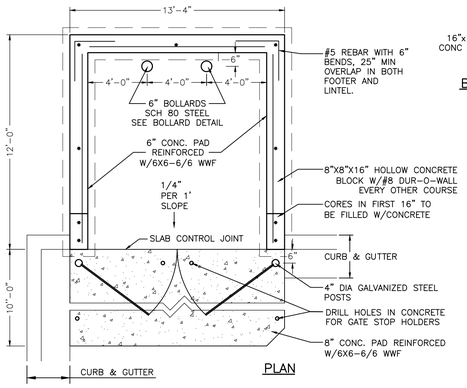


ELEVATION

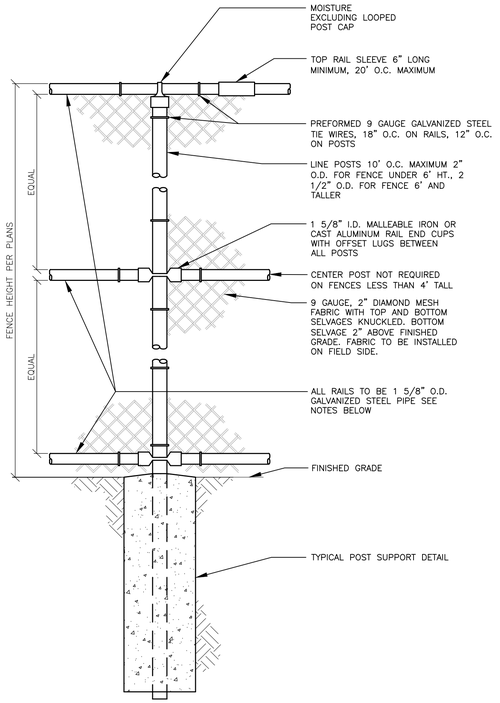


BOLLARD/POST DETAIL

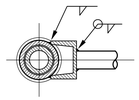


PLAN

DUMPSTER PAD AND ENCLOSURE
NO SCALE

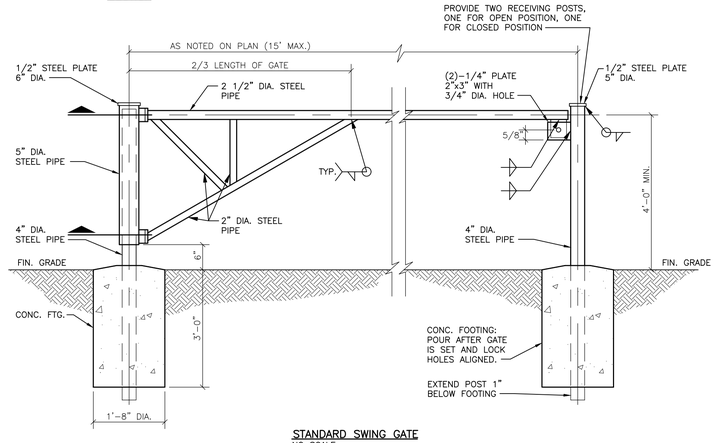


STANDARD CHAIN LINK FENCE DETAIL
NO SCALE

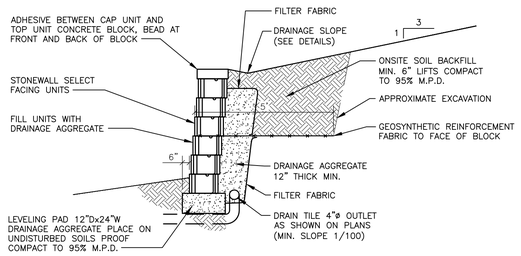


SECTION

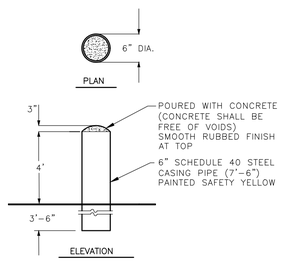
NOTE:
ALL PIPE ASTM A53, STANDARD WEIGHT.
GALVANIZE ASSEMBLY AFTER FABRICATION.



STANDARD SWING GATE
NO SCALE



TYPICAL SECTION 4' WALL
NO SCALE



CONCRETE BOLLARD
NO SCALE

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ALLAN W. PRUSS
ENGINEER
NO. 43168

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THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

BCC
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BRIVAR CONST. CO.
7258 KENSINGTON ROAD
BRIGHTON, MI 48116
(248) 446-8000

DETAILS

GREAT LAKES C
3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N-R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/30/18

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18-003

SCALE: N/A
0 1/2" 1"

FIELD: SE, SS, DH
DRAWN BY: DC
DESIGN BY: BS
CHECK BY: AP

C-11.0

NOT FOR CONSTRUCTION

Attachment: Back up 18-06 (3518 : SPR #18-06)

FILE:P:\Projects\2018\18-003 3245 Card Drive\Dwg\Engineering\18-003_C-11.0_Details.dwg DATE:1/19/2018 12:22 PM

GENERAL NOTES

1. All construction and materials shall be in accordance with the current standards and specifications of the local municipality, the County D.P.W., the County Drain Commissioner, Detroit Metro Water & Sewerage Department, Michigan Department of Transportation, Michigan Department of Environmental Quality, the State of Michigan, and the County Road Commission where applicable.
2. Rules, regulations or laws of any controlling Governmental Agency shall govern, when they are more stringent than the requirements of these specifications.
3. Should the contractor encounter a conflict between these plans and specifications, either among themselves or with the requirements of any and all reviewing and permit-issuing agencies, he shall seek clarification in writing from the engineer before commencement of construction. Failure to do so shall be at sole expense to the contractor.
4. The Contractor shall provide all materials, labor and equipment to complete the type of work which is bid, in accordance with the plans, specifications, details and to the satisfaction of the Owner and Owner's Representative.
5. Contractor agrees that in accordance with generally accepted construction practices, contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property; that this requirement shall be made to apply continuously and not be limited to normal working hours, and contractor further agrees to defend, indemnify and hold design professional harmless from any and all liability, real or alleged, in connection with the performance work on this project, excepting liability arising from the sole negligence of the design professional.
6. Any work within street or highway right-of-ways shall be done in accordance with the requirements of the governmental agencies having jurisdiction and shall not begin until permits have been issued by these governing authorities.
7. All necessary permits, bonds, insurances, etc., shall be paid for by the Contractor.
8. All elevations shown are based on benchmarks provided by the local municipality unless otherwise noted on the drawings.
9. All items of work not specifically indicated as pay items on the drawings or in the bid package shall be considered incidental items.
10. The contractor shall be responsible for dust control during the periods of construction.
11. At least three (3) working days prior to any excavation, the Contractor shall contact MISS DIG (1-800-482-7171) to verify the location of any existing underground utilities and shall notify representatives of other utilities in the vicinity of the work.
12. All properties or facilities in the surrounding areas, public or private, destroyed or otherwise disturbed due to construction, shall be replaced and/or restored to the original condition by the Contractor, at no additional cost to the owner.
13. Manhole, catch basin, gate well rims and hydrant finish grade elevations must be as-built and approved by the Engineer before the Contractor's work is considered complete. Agency requierments for record drawings also apply.
14. Contractor shall remove and dispose of off-site any trees, brush, stumps, trash or other unwanted debris, at the Owner's direction, including old building foundations and floors. The burning or burying of trash, stumps or other debris will not be allowed.
15. All references to M.D.O.T. specifications refer to the most current Standard Specifications For Construction.
16. All Contractors bidding this project shall have visited the site to become thoroughly familiar with the site and the conditions in which they will be conducting their operations. Any variance found between the plans and existing conditions shall be reported immediately to the Design Engineer.
17. The locations and dimensions shown on the plans for existing underground facilities are in accordance with available information provided by the utility companies and governmental agencies without uncovering and measuring. The Design Engineer does not guarantee the accuracy of this information or that all existing underground facilities are shown.
18. The Owner may employ and pay for the services of a Engineer to provide on-site inspection and verify in the field that all backfill, pavements and concrete curb and gutter have been placed and compacted in accordance with the plans and specifications. If, in the opinion of the Engineer, the work does not meet the technical or design requirements stipulated for the work, the Contractor shall make all necessary adjustments as directed by the Engineer. The Contractor shall make no deviations from the contract documents without specific written approval of the Owner.
19. All excavated material removed from the sanitary sewer, storm sewer and water main trenches under, through and within 3 feet of the 45° zone of influence line of existing or proposed paving, sidewalk areas and per plans, not suitable for backfill, shall be removed from these areas and disposed of.
20. The Contractor shall restore to their present conditions any pavement or public rights-of-way that is disturbed by the operations of the Contractor. All restoration work in public rights-of-way shall be performed to the satisfaction of the government agencies having jurisdiction.
21. The Contractor shall provide all necessary barricades, signage and lights to protect the work and safety maintain traffic, in accordance with local requirements and the Manual of Uniform Traffic Control Devices (latest edition).
22. O.S.H.A. safety requirements – all work, work practice, and materials shall comply with all applicable local, state and federal safety, occupational, health and environmental regulations and also NFPA and ANSI codes as applicable. All work inside a confined space such as manholes or underground structures shall be coordinated with utility owner and all worker safety requirements strictly enforced. Land shall be the sole responsibility of the contractor.
23. It shall be the contractor's responsibility to arrange for or supply temporary water service, sanitary facilities and electricity.
24. Contractor shall provide for the continuous operation of existing facilities without interruption during construction unless specifically authorized otherwise by the respective authority.
25. The contractor shall note existing underground utilities in the project plans. Backfill trenches for existing utilities shall be examined critically. Any trench which, in the opinion of the soils engineer are found to be soft, unstable, or unsuitable material shall be completely excavated and backfilled with suitable material. Sand backfill shall be used under pavement or within the 1 on 1 land influence of pavement or structures.

