

**CHARTER TOWNSHIP OF PLYMOUTH  
BOARD OF TRUSTEES STUDY SESSION**

Tuesday, May 2, 2017  
7:00 PM



**CALL TO ORDER at \_\_\_\_\_ P.M.**

**ROLL CALL:** Kurt Heise\_\_\_\_, Mark Clinton\_\_\_\_, Chuck Curmi \_\_\_\_, Jerry Vorva \_\_\_\_  
Bob Doroshewitz \_\_\_\_, Jack Dempsey \_\_\_\_, Gary Heitman \_\_\_\_\_

**A. APPROVAL OF AGENDA**

Study Session - Tuesday, May 2, 2017

**B. PUBLIC COMMENTS AND QUESTIONS**

**C. PUD PRESENTATION - INN AT ST. JOHN'S - Laura Haw**

**D. FIRE STATION #2 UPDATE – Supervisor Heise & Fire Chief Phillips**

**E. JOINT RECREATION MASTER PLAN SURVEY – Supervisor Heise**

**F. NEW PURCHASING AND CREDIT CARD POLICIES – Supervisor Heise**

**G. SUPERVISOR AND TRUSTEE COMMENTS**

**H. PUBLIC COMMENTS AND QUESTIONS**

**I. ADJOURNMENT**

**PLEASE TAKE NOTE:** The Charter Township of Plymouth will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at all Township Meetings, to individuals with disabilities at the Meetings/Hearings upon two weeks notice to the Charter Township of Plymouth by writing or calling the following. Human Resource Office, 9955 N Haggerty Road, Plymouth, MI 48170 Phone number (734) 354-3202 TDD units: 1-800-649-3777 (Michigan Relay Services)

**THE PUBLIC IS ENCOURAGED AND INVITED TO ATTEND ALL BOARD OF  
TRUSTEE MEETINGS!**

**BOARD OF TRUSTEES STUDY SESSION**

**MAY 2, 2017**

**ITEM C**

**PUD PRESENTATION**

**INN AT ST. JOHN'S**

**LAURA HAW**



## CHARTER TOWNSHIP OF PLYMOUTH REQUEST FOR BOARD CONSIDERATION

**MEETING DATE:** May 2, 2017

**ITEM:** Application 2238-0317 – Inn at St. John’s Planned Unit Development (PUD) Option Amendment

**PRESENTER:** Laura Haw, Community Development Director / Planner

**OTHER INDIVIDUALS IN ATTENDANCE:** Applicant

**BACKGROUND:** Application 2238-0317 pertains to Parcels R-78-013-01-0001-301 and R-78-013-99-0001-001. The entire impacted development property consists of approximately 175 acres, located at the southeast corner of the Five Mile and Sheldon Road intersection, and is zoned TAR, Technology and Research.

The applicant has requested a Planned Unit Development (PUD) Option Amendment to the existing PUD (approved in 2004) for the following:

- Modification and enhancement to the existing golf course, reducing it from a 27-hole course to an 18-hole course for better play;
- Incorporation of 174 multi-family townhouses, occupying a portion of the current golf course;
- Conversion of the existing Monastery Retreat Center into 120 hotel rooms; and
- Creation of a small commercial, office or multi-family use along Sheldon Road in the southwest corner.

On April 19, 2017 the Planning Commission held a public hearing and recommended approval of the above PUD Option Amendment request to the Board of Trustees.

**CONSIDERATION REQUESTED:** To consider and discuss the above PUD Option Amendment request.

**BUDGET/ACCOUNT NUMBER:** N/A

**RECOMMENDATION:** To consider the above PUD Option Amendment request at the May 9, 2017 regularly scheduled Board of Trustees meeting.

**MODEL RESOLUTION:** N/A

**ATTACHMENTS:** Staff Reports to Planning Commission  
Materials Submitted by Applicant



**PLANNING COMMISSION  
CHARTER TOWNSHIP OF PLYMOUTH**



**Application:** 2238-0317  
**Application Type:** Request for PUD Amendment  
**Applicant:** The Inn at St. John's  
**Tax I.D.:** R-78-013-99-0001-001; R-78-013-01-0001-301

April 13, 2017

Planning Commission  
Charter Township of Plymouth  
9955 N. Haggerty Road  
Plymouth, MI 48170

RE: Project: 2238-0317 | *The Inn at St. John's*  
Address / Location: 44045 Five Mile Road; SE Corner of Five Mile and Sheldon Roads  
Tax ID No.(s): R-78-013-01-0001-301; R-78-013-99-0001-001  
Applicant / Developer: Anderson, Eckstein, and Westrick, Inc.  
Review Type: Planned Unit Development (PUD) Option; and  
Preliminary Development Plan Review  
Review Number: Written Review #1

Dear Commission Members,

We have reviewed the above Planned Unit Development (PUD) Option request to amend the existing Planned Unit Development St. John's Golf Club, which is located at the southeast corner of the Sheldon Road and Five Mile Road intersection. The site is zoned TAR, Technology and Research, but a Planned Unit Development was approved in 2004. The site is currently occupied by an inn and conference center, monastic retreat, a 27-hole golf course, and driving range and pro shop. The amended plan proposes to:

- Modify and enhance the existing golf course, reducing it from a 27-hole course to an 18-hole course for better play;
- Incorporate 174 multi-family townhouses into the PUD, occupying a portion of the current golf course;
- Conversion of the Monastery Retreat Center into 120 hotel rooms; and
- Create a small commercial, office, or multifamily use along Sheldon Road in the southwest corner of the site.

We have reviewed the above request in light of the Township's Zoning Ordinance, Master Plan, existing site conditions, and sound planning and design principles in an effort to provide constructive and helpful feedback for the development of this site. We offer the following comments for your consideration:

## REVIEW COMMENTS

Section 23.1 of the Township Zoning Ordinance provides provisions for a PUD as an optional method of development which may only be permitted after public hearing and recommendation by the Planning Commission and approval by the Board of Trustees upon finding that the PUD reflects various principles:

1. **The proposal is in conformity with the spirit and intent of the Planned Unit Development Option, as established in the Purpose Section of Article 23.**

The purpose statement in Article 23 states that the PUD Option is intended to permit flexibility in the regulation of land development, encourage innovation in land use and variety in design, layout and type of structure constructed, achieve economy and efficiency in the use of land and natural resources and encourage useful open space. In our opinion, the proposal represents an appropriate use of the PUD approach to achieve a mixture of land uses. We do have some minor concerns about elements of design and layout, upon which we elaborate herein.

2. The site contains natural assets such as large stands of trees, rolling topography, significant views, swale area, flood plains, or wetlands which would be in the best interest of the community to preserve. The site contains the Inn at St. John's, a significant cultural resource for the community. Most of the property proposed for redevelopment is currently utilized for golf operations, though significant stands of mature trees are interspersed throughout the current golf course, including on the land at the southwest corner of the site, for which a new commercial, office, or multi-family use is proposed.

There are also several wetland areas on the site, including some which we presume are regulated due to their proximity to a water course. The Commission may wish to consider requiring additional information on the character and quality of the vegetation and wetlands that will be impacted by the proposed layout prior to being submitted with the preliminary site plan. The applicant is prepared to provide documentation at the April 19 meeting to illustrate which wetland areas are regulated and how they will be impacted by the plan.

3. The proposed uses and the location, height, bulk, and character of said uses on the subject property shall be in harmony with the existing and proposed land patterns of adjacent properties and the general planning area, and shall ensure the stability of the orderly development of adjacent lands and the general planning area as indicated by the Future Land Use Plan.

**Residential Townhome Component:**

The proposed attached townhouses fit reasonably within the existing course and will, in our opinion, represent a harmonious addition thereto, with exception of the northwestern most townhome unit, which seems isolated from the balance of the units, with their living space oriented more toward parking, respectively, than toward the golf amenity. Additionally landscaping and/or separation for the parking lot may improve this and should be considered during the site plan review process.

We are also concerned about the proximity of some of the buildings to golf tees and greens. The tee locations relative to the proposed homes for Holes No. 4, 12, 13, and 14, and the green location for Hole No. 18, seem potentially problematic.

We suggest that the applicant demonstrate on the plan the area associated with each golf feature that is subject to ball overflight and errant shots, to minimize such conflicts. The applicant has stated they will be prepared at the April 19 meeting to demonstrate hit zones and landing areas using established golf metrics.

**Hotel Component:**

The proposed hotel use is a reuse of a facility that is already designed to function in a similar fashion and will consist of internal renovations. Given that, we believe it meets the PUD standards.

**Commercial / Office / Multi-family Component:**

While the proposed commercial, office, or multi-family use in the southwest corner of the site occupies a reasonable module of land for redevelopment, we feel that greater thought during the site plan review process must be given to its juxtaposition to the adjacent golf fairway and to its impact on existing natural features. Errant golf shots on the adjacent Hole No. 7 as also a potential concern here. In addition, the proximity of the improvements to the PUD boundaries appears problematic, as discussed below.

4. The proposed uses and the location of said uses on the subject property shall be such that traffic to and from the site will not be hazardous or adversely impact abutting properties or conflict with the normal traffic flow of the general area. In reviewing this particular aspect, the Commission and the Board shall consider the following: (a) Conflicts with convenient routes for pedestrian traffic, particularly of children; and (b) the relationship of the site to major thoroughfares and street intersections. The proposed townhomes will be accessed by a new drive system that will intersect Sheldon Road immediately across from Helm Street (southern end), and the east side of the existing circular drive for the Inn at St. John's (northern end). The proposed commercial, office, or multi-family use at the southwest corner of the site is shown accessing as accessing both Sheldon Road and the private drive to the south in each of the four layouts presented.

The applicant has submitted a traffic study, dated February 6, 2017, and prepared by AEW. The study identifies the following issues currently impacting the site:

- Eastbound Five Mile Road is at Level of Service E (unstable and at capacity) at Northville Road during the afternoon peak.
- Several approaches at Five Mile and Sheldon Roads are at LOS E, especially left turns, and there is a high incidence of angle and head on left collisions there.
- Eastbound Helm Street is at LOS E during the afternoon peak.
- Northbound Sheldon Road at the M-14 ramp is failing during both peak periods.

The following mitigation measures for existing conditions were found to be necessary by AEW:

- Updated signal timing at Five Mile/Sheldon, Sheldon/Helm, and Five Mile/Northville intersections.
- An additional left turn phase for northbound Northville Road.
- Pedestrian push buttons at Five Mile/Sheldon.
- Adding a second, dedicated left turn lane on northbound Sheldon for turns onto M-14.

In addition, the following measures were found to be required on account of the proposed development:

- A new traffic signal at Sheldon Road and Helm Street to incorporate the westbound connection road from the townhouse area, with detection added for Helm Street on either side of the intersection and pedestrian push buttons.
- A new, full width right turn lane to each existing driveway at the Inn, to offer dedicated left and right turn lanes out.

We find that the location of the northerly entry to the proposed townhouse project is problematic from a design standpoint. While there are legitimate reasons why it cannot be located further to the east on Five Mile Road, which would take it further away from the crest of the hill, its configuration, turning into the existing circular drive at a point that is in close proximity to the Five Mile Road approach, seems likely to require drivers to rapidly decide whether or not to make that left turn upon entering the project.

The Commission may wish to discuss whether or not it is possible to create a more distinct entry to the townhouse area and to add this as a condition of PUD approval to be flushed out during the site plan review process.

5. The intensity of uses associated with the proposal and such noises, vibrations, odors, glare, reflection of light, heat, hours of operation and other external effects which would normally be a product of the proposed uses, shall be compatible with the existing land uses of the abutting properties and shall insure the stability of the orderly development of same as indicated in the Future Land Use Plan for the Township.

We do not anticipate that the proposed PUD Option to create an adverse impact on adjacent properties in terms of noises, vibrations, orders, glare, etc. as the new hotel and townhouse uses are completely contained within the area currently used for golf activities on the site, and the proposed commercial, office, or multiple-family use area at the southwest corner of the site fronts on Sheldon Road and is adjacent to commercial and offices uses to the south.

## PRELIMINARY DEVELOPMENT PLAN REVIEW COMMENTS

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We offer the following preliminary site plan review comments in order to approach the PUD process proactively. The following items would need to be addressed during the site plan review process of the project:

### 1. Use Standards

With regard to the hotel use, the following conditions must be met, per Section 23.10(1)(b)(3):

- a. Each unit shall contain not less than two hundred fifty (250) square feet of floor area.
- b. Kitchen or cooking facilities may be provided in new motels or hotels upon demonstration by the applicant that the provisions of all applicable fire prevention and building codes have been met. No existing motel units shall be converted for use of cooking and/or kitchen facilities unless the applicant can demonstrate compliance with all applicable fire prevention and building codes and obtains a certificate of occupancy for each unit being converted.
- c. Where a unit is provided as a residence for the owner or the manager, the following minimum floor area requirements shall be provided: one (1) bedroom unit, 600 square feet; two (2) bedroom unit, 800 square feet; three (3) bedroom unit, 1,000 square feet; four (4) bedroom unit, 1,200 square feet.

### 2. Dimensional Requirements

In terms of residential density, Section 23.10 requires that that the effective density of the PUD area of the site used for residential purposes not exceed 25 DU/AC. The townhouse portion of the site appears to be 27.30 AC., so with 174 units proposed, that would equate to a density of 6.37 DU/AC. The multi-family option for the southwest corner of the site would site 60 units on roughly 3.9 AC. for a density of 15.38 DU/AC.

In terms of separation, height, and setbacks, the plan calls out a 20 foot separation between the townhouse buildings, which is the minimum required. Amongst the proposed buildings, it appears only the proposed multifamily building would be taller than two-stories. It is proposed to be five-stories, which is the same height as the Hilton Garden Inn to the south.

With regard to the perimeter setbacks of the PUD, it is only with regard to the townhouse building that is proposed to back up to Five Mile Road, and the development options for the southwest corner of the site, that these become an issue. Buildings must be at least 50 feet from the perimeter of the PUD, and parking areas must be at least 40 feet from any public street right-of-way. The layout does not appear to comply in those two locations.



**3. Landscaping**

A landscaping plan will be required at the time of site plan submission.

**4. Building Appearance & Design**

Section 28.3 contains building design standards for non-single family residential buildings. A color rendering has been provided as part of the submittal. We understand that it represents a similar product that has been constructed by the prospective building nearby at the Villas of Northville Hills Golf Course.

