

Sub Binder 2

LOCAL IMPACT

&

SITING FACTORS

TAB

***a. ASSESSMENT OF LOCAL SUPPORT
AND MITIGATION OF LOCAL IMPACT***

TAB

Exhibit IX. A.1. ASSESSMENT OF LOCAL SUPPORT

Exhibit IX. A.1.a. Copies of Resolution

RESOLUTION NO. 39

TITLE: A RESOLUTION IN SUPPORT OF LOCATING AND BUILDING
A CASINO WITHIN SCHOHARIE COUNTY

OFFERED BY: Sandra Manko Who moved its adoption.

SECONDED BY: James S. Buzon Chairman Rules & Legislation Committee

WHEREAS, the Schoharie County Board of Supervisors is aware that the State of New York is considering where in the State a new casino should be constructed and operated; and

WHEREAS, the Schoharie County Board of Supervisors realizes that in order for a county to be considered as a potential site for the construction of said casino, the county should identify its willingness and desire to have a casino built and operated within its borders; and

WHEREAS, the Schoharie County Board of Supervisors is aware that the construction of a casino within Schoharie County would result in an increase in tourism to the county as well as a great addition of local jobs for our residents; and

WHEREAS, the Schoharie County Board of Supervisors is in favor of improving our local economy, now, therefore, be it

RESOLVED, that Schoharie County Board of Supervisors hereby declares that it is in favor of a casino being built within the County of Schoharie.

Dated: February 20, 2014
Filed: February 20, 2014

Sheryl Largetean
Clerk, Board of Supervisors

APPROVED AS TO FORM AND LEGALITY.

[Signature]
County Attorney

STATE OF NEW YORK
COUNTY OF SCHOHARIE ss:

I, the undersigned, Clerk of the Board of Supervisors of the County of Schoharie, New York, DO HEREBY CERTIFY that I have compared the above copy of a resolution with the original resolution adopted by the Board of Supervisors of said County on the 21 day of February 2014, at a regular meeting of said Board and said copy is a true copy of said resolution and of the whole thereof.

I, FURTHER CERTIFY, that at the time said resolution was adopted said Board was comprised of 16 members, with total weighted vote of 2974 and votes were cast as follows: Yes 1118, No, 1616, Barbic, Bleau, Bradt, Federice, Lape, McAllister, VanGlad, VanWormer, Excused, 240 S. Smith, W. Smith, Vroman Defeated

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of said Board this 21 day of February, 2014.

Sheryl Largetean Clerk,
Board of Supervisors of the County of Schoharie

Resolution reconsidered - 3/21/14

Yes - 2561; No - 413, Barbic, Bradt, Federice

**TITLE: A RESOLUTION IN SUPPORT OF LOCATING AND BUILDING
A CASINO WITHIN THE TOWN OF COBLESKILL AT HOWE CAVERNS**

OFFERED BY: Council Rubin, who moved its adoption.

SECONDED BY: Council Montario

WHEREAS, the Upstate New York Gaming Economic Development Act of 2013 (Chapters 174 and 175 of the Laws of 2013)(hereinafter “the Gaming Act”) was enacted on July 30, 2013; and

WHEREAS, on November 5, 2013 New York voters passed the public referendum amending the State Constitution authorizing casino gaming in New York State; and

WHEREAS, pursuant to the Gaming Act, four (4) casinos are to be sited in three (3) regions of the State; and

WHEREAS, one of the regions is the Capital District, which includes Schoharie County; and

WHEREAS, the Gaming Act creates the New York Gaming Facility Location Board to review and evaluate the applications submitted to make selections of who is eligible to apply for a commercial gaming license in New York State; and

WHEREAS, as a condition of filing, each applicant must illustrate to the New York Gaming Facility Location Board’s satisfaction that local and community support has been demonstrated; and

WHEREAS, the Gaming Act was enacted to assist in job growth and increase school tax and property tax relief; and

WHEREAS, the New York State Division of Budget projects that a casino located in the Town of Cobleskill will generate substantial revenue annually in local government aid in the Town of Cobleskill; and

WHEREAS, the County of Schoharie Board of Supervisors approved Resolution #39 of 2014 supporting locating a gaming casino in Schoharie County; and

WHEREAS, the Town of Cobleskill voters did, in the November 2013 election, cast a majority of votes in favor of amending the State Constitution to allow casino gaming; and

WHEREAS, the Town of Cobleskill held a public hearing to determine whether or not the community at large was in support of a casino at Howe Caverns; and

WHEREAS, the Town Board of the Town of Cobleskill realizes that in order for a county to be considered as a potential site for the construction of said casino, the town should identify its willingness and desire to have a casino built and operated within its borders; and

WHEREAS, Howe Caverns is the seconded most visited natural attraction in the State of New York offering a tour of a natural cave with an underground boat ride, and above ground Zip Lines, Rope Course, Rock Climbing, Ogo Ball Course and Pavilion; **A TRUE DESTINATION**, and

WHEREAS, Howe Caverns has been an important historic landmark and employer for Schoharie County. The Cobleskill Town Board believes the development of a casino at the Howe Caverns site will further tourism to the area and result in an increase in jobs to the area; and

WHEREAS, the Town Board of the Town of Cobleskill is in favor of improving our local economy, and said casino will be economically transformational for a region that suffered Hurricanes Irene and Lee; and

WHEREAS, the Town Board of the Town of Cobleskill believes that there is sufficient support in favor of a casino being built within the Town of Cobleskill,

NOW THEREFORE BE IT RESOLVED, that in furtherance of the above goals, the Town Board of the Town of Cobleskill hereby agrees to support the application for a Casino Gaming License to the New York Gaming Facility Location Board by Howe Caves Development LLC for the casino project at Howe Caverns, 255 Discovery Drive, Howes Cave, NY at premises within the Town of Cobleskill.

Roll Call:

Supervisor McAllister	Yes
Councilman Kelley	Yes
Councilman Mallery	Sent for the record his support and approval of resolution
Councilman Montario	Yes
Councilman Rubin	Yes

CERTIFICATION OF RECORDING OFFICER

That the above resolution is a true and correct copy of the said resolution as regularly adopted at a legally convened meeting of the Town Board of the Town of Cobleskill on May 27, 2014 duly held; and further that such resolutions, motions and minutes are fully recorded in the Town of Cobleskill's Town Clerks Office.

In witness thereof, I have hereunto set my hand this 19th day of June, 2014.

Tina Ward Shuart
Tina Ward Shuart, Town Clerk/Collector



TAB

Exhibit IX. A.1.b. Other Evidence of Local Support

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("Memorandum") is made on June 24, 2014, by and between Howe Caverns Resort and Casino, a Delaware LLC ("Howe Caverns"), and the County Industrial Development Agency that is a signatory below ("IDA")(each a "Party" and collectively "the Parties") for the purpose of pledging their mutual support and cooperation toward achieving the job creation and economic development objectives enumerated in the Upstate New York Gaming Economic Development Act of 2013 ("Gaming Act") in conjunction with a resort and casino gaming development ("Project") to be located at Howe Caverns in Cobleskill, New York.

WHEREAS, the Parties desire to enter into an agreement pledging to work cooperatively together in good faith to employ their best efforts to serve and enhance the employment and economic development needs of the region they serve;

AND WHEREAS, the intent of the Gaming Act is to allow the selected regions of the State to fully capitalize on the economic development potential of legalized casino gambling;

AND WHEREAS, the Gaming Act acknowledges that appropriately regulated gaming resort developments in upstate New York can boost economic development, create thousands of well-paying jobs, and provide added revenue to the state and local governments;

AND WHEREAS, the Gaming Act acknowledges that the upstate New York tourism industry constitutes a critical component of our State's economic infrastructure and that upstate casinos will help attract non-New York residents and bring downstate New Yorkers to upstate;

AND WHEREAS, the Gaming Act provides that the local benefits to be derived from the casino sites will be considered in the casino evaluation process and revenue realized from casinos shall be utilized to increase support for education and to provide real property tax relief to localities;

THEREFORE, in consideration of the foregoing provisions, and in further consideration of the potential benefits the provisions of the Gaming Act could bring to our region through the Project, the Parties do hereby agree to work cooperatively and pledge their support for the Project proposed by Howe Caverns;

MOREOVER, and in addition, Howe Caverns agrees that it shall at all times use its best efforts to ensure that the Project:

- Is operated in a responsible, efficient, and businesslike manner to generate maximum revenue in support of the localities within the region;
- operates in partnership with and promotes local hotels, restaurants, and retail facilities so that patrons experience the full diversified regional tourism industry;
- implements a workforce development plan that utilizes the existing labor force, including both the construction of the Project and its operation thereafter;
- develops workforce training programs that serve the local under- and un-employed populations and works with the counties within the region to develop methods for residents within the region to access employment at the gaming facility;
- establishes, funds, and maintains human resource hiring and training practices that promote and enhance the development of a locally-based skilled and diverse workforce;

- purchases, whenever possible, local goods and services to be used in all phases of the construction and operation of the Project; and
- establishes a fair and reasonable partnership with regional live entertainment venues under which the Project actively supports the mission and the operation of the entertainment venues.

WHEREFORE, although the Parties acknowledge that no contractual relationship is created between them by this Memorandum, it is the Parties clear and unambiguous intent to work together in the true spirit of partnership to ensure that this Memorandum represents a meaningful and tangible statement of support by the Parties for the Project and for the representations and agreements of the Parties contained herein.

This Memorandum is accepted and agreed to by the following Parties giving their signatures below and shall be deemed effective as of the date contained in the first paragraph above:

Howe Caverns Resort and Casino, LLC

By:

Schoharie County IDA

By:

Paul A. Wilma / CEO

Dear Governor Cuomo and members of the NYS Gaming Facility Location Board,

As a lifelong resident of Schoharie County, I have seen first hand, the transformation of a great community into a struggling society.

While the economic down turn certainly took its toll, it was the disastrous floods of 2011 and 2013, which left us just trying to keep our heads above water.

I lost everything in the flooding, but unlike many, I was lucky. I have a good job and was able to not only pick up my own pieces, but help many of my neighbors along the way.

However, in the aftermath of those catastrophes several just moved away, companies folded and those who stayed are still struggling to get back to normal. We lost more than 700 jobs and over 3000 people moved out of our community. I am currently one of only three people from my graduating class of around 125 from Schoharie Central School who still remain here today.

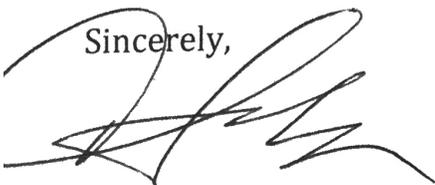
Schoharie County is now met with an opportunity for real recovery and revitalization. By allowing a resort casino to be located at Howe Caverns, we will finally see the type of economic reversal that we have needed for some time.

The people of Schoharie County are hard working and modest people. We only look for a chance to prove ourselves and work our way back as a vibrant and dynamic community where people who grow up here are allowed a chance to stay and new people are encouraged to move here to add to the fabric of our society.

I sincerely hope that you will look favorably on our request and share our vision for the promise that we see here at Howe Caverns. I can assure you that granting a casino gaming license at this location will be a significant benefit not only to us locally, but to our entire region and the whole State of New York.

Thank you for your time and serious consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Christopher W. Tague', with a large, stylized flourish at the end.

Christopher W. Tague

Dear Governor Cuomo and New York State Gaming Commission,

I ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

As the Police Chief of the Village of Cobleskill, I am confident that a casino located here within Schoharie County will only be an asset to our community.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. My family was personally affected by that disaster. My mother-in-law owned a restaurant that was a staple of life to many residents in the Village of Schoharie for over 20 years that she lost in the flooding. Due to economic hardship, she was never able to rebuild.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, its easy access to a major interstate highway, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

I now ask you to please make our community's recovery complete and allow Schoharie County one of the four gaming licenses to be awarded by New York State.

For all of us, it is simply about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Sincerely,



Richard Bialkowski
Chief of Police
Cobleskill Police Department
378 Mineral Springs Road
Cobleskill, NY 12043
518-234-2923



Schoharie County Sheriff's Office

ANTHONY F. DESMOND
SHERIFF
(518) 295-2266
RONALD R. STEVENS
UNDERSHERIFF

157 DEPOT LANE
PO BOX 689
SCHOHARIE, NY 12157
FAX (518)295-2267
EMERGENCY 911

June 24, 2014

To Whom It May Concern:

I am writing in support of placing a casino in the area of Howe Caverns, Town of Cobleskill, Schoharie County, NY.

I have been Sheriff of Schoharie County for the past 4 1/2 years. Prior to assuming this position, I served as a member of the New York State Police, 18 of those years in Schoharie County. After retiring from the State Police and before becoming Sheriff, I was the Town of Sharon Supervisor. As such, I was also a member of the County Board of Supervisors.

When my wife and I were married we decided to make our home and raise our family in Sharon Springs. We have lived there for 45 years.

I have seen Schoharie County when the economy was very good and jobs were available thus allowing our young people to remain here and raise their families. However, in the last several years, the economic situation has changed and a large number of young people have found it necessary to leave; the many young families who remain, struggle to earn a living. These folks are hardworking, decent people who have a strong desire to remain in the county where their families have lived for years.

I personally know several families in the situations I describe above. They are proud citizens who desire a place to work; they don't want to rely on Social Services or other forms of assistance for their day to day existence.

In 2011, Hurricane Irene and Tropical Storm Lee added to the county's economic woes. These storms caused severe flooding and major damage to much of the Schoharie Valley resulting in additional loss jobs and other hardships for residents. Although progress has been made, almost three years later, we are still working toward recovery.

It is my firm belief that a casino being placed at the proposed Howe Caverns site would be of great benefit to the residents of Schoharie County; generating employment opportunities and boosting our overall economy.

As someone who has extensive knowledge of law enforcement and the residents of Schoharie County, I am of the opinion that a casino will produce a minimal increase in crime and traffic concerns and gambling addiction would not increase. A large number of Schoharie County residents already travel to gambling establishments for enjoyment.

In closing I would like to add that siting a casino at Howe Caverns would not only be beneficial to Schoharie County but to all counties in the capital district.

Yours truly,

A handwritten signature in black ink that reads "Anthony F. Desmond".

Anthony F. Desmond
Sheriff

CIVIL (518)295-2268 • RECORDS (518)295-2268 • JAIL (518)295-2264 • DEPUTIES (518)295-2271

NON-EMERGENCY (518)295-8114



Regional Food Bank of Northeastern New York
A Member of America's Second Harvest - The Nation's Food Bank Network

965 Albany-Shaker Road | Latham, New York 12110
Tel: (518) 786-3691 | Fax: (518) 786-3004
www.regionalfoodbank.net

June 26, 2014

Governor Andrew M. Cuomo
The Capitol
Albany, NY 12224

Dear Governor Cuomo and the NYS Gaming Facility Location Board,

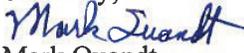
I am pleased to give my full support to the casino at Howe Caverns in Schoharie County.

I am equally pleased that our organization, the Regional Food Bank of Northeastern New York, will partner with the resort and casino to benefit the needy of our community. It has been agreed that once each month the employees and management of the casino will hold a food drive to benefit the Food Bank.

The potential economic impact from this development will also positively affect a region in need of employment opportunities and increased revenues and aid in reducing the number of people in need of our services.

As a resident of Schoharie County, I believe our community is willing and deserving to receive one of the four casino gaming licenses to be issued. It would create a significant benefit to this community and the surrounding area.

Thank you for your time and serious consideration.

Sincerely,

Mark Quandt
Executive Director

CHRIS GIBSON
19th District, New York

1708 Longworth Building
Washington, DC 20515
(202) 225-5614

<http://gibson.house.gov>



Congress of the United States
House of Representatives
Washington, DC 20515

HOUSE AGRICULTURE COMMITTEE

Subcommittee on General Farm
Commodities and Risk Management

Subcommittee on Livestock,
Rural Development, and Credit

HOUSE ARMED SERVICES COMMITTEE

Subcommittee on Tactical Air and
Land Forces

Subcommittee on Intelligence,
Emerging Threats, and Capabilities

Subcommittee on Military Personnel

June 25, 2014

Dear Governor Cuomo and the NYS Gaming Facility Location Board,

I am writing to you in support of the bid to grant a casino gaming license at the site of Howe Caverns in Schoharie County.

Schoharie County is in need of assistance to help create jobs and attract new industry. The additional boom in tourism revenue will also aid the economic recover and will have a positive effect on the surrounding communities.

Howe Cavern's location in close proximity to Albany, Cooperstown, and the Catskills allow it to work closely with other communities and tourist attractions. Expanding on the current tourism success of Howe Caverns only gives this project a greater chance to be a real winner for the region.

Schoharie County has been met with many challenges in an effort to rebuild its economy, the greatest of which was the flooding in 2011 and 2013. Granting a casino gaming license to the Howe Caverns site will provide an opportunity for real recovery.

Thank you for your serious consideration to granting a casino license to Howe Caverns in Schoharie County. Your actions will create a positive result and help to restore a community to its full potential.

Very sincerely,

A handwritten signature in blue ink, appearing to read 'CG', written over a light blue horizontal line.