SECTION 02015 – EROSION CONTROL STANDARDS

1. All erosion and sediment control work shall conform to standards and specifications of the jurisdictional agency under Part 91 of Act 451 of 1994, as amended.
2. Under "Michigan's Permit-By-Rule For Construction Activities", promulgated under Act 245, Public Acts of 1929 as amended, an NPDES Storm Water Discharge Coverage permit is required for any construction activity that disturbs 1 acres or more of land. A certified storm water operator is required for the supervision and inspection of the soil erosion control measures at the construction site in accordance with the provisions of these rules.
3. Daily inspections shall be made by contractor while working to determine the effectiveness of erosion and sediment control measures. Any necessary repairs shall be performed without delay. All soil erosion control provisions shall be properly maintained during construction.

SECTION 02015 – EROSION CONTROL STANDARDS, CONTINUED

4. Erosion and any sedimentation from work on this site shall be contained on the site and not allowed to collect on any off-site areas or in waterways. Waterways include both natural and man-made open ditches, streams, storm drains, lakes, and ponds.
5. Contractor shall apply temporary erosion and sedimentation control measures when required and as directed on these plans. Contractor shall remove temporary measures as soon as permanent permanent stabilization of slopes, ditches, and other earth change areas have been completed.
6. Staging the work will be done by the contractor as directed in these plans and as required to ensure progressive stabilization of disturbed earth.
7. Soil erosion control practices will be established in early stages of construction by the Contractor. Sediment control practices will be applied as a perimeter defense against any transporting of silt off the site.
8. Dust shall be controlled by watering or by other approved means throughout all construction operations.
9. Permanent soil erosion control measures for slopes, channels, ditches or any disturbed land area shall be completed within 5 calendar days after final grading or the final earth change has been completed. When it is not possible to permanently stabilize a disturbed area after an earth change has been completed or where significant earth change has been completed or where significant earth change activity ceases, temporary soil erosion control measures shall be implemented within 5 calendar days. All temporary soil erosion control measures shall be maintained until permanent soil erosion control measures are implemented and established before a certificate of compliance is issued.

SECTION 02200 – GRADING AND EARTHWORK SPECIFICATIONS

1. Although a sub-surface investigation may have been made by the owner, the bidder and any sub-contractors shall make a personal investigation of site and existing surface and sub-surface conditions. The contractor is responsible to acquaint himself with conditions of the work area. The contractor is advised to determine the sub-surface soil conditions and ground water conditions to his own satisfaction prior to bidding. No modifications to the unit prices bid for any item will be made due to variable sub-surface conditions. Dewatering, if determined necessary by the contractor, by well pointing or deep wells will be incidental to the installation cost of the item.
2. The Contractor shall be responsible for having determined to his satisfaction prior to the submission of his bid the confirmation of the ground, the character and quality of the substrata, the types and quantities of materials to be encountered, the nature of the groundwater conditions, the prosecution of the work, the state and local conditions including recent climatic changes, the time of year in which construction will take place and all other matters which can in any way affect the work under this Contract.
3. Prior to commencing the excavation the Contractor shall submit a plan of his proposed operations and time schedule to the Owner & Owners Representative for their approval.
4. The Contractor shall consider, and his plan for excavation shall reflect, the equipment and methods to be employed in the excavation and what methods will be used when wet conditions are encountered requiring groundwater control or other moisture conditioning. The Contractor shall submit an outline of his earthwork methods which shall take into account the overall construction schedule. The prices established in the proposal for the work to be done shall reflect all costs pertaining to the work. No claims for extras based on substrata or groundwater table conditions or moisture conditioning will be allowed.
5. The Contractor shall keep informed and the Owner's Representative informed at all times as to a "fill surplus or shortage" situation. Shortage or surplus of suitable material at the conclusion of the grading and earthwork operation shall be the sole responsibility of the Contractor and he will be required to supply the deficiency or dispose of the surplus without additional cost to the Owner.
6. The Contractor shall remove vegetation, debris, unsatisfactory soil materials, obstructions, and other deleterious materials from ground surface prior to cut or fill operations.
7. Materials for fill or backfill required to grade the site and achieve design elevations shall be either on or off-site soils which are free of organic matter and debris. No topsoil shall be used as engineered fill.
8. No fill may be placed until the exposed surfaces have been approved by the Geotechnical Engineer. All fill materials shall be approved by the Geotechnical engineer prior to placement.
9. If any unknown subsurface structures are encountered during construction, they shall be immediately brought to the attention of the Owner's representative and Design engineer prior to proceeding.
10. All fill material shall be placed and compacted at the optimum moisture content or as directed by the Geotechnical Engineer.
11. No frozen material shall be used as fill nor will any fill be placed on a frozen base.
12. No rock or similar material greater than 6" diameter shall be placed in the fill unless recommendations for such placement have been submitted by the Geotechnical Engineer in advance and approved by the Owner and Owner's Representative.
13. Compact fill material to at least the following percentage of Maximum Dry Density, as determined by ASTM D-1557 (Modified Proctor). No deviation from these compaction densities will be allowed unless specifically recommended by the Geotechnical Engineer and approved by the Owner and Owner's Representative.

FILL AREAS	% OF MAXIMUM DRY DENSITY
Fill under building (extending 5' beyond footings at a slope of 1 on 1)	95%
Fill in the upper 18" under pavement or sidewalks	95%
Fill placed under or behind retaining walls	95%
All other fill	90%

14. All fill material shall be placed and compacted in lifts, that will not exceed the depth in which the compaction equipment can achieve the maximum density required for the entire depth of the material placed in the lift.
15. All areas where fill has been placed or the existing soils have been disturbed shall be subject to compaction testing by the Geotechnical Engineer and shall be to the satisfaction of the Geotechnical Engineer, Owner and Owner's Representative.
16. Fill material under pavements or structures shall be free of organic or deleterious materials. It shall be suitable for supporting pavements and structures without adverse shrinking or swelling.
17. Fill material in berms and landscape areas shall be suitable to support growth of the landscaping materials (typical for the local climate) and as proposed by the Landscape Architect.
18. The Contractor is responsible for the removal and disposal of, in a legal manner, any trees, brush or debris that are within the designated cutting and filling areas to bring the site to proposed grades.
19. The Contractor shall stockpile excavated material only in designated areas as directed by the Owner or Owner's Representative.
20. During the performance of site grading operations, the subgrade shall be examined critically, and any areas discovered which, in the opinion of the Owner's Representative or Geotechnical Engineer, are soft and unstable, shall be excavated to such depths as may be necessary to insure satisfactory supporting properties as determined by the Geotechnical Engineer. These areas of excavation shall be backfilled immediately and shall be brought back to the elevation of the surrounding areas with approved fill material and in accordance with the earth fill construction procedure.

SECTION 02200 – GRADING AND EARTHWORK SPECIFICATIONS, CONTINUED

21. Newly graded areas shall be protected from the action of the elements. Any settlement, displacement, ponding or washing out that may occur prior to commencing the next phase of construction shall be repaired, and grades reestablished to the required elevations and slopes.
22. The finished subgrade surface shall be shaped to indicated profiles and shall be reasonably smooth and free from irregular surface changes and shall be no more than 1 inch above or below the indicated subgrade elevations.
23. The grading Contractor shall backfill all parking lot planters and lawn areas to within 2 inches of the top adjacent curb grades. The top 4 inches minimum shall be topsoil, free from debris and stones larger than 1 inch in diameter.
24. The Contractor shall provide all necessary pumps, ditching, well point systems and other means for removing water from excavations, trenches, subgrades and other parts of the work. The Contractor shall continue de-watering operations until the water has been removed entirely. Upon completion of water removal the Contractor shall take appropriate action to dry the soils, regrade to proposed elevations and compact soils to the satisfaction of the Geotechnical Engineer and Owner's Representative.
25. The Contractor shall dispose of water in a safe and sanitary way to prevent flooding or injury to public or private property and shall obtain approval of the local governing authority before discharging run-off water to their system.
26. The Contractor shall provide a smooth transition between existing grades and new grades.

