Tom's Bar & Grill
JSP13-45

Tom's Bar & Grill JSP13-45
Consideration of the request of Tom P LLC #6 for Revised Stormwater Management Plan approval. The subject property is 1.88 acres in Section 16 of the City of Novi and located at 27200 Beck Road at the southeast corner of Citygate Drive and Beck Road in the OST, Planned Office Service Technology District. The applicant is proposing a 5,700 square foot sit-down restaurant.

Required Action
Approval/denial of the Revised Stormwater Management Plan

REVIEW	RESULT	DATE	COMMENTS
Engineering	Approval recommended	12/02/13	• **City Council DCS variance required for areas with less than 3 feet of cover to top of storm sewer pipe** • Items to be addressed on the Final Site Plan submittal

Motion sheet

Approval – Revised Stormwater Management Plan

In the matter of Tom's Bar & Grill, JSP13-45, motion to **approve** the Revised Stormwater Management Plan, based on and subject to:

a. City Council DCS variance required for areas with less than 3 feet of cover to top of storm sewer pipe;
b. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on Final Site Plan; and
c. *(additional conditions here if any)*

This motion is made because the plan otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.

-OR-

Denial – Revised Stormwater Management Plan

In the matter of Tom's Bar & Grill, JSP13-45, motion to **deny** the Revised Stormwater Management Plan...*because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.*

MAPS

Location

Tom's Bar & Grill JSP13-45
Location

Map Author: Kristen Kapelanski
Date: 07-01-13
Project: JSP13-45 Tom's Bar & Grill
Version #: 1.0

Map Legend
Subject Property

City of Novi
Planning Division
Community Development
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Feet
0 15 30 60 90 120

1 inch = 83 feet

REVISED STORMWATER MANAGEMENT PLAN

ORIFICE OUTLET SIZING

OUTLET SIZING FOR BANKFULL FLOOD
RELEASE BANKFULL FLOOD VOLUME OVER A PERIOD OF 24 TO NO MORE THAN 40 HOURS.

CALCULATE THE AVERAGE RELEASE RATE WHICH WILL SATISFY THIS REQUIREMENT:
$Q_{ave\ bf} = V_{bf} / 144{,}000$ = 0.04 cfs

CALCULATE AVERAGE HEAD:
$h_{ave} = 0.667 * (Z_o - Z_o)$ = 0.80 ft
Z_o = 964.16 ft
Z_{of} = 965.36 ft

DETERMINE THE ORIFICE AREA NEEDED BASED ON THE ORIFICE EQUATION:
$A = (Q_{ave\ bf}) / (0.62 * SQRT(2 * 32.2 * h_{ave}))$ = 0.009 ft^2

DETERMINE # OF ORIFI REQUIRED BASED ON AN ORIFICE DIAMETER OF: = 1.00 inch

REQUIRED # OF ORIFI: = 2

CALCULATE ACTUAL AVERAGE RELEASE RATE THROUGH THE ORIFI:
$Q_{ave\ bf} = 0.62*(\#\ of\ orifi\ *\ A)*SQRT(\ 2*32.2*h_{ave})$ = 0.05 cfs

OUTLET SIZING FOR 100 YEAR FLOOD
PER THE DETENTION BASIN VOLUME CALCULATIONS, THE MAXIMUM ALLOWABLE RELEASE RATE AT THE DESIGN WATER LEVEL OF Z_{100} IS: = 0.09 cfs

CALCULATE THE RESTRICTOR SIZE IN THE FLOW RESTRICTOR WALL AT THE BANKFULL ELEVATION:
CALCULATE THE MAXIMUM HEAD ON THE BANKFULL ORIFI FOR A 100 YR EVENT:
Z_o = 964.16 ft
Z_{100} = 967.66 ft
$h_{max} = (Z_{100} - Z_o)$ = 3.50 ft

CALCULATE RELEASE RATE THROUGH THE BANKFULL ORIFI:
$Q = 0.62 * A * SQRT(\ 2 * g * h\ )$ = 0.10 cfs

NO ADDITIONAL HOLES REQUIRED AT BANKFULL ELEVATION TO CONVEY THE ALLOWABLE RELEASE RATE AT THE DESIGN WATER ELEVATION

CALCULATE THE ORIFI SIZE IN THE FLOW RESTRICTOR WALL AT THE 100 YEAR (HIGHWATER) ELEVATION IN THE EVENT THE RESTRICTOR HOLES BECOME CLOGGED:
PER THE DETENTION BASIN VOLUME CALCULATIONS, THE MAXIMUM ALLOWABLE RELEASE RATE AT THE DESIGN WATER LEVEL OF Z_{100} IS: = 0.09 cfs

ASSUME MAXIMUM HEAD ON THE ORIFI: = 0.50 FT
Z_{100} = 967.66 ft
Z_{max} = 968.16 ft
$h_{max} = (Z_{max\ -\ Z100})$ = 0.50 ft

DETERMINE ORIFICE AREA NEEDED BASED ON THE ORIFICE EQUATION:
$A = Q / 0.62 * sqrt\ (\ 2 * g * h)$ = 0.026 ft^2

DETERMINE # OF ORIFI REQUIRED BASED ON AN ORIFICE DIAMETER OF: = 1 inch

Aqua-Swirl™ Sizing Chart

Aqua-Swirl™ Model	Swirl Chamber Diameter (ft)	Conveyance Pipe Diameter (typical)[1] (in)	Water Quality Treatment Flow[2] (cfs)	Oil/Debris Storage Capacity (gal)	Sediment Storage Capacity (ft^3)
AS-2	2.50	12	1.1	37	10
AS-3	3.25	16	1.8	110	20
AS-4	4.25	18	3.2	190	32
AS-5	5.00	20	4.4	270	45
AS-6	6.00	22	6.3	390	65
AS-7	7.00	24	8.6	540	90
AS-8	8.00	26	11.2	710	115
AS-9	9.00	28	14.2	910	145
AS-10	10.0	30	17.5	1130	180
AS-12	12.0	36	25.2	1698	270

VIEW METRIC

(1) As recommended by the Center for Watershed Protection and most municipalities, the Aqua-Swirl™ provides full treatment of the "first flush," while the peak design storm is diverted and channeled through the main conveyance pipe. Connections to larger pipe diameters are available at an additional cost, please refer to your local representative for more information.