Chris Gibson
Member of Congress

430 CAPITOL
ALBANY, NEW YORK 12247
(518) 455-3131

41 S. MAIN STREET
ONEONTA, NEW YORK 13820
(607) 432-5524

E-MAIL
SEWARD@NYSENATE.GOV

WEBSITE
SEWARD.NYSENATE.GOV

THE SENATE
STATE OF NEW YORK



JAMES L. SEWARD

SENATOR, 51ST DISTRICT

June 24, 2014

ASSISTANT REPUBLICAN CONFERENCE LEADER
ON CONFERENCE OPERATIONS

CHAIRMAN
INSURANCE COMMITTEE

COMMITTEES

RULES
FINANCE
EDUCATION
HIGHER EDUCATION
AGRICULTURE
HEALTH
MENTAL HEALTH

Honorable Andrew Cuomo, Governor
New York State
Capitol Building
Albany, NY 12224

RE: Howe Caverns Casino Proposal
Schoharie County

Dear Governor Cuomo,

I am writing in support of a casino gaming license for the Howe Caverns Casino development, proposed to be located in Schoharie County. It is expected to be a major contribution to the area's tourism economy, which of course is the home of the famous Howe Caverns cave complex that draws about 200,000 visitors each year. Strategically located near Interstate 88, Howe Caverns is well-positioned to take advantage of a casino, which I believe will be a boon to regional tourism.

The Galasso family operates Howe Caverns as a unique tourist attraction in upstate New York and has a strong foundation in the community. Over the course of many years, the family has given back to the community and worked to create a long-lasting business environment. This is a chance for the Galasso family to build on their successful record by creating a world-class resort that will create jobs in Schoharie County (which has one of the highest rates of unemployment in the state) and increase opportunities to showcase all that upstate New York has to offer.

I fully support the development and licensing of the Howe Caverns Casino in Schoharie County and I would appreciate every consideration given to this proposal.

With best wishes, I remain

Sincerely,


JAMES L. SEWARD
State Senator

JLS:dj:jt

Cc: New York State Gaming Facility Location Board



SCHOHARIE COUNTY

ARC

Since 1965



April 4, 2014

"Creating Opportunities That People Desire"

Anthony Alvarez • Executive Director

**TOE PATH INDUSTRIES
SUPPORTED WORK**
(518) 295-8130
Fax 295-8969

RESIDENTIAL SERVICES
(518) 295-8065
Fax 295-8044

DAY HABILITATION
(518) 295-8810
Fax 295-8044

SERVICE COORDINATION
(518) 295-8065
Fax 295-8062

CLINICAL SERVICES
(518) 295-8810
Fax 295-6406

Ms. Holly Hanser, Manager
Howe Caverns
255 Discovery Drive
Howes Cave, NY 12092

Letter of Support Casino Proposal

Dear Ms. Hauser,

On behalf of the Schoharie County ARC, we are pleased to express our support for the development of the Howe Cavern's Casino Proposal in Howes Cave, New York.

The Schoharie County ARC serves over 300 people with intellectual and developmental disabilities with the support of 270 Direct Support Professionals. We are the largest not-for-profit organization of our kind in Schoharie County.

The Schoharie County ARC is committed to providing person-centered community based supports and services consistent with people's individualized needs in the least restrictive and most integrated settings.

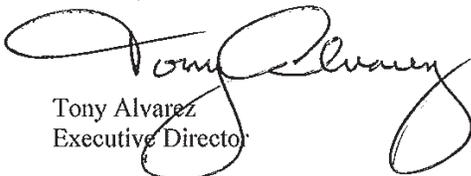
The Howe Cavern's Casino Proposal would create competitive job opportunities that people want and need. All of New York benefits when people with developmental disabilities have greater choices for job opportunities.

We want to build upon pre-existing relations and look forward to building upon new opportunities with Howe Caverns and the Schoharie ARC's Supportive Employment Program by creating New Pathways to Employment for the people we support.

Together, we can empower people with disabilities with choices for thriving and contributing as employed members of our community in an integrative and competitive work setting that would give back to our community.

On behalf of the 300 people we serve and the 270 staff who provide those services, we wish you and the associates at Howe Caverns all the best and much success in seeking approval of Howe Cavern's Casino Proposal.

Sincerely,



Tony Alvarez
Executive Director



THE ASSEMBLY
STATE OF NEW YORK
ALBANY

PETER D. LOPEZ
Assemblyman, 102nd A.D.

Albany, Columbia, Delaware,
Greene, Otsego, Schoharie and
Ulster Counties

RANKING MINORITY MEMBER
Food, Farm and Nutrition Policy Task Force

COMMITTEES
Agriculture
Education
Environmental Conservation

June 26, 2014

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Dear Governor Cuomo,

This letter is provided in support of granting the Howe Caverns site in the Town of Cobleskill a casino gaming license. It is my hope that you will seriously consider this proposal which will lift the economy of an area that has suffered much hardship.

Schoharie County, and the region it represents, is largely rural and economically disadvantaged. As part of the northernmost reach of territory formally under the auspices of the Federal Appalachian Regional Commission, issues of high unemployment, pervasive poverty and other challenges continue to plague the community. These factors, coupled with the impacts of the devastation from Hurricanes Irene and Lee have made recovery extremely difficult for Schoharie County.

As you know, the state enabling statute heavily emphasizes area economic impact as a condition of authorizing a casino in a given location (by as much as 70% of the total scoring). Given the identified economic challenges facing Schoharie County and the broader region, I am confident that should Howe Caverns be chosen, the direct injection of state funds (pursuant to the formula specified in the casino enabling statutes), along with the local economic multiplier effect resulting from direct employment of area residents, will have a positive impact that far surpasses any of its competitors.

In addition to the economic benefits it is also important to note that, unlike the rest of the region, the Schoharie County community has embraced the proposal wholeheartedly. Residents, and local officials alike support this opportunity to stimulate jobs and to boost the local economy; they recognize the significance of building a first class destination resort that can stimulate the region and put them back on the path to economic resurgence.

Thank you for your gracious consideration of this important request. I support the casino proposal at Howe Caverns wholeheartedly, and strongly encourage the state to be a partner in helping Schoharie County build a bright and prosperous future.

Sincerely,

Peter D. Lopez
Assemblyman, 102nd District

PL/hr

Noble ACE Hardware

783 East Main Street #1
Cobleskill, NY 12043
518 234 3518

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximately to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

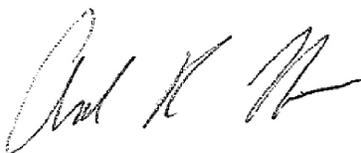
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,



ANDREW R NOBLE
SENIOR MANAGER / OWNER



Town of Cobleskill
PO Box 327
Cobleskill, NY 12043
TDD 1-800-662-1220
518-231-0684

Office of the Supervisor
Leo McAllister

June 25, 2014

Dear Governor Cuomo and the NYS Gaming Facility Location Board,

I wish to express my full support for a casino to be located at the Howe Caverns site in the Town of Cobleskill.

Admittedly, as Town Supervisor, the original idea was met with some reservations as to the potential benefit of a casino in our town. I took time to do much research and spoke to many town officials near the Turning Stone Resort in Verona. After careful study and consideration, I have come to recognize and understand the full positive impact that a similar facility will have in the Town of Cobleskill.

I am confident that the Town of Cobleskill can more than handle a project of this magnitude. We are ready and willing to meet the challenges, and receive the benefits from the building of a destination resort casino.

Our site has already undergone important infrastructure upgrades to water and sewer. We have done traffic studies to understand and prepare for the full impact of this project. I have met with our County Sheriff and we both feel there will be minimal impact on public safety.

This project will also bring a much-needed economic boost to our area.

As you know, Schoharie County was left devastated following the floods caused by Hurricane Irene and Tropical Storm Lee. Governor Cuomo, you stood shoulder to shoulder with us during the clean up and experienced firsthand the resilience of the people of this great community. Our community is looking to continue to move forward with confidence and perseverance.

I fully support this project. I humbly ask you and the members of the Location Board to please choose the Town of Cobleskill. We welcome this opportunity with open arms and will do everything within our power to make this a success for our Town, County, and State.

Thank you for your consideration.

Sincerely,

Leo McAllister, Town Supervisor of Cobleskill

The Town of Cobleskill is an equal opportunity provider, and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD).



Schoharie County Board Of Supervisors

P.O. Box 429, County Office Building
Schoharie, NY 12157

Phone: (518) 295-8347 Fax: (518) 295-8482



Anthony VanGlad
Chairman

Philip R. Skowfoe, Jr.
Vice Chairman

June 20, 2014

Governor Andrew M. Cuomo
NY State Capitol Building
Albany, NY 12224

Dear Governor Cuomo:

This is a letter asking for your full support to locate a casino in Schoharie County. My name is Anthony VanGlad and I am Chairman of the Board of Supervisors. I'm only speaking for myself and not the Board on casino support. However, my colleagues do support a casino in the Resolution that we voted on.

Why Schoharie County? Our county has been overlooked for years for any kind of industry. Because of the county's rural nature, infrastructure was lacking to accommodate any large business. As you are aware Schoharie County was devastated in August 2011 with the tropical storms and hurricanes. As Chair I thank you for all the time, effort, and funding the county has received from you and your staff in the rebuilding effort. A casino would truly give our county a boost in our economy.

This early summer the three miles of water and sewer lines will be completed. They extend from Cobleskill along State Route 7 ending at Howe Caverns. Howe Caverns has been working hard to make their facility a Destination Resort. Not only cave tours, but zip lines, H₂O balls, climbing walls, treasure mining, hotel on premises, fine dining etc, etc. A casino located on the 350 acre property would be a great fit. We didn't finance that water and sewer line for nothing!

It would be a great pleasure to me and my county to host a Las Vegas style casino. Give our county the jobs to keep the young adults busy in a positive way.

Very truly yours,

Anthony T. VanGlad
Chairman of the Board of Supervisors

Long House Holdings, LLC

Emil Galasso
Howe Caverns Resort and Casino
Cobleskill, NY 12043

June 27, 2014

Dear Mr. Galasso,

As per our phone call I am writing to let you know we are very interested in creating a brew pub in the proposed casino located on the Howe Cavern Site. We believe the Cobleskill location is best suited to create a resort atmosphere, setting this site apart from the other proposed locations. Craft brewing is a perfect adjunct to the gaming world where there is fun with a touch of class.

As you know the craft brewery industry is continuing on an explosive growth path. The interest lies beyond the beer and flows deeply into the social fabric of our nature. People crave the overall experience of seeing where their beer is made and to have a good meal in a comfortable social environment. This is a great combination with either the excitement of gaming or to have a meal with the family in a comfortable environment

I have been involved with the beer industry in the Cooperstown area and have experienced its growth as a consumer product and as a tourist draw. I have a background in engineering and will ensure we create an efficient state-of-the-art system. Our experienced team will manage the brewing process and help create an overall experience that includes tours, tastings and a great meal.

We look forward to working with your organization on this exciting and economically transforming project.

Thank you

Sincerely,



John Lorence

President

Long House Holding, LLC



Town of Jefferson

677 North Harpersfield Road * P.O. Box 34

Jefferson, NY 12093

Phone: (607) 652-7931 * Fax: (607) 652-4049



Sean Jordan

Helene Lawrence

Supervisor

Clerk

Dear Governor Cuomo and the New York State Gaming Commission,

The Town of Jefferson is in full support of Howe Caverns' efforts to pursue the development of a casino on its property. There are a number of economic development opportunities that are designed to come to a host community, so it makes the utmost sense to compete for a project of this nature. Howe Caverns is already an established name in the tourism industry, and with its built in clientele and networking capacities, it should be able to maximize the benefits of this development project to its fullest potential.

Opportunity and revenue for Schoharie County are paramount to the successful enrichment and sustainability of our community. In addition to this site being perhaps one of the most picturesque sites in the region, Schoharie County was also on the receiving end of severe devastation and economic hardship due to the flooding events of 2011, of which the County is still recovering from. This project will help us to rebuild our community and our lives. Therefore, I respectfully request that the State of New York support Howe Cavern's efforts in this initiative and lend its deepest consideration to situating a casino at this site.

Respectfully,

Sean Jordan, Supervisor

Town of Jefferson



The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

June 22, 2014

Dear Governor Cuomo and the New York State Gaming Commission,

Schoharie County offers a unique experience for visitors of all ages from the unexampled history to the unrivaled natural attractions to the diverse shopping and dining destinations. The Schoharie County Chamber of Commerce Tourism Committee feels that the addition of a casino and other proposed amenities to Howe Caverns will add another dimension to the types of attractions in Schoharie County.

The Schoharie County Chamber of Commerce Tourism Committee supports responsible business activities which increase the amount of visits to the County. Schoharie County Tourism relies heavily on an Occupancy Tax to support a tourism marketing program which benefits the local businesses. The Tourism Committee understands that the expansion of Howe Caverns to include a casino will have a tremendous positive impact on tourism for Schoharie County.

It is our understanding that if the Howe Caverns casino project is successful, bus trips from the casino to the many unique attractions, farm stands and specialty stores in this region will be scheduled for casino guests. This can have a significant positive economic impact for the distressed County. The Howe Caverns proposal also includes many opportunities for the existing businesses and attractions of Schoharie County and the surrounding counties in enhancing the visitor's experience.

We have been impressed with the thoughtful, inclusive, and collaborative approach that Howe Caverns has been using in the development of their casino proposal. We feel their project is going to be well-planned to mutually fit in the community and increase tourism. As such, it is our pleasure to support Howe Caverns' Casino proposal and continue to work with them collaboratively to bring about growth in Schoharie County tourism. As the proposed Schoharie County Tourism Promotion Agency for I Love NY, we feel it is vital to offer our support to the Howe Caverns casino project. If you have any other questions please contact the Schoharie County Chamber of Commerce Tourism Committee at 518-296-8820 or via email at tourismprojectdirector@schohariechamber.com.

Kind Regards,

A handwritten signature in black ink, appearing to read "Jessica Loden Kirby", written in a cursive style.

Jessica Loden Kirby
Chairperson
Schoharie County Chamber of Commerce Tourism Committee



June 17, 2014

Bill Gallop
Howe Caverns
225 Discovery Drive
Howes Cave, NY 12092

Dear Bill,

The Schoharie County Chamber of Commerce supports responsible economic growth in Schoharie County. We encourage increasing employment in the county, increasing commerce conducted within the county, and the associated rise in tax revenue generated from commerce.

We feel our major role as a Chamber is to connect commerce and the communities within the county. We believe that the addition of a well-planned casino in Schoharie County would bring much needed employment, economic growth, and be a good addition to the county.

We have been impressed with the thoughtful, inclusive, and collaborative approach that Howe Caverns has been using in the development of their casino proposal. We feel your project is going to be well-planned to mutually fit in the community and increase commerce. As such, it is our pleasure to support Howe Caverns' casino proposal and continue to work with you collaboratively to bring about growth in commerce in Schoharie County. If you have any questions, please contact the Chamber of Commerce at 518-296-8820.

Sincerely,

A handwritten signature in black ink that reads "Scott Ferguson". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Scott Ferguson
President



Bread Basket of the American Revolution

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,

Shirley Ball
President
Schoharie County Farm Bureau

June 2014

Dear Governor Cuomo,

As a resident of Schoharie County, I ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

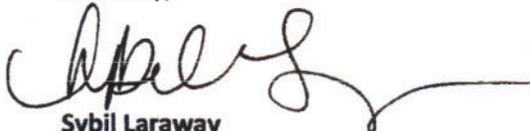
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region desperately needs.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sybil Laraway', with a long horizontal flourish extending to the right.

Sybil Laraway
425 Main Street
Schoharie NY 12157



PO Box 92
321 Main Street
Schoharie, NY 12157
518-702-5084
www.hive321.com

June 26, 2014

Dear Governor Cuomo and New York State Gaming Commission:

As a new, small business owner in the Village of Schoharie, I ask that you give serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region. You are aware that Schoharie County suffered incredible loss during the flooding caused by Hurricanes Irene and Lee. The county is still suffering from this disaster. During our time of distress, Governor, you literally stood with us shoulder to shoulder to help pick up the pieces.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism. Howe Caverns' close proximity to Albany, Cooperstown, and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region in the state.

licenses to be awarded by New York State. For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

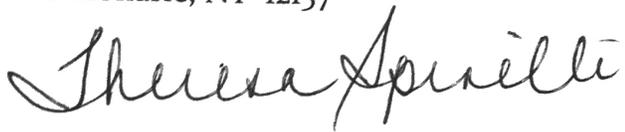
Your approval will be the much needed shot in the arm that this region needs.

Sincerely,

Theresa Spinelli
Owner/Manager

hive

321 Main Street
Schoharie, NY 12157

A handwritten signature in cursive script that reads "Theresa Spinelli". The signature is written in black ink and is positioned below the typed name and address.

OFFICE OF THE TOWN SUPERVISOR

Town of Blenheim

Blenheim Town Hall
1748 State Route 30
N. Blenheim, N.Y. 12131
Phone: 518-827-8024

June 21, 2014

TO:

Governor Cuomo

New York State Gaming Commission.

RE: Proposed Casino at Howe Caverns.

Dear Governor Cuomo and honorable members of the New York State Gaming Commission,

I am writing in support of the proposed casino in our County, which would be located at Howe Caverns. I realize there are many factors that you must consider when determining whether or not an applicant will be granted permission to build a casino on a proposed site. With that being the case, I would like to outline the particular situation that our County is faced with so that you can evaluate the Howe Caverns proposal in light of our County's needs. Additionally, in outlining our County's recent problems I hope that you will be able to better understand why we, as a County Board of Supervisors, have continually shown our support for this project.