SECTION 02500 – STORM SEWER SPECIFICATIONS

1. These specifications shall be used in conjunction with the General Specifications and the Specifications and Detail Sheets of the governing agencies. If any conflict is found between the specifications, the stricter specifications shall be followed.
2. Contractor shall furnish certified evidence that all material tests and inspections have been performed and that the product has been manufactured in compliance with the applicable specifications.
3. Proper implements, tools and facilities shall be provided and used for unloading and distributing materials along the line of work. Any pipe or fitting damaged in transportation or handling shall be rejected and immediately removed from the job site.
4. The Contractor shall be responsible for the safe storage of all material intended for the work. He shall take all necessary precautions to prevent damage to materials, equipment and work.
5. Pipe bedding, unless otherwise indicated, shall be CL. II sand, crushed stone or rounded gravel. Bedding material shall have 95% passing a 3/4" sieve and retained on a no. 4 sieve.
7. Porous filter material for perforated subsurface drains shall be crushed rock or gravel graded between 1-1/2" and 3/4" or per plans and details.
8. Backfill, unless otherwise noted, shall be coarse sand, fine gravel or earth having a low plasticity index, free of rocks, debris and other foreign materials and shall pass all passing through a 3/8" sieve and not more than 10% by volume passing through a 200-mesh sieve.
9. Storm sewer piping and fittings shall be of the size and type indicated on the Drawings and shall conform to the following:
   A. Polyvinyl chloride (PVC) and Acrylonitrile butadiene styrene ABS for pipe up to and including 10" in diameter, shall conform to ASTM D3034, SDR 23.5 for PVC pipe and ASTM D2751 for ABS pipe with elastometric gasket joints conforming to ASTM D3212 or chemically welded pipe joints conforming to ASTM F545.
   B. Reinforced concrete pipe, for pipe 12" in diameter and up, shall conform to ASTM C-76, Class IV unless modified by the Drawings. Joints shall be modified grooved tongue with rubber gasket conforming to ASTM C-443.
   C. Perforated subsurface drain pipe shall be PVC conforming to ASTM D-2729 or ADS perforated, corrugated polyethylene pipe conforming to AASHTO M-294 or corrugated steel pipe. Joints for PVC and polyethylene pipe shall be prefabricated coupling with solvent weld.
10. Manholes, catch basins, and inlets shall be of the size and type indicated on the Drawings and shall be constructed of the following:
    A. Reinforced pre-cast concrete manhole sections including concentric or eccentric cones and grade rings shall be 4000 psi concrete and conform to ASTM C-478-64T.
    B. Brick shall be sound, hard-burned throughout and of uniform size and quality and shall be in accordance with ASTM C-32, Grade MS.
    C. Concrete masonry shall be solid pre-cast segmental units conforming to ASTM C-139.
11. Iron castings shall conform to ASTM A-48, Class 30. Bearing surfaces between cast iron frames, covers and grates shall be machined, fitted together and matched-marked to prevent rocking. System identifying letters 2" high shall be stamped or cast into all covers so that they may be plainly visible.
12. Castings shall be manufactured by East Jordan Iron Works, Inc., Neenah Foundry company or equal.
13. Concrete and masonry materials for construction of storm drainage structures shall consist of the following:
    A. Portland cement shall be standard brand of Portland cement conforming to ASTM C-150, type I or IA.
    B. Fine and coarse aggregates for concrete shall be per ASTM C-33.
    C. Aggregate for cement mortar shall be clean, sharp sand conforming to ASTM C-144.
    D. Hydrated lime shall comply with ASTM C-207, Type S.
    E. Water shall be clean and free from deleterious materials.
    F. Reinforcing steel for concrete shall be intermediate-grade new billet steel conforming to ASTM A-615, Grade 40.
14. Concrete, unless otherwise noted, shall have compressive strength after 28 days of 3000 psi minimum with 3" maximum slump.
    A. Concrete fill below grade may be 2500 psi at 28 days.
    B. Concrete, where exposed to the weather, shall be air-entrained. Air entrainment shall be accomplished by the use of additives conforming to ASTM C-260. Air content shall be 6% + 1%. Additive shall be used strictly in accordance Manufacturer's printed directions.
    C. Ready-Mix Concrete shall conform to the requirements of ASTM C-94.
15. Mortar shall be specified hereinafter. Use method of mixing mortar at job so that specified proportions of mortar materials can be controlled and accurately maintained during work progress. Mortar shall not be mixed greater quantities than required for immediate use amount of water consistent with satisfactory workability. Re-tampering of mortar is not permitted.
    A. Mortar for laying brick or concrete masonry units shall conform to ASTM C-270, Type M, average compressive strength 2500 psi minimum at 28 days. Mortar mix shall be proportioned by volume.
    B. Mortar for plastering shall consist of 1 part Portland cement and 2-1/2 parts sand.
    C. Mortar for grouting of rip-rap shall consist of 1 part Portland cement and 3-1/2 parts sand.
16. Perform all excavating and trenching to dimensions and elevations indicated on Drawings.
17. Open no more trench in advance of pipe laying than is necessary to expedite the work.
18. Care shall be taken not to excavate below the depths indicated on Drawings. Where excessive or unauthorized excavation takes place, the overdepth shall be backfilled to the proper grade with compacted bedding material, at no expense to the Owner.

SECTION 02500 – STORM SEWER SPECIFICATIONS, CONTINUED

19. Where unstable soil is encountered, Contractor shall not place pipe until a solid bed has been provided.
20. Excavation for drainage structures shall extend a sufficient distance from the walls and footings to allows for forms, construction of walls, connections and for inspection.
21. Provide required timber sheeting, bracing and shoring to protect sides of excavation. Do not brace sheeting against pipe. Provide suitable ladders for safe entry to and exit from excavation.
22. During excavation, material suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of trenches to avoid overloading, and to prevent slides or cave-ins.
23. When wet excavation is encountered, the trench shall be de-watered until the pipe has been laid and backfilled to a point at least 1 foot above top of pipe.
24. Manholes and catch basins shall be constructed of brick, concrete masonry units or pre-cast concrete with cast iron frames, covers and manhole steps.
25. The wall thickness of manholes and catch basins constructed of various materials and set at various depths shall meet these minimums. Adhere to requirements of the governing agency if they exceed these thicknesses:

Depth	Brick	Concrete Block	Pre-cast Concrete
0' – 10'	8"	6"	6"
10' – 16'	12"	8"	8"
16' – 25'	16"	12"	12"

26. Whenever existing manholes or sewer pipe are to be tapped, drill holes 4" center, to center, around the periphery of openings to create a plane of weakness joint before breaking section out.
27. Manhole steps shall be built into and thoroughly anchored to walls. Steps shall be factory installed in pre-cast structures.
28. All piping entering or leaving drainage structures shall be adequately supported by poured in-place concrete fill from pipe center to undisturbed ground.
29. Set frames in full bed of stiff mortar or bituminous mastic jointing compound at final elevation.
30. All timber sheeting below a plane 12" above top of pipe shall remain in place in order not to disturb pipe grading. Before backfilling, remove all other sheeting bracing and shoring.
31. Bedding used for trench bottom shall be extended up the sides and carefully placed around and over pipe in 6" maximum layers. Each layer shall be thoroughly and carefully compacted to 95% of maximum dry density as per ASTM D-1557 (Modified Proctor) until 12" of cover exists over pipe.
32. Remainder of trench shall be backfilled with specified backfill material to specified subgrade elevation. Backfilling shall be compacted to 90% of maximum dry density per ASTM D-1557.
33. In streets, drives, parking lots and other areas to have or having improved hard surfaces, backfill shall be material specified and shall be deposited in 6" loose layers at optimum moisture content (±2%) compacted to 95% of maximum dry density per ASTM D1557. (Modified Proctor) Suitable materials found on site may be used.
34. Before backfilling around drainage structures, all forms, trash and debris shall be removed and cleared away. Selected excavated material shall be placed symmetrically on all sides in 8" maximum layers; each layer shall be moistened and compacted with mechanical or hand tampers.
35. After installation of pipes and drainage structures, clean them, and adjust tops to finish grade. Pipe shall be straight between structures, with the full inside diameter visible when sighting between structures.
36. Ends of headwall and end sections shall be fitted with a #4 round minimum welded steel rod grating. Rods shall be spaced 6" O.C. maximum. Weld rod at all intersections. Grate shall be removable for access and cleaning.
37. Rip-rap shall be laid from the bottom upward; stones shall be laid by hand with 8" minimum dimension perpendicular to grade with well-broken joints, compacted as it goes, true to line. All joints shall be filled with cement mortar. Surface stone to be exposed. Clean joints with wire brush.
38. The Contractor shall do all required excavation and trenching work and the Contractor shall assume sole responsibility for the completion of the works herein regardless of the nature of materials encountered during the course of the work. The Owner will not be liable for any costs whatsoever associated with, but not limited to, the presence of rock, peat, subterranean streams, excessive water or other difficult or unanticipated sub-surface phenomena.
39. All connections to existing sewers shall be incidental to the job.