(2) Many regulatory agencies are establishing "water quality treatment flow rates" for their areas based on the initial movement of pollutants into the storm drainage system. The treatment flow rate of the Aqua-Swirl™ system is engineered to meet or exceed the local water quality treatment criteria. This "water quality treatment flow rate" typically represents approximately 90% to 95% of the total annual runoff volume.

The design and orientation of the Aqua-Swirl™ Concentrator generally entails some degree of customization. For assistance in design and specific sizing using historical rainfall data, please refer to an AquaShield™ representative or go to our web site for more information to locate your representative at www.AquaShieldInc.com. CAD details and specifications are available upon request.

031104 Aqua-Swirl™ Concentrator Stormwater Treatment

CALCULATE EXISTING FLOW DIRECTED TO WESTERLY RECEIVING DRAINAGE COURSE

Drainage Area (A):	=	0.06 acres
Runoff Coefficient (C):	=	0.35
Time of Concentration (T_c):	=	15 min.
10 Year Rainfall Intensity (I):	=	4.38
Q = CIA :	=	0.09 cfs

RUNOFF COEFFICIENT CALCULATION

LAND USE	AREA (A) (acres)	RUNOFF COEFFICIENT (C)
Building / Pavement	1.06	0.95
Turf Grass	0.39	0.35
TOTAL TRIBUTARY AREA	1.45	

CALCULATE THE WEIGHTED RUNOFF COEFFICIENT:

$C=SUM\ (Ai\ x\ Ci)\ /\ A = \dfrac{(\ 1.06\ x\ 0.95\ ) + (\ 0.39\ x\ 0.35\ )}{1.45}$

= 0.79

OAKLAND COUNTY STORM WATER DETENTION BASIN DESIGN

DESIGN VARIABLES: Tributary Area (A): = 1.45 acres
Run-Off Coefficient (C): = 0.79

100-YEAR STORAGE VOLUME REQUIRED

1. ALLOWABLE DISCHARGE (Q_a):
Q_a = **0.0621** cfs/acre * A = 0.09 cfs

2. ALLOWABLE DISCHARGE PER ACRE IMPERVIOUS (Qo):
$Q_o = Q_a / (A * C)$ = 0.08 cfs/acre impervious

3. MAXIMUM STORAGE TIME (T):
$T_{100} = -25 + SQRT(10{,}312.5 / Q_o)$ = 337.20 minutes

4. MAXIMUM STORAGE VOLUME PER ACRE IMPERVIOUS (Vs):
$V_{s\ 100} = (16{,}500 * T / (T + 25)) - (40 * Q_o * T)$ = 14,301 cf/acre impervious

5. STORAGE VOLUME REQUIRED (V):
$V_{100} = V_{s\ 100} * A * C$ = 16,382 cf

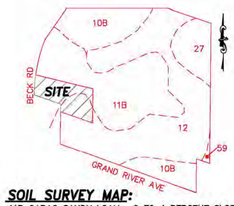
BANKFULL FLOOD VOLUME (V_{bf})
V_{bf} = 5,160 * A * C = 5,911 cf

TOTAL STORAGE VOLUME REQUIRED
TOTAL STORAGE VOLUME REQUIRED:
TOTAL = V_{100} = 16,382 cf

UNDERGROUND DETENTION VOLUME PROVIDED

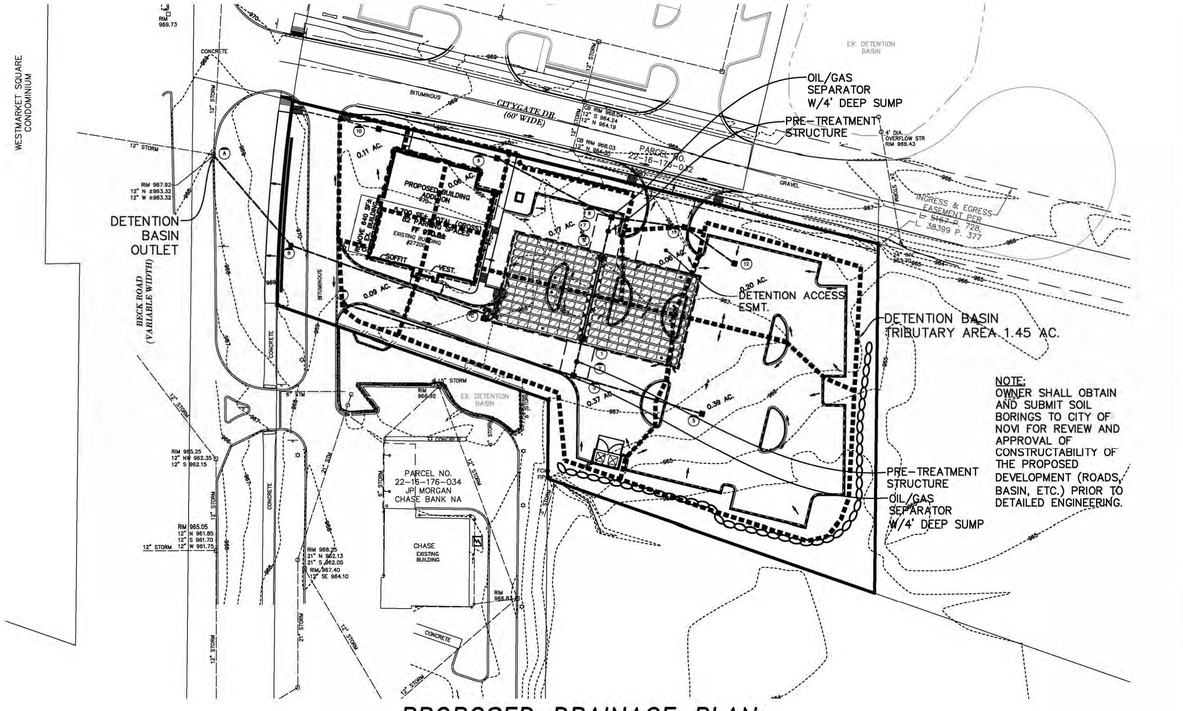
PRODUCT:	STORMTECH SC-740	
STORAGE PER BARE CHAMBER:	45.9	cf
NUMBER OF CHAMBERS	204	ea
STORAGE PROVIDED IN CHAMBERS	9,364	cf
STORAGE PROVIDED IN STONE (INCLUDING PERIMETER STONE) W / 6" STONE BELOW AND 6" STONE ABOVE		
40% STONE VOID:	8,304	cf
85% OF STORAGE IN STONE TO BE ACCOUNTED FOR:	7,059	cf
TOTAL STORAGE PROVIDED:	16,422	cf