Our entire community was completely devastated by the flooding that occurred in August of 2011 when hurricane Irene caused the Schoharie Creek to overflow its banks and rage through our County destroying homes, businesses and municipal buildings. The damage and ruin that resulted from this catastrophic event was unimaginable. Hundreds of families were displaced- their homes being completely destroyed- and local businesses were decimated along with our County Office buildings libraries and public safety facilities. Furthermore, our local museums and other national historic landmarks and tourist attractions, such as the Blenheim Covered Bridge, were completely destroyed. This catastrophic devastation wreaked havoc on our local economy; especially in the sector of tourism which was one of local economic pillars. As a result of these unfortunate events, our unemployment rate soared.

Despite the vast destruction that we suffered, our County began rebuilding efforts immediately after the disaster. As a result of these efforts numerous individual citizens came forward to volunteer their time and labor to aid in the flood recovery. Our local governments partnered with one another, and with the unwavering support of your administration, New York State government offered greatly appreciated assistance. In the wake of this horrific event, we

all embraced the shared goal to not only reconstruct our community, but to build back stronger and better.

It has been over two years since we began the rebuilding of our County, and although our County still struggles with the resulting financial burden of the flood recovery, we have made impressive progress. Many of our displaced residents have been able to move back into their homes and local businesses are beginning to reopen. And with New York Rising plans beginning to become reality, the rebuilding process is still fully underway. One of our targeted efforts to stimulate economic growth as a result of tourism. The possibility of having a casino located in our county, especially if it is located at our County's most revered tourist attraction, would provide us with the exact opportunity we need to complete rebuilding. Actually, it would allow us to rebuild stronger and better than we ever were.

The proposed location of Howe Caverns has proven itself to be an easily accessible location, as millions of tourists from all around the state have traveled here to visit. Perhaps so many travel to this attraction because it is only a short drive from the capital region and fully accessible from the New York City metropolitan area. I believe that it would be an excellent location to expand by adding the proposed casino, and our County would love the opportunity to host such an expansion.

I thank you in advance for your consideration and assistance in this matter. If you should require additional information or have questions, please do not hesitate to contact me at the above referenced number.

Very Truly Yours,

_____/s/_____
Shawn J. Smith
Blenheim Town Supervisor

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State, the highest in the capital region. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces-literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,
Patricia J Becker

6/23/2014

190 Chapman Road
Fultonham, NY 12071

Saturday, June 21, 2014

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York States oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in new York State, the highest in the capital region. as we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces-literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,

Amanda Munger
135 MacArthur Ave Apt 35
Cobleskill, NY 12043
(518)657-1195-cell



New York Life Insurance Company
167 Amelia Lane
PO Box 71
Middleburgh, NY 12122-0071
Tel. 518 827 5500 Fax 518 827 6857
Cel. 518 231 7081
dmlloyd@ft.newyorklife.com

June 23, 2014

Denise M. Lloyd, LUTCF
Financial Services Professional

Dear Governor Cuomo,

The Company You Keep[®]

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximately to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,

Denise M. Lloyd, LUTCF
Agent

Chartered Life Underwriter

Licensed Agent
New York Life Insurance Company
New York Life Insurance and Annuity Corporation
(A Delaware Corporation), New York, NY

Registered Representative offering
securities through NYLIFE Securities LLC
Member FINRA/SIPC
A Licensed Insurance Agency
26 Century Hill Drive, Ste 301
Latham, NY 12110
518 220 4200



June 23, 2014

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces – literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,

Maple Downs Farms II, LLC
David L. and Denise M. Lloyd
Jason D. and Gregory L. Lloyd

Maple Downs Farms II, LLC
167 Amelia Lane, Middleburgh, NY 12122 | (518) 827-4552 | www.mapledowns.com
www.holsteinworld.com/mapledowns/



494 Western Turnpike, Altamont, New York 12009
T: (518) 355-6034 F: (518) 356-7282

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

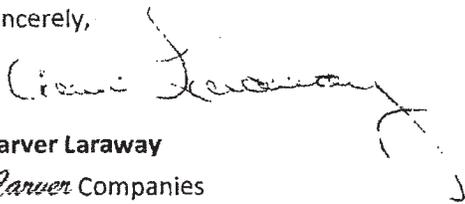
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces – literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,



Carver Laraway

Carver Companies

494 Western Turnpike

Altamont, New York 12009

Tel (518) 355-6034 Ext 109

Fax (518) 356-7282

claraway@carverstone.com

June 23, 2014

Dear Governor Cuomo and NYS Gaming Commission,

We as residents and business owners in Schoharie, New York ask that you give Howe Caverns your most serious consideration as the location to be awarded a gaming license in the Capital Region.

There are many reasons which we are sure you are aware of, Howe Cavern is already a tourist attraction, centrally located to all of New York's finest attractions, the most beautiful landscape & panoramic views in the region, but most off all this will help our efforts for recovery from devastating flooding and economic hardships from Hurricane Irene.

Our motivation slogan has been "Schoharie Strong" as we work towards our goal of bringing vitality & prosperity back to the Schoharie region. We truly feel the gaming license is the boost we need in making our goal a reality.

Thank you for your consideration and we trust your approval.

Sincerely,

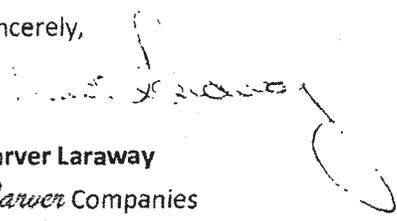
James & Nancy Cooke
Village Hardware of Schoharie
4291 State Route 7
Schoharie, NY 12157

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,


Carver Laraway

Carver Companies

494 Western Turnpike

Altamont, New York 12009

Tel (518) 355-6034 Ext 109

Fax (518) 356-7282

claraway@carverstone.com

OFFICE OF THE TOWN SUPERVISOR

Town of Blenheim

Blenheim Town Hall
1748 State Route 30
N. Blenheim, N.Y. 12131
Phone: 518-827-8024

June 21, 2014

TO:

Governor Cuomo

New York State Gaming Commission.

RE: Proposed Casino at Howe Caverns.

Dear Governor Cuomo and honorable members of the New York State Gaming Commission,

I am writing in support of the proposed casino in our County, which would be located at Howe Caverns. I realize there are many factors that you must consider when determining whether or not an applicant will be granted permission to build a casino on a proposed site. With that being the case, I would like to outline the particular situation that our County is faced with so that you can evaluate the Howe Caverns proposal in light of our County's needs. Additionally, in outlining our County's recent problems I hope that you will be able to better understand why we, as a County Board of Supervisors, have continually shown our support for this project.

Our entire community was completely devastated by the flooding that occurred in August of 2011 when hurricane Irene caused the Schoharie Creek to overflow its banks and rage through our County destroying homes, businesses and municipal buildings. The damage and ruin that resulted from this catastrophic event was unimaginable. Hundreds of families were displaced- their homes being completely destroyed- and local businesses were decimated along with our County Office buildings, libraries, and public safety facilities. Furthermore, our local museums and other national historic landmarks and tourist attractions, such as the Blenheim Covered Bridge, were completely destroyed. This catastrophic devastation wreaked havoc on our local economy, especially in the sector of tourism which was one of County's economic pillars. As a result of these unfortunate events, our unemployment rate soared.

Despite the vast destruction that we suffered, our County began rebuilding efforts immediately after the disaster. As a result of these efforts numerous individual citizens came forward to volunteer their time and labor to aid in the flood recovery. Our local governments partnered with one another, and with the unwavering support of your administration, New York State government offered greatly appreciated assistance. In the wake of this horrific event, we

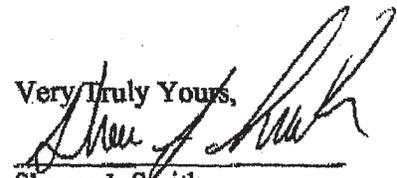
all embraced the shared goal to not only reconstruct our community, but to build back stronger and better.

It has been over two years since we began the rebuilding of our County, and although our County still struggles with the resulting financial burden of the flood recovery, we have made impressive progress. Many of our displaced residents have been able to move back into their homes and local businesses are beginning to reopen. And with New York Rising plans beginning to become reality, the rebuilding process is still fully underway. One of our targeted efforts is to stimulate economic growth as a result of tourism. The possibility of having a casino located in our county, especially if it is located at our County's most revered tourist attraction, would provide us with the exact opportunity we need to complete rebuilding. Actually, it would allow us to rebuild stronger and better than we ever were.

The proposed location of Howe Caverns has proven itself to be an easily accessible location, as millions of tourists from all around the state have traveled here to visit. Perhaps so many travel to this attraction because it is only a short drive from the capital region and fully accessible from the New York City metropolitan area. I believe that it would be an excellent location to expand by adding the proposed casino, and our County would love the opportunity to host such an expansion.

I thank you in advance for your consideration and assistance in this matter. If you should require additional information or have questions, please do not hesitate to contact me at the above referenced number.

Very Truly Yours,



Shawn J. Smith
Blenheim Town Supervisor

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State, the highest in the capital region. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces-literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely, *Andon Iksino*

A large, stylized handwritten signature in black ink, appearing to read "Andon Iksino". The signature is written in a cursive, somewhat slanted style with a long, sweeping underline that extends to the left.

VanDyke Enterprises, Inc.

Established 1969



Onistagrawa

Governor Andrew M. Cuomo
Governor of the State of New York
NY State Capital Building
Albany, NY, 12224

June 24, 2014

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces – literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,

Georgia A. VanDyke
President

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

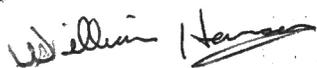
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,



Dear Governor Cuomo and the NYS Gaming Commission,

As a member of the Schoharie County Board of Supervisors from the Town of Fulton, I ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,

*Dwight R. Skowron, Supervisor Town of Fulton
Vice Chairman Schoharie County Board of Supervisors*

Dear Governor Cuomo,

We would like to begin by thanking you again for all of your support to our family over the last couple of years. You were very kind to visit us after the floods in 2011 devastated our farm and your follow-up phone calls to check on how we were doing were appreciated more than you know.

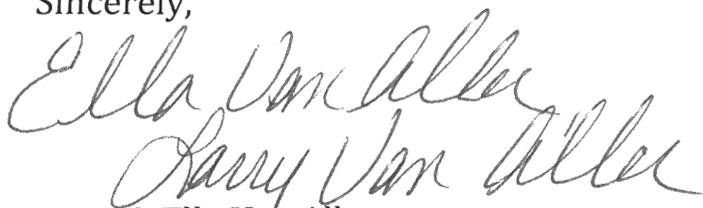
You were an important part in helping our family farm to recover and today, we are writing to you to ask for your help in protecting our farm for the future. If something is not done to stimulate our local economy, it will be difficult for our farm to continue to be passed down to future generations.

The opportunity to bring a resort casino to Schoharie County will be the boost we need to get our community going again.

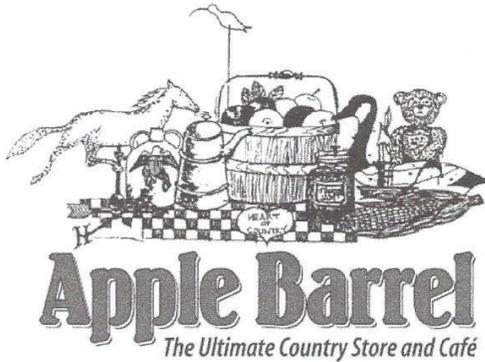
Please give serious consideration to allowing this to happen. Giving Schoharie County this chance will save farms like ours and preserve a way of life that many of us have enjoyed for years.

Thank you for your consideration and thank you again for all you have done for us.

Sincerely,



Larry & Ella Van Aller



Apple Barrel Country Store and Cafe
115 State Route 30A
Schoharie, NY 12157
518-295-7179 Phone
518-295-7167 Fax
info@applebarrelcountrystore.com
www.applebarrelcountrystore.com



We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State, the highest in the Capital Region. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces-literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,



Jessica Loden Kirby
Managing Director

Dear Governor Cuomo and the NYS Casino Gaming Location Board,

This letter is not only to express my support for a resort and casino to be located in Cobleskill, NY, but to also demonstrate my enthusiasm to become a partner with the operator of the facility.

As the head Golf Professional at the Cobleskill Golf and Country Club, I look forward to developing a partnership with the Howe Caverns Resort and Casino.

As I'm sure you are aware, recreational businesses like golf courses are the first to feel the effects from a depressed economy. However, when it comes to promoting an area to potential businesses and new residents quality of life is an important factor.

A new destination resort will not only directly help our business, but will put Schoharie County in a better position for future growth and prosperity through job creation and economic revitalization.

A partnership with this new resort will create a better destination for tourist, while also strengthening our position to serve the immediate and surrounding area.

It is my hope that you will give serious consideration to awarding a casino gaming license to Howe Caverns.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Jaycox". The signature is written in a cursive, flowing style.

Paul Jaycox, Head Golf Professional
Cobleskill Golf and Country Club

June 26, 2014

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State, the highest in the capital region. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces-literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,



Claire A. Moore
651 Saddlemire Hill Rd.
Sloansville, NY 12160

June 26, 2014

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State, the highest in the capital region. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces-literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,



Larry R. Moore
651 Saddlemire Hill Rd.
Sloansville, NY 12160

June 24, 2014

TO: Hon. Governor Andrew Cuomo

Members of the NY State Gaming Commission

This letter is written in support of the casino application being submitted for the Howe Cavern location in Schoharie County. I believe this application best meets the requirements set forth by the State in the approved legislation to expand the number of casinos in New York.

For more than 20 years, I have worked and lived in Schoharie County including being Administrator of our local hospital, teaching at our local college and being a board member and treasurer of the Schoharie County Chamber of Commerce. I therefore feel that I can offer a unique and informed perspective on the exciting prospect of a casino being approved and awarded for siting in our County.

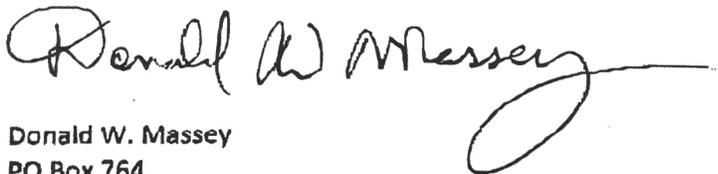
Schoharie County reflects demographically and economically a location well suited for the economic benefits a casino could bring. This includes creation of new jobs, commerce which positively affects existing businesses while encouraging new business development, as well as additional tax revenues which will reduce the property tax burden on county residents. This county continues to struggle from the impacts of the Great Recession in addition to the catastrophic flooding caused by Hurricane Irene in 2011. Approving the construction of a casino in our county would be a major step in improving the economic environment in Schoharie County.

During the past 20 years I have also witnessed stagnation and a continued decline in the economic vitality of this community, despite the hard work and best intentions of many business and community leaders. With your approval of the Howe Caverns Casino application, the opportunities that this will provide will act as a tremendous catalyst of improvement and growth and will have an immediate positive impact.

I also believe that the principals involved in this endeavor, especially Howe Caverns and its president Emil Galasso, are of the highest competency and integrity as demonstrated by business practices and community involvement and support in this county over the past two decades. I therefore respectfully request that you approve this application.

Thank you for allowing me the opportunity to express my support for this application.

Sincerely,



Donald W. Massey
PO Box 764
Schoharie, NY 12157



THE HARVA COMPANY, INC.

100 FAIR STREET
SCHOHARIE, N.Y. 12157
PHONE (518) 295-8101
FAX (518) 295-7827
EMAIL harva@harva.com

June 26, 2014

TO: The Honorable Governor Andrew Cuomo
Members of the New York State Gaming Commission

I write this letter in support of locating a casino in Schoharie County, specifically at the Howe Caverns Property. Having lived in Schoharie County since 1945, I can almost call myself a native. The changes I have witnessed over the years have not been positive in nature. We have lost so many businesses and services. When good jobs are no longer to be found, people, especially our youth, leave the area. This, in turn, negatively affects the businesses that have chosen to stay. To add to our already poor economic climate, the 2011 flood caused by Hurricane Irene devastated the entire Schoharie Valley, and many residents and businesses are still in a recovery mode.

A casino at Howe Caverns could do so much to help put our struggling county back together again. Adding thousands of good jobs as well as fostering more business for existing establishments and even creating an opportunity for entrepreneurs to grow new businesses.

On a personal level, as owner of a small, female-owned manufacturing firm operating in Schoharie since 1949, we see a real opportunity to supply various parts in support of table games and other areas within the casino. This additional business would go a long way in helping us recover from the damage done by Irene.

As you make your decision regarding this application, please consider the positive economical impact a casino would mean to one of the poorest counties in the state.

Sincerely,

A handwritten signature in cursive script that reads "Susan K. McGiver".

Susan K. McGiver
President, The Harva Company, Inc.