The applicant should provide additional details on the building materials to be used and is prepared to present, at the April 19 meeting, a flavor of the potential materials and quality to expect with this development. We also note that the garage doors, facing forward as they do, are a prominent feature of the front of the buildings, so it will be particularly important for their appearance to be considered in the design.

**5. Parking**

With regard to the proposed, new townhouse units, as each unit is intended to have a two car garage, the required parking will be provided on that basis. Additional parking will be available in the driveways, which should be at least 23 feet in length to assure that vehicles parked there will not overhang sidewalks. Additional guest spots are provided along the drives and these should be 9 feet wide by 20 feet deep.

More than sufficient parking currently exists on site to accommodate the conversion of the monastic retreat to a hotel use.

With regard to the optional layouts for the southwest corner of the site, it appears that adequate parking is proposed for Options B (office building) and D (multi-family). Additional information in the nature of the commercial uses proposed would be need to evaluate the other two options.

**6. Pedestrian Circulation / Traffic Calming**

The applicant has also stated that as a cohesive development, they are working towards the establishment of non-golf, pedestrian connections from the townhomes to the Inn at St. John's complex. The applicant is prepared to discuss their preliminary thoughts on this and to discuss their traffic calming strategies. Traffic calming and pedestrian connections will be both important for golf course users and residents. In particular, we have requested the applicant provide traffic calming for access between Hole No. 12 to Hole No. 13.

**7. Additional Site Plan Details Dumpster Enclosure**

Detailed plans regarding lighting, trash pickup, open space, signage and subdivision gates must be provided during the site plan review phase of this project but please note, those details are not required at this time.

## RECOMMENDATION

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*Based on the findings above, we recommend the Planning Commission proceed with the required public hearing, consider any comments, and recommend approval of the Planned Unit Development Option to the Board of Trustees for consideration, contingent on the underlined items above to be addressed prior to site plan approval.*

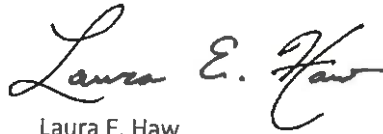
If you have any questions, please do not hesitate to contact us. Thank you!

Respectfully submitted,

**McKENNA ASSOCIATES**



Gregory M. Elliott, AICP  
Principal Planner



Laura E. Haw  
Senior Planner

March 27, 2017

The Planning Commission  
Plymouth Charter Township  
9955 North Haggerty Road  
Plymouth, Michigan 48170

Re: The Inn at St. John's – PUD Option  
Application No. 2238  
SDA Review No. PL17-108

Dear Commission Members:

We have reviewed the PUD Option for the referenced project prepared by Anderson, Eckstein and Westrick, Inc. dated March 15, 2017, and received by our office March 20, 2017. We have the following comments:

**A. General**

The site is located on the south side of 5 Mile Road, east side of Sheldon Road. The site currently contains a hotel (The Inn at St. John's Plymouth) with conference center and restaurant, a 27-hole golf course proshop, learning center, and driving range, and 240-room monastery retreat. There are two (2) entrances from 5 Mile Road. The proposed PUD option includes (1) golf course modification, (2) addition of 174 multi-family townhouse units, (3) conversion of the monastery retreat into 120-room hotel, and (4) introduction of commercial, office or multi-family land use on the southwest corner of the property with entrance from Sheldon Road and from private drive to the south. The site acreage is approximately 187.19 acres.

**B. Water Main**

There is an existing 12" diameter water main located on the south side of 5 Mile Road and an existing 12" diameter water main located on the west side of Sheldon Road. There is also an existing 8" diameter water main looped around the existing hotel.

**C. Sanitary Sewer**

There is an existing 18" sanitary sewer that traverses east-west direction within the property near its south property line. Based on the design engineer's survey, there is an existing 10" sanitary sewer extending from the hotel to outlet sewer near the east property line.

**D. Storm Drainage**

The storm water management for the project parcel must meet the requirements of the Wayne County. Based on the design engineer's survey, the majority of the project site drains and outlets into the creek near its south property line. In addition, a portion near the northeast area of the project site drains through two ponds and outlets to a storm sewer near the east property line.

**E. Site Paving**

The project parcel is currently being accessed through the existing two (2) entrances along 5 Mile Road. No additional access is proposed along 5 Mile Road. The proposed commercial, office or multi-family land use on the southwest corner of the property shows two (2) proposed entrances – one from Sheldon Road and the other one from existing private driveway to the south.

**F. Miscellaneous**

Per developer's wetlands consultant (King & McGregor), small wetland areas connected to various channels, ponds, and streams that exist within the project site and will be regulated by the Michigan Department of Environmental Quality.

**RECOMMENDATION**

Based on the above observations, it appears the subject project can be designed to meet the engineering requirements of Plymouth Township and therefore we recommend the approval of the proposed PUD option.

If you have any questions regarding this matter, please contact our office at your convenience.

Sincerely,

**SPALDING DEDECKER**



David E. Richmond, PE  
Project Manager

cc: Patrick Fellrath, Director of Public Utilities, Charter Township of Plymouth (via Email)  
Carol Martin, Administrative Assistant, Charter Township of Plymouth (via Email)



# PLYMOUTH TOWNSHIP FIRE DEPARTMENT

9955 N. Haggerty Road  
Plymouth, Michigan 48170-4673

(734) 354-3221 • Fax: (734) 354-9672  
Emergency - Dial 911

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**TO: PLYMOUTH TOWNSHIP COMMUNITY DEVELOPMENT**

**FROM: PLYMOUTH TOWNSHIP FIRE DEPARTMENT**

**DATE: 03/27/2017**

**RE: APPLICANT: Anderson, Eckstine and Westrick, Inc**  
**Project: The Inn at St. John's**  
**Location: South of Five Mile Road, East of Sheldon Road and North of M-14**  
**Tax I.D. No: R-78-013-99-0001-001 & R-78-013-01-0001-301**

**DEAR COMMUNITY DEVELOPMENT:**

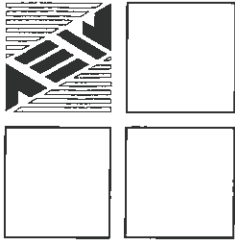
The Plymouth Township Fire Department has completed the review of the PUD Review of above referenced project in accordance with the fire protection requirements of the International Building Code 2012, and the International Fire Code 2012, N.F.P.A. Standards, and good fire protection engineering

**The Office of Fire Prevention has no objection to PUD Review.**

As is often the case, certain aspects of code compliance can involve interpretation and judgmental decisions. It is important that you review these comments and contact us if you have any questions. This review is based upon and limited to information that has been provided.

William Conroy

Fire Inspector/ Investigator  
734-354-3219



## ANDERSON, ECKSTEIN AND WESTRICK, INC.

51301 Schoenherr Road, Shelby Township, Michigan 48315  
Civil Engineers • Surveyors • Architects 586-726-1234

March 10, 2017

PLANNED UNIT DEVELOPMENT

APR 27 2017

Laura Elizabeth Haw  
Interim Community Development Director/Planner  
Plymouth Township  
9955 North Haggerty Road  
Plymouth, Michigan 48170

City of Plymouth, Michigan  
& Community of Village Services

Reference: The Inn at St. John's  
Planned Unit Development Modification  
AEW Project No. 1444-0001

Dear Ms. Haw:

Thank you for meeting with us recently to discuss The Inn at St. John's project and the process to modify the existing Planned Unit Development (PUD). The Development Team, consisting of the Archdiocese of Detroit (AOD) and Toll Brothers, along with their consultants Raymond Hearn Golf Course Designs, and Anderson, Eckstein and Westrick, Inc., have been working together over the past year to develop a plan for significant improvements at The Inn at St. John's property.

The proposed project contains four (4) major components:

1. Golf course modifications and enhancements;
2. Incorporation of multi-family townhouses into the golf course;
3. Conversion of the Monastery Retreat Center into 120 hotel rooms; and
4. Introduction of a small commercial, office, or multifamily use along Sheldon.

This exciting project, valued at over \$ 100 million (the Toll Brothers component is valued at over \$83 million revenue alone) in improvements, brings Plymouth Township a higher caliber golf course, luxury residential townhomes, additional luxury hotel rooms, and a commercial, office, or multifamily building.

The following narrative describes in greater detail each of the four (4) components, site improvements, and schedule as well as traffic study results and environmental impacts.

### **Golf Course**

The AOD plans to modify the golf course from a 27-hole course to an 18-hole course. This reduction allows for the introduction of the multi-family townhomes while allowing for improvements to the golf course layout.



Laura Elizabeth Haw  
Community Development Director/Planner  
March 10, 2017  
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Enhancements to the course include:

- Mounding and sculpting of the fairways;
- Strategic placement of bunkers;
- Remodeling of existing bunkers and the addition of new bunkers;
- Expanded and new water features;
- A new irrigation system;
- Re-grassing certain areas of the golf course;
- Remodeling of existing tees and the addition of new tees;
- Lengthening of several holes;
- Cart path improvements.

Many of the existing fairways, greens, and tee boxes will be re-utilized with modifications to improve each hole's playability, strategy and beauty in order to maximize golfer enjoyment.

The property immediately south of the golf course is owned by Consumers Energy, is approximately 300 feet wide, and contains several large gas lines. Existing agreements with Consumers Energy allows The Inn at St. John's to utilize the property for golf course, parking, and ingress/egress purposes. The original PUD allowed for this situation, and a portion of the existing course is located on the Consumer's property. The proposed PUD amendment contemplates using the Consumer's property for golf course purposes under the same agreement.

#### Luxury Attached Townhomes

The townhome component of the project will wind through the golf course and will be developed and built exclusively by Toll Brothers. Toll Brothers is an award winning homebuilder dedicated to quality and customer service. Toll Brothers has been creating luxury communities since 1967 in the best locations across the country. FORTUNE Magazine ranked Toll Brothers #6 in its survey of The World's Most Admired Companies worldwide. In the same 2016 survey, Toll Brothers was named the #1 Home Builder Worldwide.

The development will be a private, gated community of 174 townhomes, with impressive views of the golf course.

Toll Brothers will offer several floor plans, including age-targeted master-down options. The award winning designs will range in size from approximately 2000 sf. to over 2700 sf.

Each will include outstanding finishes and will include 3 bedrooms and 2 ½ baths along with ample parking. Each home will include 2-car garages with guest spaces in the driveways and nearby in off-street guest parking areas.



Laura Elizabeth Haw  
Community Development Director/Planner  
March 10, 2017  
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Most of the buildings will be triplexes with some 2, 4, and 5-unit buildings. The layout has been carefully designed to maximize site plan efficiency while also maximizing end-unit availability, which have been the most popular plans in Toll Brothers' townhome offerings in nearby Northville, Novi and Ann Arbor. The buildings will combine architectural elements of brick, siding, gables, porches and individual entrances to create tasteful elevations similar to the Toll Brothers' product around the corner at the Villas of Northville Hills Golf Course (photo attached).

This exclusive gated community will be accessed by way of a new private roadway which may be accessed from both Sheldon and Five Mile Roads.

The Sheldon Road entrance will be located directly opposite Helm Street and will include the traffic signal improvements outlined in the Traffic Study.

The Northern entrance will minimize traffic conflicts by avoiding a direct connection to Five Mile Road. Instead, the new private roadway will connect to The Inn at St. Johns' existing eastern approach to Five Mile Road. Internal driveway improvements will be modified to create dedicated left and right turning movements for traffic exiting the St. John's eastern driveway.

### **Monastery Retreat Center Conversion**

The existing monastery is located in the 2-"Y" shaped buildings, south of the main conference and hotel building, and contains 240 rooms. With declining use of the monastery by visiting priests, the retreat center closed for use in 2013.

The AOD is exploring a plan to convert these 240 rooms into 120 hotel rooms, with the same 4-Star quality as the existing hotel rooms. The conversion of these rooms would be an interior renovation only. There would be no building expansions or exterior modifications, with the exception of window replacements for energy efficiency improvements.

### **Commercial, Office, or Multifamily Building**

The final component to the project includes the development of a small commercial, office, or multifamily building at the southwest corner of the property.

The commercial/office building will be approximately 10,000 square feet in size, and situated on 2 to 3 acres of property. Additionally, the multifamily building is contemplated to be up to 5 stories with 60 units. Being adjacent to a hotel, overlooking the golf course, and in an industrial area, this is an ideal and unique location for any one of these uses.

Through the PUD process, we will develop the PUD agreement to limit the types of uses and establish the architectural standards for the building.

The attached drawings show conceptually how this parcel could be utilized. A key component to accommodate this building is to utilize a zero setback along the Consumers Energy property in the area of the building and parking. With the Consumers' property providing a large buffer area and





Laura Elizabeth Haw  
Community Development Director/Planner  
March 10, 2017  
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being located at a remote, isolated corner of the property, we request the Planning Commission's concurrence for this isolated variance of the PUD perimeter setback.

### **Traffic Study**

With the proposed modifications to the uses at The Inn at St. John's property, and as required by the Plymouth Township PUD requirements, we have prepared a traffic study to evaluate the existing and proposed conditions. A full copy of the study is included with the PUD submittal.

The traffic generated by the proposed changes in use at The Inn at St. John's property include the following:

1. Traffic reduction resulting from downsizing the golf course to 18 holes.
2. Traffic reduction resulting from the declining use and consolidation of the Monastery Retreat Center from 240 to 120 rooms.
3. Traffic increase resulting from the addition of multifamily dwellings.
4. Traffic increase with the introduction of a single commercial / office building.

The analysis of the existing roadway system revealed that there are several areas of unacceptable service and traffic delays such as:

1. Traffic queuing and turning movements at Five Mile and Northville Road during AM and PM peak periods.
2. Northbound Sheldon at M-14 queuing lengths are impacting turning movements during AM and PM peak periods.
3. Eastbound Helm Street is experiencing delays during the PM peak period.

The existing traffic issues can be mitigated with signal modifications and signal optimization by the Wayne County Department of Roads.

The proposed roadway improvements contemplated and included in The Inn at St. John's project, include the following:

1. Upgrade the traffic signal at Sheldon and Helm Street to incorporate the new entrance and pedestrian crossings.
2. Add a full width, right turn lane at each existing driveway for traffic exiting The Inn at St. John's. This allows for one lane in, one left turn lane out, and one right turn lane out.