REQUIRED BANKFULL FLOOD VOLUME (V_{bf}) =	5,911	cf
100-YR STORAGE VOLUME REQUIRED =	16,382	cf
Z_o =	964.16	
Z_{of} =	965.36	
Z_{100} =	967.66	



SOIL SURVEY MAP:
11B CAPAC SANDY LOAM , 0 TO 4 PERCENT SLOPES
10B MARLETTE SANDY LOAM, 1 TO 6 PERCENT SLOPES
27 HOUGHTON AND ADRIAN MUCKS
12 BROOKSTON AND COLWOOD LOAMS
59 URBAN LAND

EXISTING DRAINAGE PLAN:



PROPOSED DRAINAGE PLAN:

I =	175/(T+25)	C=	0.80	T=	15	MIN.							SHEET	1	OF	1							
PROJECT:					JOB NO.	12-175		COMMUNITY:			City of Novi					COUNTY:	Oakland						
FROM MH	TO MH	INCRE-MENT	C	EQUIV. AREA	TOTAL AREA	T TIME	I	Q=CIA	CAPAC-ITY OF SEWER	DIAM. OF PIPE	LENGTH OF LINE	SLOPE OF PIPE	MIN HG BASED ON "Q"	HG FOR 2.5 FPS GIVEN "D"	ACTUAL HG	VEL. FLOW	TIME OF	H.G. ELEV.	H.G. ELEV.	GROUND ELEV.		INVERT ELEV.	
INPUT		ACRES (A)		100% ACRES CA	ACRES SUM CA	(MIN.)	PER HOUR)	C.F.S.	(C.F.S.)	(IN.)	(FT.)	(%)	(%)	(%)	(%)	FULL (FT./ SEC.)	FLOW (MIN.)	UPPER END	LOWER END	UPPER END	LOWER END	UPPER END	LOWER END
4	3	0.09	0.80	0.07	0.07	15.00	4.38	0.32	2.05	12	168	0.33	0.01	0.30	0.01	2.6	1.1	966.08	966.07	969.40	968.80	965.82	965.27
3	2	0.76	0.80	0.61	0.68	16.10	4.26	2.90	3.16	15	10	0.24	0.20	0.23	0.20	2.6	0.1	966.06	966.04	968.80	969.30	965.07	965.04
2	1	0.00	0.80	0.00	0.68	16.20	4.25	2.90	3.16	15	17	0.24	0.20	0.23	0.20	2.6	0.1	966.03	966.00	969.30	970.00	965.04	965.00
5	3	0.39	0.80	0.31	0.31	15.00	4.38	1.37	2.05	12	94	0.33	0.15	0.30	0.15	2.6	0.6	966.21	966.07	968.80	968.80	965.58	965.27
10	9	0.11	0.80	0.09	0.09	15.00	4.38	0.39	2.05	12	85	0.33	0.01	0.30	0.01	2.6	0.5	966.48	966.47	969.40	969.50	965.95	965.67
9	8	0.06	0.80	0.05	0.14	15.50	4.32	0.59	2.05	12	90	0.33	0.03	0.30	0.03	2.6	0.6	966.20	966.17	969.50	969.00	965.67	965.37
8	7	0.43	0.80	0.34	0.48	16.10	4.26	2.04	2.05	12	10	0.33	0.33	0.30	0.33	2.6	0.1	966.07	966.04	969.00	969.50	965.27	965.24
7	6	0.00	0.80	0.00	0.48	16.20	4.25	2.04	2.05	12	19	0.33	0.33	0.30	0.33	2.6	0.1	966.04	965.98	969.50	970.00	965.24	965.18
12	11	0.20	0.80	0.16	0.16	15.00	4.38	0.70	2.05	12	43	0.33	0.04	0.30	0.04	2.6	0.3	966.35	966.34	969.00	968.90	965.68	965.54
11	8	0.06	0.80	0.05	0.21	15.30	4.34	0.90	2.05	12	51	0.33	0.06	0.30	0.06	2.6	0.3	966.20	966.17	968.90	969.00	965.54	965.37
C	B							0.09	2.02	12	147	0.32	0.00	0.30	0.00	2.8	1.0	964.49	964.49	969.90	968.80	964.16	963.69
B	A							0.09	2.02	12	83	0.32	0.00	0.30	0.00	2.6	0.5	964.22	964.22	968.80	967.92	963.69	963.42

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 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.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (TOLL FREE)

COMMERCIAL
SITE PLANNING
SITE ENGINEERING
INDUSTRIAL & MULTI-UNIT
SITE PLANS
CONSTRUCTION LAYOUT

SURVEYING
ALTA SURVEYS
BOUNDARY SURVEYS
TOPOGRAPHIC SURVEYS
PARCEL SPLITS

RESIDENTIAL
SUBDIVISIONS
SITE CONDOMINIUM
MULTI-FAMILY
PLOT PLANS
CONSTRUCTION LAYOUT

ALPINE ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS
46892 WEST ROAD
SUITE 109
NOVI, MICHIGAN 48377
(248) 926-3701 (BUS)
(248) 926-3765 (FAX)
WWW.ALPINE-INC.NET

CLIENT: A.P. LAND HOLDINGS, LLC

STORM WATER MANAGEMENT PLAN

PARCEL NO. 22-16-176-033 - 27200 BECK ROAD
TOWNSHIP:1 N RANGE:8 E
SECTION: 16
CITY OF NOVI
OAKLAND COUNTY
MICHIGAN

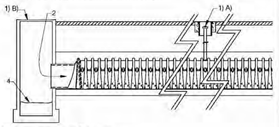
REVISED
2012/07/18 PRE-APP. SUBMITTAL
2013/05/13 PSP SUBMITTAL
2013/11/04 RCOC SUBMITTAL

DATE: 2012-06-15
DRAWN BY: TG
CHECKED BY: CK/TG
0 25 50
FBK:
CHF:
SCALE HOR 1"=50 FT.
VER 1"= FT.
7
12-175

3.0 Isolator Row Step By Step Maintenance Procedures

Step 1) Inspect Isolator Row for sediment
- A) Inspection ports (if present)
  - i. Remove lid from floor box frame
  - ii. Remove cap from inspection riser
  - iii. Using a flashlight and stadia rod, measure depth of sediment and record results on maintenance log.
  - iv. If sediment is at, or above, 3 inch depth proceed to Step 2. If not proceed to step 3.
- B) All Isolator Rows
  - i. Remove cover from manhole at upstream end of Isolator Row
  - ii. Using a flashlight, inspect down Isolator Row through outlet pipe
    1. Mirrors on poles or cameras may be used to avoid a confined space entry
    2. Follow OSHA regulations for confined space entry if entering manhole
  - iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches) proceed to Step 2. If not proceed to Step 3.