SKM/kb

Plastics Fabricators and Distributors since 1949

**Town of Summit
P.O. Box 132
Summit, New York 12175**

Supervisor Harold L. Vroman
Town of Summit
P.O. Box 132
Summit, New York 12175
phone: 518-287-1430
fax: 518-287-1430 (call first)

Bill Gallop
Howe Caverns Development Team
phone: 518-466-4320
fax: 518-234-0226

Date: June 26, 2014

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the section of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

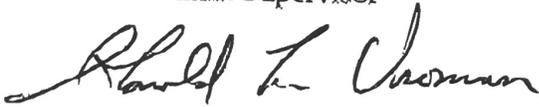
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,
Town of Summit Supervisor



Harold L. Vroman



COUNTY CLERK'S OFFICE OF SCHOHARIE COUNTY

P.O. BOX 549, SCHOHARIE, NY 12157

M. INDICA JAYCOX
-COUNTY CLERK-

COUNTY CLERK'S OFFICE
(518) 295-8316 / FAX (518) ~~294-2792~~ 295-8338



June 26, 2014

Dear Governor Cuomo and the N.Y.S. Gaming Facility Location Board:

I wish to express my full support for a casino to be located at the Howe Caverns site in the Town of Cobleskill, Schoharie County.

I am the Schoharie County Clerk and originally I was on the fence with the idea of a casino in Schoharie County. As I listened to the residence of Schoharie County the majority of people are for the idea, and I came to the conclusion that it would help the businesses, hotels and bring jobs to the county. This project will also bring a much-needed economic boost to our county.

As you know our county was devastated by Hurricane Irene and Lee and this would give the county the boost we need for economic growth.

I would ask you, the Governor of our great State and the Location Board to strongly consider Schoharie County in your decision.

Thank you for your consideration.

Sincerely,

Indy Jaycox
Schoharie County Clerk

COBLESKILL STONE PRODUCTS, INC.

112 Rock Road., P.O. Box 220

Cobleskill, NY 12043

(518) 234-0221

FAX #(518) 234-0226

Dear Governor Cuomo and the Casino Location Board,

On behalf of Cobleskill Stone, I ask you to give serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

Allowing a casino in Schoharie County will have an incredible impact on our local and regional economy. Schoharie County currently experiences a high unemployment rate and as we attempt to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

Cobleskill Stone will specifically benefit, as we will have an opportunity to be involved during the construction stage of the resort and casino. This will create several new jobs and help bring new revenues to our community even before the doors open on a new resort.

Schoharie County suffered incredible loss during the flooding caused by Hurricanes Lee and Irene. Our economic recovery has been exasperated by these disasters.

Cobleskill Stone, in business for over 60 years in Schoharie County, has been fortunate enough to be resilient during this time of economic distress. Allowing this plan for a resort and casino will not only benefit us, but our entire community will have the opportunity to enjoy the benefits of full come back.

I respectfully ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

Your approval will be the boost this community and region needs.

Sincerely,



Town of Carlisle

Town Supervisor
Larry R. Bradt

P.O. Box 119
Carlisle, NY 12031

June 25, 2014

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete

and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,

Larry R. Bradt

Larry R. Bradt
Carlisle Town Supervisor

Eugene A. Millone
300 Main Street, PO Box 544
Schoharie, New York 12157

June 25, 2014

Dear Governor Cuomo and New York Gaming Commission

Please be advised that in March of 2014 I put before the Schoharie County Board of Supervisors a resolution calling for Schoharie County to identify itself as one which would welcome a casino. That resolution was finally passed by the Board in April. I ask you to please give your full consideration to selecting Howe Caverns as one of the locations to be granted a gambling license in the Capital Region. As you are fully aware, Schoharie County suffered massive and heart-breaking losses caused by Hurricane Irene and Lee and we are still rebuilding. Our residents, as well as local leadership, are extremely thankful for the assistance given to our communities by you, Governor, and it will never be forgotten.

Please be mindful that allowing a casino to be built in Schoharie County will have an extraordinary impact on our local and regional economy. Our county currently suffers from the highest unemployment rate in the Capital Region as well as New York State. This economic engine will create much needed employment and stimulate our economy. While I understand that the outcry for economic development and employment is affecting many upstate communities, I also understand and have witnessed first-hand the suffering and loss experienced by our residents. I know that our county fits the criteria set to be granted this golden opportunity and I remain extremely hopeful that you will complete your efforts to help us recover by granting one of the gaming licenses to Howe Caverns.

This is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Sincerely,



Eugene A. Millone,
Town of Schoharie Supervisor

JOANNE DARCY CRUM, L.S.
PROFESSIONAL LAND SURVEYOR

25 June 2014

Governor Andrew Cuomo
New York State Capitol Building
Albany, New York
12224

Dear Governor Cuomo,

Please accept these comments in support of the Howe Caverns Casino proposal.

As an employer in Schoharie County I cannot understate the importance of job creation, retention and general economic development Howe Caverns has offered this community and the entire region. Howe Caverns is already an economic driver and the addition a casino will promote the growth this area needs so desperately.

A casino at Howe Caverns will add to the tax base and provide excellent job opportunities. As important will be the fact that our youth will have the ability to get a good education and return to this community to be productive members of our society. It was with great sadness that my own daughter and son in law were unable to find careers in their field in this locale and moved elsewhere. The economy since then has worsened due to the devastating flooding from Hurricane Irene and Tropical Storm Lee.

My business is very small but sir, it pays for mortgages and taxes for five homes in this community. My employees want to be here and cooperate even when I am unable to provide cost of living increases let alone the performances increases they are so deserving of. My business and my employees are committed to this county and region. I hope we can expect support from your administration as we continually try to grow and improve our beautiful county and our way of life. A casino would go far to enhance our efforts and Howe Caverns is a perfect venue for that undertaking.

Howe Caverns offers a unique opportunity to blend the natural and historic Caverns with the many people who would come to a Casino venue. With a strong tourist draw of nearly 200,000 visitors each year it will be a true destination resort, and proximity to the Capital and Leatherstocking Regions will create a remarkable symbiosis for other tourist and business opportunities.

I ask for your support in this important venture to create a destination resort casino.

Yours truly,



Joanne Darcy Crum

479 WEST MAIN STREET * COBLESKILL, NEW YORK 12043
TELEPHONE 518-234-4650 * FAX 518-234-7405
JOANNE@JDARCYCRUM.COM

JOANNE DARCY CRUM

20 June 2014

Governor Andrew Cuomo
New York State Capitol Building
Albany, New York
12224

Dear Governor Cuomo,

Please accept these comments in support of the Howe Caverns Casino proposal.

Howe Caverns offers a unique opportunity to blend the natural and historic Caverns with the many people who would come to a Casino Venue. A true destination resort, it would be advantageous to the economy of the entire regional area.

Howe Caverns has a strong tourist draw with over 200,000 visitors each year and is in close proximity to Cooperstown, the Catskills the Adirondacks and Mohawk Valley attractions. This type of symbiotic relationship will enhance the overall economic vitality of a significant portion of Leatherstocking Region and the Capital District.

As Schoharie County continues its recovery from the devastations of Hurricane Irene and Tropical Storm Lee, a Casino at Howe Caverns would be of significant help to the citizens of Schoharie County and would provide a spotlight on many other aspects of our lovely county. It would provide important jobs for our youth and enable the residents to work in our community at living wages.

I ask for your support in this important venture to create a destination resort and casino.

Yours truly,


Joanne Darcy Crum

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

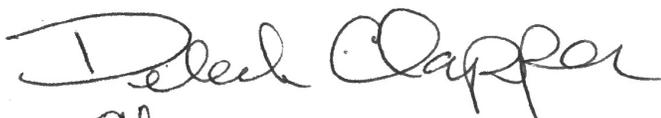
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,



Clapper's Glass Bar

Main St. Schoharie NY.

TOWN OF SHARON

Sandra Manko, Supervisor
PO Box 204
Sharon Springs, NY 13459
Office: 518-284-3010



Barbara Cousineau, Town Clerk/Collector
501 Hwy Route 20
Sharon Springs, NY 13459
Office: 518-284-3010

June 25, 2014

Dear Governor Cuomo and New York State Gaming Commission:

I'm writing to ask you to give consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

As you know, Schoharie County was severely ravaged by the flooding of Hurricane Irene and Tropical Storm Lee in 2011 and the County is still recovering from that disaster. This project would help the economic development in the entire County, as well as the surrounding counties of Delaware, Greene, Otsego, Montgomery, and Schenectady. The strategic location of Howe Caverns being centrally located between Cooperstown and Saratoga, as well as the close proximity to the Capital District, New York City and the ski resorts of the Northern Catskills region, make this a perfect location. Howe Caverns is also situated with enough distance away from Turning Stone Casino, Foxwood Casino, and Saratoga Casino to make this an ideal spot.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. More than 200,000 people visit Howe Caverns each year and nearly 500,000 tourists visit attractions in the surrounding area.

Schoharie County is rural in character and included in the Appalachian Regional Commission area of concern as needing assistance in economic development and improving the quality of life for its residents. This area has one of the highest unemployment rates in the Capital Region, as well as in New York State.

Locally, I am concerned about the economy in the Town of Sharon and the Village of Sharon Springs which are struggling as well. A Wal-Mart Distribution Center and the Sharon Springs Central School are the two largest employers in the community. Nine years ago, new owners bought the spa properties (hotels, mineral water rights, bathhouses) and for financial reasons, the project has not moved forward. The buildings remain vacant and become more and more in the advanced stages of deterioration and disrepair. I feel a Casino at Howe Caverns would give the motivation to the spa owners to get these projects moving as well.

Governor Cuomo, please accept my thanks for everything you have done and continue to do for Schoharie County.

Sincerely,

Sandra Manko
Supervisor - Town of Sharon



Town of Cobleskill

PO Box 327
Cobleskill, NY 12043
518-234-1719

CERTIFICATION OF RECORDING OFFICER

That the attached thirteen (13) pages of Petition In Support of Building A Casino In The Town Of Cobleskill is a true and correct copy of the said petition submitted at a legally convened meeting of the Town Board of the Town of Cobleskill on May 12, 2014 duly held; and further that such petitions, resolutions, motions and minutes are fully recorded in the Town of Cobleskill's Town Clerks Office.

In witness thereof, I have hereunto set my hand this 19th day of June, 2014.


Tina Ward Shuart

Tina Ward Shuart, Town Clerk/Collector

VanDyke Enterprises, Inc.

Established 1969



Onistagrawa

June 24, 2014

Governor Andrew M. Cuomo
Governor of the State of New York
NY State Capital Building
Albany, NY, 12224

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces – literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,

Georgia A. VanDyke
President

921 Ecker Hollow Road • Schoharie, NY 12157-3713 • (518) 296-8076

June 23, 2014

Dear Governor Cuomo and NYS Gaming Commission,

We as residents and business owners in Schoharie, New York ask that you give Howe Caverns your most serious consideration as the location to be awarded a gaming license in the Capital Region.

There are many reasons which we are sure you are aware of, Howe Cavern is already a tourist attraction, centrally located to all of New York's finest attractions, the most beautiful landscape & panoramic views in the region, but most off all this will help our efforts for recovery from devastating flooding and economic hardships from Hurricane Irene.

Our motivation slogan has been "Schoharie Strong" as we work towards our goal of bringing vitality & prosperity back to the Schoharie region. We truly feel the gaming license is the boost we need in making our goal a reality.

Thank you for your consideration and we trust your approval.

Sincerely,

James & Nancy Cooke
Village Hardware of Schoharie
4291 State Route 7
Schoharie, NY 12157



Town of Cobleskill

PO Box 327
Cobleskill, NY 12043
518-234-1719

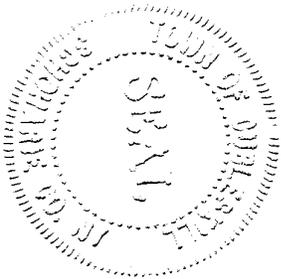
CERTIFICATION OF RECORDING OFFICER

That the attached thirteen (13) pages of Petition In Support of Building A Casino In The Town Of Cobleskill is a true and correct copy of the said petition submitted at a legally convened meeting of the Town Board of the Town of Cobleskill on May 12, 2014 duly held; and further that such petitions, resolutions, motions and minutes are fully recorded in the Town of Cobleskill's Town Clerks Office.

In witness thereof, I have hereunto set my hand this 19th day of June, 2014.



Tina Ward Shuart, Town Clerk/Collector



PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

151

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
5/11/2014	Georgia Van Dyke	921 E. Eden Hollow Rd.	Schoharie, NY
5/11/2014	Gayle Jones	114 Davies Ln	Cobleskill, NY
5/12/2014	Paula Bellingier	413 State Rt 7	Richmondville NY
5/12/2014	Barbara Spargo ^{Deborah Spargo}	106 Briggs Rd.	Sloansville, NY
5/12/2014	Dawn B. Schultz	128 H. US 106 Ave	Cobleskill, NY
5/12/2014	Alisandra C. Reichardt	128 Hillside Ave	Cobleskill, NY
5/12/2014	Carol Schultz	128 Hillside Ave	Cobleskill, NY
5/12/2014	David DeStefano	108 Terra Heights	Cobleskill NY
5/12/2014	Nancy DeStefano	108 Terra Heights	Cobleskill NY
5/12/2014	Antonia Chiswell	126 Shad Point Rd	Cobleskill NY
5/12/2014	Robert Cully	126 Shad Point Rd.	Cobleskill NY
5/12/2014	Nessie Rando	693 Brooker Hollow	Richmondville NY
5/12/2014	[Signature]	693 Brooker hollow	Richmondville NY
5/12/2014	J. Stodi	5539 Main ST	Cobleskill NY
5/12/2014	Amy S. Sore	992 CR33	Steward NY
5/12/2014	Michael [Signature]	W. Fulton	Middleburgh
5/12/2014	CHERYL VINCKUS	2244 ST 10	Jefferson
5/10/2014	Barnie Campbell	103 FAIRVIEW DR.	COBLESKILL, NY
5/10/2014	Paula Campbell	Cobleskill	Cobleskill
5/14/2014	Bernie Crank	Cobleskill	Cobleskill, NY

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/4/2014	Wang Brown	Hammerstone	Cobleskill, NY
2. 5/5/2014	Damen Chubbuck	107 Highland Dr	Middleburgh, NY
3. 5/6/2014	Linda Stevens	Mickle Hollow Rd	Warnerville, NY
4. 5/6/2014	Janet F. Sanford	176 McGOVERN RD	SPRAGUE
5. 5/7/2014	Debra Pecora	234 PLOSS RD	Richmondville
6. 5/10/2014	C. Larry Keane	234 PLOSS RD	Richmondville
7. 5/17/2014	Nancy Jans	Union St.	Sharon Springs, NY
8. 5/17/2014	John J. Jans	Chouze Rd	Cobleskill NY
9. 5/17/2014	Judy Palk	Crommie Rd	Cobleskill NY
10. 5/17/2014	Janet Wolk	Golding Dr	Cobleskill, NY
11. 5/17/2014	Dorothy Powell	745 E. MAIN STREET	Cobleskill NY
12. 5/18/2014	Judith Warner	PO Box 633/	Schoharie NY
13. 5/18/2014	John Warner	PO Box 633	Schoharie
14. 5/18/2014	Bob Wallace	132 Futera Ct	Warnerville Cobleskill
15. 5/18/2014	Shirley Wallace	132 Futera Ct	Warnerville
16. 5/19/2014	Michelle L. Hundley	3268 Hwy Rt 20	Spansville
17. 5/19/2014	J. Hundley	" "	" "
18. 5/19/2014	Bob J. Jans	1279 RT 30A	Central Bridge, NY
19. 5/19/2014	John Jans	725 Warnerville Rd	Cobleskill, NY
20. 5/19/2014	Jeannie Sander	280 Milligan School Rd	Duloron NY