### **Environmental**

#### **Wetlands**

On-site wetland areas have been identified and mapped by King and MacGregor (K&M) for the entire property and are shown on the site plan. Individually, each wetland area is small; however, they are connected with various channels, ponds, and streams and will be regulated by the MDEQ.



Laura Elizabeth Haw  
Community Development Director/Planner  
March 10, 2017  
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The proposed site modifications have been developed to minimize wetland impacts and to construct new wetland areas within the course. Approximately .5 acres of wetland are impacted by the project. New and expanded ponds, as well as newly constructed wetland areas, have the potential to create over 1 acre of new wetlands.

With the assistance of K&M, we will coordinate and obtain the necessary permits from the MDEQ to modify the existing wetland areas, expand the existing ponds, relocate drainage channels, and mitigate wetland impacts.

### ***Tree Conservation***

The new topographical survey of the property identifies the location of individual trees throughout the golf course and the limits of the heavily wooded areas. Although the site is designed to minimize large scale tree removals, there are areas where removals cannot be avoided.

Recognizing this, and in accordance with the Plymouth Township ordinances, we will prepare a tree inventory and a tree replacement plan in conjunction with the detailed site plan process. With the Planning Commission's concurrence, our inventory will focus only on those areas where trees will be removed and not over the entire property.

### **Utilities**

#### ***Sanitary Sewer***

An existing 10 inch sanitary sewer extends from the hotel and conference center to an outlet sewer near the east property line. This sewer will be utilized to provide sanitary service to a portion of the multifamily units.

Additionally, an 18-inch sanitary traverses the property near the south property line. This sewer will be extended to provide service to the remaining multifamily units and the commercial property.

#### ***Water Main***

The Inn at St. Johns property is fronted by a 12-inch water main on the west side of Sheldon and a 12-inch water main along the south side of Five Mile Road. The existing hotel and conference center is served with an on-site, 8-inch water main from Five Mile Road, with a loop around the center for fire protection needs.

Incorporated into the project is the construction of a new 8-inch water main through the multifamily component with connection to the 12-inch main at Five Mile and at Sheldon. This looped connection will provide positive flows and fire protection throughout the multifamily area.

#### ***Storm Sewer***

A majority of the storm water generated by the existing site, flow through a series of interconnected ponds and open channels that outlet into the creek near the south property line. This creek is also the outlet for storm water flows from the industrial areas west of Sheldon Road. Additionally, a portion



Laura Elizabeth Haw  
Community Development Director/Planner  
March 10, 2017  
Page 6

of the property, near the northeast area of the golf course drains through two ponds and outlets to a storm sewer near the east property line.

At this time, the project contemplates a series of improvements to the existing storm water facilities:

1. Expanding the size of several ponds for increased storm water storage and storm water quality.
2. Construction of two new ponds for storm water storage and storm water quality.
3. Develop and construct a storm sewer system to direct the increased runoffs to the storm water ponds.

There will be collaboration between the design and development teams to create a unified grading, drainage, irrigation and maintenance plan so the new home sites abutting the golf course will harmonize completely.

***Franchise Utilities***

The franchise utilities, gas, electric, phone, and cable, are currently serving the existing facilities. These utilities are adequate to provide service to the new uses and will be extended into the new development as part of the construction process.

We look forward to meeting with the Planning Commission and yourself to present and discuss in greater detail this ambitious project, and to obtain a recommendation of approval from the Commission. We welcome any comments that you, your consultants, or other Township Departments may have so that we can adequately address these at the public hearing.

Sincerely,

Lyle E. Winn, PE  
Project Manager

cc: Mike McNerney, AOD Properties  
Mike Noles, Senior Vice President, Toll Brothers



*The Club at West Haven*

PLYMOUTH, MICHIGAN

# MASTER PLAN

JANUARY 15, 2017



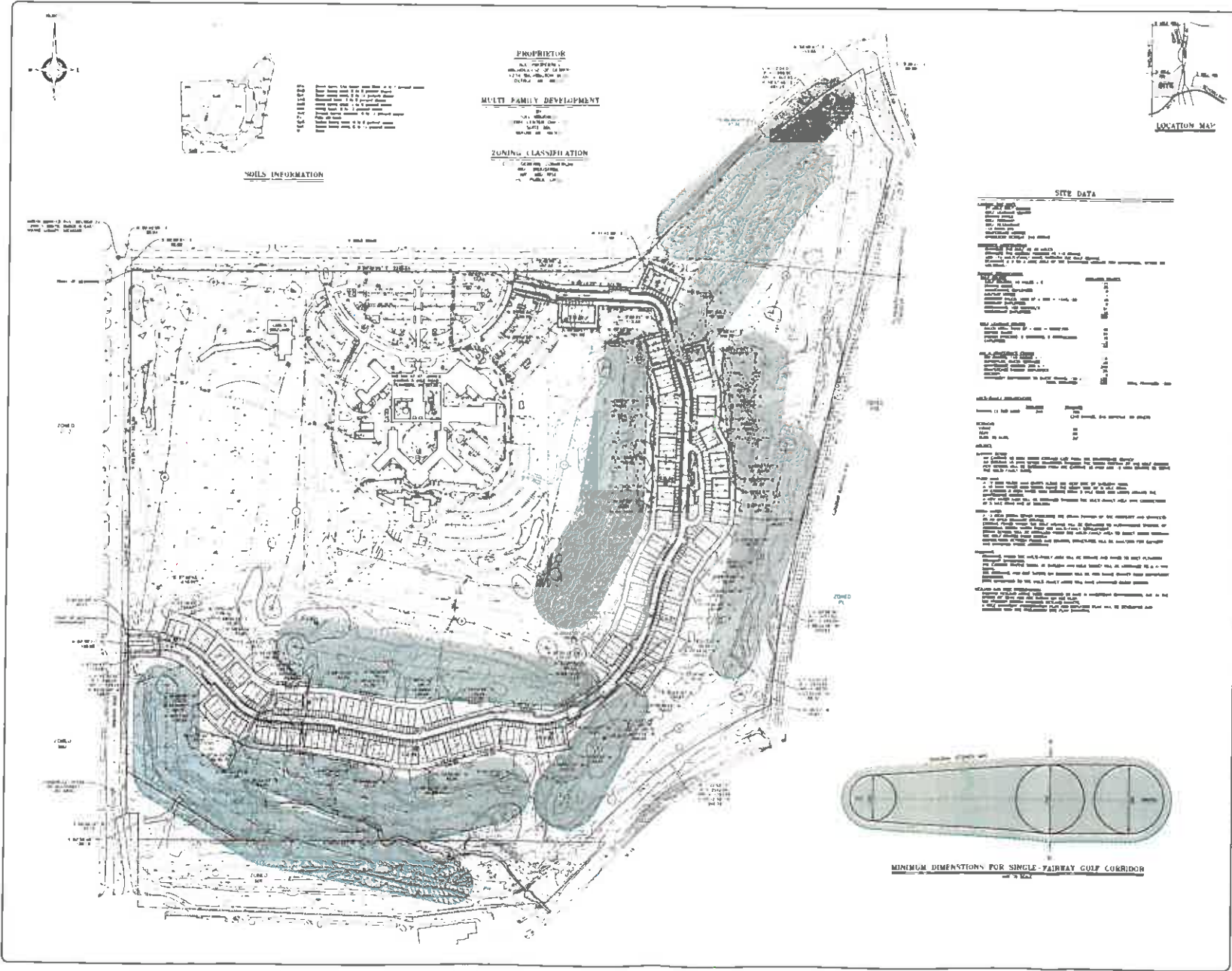
**SCORE CARD**

HOLE	PAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL	
1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
7	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
10	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
11	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
12	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
13	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
14	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
15	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
16	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
17	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
18	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	72	
<b>TOTAL</b>																					<b>72</b>



**Raymond Hanna**  
Golf Course Designer, Inc.  
115 West 27th Street  
Holland, Michigan 48423 USA





- CONTENTS**
- 1.0 SITE PLAN
  - 2.0 PROPERTIES
  - 3.0 ZONING CLASSIFICATION
  - 4.0 SOILS INFORMATION
  - 5.0 SITE DATA
  - 6.0 MINIMUM DIMENSIONS FOR SINGLE-FAIRWAY GOLF CORRIDOR

**PROPRIETOR**  
 ALL PROPERTIES  
 1715 N. W. 10th St.  
 MIAMI, FL 33136

**MULTI-FAMILY DEVELOPMENT**  
 1715 N. W. 10th St.  
 MIAMI, FL 33136

**ZONING CLASSIFICATION**  
 R-10  
 MIAMI, FL 33136

**SOILS INFORMATION**

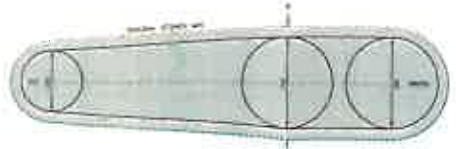


**SITE DATA**

Site Area	10.00 Acres
Lot Area	435,600 sq. ft.
Frontage	1,200 ft.
Depth	360 ft.
Perimeter	2,760 ft.
Volume	1,000,000 cu. ft.
Grade	Sea Level
Soils	See SOILS INFORMATION
Zoning	R-10
Use	Multi-Family
Owner	See PROPRIETOR
Developer	See PROPRIETOR
Architect	See PROPRIETOR
Engineer	See PROPRIETOR
Surveyor	See PROPRIETOR
City	Miami
County	Dade
State	Florida
Year	2000

**NOTES**

1. ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
2. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE CITY OF MIAMI AND THE STATE OF FLORIDA.
3. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF COUNTY COMMISSIONERS.
4. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF ENVIRONMENTAL AND PLANNING COMMISSIONERS.
5. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF WATER AND SWEETWATER UTILITIES COMMISSIONERS.
6. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF PUBLIC WORKS COMMISSIONERS.
7. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF TRANSPORTATION COMMISSIONERS.
8. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF ECONOMIC DEVELOPMENT COMMISSIONERS.
9. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF COMMUNITY DEVELOPMENT COMMISSIONERS.
10. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF CULTURAL AFFAIRS COMMISSIONERS.
11. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF TOURISM COMMISSIONERS.
12. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF SENIORS COMMISSIONERS.
13. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF YOUTH COMMISSIONERS.
14. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF WOMEN COMMISSIONERS.
15. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF AFRICAN AMERICAN COMMISSIONERS.
16. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF HISPANIC COMMISSIONERS.
17. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF ASIAN AMERICAN COMMISSIONERS.
18. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF PACIFIC ISLANDER COMMISSIONERS.
19. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF NATIVE AMERICAN COMMISSIONERS.
20. THE PROPOSED DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE MIAMI DADE COUNTY BOARD OF GAY, LESBIAN, BISEXUAL, AND TRANSGENDER COMMISSIONERS.



**MINIMUM DIMENSIONS FOR SINGLE-FAIRWAY GOLF CORRIDOR**

**ANDERSON  
 ELKSTEIN AND  
 WESTRICK, INC.**

500 N. W. 10th St.  
 Miami, Florida 33136  
 Phone: 305-375-1100  
 Fax: 305-375-1101  
 www.aewi.com

**811** Call before you dig  
 800-4-A-DAWG  
 800-4-2-DAWG  
 800-4-3-DAWG  
 800-4-4-DAWG  
 800-4-5-DAWG  
 800-4-6-DAWG  
 800-4-7-DAWG  
 800-4-8-DAWG  
 800-4-9-DAWG  
 800-4-10-DAWG

**THE INN  
 AT  
 ST JOHN'S  
 FAIRWAY GOLF  
 CORRIDORS**

**ADD PROPERTIES**

Property Name	Address	City	State	Zip

**1444-0001**



**SOILS INFORMATION**

SOIL TYPE	AREA (ACRES)
Upland	1.2
Wetland	0.8
Water	0.5
Other	0.3
Total	2.8

**PROPRIETOR**  
 ANDERSON  
 12345 MAIN ST  
 CITY, STATE 12345

**MULTI-FAMILY DEVELOPMENT**  
 100000 SQ FT  
 100 UNITS  
 100000 SQ FT

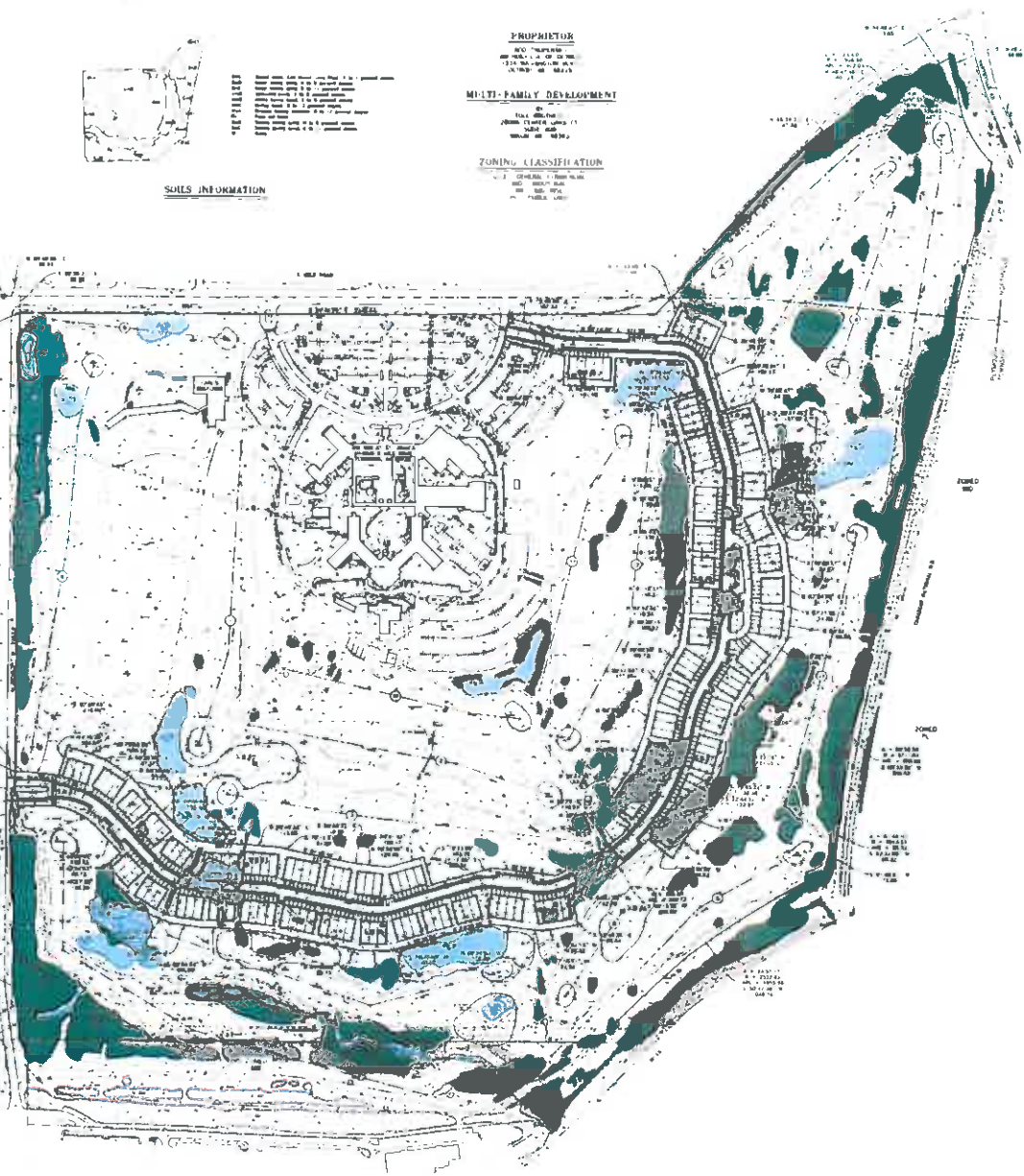
**ZONING CLASSIFICATION**  
 R-10  
 100000 SQ FT  
 100 UNITS  
 100000 SQ FT



