# SITE PLAN FOR TIM HORTONS

## 2258 CROOKS ROAD ROCHESTER HILLS, MICHIGAN

TIM DONUT U.S. LIMITED, INC. 565 EAST GRAND RIVER, SUITE 101 BRIGHTON, MI 48116

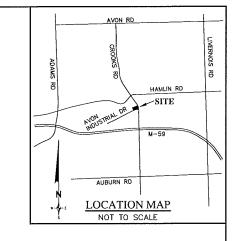
PHONE: (810) 844-2747 FAX: (810) 229-3072 CONTACT: MARK KELLENBERGER, AICP EMAIL: KELLENBERGER\_MARK@TIMHORTONS.COM

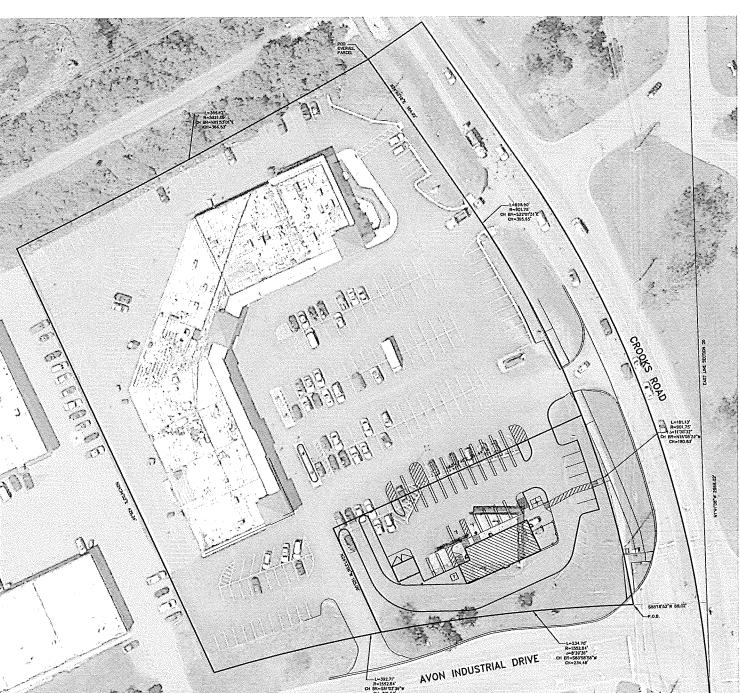
#### CIVIL ENGINEER/SURVEYOR:

ZEIMET WOZNIAK AND ASSOCIATES, INC. 55800 GRAND RIVER, SUITE 100 NEW HUDSON, MI 48165 PHONE: (248) 437-5099 FAX: (248) 437-5222 CONTACT: SHAWN BLASZCZYK, PE EMAIL: SBLASZCZYK@ZEIMETWOZNIAK.COM

#### LANDSCAPE ARCHITECT:

ALLEN DESIGN 557 CARPENTER NORTHVILLE, MI 48167 PHONE: (248) 467-4668 FAX: (248) 349-0559 CONTACT: JIM ALLEN, ASLA EMAIL: JCA@WIDEOPENWEST.COM





#### SHEET INDEX:

#### SITE PLANS:

COVER SHEET TOPOGRAPHIC SURVEY DEMOLITION PLAN TH03 SITE PLAN LANDSCAPE PLAN TH05 UTILITY PLAN GRADING AND DRAINAGE PLAN TH07 SOIL EROSION CONTROL PLAN SITE DETAILS TH09

#### ARCHITECTURAL PLANS:

EXTERIOR ELEVATIONS EXTERIOR ELEVATIONS

#### LEGAL DESCRIPTION OVERALL PARCEL

(PER FIDELITY NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NO. N-108385)

LAND SITUATED IN THE CITY OF ROCHESTER HILLS, COUNTY OF OAKLAND, AND STATE OF MICHIGAN, DESCRIBED AS:

PARCELS 1 AND 2 COMBINED, DESCRIBED AS:

PART OF THE NORTHEAST 1/4 OF SECTION 29, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS,

OAKLAND COUNTY, MICHIGAN, DESCRIBED AS:

PART OF THE NORTHEAST 1/4 OF SECTION 29, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS,

OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT DISTANT NORTH of DEGREES 41

MINUTES 08 SECONDS WEST 1496,57 FEET AND NORTH 17 DEGREES 43 MINUTES 16 SECONDS WEST 164,02 FEET AND SOUTH 55 DEGREES 43 MINUTES 42

SECONDS WEST 80.00 FEET FROM THE EAST 1/4 CORNER: THENCE SOUTH 34 DEGREES 43 MINUTES 16 SECONDS

EAST 164,92 FEET; THENCE ALONG A CURVE TO THE RIGHT, RADIUS 901.75 FEET, CHORD BEARS SOUTH 22

DEGREES 01 MINUTES 51 SECONDS EAST 395.65 FEET, DISTANCE OF 388.90 FEET; THENCE ALONG A CURVE TO THE

LEFT, RADIUS 1552.84 FEET, CHORD BEARS SOUTH 81 DEGREES 02 MINUTES 39 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 34 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 34 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 34 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 35 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 54 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 54 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 54 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET; THENCE NORTH 24 DEGREES 54 MINUTES 53 SECONDS WEST 391.62 FEET;

DISTANCE OF 392.71 FEET;

THENCE ALONG A CURVE TO THE BEFT, CHORD BEEARS NORTH 61 DEGREES 53 MINUTES 51 SECONDS

#### LEGAL DESCRIPTION DEVELOPMENT PARCEL (AS SURVEYED)

A PARCEL OF LAND LOCATED IN THE NORTHEAST 1/4 OF SECTION 29, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE EAST 1/4 CORNER OF SAID SECTION 29, AND PROCEEDING N. 01'41'08" W. 1616.58 FEET ALONG THE EAST LINE OF SAID SECTION 29; THENCE S. 881'8'52" W. 68.02 FEET TO THE POINT OF BEGINNING; THENCE ALONG THE NORTH RIGHT OF WAY OF AVON INDUSTRIAL DRIVE (100 FEET WIDE) 234.70 FEET ALONG THE ARC OF A CURVE TO THE LEFT, RADIUS 1552.84 FEET, CENTRAL ANGLE 08'39'37" AND A CHORD THAT BEARS S. 83'58'58" W. 234.48 FEET; THENCE N. 24'13'06" W. 105.00 FEET; THENCE N. 65'42'49" E. 251.44 FEET TO THE WEST RIGHT OF WAY LINE OF CROOKS ROAD (120.00 FEET WIDE); THENCE ALONG SAID RIGHT OF WAY LINE 181.14 FEET ALONG THE ARCO THE RIGHT RADIUS 901.75 FEET, CENTRAL ANGLE 11'30'34" AND A CHORD THAT BEARS S. 15'05'22" E. 180.83 FEET TO THE POINT OF BEGINNING.