PETITION IN SUPPORT OF BUILDING A CASINO IN SCHOHARIE COUNTY

We, the undersigned, being residents of Schoharie County, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the County of Schoharie.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in Schoharie County will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 4/17/2014	Kevin Hayes	886 Rickard Hill	Schoharie NY 12157
2. 4/18/2014	Jason Hardender	127 Tetterbark RD	Fultonham N.Y. 12071
3. 4/18/2014	Larry Mackley	Cobleskill	Cobleskill N.Y.
4. 4/21/2014	Lawrence Risch	142 Twin Oaks Lane	Schoharie NY 12155
5. 4/21/2014	Dwight C. Huggins	1506 Westinghouse Rd	Schoharie 12092
6. 4/22/2014	William Peltier	3465 St. Rt 145	Schoharie NY 12157
7. 4/25/2014	Dick Vandy	200 N. Street	Cobleskill NY
8. 4/25/2014	Hans Schaefer	106 Farm Lane	Schoharie NY
9. 4/25/2014	Joel Hayes	570 Barton Hill Rd.	Schoharie N.Y.
10. 4/27/2014	Aaron M. Hellen	106 Factory St	Callupville, NY
11. 5/2/2014	Mark Cob	Cobleskill	Cobleskill
12. 5/2/2014	Frank Fuchs	1551 Candy Hill	Middleburgh NY
13. 5/6/2014	David O'Connor	118 Nickerson Dr	Middleburgh NY
14. 5/6/2014	Scott Mittle	3520 St. 30	Fultonham
15. / / 2014	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
16. 5/6/2014	Willis Haupt	120 UNIOS	Cobleskill
17. / / 2014			
18. / / 2014			
19. / / 2014			
20. / / 2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/5/2014	<i>[Signature]</i>	122 BROCKSIDE AVE	Cobleskill
2. 5/5/2014	<i>[Signature]</i>	111 Josephine Dr.	Cobleskill
3. 5/5/2014	<i>[Signature]</i>	Howes Cave N.Y.	Cobleskill
4. 5/5/2014	<i>[Signature]</i>	214 S. Grand St NY	Cobleskill
5. 5/5/2014	<i>[Signature]</i>	103 Fairview Drive	Cobleskill
6. 5/5/2014	<i>[Signature]</i>	6012 Barnerville rd	Howes Cave
7. 5/5/2014	<i>[Signature]</i>	106 ANTHONY CIRCLE	COBLESKILL
8. 5/5/2014	<i>[Signature]</i>	150 PLEASANTVIEW DR	COBLESKILL
9. 5/5/2014	<i>[Signature]</i>	111 JOSEPHINE DR	COBLESKILL
10. 5/11/2014	<i>[Signature]</i>	612 Barnerville Rd.	Howes Cave
11. 5/11/2014	<i>[Signature]</i>	589 BARNERVILLE RD	HOWES CAVE
12. 5/11/2014	<i>[Signature]</i>	887 State Rt. 165	Cobleskill
13. 5/12/2014	<i>[Signature]</i>	112 CRABAPPLE LN	COBLESKILL
14. 5/12/2014	<i>[Signature]</i>	112 CRABAPPLE LN	COBLESKILL
15. 5/12/2014	<i>[Signature]</i>	112 Crabapple	COBLESKILL
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/4/2014	<i>Lisa R. Miller</i>	141 Turkey Trot Cobleskill, NY	Cobleskill
2. 5/5/2014	<i>Alex Casper</i>	107 Cobleskill, NY Schenectady ave	Cobleskill
3. 5/5/2014	<i>Don Miller</i>	114 Holland Lake Cobleskill, NY	Cobleskill
4. 5/6/2014	<i>Michelle N. Troy</i>	422 Brown Rd Cobleskill, NY	Cobleskill
5. 5/6/2014	<i>Ann Marie O'Leary</i>	245 main st Richmondville	Richmondville
6. 5/6/2014	<i>[Signature]</i>		
7. 5/6/2014	<i>Michael Beck</i>	736 Wiperton Hollow Rd.	Summit
8. 5/6/2014	<i>Nancy Marchant</i>	Waverly	Cobleskill
9. 5/6/2014	<i>William Clark</i>	107 Schenectady Ave Cobleskill, NY	Cobleskill
10. 5/6/2014	<i>Hannah Lee</i>	160 West Main Street Cobleskill, NY	Cobleskill
11. 5/6/2014	<i>Ethan Paul</i>	386 Cromie Road	Cobleskill
12. 5/8/2014	<i>Alvin R. Davis</i>	115 Spring St. Apt. 3	Cobleskill
13. 5/8/2014	<i>Chris J. Hart</i>	495 Dodge Lodge Rd	Richmondville
14. 5/8/2014	<i>Keith E. Ryan</i>	498 Decker Road	Richmondville
15. 5/8/2014	<i>Bethany Phillips</i>	111 Turkey Trot Cobleskill, NY 12043	Cobleskill
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

[Handwritten signature]

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/2/2014	James D Collier	Cobleskill	665 Bush St
2. 5/5/2014	Donald J. [Signature]	123 Golding Dr. Apt 4	Cobleskill
3. 5/5/2014	MELVIN MONIZ	472 HUBB BAYLITS RD	COBLESKILL
4. 5/5/2014	[Signature]	424 100 W BUSH ST COBLESKILL NY	cobleskill
5. 5/5/2014	[Signature]	↓ ↓	↓ ↓
6. 5/5/2014	[Signature]	Wannerville	Richm
7. 5/6/2014	Lou Bellinger	Carlisle 160 Shafter Rd	
8. 5/6/2014	Richard Graham	Howes Cave	Cobleskill
9. 5/7/2014	Wally [Signature]	Carlisle	Carlisle
10. 5/7/2014	Delmar Berr	COBLESKILL	COBLESKILL
11. 5/7/2014	Ronald Keele	208 Main St Richmondville	Richmondville
12. 5/9/2014	[Signature]	Esperancey NY	1045 Oak Hill Rd
13. 5/9/2014	Ray Richard	Cobleskill NY	
14. 5/10/2014	Barbara Heene	208 Main St	Richmondville
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/7/2014	Kathleen J Moore	106 Anthony Circle	Cobleskill
2. 5/7/2014	Harriet Moore	PO Box 702	Cobleskill
3. / /2014	Kenneth Moore	PO Box 702	Cobleskill
4. 5/16/2014	David E Davis	255 discornerly dr	Howe Cave/Cobleskill
5. 5/18/2014	Clifford Cooper	133 Myers Rd.	Howe Cobleskill
6. 5/19/2014	John	147 Campus Dr	Cobleskill
7. 5/19/2014	John	147 Campus Dr	Cobleskill
8. 5/19/2014	Matthew Moore	276 Lamont Dist Rd	Cobleskill
9. 5/10/2014	George J. Dancy	121 Lincoln Ave	Cobleskill
10. 5/11/2014	Michelle S. Sprock	276 Lamont District Rd	Cobleskill
11. 5/11/2014	Connie E. Ebersohn	144 La Fayette Cir	Cobleskill
12. 5/11/2014	Ed Ebersohn	164 LA FAYETTE CIR.	COBLESKILL
13. / /2014			
14. / /2014			
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/14/2014	<i>Jerry G. Keen</i>	114 TUTERA CT.	COBLESKILL
2. 5/14/2014	<i>Bob Haver</i>	571 Little York Rd	Cobleskill
3. 5/14/2014	<i>Thomas M. Heston</i>	108 CHAPEL ST.	COBLESKILL
4. 5/14/2014	<i>Dorcas Van Deus</i>	279 BARNHURVILLE RD	COBLESKILL
5. 5/14/2014	<i>Kerry A. Haver</i>	571 LITTLE YORK R.	COBLESKILL
6. 5/14/2014	<i>Jeff Tommeo</i>	Lawyersville Rd	COBLESKILL
7. 5/14/2014	<i>Keneth R. Moring</i>	126 UNION ST	COBLESKILL
8. 5/14/2014	<i>Harry D Chapman</i>	103 Santen Lane	Cobleskill
9. 5/14/2014	<i>St R Maderni</i>	199 S. Grand St.	Cobleskill
10. 5/14/2014	<i>Gerald Hattson</i>	128 Valley Ct.	Cobleskill
11. 5/14/2014	<i>Shane J. Strong</i>	145 Myers Road	Hoves Cove NY 12092
12. / /2014			
13. / /2014			
14. / /2014			
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/9/2014		280 N. Grand St Cobleskill NY	Cobleskill
2. 5/9/2014		705 F. main street #4, Cobleskill NY	Cobleskill
3. 5/9/2014		1030 Cotton Hill Rd. Middleburgh NY	MIDDLEBURGH
4. 5/11/2014		1288 Co # on Hill Rd Boone NY 12023	Wright
5. 5/11/2014		107 Lark St Apt B	Cobleskill
6. 5/11/2014		404 Cook Rd Schoharie, NY	Schoharie
7. 5/11/2014		↓	↓
8. 05/11/2014		↓	↓
9. 5/11/2014		Cobleskill	Cobleskill
10. / /2014			
11. / /2014			
12. / /2014			
13. / /2014			
14. / /2014			
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

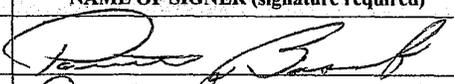
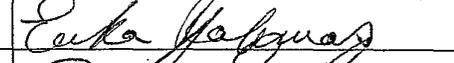
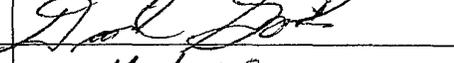
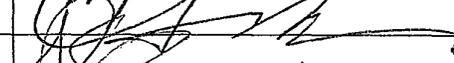
We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/2/2014		178 Lafayette Ave Circleville	Cobleskill
2. 5/2/2014		938 Mineral Springs Cobleskill	Cobleskill
3. 5/2/2014		255 Discovery Drive	Cobleskill
4. 5/2/2014		133 Myers road	Cobleskill
5. 5/2/2014		206 Orchard St	Schunior
6. 5/2/2014		Rt 7. Hoursburg	Hoursburg
7. 5/2/2014		1433 Claverwick Rd	Middleburgh
8. / /2014			
9. / /2014			
10. / /2014			
11. / /2014			
12. / /2014			
13. / /2014			
14. / /2014			
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/11/2014	Richard L. Casall	106 Highland Terr.	Cobleskill NY
2. 5/11/2014	Barbara J. Corsall	106 Highland Terr.	Cobleskill, NY
3. 5/11/2014	Hees FREDERSEN	9619 SR 7	WORCESTER NY
4. 5/11/2014	SA [Signature]	169 Lafayette Circle	Cobleskill, NY
5. 5/11/2014	Bob [Signature]	628 Beech Rd.	Sharon Springs, NY
6. 5/11/2014	Matthew A. [Signature]	628 Beech Rd	Sharon Springs NY
7. / /2014			
8. / /2014			
9. / /2014			
10. / /2014			
11. / /2014			
12. / /2014			
13. / /2014			
14. / /2014			
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 5/2/2014	<i>[Signature]</i>	Schoharie	Schoharie
2. 5/2/2014	<i>[Signature]</i>	Schoharie	Schoharie
3. 5/5/2014	<i>[Signature]</i>	Cobleskill	Cobleskill
4. 5/5/2014	<i>[Signature]</i>	Cobleskill	Cobleskill
5. / /2014			
6. / /2014			
7. / /2014			
8. / /2014			
9. / /2014			
10. / /2014			
11. / /2014			
12. / /2014			
13. / /2014			
14. / /2014			
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

PETITION IN SUPPORT OF BUILDING A CASINO IN THE TOWN OF COBLESKILL

We, the undersigned, being residents of the Town of Cobleskill, NY, support the proposal to site one of seven casinos authorized to be built in New York State within the Town of Cobleskill.

As set forth by the state legislature, we support the casino for the purpose of promoting job growth, increasing aid to schools, and permitting local governments to lower property taxes through revenues generated.

With one of the highest unemployment rates in New York State and following the devastation caused to our region by multiple flooding disasters, we believe that a casino in the Town of Cobleskill will help to provide needed growth in economic development, job creation and tourism.

We further believe that this proposal would be a win-win for Cobleskill, Schoharie County, the surrounding region and New York State.

In witness whereof, I have hereunto set my hand, the day and year placed opposite my signature.

DATE	NAME OF SIGNER (signature required)	RESIDENCE	TOWN or CITY
1. 05/10/2014		Cobleskill	Cobleskill
2. 05/11/2014	Margaret Pacheco	Cobleskill	Cobleskill
3. 05/11/2014		Cobleskill	Cobleskill
4. / /2014			
5. / /2014			
6. / /2014			
7. / /2014			
8. / /2014			
9. / /2014			
10. / /2014			
11. / /2014			
12. / /2014			
13. / /2014			
14. / /2014			
15. / /2014			
16. / /2014			
17. / /2014			
18. / /2014			
19. / /2014			
20. / /2014			

TAB

Exhibit IX. A.2. LOCAL IMPACTS AND COSTS

Exhibit IX. A.2.a. Cost to Host Municipalities and State

Local Impacts and Costs

An evaluation is required of the impact on essential public services provided by the host local government, the county government and the State resulting from construction and operation of the proposed casino and hotel project for the following functions: police and fire protection and emergency medical services (EMS); town building and codes service and general government; as well as social services and mental health and addiction.

The evaluation is based on information provided by key officials and staff at the Village of Cobleskill, the Host Town of Cobleskill, and Schoharie County that have lead responsibilities for the above public services. Additionally, contacts were made with other officials in other counties where there was a casino facility – such as Turning Stone. In the policing area an extensive literature research review was conducted on issues of crimes related to gaming facilities.

Police Services

Police Service for the proposed casino and hotel project at the Howe Caverns site will be provided primarily by the Schoharie County Sheriff's Office with secondary assistance coming from the New York State Police. In addition to these two law enforcement agencies the Village of Cobleskill has a police department which, based upon the closest car concept, responds to calls for service outside of the Village.

The Schoharie County Sheriff, a retired NYSP Trooper with decades of law enforcement experience, has held the office of Sheriff since 2010, is supportive of the casino proposal but is concerned, based upon current staffing, with his agencies ability to provide effective police service. Currently, the road patrol is comprised of 13 full time deputies, three part time deputies, 1 investigator, 1 civil servant sergeant, and the Chief Deputy. The office provides police coverage from 7AM through 1AM; the road deputies work four ten-hour days with three consecutive days off. During the day hours the agency is typically staffed with 2 deputies and 1 civil sergeant (handles service of process and evictions); the day shift deputies handle approxi-

mately 7-10 calls for service per shift. The evening shift is comprised of 2 deputies and 1 sergeant; the evening shift handles approximately 10-12 calls for service per shift. The Sheriff's Office handles dispatching duties across the County for all public safety matters; data for the time period from June 13, 2013 through June 14, 2014 shows the Office dispatched 17,203 calls for service across the County.

Village of Cobleskill Police Chief is another experienced law enforcement veteran and is also supportive of the project. Like the County Sheriff, the Police Chief expressed concern, based upon current staffing levels, about his Department's ability to provide effective police services if the proposed project goes forward. The Department provides police coverage 24/7 to the Village of Cobleskill as well as coverage to areas outside of the Village during overnight hours although there is no formal agreement for the overnight coverage. The Department has a staff of 12 full time officers including Police Chief. During the day the Department patrols with one officer, one investigator, and the Chief. The staffing is staggered across the afternoon and overnight with 2 officers working during the 3PM-7PM period with an increase in staffing to five officers beginning at 7PM to cover the more active evening period; the staffing then reduces thru the late evening and overnight hours. Although the Department will not have primary law enforcement duties, the Police Chief anticipates the Village will see an increase in visitors if the proposed project is constructed. The Police Chief explained his single officer on patrol during the day shift is kept busy throughout shift with the current Village population. The Police Chief provided data showing that for the time period from June 13, 2013-June 14, 2013 the Department issued 635 traffic tickets, completed 145 MV accident reports, made 449 arrests, and had 15,863 blotter entries (some of all of this activity may be included in the 17,203 calls for service across the County).

It should be noted that attempts were made to contact the New York State Police Zone Commander but no communication occurred because the Zone Commander did not respond to inquiries concerning possible impacts of the proposed project on State Police coverage in the area.

Regarding mitigation, the Sheriff expressed the need to hire additional deputies to augment the current two shifts as well as adding an overnight patrols. The Sheriff asserts this additional staffing could be accomplished through the use of full and part time deputies. In the Village of Cobleskill

there have been discussions between the Village of Cobleskill and Town of Cobleskill with respect to making the police department a town wide department as currently the Village is providing some police service to the Town without written agreement or funding. Further staffing for the Cobleskill Police Department and Sheriff's Office is likely to be required if the project moves forward with funding coming from revenue derived by the host municipality.

Fire Protection

Fire Protection for the proposed complex at the Howe Cavern's site will be provided by the all-volunteer Village of Cobleskill Fire Department, which through contractual agreements covers the entire town outside of village, as well parts of two adjacent towns. EMS response is not provided by the department – see below.

The Fire department has a large complement of volunteers - total of 40 active, with 30 being the most qualified interior firefighters .The Fire Chief indicated that they can provide good turnouts during the day as well as evenings - many upstate volunteer companies have difficulties with daytime turnouts. On average they can get their ladder truck and pumper out to the existing Caves' visitors' center in about 7-8 minutes, with each truck having the required standard 4 volunteers

The Fire Chief indicated on average 5-6 calls a year involve Howe Caverns out of an average of 220 total calls a year. It was also pointed out many calls and responses to the fire department, as well as all other departments are false alarms.

Regarding equipment the Village of Cobleskill Fire Department has a good complement of pumpers, a rescue vehicle and a 95 foot ladder truck in good condition. This truck will allow the fire department to reach into to the five story high rises of SUNY-Cobleskill dorms, but would not be able to do that if a 13 story Casino Hotel is erected. The Fire Chief indicated his volunteers would need training for interior firefighting at a high rise hotel complex. The Fire Chief furthe stated that the department is seeking to purchase a combined pumper/rescue vehicle that would enable them to get off the floor quicker and be more effective in responses.

The Fire Chief expressed no concern about the fact the proposed project expected visitors would rise from 150,000-200,000 per year to well over 1.5 million – a ten-fold increase. With multiple facilities at the proposed project, many more fire and other emergency calls are likely, with the many likely to be false alarms. The county emergency management officer (see below) expressed confidence that the Village of Cobleskill Fire Department has the capability to provide the necessary fire protection to the proposed project.

It should be noted that mutual aid response assistance from other fire companies is a hard core tradition and the Village of Cobleskill Fire Department can call upon two close fire companies –Carlyle and Central Bridge- each about 4-5 miles from the Cobleskill station, with the later close to the Howe Cavern's site.

Our evaluation of fire protection for the proposed project found no urgent issues of adequacy of fire protection. Contact with the Verona volunteer fire company that provides service to the Turning Stone casino complex disclosed they receive an annual mitigation fee from the Oneida Nation but pay no local taxes to help cover such services as fire protection.

Our overall assessment is that providing the expected standards of good fire protection to the proposed project at the Howe Caverns site is likely to be more complicated than anticipated.