**ANDERSON  
 REKSTEIN AND  
 WESTRICK, INC.**

12345 Main St  
 City, State 12345  
 Phone: 123-4567  
 Fax: 123-4567

DATE: 12/15/2000  
 DRAWN BY: J. SMITH  
 CHECKED BY: M. JONES



**SITE DATA**

**GENERAL NOTES:**  
 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE IBC AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.  
 2. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE SITE AND HAS OBSERVED THE EXISTING CONDITIONS. THE DESIGNER HAS NOT CONDUCTED ANY SOIL BORINGS OR OTHER INVESTIGATIONS TO DETERMINE THE EXACT NATURE AND EXTENT OF ANY CONTAMINATION OR OTHER HAZARDOUS CONDITIONS.  
 3. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE SITE AND HAS OBSERVED THE EXISTING CONDITIONS. THE DESIGNER HAS NOT CONDUCTED ANY SOIL BORINGS OR OTHER INVESTIGATIONS TO DETERMINE THE EXACT NATURE AND EXTENT OF ANY CONTAMINATION OR OTHER HAZARDOUS CONDITIONS.  
 4. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE SITE AND HAS OBSERVED THE EXISTING CONDITIONS. THE DESIGNER HAS NOT CONDUCTED ANY SOIL BORINGS OR OTHER INVESTIGATIONS TO DETERMINE THE EXACT NATURE AND EXTENT OF ANY CONTAMINATION OR OTHER HAZARDOUS CONDITIONS.

**LEGEND**

- TREE/WOODED AREA
- IMPACTED TREE/WOODED AREA
- WETLANDS

**811** Call before you dig. Call 1-800-4-A-DIG.

**THE INN  
 AT  
 ST JOHN'S**

**TREE CANOPY AND WETLANDS**

**AGG PROPERTIES**

AGG PROPERTY	AREA (ACRES)
Wetland	0.8
Tree/Wooded Area	1.2
Impacted Tree/Wooded Area	0.5
Water	0.3
Total	2.8

1444-0001

# **BOARD OF TRUSTEES STUDY SESSION**

**MAY 2, 2017**

## **ITEM D**

**FIRE STATION #2 UPDATE**

**SUPERVISOR HEISE**

**FIRE CHIEF PHILLIPS**





**CHARTER TOWNSHIP OF PLYMOUTH  
REQUEST FOR BOARD ACTION**

**MEETING DATE: TBD**

**ITEM: Purchase of 800 MHz Radios for Fire Station #2**

**PRESENTER: Chief Daniel Phillips**

**BACKGROUND: Fire Station #2 was closed down in March of 2012 and did not receive new radio Equipment in the form of an 800 MHZ Radio. We would need to install a radio and alerting system into the building like was done for Fire Station #1 and #3**


**ACTION REQUESTED: Purchase and Install an APX7500 radio system and Install Building Notification (paging) System.**

**BUDGET/ACCOUNT NUMBER: Motorola \$9,741.99 Sound Engineering \$4,835.00  
Total: \$14,576.99**

**RECOMMENDATION: Approval**

**MODEL RESOLUTION: I move to approve the installation of an 800 mhz Radio system into Fire Station Number 2 not to exceed \$14,576.99**

**ATTACHMENTS: Quoted Price from Sound Engineering and Motorola.**

 <b>MOTOROLA</b>	
Date	March 21, 2017
Prepared For:	Chief Dan Phillips
Entity	Plymouth Township Police Department 9955 Haggerty Rd. Plymouth, MI 48170
Phone	734-354-3220      dphillips@plymouthtwp.org

**FIRE STATION # 2 RADIO SYSTEM**

Equipment Details and Pricing

Item	Qty	Model	Description	Unit Price	Total Price
<b>APX7500 CONSOLE/ITE</b>					
1	1	L30URS9PW1 N	APX7500 SINGLE BAND 7/800	\$ 3,095.25	\$ 3,095.25
1A	1	GA00308	ADD VHF MP SECONDARY BAND	\$ 300.00	\$ 300.00
1B	1	QA00579	ADD ENABLE DUAL BAND OPERATION	\$ 750.00	\$ 750.00
1C	1	G806	ENH ASTRO DIGITAL CAI OP APX	\$ 386.25	\$ 386.25
1D	1	G51	ENH SMARTZONE OPERATION APX	\$ 1,125.00	\$ 1,125.00
1E	1	QA01749	ADD ADVANCED SYSTEM KEY - SOFTWARE KEY	\$ -	\$ -
1F	1	G361	ADD P25 TRUNKING SOFTWARE	\$ 225.00	\$ 225.00
1G	1	W969	ADD MULTIPLE KEY ENCRYPTION OPERATION	\$ 247.50	\$ 247.50
1H	1	L999	ADD FULL FP W/05/KEYPAD/CLOCK/VU	\$ 591.74	\$ 591.74
1I	1	CA01598	ADD AC LINE CORD US	\$ -	\$ -
1J	1	G799	ADD PRINTED TEST RESULTS APEX	\$ 7.50	\$ 7.50
1K	1	W382	ADD CONTROL STATION DESK GCAI MIC	\$ 126.75	\$ 126.75
1L	1	G78	ADD 3 YEAR SERVICE FROM THE START LITE	\$ 158.00	\$ 158.00
2	1	DSSY450SF1SNM	YAGI DIRECTIONAL ANTENNA, 6.5 DBD GAIN, 746-896 MHZ	\$ 729.00	\$ 729.00
3	1	SVC03SVC0104D	INSTALLATION	\$ 2,000.00	\$ 2,000.00
<b>Total</b>				<b>\$</b>	<b>9,741.99</b>

1. Quotes are exclusive of installation and programming charges unless expressly stated therein.
2. Prices quoted are exclusive of all applicable Federal Excise Taxes, State Sales and Use Taxes.
3. Freight will be added to final invoice
4. Prices are valid For 30 Days.
5. Standard Equipment Warranty Applies.
6. Standard Terms are: Net 30 Days from date of shipment.
7. A User agreement will need to signed with the MPSCS.
8. Shipment is approximately 2-4 weeks from receipt of order.
9. Prices are based on State of Michigan Contract # 071B2200101
10. The purchase order will need to provide payment terms (Net 30), shipping address and made payable to Motorola Solutions, Inc., 1301 E. Algonquin Rd., Schaumburg, IL 60196



# PROPOSAL AND ACCEPTANCE

12933 Farmington Road, Livonia, MI 48150-4289  
 (734) 522-2910 FAX: (734) 522-1222  
 Internet: <http://www.soundeng.com>  
 Lansing - Flint - Saginaw - Grand Rapids - Toledo

**SOLD TO:**

Account No.: /008829  
 Company Name  
 Plymouth Twp. Fire Station #2  
 Attention

Address  
 41212 Wilcox  
 City State Zip  
 Plymouth MI 48170

Telephone Number  
 (734) 354-3220 FAX: ( ) - Credit

Salesperson	Date	PO No.	Req. Date
Wilson K	02/14/2017		

**SHIP TO:**

Account No.: /008829 (Page: 1)  
 Company Name  
 Plymouth Twp. Fire Station #2  
 Attention

Daniel Phillips  
 Address  
 41212 Wilcox  
 City State Zip  
 Plymouth MI 48170

Telephone Number  
 (734) 354-3220 FAX: WO

Rec.	Inv. Date	Inv. No	WO

QUANTITY	DESCRIPTION
----------	-------------

Sound System

- 4 SM82TB Atlas/Soundolier Speaker 150W w/Bracket
- 4 R181072K Lowell 8" 15W Speaker Assembly w/Transformer/Grille/VC Knob
- 4 SSB2 Quam Mounting Support
- 1 CDII1000 Crown 1000 Watt Amplifier w/DSP
- 1 CSM14 JBL Preamplifier/Mixer 4in/1 out

Includes miscellaneous hardware, cable, labor to install, programming and shipping. Does not include sales tax, add if applicable.

Systems installed by Sound Engineering come with a one year parts and normal labor warranty.

Contact Kevan wilson if you have any questions.

TOTAL PRICE: \$4,835.00

**THIS PROPOSAL DOES NOT INCLUDE ANY ASSOCIATED COSTS FOR REQUIRED PERMITS OR INSPECTIONS IF REQUIRED.**

Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above this proposal. ACCEPTANCE OF PROPOSAL - ALL ITEMS AND CONDITIONS AS STATED ON THE ATTACHED ADDENDUMA-1 TO THIS AGREEMENT ARE A PART HERE OF AND ARE BINDING UPON THE PARTIES HERETO. NOTE: Finance charge of 1 1/2% per month added to past due invoices. Terms are net 10 days. PRICES contained in this quotation shall be considered firm for a period of thirty (30) days from the date of quotation unless otherwise stated herein. This proposal becomes effective when accepted by a duly Authorized officer of the company.

**SOUND ENGINEERING, INC.**

(PRINT) LEGAL NAME OF FIRM

SALESPERSON

SIGNATURE

DATE

(PRINT) NAME AND TITLE

E20170212

DESIGN · INSTALLATION · SERVICE · SALES · LEASING

CUSTOMER- Email Copy



## TERMS & CONDITIONS

1. The equipment as specified herein will be installed by qualified union personnel in accordance with proven practices during our normal business hours unless otherwise specified herein. Prices contained in this quotation shall be considered firm for a period of thirty (30) days from the date of quotation unless otherwise specified in writing on the reverse hereof. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above this proposal.
2. All system installations are covered by a one (1) year equipment and labor warranty (except as noted herein and on the reverse side) and will be serviced during Sound Engineering's normal service hours. A 30 day warranty applies to programming, moves, adds and changes, line cords, coil cords or lamps. Service calls for accidents, abuse, misuse, forces of nature or alterations of equipment by others will be on a charged basis.

Promethean Installations: All prices are for a "standard" room configuration-A structural sound, blank wall with no obstructions, eight (8) ft or more in height with 110 volt power within six (6) ft of board mounting location & 110 volt power within six (6) ft of document camera which will be located by the teacher's computer. Computer requires available VGA output for projection.

Promethean equipment falls under the manufacturer's service warranty (in lieu of the Sound Engineering warranty). The ActivCare service warranty is activated when Sound Engineering installs the Promethean IWB & projector. The warranty certificate states your ActivCare Account Number and the serial numbers of the registered product which you will need when contacting Promethean for support. This certificate also lists the various methods to contact Promethean for your free telephone & email support for the length of the warranty.

Equipment to be installed during Sound Engineering's normal business hours of 8:00 - 5:00 M-F. Dedicated building resources will be provided at all times during the installation to ensure building & computer access is available as required. This proposal is based upon the equipment being dropped shipped directly to the school with all packaging material being discarded in containers on school property.

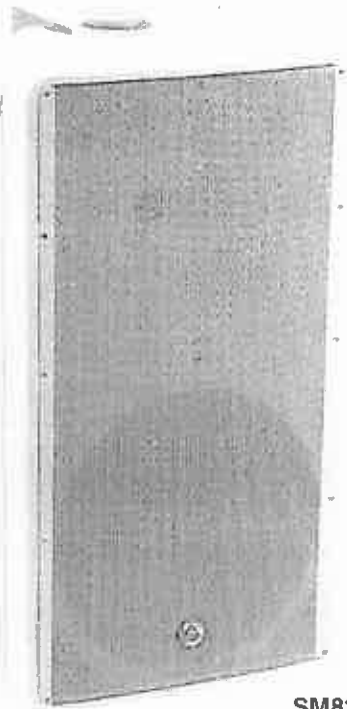
Pre-Install Survey to be completed for each room where equipment is being installed. If extra equipment is required for the installation, other charges may apply.