NOT FOR CONSTRUCTION CITY FILE NO. 13-024, SECTION 25

SCALE HOR: 1" = 40" VER: 1" = N/A PROJECT SPONSOR: COVER SHEET MISS DIG SYSTEM, INC. CALL THE MISS DIG SYSTEM DIG SYSTEM DIG SYSTEM DIG SYSTEM TIM DONUTS U.S. LIMITED. INC. DESIGNED BY JOB NO. 13160 Civil Engineers & Land Sturveyors 55800 GRAND RIVER AVE., SUITE 100 NEW HUDSON, MICHIGAN 48165 P. (248) 437-5099 F. (248) 437-5222 www.zeinetwozniak.co TIM HORTONS 565 EAST GRAND RIVER, SUITE 101 (810) 844-2747 ROCHESTER HILLS. MICHIGAN SRB SHEET THO1 BRIGHTON, MI 48116

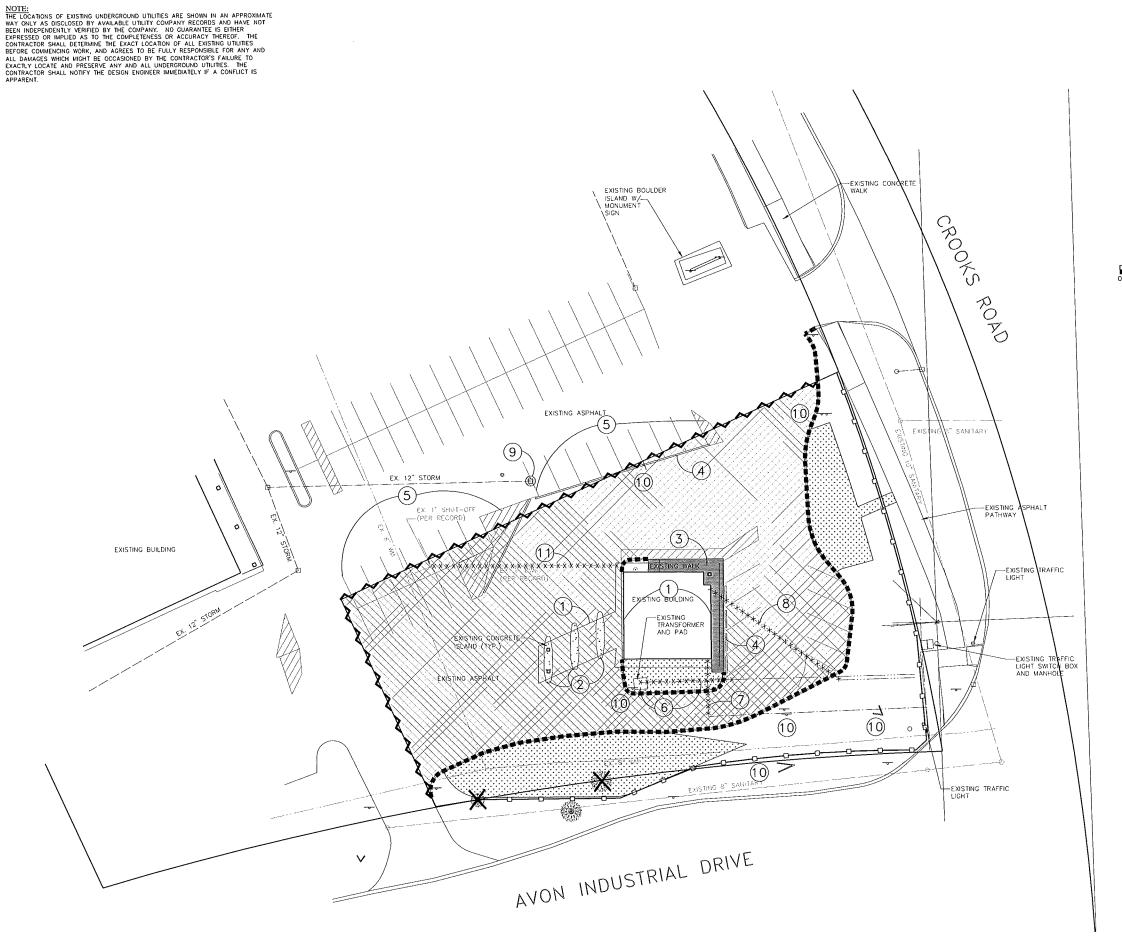
(810) 844-2747

BRIGHTON, MI 48116

ROCHESTER HILLS, MICHIGAN

DRAWN BY SHEET THO2

Z:\Projects\13160\DWG\13160 TOPO.dwg, TH02, 2/19/2014 10:15:20 AM, sblaszczyk





#### BENCHMARK:

- RAILROAD SPIKE IN POWER POLE LOCATED 90'±
  NORTHEAST OF NORTHEAST CORNER OF
  SHOPPING CENTER.
  ELEVATION 804.50 U.S.G.S.
- 2. CENTER OF SANITARY SEWER MANHOLE RIM IN CROOKS ROAD R.O.W. NEAR NORTHEAST CORNER OF SITE. ELEVATION B11.21 U.S.G.S.

# EXISTING LEGEND

LIGHT POLE 83 TREE TREE LINE ---// -----// ---- FENCE

SANITARY SEWER

STORM SEWER WATER MAIN GAS MAIN ELECTRIC CABLE CONTOUR MAJOR CONTOUR MINOR

T/C TOP OF CURB B/C BOTTOM OF CURB +100.00 SPOT ELEVATION

MANHOLE CATCH BASIN INLET CLEANOUT END SECTION ROOF DRAIN

GATE VALVE

WATER SHUT-OFF UTILITY POLE

HYDRANT

#### REMOVALS NOTES:

- 1 REMOVE BUILDING, SLAB, FOOTINGS, AND DRIVE-THRU OVERHANG.
- REMOVE CONCRETE ISLAND AND CURB.
- 3 REMOVE CONCRETE SIDEWALK.
- 4 REMOVE BUMPER BLOCKS.
- 5 REMOVE EXISTING STRIPPING.
- (6) REMOVE TRANSFORMER, PAD, AND SERVICE LINE. CUT SERVICE LINE IN A LOCATION TO BE DETERMINED IN FIELD BY OWNER FOR EXTENSION TO NEW BUILDING.
- ? REMOVE GAS SERVICE TO A LOCATION TO BE DETERMINED IN FIELD BY OWNER FOR EXTENSION TO NEW BUILDING.
- (B) REMOVE TELEPHONE SERVICE TO A LOCATION TO BE DETERMINED IN FIELD BY OWNER FOR EXTENSION TO NEW BUILDING.
- 9 INLET SEDIMENT FILTER.
- REMOVE SIGN.
- () CAP WATER SERVICE AT SHUT-OFF AND REMOVE TO EXISTING BUILDING.