StormTech Isolator Row (not to scale)



Step 2) Clean out Isolator Row using the JetVac process
- A) A fixed culvert cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

Step 3) Replace all caps, lids and covers, record observations and actions

Step 4) Inspect & clean catch basins and manholes upstream of the StormTech system

Sample Maintenance Log

Date	Starting Rod Readings: Fixed point to bottom of bottom (1)	Fixed point to top of sediment (2)	Sediment Depth (1) - (2)	Observations/Notes	Inspector
3/15/01	6.3 ft.	none		New installation. Fixed point is CI frame at grade	djm
9/24/01		6.2	0.1 ft.	Some grit felt	sm
6/20/05		5.8	0.5 ft.	Muddy feet, debris visible in manhole and in isolator row, maintenance due	rv
7/7/08	6.3 ft.		0	System jetted and vacuumed	djm

StormTech
Detention • Retention • Water Quality
Subsurface Stormwater Management℠
70 Inwood Road, Suite 3 | Rocky Hill | Connecticut | 06067
860.529.8188 | 888.892.2694 | fax 866.328.8401 | www.stormtech.com

S090809

2.0 Isolator Row Inspection/Maintenance

StormTech

2.1 INSPECTION

The frequency of Inspection and Maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

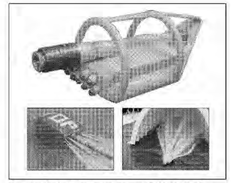
At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

2.2 MAINTENANCE

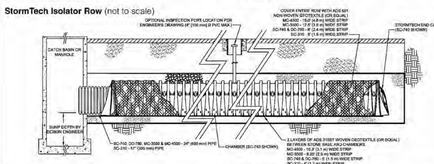
The Isolator Row was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.



Examples of culvert cleaning nozzles appropriate for Isolator Row maintenance. (These are not StormTech products.)

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45° are best. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row up to 60 chambers long. **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

StormTech Isolator Row (not to scale)



Note: For many applications, the non-woven geotextile over the DC-780, MC-3500 and MC-4500 Isolator Row chambers can be eliminated or substituted with the AASHTO Class 1 woven geotextile. Contact your StormTech representative for assistance.

Call StormTech at **888.892.2694** or visit our website at **www.stormtech.com** for technical and product information 3

1.0 The Isolator™ Row

1.1 INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a patented technique to inexpensively enhance Total Suspended Solids (TSS) removal and provide easy access for inspection and maintenance.

Looking down the Isolator Row from the manhole opening. Woven geotextile is shown between the chamber and stone base.

1.2 THE ISOLATOR™ ROW

The Isolator Row is a row of StormTech chambers, either SC-310, SC-740, DC-780 or MC-3500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

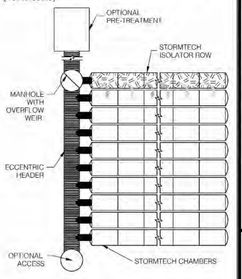
Two different fabrics are used for the Isolator Row. A woven geotextile fabric is placed between the stone and the Isolator Row chambers. The tough geotextile provides a media for storm water filtration and provides a durable surface for maintenance operations. It is also designed to prevent scour of the underlying stone and remain intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber.

The Isolator Row is typically designed to capture the "first flush" and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but typically includes a high flow weir such that storm water flowrates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other chambers.

The Isolator Row may also be part of a treatment train. By treating storm water prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured. Pre-treatment best management practices can be as simple as deep sump catch basins, oil-water separators or can be innovative storm water treatment devices. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.

StormTech Isolator Row with Overflow Spillway
(not to scale)



2 Call StormTech at **888.892.2694** or visit our website at **www.stormtech.com** for technical and product information.

MAINTENANCE TASKS AND SCHEDULE DURING CONSTRUCTION

Tasks	Storm Sewer System	Catch Basin Sumps	Catch Basin Inlet Castings	Channels & Swales	Outflow Control Structures	Detention Basin	Schedule
Inspect for sediment accumulation	X	X	X	X	X	X	Weekly
Removal of sediment accumulation	X	X		X	X	X	As needed & prior to turnover
Inspect for floatables and debris		X	X	X	X	X	Quarterly
Cleaning of floatables and debris		X	X	X	X	X	Quarterly & at turnover
Inspection for erosion				X		X	Weekly
Re-establish permanent vegetation on eroded slopes				X		X	As needed & prior to turnover
Replacement of stone					X	X	As needed
Wet weather inspection of structural elements, (including inspection for sediment accumulation in detention basins) with as-built plans in hand. These should be carried out by a professional engineer	X			X	X	X	As needed & at turnover
Make adjustments or replacements as determined by wet weather inspection	X			X	X	X	As needed
Street Sweeping							As needed

PERMANENT MAINTENANCE TASKS AND SCHEDULE

Tasks	Storm Sewer System	Catch Basin Sumps	Catch Basin Inlet Castings	Channels & Swales	Outflow Control Structures	Detention Basin	Schedule
Inspect for sediment accumulation	X	X	X	X	X	X	Annually
Removal of sediment accumulation	X	X		X	X	X	Every 2 years as needed
Inspect for floatables and debris		X	X	X	X	X	Annually
Cleaning of floatables and debris		X	X	X	X	X	Annually
Inspection for erosion				X		X	Annually
Re-establish permanent vegetation on eroded slopes				X		X	As needed
Replacement of stone							As needed
Wet weather inspection of structural elements, (including inspection for sediment accumulation in detention basins) with as-built plans in hand. These should be carried out by a professional engineer	X			X	X	X	Annually
Make adjustments or replacements as determined by wet weather inspection	X			X	X	X	As needed

Maintenance Plan Budget	
Annual inspection for sediment accumulation	$100
Removal of sediment every 2 years as needed	$900
Inspect for floatables and debris annually and as needed	$100
Removal of floatables and debris annually and as needed	$300
Inspect system for erosion annually and as needed	$100
Re-establish permanent vegetation on eroded slopes as needed	$300
Total annual budget	$1,800

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (TOLL FREE)

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 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.