3. All sales are subject to state and local taxes and shipping and handling charges. In order to be exempt from tax, a completed Michigan Department of Treasury Form 3372 is required at the time the order is placed.
4. **Terms of sale: New Customer : 35% down payment with approved credit. Balance of contract will be partial billed on a monthly basis as equipment is ordered and labor is utilized. If a credit card is used to pay for the deposit or any portion of this proposal, any and all bank processing fees will be automatically added.**  
**Existing customer: Company purchase order or letter of acceptance with approved credit. Partial billing of contract on a monthly basis as equipment is ordered and labor is utilized. If a credit card is used to pay for the deposit or any portion of this proposal, any and all bank processing fees will be automatically added.**
5. When billing on an AIA contract or if Sound Engineering is a sub-contractor, labor will be billed monthly. After receipt of your order (to enable us to maintain quoted prices) we reserve the right to notify you of a pending price increase and;
  - A. Order the equipment at quoted prices to be job piled in our warehouse at no extra charge. Material will then be "warehouse billed" to you on a net ten (10) day basis. You will be provided with a Certificate of Insurance for the materials being "warehouse billed".
  - B. Order the equipment at current quoted prices for immediate delivery to your facility or the job site. Material then to be billed on a net ten (10) day basis. It is your responsibility to provide insurance coverage on this equipment.Invoices that are not honored and become past due will result in a work stoppage as noted in Item #6 below.
6. All invoices are net ten (10) days from date of billing. One and one-half percent (1½%) interest per month will be added to unpaid invoices. If payment is not received within a reasonable length of time, work may be stopped until such time payment is received with no recrimination against Sound Engineering or its personnel.
7. **Cancellation: Any order or contract may be cancelled by the purchaser only upon payment of reasonable charges based upon expenses already incurred and commitments made by Sound Engineering. These include restocking charges assessed by Sound Engineering or its suppliers, costs to cover equipment, engineering or manufacturing charges and reasonable charges to cover costs of systems engineering and layouts incurred by Sound Engineering.**
8. This quotation has no provision for shelving, mounts, metal or rigid conduit or raceway nor the connection or installation of 110 volt lines or receptacles unless specified herein. Customer is to provide all floor ducts, equipment room space and a suitable power outlet within six (6) feet of the amplifier/power supply. All cable will be installed within existing conduit and/or partition & walls where reasonably possible. Exposed cable will be installed as inconspicuously as possible. No provision for scaffolding, lift etc. is included as part of this quotation unless specifically included herein. All installations are based upon using standard cable. Unless otherwise stated on the reverse hereof, there will be an additional charge for Teflon fire rated cable per Article 800 of the National Electrical Code for return plenum ceilings. If existing cable is utilized, purchaser acknowledges that Sound Engineering is not responsible for problems that are inherent in that cable that may affect the system & is not included in the warranty stated above.
9. **PURCHASER ACKNOWLEDGES THAT NO WARRANTIES, REPRESENTATIONS, PROMISES OR VERBAL STATEMENTS WHATSOEVER OTHER THAN THE WRITTEN PROVISION CONTAINED WITHIN THIS QUOTATION ARE BINDING ON SOUND ENGINEERING. ANY AND ALL ALTERATIONS OR ADDITIONS TO THIS PROPOSAL MUST BE IN WRITING.**
10. Customer agrees that Sound Engineering may use the Customer's name, logo and contact information to identify them as a customer of Sound Engineering whether in print or in electronic format including Sound Engineering's website.
11. Sound Engineering cannot be held responsible for delays of installation or shipment of equipment when affected by conditions such as sabotage, strikes, acts of God, union picket lines, inadequate notice or delays caused by others including but not limited to delayed inspections, owner(s) interference, lack of access or delays in change orders, approvals or progress payment.



# SM82T

## Strategy Series® Surface Mount Loudspeaker System



SM82T-W

### Specifications

Model	SM82T-(B)(-)-WH
Power Rating (RMS)	150 Watts
Transformer Taps	0.94, 1.9, 3.8, 7.5, 15, 30, & 60 Watts / 8Ω Bypass
Frequency Response	65Hz – 20kHz (±3dB)
Sensitivity (1W / 1M)	92dB
Woofer Size	8"
Woofer Cone	HYCONE Treated Paper
Woofer Surround	Treated Cloth
Woofer Magnet	30oz
Compression Driver Size	1" (25mm)
Compression Driver Diaphragm Material	Titanium
Compression Driver Magnet	13.32oz
Crossover Frequency	2.5kHz
Crossover Type	1st Order Low Pass, 2nd Order High Pass
Height	16½" (419mm)
Width	9¼" (230mm)
Depth	8⅞" (214mm)

### Features

- Compact, 2-way Loudspeaker Systems for Exceptional Performance in Music and Sound Reinforcement Systems
- Weather-Resistant Construction for Year-Round Indoor or Outdoor use: UV-Resistant, Talc Impregnated Polypropylene Injection Molded Enclosure, Powder Coated Aluminum Grilles and All Brass Hardware Inserts
- Conforms to 100HR Salt Spray Test Per ASTM B117
- Color Matched Heavy-Duty Zinc Chromate Plated and Powder Coated "C" Bracket (Included)
- Highly Efficient 8" HYCONE™ Treated Woofer
- 1" Exit Titanium High Frequency Compression Driver
- Atlas Sound TRX WAVEGUIDE™ – A Constant Directivity Style High Frequency Wave Guide System Provides Accurate, and Even High Frequency Coverage
- Atlas Sound POLYGUARD™ High Frequency Circuit Diverts Damaging Transient Signals to Protect the Tweeter
- Screwdriver Adjustable 60 Watt 70.7V / 100V / 8Ω Transformer for Distributed Sound and Direct Coupled 8Ω Applications
- All ¼"-20 Hardware Inserts Allow Easy Integration of "Off-The-Shelf" Security Hardware
- OMNIMOUNT™ 30 Series Compatible
- Available in Black or White
- Five-Year Warranty

### Applications

Use Atlas Sound Surface Mount loudspeaker systems for commercial, professional, and residential applications or where high-fidelity sound and weather-resistance are desired. Full-range frequency response makes these systems ideal for indoor and outdoor installation, in monaural and stereo foreground or background music systems, and for applications in boutiques / shops, restaurants / cafes, leisure, recreation / sports centers, and houses of worship. Multi-position, C-shaped mounting bracket and rugged construction provide optimum installation flexibility and assurance of long-term service.

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1601 JACK MCKAY BLVD. ENNIS, TEXAS 75119 U.S.A.  
TELEPHONE: (800) 876-3333  
FAX: (800) 765-3435

AtlasSound.com

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## General Description

Environment-resistant SM Series loudspeaker systems offer quality sound reproduction and contemporary styling in a compact enclosure. System components consist of a highly efficient woofer section and FerroFluid cooled, titanium dome high frequency device. Vocal and musical clarity are optimized by the mathematically conceived, advanced design of the Atlas Sound TRX Control WaveGuide™ high frequency director. This design provides smooth, even sound coverage (65°H x 65°V). The high frequency section is symmetrical, for equal coverage in both vertical and horizontal cabinet mounting positions. The Atlas Sound PolyGuard™ protection circuit provides high frequency component protection. To withstand the harshest environments, the Strategy Series SM82T surface mount loudspeakers are constructed of weather resistant materials: UV-resistant, talc impregnated, polypropylene injection molded cabinets, HYCONE Treated Paper woofer cones; powder coated aluminum grilles and all brass hardware. The Strategy Series speaker systems include a versatile, yet simple, C-bracket designed to provide easy vertical or horizontal installation on just about any surface. A 1/4"-27 threaded hole is provided on the C-bracket to allow the SM82T speaker to be mounted on any Atlas Sound microphone stand for near-field live sound applications. Four, 4/4" x 2" OC brass inserts are also provided on the rear of the SM82T to accommodate OMNIMOUNT™ 30 series brackets. (Model 30.0 WB recommended for wall mounting)

All inserts for mounting knobs are standard 1/4"-20 to allow easy substitution of off-the-shelf vandal-proof torx head or "one-way" hardware. Input connectors include a two pole barrier strip with wire capture "caps" capable of accepting up to two #16AWG cables. 0.94, 1.9, 3.7, 7.5, 15, 30 and 60 watt taps, plus a transformer bypass setting for direct coupled 8Ω operation are screwdriver selectable via a sealed switch located near the input section on the rear of the cabinet. A tongue-in-groove cover with rubber wire exit grommet is provided to protect the input connections and transformer switch assembly from moisture. Systems are available in black or white and may be painted to accommodate any architectural considerations.

## Installation Considerations:

Care should be taken to ensure that the chosen mounting surface is strong enough to support the SM82T. Under eave installation is recommended to ensure that the SM82T is not exposed to direct precipitation.

## Architect & Engineer Specifications

The indoor / outdoor loudspeaker system shall be Atlas Sound Model SM82T\_\_\_\_(-B or -WH) or approved equal. Assemblies shall consist of a 2-way woofer and tweeter, within environment-resistant housings constructed of paintable UV-resistant, talc impregnated, polypropylene, injection molded plastic finished in black (SM82T-B) or white (SM82T-WH). Each unit shall include a stamped, powder coated aluminum grille and removable C-shaped mounting bracket. All hardware inserts shall be brass and threaded 1/4"-20. The 150 Watt RMS system shall have a 8" (133mm) HYCONE™ treated woofer and a 1" exit compression type tweeter. The dividing network crossover frequency shall be 2.5 kHz. The dividing network shall include protection circuits for the high-frequency component. Each unit shall include an internally mounted 60 watt 70.7/100V line matching transformer for use in distributed sound applications wattage taps and be screwdriver selectable via a sealed switch located near the input section. Wattage taps shall be 0.94, 1.9, 3.7, 7.5, 15, 30, 60 @ 70.7V plus transformer bypass setting for direct coupled 8-ohm operation. The loudspeaker system shall meet the following performance criteria: Power handling, 150 Watts RMS, Frequency response, 65Hz – 20kHz (±3dB); Sensitivity, 92dB SPL at one watt, 100Hz to 10kHz measured at a distance of one meter on axis. Input connectors shall include a two-pole barrier strip capable of accepting up to two #14AWG cable. A tongue-in-groove cover with rubber wire exit grommet shall be provided to protect the input connectors.

The loudspeaker system shall exhibit no performance or cosmetic degradation after a 100 hour salt spray test per ASTM B117.

The unit shall be 16 1/2" high x 9 1/8" wide x 8 1/8" deep.



SM82T-B

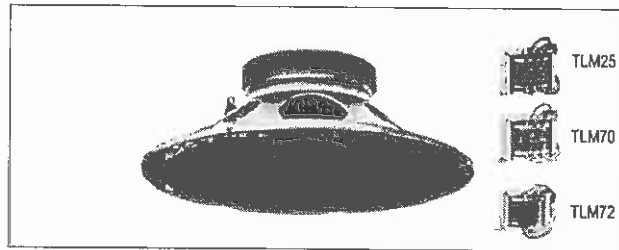


1601 JACK MCKAY BLVD. ENNIS, TEXAS 75119 U.S.A.  
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FAX: (800) 765-3435



#### Quality Features

- Assemblies include a dual cone 8" speaker with a wired 25V, 70V or 25/70V transformer, choice of four grilles, and optional volume control for on-site level adjustment.
- Attractive grilles are offered in steel or aluminum with screw or torsion mount installation (as noted).
- Ships wired and ready for efficient installation.
- Companion backboxes and mounting accessories are itemized below with details on page 2 for easy selection.
- See also R Pak Series convenient boxed system pairs with (2) R1810-72 + (2) 8XD4 + (2) LBS8-R1.

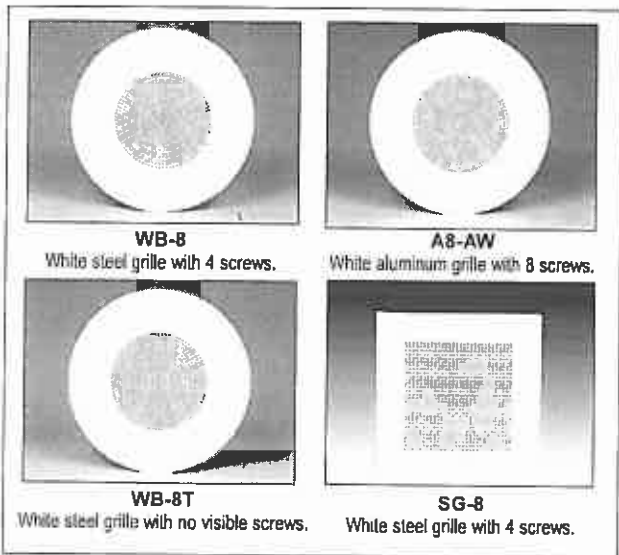


15 Watt Dual Cone Speaker Assembly with transformer (arrives factory mounted to one of four grilles below)

#### Description

Lowell's R Series 15W speaker assemblies are an excellent choice for quality general purpose paging and distributed music applications where economy and installed costs are prime considerations. The R Series 15W assemblies are comprised of a factory assembled 8" dual cone driver (Model 810) with a wired 25V, 70V, or dual voltage transformer, four choices of mounted grille, and optional volume control feature (where noted) with knob style or screwdriver adjustment in the center of the grille.

Speaker / transformer assemblies are manufactured to assure consistent performance with clear intelligibility and wide dispersion. The dual cone Model 810 driver has a power rating of 15 watts RMS and employs a 10 oz. ceramic magnet. The cone is molded of a high fibre content material to provide a smooth, extended frequency response and a clean, natural sound. To facilitate a variety of distributed applications each assembly includes a wired 25V or 70V transformer with .25, .5, 1, 2, and 4 watt taps; or a dual voltage 25/70V transformer with .5, 1, 2, and 4 watt taps.



Grille Selection for R Series Assemblies

(continued on page 2)

Driver Specifications										
Driver Model	Size	Power Rating	Type	Ceramic Magnet	Frequency Response	Dispersion	Voice Coil Impedance	Sensitivity 1W / 1M	Depth (w/o xfmr)	Weight (w/o xfmr)
810	8"	15W	Dual cone	10 oz.	45Hz - 13kHz ±6dB 45Hz - 18kHz Nominal	120° @ 2000Hz -6dB	8 Ohms	95dB Avg. 100dB Peak	2.84"	2.0 lbs.