#### REMOVALS LEGEND:

 $\otimes$ 

INLET SEDIMENT FILTER.

REMOVE ASPHALT PAVEMENT AND BASE.

REMOVE VEGETATION, TOPSOIL, ORGANICS, ETC. TO PROPOSED SUBGRADE ELEVATIONS.

FULL DEPTH SAWCUT PAVEMENT.

REMOVE CONCRETE SIDEWALK AND BASE.

REMOVE CURB AND GUTTER. GEOTEXTILE SILT FENCE.

X-X-X-X-X REMOVE UTILITY (EXACT LIMITS TO BE DETERMINED IN FIELD).



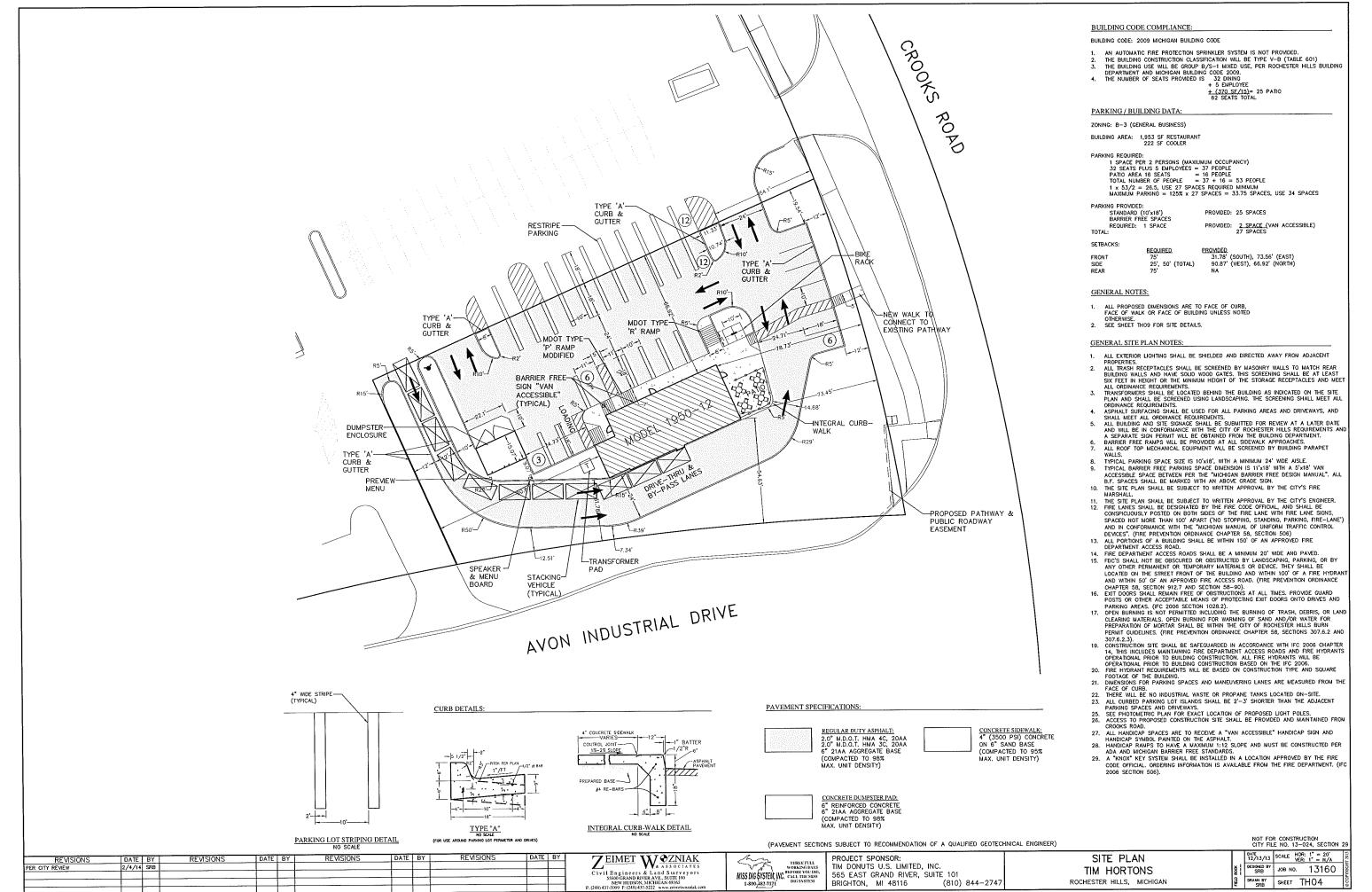
REMOVE TREE, STUMP, AND ROOTS.

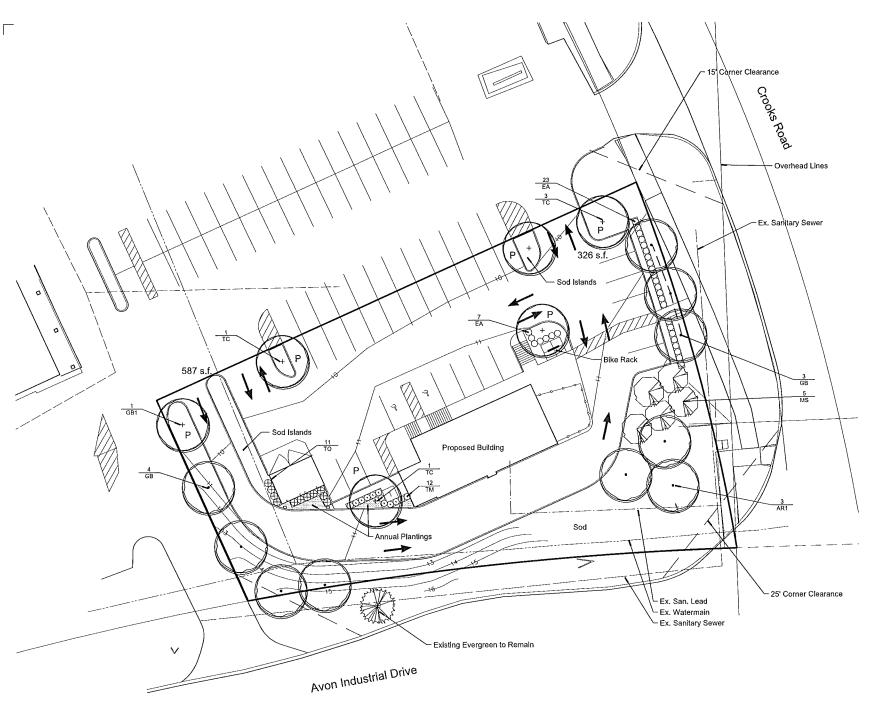
#### SANITARY LEAD NOTE:

LOCATION OF EXISTING SANITARY SERVICE LEAD CANNOT BE VISUALLY LOCATED IN FIELD AT TIME OF SURVEY AND NO RECORDS OF ITS LOCATION ARE AVAILABLE. CONTRACTOR SHALL LOCATE IT PRIOR TO CONSTRUCTION AND DETERMINE THE EXACT LIMITS OF REMOVAL, IF NEEDED.