The only tools needed to inspect the Aqua-Swirl™ system are a flashlight and a measuring device such as a stadia rod or pole. Given the tremendous accessibility provided, floating oil and debris can be observed directly from the surface. Sediment depths can easily be determined by lowering a measuring device to the top of the sediment pile and to the surface of the water. When the sediment pile is within 30 to 36 inches of the water surface, the system should be maintained.

It should be noted that in order to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the *top* of the sediment pile. The finer sediment at the top of the pile, typically offers less resistance to the measuring device than the larger particles.

Aqua-Swirl™ Cleanout Procedure

Clean out of the Aqua-Swirl™ is simple. Free-floating oil and floatable debris can be observed and removed directly through the 30-inch service access provided.

A vacuum truck can be used to remove the accumulated sediment and debris. It is important to note that the entire sediment storage area can be reached with a vacuum hose from the surface (reaching all the sides).

Vacuum truck cleans the Aqua-Swirl™

Disposal of the material is typically treated in the same fashion as catch basin cleanouts. AquaShield™ recommends that all materials removed be handled and disposed of in accordance with local and state requirements.

Inspection Data Sheets are provided in the Appendix of this Manual.

Inspection

All AquaShield™ products can be inspected from the surface, eliminating the need to enter the systems to determine when cleanout should be performed.

In most cases, AquaShield™ recommends a quarterly inspection of the Stormwater Treatment Systems for the first year of operation to develop an appropriate schedule of maintenance.

Based on experience of the system's first year in operation, we recommend that the inspection schedule be revised to reflect the site-specific conditions encountered. Typically, the inspection schedule for subsequent years is reduced to semi-annual inspection.

Aqua-Swirl™ Maintenance

The Aqua-Swirl™ has been designed to minimize and simplify the inspection and maintenance process. The system can be inspected and maintained completely from the surface, thereby eliminating the need for confined space entry.

Furthermore, the entire structure (specifically, the floor) is accessible for visual inspection from the surface. There are no areas of the structure that are blocked from visual inspection or periodic cleaning.

Inspection of any free-floating oil and floatable debris can be directly observed and maintained through the manhole access provided directly over the swirl chamber.

Aqua-Swirl™ Inspection Procedure

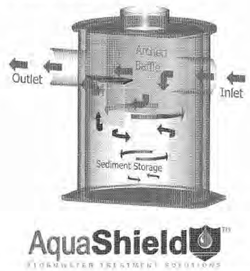
To inspect the Aqua-Swirl™, a hook is needed to remove the manhole cover. AquaShield™ provides a customized manhole cover with our logo to make it easy for maintenance crews to locate the system in the field. We also provide a permanent metal information plate attached inside the access riser, which provides our contact information, the Aqua-Swirl™ model size, and serial number.

Sediment inspection using a stadia rod

Aqua-Swirl™ Stormwater Treatment System

The patented *Aqua-Swirl™* Stormwater Treatment System is a hydrodynamic separator, which provides a highly effective means for the removal of sediment, free oil, and floating debris. Independent university laboratory performance evaluations have shown that the *Aqua-Swirl™* achieves a TSS removal of 91% calculated on a net annual basis.

The *Aqua-Swirl* with a conveyance flow diversion system, allows simple installation by connecting "directly" to the existing storm conveyance pipe. This connection provides full treatment of the "first flush," while the peak design storm is diverted and channeled through the main conveyance pipe.



NOTE:
REFER TO MANUFACTURER GUIDELINES FOR DETAILED INSPECTION AND MAINTENANCE PROCEDURES.

COMMERCIAL
SITE PLANNING
SITE ENGINEERING
INDUSTRIAL & MULTI-UNIT
SITE CONDOMINIUM
CONSTRUCTION LAYOUT

SURVEYING
ALTA SURVEYS
BOUNDARY SURVEYS
TOPOGRAPHIC SURVEYS
PARCEL SPLITS
CONSTRUCTION LAYOUT

RESIDENTIAL
SUBDIVISIONS
SITE CONDOMINIUM
MULTI-FAMILY
CONSTRUCTION LAYOUT

ALPINE ENGINEERING, INC.
CIVIL ENGINEERS & LAND SURVEYORS
46892 WEST ROAD
SUITE 109
NOVI, MICHIGAN 48377
(248) 926-3701 (BUS)
(248) 926-3765 (FAX)
WWW.ALPINE-INC.NET

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1.800.482.7171 (TOLL FREE)

CLIENT:
A.P. LAND HOLDINGS, LLC

STORM WATER MANAGEMENT PLAN

PARCEL NO. 22-16-176-033 - 27200 BECK ROAD
SECTION: 16 TOWNSHIP:1 N RANGE:8 E
CITY OF NOVI
OAKLAND COUNTY
MICHIGAN

REVISED
2012/07/18 PRE-APP. SUBMITTAL
2013/05/13 PSP SUBMITTAL
2013/11/04 RCOC SUBMITTAL

DATE: 2012-06-15
DRAWN BY: TG
CHECKED BY: CK/TG
0 25 50
FBK:
CHF:
SCALE HOR 1"=50 FT. VER 1"= FT.

8
12-175

ENGINEERING REVIEW

cityofnovi.org

PLAN REVIEW CENTER REPORT

December 2, 2013

Engineering Review

Tom's Bar and Grill
JSP13-0045

Petitioner
Palushaj Properties, property owner

Review Type
Revised Preliminary Site Plan

Property Characteristics

- Site Location: S. of Citygate Dr. and E. of Beck Rd.
- Site Size: 1.88 acres
- Plan Date: November 4, 2013

Project Summary

- Construction of an approximately 5,700 square-foot building and associated parking. Site access would be provided Citygate Dr. and the existing access street parallel to Beck Rd.
- Water service would be provided by a domestic lead extended from the 8-inch water main in the Citygate Dr. right-of-way, along with an additional hydrant extend from the 8-inch water main that is parallel to Beck Rd.
- Sanitary sewer service would be provided by a proposed sanitary lead and monitoring manhole from the existing 8-inch sanitary sewer that is parallel to Beck Rd.
- Storm water would be collected by a single storm sewer collection system and treated for the 100-year storm event volume in and on-site underground detention system before discharging into the ditch line on parcel 50-22-16-176-031.