Easy-Order Factory Assemblies										
Model	Model (with volume control knob)	Model (with volume control screw)	Driver Model	Xfmr Model	Xfmr Taps	Grille Model	Backbox*	+	T-Bridge or Rails	
R1810-70	R1810-70K	R1810-70S	810	TLM70 (70V)	4, 2, 1, .5, .25W	WB-8				
R1810-25	R1810-25K	R1810-25S	810	TLM25 (25V)	4, 2, 1, .5, .25W	WB-8	CP8 Series, DX58, DX108	CP8 Series, DX58, DX108	SS24 Rails	
R1810-72	R1810-72K	R1810-72S	810	TLM72 (70/25V)	4, 2, 1, .5W	WB-8	XCP8 Series, 8XD4, 8SPSBX	XCP8 Series, 8XD4, 8SPSBX	LBS8 or LBS8-R1	
R3810-70	R3810-70K	R3810-70S	810	TLM70 (70V)	4, 2, 1, .5, .25W	A8-AW	RF Series (blind mount)	RF Series (blind mount)	None required	
R3810-25	R3810-25K	R3810-25S	810	TLM25 (25V)	4, 2, 1, .5, .25W	A8-AW	No Backbox Desired	No Backbox Desired	LBS8 or LBS8-R1	
R3810-72	R3810-72K	R3810-72S	810	TLM72 (70/25V)	4, 2, 1, .5W	A8-AW				
R7810-70	-	-	810	TLM70 (70V)	4, 2, 1, .5, .25W	SG-8	P68 Series	P68 Series	SS24 Rails	
R7810-25	-	-	810	TLM25 (25V)	4, 2, 1, .5, .25W	SG-8	CB84-SG (surface mount)	CB84-SG (surface mount)	None required	
R7810-72	-	-	810	TLM72 (70/25V)	4, 2, 1, .5W	SG-8				
RT1810-70	-	-	810	TLM70 (70V)	4, 2, 1, .5, .25W	WB-8T	XC8P Series	XC8P Series	LBS8-R1	
RT1810-25	-	-	810	TLM25 (25V)	4, 2, 1, .5, .25W	WB-8T	RF Series (blind mount)	RF Series (blind mount)	None required	
RT1810-72	-	-	810	TLM72 (70/25V)	4, 2, 1, .5W	WB-8T				

\*For applications that do not require backbox protection, a mounting ring may be an alternate accessory. Assemblies with grille model WB-8 or A8-AW will accept mounting ring Model PR8, PR8-1624 or RMP8, grille Model SG-8 will not accept a mounting ring; grille Model WB-8T may be used with mounting ring Model PR8-T, XPR8-T or XPR8-1624T. Refer to the Lowell catalog for mounting ring specifications.



## R Series (15W)

### 8" Dual Cone Speaker Assemblies with Xfmr, Grille and Opt'l V.C.

AUDIO

12"/10"  
Speakers &  
Accessories

8"  
Speakers &  
Accessories

6"  
Speakers &  
Accessories

4"  
Speakers &  
Accessories

Horn  
Speakers &  
Accessories

Masking  
Speakers &  
Generators

Control  
Accessories  
& Electronics

Systems

### Description (continued)

**Architectural grilles** are precision-formed in a choice of steel or aluminum with an attractive white finish to assure a clean presentation of the speaker assembly in a variety of decors and environmental applications. Grilles include white mounting screws (Models WB-8, A8-AW, SG-8) or torsion springs (Model WB-8T) for attractive installation.

**Volume Control Option** for on-the-spot speaker level control is available factory mounted in the center of the grille. Choose knob-adjust style (Models with K suffix) or screw-driver-adjust style (Models with S suffix).

**Companion backboxes and accessories** for Lowell R Series speakers are itemized on pages 1 and 2 to facilitate installation in a variety of applications. Selection includes recessed protective and acoustic backboxes with companion tile bridge or channel rail options (if required for suspended installation) and a surface mount backbox (see chart below). Companion accessories are ordered separately.

### A & E Specifications

The 8 inch speaker assembly shall be Lowell R Series 15W Model \_\_\_\_\_. It shall include an 8" dual cone driver with wired transformer, mounted grille, and optional volume control.

The speaker shall have a 15 watt RMS power rating. It shall employ a 10 oz. ceramic magnet and a molded high fibre cone. Frequency response shall be 45Hz-13kHz+6dB with a sensitivity of 95dB Avg. (100dB Peak) measured 1W/1M.

The transformer shall be a factory wired \_\_\_\_\_ 25V, 70V, or 25/70V unit and shall have primary taps available at \_\_\_\_\_ (.25, .5, 1, 2, 4 watts) or (.5, 1, 2, 4 watts). The grille shall be factory mounted to the speaker and shall be manufactured of \_\_\_\_\_ (steel, aluminum) and finished in white. Models with volume control have a \_\_\_\_\_ (knob or screw) in the center of the grille for volume adjustment.

Optional mounting accessories include Lowell backbox Model \_\_\_\_\_ or mounting ring Model \_\_\_\_\_. For suspended ceiling installations, Lowell tile bridge Model \_\_\_\_\_ or channel rail (pr.) Model \_\_\_\_\_ shall be used to transfer the speaker assembly weight to the ceiling's support structure.

### Companion Accessories for R Series (order separately)

Lowell offers a wide selection of backboxes for efficient installation of R Series speaker assemblies into a variety of ceiling types. Please refer to the chart on page 1 to identify the backbox and/or tile bridge combination choices for each speaker assembly (determined by the assembly grille). T-bridges and channel rails are also offered to distribute the speaker assembly weight in suspended ceiling installations.



#### Accessory Backbox\* Details for R Series Assemblies

Model	Size	Features	Options (suffix model)
CP84	11.938" Dia. x 4.063"D	Extended lip for sheetrock	—
CP87	11.938" Dia. x 6.687"D	Extended lip for sheetrock + batting	—
CP810	11.938" Dia. x 10.063"D	Extended lip for sheetrock + batting	—
DX58	11.938" Dia. x 11.938"D	0.5 cu.ft., extended lip + batting	—
DX108	15" Dia. x 10.125"D	1 cu.ft., extended lip + batting	—
RF841	10.063" Dia. x 4.063"D	Retrofit w tension brkt. + torsion	—
RF871	10.063" Dia. x 6.688"D	Retrofit w tension brkt. + torsion	—
XCP84	10.063" Dia. x 4.063"D	Flat flange for tile ceiling	-S (straps)
XCP87	10.063" Dia. x 6.687"D	Flat flange for tile ceiling + batting	-S (straps)
XCP810	10.063" Dia. x 10.063"D	Flat flange for tile ceiling + batting	-S (straps)
8PSBX	10" Dia. x 4"D	Plastic, stacks for warehousing	—
8XD4	10" Dia. x 4"D	Steel, stacks for warehousing	-P (plenum), -S (straps)
P68X	10" Sq. x 4"D	Standard	—
P68X-6	10" Sq. x 6"D	Extra depth	—
P68X-10	10" Sq. x 10"D	Extra depth	—
CB84-SG	11.5" Sq. x 4"D	Surface, White	—

#### Accessory T-Bridge and Channel Rail Details for C Series Assemblies

LBS8-CP	23.75" L Round opening for CP Series and DX108 backboxes only
LBS8	23.75" L Square opening with screw or Twist n' Lock grille mounting
LBS8-R1	23.75" L Round opening with screw or Twist n' Lock grille mounting
SS-24	23.75" L Channel rails (pair)

\* For applications that do not require backbox protection, a mounting ring may be an alternate accessory. Assemblies with grille model WB-8 or A8-AW will accept mounting ring Model PR8, PR8-1624 or RMP8; grille Model SG-8 will not accept a mounting ring; grille Model WB-8T may be used with mounting ring Model PR8-T, XPR8-T or XPR8-1624T. Refer to the Lowell catalog for mounting ring specifications.

Lowell Manufacturing Company • 100 Integram Drive • Pacific, Missouri 63069 U.S.A.  
Call 800.325.9660, 636.257.3400 • Fax 636.257.6606 • Click [www.lowellmfg.com](http://www.lowellmfg.com)

Lowell makes every effort to provide accurate information and reserves the right to change specifications and/or improve manufacturing methods.  
Download and print this spec from [www.lowellmfg.com](http://www.lowellmfg.com) to insure that you have the most current information

2a-102  
pg 2 of 2





## CSM14

Backed by the combined technological prowess of multiple HARMAN brands, the JBL® Commercial Series Mixers (CSM) deliver unsurpassed quality in commercial sound.

Easily configured for a range of applications, such as background music, security, and paging, CSM units are designed for everything from schools and hospitals to restaurants and fitness facilities.

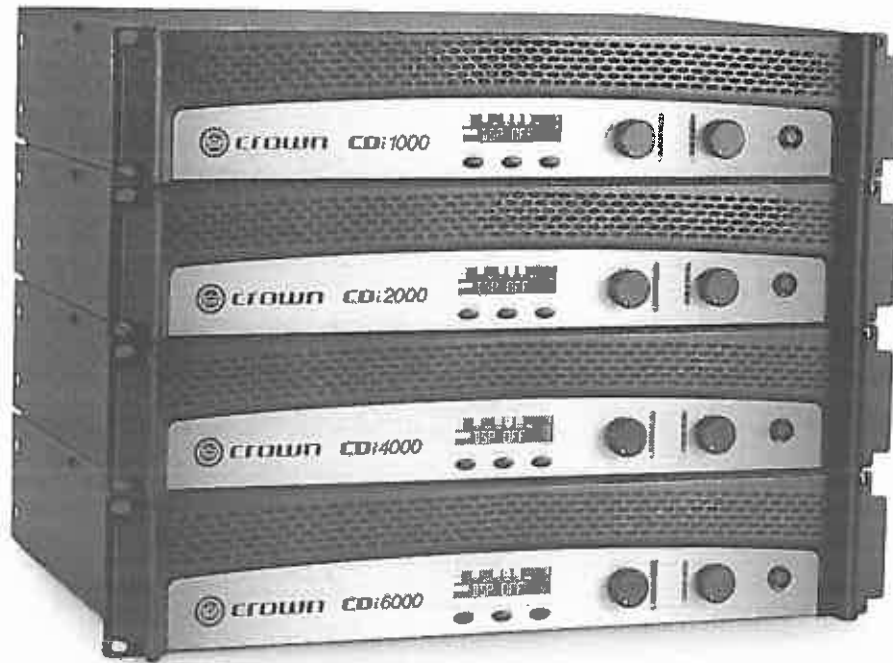
They feature RJ45 connectors for use with JBLCSR-V in-wall volume controls, and a universal power supply that accepts AC voltages from 100 to 240 VAC, 50/60 Hz. Plus, they're built using HARMAN's GreenEdge™ clean standards to offer numerous energy-efficient benefits, including a lighter weight, space-saving design, and conforming to RoHS standards.

### Features

- 4 or 8 inputs with 1 or 2 channel outputs
- Fanless, space-saving 1U design
- Configurable output routing (2 channel models only)
- Independent base/treble controls
- Euro-block type mic/line input and output connectors, and unbalanced RCA inputs for consumer connection
- Supports JBL CSR-V wall controller via Ethernet cable
- Priority muting, VOX ducking, and phantom power for all models

### Specifications

Inputs	4
Output Channels	1
Input Sensitivity (Mic)	3mVrms
Input Sensitivity (Line)	775mVrms
Input Sensitivity (RCA)	300mVrms
Phantom Power	27VDC
Priority Muting	✓
Configurable Output Routing	No
AC Line Voltage	100 - 240V, 50/60 Hz
Dimensions	1.7" x 8.6" x 11.9" (43.3mm x 218.5 mm x 303.4mm)



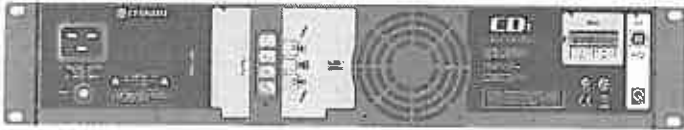
## Features

- Accurate, uncolored sound with very low distortion for the best in music and voice reproduction
- Extremely versatile; rated for 2 $\Omega$ , 4 $\Omega$ , 8 $\Omega$  loads and 70Vrms/100Vrms and 140Vrms outputs
- Advanced protection circuitry guards against: shorted outputs, open circuits, DC, mismatched loads, general overheating, high-frequency overloads and internal faults
- Intuitive front-panel LCD screen for quick, easy configuration
- Switch-mode universal power supply
- Onboard digital signal processing (DSP) includes crossovers, EQ filters, delay, and output limiting
- Up to 20 user-defined DSP presets are available

# CDi Series



CDi 1000, 2000, 4000



CDi 4000

## Power Matrix


Model	Channels	Dual (per ch)				Bridge		
		2Ω	4Ω	8Ω	70Vrms	4Ω	8Ω	140Vrms
1000	2	100W	30W	7.5W	100V	100W	100V	100V
2000	2	200W	60W	15W	200V	200W	200V	200V
4000	2	400W	120W	30W	400V	400W	400V	400V
4000	4	300W	90W	22.5W	200V	600W	110V	300V

Performance Specifications	1000	2000	4000	4000
Maximum per channel power at 4Ω	100W	200W	400W	300W
Rated power (continuous) per Channel at 4Ω	30W/75W	60W/150W	120W/300W	90W/225W
Signal to Noise Ratio (with rated 10Hz power on 2Ω) (measured 1kHz power at 80% amplitude)	75dB	74dB	72dB	73dB
Total Harmonic Distortion (THD)	<0.05%	<0.05%	<0.05%	<0.05%
Crosspoint Filter (20Hz to 40kHz)	12	12	24	24
Frequency Response (at 1W, 100Hz to 20kHz)	0.01dB	0.01dB	0.01dB	0.01dB
Electrostatically shielded power 20Hz to 20kHz	>100	>100	>100	>100
Input Impedance (per channel)	16kΩ (balanced), 8kΩ (unbalanced)	16kΩ (balanced), 8kΩ (unbalanced)	16kΩ (balanced), 8kΩ (unbalanced)	16kΩ (balanced), 8kΩ (unbalanced)

## Physical Specifications

Width	17.5" (443mm)	17.5" (443mm)	17.5" (443mm)	17.5" (443mm)
Height	1.75" (44mm)	1.75" (44mm)	1.75" (44mm)	1.75" (44mm)
Depth	17.5" (443mm)	17.5" (443mm)	17.5" (443mm)	17.5" (443mm)
Weight	2.5 lbs (1.1kg)	2.5 lbs (1.1kg)	2.5 lbs (1.1kg)	2.5 lbs (1.1kg)

Specifications are subject to change without notice. Latest information available at [www.crownaudio.com](http://www.crownaudio.com). Crown offers a three-year, no-deductible, non-transferable warranty for every new Crown amplifier. It is an industry and, by standard, with the most assured, no-fault protection you can buy. We warrant it will perform to meet or exceed range of specifications for the three-year warranty period. During this time, if your amplifier fails or does not perform to original specifications, it will be repaired or replaced at our expense. In most cases, the only things not covered by this warranty are the license (if any) covered by separate and those caused by intentional abuse. Please refer to the coverage transferable should you sell your amplifier. See your authorized Crown dealer for full warranty disclosure and details. For stations outside of the USA, please contact your authorized Crown distributor for warranty information or call 1-800-244-8201. © 2015 Crown Audio, Inc.