SECTION 02583 – SANITARY SEWER SPECIFICATIONS

1. These specifications shall be used in conjunction with the General Specifications and the Sanitary Sewer Specifications and Detail Sheets of the governing agencies. If any conflict is found between the specifications, the stricter specifications will be followed.
2. The governing agency will inspect the installation of all sanitary sewer piping.
3. Proper implements, tools and facilities shall be provided and used for unloading and distributing materials along the line of work. Any pipe or fitting damaged in transportation or handling shall be rejected and immediately removed from the job site.
4. The Contractor shall be responsible for the safe storage of all material intended for the work. The Contractor shall take all necessary precautions to prevent damage to materials, equipment and work.
5. The Contractor shall do all required excavation and trenching work and the Contractor shall assume sole responsibility for the completion of the works herein regardless of the nature of materials encountered during the course of the work. The Owner will not be liable for any costs whatsoever associated with, but not limited to, the presence of rock, peat, subterranean streams, excessive water or other difficult or unanticipated sub-surface phenomena.
6. It will be the responsibility of the Contractor to coordinate and schedule the sanitary sewer installation with the grading, excavation and other site utility subcontractors and the Owners Representative so as to provide for a smooth and orderly progression of the work.
7. Sanitary sewer piping and fittings shall be of the size and type indicated on the drawings and shall conform to the requirements of the governing agency.
8. Reinforced pre-cast concrete manhole sections including concentric or eccentric cones and grade rings shall be 4000 psi concrete and conform to ASTM C-478 or AASHTO M-199.
9. Open no more trench in advance of pipe laying than is necessary to expedite the work.
10. Care shall be taken not to excavate below the depths indicated on Drawings. Where excessive or unauthorized excavation takes place, the overdepth shall be backfilled at the proper grade with compacted bedding material, at no expense to the Owner.
11. Where unstable soil is encountered, Contractor shall not place pipe until a solid bed has been provided.
12. During excavation, material suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of trenches to avoid overloading, and to prevent cave-ins.
13. When wet excavation is encountered, the trench shall be de-watered until the pipe has been laid and backfilled to a point at least 1 foot above top of pipe.
14. Sanitary Sewer crossings shall be made with 18" of vertical clearance from another utility and shall be made without placing joint loads on either pipe. Construct saddles, or place protective concrete cap to prevent damage.
15. All connection branches in the sewer pipe shall be securely and completely fastened to, or formed in, the wall of the pipe during the course of manufacture. All pipe containing such connection branches shall be installed with the main sewer. The proposed location of the wye shall be per plan or as directed by the Owner or Owner's Representative.
16. Service leads shall terminate (with an approved stopper) per plans or as directed by Owner or Owner's Representative.
17. Each riser and/or service lead shall be marked with a 2 inch x 2 inch x 8 foot long hardwood marker, placed vertically at the end of the pipe.
18. Downspouts, weep tile, footing drains, or any conduit, that carries storm or ground water shall not be allowed to discharge into a sanitary sewer.
19. The connection to an existing sanitary sewer manhole shall be made in strict conformance with the plans and specifications, with all work being done in a workmanlike manner. This work shall include the construction of a proper channel in the existing manhole at which the connection is to be made, to direct the flow of incoming fluids to the existing outlet in a manner which will tend to create the least amount of turbulence. Any portion of the existing structure which would interfere with such construction shall be removed. The cost of all connections shall be included in the Contract price for the main sewer unless otherwise provided in the Proposal.
20. When connections are made with sewers or drains carrying fluids, special care must be taken that no part of the work is built under water. A flume or dam must be installed and pumping maintained, if necessary, and the new work kept dry until completed and any concrete or mortar has set.
21. All timber sheeting below a plane 12" above top of pipe shall remain in place in order not to disturb pipe grading. Before backfilling, remove all other sheeting, bracing and shoring.
22. Bedding used for trench bottom shall be extended up the sides and carefully placed around and over pipe in 6" maximum layers. Each layer shall be thoroughly and carefully compacted to 95% of maximum dry density as per ASTM D-1557 (Modified Proctor) until 12" of cover exists over pipe.
23. Remainder of trench shall be backfilled with specified backfill material as approved by the Geotechnical Engineer to specified subgrade elevation. Backfilling shall be compacted to 90% of maximum dry density per ASTM D-1557.
24. In streets, drives, parking lots and other areas to have or having improved hard surfaces, backfill shall be material specified and shall be deposited in 6" loose layers at optimum moisture content (±2%) and compacted to 95% of maximum dry density as determined by ASTM D-1557 (Modified Proctor). Suitable materials found on site may be used if approved by the Geotechnical Engineer and Owner's Representative. Where service or utility lines cross pavement or sidewalk, bedding shall be carried to 3 feet behind the curb line or 3 feet behind the side of sidewalk farthest away from the proposed pavement.
25. Before backfilling around manholes, all forms, trash and debris shall be removed and cleared away. Selected excavated material shall be placed symmetrically on all sides in 8" maximum layers; each layer shall be moistened and compacted with mechanical and hand tampers.
26. Sanitary sewer manholes must be water-tight and shall be precast sections with modified grooved tongue joints with rubber gaskets, conforming to ASTM designation C478. Cast iron steps shall be cast into the manhole sections at 16" O.C. during manufacture and at 45° from the centerline of the sewer. Manhole steps shall be Neenah R-1980-E, East Jordan Iron Works, 8500 or approved equal.
27. When existing reinforced concrete manholes or sewer pipes are to be tapped, a hole of the appropriate diameter, shall be core drilled, through the wall of the manhole or sewer pipe, to accept a resilient connector conforming to ASTM designation C-923. Resilient connectors shall be "Kor-N-Seal" as manufactured by "The Core and Seal Co." or approved equal.
28. All sewers shall be subjected to infiltration, air or exfiltration tests or a combination thereof in accordance with the following requirements, prior to acceptance of the system and prior to removal of the bulkheads.
    a) All sewers over 24" diameter shall be subjected to infiltration tests. All sewers of 24" diameter or smaller, where ground water level above the top of sewer is over seven (7) feet, shall be subjected to an infiltration test.
    b) All sewers of 24" diameter of less, where the ground water level above the top of the sewer is seven (7) feet or less, shall be subject to air tests or exfiltration tests.
29. No sanitary sewer installation or portion thereof shall have infiltration exceeding 100 gallons per inch diameter per mile of pipe per 24 hour period.

ENGINEERS · SURVEYORS
CONSULTANTS · LAND PLANNERS
Monumental Engineering Group Associates, Inc.
MEGA
638 SOUTH GRAND AVE.
FOWLERVILLE,
MICHIGAN 48836
(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM
SERVICE DISABLED VETERAN OWNED
SMALL BUSINESS (SDVOSB)

ALLAN W. PRUSS
ENGINEER
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BRIVAR CONST. CO.
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(248) 446-8000

SPECIFICATIONS

GREAT LAKES C
3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N-R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

	DATE
SITE PLAN SUBMITTAL	
PLAN SUBMITTALS/REVISIONS	1/30/18

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18-003

SCALE: N/A
0 1/2" 1"

FIELD: SE, SS, DH
DRAWN BY: DC
DESIGN BY: BS
CHECK BY: AP

C-12.0

NOT FOR CONSTRUCTION

Attachment: Back up 18-06 (3518 : SPR #18-06)

SECTION 02621 – BITUMINOUS PAVING SPECIFICATIONS

1. Reference specifications where applicable to work under this section are referred to by abbreviation as follows:
   - A. American Association of State Highway and Transportation Officials (AASHTO).
   - B. The Asphalt Institute (TAI)
   - C. Michigan Department of Transportation/ Current Standard Specifications For Construction (M.D.O.T.)
   - D. American Society for Testing Materials (ASTM)
2. Crushed Aggregate Base Course (CABC) shall meet the requirements of Section 8.02 of the MDOT Standard Specification for Construction and shall consist of 21AA Crushed Aggregate.

   Note: The use of slag is prohibited.
3. Tack Coat shall be emulsified asphalt meeting requirements of AASHTO M140 and TAI SS–1H.
4. Aggregate shall consist of crushed stone, crushed gravel, a mixture of uncrushed gravel with either crushed stone or crushed gravel, or other inert material having similar characteristics. It shall be composed of clean, tough, durable fragments from an excess of flat or elongated pieces, and shall be free of organic matter and deleterious substances and meet the requirements of MDOT Standard Specifications, Section 8.02.
5. Fine aggregate shall be well graded from coarse to fine and consist of natural sand, stone screenings, or a blend of natural sand and stone screenings. It shall be composed of rough surfaced and angular grains of quartz or other hard durable rock and meet the requirements of MDOT Standard Specifications, Section 8.02.
6. Asphalt cement shall comply with the requirements of AASHTO M226 (ASTM 3381) for bituminous concrete surface course and surface treatment.
7. Bituminous Concrete shall comply with MDOT Section 7.10 of Standard Specifications for Construction.
8. Bituminous Leveling Course shall be MDOT 1100L, 20AA mix.
9. Bituminous wearing course shall be MDOT 1100T, 20AA mix.
10. The Contractor shall submit, to the Owner, two copies of materials certificates signed by Material producer and Contractor. Certificates shall state that each material item meets specified requirements.
11. The Contractor shall submit to the Geotechnical Engineer, job–mix formulas for each required asphalt aggregate mixture. Mix designs shall be within allowable tolerances as specified for the particular application.
12. Subgrade preparations shall consist of the final machining of the subgrade immediately prior to placing the bituminous base course. The subgrade shall be compacted per plans and details. The subgrade shall be true to line and grade.
13. Crushed Aggregate Base Course shall be compacted to a density equal to at least 95 percent of the maximum dry density as determined by ASTM D–1557 (Modified Proctor).
14. Bituminous concrete pavement construction methods shall conform to applicable portions of Section 4.00 of the MDOT Standard Specifications for Construction.
15. The Contractor shall not place the Aggregate Base Course or the Bituminous base Course prior to the approval of the subgrade by the Geotechnical Engineer.
16. Each lift and course of bituminous concrete shall be approved by the Geotechnical Engineer, prior to the placement of a succeeding course or lift.
17. Apply bituminous tack coats only when temperature has not been below 35 degrees F. for 12 hours immediately prior to application. Construct Bituminous Concrete Wearing Course only when atmospheric temperature is above 40–degrees F. and proceeding course or lift is clean and dry. Base course may be laid when temperature is above 35 degrees F. and rising and approved by the Geotechnical Engineer.
18. The Bituminous Concrete shall be transported from the mixing plant to the point of use in vehicles conforming to the requirements of Section 4.00 of the MDOT Standard Specifications for Construction. Deliveries shall be scheduled so that spreading and rolling of all Bituminous Concrete prepared for one day's run can be completed during daylight, unless adequate artificial lighting is provided. Hauling over freshly placed Bituminous mat shall not be permitted until the Bituminous Concrete has been compacted, as specified, and allowed to cool to atmospheric temperature.
19. Upon arrival, the Bituminous Concrete shall be spread to a thickness not to exceed 3–inches and to the full width by an approved Bituminous Paver. It shall be struck off in a uniform layer of such depth that, when the work is completed, it shall have the required thickness and conform to the grade and contour indicated. The speed of the paver shall be regulated to eliminate pulling and tearing of the Bituminous Mat. Unless otherwise directed, placement of the Bituminous Concrete shall begin along the centerline of a crowned section or on the high side of areas with a one–way slope. The Bituminous Concrete shall be placed in consecutive adjacent strips having a minimum width of 10 feet, except where edge lanes require less width to complete the area. Transverse joints in adjacent lanes shall be offset a minimum of 10 feet.
20. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the Bituminous Concrete may be spread and raked by hand tools.
21. The Bituminous Concrete shall be placed at a temperature of not less than 250 nor higher then 350 degrees F or as directed by the Geotechnical Engineer.
22. The Bituminous Concrete mixture shall be thoroughly and uniformly compacted by rolling. The surface shall be rolled when the Bituminous Mat has attained sufficient stability so that the rolling does not cause undue displacement, cracking and shoving. The sequence of rolling operations shall be at the discretion of the Contractor.
23. The speed of the roller shall, at all times, be sufficiently slow to avoid displacement of the hot bituminous concrete. Any displacement occurring as a result of reversing the direction of the roller, or from any other cause, shall be corrected at once.
24. Sufficient rollers shall be furnished to handle the output of the plant. rolling shall continue until all roller marks are eliminated, the surface is of uniform texture and true to grade and cross–section, and the required field density is obtained.
25. Tack coat shall be applied to the surface of previous lifts and courses of Bituminous Concrete and to surfaces abutting or projecting into the Bituminous Concrete.
26. Immediately before placing a succeeding lift or course of bituminous concrete the preceding lift or course shall be cleared of any debris by appropriate methods.
27. To prevent adhesion of the Bituminous Concrete to the roller, the wheels shall be kept properly moistened, but excessive water will not be permitted.
28. In areas not accessible to the roller, the Bituminous Concrete shall be thoroughly compacted with hot hand tampers.
29. Any Bituminous Concrete that becomes loose and broken, mixed with dirt, or in any way defective shall be removed and replaced with fresh hot Bituminous Concrete and immediately compacted to conform to the surrounding area. This work shall be done at the Contractor's expense. Skin patching shall not be allowed.
30. The Contractor shall provide at least two rollers for each paver operating on the work. The Contractor shall use additional rollers as required to obtain the specified pavement density.
31. The Contractor shall carefully make joints between old and new pavements, or between successive days' work, to ensure a continuous bond between adjoining work. Construct joints to have the same texture, density and smoothness as other sections of the Bituminous Concrete Course. The Contractor shall clean contact surfaces of sand, dirt, or other objectionable material before making the joint.