Emergency Medical Services (EMS)

Currently the County of Schoharie employs two full time advanced life support (ALS) paramedics as well as two part time advanced life support (ALS) paramedics. The current level of staffing by the County does not provide for 24 hour coverage by on duty paramedics. In addition to the County EMS personnel, the Village of Cobleskill is home to an all-volunteer rescue squad which provides service to areas outside the village through mutual aid agreements. The Cobleskill Rescue Squad (CRS) is comprised of 22 emergency medical technicians, two of which are paramedics. CRS handled 803 calls in calendar year 2013. CRS operates out of the Cobleskill Village Firehouse and through mutual aid provides assistance to other areas.

The Schoharie County Emergency Services Director oversees fire protection,

EMS, and emergency management for the County of Schoharie. The County Director provided the current County staffing levels and stated, “there is not a real robust ALS system in the County”. The County Director expressed concern over the ability of the current EMS (in particular ALS) resources to handle the calls that would come from the addition of the envisioned facilities at Howe Cavern. The County Director expressed a desire, regardless of whether the proposed project moves forward, to add a third full time ALS position giving the County the capability to provide ALS countywide 24/7. With the addition of the proposed project and its multiple facilities, the County Director believes the County would need to add two additional full time ALS paramedics as well as two part time ALS paramedics bringing total staffing to four full time and four part time ALS paramedics. The building which currently houses the Office of Emergency Services is located at 2783 State Route 7 in Cobleskill; this building, which is newer, is within close proximity to the proposed project site and is a temporary headquarters of the Office of Emergency Services until such time as a new public safety building is constructed as the existing building was destroyed by Hurricane Irene. Once the new public safety building is constructed the existing Emergency Services building, which is County owned, could be repurposed acting as an EMS and police substation.

Ambulance service in the host community is currently handled by the Cobleskill Rescue Squad as well as by surrounding towns through mutual aid. The County Director explained there is one paid ambulance service in the County, Rural/Metro. Currently, Rural/Metro mainly handles hospital transport (transporting patients from Cobleskill Hospital to Albany Medical Center Hospital) using a single ambulance. Rural/Metro is a nationwide corporation and provides ambulance service in areas throughout New York State. As a private corporation, Rural/Metro would be in a position to capitalize on the business opportunity the proposed project would bring.

Buildings and Zoning Codes Services

The construction and operation of the proposed project facilities is subject to regulation and inspections by the Town of Cobleskill’s building and zoning code enforcement officer, who also conducts fire code inspections. The

officer expressed a number of concerns with respect to the office's capabilities to carry out assigned duties and workload with respect to the proposed project.

As the Town building and zoning code enforcement officer works part-time at 20 hours week and can call upon the full-time Village enforcement officer to assist after his regular hours. The Town building and zoning code enforcement officer has no immediate administrative assistance. The Town building and zoning code enforcement officer is especially concerned about the capacity to handle the entire proposed project and all envisioned facilities along with site work in a fast-track construction period of a few year.

The Town building and zoning code enforcement officer also raised the issue of induced new building permit workload that might evolve from the location attraction of the proposed project ,especially since the Village is currently extending further into the town new water and sewer lines along the State Route 7 corridor, which could likely generate adjacent real estate development projects.

The concerns raised by the Town building and zoning code enforcement officer will need further evaluation and consideration . In Exhibit IX. A.3, which follows we discuss mitigation needs and options.

General Government- Town of Cobleskill

Discussions with the Town Supervisor disclosed no serious concerns about any direct adverse impacts on town government and the services it provides from the proposed project, except regarding improving road access to the new complex.

Currently, the most direct and most used access to Howe Cavern's is off State Route 7 and provided by Cavern's Road. A stretch of this road leading up to the Cavern's and project site is residential, and may not meet designs required to handle the traffic flow to/from the proposed project and other venues at the site. The Town Supervisor expressed his preference that the main access to the proposed project location be off Sagendorf Corners Road , which needs repair and improvements. The current plans for the proposed project however already address this situation and provide for a new prima-

ry access route through an improved Sagendorf Corner Road .

The Town Clerk's primary concern is that there will likely be more visitors to her office and that more storage capacity such as file cabinets will be needed to handle all the documents and paperwork , likely to be generated by the construction and operation of the proposed project and perhaps other businesses. These matters are addressed in Exhibit IX A.3

Village of Cobleskill

The Mayor stated her major concern is that the village's extension of new water and sewer lines to additional town territory outside village service areas, including the Howe Caverns site expansion, would put pressure on the small existing water and sewer departments, with staffing of three each. This would be due to added annual O&M workload. The matters are addressed in Exhibit IX A.3

Schoharie County Social Services and Mental Health and Addiction

Contact with the two responsible agency heads was made concerning any adverse effects engendered by the casino project on increasing socio-economic and mental health addiction problems, and about potential fiscal pressures to cover the delivery of applicable County services.

The County Social Services Commissioner indicated he did not believe that the proposed casino would have any measurable adverse effects on the County populations he serves and would serve, and any resulting service needs of the agency. The agency currently provides income maintenance and food stamps and Medicaid services and costs. The Commissioner based his views on the contacts he has had with his counterparts in Oneida County (Turning Stone) and other counties in-upstate with casinos and/or racinos.

The Commissioner acknowledged that there could be positive effects stemming from the proposed project for residents of the county by potentially reducing the demand for services the agency provides because of the added jobs and income prospects of the development project.

The Director of Community Services is the County agency that provides general mental health clinic services and chemical dependency (drugs)

counseling. Currently the agency case load is 70-75 on the former and about 28 on the latter. The Director expressed concerns about the implications of the proposed project on increased needs and services for her dependency program, having only one counselor handling this current caseload.

It should be noted that there is an extensive research literature on the socio-economics and gambling addiction adverse effects of new casino development. However, the research findings are mixed according to many expert reviewers. As important, many of the studies have been critiqued with respect to methodological rigor. Therefore, it is not clear that this research is adequate to evaluate the degree to which the proposed project would impact social services, mental health and gambling addiction programs serving county residents.

Since visitations to the casino will bring many people from surrounding counties and other upstate area counties there does not appear to be a high risk of local county impacts and implications. Further discussion and recommendations on mitigation in these public service areas is presented in Exhibit IX A.3

TAB

Exhibit IX. A.2.b. Local and Regional Impacts

The following are studies completed by independent experts showing the local and regional impacts of the proposed Gaming Facility in each of the following areas: traffic and roadway infrastructure; water demand, supply and infrastructure capacity; waste water production, discharge, and infrastructure capacity; storm water discharge and management; electricity demand and infrastructure capacity; protected habitats and species; and light pollution.

Howe Caverns Resort and Casino LLC has retained independent experts to prepare studies to analyze the local and regional impacts of the proposed Gaming Facility. Included as attachments to this exhibit is the following studies:

- Traffic and Roadway Infrastructure
“Traffic Impact Study” dated June 24, 2014, prepared by Creighton Manning
- Water Demand, Supply and Infrastructure Capacity - See Sewer and Water Study” dated June 26, 2014, prepared by
- Waste Water Production, Discharge and Infrastructure Capacity
“Sewer and Water Study” dated June 26, 2014, prepared by
- Storm Water Discharge and Management - See “Storm Water Report” dated June 2014, prepared by McLaren Engineering
- Group Electricity Demand and Infrastructure Capacity - See “T”, dated , prepared by EYP
- Protected Habitats and Species - See “Endangered and Threatened Species Investigation” dated August 23, 2010, prepared by North Country Ecological Services Inc.
- Light Pollution. - “Lighting Report”, dated June 26, 2014, prepared by McLaren Engineering Group

Traffic Impact Study

The Casino Resort at Howe Caverns

Sagendorf Road

Town of Cobleskill, New York

CM Project No. 114-145

Prepared For:

Howe Caverns Development, LLC
255 Discovery Drive
Howes Cave, New York 12092



Prepared By:



2 Winners Circle
Albany, New York 12205
(518) 446-0396

June 24, 2014

Table of Contents

	<u>Page</u>
Title Page	i
Table of Contents	ii
List of Tables	ii
List of Figures	iii
List of Appendices	iii
Executive Summary	iv
CHAPTER I. INTRODUCTION	1
A. Planned Project	1
B. Relevant Experience	1
C. Study Area and Methodology	1
CHAPTER II. TRAFFIC FORECASTS	3
A. 2016 No-Build Traffic Volumes	3
B. Trip Generation	3
C. Trip Distribution	5
D. Trip Assignment	5
E. 2016 Build Traffic Volumes	5
CHAPTER III. ANALYSIS	13
A. Capacity/Level of Service Analysis	13
B. Parking Demand	16
CHAPTER IV. CONCLUSIONS AND RECOMMENDATIONS	17

List of Tables

Table 2.1 – Trip Generation Study Casinos	4
Table 2.2 – Trip Generation Summary	4
Table 3.1 – Peak Hour Level of Service Summary	14
Table 3.2 – Parking Summary	16

List of Figures

Figure 1.1 – Project Location Map	2
Figure 2.1 – 2016 No-Build Weekday PM Peak Hour Traffic Volumes.....	6
Figure 2.2 – 2016 No-Build Weekend Midday Peak Hour Traffic Volumes	7
Figure 2.3 – Trip Distribution	8
Figure 2.4 – Weekday PM Peak Hour Trip Assignment	9
Figure 2.5 – Weekend Midday Peak Hour Trip Assignment.....	10
Figure 2.6 – 2016 Build Weekday PM Peak Hour Traffic Volumes	11
Figure 2.7 – 2016 Build Weekend Midday Peak Hour Traffic Volumes.....	12

List of Appendices

Appendix A.....	Site Plan
Appendix B.....	Howe Caverns Estate TIS dated April 26, 2010
Appendix C.....	Level of Service Analysis

EXECUTIVE SUMMARY

The transportation system around the Howe Caverns site can accommodate the proposed Casino traffic with some transportation improvements. The improvements include upgrades to Sagendorf Corners Road between Route 7 and the site for improved driver guidance to/from the proposed primary casino entrance; future (long term) channelization improvements at the Caverns Road/Route 7 intersection to create a standard T-intersection and installation of a traffic signal if warranted; capacity improvements at the I-88 Interchange 22 eastbound off ramp (new traffic signal); and signal timing optimization at the Route 7 intersections with Sagendorf Corners Road and Route 145. Stop sign control is recommended on the casino driveway approaches to Caverns Road and Sagendorf Corners Road. These improvements are subject to final review and approval by the New York State Department of Transportation (NYSDOT), Schoharie County, and the Town of Cobleskill.

A comprehensive traffic impact study was completed for a proposed recreational expansion on the Howe Caverns site in 2010. This Amendment analyzed the additional traffic impact associated with the proposed Casino project and concludes that some transportation improvements are required to provide adequate access to/from the site. Altogether, the Casino and ancillary uses will generate approximately 1,000 Saturday peak hour trips which can be accommodated with the improvements identified above.

CHAPTER I INTRODUCTION

This report summarizes the results of a Traffic Impact Study for the proposed *Casino Resort at Howe Caverns* located in the Town of Cobleskill, Schoharie County, New York. The site is located on the west side of Sagendorf Corners Road between County Road 8 (CR 8) and County Road 9 (CR 9, Caverns Road). The site location is shown on Figure 1.1. A copy of the proposed site plan is included in Appendix A.

A. Planned Project

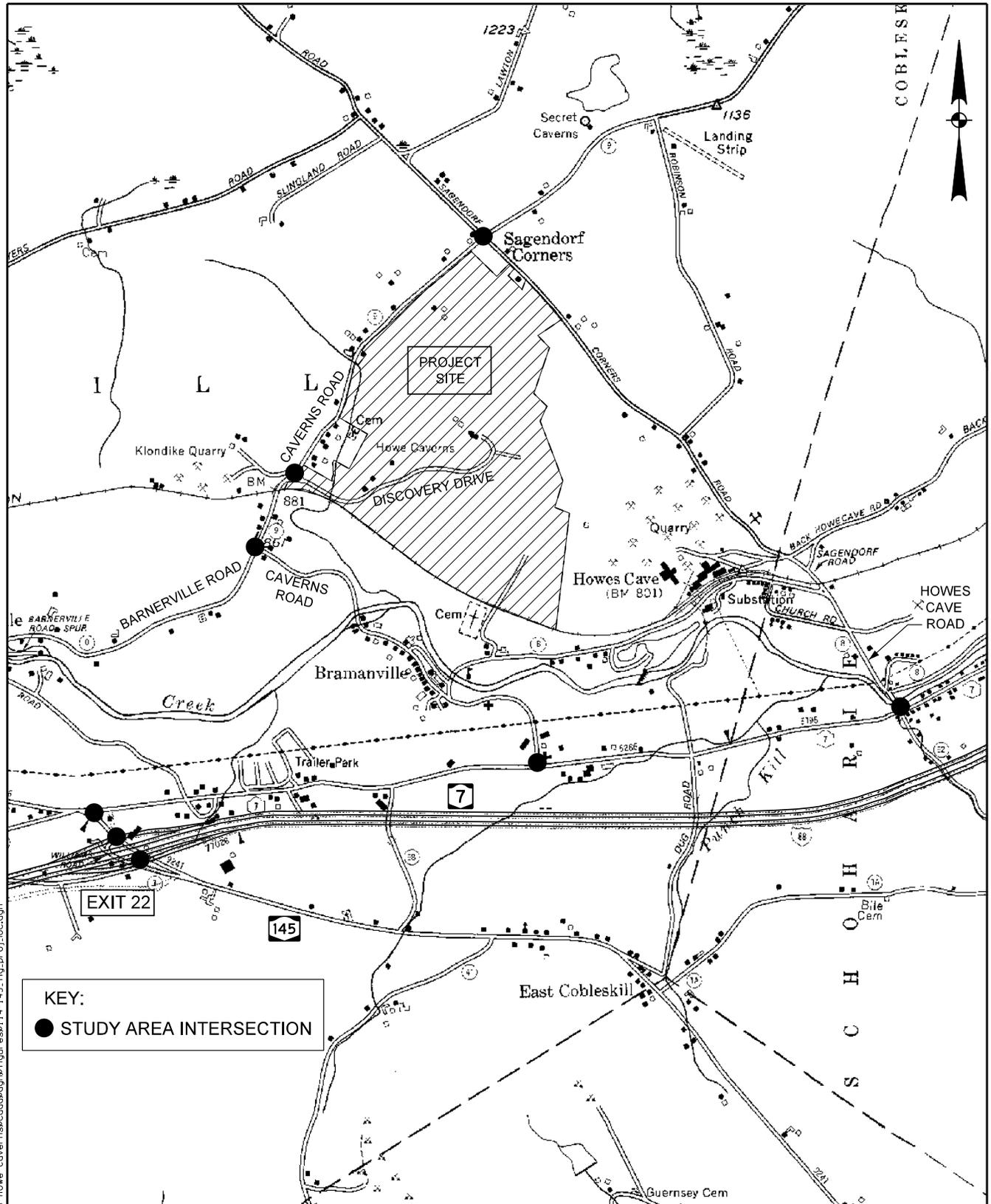
The proposed project includes the development of a 250-room casino hotel with 1,772 gaming positions, a 250-room hotel with indoor waterpark, a 50,000 square foot (SF) outdoor waterpark, and a dinosaur amphitheater. Primary access to the site is proposed via Sagendorf Corners Road with secondary site access from Caverns Road. It is anticipated that the project will be complete by the end of 2016.

B. Relevant Experience

This is an independent study prepared by Creighton Manning Engineering, a consulting firm headquartered in Albany, New York that specializes in transportation engineering. The firm has provided engineering services for 49 years and has a staff of 60 and is fully authorized by the State of New York to practice engineering and land surveying. Creighton Manning has completed transportation related studies for nine casinos over the last decade.

C. Study Area and Methodology

A Traffic Study was prepared for *Howe Caverns Estate* dated April 26, 2010. Field review confirmed that current transportation conditions in the study area are consistent with the conditions presented in the 2010 TIS. Therefore, the data contained in the 2010 TIS serves as the basis for this Amendment being prepared for the proposed *Casino Resort at Howe Caverns*. The 2010 TIS is included in Appendix B.



KEY:
 ● STUDY AREA INTERSECTION

E:\Projects\2014\114-145 Howes Caverns\figs\figs\114-145_fig_prcj_loc.dgn

PROJECT LOCATION

THE CASINO RESORT AT HOWE CAVERNS
 TOWN OF COBLESKILL, NY

 Creighton Manning		
PROJECT: 114-145	DATE: 06/2014	FIGURE: 1.1

CHAPTER II TRAFFIC FORECASTS

To evaluate the impact of the proposed casino, traffic projections were prepared for 2016, the expected year of site development and operation.

A. 2016 No-Build Traffic Volumes

Review of traffic volume data published by the NYSDOT shows that traffic volumes in the study area have been experiencing negative growth over the last several years. Therefore, the No-Build traffic volumes presented in the original study are considered conservative and representative of 2016 No-Build conditions. The Friday PM and Saturday Midday peak hour volumes are illustrated on Figures 2.1 and 2.2.