 <b>MOTOROLA</b>	
Date	February 1, 2017
Prepared For:	Chief Dan Phillips
Entity	Plymouth Township Police Department 9955 Haggerty Rd. Plymouth, MI 48170
Phone	734-354-3220      dphillips@plymouthtp.org

**FIRE STATION # 2 RADIO SYSTEM**

Equipment Details and Pricing

<u>Item</u>	<u>Qty</u>	<u>Model</u>	<u>Description</u>	<u>Unit Price</u>	<u>Total Price</u>
<b>APX7500 CONSOLETTTE</b>					
1	1	L30URS9PW1 N	APX7500 SINGLE BAND 7/800	\$ 3,284.25	\$ 3,284.25
1A	1	GA00308	ADD: VHF MP SECONDARY BAND	\$ 300.00	\$ 300.00
1B	1	QA00579	ADD: ENABLE DUAL BAND OPERATION	\$ 750.00	\$ 750.00
1C	1	G806	ENH: ASTRO DIGITAL CAI OP APX	\$ 386.25	\$ 386.25
1D	1	G51	ENH: SMARTZONE OPERATION APX	\$ 1,125.00	\$ 1,125.00
1E	1	QA01749	ADD: ADVANCED SYSTEM KEY - SOFTWARE KEY	\$ -	\$ -
1F	1	G361	ADD: P25 TRUNKING SOFTWARE	\$ 225.00	\$ 225.00
1G	1	W969	ADD: MULTIPLE KEY ENCRYPTION OPERATION	\$ 247.50	\$ 247.50
1H	1	L999	ADD: FULL FP W/05/KEYPAD/CLOCK/VU	\$ 591.74	\$ 591.74
1I	1	CA01598	ADD: AC LINE CORD US	\$ -	\$ -
1J	1	G799	ADD: PRINTED TEST RESULTS APEX	\$ 7.50	\$ 7.50
1K	1	G90	ADD: NO MICROPHONE NEEDED	\$ -	\$ -
1L	1	G78	ADD: 3 YEAR SERVICE FROM THE START LITE	\$ 158.00	\$ 158.00
<b>APX7500 CONSOLETTTE SUB TOTAL</b>				<b>\$ 7,075.24</b>	<b>\$ 7,075.24</b>
<b>MCD 5000 DESK SET SYSTEM</b>					
3	3	F2380	MCD 5000 DESKSET	\$ 1,350.00	\$ 4,050.00
4	1	F7979	MCD 5000 DESKSET RADIO GATEWAY UNIT	\$ 1,350.00	\$ 1,350.00
5	2	B1943	MCD 5000 LICENSING	\$ -	\$ -
6	1	FVN5847	MCD 5000 DESKSET SYSTEM CONFIG TOOL	\$ 250.00	\$ 250.00
7	4	FKN8695	ETHERNET CABLE 10' WITH RED & BLACK LABELS	\$ 27.50	\$ 110.00

Ed Horvath  
 ComSource Inc  
 41271 Concept Dr.  
 Plymouth, MI 48170  
 313-218-3450 Cell  
 734-459-0769 Fax

8	4	FHN7469	MCD 5000 DESKSET / RGU POWER SUPPLY	\$ 90.00	\$ 360.00
9	3	FKN8697	CABLE - MCD 5000 DESKSET TO VIP	\$ 36.00	\$ 108.00
10	1	FHN7394	WALL MOUNT KIT	\$ 12.00	\$ 12.00
11	1	SVC03SVC0104D	INSTALLATION	\$ 4,000.00	\$ 4,000.00
<b>MCD5000 DESK SET SYSTEM SUB TOTAL</b>					<b>\$ 10,240.00</b>
<b>Total Equipment</b>					<b>\$ 17,315.24</b>

1. Quotes are exclusive of installation and programming charges unless expressly stated therein.
2. Prices quoted are exclusive of all applicable Federal Excise Taxes, State Sales and Use Taxes.
3. Freight will be added to final invoice
4. Prices are valid For 30 Days.
5. Standard Equipment Warranty Applies.
6. Standard Terms are: Net 30 Days from date of shipment.
7. A User agreement will need to signed with the MPSCS.
8. Shipment is approximately 2-4 weeks from receipt of order.
9. Prices are based on State of Michigan Contract # 071B2200101
10. The purchase order will need to provide payment terms (Net 30), shipping address and made payable to Motorola Soultuions, Inc., 1301 E. Algonquin Rd., Schaumburg, IL 60196



## CHARTER TOWNSHIP OF PLYMOUTH REQUEST FOR BOARD ACTION

**MEETING DATE:** TBD

**ITEM:** Hire 3 Firefighters and Bring the Department Staff up to 21 Full Time Firefighters.

**PRESENTER:** Chief Daniel Phillips

**BACKGROUND:** Fire Station #2 was closed down in March of 2012. This has led to an increase in response times. This proposal is designed to increase staff so we can reopen the closed fire station and provide the same level of service to the entire community.

**ACTION REQUESTED:** Authorize the Supervisor to hire 3 Full Time Firefighters from the list established by the Civil Service Commission of eligible candidates.

**BUDGET/ACCOUNT NUMBER:** Transfer \$126,189.00 from GL 101-336-708 Part Time Firefighters to GL 101-336-706 Non-Supervisory Employees.

**RECOMMENDATION:** Approval

**MODEL RESOLUTION:** I move to authorize the supervisor to hire three additional firefighters for the purpose of reopening Fire Station #2 on Wilcox Rd.

**ATTACHMENTS:** None

PURCHASE OF HAND  
HELD RADIOS FOR  
STAFF AT FIRE STATION  
#2.

MORE INFORMATION  
TO FOLLOW AT STUDY  
SESSION.

Chief Phillips

**BOARD OF TRUSTEES STUDY SESSION**

**MAY 2, 2017**

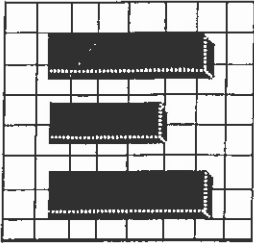
**ITEM E**

**JOINT RECREATION**

**MASTER PLAN SURVEY**

**SUPERVISOR HEISE**





## EPIC ▪ MRA

4710 W. Saginaw Highway  
Suite 2C  
Lansing, MI 48917  
517-886-0860  
800-545-8249  
F: 517-886-9176  
E: [kelly@epicmra.com](mailto:kelly@epicmra.com)  
W: [www.epicmra.com](http://www.epicmra.com)

April 3, 2017

Steve Anderson, Recreation Director  
City of Plymouth  
525 Farmer  
Plymouth, MI 48170

Dear Mr. Anderson:

Thank you for your recent inquiry about our company and your request for further detail in regard to our survey research services. For well over two decades, municipalities such as the City of Plymouth have been using our firm's research services to assist in charting overall policy direction, as well as to give guidance for strategic planning, budgeting priorities, and public outreach and education efforts. Our constituent contact databases have also been widely used by clients to help advance their objectives as a proven effective and efficient means to communicate information gleaned from the research to the general public; whether simply educational in nature, or to communicate directly to and target voters in the event of an election issue.

### **SURVEY RESEARCH:**

As understood at this juncture, the City of Plymouth may wish to pursue a joint venture with Plymouth Township to provide Parks and Recreation services to both communities, and commission a survey of residents to test support for such a venture. Obviously, this broad understanding of the City's general interest would require further refinement in order to create a useful survey instrument. If we are fortunate enough to be selected to assist with this objective, the process would begin by conferring with the representatives of the City of Plymouth and, if desired, Plymouth Township, to define more precisely the desired lines of inquiry, and formulate specific questions that will address the topics of importance and generate data that would be used to guide and inform the City and Township.

From this dialogue, which is often the most time consuming aspect of the process, an initial draft of a survey instrument is presented for review and comment, with this review and re-draft process continuing until a questionnaire that is satisfactory to all parties is developed. Typically, this phase consumes the lion's share of what is normally a *six-to-eight week* timeline for completion of the research; from initial consultation through presentation of a final report with recommendations.

- Educational
- Political
- Industrial
- Consumer
  
- Market
- Research
- Analysis

Presentation of the draft questionnaire would include an estimate of the average interview length. As can be seen from the price chart that follows, interview length is one primary factor in determining the overall price of the research. Sample size, or the number of interviews to be administered, is the other main variable that determines survey's cost.

The number of samples selected for completion is dependent on a number of factors, chief among them being the overall size of the potential respondent pool, as well as the Client's need to analyze population subsets (e.g. park and recreation users vs. non-users, respondents by age group, respondents by income range, parents of school-age children, registered voters, etc.) within the overall sample. EPIC • MRA maintains an in-house file of published telephone numbers, and also maintains the latest update of the Secretary of State's qualified voter file and Bureau of the Census information. For example; if the survey is to be conducted among registered voters only, then the telephone file is matched against that portion of the voter file containing addresses denominated as being within the district's jurisdiction. From this resulting matched file, numbers are randomly pulled in a manner that ensures proper stratification (i.e. proportional to governmental subunit-based on voter turnout) across the subject jurisdiction. Similarly, if the survey is to be conducted of the general public, a similar method of stratification would be used based on the respective populations of the City of Plymouth and Plymouth Township.

With the increased incidence of exclusive use of non-landline devices, practitioners in the industry continue to explore ways to ensure that all segments of the subject population are appropriately represented in the sample. For the past several years, EPIC • MRA has acquired cell phone number lists and successfully incorporated cell phone-only users in all of its surveys. As standard practice, EPIC • MRA augments its land-line sample by completing *a minimum of 20 percent, and up to 30 percent*, of the sampling with cell phone only-users, without a concomitant increase in the end service price. This helps to ensure that the entire population, especially those in the younger age categories, are sufficiently sampled and represented in the overall survey results.

An initial review of the City of Plymouth reveals a resident population of approximately 9,000, and a resident population of approximately 29,000 in Plymouth Township. Experience indicates these respective totals will comfortably support a 300 sample survey, but extending the sampling beyond that would not be cost efficient. Our recommended stratification would be: completing 75 interviews from the City of Plymouth (a margin of error of  $\pm 11.25\%$  for the City segment), completing 225 interviews from Plymouth Township (a margin of error of  $\pm 6.5\%$  for the Township segment) and offering an "overall" margin of error of  $\pm 5.7\%$ . This stratification maintains the nearly 3:1 population ratio found between the two jurisdictions. Regarding the City, the desire for a lower margin of error outweighs the potential cost, and EPIC • MRA would recommend an oversample of 25 additional interviews be taken from the City of Plymouth, which would decrease the margin of error to  $\pm 9.8\%$ , and bring the total sample size to 100.

Once collaboration on creating a satisfactory survey instrument and sampling frame is complete, we set about conducting the interviews. Typically, the interview administration for a 15-minute, 300-sample survey will take three to five days to complete; after which the data set is ready for application of aggregation and tallying software. The resulting compiled data are referred to as tabular reports and consist of:

Frequency results - the percentage of all respondents saying "yes, no, undecided, or don't know/refused" to the survey questions (presented in the form of a filled-in questionnaire);

and,

Cross tabulation tables - the tabulation of responses to individual questions by segment; that is, demographic subgroups: such as proclivity to vote, gender, age, parent status, etc.

The frequency results are useful in gauging overall reaction to specific questions posed, and for garnering a notion of what the attitudes of the population as a whole might be. The cross tabulation tables are beneficial (presuming the subset being analyzed is sufficiently large) in getting a handle on how particular segments of the population (e.g. frequent ballot issue voters v. infrequent ballot issue voters) react to a question in comparison to the entire sample.

The comparison of frequencies with crosstabs is useful in analyzing the respective attitudes of subgroups toward the topics being measured, as well as gauging popular acceptance for particular proposals, policy changes, or other measures that are potentially controversial. Moreover, if the survey includes a message-test battery, (a portion of the survey wherein "Pro/Con" statements precede the substantive "Support/Oppose" question) the Client has the opportunity to preview what arguments - both supporting and opposing - are most resonant among the entire population, as well as within specific subgroups. In this way, policy makers are able to put the best foot forward when formulating or advancing an idea or initiative.

With the foregoing given as a brief background primer, the following chart illustrates prices for the live-operator, telephone survey research services:

	<b>300 Samples</b> (±5.7% margin of error) w/25 "Oversamples"
Up to 12-Minutes	\$14,250.00
Up to 15-Minutes	\$16,750.00

The quoted prices are for all survey-related services, including:

- The professional fee for one on-site pre-survey client consultation
- Ongoing consultation to finalize the survey instrument
- Telephone sample draw
- Interview administration and supervision
- Data entry of results and coding of open-ended questions
- Frequency and cross-tabulation tables
- Textual executive summary
- One on-site oral presentation of results

**PLEASE NOTE:** The prices quoted also include an electronic voter contact database, which includes the name and address of the district's registered voters, along with other designations; such as individual vote history and absentee-voter status. Such a database is also available for purchase as a stand-alone product if survey research services are NOT commissioned.

The on-site oral presentation would include, if desired, a slide show illustrating survey findings, and we would also make ourselves available for a Q&A session afterward if deemed appropriate. Often, such a presentation is requested by the client to be held during a regularly scheduled Board meeting, and goes a long way to justify the expenditure of taxpayer dollars on survey research services.

#### **FOCUS GROUPS:**

In addition to the more "quantitative" approach of a telephone survey, EPIC • MRA frequently conducts more "qualitative" research by way of Focus Groups. Focus Groups often allow a more in-depth analysis of topics, conducted among a small group of participants, which allows the client to drill-down more deeply on desired lines of inquiry.

Most focus group sessions will ideally have from 8 to 12 participants who are guided through a 90-minute discussion of pre-selected topics and issues. Recruiting of the participants is akin to conducting oversamples of a survey in that specific demographic criteria are developed and individuals fitting those criteria are solicited. At the conclusion of the session, monetary incentive payments are issued, and the participants return home.

Upon conclusion of a session, or series of sessions probing the same topic, a written report is drafted. These reports seek to distill the individual participants' comments on the variety of discrete topics discussed. In addition, the session's Audio/Visual recordings allow the use of selected verbatim comments to highlight particular points.

EPIC • MRA maintains a wonderful, on-going working relationship with Cypher Research - located in Canton, MI – a professional, stand-alone Focus Group research facility that would be used in the event that Focus Groups are desired by the client.