NOT FOR CONSTRUCTION CITY FILE NO. 13-024, SECTION 29

DATE 12/13/13 SCALE HOR: 1" = 20' VER: 1" = N/A ZEIMET W. ASSOCIATES
CIVIL Engineers & Land Surveyors
SSSO GRAND RIVES ALV. SUITE 100
NEW HUDSON, MICHIGAN 49160
P. (248) 437509 F. (248) 437522 www.zienewo.uzisk.co DEMOLITION PLAN PROJECT SPONSOR: REVISION PER CITY REVIEW MISS DIG SYSTEM, INC. CALL THE MASS
1.800.482-7171 TIM DONUTS U.S. LIMITED, INC. 565 EAST GRAND RIVER, SUITE 101 DESIGNED BY JOB NO. 13160 TIM HORTONS DRAWN BY SHEET THO3 BRIGHTON, MI 48116 ROCHESTER HILLS, MICHIGAN (810) 844-2747





Landscape Summary

Parking Lot Landscaping Vehicular Use Area 18,023 s.f. 901 s.f. (18,023 x 5%) 913 s.f.\* Landscape Area Required
"P" Landscape Area Provided

Trees Required 6 Trees (901 / 150)

6 Trees Trees Provided

Right of Way Landscaping\* Crooks Road

Frontage Trees Required 181 l.f. 5.2 Trees (1 per 35') Trees Provided 5 Trees Ornamental Trees Required 5.2 Trees (1 per 35') Ornamental Trees Provided 5 Trees

Avon Industrial Drive

Frontage Trees Required

6.7 Trees (1 per 35') 6 Trees (1 Existing, 1 Shall be Paid into the Tree Fund) Trees Provided

Ornamental Trees Required Ornamental Trees Provided 6.7 Trees (1 per 35')
7 Trees to be Paid into the Tree Fund

 As measured from the back of curb and Excluding Sidewalks.
 ROW Plantings will Require a RCOC Permit. If the Permit is Not Granted, the Value of Required Trees Shall be Placed in the City Tree Fund.

Additional Notes:

Prior to Release of the Performance Bond, the Cey of Rochester NBs
Must hopest all Landscape Pitralings Including but not thrilled to
Euthing trees, Replacement Trees, Burlier Plantings, and Panting Lot Islands

Utility Maintenance Statement

Bike Rack Specification:

Manufacturer, Conceptual Ske Furnishings
Modek M5 Bike Rock
Number of Bless: 5 Bikss
Frish: Powder Coal Black

#### Plant List

sym. :	qty.	botanical name	common name	caliper	spacing	root	: height :	price	 total
Parkin	g Lot is	land Trees		1	! 1				
GB1	1	Ginko biloba	Ginko	3.0*	as shown	888		\$ 425.00	\$ 425.
TC	5	Tilia cordata 'Greenspire'	Greenspire Linden	3,0"	as shown	B&B		\$ 425.00	\$ 2,125
Right o	f Way	Trees							
ARI	3	Acer rubrum	Red Maple	3.01	as shown			\$ 425,00	1,275
GB	7	Ginko biloba	Ginko	3.0*	as shown	B&B		\$ 425,00	\$ 2,975.
MS	5	Malus sargentii	Sargent Crab	2.0	as shown	B&B		\$ 200.00	\$ 1,000
Right o	f Way	Trees Paid into City Tree Fund		- <del> </del>					 
	1	Deciduous Tree	1	3,0"				\$ 425.00	425
	7	Ornamental Trees		2.0*				\$ 200.00	\$ 1,400.
Genera	al Plant	i lings			<del> </del>				
EA	30	Euonymus alata 'Compacta'	Burning Bush		as shown		30"-36"	\$ 50.00	\$ 1,500
TM		Taxus x. media 'Densiformis'	Dense Yew		as shown		30"-36"	\$ 50.00	\$ 600
TO	11	Thuja occidentalis 'Dark Green'	Dark Green Arbonitae	:	as shown	B&B	6'	\$ 175,00	\$ 1,925
	2.080	Kentucky Blue Grass, (S.Y.)			i			\$ 4.00	\$ 8,320
		Irrigation System		1					\$ 15,000
			<del></del>				Total		\$ 36,970



Seal:



## Landscape Plan

Project:

Tim Horton's Rochester Hills, Michigan

Prepared for:

Zeimet Wozniak & Associates 55800 Grand River, Suite 100 New Hudson, MI 48165 248,437,5099

Revision: Issued: December 11, 2013 February 4, 2014

Drawn By: Checked By:

0' 5' 10' 20'

Job Number: 13-048

NORTH 1"=20"

Sheet No.

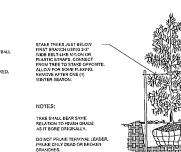
TH-05 City File No. 13-024, Section 29



SHALL BE NATURAL PLOCOLOR.
PULL MULCH 3' AWAY FROM TRUN

REMOVE ALL NON-BIODEGRADABL

SCARIFY SUBGRADE



IND TO FORM 3" EARTH SAUCER REMOVE ALL NON-BIDDEGRADABLE
MATERIALS FROM THE ROOTBALL
CUT DOWN WARE BASKET AND FOLD
DOWN ALL BURLAP FROM 1/3 OF
ROOTBALL - PLANTING MIX AS SPECIFIED

NOTES: TREE SHALL BEAR SAVE RELATION TO FINISH GRADE AS IT BORE ORIGINALLY. REMOVE ALL TAGS, STRING, PLASTIC AND OTHER MATERIA

LANDSCAPE REQUIREMENTS

The year shall contain of pad-day all receiving varieties, labor, warrant, endemort, toda and usper-falson regulated for the completion as shown on the dead-day.

The year shall contain the day of the state of the completion as shown on the dead-day.

The year shall be made to the state of the state of

secondance with the latest edition of the "AAAL Submodes to making visco."

The plant mandal half be enursely ground and islanded by the owners impresentable before planting. The owners in presentable before planting. The owners in presentable is the planting of the makinds at the correct grounds and openation." The plant shall be ordered as to give the best appearance.

When the plant has been properly set, the planting of bending at the planting of planting of the plantin

for any cost incurred due to disruege of sald stillate.

14. The Contractor shall not with dy records with construction as designed when it is club. That provides on destinged when it is club, that provides ordstructions and organized differences such Such conditions shall be immediately brought to the adminlion of the owner's representative and for Landscope Archetect. The Contractor shall assume 4 in reproviding from a recessing reliable to large to give such modification.