B. Trip Generation

Trip generation determines the quantity of traffic expected to travel to/from the site. The Institute of Transportation Engineers (ITE) *Trip Generation, 9th edition*, provides trip generation data for various land uses based on studies of similar existing developments located across the country. ITE information for casinos (LUC 473) is limited to casino/video lottery establishments that do not offer full service casino/hotel facilities with numerous support services as proposed for *The Casino Resort at Howe Caverns*. Therefore, trips associated with the proposed project were estimated using trip generation information from other similar existing casino projects that include hotel facilities. Research about casino trip generation and information provided by a *Mohegan Sun Casino* consultant indicates that trip generation correlates most directly to the number of gaming positions. Creighton Manning gathered data on multiple casinos to develop a trip generation rate based on the number of gaming positions as shown in Table 2.1. The data indicates that these developments generate approximately 0.388 and 0.413 trips per gaming position during the Weekday peak hour of adjacent street traffic and the Weekend peak hour, respectively, with an approximate 50/50 split of traffic entering and exiting the site.

Table 2.1 – Trip Generation Study Casinos

Casino	Gaming Area (ksf)	Hotel Rooms	Gaming Positions	Number of Peak Trips		Peak Trip Generation Rate Per Gaming Position	
				Weekday	Weekend	Weekday	Weekend
Mohegan Sun ¹	300	1,200	10,000	2,976	3,123	0.2976	0.3123
Mystic Lake ²	125	416	4,630	1,806	1,991	0.39	0.43
Foxwoods ³	320	1,400	11,230	3,863	4,312	0.344	0.384
Ameristar ⁴	38	356	1,803	805	904	0.4465	0.5014
Harvey's ⁴	28.25	251	1,540	793	757	0.5149	0.4916
Turning Stone ⁵	120	268	2,630	1,013	1,028	0.385	0.391
Sands Bethlehem ⁶	143	302	4,164	1,420	1,591	0.341	0.382
Average	153.5	599	5,142	1,810	1,958	0.388	0.413

¹ Number of Trips counted by CME in August 2002.

² Traffic Impact Study St. Croix Meadows Racing Park Proposed Casino Hudson, Wisconsin; BRW, Inc.

³ Fax dated August 16, 2002 containing a portion of a Close, Jensen & Miller report

⁴ Environmental Review of Proposed St. Croix Meadows Casino Hudson, Wisconsin; HDR Engineering, Inc.

⁵ Number of Trips counted by CME in October 2003.

⁶ Transportation Impact Study, The Provence Casino Development, City of Philadelphia, PA; Traffic Planning & Design, Inc., Nov 2013

The proposed *Casino Resort at Howe Caverns* includes the construction of a 250-room hotel casino with of 1,500 slots and 34 table games. A review of the 34 table games indicates that they will accommodate a total of 272 gaming positions; therefore, the casino development will provide 1,772 total gaming positions. The project also includes construction of a 250-room hotel with an indoor water park, a 50,000 SF outdoor water park, and a dinosaur amphitheater. ITE LUC 330 for Resort Hotel and 414 for Water Slide Park were used to estimate trips associated with these two uses. As noted, the trip generation data for casinos shows that it correlates most closely to gaming positions regardless of additional entertainment and services available at the facility. Therefore, trips associated with the dinosaur amphitheater are included in the trips for the casino. Table 3.2 summarizes the Weekday PM peak hour and Weekend Midday peak hour trip generation at the site.

Table 2.2 – Trip Generation Summary

Land Use	Size	Weekday PM Peak Hour			Weekend Midday Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Casino	1,772 GP	344	344	688	366	366	732
Water Slide Park	50,000 SF	49	47	96	124	55	179
Waterpark Hotel	250 Rooms	53	70	123	83	65	148
Total Trips		446	461	907	573	486	1,059

GP = Gaming Positions

Table 2.2 shows that *The Casino Resort at Howe Caverns* will generate approximately 907 vehicle trips during the Weekday PM peak hour (446 entering and 461 exiting) and 1,059 vehicle trips during the Weekend Midday peak hour (573 entering and 486 exiting).

C. Trip Distribution

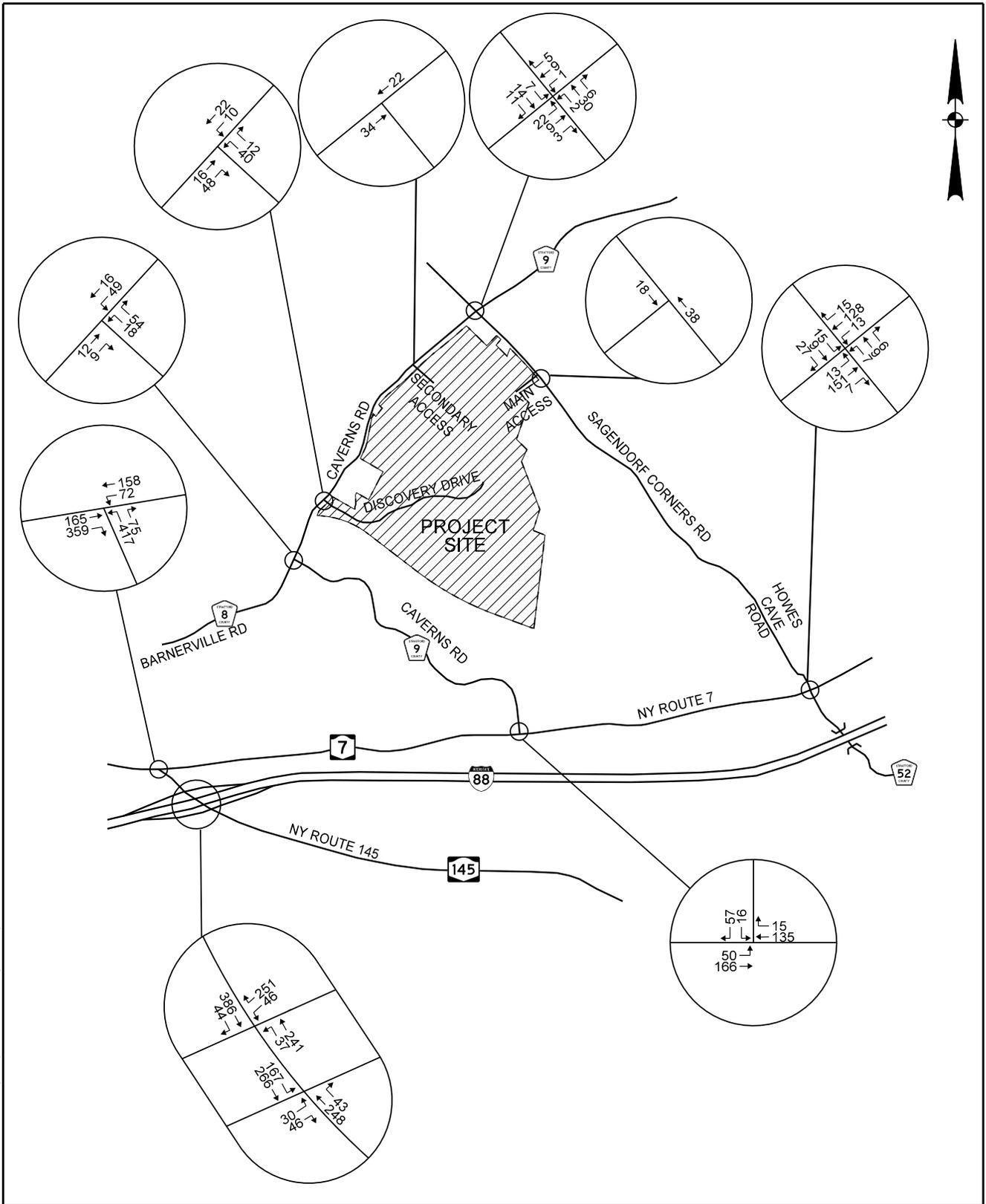
Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on existing travel patterns. Regionally, it is expected that approximately 40 percent of the trips generated by *The Casino Resort at Howe Caverns* will travel to and from the east on I-88, 10 percent will travel to and from the east on NY Route 7, 5 percent will travel to and from the east on County Road 9, and 15 percent will travel to and from the north on Sagendorf Corners Road. Additionally, it is expected that 15 percent of site generated trips will travel to and from the west via I-88, 5 percent will travel to and from the south on NY Route 145, 5 percent will travel to and from the west on NY Route 7, and 5 percent will travel to and from the west on County Road 8. The trip distribution for the project is summarized on Figure 2.3.

D. Trip Assignment

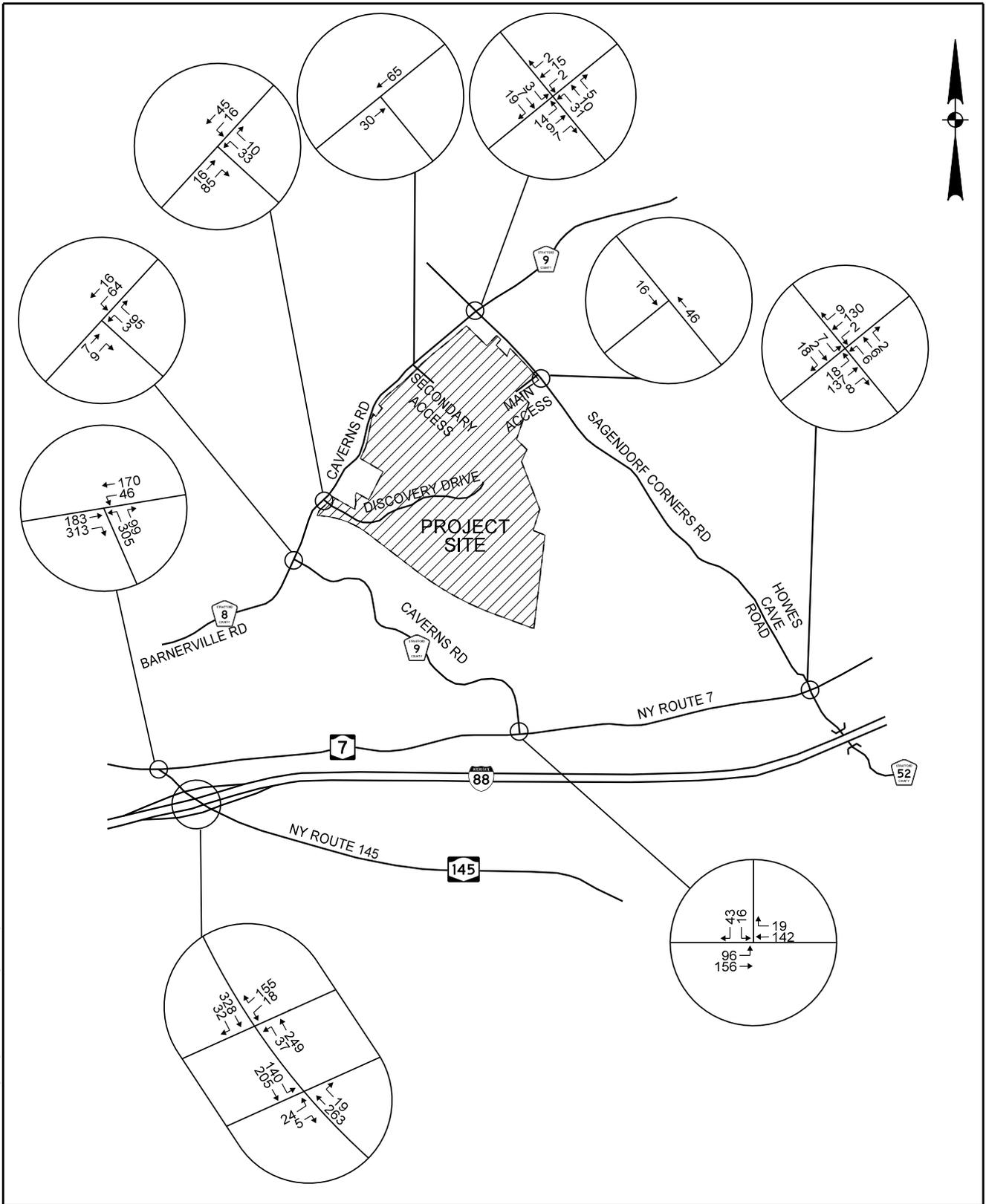
Trip assignment combines the results of the trip generation and trip distribution and determines the specific paths and roadways that will be used between various origin/destination pairs. Figures 2.4 and 2.5 show the resulting trip assignment for the proposed project for the weekday and weekend peak hours.

E. 2016 Build Traffic Volumes

The results of the site generated traffic assignment were added to the 2016 No-Build traffic volumes to develop the 2016 Build traffic volumes. The 2016 Build traffic volumes are shown on Figures 2.6 and 2.7.