General pricing parameters for Focus Group research services are as follows:

TASK	DESCRIPTION	PRICE
Secure facilities	Includes: reserving site, providing A/V recording and DVD/Flash Drive copies to the client, attending to food and beverages for participants and guests, and associated logistical details.	\$ 1,000
Recruit participants	Call center hours expended to fill groups and data entry.	\$33.00 per hour
Administration	Includes: script writing; attendance at sessions and travel; distribution of stipends; oversight of recruitment; confirmation letters and phone call follow-ups to all recruits; telephone sample draw; amendment and incorporation into recruitment protocols; ongoing consultation with concerned parties.	\$750
Moderation	Includes: all travel expenses, moderator's guide script writing, moderating the Focus Group, analysis and written report of the Groups' findings.	\$1,500 - \$2,000 <i>(depending on # of groups commissioned)</i>
Stipends	Recommended stipends for 10 participants per group (recruiting 12 to 15; for 10 to 12 to show).	\$100 per recruit

*Please note: For Focus Groups, two thirds of the total final estimate is generally required as an initial installment due prior to the sessions, with the final installment for the work totaling either a greater or lesser amount for the balance based on actual call center hours expended during recruitment, offset by the difference of unissued stipends due to no-shows, if any.*

It is hoped that the foregoing is helpful in your deliberations. Of course, if you would like to discuss this proposal in further detail, please do not hesitate to contact me. In addition, a detailed list of references can be provided at your request.

Thank you for the opportunity to offer our firm's services.

Yours truly,

Kelly Sullivan  
EPIC-MRA

# **BOARD OF TRUSTEES STUDY SESSION**

**MAY 2, 2017**

## **ITEM F**

**NEW PURCHASING AND**

**CREDIT CARD POLICIES**

**SUPERVISOR HEISE**

## CHARTER TOWNSHIP OF PLYMOUTH PURCHASING POLICY

ADOPTED BY THE BOARD OF TRUSTEES, \_\_\_\_\_ 2017

It is the Policy of the Charter Township of Plymouth to maintain and practice the highest possible standards of business ethics, professional courtesy, and competence in all purchases and business transactions. It is everyone's responsibility to purchase only those goods or services that are necessary for the business operations of the Township and its citizens, and that are of the highest quality for the lowest price. All employees, officers, and elected officials must also familiarize themselves and comply with the Township's Ethics Ordinance and all applicable State and Federal laws in the purchasing of goods and services for the township.

### 1. PURCHASING GOODS OR SERVICES

A. Purchase orders are required for all goods and services that will be paid for by the Township, with the following exceptions:

Travel Advances	Payroll
Board-Approved Contracts	Debt Payments
Emergency parts and Services*	District Court Costs
Subscriptions	Schools, Conferences, Seminars
Petty cash disbursements	Maintenance Contracts, licenses
Insurance	

Water meters and supplies for which costs are recaptured through tap-in fees.

*\* Emergency parts and services are defined as those that must be accomplished in order to insure the health, welfare and safety of Township employees and/or the public.*

B. All purchase orders require the appropriate signature authorization, based on the amount of the goods to be purchased, as outlined in this policy.

C. Goods and services shall not be purchased until a purchase order has been properly issued.

**2. PURCHASING ACTIVITY DEADLINES**

A. Year-end purchasing is restricted to the following schedule:

1. No capital outlay items may be purchased after November 30th of each year.
2. No purchases of any kind after December 15th of each year.

B. Notwithstanding item A above, purchases that must be made during these restricted times shall only be approved by the Township Supervisor or Board of Trustees, as is appropriate based on the purchase amount and approval authority outlined below.

**3. INFORMAL AND FORMAL BIDDING PROCEDURES**

<u>Purchase Amount</u>	<u>Procedure Required</u>	<u>Approval Authority</u>
\$1.00 to \$4999.99	Reasonableness	Department Director or Supervisor
\$5,000.00 to \$10,000.00	Informal Quote	Department Director or Supervisor
\$10,000.01 to \$19,999.99	Informal Bid	Township Supervisor
\$20,000.00 and greater	Formal Bid	Board of Trustees

In items A, B, and C below, each department and/or the Supervisor shall act in the best financial interests of the Township, and acquire goods and services that are of the highest quality for the lowest price. Vendors should be chosen who have the necessary experience, organization, competence, technical qualifications, skills and facilities, or the ability to obtain them, including appropriate subcontractor agreements. References, when available, should be pursued and taken into consideration whenever possible.

A. Expenditures Below \$5,000

Expenditures below \$5,000.00 are not subject to a bid process.

B. Informal Quotes

1. Informal quotes are verbal price quotes for requested items. For expenditures between \$5,000.00 and \$10,000.00 the Department Director or Supervisor shall obtain 3 quotes from vendors. These verbal quotes should be followed up in writing by letter or email.



C. Informal Bids

1. Any purchase between \$10,000.01 and \$19,999.99 shall be subject to an informal bid process. The Township Supervisor shall obtain 3 quotes from vendors. Informal Bids are defined as a written price for the items requested that was obtained without formal selection of vendors.

D. Formal Bids

1. Formal Bids shall be requested in all cases where the item or services are expected to cost \$20,000.00 or more.

2. The requesting Department shall provide the Township Supervisor all information that is reasonably necessary to develop the Formal Bid document. There shall be a minimum of two (2) weeks between any bid advertising and a bid opening. All requests for bids shall be forwarded to the Clerk's office by Wednesday of the week preceding the bid advertisement.

The requesting Department will prepare a memorandum to the Township Supervisor and Clerk requesting that formal bids be taken. This memorandum must contain the following information:

- a. Detailed specifications for the item requested;
- b. Proposed date for publication of the advertisement; the Clerk's Office shall be consulted before establishing the date and time.
- c. Proposed date and time of bid opening; the Clerk's Office shall be consulted before establishing the date and time.
- d. Amount of funds currently budgeted. If funds are not currently budgeted, the request shall be accompanied by either a proposed budget amendment which will provide adequate funding, or a detailed funding explanation.

3. All requests for bids shall contain within the body of the specifications the following provisions:

- a. All purchases are to be For Official Business of Plymouth Township only.
- b. The Township reserves the right to waive any and all irregularities or informalities contained herein, or to select any bid or proposal in whole or in part which is deemed to be in the Township's best interest.

c. Plymouth Township will not discriminate on the basis of race, color, national origin, gender, religion, age, or disability in employment or the delivery of services.

d. The time, date and location of the bid opening; the Clerk's Office shall be consulted before establishing the date and time.

e. The minimum bid hold period, in days, from the date of the bid opening. The minimum bid hold period shall not be less than (14) days.

f. All other requirements as may be mandated by state or federal law.

4. All bids must be received by the Township Clerk no later than the time indicated in the advertisement for bids. All bids will be time stamped by the Clerk or his/her designee at the time of receipt to ensure compliance with this provision.

5. All bids which arrive late shall be returned unopened to the respective bidder. All bids must be sealed when received. All bids which are unsealed prior to the formal bid opening will be noted as such and shall not be considered. Bids will be opened by the Clerk or his/her designee at the place and time prescribed in the advertisement and shall be open to the public. All bids will then be recorded by the Clerk, or his/her designee.

6. It will be the responsibility of the originating department to make copies of the bids, and return the originals to the Clerk's Office. The originating department must provide a spreadsheet to record bid receipts at the time of bid opening. The originating department will notify the prospective bidders when any Board action is expected.

#### E. Bid Awards

1. It will be the responsibility of the originating department to perform an analysis of the bid and prepare their recommendation to the Township Board. The recommendation will include any rationale used in determining the lowest responsible bidder, the total price including contingency, and any budget implications as a result of the project.

2. All contracts awarded as part of the bid procedure may be awarded to the lowest responsible bidder. The lowest responsible bidder is defined as the lowest bid that conforms to the specifications, and who is qualified by meeting the following standards as they relate to the contract being considered. The prospective bidder must demonstrate that they:

a. Have adequate financial resources to ensure performance, or the ability to obtain such resources as required during performance;

b. Have the necessary experience, organization, technical qualifications, skills and facilities, or the ability to obtain them, including appropriate subcontractor arrangements;

- c. Are able to comply with the proposed schedule for completion or delivery;
  - d. Are qualified and eligible to receive an award under all applicable laws, ordinances, and regulations.
  - e. Are able to comply with any requirements of the Township Attorney.
  - f. Contractors or vendors who have demonstrated unsatisfactory performance in prior contracts or similar work for the Township may be denied an award.
3. In the event two bids are deemed qualified, but the price differential between the two is within 2 to 3 percent, a preference may be given to a bidder whose facilities are located within Plymouth Township or the City of Plymouth.

F. Exemptions

1. Emergency

a. Bidding may be waived without regard to the amount of the purchase if the expenditure is deemed an emergency by the Supervisor and/or Department Director. An emergency is defined as an immediate threat to the public health, safety, or welfare occurring within a 48-hour period. Emergency expenditures should be limited to the immediate required corrective measures necessary to correct the emergency condition.

Whenever an emergency expenditure is made, the Township Supervisor will be notified in writing describing the nature of the emergency and the related purchase. This notification will be made no later than the next business day following the emergency purchase. If the expenditure exceeds \$20,000.00 the Supervisor must be consulted prior to the purchase, as well as either the Township Clerk or Treasurer.

2. Other Governmental Bid Programs

a. Purchases that are made through a recognized regional or state purchasing program that meets the Township's bidding requirements are deemed to meet the intent of this policy. Such programs include, but are not limited to; the State of Michigan, Wayne County, Oakland County, and Macomb County.

**4 PROFESSIONAL SERVICES**

A. 'Professional services' are defined as any procurement for services that require a certain high level of expertise, experience, training, education, and/or professional licensure. Examples include, but are not limited to; attorneys, auditors, civil engineers, accountants, surveyors, planners, researchers, writers, and consultants.

B. Professional services in an expected amount less than \$40,000.00 requires selection by the Department Director and/or Township Supervisor. The service agreement shall then be approved by the Township Board upon recommendation by the requesting Department Director and/or Supervisor.

C. When the cost of services is expected to exceed \$40,000.00, an advertisement in the local paper and/or any appropriate trade publications shall be placed, in addition to direct requests to known providers of the service. The proposals shall then be reviewed by the requesting department and/or Supervisor for recommendation to the Township Board. The service agreement shall then be approved by the Board upon recommendation by the requesting Department Director and/or Supervisor.

D. Nothing in this policy shall prohibit the Supervisor from extending, modifying, or amending an existing professional services contract if it is deemed in the best interests of the Township. Extensions, modifications, or amendments in an amount over \$10,000 must be approved by the Township Board.

E. The Township Supervisor shall provide for the re-bidding of all professional service contracts at least once every five (5) years unless otherwise stated in the specific service contract.

# **CREDIT CARD POLICY**

**CHARTER TOWNSHIP OF PLYMOUTH RESOLUTION**  
**RESOLUTION REGARDING THE USE OF CREDIT/DEBIT CARDS**

At a regular meeting of the Charter Township of Plymouth Board of Trustees, Wayne County, Michigan, held at the Township Hall located at 9955 N. Haggerty Road, Plymouth, Michigan on \_\_\_\_\_, at 7:00 p.m., the following resolution was offered:

**WHEREAS**, Public Act 266 of 1995 authorizes a township to be a party to a credit (or debit) card arrangement if the township board has adopted by resolution a written policy governing the control and use of credit and debit cards, and;

**WHEREAS** the Charter Township of Plymouth Board of Trustees recognizes that certain urgent, time-sensitive, and emergency transactions require the use of a credit or debit card, and that certain online transactions can be best achieved using a credit or debit card;

**NOW THEREFORE BE IT RESOLVED**, that the following Policy shall govern the use of township credit and/or debit cards, hereinafter referred to as 'Credit Cards.'

(a) The Township Clerk is responsible for issuing, accounting for, monitoring, and retrieving all credit cards, and overseeing compliance with this Policy.

(b) Township credit cards may be used only by an officer or employee of the Township for the purchase of goods or services for the official business of the township. The use of the credit card is limited to the following circumstances where urgent, time-sensitive or technological requirements deem it necessary:

- Purchase of capital outlays up to \$1,000.00 in a Merchant Category Code approved by the Department Director.
- Travel, meals, and accommodations while on township business.
- Online purchases where no other reasonable options exist.
- Other uses as directed by the Supervisor and/or Township Board.

(c) The Supervisor, Clerk, Treasurer and each Department Head as determined by the Supervisor shall receive two (2) credit cards. The Supervisor, Clerk, Treasurer and Department Head shall assign the two cards to an officer or employee in their respective department.

(d) Township employees who use a credit card shall use their best efforts to obtain permission from their Department Head, the Supervisor, Clerk, or Treasurer to make the purchase, and submit a copy of the vendor's credit card slip to the Accountant-Payables.

- (e) The officer or employee using the card shall submit an itemized receipt that shows the name of vendor or entity from which goods or services were purchased, the date and the amount of the transaction, the official business that required the transaction, and the chart of accounts number indicating the line item to which the transaction is to be charged. If no credit card slip was obtained that described the transaction, the employee shall submit a signed voucher that shows all of the above information, in addition to a statement as to why a credit card slip was not obtained or available.
- (f) An official or employee who is issued a credit card is responsible for its protection and custody. If a credit card is lost or stolen, the employee or official shall notify the Township Clerk who shall correct the problem.
- (g) An officer or employee issued a credit card shall return the credit card to the Clerk, upon termination of his or her employment or service with the Township.
- (h) The Accountant-Payables shall maintain a list of all credit cards owned by the township, along with the name of the officer and employee who has been issued the credit card, the credit limit established, the date issued, and the date returned. Each employee shall initial the list beside his or her name to indicate agreement that the credit card has been issued, and that the employee has received and read a copy of this policy.
- (i) The Accountant-Payables shall review each credit card statement to ensure that transactions comply with this policy. Any transactions that appear on the statements that are not documented with a credit card slip shall be investigated. Transactions that do not appear to comply with this policy shall be reported to the Supervisor.
- (j) The Township Board reserves the right to deny payment to the entity issuing the credit card until all transactions have been verified, including the approval of all transaction invoices. The Clerk shall work with the issuing entity to address possible interest and penalties resulting from any delay in payment.
- (k) The balance, including interest due on an extension of credit under the credit card arrangement, shall be paid no more than 60 days from the initial statement date.
- (l) Employees who use a Township credit card in a manner contrary to this policy may be subject to disciplinary action, including reimbursement to Township for unauthorized expenditures. Officers of the Township using the credit card in a manner contrary to this policy may be subject to the terms and conditions of the Township's Ethics Ordinance.