SECTION 02621 – BITUMINOUS PAVING SPECIFICATIONS, CONTINUED

32. The Contractor shall test the finished surface of each Bituminous Concrete Course for smoothness, using a 10 foot straightedge applied parallel with and at right angles to centerline of paved area. Surface shall not be acceptable if exceeding the following tolerances for smoothness.
    - A. Leveling Course Surface: 1/4 inch, plus or minus 1/4 inch.
    - B. Surface Course: 1/4 inch
33. The Contractor shall test crowned surfaces with a crown template, centered and at right angles to the crown. Surfaces will not be acceptable if the finished crown surfaces vary more than 1/4 inch from the crown template.
34. After final rolling, the Contractor shall not permit vehicular traffic on the Bituminous Concrete Pavement until it has cooled and hardened, and in no case sooner than six hours or as directed by the Geotechnical Engineer.
35. The aggregate base must extend a minimum of 1' behind the back–of–curb around the perimeter of the parking lot and drives

SECTION 02630/02641 – CONCRETE CURB, SIDEWALK AND PAVEMENT SPECIFICATIONS

1. These Specifications shall govern the construction of all pavements, curb and gutter, sidewalks, service walks, driveway approaches, and loading dock areas, as indicated on the Drawings.
2. Reference specifications where applicable to work under this section are referred by abbreviation as follows:
   - A. American Association of State Highway and Transportation Officials (AASHTO).
   - B. American Concrete Institute (ACI)
   - C. Michigan Department of Transportation/ Current Standard Specifications For Construction (M.D.O.T.)
   - D. American Society for Testing and Materials (ASTM)

   The fine aggregate shall meet all requirements of Section 8.02 of of MDOT Specification for No. 2NS Natural Sand.

   The coarse aggregate shall meet all requirements of Section 8.02 of M.D.O.T. Specifications for No. 6AA Coarse Aggregate.
3. The Contractor shall submit, to the Owner, two copies of materials certificates signed by Material Producer and Contractor. Certificates shall state that each material item meets specified requirements.
4. The Contractor shall submit, to the Geotechnical Engineer, job mix–formulas for each required cement–aggregate mixture. Mix designs shall be within allowable tolerances as specified for the particular application.
5. Concrete mix shall be air–entrained and proportioned to provide the following:
   - A. Compressive strength at 28 days: 3500 psi min., or as indicated on plans.
   - B. Total air content by volume: 5% to 8%
   - C. Slump 3 inch maximum, or as indicated on plans.
6. The Contractor shall at his expense furnish samples of fresh concrete and provide safe and satisfactory facilities for obtaining the samples.
7. Construct concrete curbing only when ground temperature is above 35 degrees F. and base is dry.
8. All cement used in curb construction shall be Portland Cement, Type I or IA ASTM C–150.
9. Water used in concrete shall be clean, free from oil, acids, strong alkalis or vegetable matter and potable. If Municipal water is used in the concrete, all necessary permits shall be obtained from the Municipal Water Department.
10. Air Entraining Admixture shall be in accordance with ASTM C–260.
11. All ready–mixed concrete suppliers must be approved by the Owner. Concrete shall be manufactured and delivered to the job site by a ready mixed concrete manufacturer thoroughly experienced in ready–mixed concrete. If requested by the Owner, submit a written description of proposed ready–mixed concrete Manufacturer, giving qualifications of Personal, location of batching plant, list of Projects similar in scope of specified work, and other information as may be requested by the Owner.
12. The Contractor shall submit a Statement of Purchase for Ready–Mixed Concrete. Prior to actual delivery of concrete, submit to the Geotechnical Engineer four copies of Statement of Purchase, giving the dry weights of cement and saturated surface dry weights of fine and coarse aggregates and quantities, type and name of admixtures (if any) and of water per cu.yd., that will be used in the manufacture of the concrete. The Contractor shall also furnish evidence satisfactory to the Geotechnical Engineer that the materials to be used and proportions selected will produce concrete of the quality specified. Whatever strengths are obtained, the quantity of cement used shall not be less than the minimum specified.
13. Ready–Mixed Concrete Delivery Tickets: Submit one copy of each delivery ticket to the Geotechnical Engineer and Contractor in accordance with Section 16 of ASTM C94.
14. Ready–Mixed concrete shall be batched, mixed and transported in accordance with ASTM C94, and comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete," except as otherwise specified herein.
15. Ready–mixed concrete shall be mixed and delivered to the point of discharge at the job by means of a ready mix concrete truck.
16. No water from the truck water system or elsewhere shall be added after the initial introduction of the mixing water for the batch. Under no circumstances shall the approved maximum water content be exceeded nor shall the slump exceed the maximum specified.
17. Discharge of the concrete shall be completed within 1–1/2 hours or before the drum has revolved 300 revolutions, whichever comes first, after the introduction of the mixing water to the cement and aggregates or the introduction of the cement to the aggregates.
18. In hot weather (air temperature 80–degrees F. and above) or under conditions contributing to quick stiffening of the concrete, the time shall be reduced to one hour.
19. Concrete delivered in cold weather (air temperature 45–degrees F. and lower) shall have a temperature not less than 60–degrees F. at the point of discharge at the job, and in compliance with ACI 306R "Cold Weather Concreting". Concrete placing will not be permitted when the air temperature is 35–degrees F. or lower.
20. Concrete delivered under hot weather conditions contributing to quick stiffening of concrete, or in air temperature of 80–degrees F. and over, shall have a temperature between 60– and 80–degrees F. at the point of discharge at the job, and in accordance with ACI 305R "Hot Weather Concreting."
21. In no case shall the mixer or truck be flushed out onto the street pavement, in a catch basin or sewer manhole, or in any public right–of–way.
22. Reinforcement bars shall be per ASTM A615–84A, Grade 60 Deformed Billet – Steel Bars:
23. Tie Wire shall be black, annealed steel wire, not less than 16 gauge.
24. Bar supports shall conform to "Bar Support Specifications" contained in ACI "Manual of Standard Practice." Provide chairs, spacers and other devices suitable for proper spacing supporting and fastening reinforcing bars.
25. When forms are used and the curb radius is less than 200 feet, the curved alignment shall be provided for by either standard steel forms equipped with flexible lines or by flexible forms. The forms shall be of the full depth of the section. Curb and gutter forms shall be so constructed as to permit the inside of the forms to be securely fastened to the outside forms.
26. All new curb shall be placed only on a prepared subgrade, smooth and leveled to the grades established by the Engineer.
27. Compact and cut–to–grade subgrade under forms so that forms when set will be uniformly supported for the entire length. Securely stake and brace or tie forms to prevent leakage of mortar. Bracing with earth will not be permitted.
28. Coat surfaces of forms to be in concrete with a light clear paraffin oil or parting compound which will not stain the concrete.