15. Any description of the Contractor of Immediately and and actual field conditions shall be reposed to the Contract representative and Landscape Archetect. Failure to make such dispreparately known will result in Contractor's responsibility and fability for any changes and associated cost.

16. The Contractor in words. 16. The Contractor to verify percolation of all planting pits prior to installation of plan

Proposed Landscaping and or Walls Shall Adequately Screen Loading Areas from Public R.O.W.

Overhead Line Statement: Overhead Lines Edit Along Crooks Road Loading Area Statement:

Not to be Used as Construction Drawings

12. The Contractor shall verify all dryths of way, easements, properly lines and finits of work, etc. plot to commencing rook.
13. The Conversaria halls are reprocedule for contacting and coordinating with all pershavel utility comparises 12 hours in scalance of any degring to make it investigating with all pershavel utility comparises 12 hours in scalance of any degring to make it investigating with the person of the contractor of the table is person and transfer of the person of the person

**DECIDUOUS TREE PLANTING DETAIL** 

TREE PIT SHALL BE 3 TIMES THE SIZE OF THE ROOT BALL.

REMOVE ALL TAGS, STRING, PLASTIC AND OTHER MATERIA

**EVERGREEN TREE PLANTING DETAIL** 

SHRUB PLANTING DETAIL

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENCES OR ACCURACY THEREOF. THE CONTRACTOR SHALL BETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

#### SANITARY SEWER BASIS OF DESIGN

A. CONTRIBUTION TO EXISTING 10° SEW ER:

BLDG. DESIGNATION BLDG. USE AREA (SF) SEATS UNIT FACTOR UNITS
Tim Horton's Restaurant 1.959 32 0.13/veat 3.16

No. of people = 3.5 ppu x 4.16 units = 14.56 people

Average daily flow =  $\frac{100 \text{ grend x } 14.56 \text{ people}}{(7.5 \text{ x } 24 \text{ x } 3600)} = 0.0022 \text{ cfs}$ 

#### WATERMAIN BASIS OF DESIGN

INITIAL SERVICE CONNECTIONS-INITIAL SERVICE CONNECTIONS-TOTAL SERVICE CONNECTIONS-INITIAL DESIGN AVERAGE DAY FLOW-INITIAL MAXIMUM DAY FLOW-TOTAL DESIGN AVERAGE DAY FLOW-TOTAL MAXIMUM DAY FLOW-14.56 (NUMBER OF PEOPLE)

### FIRE DEPARTMENT NOTES:

- 1. FOR COMMERICIAL BUILDINGS OVER 30-FFET HIGH OR 3 STORIES REQUIRE TWO OR MORE SEPARATE FIRE ACCESS ROADS AT LEAST 26-FEET WIDE. AT LEAST ONE ROAD SHALL BE WITHIN A MINIMUM 15-FEET AND A MAXIMUM 30-FEET FROM THE BUILDING AND SHALL BE POSITIONED PARALLE. TO ONE ENTIRE SIDE OF THE BUILDING.

  2. FIRE LANES SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGHS SPACED NOT MORE THAN 100 FEET APART, FIRE LANE SIGNS SHALL READ "NO STOPPING, STANDING, PARKING, FIRE LANE", AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEMORS.
- IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

  3. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND FIRE HYDRANTS.

  4. FIRE DEPARTMENT CONNECTIONS, WHEN REQUIRED, SHALL BE LOCATED VISIBLY ON THE STREET FRONT OF THE BUILDING, WITHIN 50-FEET OF AN APPROVED FIRE DEPARTMENT ACCESS ROAD AND A FIRE HYDRANT SHALL BE LOCATED WITHIN 100-FEET OF THE F.D.C.

  5. FIRE DEPARTMENT CONNECTIONS SHALL NOT BE OBSCURED OR OBSTRUCTED BY LANDSCAPING, PARKING OR BY ANY OTHER PERMANENT OR TEMPORARY MATERIALS OR DEVICE.

  6. CONSTRUCTION SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC CHAPTER 14.
- 1. OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND/OR WATER FOR PREPARATION OF MORTAR SHALL BE WITHIN CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. CONTACT ROCHESTER HILLS FIRE DEPARTMENT FOR PERMIT INFORMATION.
- DEPARTMENT FOR PERMIT INFORMATION.

  8. A "KNOX" KEY SYSTEM MAY BE REQUIRED IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE FROM THE FIRE DEPARTMENT.

#### HYDRANT REQUIREMENTS:

1. BUILDING CONSTRUCTION—
2. BUILDING AREA—
3. REQUIRED FIRE FLOW—
4. REQUIRED HYDRANTS—

TYPE V-B 1,950 S.F. 1,500 GPM \* 1 WTH 500' AVERAGE SPACING \*

REQUIRED FIRE FLOW AND HYDRANTS TAKEN FROM TABLES 8105.1 AND C105.1 IN THE CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS.

#### SANITARY SEWER NOTES:

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE AGENCY HAVING JURISDICTION OVER THAT WORK.
  2. ALL SANITARY SEWER BUILDING LEADS WILL BE SOLID WALL PVC SDR 23.5 PIPE.
  3. SANITARY SEWER FORO CONNECTIONS MUST BE EXTERNAL TYPE.
  4. THE MINIMUM SLOPE FOR 6° SANITARY BUILDING LEADS IS 1.00%.
  5. ALL PROPOSED SEWERS SHALL HAVE CHEMICALLY WELDED JOINTS.
  6. THE CONTRACTOR SHALL HAVE A TELEVISION INSPECTION OF THE EXISTING SANITARY LEAD PERFORMED PRIOR TO CONSTRUCTION TO VERIFY THE CONDITION OF THE EXISTING PIPE. THE CITY INSPECTOR SHALL WITHHESS THE SCOPE AND A MOED COPY SHALL BE PROMOED TO THE CITY.

#### WATERMAIN NOTES:

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE ACENCY HAVING JURISDICTION O'VER THAT WORK.

  2. ALL HYDRANTS, INCLUDING NOZZIES AND PROJECTIONS SHALL BE 3' MINIMUM FROM EDGE OF SIDEWALK, OR 6' MINIMUM FROM BACK OF CURB.

  3. THE WATERNAIN WILL HAVE A MINIMUM OF 6 FEET OF COVER.

  4. THE CONTRACTOR SHALL DETERMINE DEGREE OF BEND FOR THE MATERNAIN FITTINGS. PIPE DEFLECTIONS SHALL NOT EXCEED 75% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE DEFLECTION.
- MAJIMUM ALLUWABILE DEFLECTION.