Recommendation
Approval of the Preliminary Site Plan and Preliminary Storm Water Management Plan is recommended.

Comments:
The Preliminary Site Plan meets the general requirements of Chapter 11, the Storm Water Management Ordinance and the Engineering Design Manual with the following items to be addressed at the time of Final Site Plan submittal (further engineering detail will be required at the time of the final site plan submittal):

General

1. Provide a note on the plans that all work shall conform to the current City of Novi standards and specifications.
2. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal.
3. Submit a completed Non-Domestic User Survey to Community Development.

Water Main

4. Provide the diameter and material for the proposed domestic lead.
5. Revise the domestic lead valve location from inside the parcel to the Citygate Dr. right-of-way or a dedicated water main easement.
6. Provide the material type, diameter, and profile for the proposed fire hydrant and water main.
7. Three (3) sealed sets of revised utility plans along with the MDEQ permit application (1/07 rev.) for water main construction and the Streamlined Water Main Permit Checklist should be submitted to the Engineering Department for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets.

Sanitary Sewer

8. Provide the capacity for grease trap and inverts for the proposed monitoring manhole, grease trap, and sanitary lead.

Storm Sewer

9. Provide a profile of the proposed storm sewer showing a minimum cover of 3 feet and all catch basin sumps. Indicate all structure types, diameter and the 10-year hydraulic grade line for the storm sewer. Any areas lacking sufficient cover must be identified for City review and will require a **Design and Construction Standards variance from Section 11-94(c)** for less than three (3) feet of cover to top of pipe.

Storm Water Management Plan

10. Provide a sheet or sheets titled "Storm Water Management Plan" (SWMP) that complies with the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual (refer to the runoff coefficients, 1V:4H allowable basin slopes, etc.).
11. Provide critical elevations (bankfull and 100-year storm hydraulic grade lines) on the underground detention system cross-section and storm sewer profile

demonstrating that the detention system is 3 feet above ground water and has the required 1 foot of freeboard between the high water elevation and the subgrade below the pavement.

12. Revise the Storm Water Management Plan to provide the first flush volume and respective outlet sizing calculations.
13. Provide a detail for the proposed outlet control structure.
14. Verify that the proposed underground detention basin design does not assume that more than 85% of the available pore space is available for storage volume for any given stone mix.

Paving & Grading

15. Provide a detail for each proposed ramp with elevations to demonstrate a level landing adjacent to each ramp and general ADA compliance.

The following must be submitted at the time of Final Site Plan submittal:

16. A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.
17. An itemized construction cost estimate must be submitted to the Community Development Department at the time of Final Site Plan submittal for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and not any costs associated with construction of the building or any demolition work. ***The cost estimate must be itemized*** for each utility (water, sanitary, storm sewer), on-site paving, right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pretreatment structure and restoration).

The following must be submitted at the time of Stamping Set submittal:

18. A draft copy of the maintenance agreement for the storm water facilities, as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department with the Final Site Plan. Once the form of the agreement is approved, this agreement must be approved by City Council and shall be recorded in the office of the Oakland County Register of Deeds.
19. A draft copy of the 20-foot wide easement for the water main to be constructed on the site must be submitted to the Community Development Department.
20. A draft copy of the 20-foot wide access easement for the sanitary sewer monitoring manhole must be submitted to the Community Development Department.

The following must be addressed prior to construction:

21. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
22. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting. Once determined, a grading permit fee must be paid to the City Treasurer's Office.
23. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department (248-347-0430) for forms and information.
24. A permit for work within the right-of-way of Citygate Dr. and Beck Rd. must be obtained from the City of Novi. The application is available from the City Engineering Department and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Department at 248-347-0454 for further information.
25. A permit for work within the right-of-way of Beck Rd. must be obtained from the Road Commission for Oakland County. Please contact the RCOC (248-858-4835) directly with any questions. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the right-of-way will be constructed in accordance with the Road Commission for Oakland County standards.
26. A permit for water main construction must be obtained from the MDEQ. This permit application must be submitted through the City Engineer after the water main plans have been approved.
27. Construction Inspection Fees to be determined once the construction cost estimate is submitted must be paid prior to the pre-construction meeting.
28. A storm water performance guarantee, equal to 1.5 times the amount required to complete storm water management and facilities as specified in the Storm Water Management Ordinance, must be posted at the Treasurer's Office.
29. An incomplete site work performance guarantee for this development will be calculated (equal to 1.5 times the amount required to complete the site improvements, excluding the storm water facilities) as specified in the Performance Guarantee Ordinance. This guarantee will be posted prior to TCO, at which time it may be reduced based on percentage of construction completed.
30. A street sign financial guarantee in an amount to be determined ($400 per traffic control sign proposed) must be posted at the Treasurer's Office.
31. Permits for the construction of each retaining wall must be obtained from the Community Development Department (248-347-0415).

Please contact Adam Wayne at (248) 735-5648 with any questions.

cc: Matt Preisz, Engineering
Brian Coburn, Engineering
Kristen Kapelanski, Community Development Department
Michael Andrews, Water & Sewer Dept.

APPLICANT RESPONSE LETTER

ALPINE ENGINEERING INC.
Civil Engineers and Land Surveyors

46892 West Road, Suite 109
Novi, Michigan 48377
Phone: (248) 926-3701
Fax: (248) 926-3765
Web: www.alpine-inc.net

December 4, 2013

Kristen Kapelanski, AICP
City of Novi Community Development Department
45175 West 10 Mile Road
Novi, Michigan 48375

Re: **27200 Beck Road – Proposed Restaurant**
Response to Revised Preliminary Site Plan Comments
City of Novi Review JSP13-0045

Dear Kristen:

Alpine Engineering, Inc. offers the below comments pertaining to the preliminary site plan review dated December 2, 2013:

Engineering Review (Dated December 2, 2013)
Review recommends approval of the Preliminary Site Plan and Preliminary Storm Water Management Plan.

General

1. A note will be provided on the final site plan stating that all work shall conform to the current City of Novi standards and specifications.
2. The City standard detail sheets will be provided with the stamping set submittal.
3. A completed Non-Domestic User Survey will be provided by the applicant.