SECTION 02630/02641 – CONCRETE CURB, SIDEWALK AND PAVEMENT SPECIFICATIONS, CONTINUED

29. The interior surfaces of concrete conveying equipment shall be maintained free of hardened concrete, debris, water, snow, ice and other deleterious materials.
30. Curbing may be constructed either by use of forms or by a mechanical curb and gutter paver, provided the required finish, and cross–section, as shown on Drawings are obtained. Concrete shall be placed to provide one course monolithic structure without the use of mortar topping or sand–cement drier. Concrete shall be spaded or vibrated sufficiently to ensure satisfactory consolidation.
31. Provide reinforcement for concrete curb as shown on the Drawings. Reinforcement shall be kept clean and free from objectionable rust. Bends or kinks in reinforcing bars shall be corrected before placing. All reinforcement shall be accurately located in forms and securely held in place before and during concrete placing, by supports adequate to prevent displacement during the course of construction.
32. The concrete curb surface shall be struck off the required cross–section with a template. After the concrete curb has been floated to an even surface, the contraction joint shall be cut and all slab edges rounded with a 1/2 inch radius edging tool that will finish to a width of 2 inches. After the concrete has slightly set, a broom shall be brushed lightly across the surface parallel to forms so as to impart a rough finish.
33. Contraction joints shall be cut in Concrete Curbing at 10' intervals. The joint shall cut 1/4 inch wide by 1/3 the depth of the concrete curb section.
34. Isolation joints shall be placed in curbing at tangent points in curb returns at intersections, at both sides of structures located in the line and in runs of curb at intervals not exceeding 400 feet. Isolation joints shall be 1" thick pre–formed joint filler strips. The strips shall extend the full depth of the concrete curb section. Isolation joints shall be placed in curb at the end of each days pour and when abutting previously poured curb.
35. The curing compound shall be white membrane type and comply with ASTM C–309. It shall not allow a moisture loss of more than 0.055 gr/sq/cm when applied at 200 sq/ft/gal.
36. All contraction joints in concrete curb sections shall be sealed with either hot poured joint sealer or cold applied joint sealer.
37. Slightly underfill joint groove with joint sealer to prevent extrusion of the sealer. Remove excess joint sealer materials as soon after sealing as possible.
38. Freshly placed concrete shall be protected as required to maintain the temperature of the concrete at not less than 50 degrees F. nor more than 80 degrees F. and in a moist condition continuously for the period of time necessary for the concrete to cure. Changes in temperature of the concrete during curing shall be as uniform as possible and shall not exceed 5 degrees F. in any one hour, nor 50 degrees F. in any 24 hour period.
39. Cold weather protection: When the temperature of the atmosphere is 40–degrees F. and below, the concrete shall be protected by heating, insulation covering, or combination thereof as required to maintain the temperature of the concrete at or above 50–degrees F. and in a moist condition continuously for the concrete curing period. Cold weather protection shall meet the requirements of ACI 306R "Cold Weather Concreting".
40. Hot Weather Protection: When the temperature of the atmosphere is 90–degrees F. and above, or during other climatic conditions which will cause too rapid drying of the concrete, the concrete shall be protected by windbreaks, shading, fog spraying light colored moisture retaining covering, or a combination of thereof as required to maintain the temperature of the concrete below 80–degrees F. and in a moist condition continuously for the concrete curing period. Hot weather protection shall meet the requirements of ACI 305R "Hot Weather Concreting"
41. All forms, rails and stakes shall be removed within 24 hours after placing the curb.
42. After completion of concrete curbing in an area, remove all weather protection materials, rubbish and debris resulting from specified work, sweep concrete curbs clean, and seal joints.
43. All cement used in sidewalk construction shall be Portland Cement, Type I or IA ASTM C–150.
44. All new walks and concrete pavements shall be placed only on a prepared subgrade, smoothed and leveled to the grades established by the Engineer. In clay soils the subgrade shall be excavated 2–inches below the sidewalk base and filled with approved sand meeting MDOT Class II, Sand Designation.
45. Construct concrete surface course only when ground temperature is above 35 degrees F. and base is dry.
46. Sidewalks shall pitch toward the street or away from buildings with a required cross slope of 1/4–inch per foot of width. In some extreme cases, as determined by the Engineer, the cross–slope may be increased but in no case shall it be less than 3/16–inch per foot of width.
47. Prior to placing the concrete, all debris, stones, dirt, etc., shall be removed from the subgrade. The subgrade shall be moistened with water in such a manner as to thoroughly wet the material without forming puddles or pockets of water. No concrete shall be placed on frozen subgrade.
48. Forms shall be metal or wood and of an approved section. They shall be straight, free from distortion and shall show no vertical variation greater than 1/8–inch in 10–foot lengths from the true plane surface on the top of the forms when tested with a 10–foot straightedge, and shall show no lateral variation greater than 1/4–inch in 10–feet from the true plane surface of the lateral face of the form when tested with a 10–foot straightedge. They shall be of the depth specified for the sidewalk, or concrete pavement per plane and details, and be securely held in place and true to line and grade.
49. The concrete shall be deposited continuously in the forms in such a manner as to avoid segregation and it shall be thoroughly tamped or vibrated so that the forms are entirely filled and the concrete thoroughly consolidated. The slabs shall be placed in sections or blocks in one operation as a monolith.
50. The concrete surface shall be struck off to a plane surface with a straightedge. After the concrete has been floated to an even surface, the contraction joint shall be cut and all slab edges rounded with a 1/2–inch radius edging tool that will finish to a width of 2–inches. After the concrete has slightly set, a broom shall be brushed lightly across the surface at right angles to forms so as to impart a rough finish.
51. Contraction joints shall be placed at right angles to the edge of the sidewalk or concrete pavement and perpendicular to the surface and at a depth of at least 1/4 the slab thickness with a minimum depth of 1–1/4–inches for sidewalks and 3–inches for concrete pavement slabs.
52. Contraction joints in sidewalks shall be spaced at a minimum of every 5–feet, or as shown on the plans.
53. Isolation papers shall be of the pre–molded, non–extruding, asphalt impregnated type, not less than 1/2–inch thick. The length shall be equal to the width of the slab, and the depth equal to the thickness of the slab plus 1–inch.
54. Isolation joints shall be placed at the following location for sidewalks and concrete pavements:
    - A. At the back of the curb and front edge of the sidewalks and pavement slabs adjacent to each driveway approach and service walk.
    - B. At intervals not to exceed 50–feet in all public sidewalks.
    - C. At the back of the curb where the ramps extend from the key flag to the pavement.
    - D. Between the key flag and the ramp in all cases, except where there are existing expansion joints at the intersections of the sidewalks and the key flag.
    - E. At any place where a sidewalk or concrete pavement abuts a building or fixed structure.
    - F. At any other locations indicated on the Plan.
55. Contraction joints in the concrete pavement in the loading area will be as follows:
    - A. Transverse joints shall be at 10–foot intervals or as shown on plans and details.
    - B. Longitudinal joints shall be at 12–foot intervals or as shown on plans and details.
56. Prior to applying joint sealer, clean joint groove of foreign matter and loose particles, and dry surface.

SECTION 02650 – TRAFFIC LANE AND PARKING LOT MARKING

1. Provide all materials, labor, equipment, and services necessary to complete all traffic lane and parking lot markings as indicated in the Construction Documents.
2. Work includes, but not limited to painting of letters, markings, stripes and islands on the pavement surface applied in accordance with this Specification and at the locations shown on the Plans or as directed by the Engineer.
3. The paint shall meet the requirements of Federal Specification TT–P–115C(3), with or without reflectorized beads as required on the Plans.
4. Color shall be as Specified on the Plans or as follows:
   - A. Traffic lane striping shall be white or yellow reflectorized, as shown on the Plans.
   - B. Traffic marking and curb faces shall be white unless noted otherwise.
   - C. Parking lot striping shall be white, unless noted otherwise.
   - D. Handicap stall striping meeting current ADA requirements shall be blue unless noted otherwise.
5. The painting shall be performed only when the existing surface is dry and clean, when the atmospheric temperature is above 40–degrees F. and when the weather is not excessively windy, dusty or foggy.
6. All equipment for the Work shall be approved by the Contractor and shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, and such auxiliary hand painting equipment as may be necessary to satisfactorily complete the job.
7. The mechanical marker shall be an approved atomizing spray–type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall be designed so as to apply markings of uniform cross–sections and clear–cut edges without running or spattering and within the l imits for straightness set forth herein. When needed, a dispenser shall be furnished, which is properly designed for attachment to the mechanical marker and suitable for dispensing the required quantity of reflective beads.
8. Suitable adjustments shall be provided on the sprayer/sprayers of a single machine or by furnishing additional equipment for painting the width required.
9. Immediately before application of the paint, the existing surface shall be dry and entirely free from dirt, grease, oil, acids, debris, or other foreign matter which would reduce the bond between the coat of paint and the pavement. The surface shall be thoroughly cleaned by sweeping and blowing as required to remove all dirt, debris and loose materials. Areas which cannot be satisfactorily cleaned by brooming and blowing shall be scrubbed as directed with a water solution of tri–sodium phosphate (10%Na3PO4 by weight) or an approved equal solution. After scrubbing, the solution shall be rinsed off and the surface dried prior to painting.
10. Existing markings or stripes which are to be abandoned or removed shall be obliterated or obscured by the best methods suited for the purpose and to the satisfaction of the Owner or Owners Representative.
11. The Contractor is responsible for laying out a sample section of striping which is to be approved by the Owner or Owners Representative as to quality before the Contractor may proceed with the striping. The Contractor is to insure that all subsequent striping meets the quality of the approved sample application.
12. On those sections of pavements where no previously applied figures, markings, or stripes are available to serve as a guide, suitable layouts and lines of proposed stripes shall be spotted in advance of the paint application. Control points shall be spaced at such intervals as will ensure accurate location of all markings.
13. The Contractor shall provide an experienced Technician to supervise the location alignment, layout, dimensions and application of the paint.
14. Markings shall be applied at the locations and to the dimensions and spacing indicated on the Plans or as specified. Paint shall not be applied until the indicated alignment is laid out and the conditions of the existing surface have been approved by the Owner or Owners Representative.
15. The paint shall be mixed in accordance with the manufacturer's instructions before application. The paint shall be thoroughly mixed and applied to the surface of the pavement with the marking machine at its original consistency without the addition of thinner. If the paint is applied by brush, the surface shall receive two (2) coats; the first coat shall be thoroughly dry before the second coat is applied.
16. A minimum of one (1) week shall elapse between application of the bituminous seal coat, slurry seal or the placement of the bituminous surface course and the marking of the pavement. The paint shall not bleed excessively, curl, or discolor when applied to bituminous or concrete surfaces.
17. In the application of straight stripes, any deviation in the edges exceeding 1/2–inch in 50–feet shall be obliterated and the marking corrected. The width of the markings shall be as designated within a tolerance of 5 percent (5%). All painting shall be performed to the satisfaction of the Owner or Owners Representative by competent and experienced Equipment Operators, Laborers, and Artisans in a neat and workmanlike manner.
18. Paint shall be applied uniformly by suitable equipment at a rate of 0.0094 gal./s.f. for stencils and 0.00313 gal./ft. for striping. Paint application shall produce an average wet film thickness of 0.015–inches.
19. After applications of the paint, all markings shall be protected while the paint is drying. The fresh paint shall be protected from injury or damage of any kind. The Contractor shall be directly responsible and shall erect or place suitable warning signs, flags, or barricades, protective screens or coverings as required. All surfaces shall be protected from disfiguration by spatter, splashes, spillage, drippings of paint or other material.