  5. WATERMAIN B<sup>2</sup>. AND LARGER SHALL BE CEMENT-LINED (DOUBLE THICKNESS), DUCTILE IRON PIPE, CLASS 54.

  6. A VERTICAL SEPARATION OF 18 INCHES MUST BE MAINTAINED BETWEEN THE WATERMAIN AND SANITARY SEWERS, STORM SEWERS, OR OTHER PROPOSED UTILITIES.
- 7. ALL GATE VALVES SHALL BE RESILIENT WEDGE OR SEATED TYPE GATE VALVE 7. ALL GAIL VALVES SHALL BE RESILIENT WEDGE OR SEATED TYPE GATE VALVE (E.J.I.W. OR U.S. PIPE).
  8. RESTRAINED RODDED JOINTS SHALL BE USED AT ALL VERTICAL BENDS. THE NUMBER OF RESTRAINED RODDED JOINTS REQUIRED HALL BE DETERMINED BY THE MANUFACTURER, SUBJECT TO APPROVAL BY THE CITY ENGINEER.
  9. USE HYDRAIT CONNECTION DETAILS PER CURRENT CITY STANDARD DETAIL SHEET.

#### 10. WATER SERVICES SHALL BE SDR-9 POLY PIPE OR TYPE 'K' COPPER.

STORM SEWER NOTES:

- 1. PROPOSED STRUCTURE COVERS/CRATES SHALL BE PROWDED AS REQUIRED ON THE CITY OF ROCHESTER HILLS STANDARD DETAIL SHEETS.
  2. EDGE DRAIN TO BE 20' IN EACH DIRECTION AT 90' ANGLES FROM INLET STRUCTURES LOCATED IN PAYED AREAS.
  3. STRUCTURAL CALCULATIONS AND SHOP DRAWNOS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER (REGISTERED IN THE STATE OF MICHIGAN) SHALL BE SUBMITTED TO THE CITY FOR REVIEW PRIOR TO CONSTRUCTION OF ALL STORM SEWER STRUCTURES GREATER THAT 6 FEET IN DIAMETER.
  4. PROPOSED ROOF DRAINS SHALL BE SCHEDULE 40 PVC PIPE WITH CHEMICALLY WELDED JOINTS.
  5. PROPOSED STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS IV WITH RUBBER GASKETS AND CLASS B BEDDING.

# BENCHMARKS:

EXISTING\8" SANITARY

EXISTING GAS

EXISTING 8" SANITARY

 RAILROAD SPIKE IN POWER POLE LOCATED 90'± NORTHEAST OF NORTHEAST CORNER OF ELEVATION 804.50 U.S.G.S.

CENTER OF SANITARY SEWER MANHOLE RIM IN CROOKS ROAD R.O.W. NEAR NORTHEAST CORNER OF SITE. ELEVATION 811.21 U.S.G.S.

#### UTILITY LEGEND

#### PROPOSED EXISTING MANHOLE MANHOLE CATCH BASIN CATCH BASIN INLET CLEANOUT INLET CLEANOUT END SECTION END SECTION ROOF DRAIN GATE VALVE GATE VALVE HYDRANT WATER SHUT-OFF WATER SHUT-OFF TREE REMOVAL GUY ANCHOR SANITARY SEWER LIGHT POLE STORM SEWER SIGN TREE © DITCH TREE LINE てんえんたんんだん

#### GENERAL NOTES:

M.D.O.T. CLASS II BACKFILL TO BE COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM UNIT WEIGHT. ABOVE REQUIRED UNDER OR WITHIN A 1 ON 1 SLOPE OF ENSITING OR PROPOSED PAXEMENT.

2. ALL CONTRACTORS SHALL NAME ZEINET-WOZNIAK & ASSOCIATES AS ADDITIONALLY INSURED ON ALL INSURANCE POLICIES.

SANITARY SEWER STORM SEWER

GAS MAIN

#### STORMWATER MANAGEMENT CALCULATIONS

#### EXISTING CONDITIONS

THE EXSTAID PARCE (0.78 ACES) IS THE STEICE A FORMER CHAIN. OF AMERICA: 89-INCH CHIEF CONSTRUCTION OF THE SYLD MAD CONTROL ON STRUCTURES AND ASSAULT SHARED AS SAULT SHARED AS A SAULT SHARED CARE SHEET MAD REPORT ON A SAULT AND ASSAULT SHARED AS A SAULT SHARED AS A

#### EDISTING EL NOTE:

C4147 = 0.59

#### PROPOSED DEVELOPMENT

#### FROPOSED RUNOFF:

SINCE CARRESTES IS LESS THAN CARREST, NO ADDITIONAL DISTRICTORS PRETREATMENT OF THE RUNOR IS PROFICED.

NOT FOR CONSTRUCTION CITY FILE NO. 13-024, SECTION 29

WATER MAIN

DATE 12/13/13 | SCALE | HOR: 1" = 20' VER: 1" = N/A THREE FULL WORKING DATS BEFORE YOU DIG. CALL THE MISS DIG SYSTEM, INC. CALL THE MISS DIG SYSTEM REVISIONS
PER CITY REVIEW PROJECT SPONSOR:
TIM DONUTS U.S. LIMITED, INC. UTILITY PLAN REVISIONS Civil Engineers & Land Surveyors
55800 GRAND RIVER AVE. SUITE 100
NEW HUDSON. MICHIGAN 48165
P: (248) 437-5099 F: (248) 437-5222 www.zeirretwordst-oe DESIGNED BY JOB NO. 13160 TIM HORTONS 565 EAST GRAND RIVER, SUITE 101 ROCHESTER HILLS, MICHIGAN DRAMN BY SHEET THO6 (810) 844-2747 BRIGHTON, MI 48116

AVON INDUSTRIAL DRIVE

INSTALL "SNOUT" OR SIMILAR—APPROVED PRODUCT TO EXISTING OUTLET PIPE TO TRAP FLOATABLES IN CATCH BASIN.

809.55

PROP. 20' WD. WATERMAIN EASEMENT OVER EX. WATERMAIN (TYPICAL)

ROCHESTER HILLS, MICHIGAN

BRIGHTON, MI 48116

1-800\_482-7171

DRAWN BY SRB

SHEET THO7

Z:\Projects\13160\DWG\13160 sp5.dwg, TH7, 2/19/2014 10:07:18 AM, sblaszczyk

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

#### CONSTRUCTION AND SOIL EROSION WORK SCHEDULE:

- PLACE SILT FENCE AROUND PROPOSED CONSTRUCTION AREA AS SHOWN ON THIS PLAN. INSTALL IRLET FILETES ON ALL EXISTING DRAINAGE STRUCTURES. DEMOUSH EXISTING BUILDING AND PAYEMENT PER DEMOUTION PLAN AND DISPOSED OF MATERIAL OFFSITE IN AN APPROVED LANDFILL.