Water Main

4. The diameter and material for the proposed domestic lead will be provided on the final site plan.
5. The domestic lead valve location will be revised to the right-of-way or within a dedicated water main easement on the final site plan.
6. The material type, diameter, and profile for the proposed hydrant and water main will be provided on the final site plan.
7. MDEQ Water main permit plans and applications will be provided.

Sanitary Sewer

8. The grease trap capacity and inverts for the proposed monitoring manhole, grease trap, and sanitary lead will be provided on the final site plan.

Storm Sewer

9. Storm sewer profiles, elevations and details will be provided on the final site plan. Any areas lacking a minimum cover of 3 feet to top of pipe will be identified for City review and a design and construction standards variance will be applied for, as necessary.

Storm Water Management Plan

10. Storm Water Management Plan sheets will be provided with final site plan.
11. Storm sewer profiles and cross-sections (with hydraulic gradient lines for bankfull and 100-year storm events) demonstrating that the proposed underground detention system is 3 feet above ground water and

has the required 1 foot of freeboard between the high water elevation and the subgrade below the pavement will be provided on the final site plan.

12. Flow based storm water quality control is proposed.
13. Detail of proposed outlet structure will be provided on the final site plan.
14. The proposed underground detention system design will assume that not more than 85% of the available pore space is available for storage volume for any given stone mix.

Paving & Grading

15. Ramp details with elevations to demonstrate a level landing adjacent to each ramp and general ADA compliance will be provided on the final site plan.

Final Site Plan submittal items:

16.-17. Items will be provided at the time of final site plan submittal.

Stamping Set submittal items:

18.-20. Items will be provided at the time of stamping set submittal.

Prior to construction submittal items:

21.-31. Items will be provided prior to construction.

If you have any questions please feel free to call our office at (248) 926-3701.

Regards,
Alpine Engineering Inc.

Tom Gizoni, PE

Enclosures: PDF of Revised Storm Water Management Plan

cc: Tom Palushaj

PLANNING COMMISSION MINUTES – EXCERPT
July 10, 2013

PLANNING COMMISSION MINUTES

CITY OF NOVI
Regular Meeting
July 10, 2013 7:00 PM
Council Chambers | Novi Civic Center | 45175 W. Ten Mile
(248) 347-0475

CALL TO ORDER
The meeting was called to order at or about 7:00 PM.

ROLL CALL
Present: Member Anthony, Member Baratta, Member Giacopetti, Member Greco, Member Lynch, Chair Pehrson, Member Zuchlewski
Also Present: Barbara McBeth, Deputy Director of Community Development; Gary Dovre, City Attorney; Kristen Kapelanski, Planner; Adam Wayne, Engineer; David Beschke, Landscape Architect.

PLEDGE OF ALLEGIANCE
Member Baratta led the meeting attendees in the recitation of the Pledge of Allegiance.

APPROVAL OF AGENDA
Moved by Member Lynch, seconded by Member Anthony:

VOICE VOTE ON THE AGENDA APPROVAL MOTION MADE BY MEMBER LYNCH AND SECONDED BY MEMBER ANTHONY:

Motion to approve the July 10, 2013 Planning Commission Agenda. *Motion carried 7-0.*

PUBLIC HEARINGS
1. **TOM'S BAR AND GRILL, JSP13-45**
   Public hearing at the request of Tom P LLC #6 for Preliminary Site Plan utilizing the Retail Service Overlay option, Special Land Use Permit, Wetland Permit, Woodland Permit and Stormwater Management Plan approval. The subject property is 1.88 acres in Section 16 of the City of Novi and located at 27200 Beck Road at the southeast corner of Citygate Drive and Beck Road in the OST, Planned Office Service Technology District. The applicant is proposing a 5,700 square foot sit-down restaurant.

Planner Kapelanski said the applicant is proposing to construct a sit-down restaurant at the southeast corner of Citygate Drive and Beck Road. The site is bordered by the USA 2 Go gas station and Tim Horton's to the north, vacant land to the east, Chase Bank to the south and a shopping center on the opposite side of Beck Road. The subject property is zoned OST, Planned Office Service Technology and is bordered by OST zoning to the east and south with Freeway Service zoning with a PRO to the north and B-2 zoning on the opposite side of Beck Road. The Future Land Use map indicates Retail Service Overlay uses for the subject property and most of the surrounding properties. There are regulated wetlands on the eastern portion of the property and although they are not indicated on the natural features map, there are also regulated woodlands on the undeveloped portion of the site.

The applicant is proposing a 5,700 square foot sit-down restaurant that will be developed using a significant portion of the existing vacant building. The applicant is proposing a project using the Retail Service Overlay provisions. The Retail Service Overlay is identified as an option for this property on the Future Land Use map. Any developments using this option are subject to the standards of Section 2516.2(c) of the Zoning Ordinance regulating Special Land Uses and the Planning Commission is asked to approve the required Special Land Use permit this evening. Staff is satisfied that the applicant has demonstrated compliance with the Special Land Use provisions.

Planner Kapelanski continued saying the planning review recommends approval noting the applicant

has met the requirements of the Retail Service Overlay ordinance. A 35 foot variance is required for the deficient building setback in the northern yard. The engineering review also recommends approval of the plan noting the executed off-site drainage easement must be submitted. The landscape review recommends approval provided waivers are granted to allow fencing with brick piers in lieu of the required berm along Beck Road and the access drive and for the lack of 3 required street trees. Wetlands and woodlands permits are required for this site and both have been recommended for approval provided the applicant addresses minor outstanding items on the next plan submittal. The façade review recommends approval of the required Section 9 waiver for the underage of brick. The applicant has proposed the use of cultured stone in lieu of some of the required brick. The traffic and fire reviews both recommend approval of the plan. The Planning Commission is asked to hold the public hearing and approve or deny the Special Land Use permit, Preliminary Site Plan, Wetland Permit, Woodland Permit and Stormwater Management plan.

Matt Quinn, on behalf of Tom Palushaj, the owner of Tom's Bar & Grill came forward. It's not often he is before the Planning Commission with positive recommendations from every consultant. Tom Palushaj didn't want to cut any corners and is willing to step up to the plate and do what is necessary to make this a satisfactory and successful development. As far as the special land use, we do meet, as stated, all the requirements for the retail service overlay option. There are positive recommendations for the site plan as well. The first variance that was mentioned was a 35 foot variance for the setback on the Citygate Street side and that is because we're taking an existing structure and we're adding to it. Tom has decided that the existing structure has the necessity and the basics to be able to use that and expand it so that's why we really can't move the footprint and we would be going to the Zoning Board of Appeals for that variance.