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Monument Engineering Group Associates, Inc.
MEGA

638 SOUTH GRAND AVE.
FOWLERVILLE,
MICHIGAN 48836
(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED
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ALLAN W. PRUSS
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NO. 43168

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BCC
BRIVAR
Construction Company

BRIVAR CONST. CO.
7258 KENSINGTON ROAD
BRIGHTON, MI 48116
(248) 446–8000

SPECIFICATIONS

GREAT LAKES C
3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N–R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

	DATE
PLAN SUBMITTALS/REVISIONS	
SITE PLAN SUBMITTAL	1/30/18

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18–003

SCALE: N/A
0 1/2" 1"

FIELD: SE, SS, DH
DRAWN BY: DC
DESIGN BY: BS
CHECK BY: AP

C-12.1

NOT FOR CONSTRUCTION

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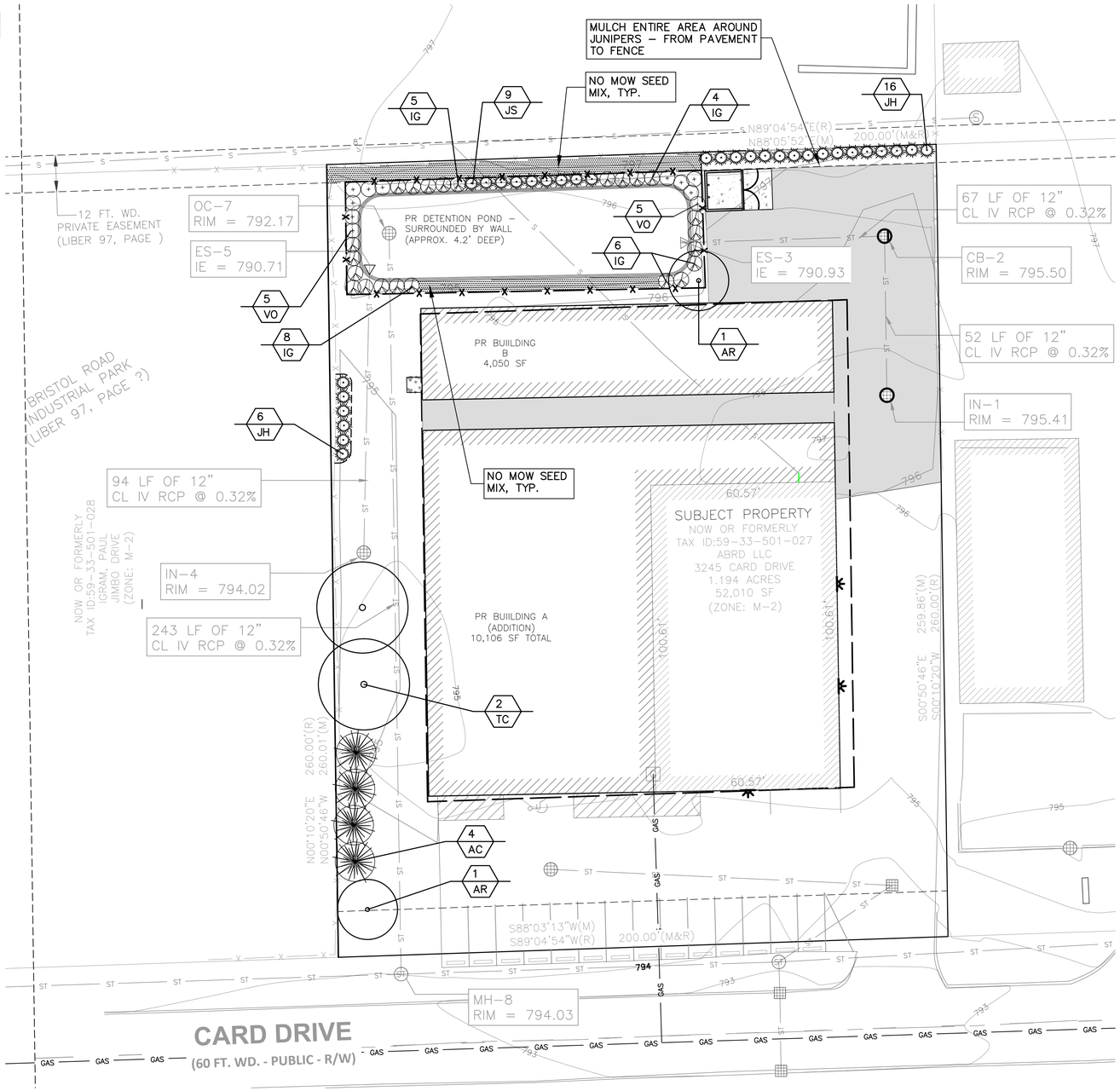
Attachment: Back up 18-06 (3518 : SPR #18-06)



General Landscape Notes:

1. The contractor(s) shall verify the location of all underground utilities prior to construction.

2. All landscape areas to be grass common to region except where other plant material is called for.

3. All trees and shrubs are to be planted in mulch beds with A spade edge separating mulch from turf grass areas.

4. Any landscape areas disturbed by construction shall be scarified to a depth of 2", graded smooth to allow for positive drainage. For any landscape area so designated to remain whether on or off site, remove weeds, rocks construction items, etc., scarify area, re–seed and fertilize. All R.O.W. curb and gutters are to be cleaned of debris.

5. The Contractor shall provide a WATER PERMEABLE WEED MAT for all planting beds !!!!

6. Plants shall conform to the sizes as shown on the drawings and shall be of sound health. All measurements such as spread, ball size, height, caliper and quality designations shall be in conformance to the latest edition of the American Standards for Nursery Stock. All plant material shall be hardy to the Flint/Burton area, be free of disease and insects, and conform to the American Standard for Nursery Stock of the American Nurserymen.

7. All evergreen tree species are to be full, dense plants branched fully to the ground.

8. Prune all dead and broken branches from all plants immediately after installation.

9. Planting soil mixture shall be prepared on–site by mixing 3 parts topsoil to 1 part existing site soils to 1 part peat, adding 5 lbs. of superphosphate to each cubic yard of the mixture.

10. Organic mulch requirements (shredded hardwood): shade trees, ornamental trees and evergreen trees – 6" of shredded bark; shrubs and shrub beds – 4" of shredded bark

11. Re–seed (or hydroseed) disturbed areas as noted above with the following mix:
    a. 50 percent creeping red fescue (Festuca rubra variety).
    b. 30 percent Kentucky blue grass (Poa pretensis).
    c. 20 percent perennial rye grass (Lolium perenne).

12. "NO MOW" areas noted on plans are lawn areas seeded with "No Mow Lawn Grass Seed" as provided by American Meadows (www.americanmeadows.com, 877–309–7333) or approved equal. Sow at a rate of 5 lbs per 1000 s.f. in early spring (April 15–May 15) or fall (Aug. 20–Sept. 20). No Mow lawn shall be cut back to 3½ –4" once or twice a year (October and possibly mid July based on personal preference).

13. All Landscaping shall be maintained in a healthy, neat and orderly state following installation. Any and all plant material that dies or becomes diseased, shall be replaced within six months.

PLANT LIST

Qty.	Key	Botanical Name	Common Name	Size				Root	Remarks
				Caliper	Height	Spread	Other		
Trees									
4	AC	Abies concolor	Concolor Fir	6'				B&B	
2	AR	Acer rubrum 'Armstrong'	Armstrong Red Maple	2 1/2"	8'			B&B	
2	TC	Tilia cordata	Littleleaf Linden	2 1/2"				B&B	
Shrubs									
23	IG	Ilex glabra 'Compacta'	Compact Inkberry		24"–30"			Cont.	
22	JH	Juniperus ch. 'Hetzii Columnaris'	Green Column Juniper		4'			Cont.	
9	JS	Juniperus ch. 'Spartan'	Spartan Juniper		4'			Cont.	
10	VO	Viburnum o. 'Compactum'	Comp. European Cranberrybush		24"–30"			Cont.	