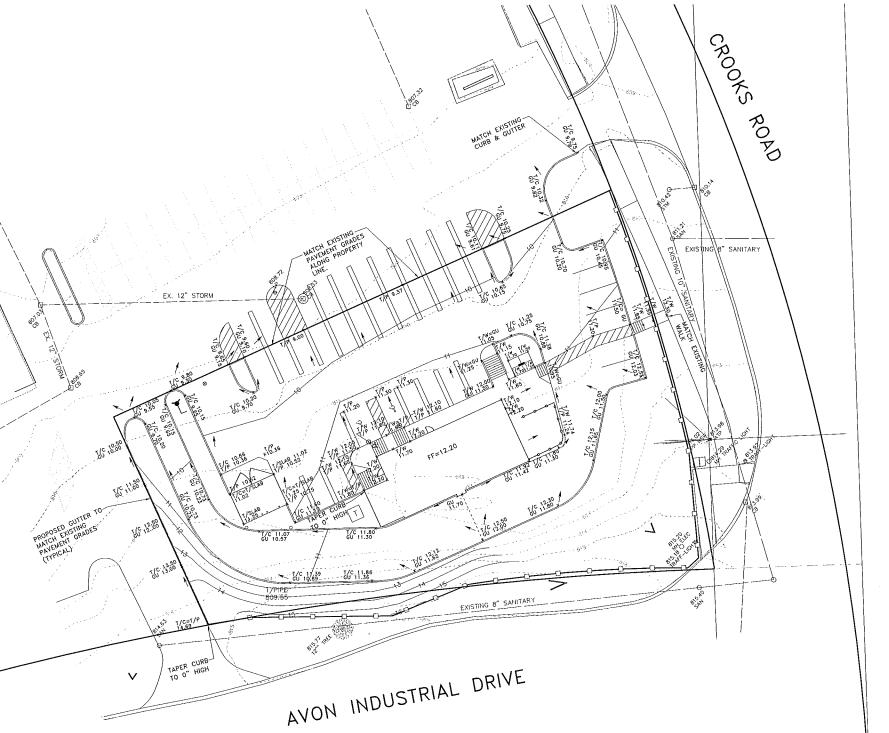
  MASS GRADE BUILDING PAD AND PARKING AREA.
  START BUILDING CONSTRUCTION.
  INSTALL SANITARY, STORM AND WATERMAIN COMPLETE.
  INSTALL CORROGUTER AND PAYEMENT. REPAIR OR REPLACE LOW POINT INLET FILTERS AS REQUIRED. SEED & MUICH ALL AREAS DISTURBED BY
  CONSTRUCTION.

- TREATE A REQUIRED. SEED & MULCH ALL AREAS DISTURBED BY CONSTRUCTION.
  CONFIRCT BUILDING CONSTRUCTION AND FINAL LANDSCAPING.
  RE-SEED AND MULCH ANY DISTURBED AREA AS NEEDED.
  REJOVE TEMPORARY EROSION CONTROLS UPON STABILIZATION OF SITE.
  T'S MALL BE THE DEVELOPERS RESPONSIBILITY TO INSURE THAT ALL EROSION CONTROL DEVICES ARE MAINTAINED AS REQUIRED THROUGHOUT THE CONSTRUCTION AND THAT THE STREETS ARE KEPT FREE OF HUD AND CONSTRUCTION AND THAT THE STREETS ARE KEPT FREE OF HUD AND CONSTRUCTION AND THAT THE STREETS ARE KEPT FREE OF HUD AND CONSTRUCTION AND THAT THE STREETS ARE KEPT FREE OF HUD AND FROMETS.

#### CITY OF ROCHESTER HILLS SESC NOTES:

- CITY OF ROCHESTER HILLS SESC NOTES:

  1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SECIENCATIONS OF THE GAMLAND COUNTY WATER RESOURCE COMMISSIONER.
  2. ALL TEMPORARY AND PERMANENT (POST CONSTRUCTION) SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM TO THE CITY OF ROCHESTER HILLS CURRENT MS4 PERMIT. ANY CONDITION SHALL TAKE PRECEDENCE.
  3. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR FOR EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
  4. ANY SEDIMENTATION CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
  5. ALLOYED TO COLLECT ON THE POPENSIE FALES ON IN WATERWAYS.
  6. ALLOYED TO COLLECT ON TEMPORASINE ON IN WATERWAYS.
  6. ALLOYED TO COLLECT ON TEMPORASINE ON THE STEE SHALL BE CONTAINED ON THE SITE AND NOT ALLOYED TO COLLECT ON TEMPORASINE ON IN WATERWAYS.
  6. WICH REQUIRED AND AS DIRECTED ON THESE PLANS, HE SHALL REMOVE TEMPORARY WERD REQUIRED AND AS DIRECTED ON THESE PLANS, HE SHALL REMOVE TEMPORARY SOUR PLANS HE SHALL REMOVE TEMPORARY SEMBLENTION OF DISTURBED EARTH CHANGES HAVE BEEN EXCOMPLISHED. THIS WOULD INCLUDE TEMPORARY SEMBLENTATION AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
  6. STAGNIG THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
  6. STAGNIG THE WORK WILL BE DONE SHALL BE ESTABLISHED IN THE EARTH STAGES OF CONSTRUCTION BY THE CONTRACTOR SCHALL FOR STABILIZATION OF SILL OFFICIAL SECONDARY AND AS REQUIRED TO ENSURE TRANSPORTING OF SILL OFFICIAL SECONDARY AND AS REQUIRED TO ENSURE THE REFECTIVENE



#### BENCHMARKS:

- 1. RAILROAD SPIKE IN POWER POLE LOCATED 90'± NORTHEAST OF NORTHEAST CORNER OF SHOPPING CENTER. ELEVATION 804.50 U.S.G.S.
- CENTER OF SANITARY SEWER MANHOLE RIM IN CROOKS ROAD R.O.W. NEAR NORTHEAST CORNER OF SITE. ELEVATION 811.21 U.S.G.S.

INLET CLEANOUT

END SECTION ROOF DRAIN

CATE VALVE

GUY ANCHOR

LIGHT POLE SIGN TREE 3

COUNTY TREE LINE

WATER SHUT-OFF UTILITY POLE

SANITARY SEWER

STORM SEWER

ELECTRIC CABLE CONTOUR MAJOR CONTOUR MINOR +100.00 SPOT ELEVATION

WATER MAIN

GAS MAIN

HYDRANT

EXISTING MANHOLE CATCH BASIN

#### LEGEND

## PROPOSED MANHOLE CATCH BASIN

INLET CLEANOUT END SECTION ROOF DRAIN GATE VALVE WATER SHUT-OFF

TREE REMOVAL SANITARY SEWER WATER MAIN € DITCH CONTOUR MAJOR

CONTOUR MINOR 99.0 PROPOSED GRADE TOP OF CURB
TOP OF WALK
TOP OF PAVEMENT
TOP OF BANK
GROUND
DITCH
GUTTER
FINISH GRADE

BRICK LEDGE

T/C = T/W = T/P = T/B = G = D = GU = FG = FF = FINISH FLOOR BASEMENT FLOOR

EROSION CONTROL LEGEND:

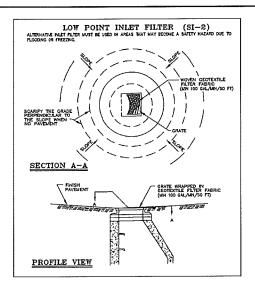
- GEOTEXTILE SILT FENCE PAVEMENT INLET FILTER

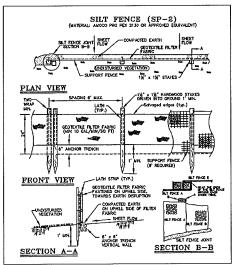
SEE SHEET THOS FOR DETAILS.