One of the waivers that is requested from the Planning Commission is the fencing along Beck Road instead of the berm. This fencing, which is the brick piers and the fence, is going to be identical to what's already at Chase Bank immediately to the south, so that architectural feature is being continued up Beck Road and along Citygate. We're also looking for a waiver for three street trees. There are 13 street trees and we can't put in the other three because of the clear vision distances that are necessary at the turning points in and out of the parking lot and the access roads. The City's open space requirements is 15%, we're almost at 37% open space on this restaurant site. As far as the section 9 waiver, on the north and west side we're replacing the brick with cultured stone on the vertical components and that's what makes up the deficiency and the City's façade consultant has recommended granting that waiver. We're here for any questions that you may have and look forward to your comments.

Chair Pehrson opened the public hearing. No one from the audience wished to speak and there was no correspondence. Chair Pehrson closed the public hearing.

Member Baratta asked if the dumpster is located in the south side of the site.

Mr. Quinn said yes.

Member Baratta asked do you anticipate that this restaurant would come before the City at some point in time and ask for some outdoor seating or is that something that's absolutely not being thought about at this time.

Mr. Quinn said no, they redesigned the interior so that was once going to be outdoor seating has been moved inside with large sliding glass windows.
Member Baratta asked if the front door is on the south side.

Mr. Quinn said yes that's correct, off the parking lot.

Member Anthony said looking at the area of where you're asking for the waiver for three trees. In the past, other developers with projects that have come before where they've had a waiver for trees, have made a contribution to the tree fund.

Mr. Quinn said we're looking at a street tree waiver, not a waiver for the trees we have to take down onsite. We are going to make the contribution to the tree fund; it's in excess of $30,000. This is just the street trees that are out in the exterior. There really isn't a requirement of contribution in lieu of that. And there is one other contribution, with the sidewalk along the Citygate. The paved portion of the street ends so we're going to be building the sidewalk right up to the end of the street and we're going to make a contribution into an escrow account for the future construction of the street through the end of our property line.

Member Anthony asked where is the point source offsite discharge for the drainage easement and where is it draining to.

Mr. Quinn said that's going to go across to the north. The property on the north end goes to the north and the property on the south end goes to the south. We're going to retain that, but the agreement will have to come from the property owner to the northeast.

Member Anthony asked if they have you gained the approval of offsite property owner.

Mr. Quinn said no, they intended to do that once they had preliminary site plan approval.

Moved by Member Lynch and seconded by Member Anthony:

ROLL CALL VOTE ON THE SPECIAL LAND USE PERMIT APPROVAL MOTION MADE BY MEMBER LYNCH AND SECONDED BY MEMBER ANTHONY:

In the matter of Tom's Bar & Grill, JSP13-45, motion to approve the Special Land Use permit based on the following findings:

a. Relative to other feasible uses of the site:

- **a. The proposed use will not cause any detrimental impact on existing thoroughfares as indicated in the traffic review letter;**
- **b. Subject to satisfying the requirements in the Engineering Review the proposed use will not cause any detrimental impact on the capabilities of public services and facilities because the plan adequately addresses and provides for water and sanitary sewer service and management of the increased stormwater volumes;**
- **c. The proposed use is compatible with the natural features and characteristics of the land as indicated in the wetland and woodland review letters;**
- **d. The proposed use is compatible with adjacent uses of the land as indicated in the staff and consultant review letters;**
- **e. The proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use;**
- **f. The proposed use will promote the use of land in a socially and economically desirable manner;**
- **g. The proposed use is listed among the provisions of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.**

This motion is made because the plan is otherwise in compliance with Article 23A, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 7-0.*

Moved by Member Lynch and seconded by Member Anthony:

ROLL CALL VOTE ON THE PRELIMINARY SITE PLAN WITH RETAIL SERVICE OVERLAY OPTION APPROVAL MOTION MADE BY MEMBER LYNCH AND SECONDED BY MEMBER ANTHONY:

In the matter of Tom's Bar & Grill, JSP13-45, motion to approve the Preliminary Site Plan with Retail Service Overlay Option based on and subject to the following:

a. **Zoning Board of Appeals variance for the deficient building setback in the northern yard (50 feet required, 15 feet provided);**
b. **Applicant providing the executed Off-Site Drainage Easement for Point Discharge onto Parcel 50-22-16-176-031;**
c. **Planning Commission waiver for the required berm to allow fencing with brick piers along Beck Road and the access drive which is hereby granted;**
d. **Planning Commission waiver for the deficient number of street trees (16 required, 13 provided) which is hereby granted;**
e. **Section 9 façade waiver for the underage of brick which is hereby granted; and**
f. **The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed at Final Site Plan.**

This motion is made because the plan is otherwise in compliance with Article 23A, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance. ***Motion carried 7-0.***

Moved by Member Lynch and seconded by Member Anthony:

ROLL CALL VOTE ON THE WETLAND PERMIT APPROVAL MOTION MADE BY MEMBER LYNCH AND SECONDED BY MEMBER ANTHONY:

In the matter of Tom's Bar & Grill, JSP13-45, motion to approve the Wetland Permit based on and subject to the findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan. This motion is made because the plan is otherwise in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance. ***Motion carried 7-0.***

Moved by Member Lynch and seconded by Member Anthony:

ROLL CALL VOTE ON THE WOODLAND PERMIT APPROVAL MOTION MADE BY MEMBER LYNCH AND SECONDED BY MEMBER ANTHONY:

In the matter of Tom's Bar & Grill, JSP13-45, motion to approve the Woodland Permit based on and subject to the findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan. This motion is made because the plan is otherwise in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance. ***Motion carried 7-0.***

Moved by Member Lynch and seconded by Member Anthony:

ROLL CALL VOTE ON THE STORMWATER MANAGEMENT PLAN APPROVAL MOTION MADE BY MEMBER LYNCH AND SECONDED BY MEMBER ANTHONY:

In the matter of Tom's Bar & Grill, JSP13-45, motion to approve the Stormwater Management Plan based on and subject to the findings of compliance with the Ordinance standards in the staff and

consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan. This motion is made because the plan is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 7-0.*