B&B = Balled & Burlapped Cont. = Container

Legend

CANOPY TREE

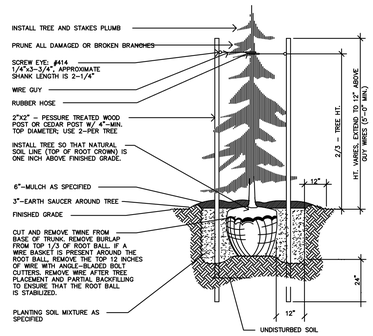
ORNAMENTAL TREE

EVERGREEN TREE

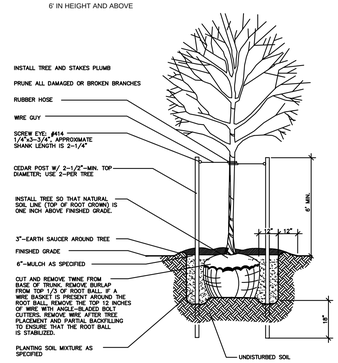
SHRUBS

PLANTKEY (QTY. / SPECIES)

"NO MOW" SEED

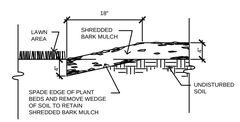


Evergreen Tree Planting/Staking



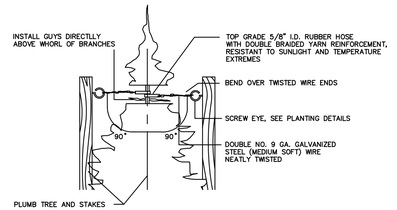
Deciduous Tree Planting/Staking

UNDER 3" IN CALIPER



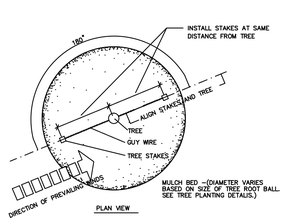
Spade Edge Plant Bed

SCALE: NO SCALE



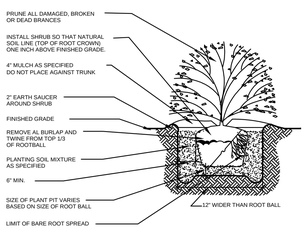
Guy Installation

FOR EVERGREEN AND DECIDUOUS TREES



Stake Placement

FOR EVERGREEN AND DECIDUOUS TREES



Shrub Planting Detail

SCALE: NO SCALE

811 Know what's **below.** **Call** before you dig.

Design Solutions LLC
Landscape Architects & Planners
2580 Dustin RD
Okemos, MI 48864
517 333-7026

SUSAN L. SHAFER LANDSCAPE ARCHITECT No. 1038 REGISTERED LANDSCAPE ARCHITECT

ENGINEERS · SURVEYORS
CONSULTANTS · LAND PLANNERS
Monument Engineering Group Associates, Inc.
638 SOUTH GRAND AVE.
FOWLERVILLE,
MICHIGAN 48836
(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM
SERVICE DISABLED VETERAN OWNED SMALL BUSINESS (SDVOSB)

Call MISS DIG
3 full working days before you dig:
Michigan's One-Call — Utility Notification Organization
1-800-482-7171
www.missdig.org
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THEIR COMPLETENESS OR ACCURACY. IT SHALL BE THE CONTRACTOR'S SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

BCC BRIVAR Construction Company

BRIVAR CONST. CO.
7258 KENSINGTON ROAD
BRIGHTON, MI 48116
(248) 446–8000

LANDSCAPE PLAN & DETAILS
GREAT LAKES C
3245 CARD DRIVE
PART OF NW 1/4, SEC. 33, T7N–R7E
CITY OF BURTON, GENESEE COUNTY, MICHIGAN

DATE	PLAN SUBMITTALS/REVISIONS
1/26/18	PRELIMINARY SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE: 1/19/2018

PROJECT NO: 18–003

SCALE: 1"=20'
0 10' 20'

FIELD:
DRAWN BY: SLS
DESIGN BY: SLS
CHECK BY: AP

L1

NOT FOR CONSTRUCTION

Attachment: Backup 18-06 (3518 : SPR #18-06)

City of Burton
Department of Public Works
4093 Manor Drive
Genesee County, Burton, Michigan 48519
(810) 742-9230

APPLICATION FOR ADMINISTRATIVE SITE PLAN REVIEW

DATE FILED: 1-5-18

FEE: **$75.00**

RECEIPT NO: [illegible]

CHECK NO: Cash

SPR #: 18-02

PLEASE PRINT

DATE: 1/5/18

APPLICANTS NAME: Mark O'Brien

APPLICANTS ADDRESS: 8152 Rose Ln Goodrich, MI 48438

APPLICANTS PHONE NO: 704-604-4253

PROPOSED NAME OF BUSINESS: M O Storage

SITE ADDRESS: 5490 Davison Rd

SUBDIVISION & LOT # OR PARCEL NUMBER:

TYPE: ☒ CHANGE OF OWNERSHIP/USE ☐ CONSTRUCTION LESS THAN 2%

USE OF STRUCTURE: Storage

SQ FOOTAGE OF PROPERTY: 25,000

SQ FOOTAGE OF STRUCTURE:

NUMBER OF EMPLOYEES/SEATS: 2

APPLICANTS SIGNATURE: M O'B

*** ALSO ATTACH A FLOOR PLAN OF THE PROPOSED BUSINESS.

Attachment: Back up 18-02 (3513 : SPR #18-02)

City of Burton
Department of Public Works
4093 Manor Drive
Genesee County, Burton, Michigan 48519
(810) 742-9230

APPLICATION FOR ADMINISTRATIVE SITE PLAN REVIEW

DATE FILED: 1-9-18

FEE: **$75.00**

RECEIPT NO: _____

CHECK NO: _____

SPR #: 18-03

PLEASE PRINT

DATE: 1-9-2018

APPLICANTS NAME: T-Rex Corp.

APPLICANTS ADDRESS: 3245 Card Drive, Burton, MI

APPLICANTS PHONE NO: 810-240-1730

PROPOSED NAME OF BUSINESS: T-Rex Corp.

SITE ADDRESS: 3245 Card Drive

SUBDIVISION & LOT # OR PARCEL NUMBER: 59-33-501-027

TYPE: ☒ CHANGE OF OWNERSHIP ☐ CONSTRUCTION LESS THAN 2%

USE OF STRUCTURE: Growing Facility (72 plant limit)

SQ FOOTAGE OF PROPERTY: 1 Acre

SQ FOOTAGE OF STRUCTURE: 6,000

NUMBER OF EMPLOYEES/SEATS: N/A

APPLICANTS SIGNATURE: _____

*** ALSO ATTACH A FLOOR PLAN OF THE EXISTING AND PROPOSED BUSINESS.

Attachment: Back up 18-03 (3514 : SPR #18-03)

City of Burton
Department of Public Works
4093 Manor Drive
Genesee County, Burton, Michigan 48519
(810) 742-9230

APPLICATION FOR ADMINISTRATIVE SITE PLAN REVIEW

DATE FILED: 1-16-18

FEE: **$75.00**

RECEIPT NO: _____

CHECK NO: _____

SPR #: 18-04

PLEASE PRINT

DATE: 1-16-18

APPLICANTS NAME: The Barn LLC

APPLICANTS ADDRESS: 3491 E. Bristol Rd

APPLICANTS PHONE NO: 810 625 1757

PROPOSED NAME OF BUSINESS: The Barn LLC

SITE ADDRESS: 3491 E. Bristol Rd

SUBDIVISION & LOT # OR PARCEL NUMBER: 59-28-576-031

TO comply w/new City Ord.

TYPE: [X] CHANGE OF OWNERSHIP/USE [ ] CONSTRUCTION LESS THAN 2%

USE OF STRUCTURE: Provisioning Center

SQ FOOTAGE OF PROPERTY: ~~[illegible]~~ 89,619 sq Ft

SQ FOOTAGE OF STRUCTURE: 2400 sq Ft

NUMBER OF EMPLOYEES/SEATS: 3

APPLICANTS SIGNATURE: Bennie Ashley

*** ALSO ATTACH A FLOOR PLAN OF THE PROPOSED BUSINESS.

Attachment: Back up 18-04 (3515 : SPR #18-04)

City of Burton
Department of Public Works
4093 Manor Drive
Genesee County, Burton, Michigan 48519
(810) 742-9230

APPLICATION FOR ADMINISTRATIVE SITE PLAN REVIEW

DATE FILED: 1-25-18

FEE: $75.00

RECEIPT NO: _____

CHECK NO: _____

SPR #: 18-05

PLEASE PRINT

DATE: 1/17/2018

APPLICANTS NAME: Michael Joseph Joubran

APPLICANTS ADDRESS: 2259 Ridgemoor Ct., Burton, MI, 48509

APPLICANTS PHONE NO: 810-471-0000

PROPOSED NAME OF BUSINESS: Burton Management Specialist, Inc.

SITE ADDRESS: 3380 Warehouse Dr., Burton, MI

SUBDIVISION & LOT # OR PARCEL NUMBER: 59-28-553-023

TYPE: ☒ CHANGE OF OWNERSHIP/USE (Yes / Yes) ☐ CONSTRUCTION LESS THAN 2%

USE OF STRUCTURE: Processing License as defined in MMFLA

SQ FOOTAGE OF PROPERTY: 4.47 acres = 194,756.76 sq ft

SQ FOOTAGE OF STRUCTURE: 4940.7

NUMBER OF EMPLOYEES/SEATS: 3-6

APPLICANTS SIGNATURE: _____

*** ALSO ATTACH A FLOOR PLAN OF THE PROPOSED BUSINESS.

Attachment: Back up 18-05 (3516 : SPR #18-05)