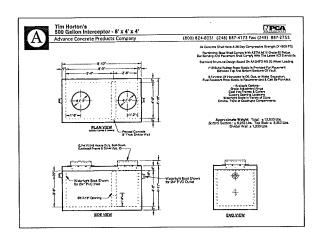
INDIE:
THIS PLAN ILLUSTRATES THE MINIMUM EROSION
CONTROLS NEEDED TO PREVENT SILTS FROM
LEAVING THE SITE AND IS SUBJECT TO CHANGE
AS CONDITIONS IN THE FIELD WARRANT.

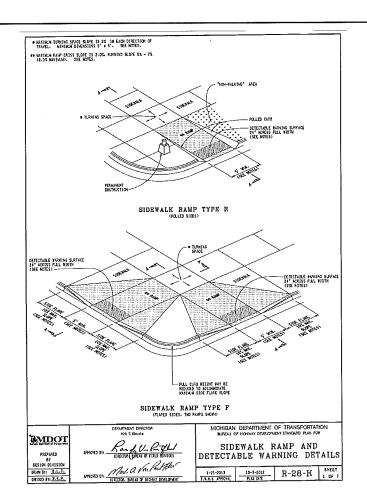
NOT FOR CONSTRUCTION CITY FILE NO. 13-024, SECTION 29

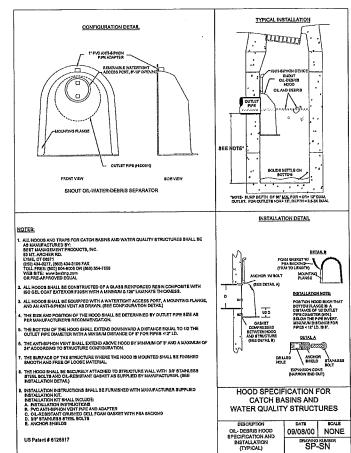
ZEIMET W & ZNIAK
Civil Engineers & Land Surveyors
SSGO GRAND RIVER AVE, SUITE IN
NEW HUDSON, MICHICAN VASIGS
P: (248) 437-509 F: (2348) 327-5222 www.zintatouzink.com DATE 12/13/13 | SCALE | HOR: 1" = 20' VER: 1" = N/A SOIL EROSION CONTROL PLAN PROJECT SPONSOR: REVISIONS PER CITY REVIEW DESIGNED BY JOB NO. 13160 TIM HORTONS 565 EAST GRAND RIVER, SUITE 101 (810) 844-2747 BRIGHTON, MI 48116 ROCHESTER HILLS, MICHIGAN SRB SHEET THOS 1-800-182-7171

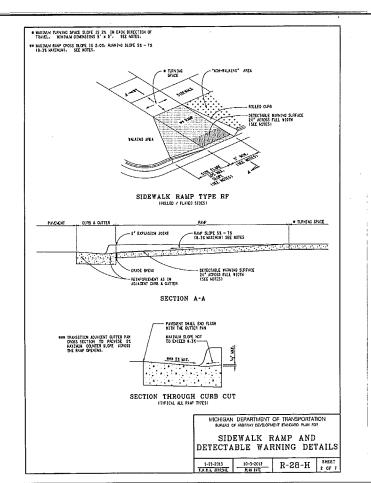


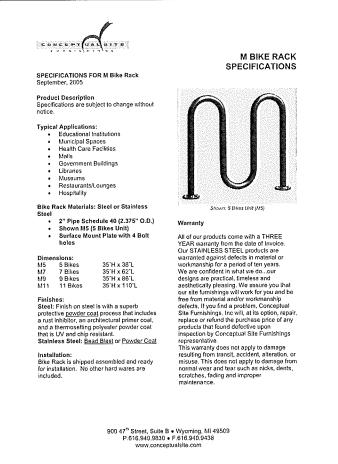


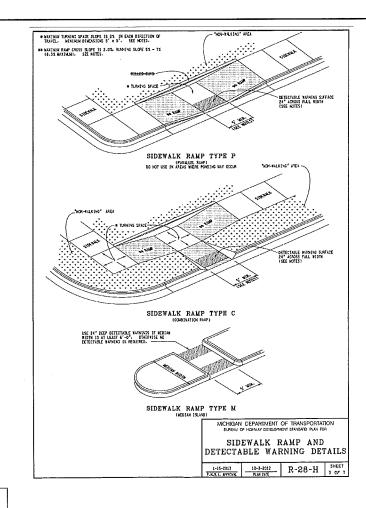


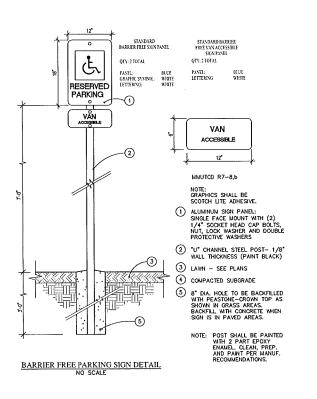












NOT FOR CONSTRUCTION CITY FILE NO. 13-024, SECTION 29

REVISIONS DATE BY REVISIONS DATE BY REVISIONS DATE BY REVISIONS DATE BY PER CITY REVIEW 2/4/14 SRB

ZEIMET W& ASSOCIATES
Civil Engineers & Land Surveyors
SSSOGGRAND RIVER AVE. SUITE: 100
NEW HUDSON, MICHIGAN 48165
P. (248) 43-5099 F. (248) 43-5222 www.zeimetwoznisł.cc

MISS DIG SYSTEM, INC. CALL THE MISS

1.800-J82-7171 DIG SYSTEM

PROJECT SPONSOR: TIM DONUTS U.S. LIMITED, INC. 565 EAST GRAND RIVER, SUITE 101 BRIGHTON, MI 48116 (810) 844-2747 SITE DETAILS TIM HORTONS ROCHESTER HILLS, MICHIGAN | OATE | 12/13/13 | SCALE | HOR: 1" = N/A |
12/13/13	SCALE	HOR: 1" = N/A
SCARE	JOB NO.	13160
GRAWN BY	SHEET	THO9