F:\Projects\2014\114-145_Howe Caverns\scdd\fig\figures\114-145_fig_1.trcf.dgn



F:\Projects\2014\114-145_Howe Caverns\scdd\fig\figures\114-145_fig_1.trcf.dgn

2016 NO-BUILD TRAFFIC VOLUMES
SATURDAY PEAK HOUR
PEAK SUMMER

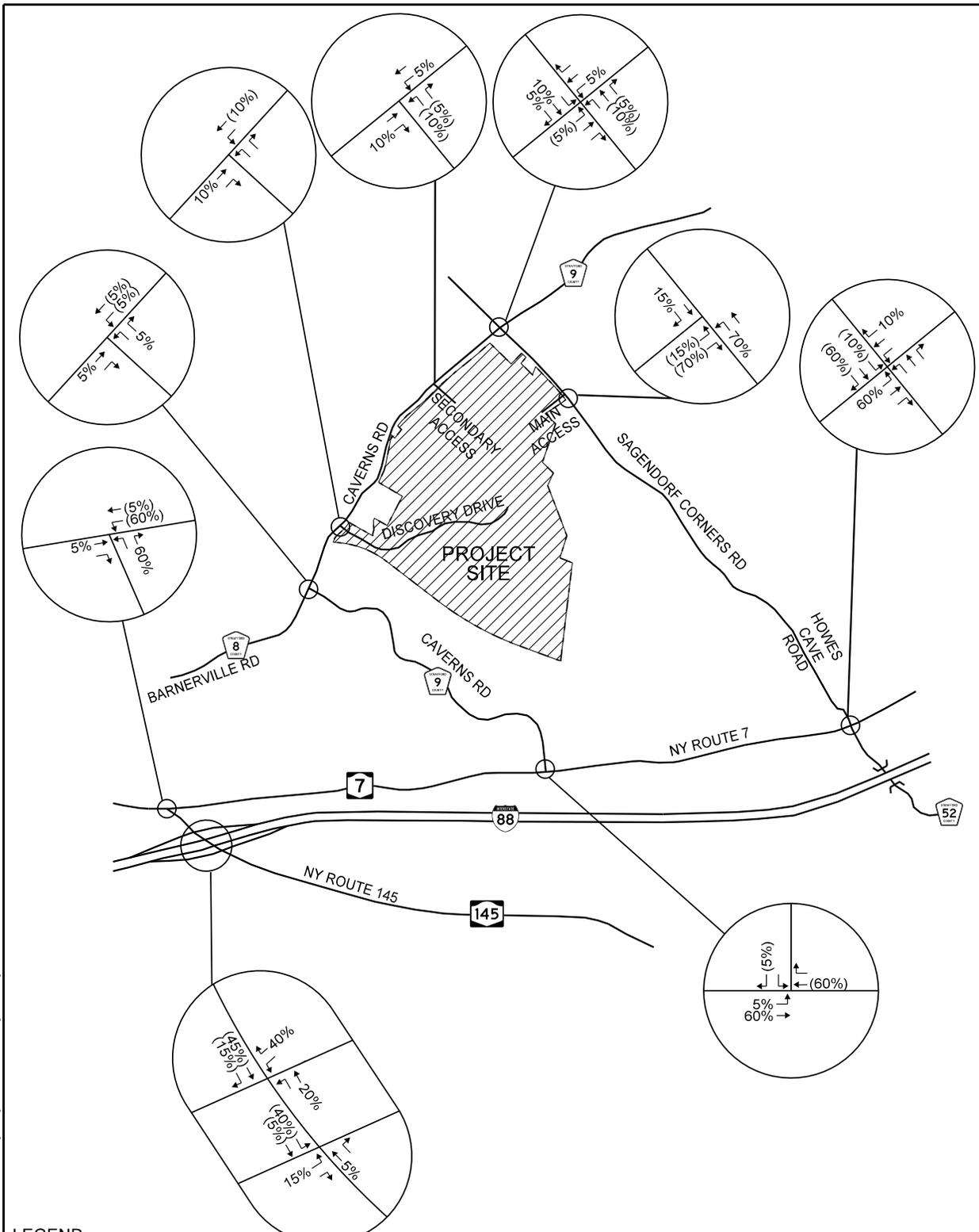
THE CASINO RESORT AT HOWE CAVERNS
TOWN OF COBLESKILL, NY



PROJECT: 114-145

DATE: 06/2014

FIGURE: 2.2



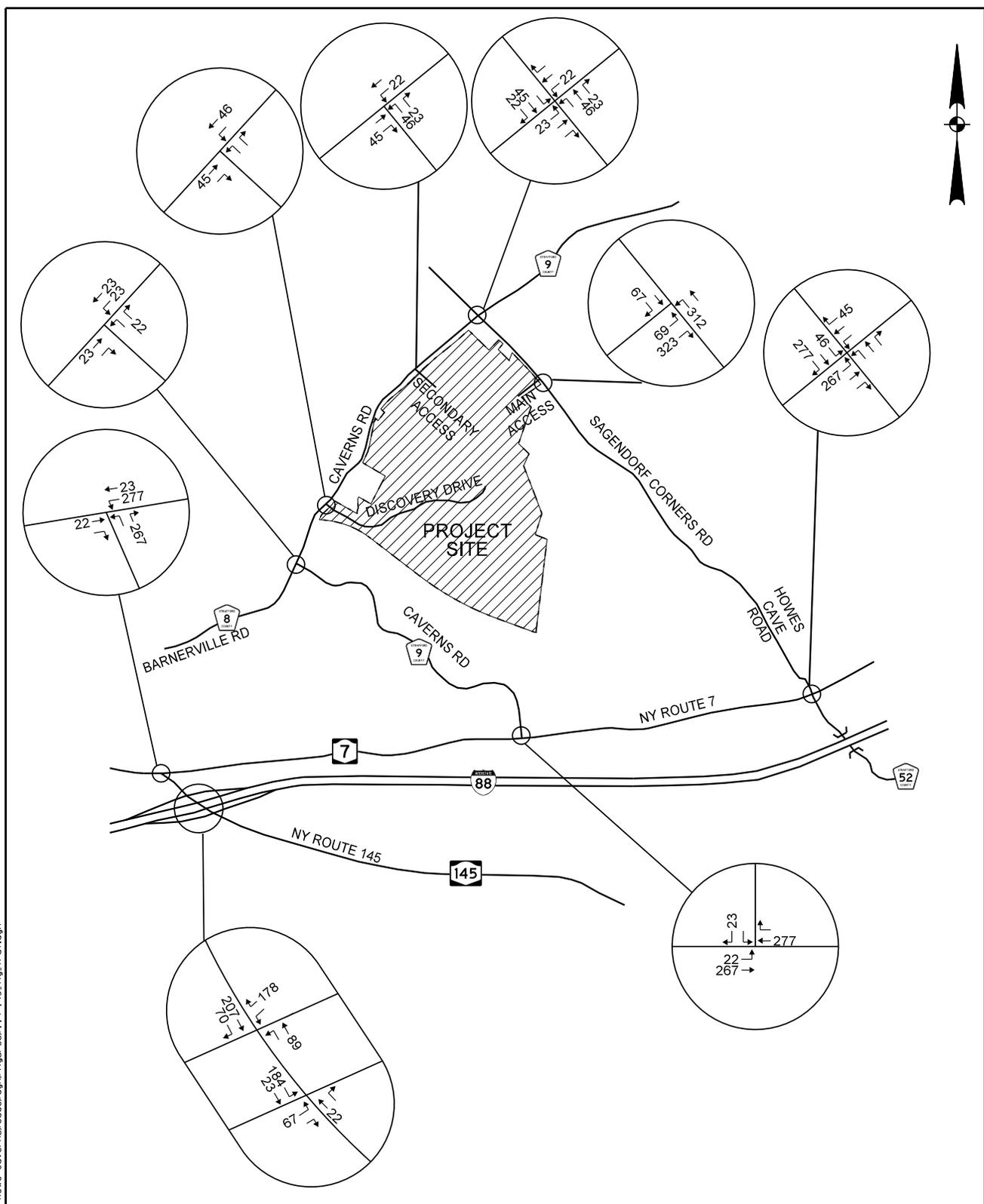
LEGEND:
ENTERING (EXITING)

TRIP DISTRIBUTION

THE CASINO RESORT AT HOWE CAVERNS
TOWN OF COBLESKILL, NY



File: Projects\2014\0114-145_Howe_Caverns\cadd\gpn\figures\114-145_Fig. 2.3.dgn



F:\Projects\2014\145-Howe_Caverns\cadd\gpn\figures\114-145_fig_1.trcf.dgn

FRIDAY PM PEAK HOUR
TRIP ASSIGNMENT

THE CASINO RESORT AT HOWE CAVERNS
TOWN OF COBLESKILL, NY

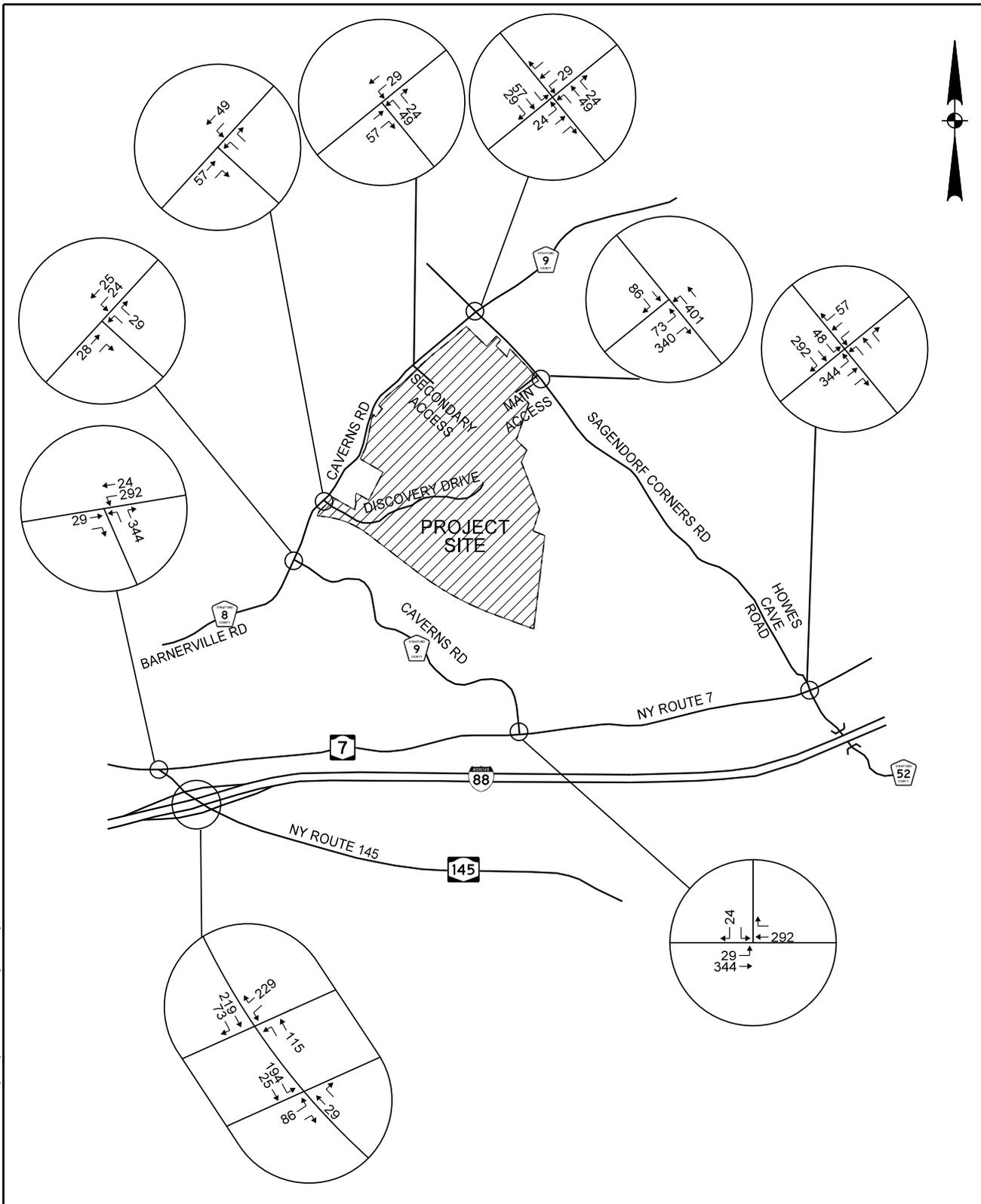


PROJECT: 114-145

DATE: 06/2014

FIGURE: 2.4

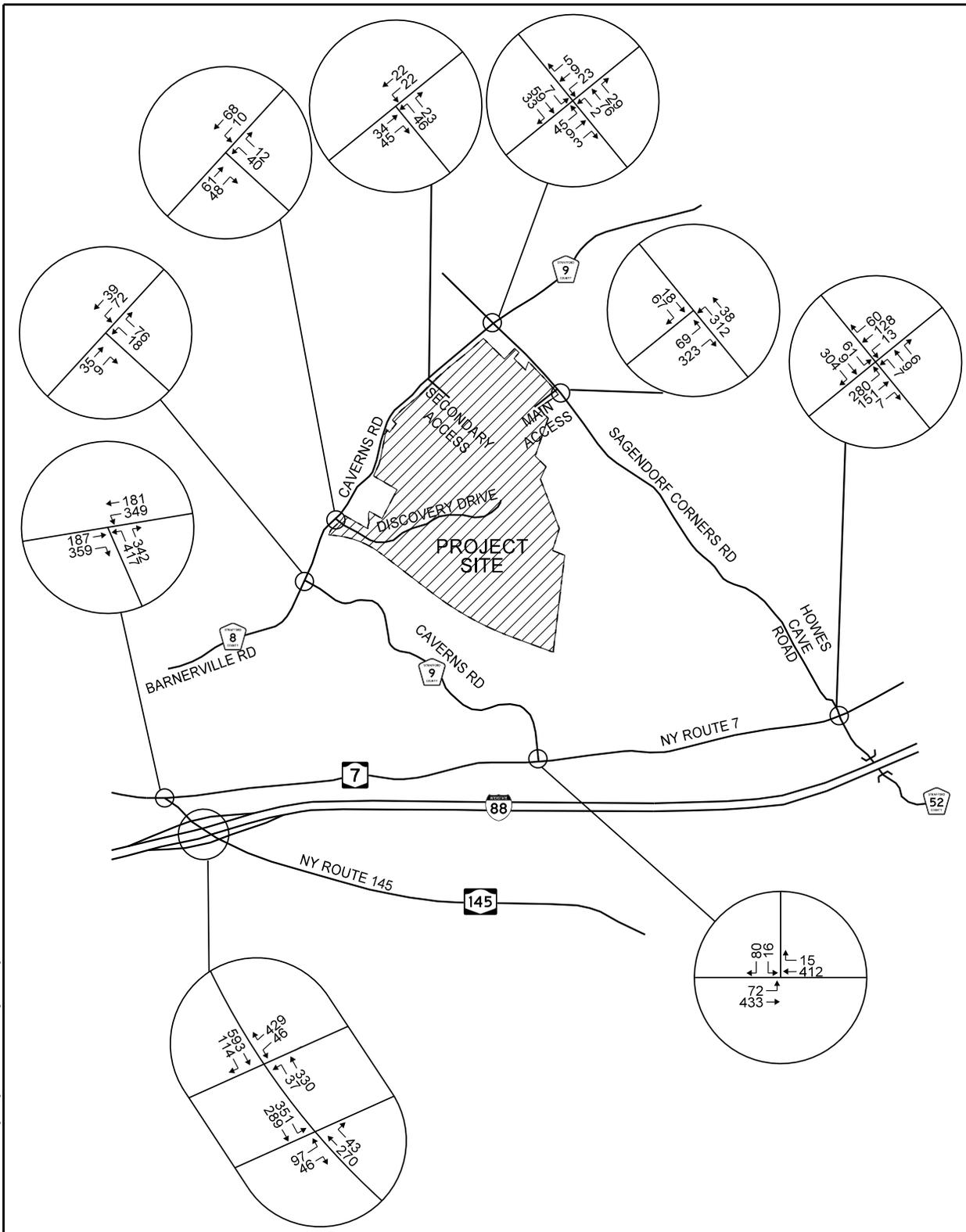
F:\Projects\2014\0114-145_Howe_Caverns\cadd\gpn\figures\114-145_Fig_2.5.trcf.dgn



SATURDAY PEAK HOUR
TRIP ASSIGNMENT

THE CASINO RESORT AT HOWE CAVERNS
TOWN OF COBLESKILL, NY





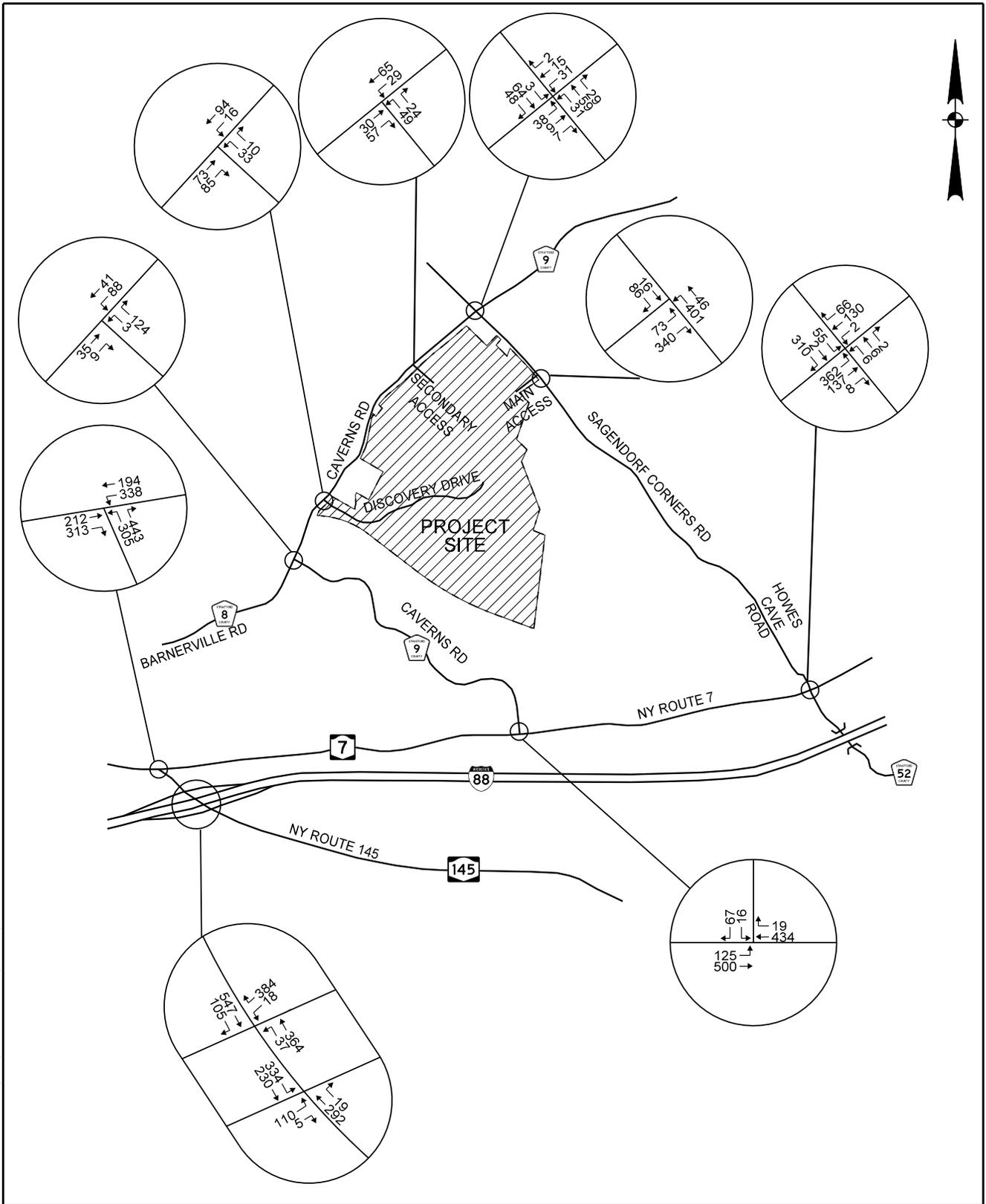
F:\Projects\2014\114-145_Howe_Caverns\cadd\gpn\figures\114-145_Fig_1.trcf.dgn

2016 BUILD TRAFFIC VOLUMES
 FRIDAY PM PEAK HOUR
 PEAK SUMMER

THE CASINO RESORT AT HOWE CAVERNS
 TOWN OF COBLESKILL, NY

Creighton Manning

PROJECT: 114-145	DATE: 06/2014	FIGURE: 2.6
------------------	---------------	-------------



F:\Projects\2014\114-145_Howe_Caverns\ecdd\fig\figures\114-145_fig_trcf.dgn

2016 BUILD TRAFFIC VOLUMES
SATURDAY PEAK HOUR
PEAK SUMMER

THE CASINO RESORT AT HOWE CAVERNS
TOWN OF COBLESKILL, NY



PROJECT: 114-145

DATE: 06/2014

FIGURE: 2.7

CHAPTER III ANALYSIS

A. Capacity/Level of Service Analysis

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using Highway Capacity Software which automates the procedures contained in the *2010 Highway Capacity Manual*. Levels of service range from A to F with level of service A conditions considered excellent with very little delay while level of service F generally represents conditions with very long delays. Further detailed information about levels of service criteria is included in Appendix C.

Table 3.1 summarizes the results of the Level of Service calculations. The *italicized* text identifies a traffic movement with an increase in average vehicle delay that results in a reduction in level of service between the No-Build and Build conditions. The **bold** identifies a traffic movement with an increase in average vehicle delay that results in level of service F operations in the No-Build or Build conditions.

Table 3.1 – Peak Hour Level of Service Summary

Intersection	Control	Weekday PM Peak Hour			Weekend Midday Peak Hour		
		2016 No-Build	2016 Build	2016 Build w/ Imp	2016 No-Build	2016 Build	2016 Build w/ Imp
Route 145/I-88 Exit 22 EB Ramp	TW	A (8.6)	A (9.7)	--	A (8.2)	A (9.1)	--
Route 145 SB L							
I-88 Exit 22 EB Ramp EB LR		C (18.2)	F (371.1)	--	C (17.3)	F (197.6)	--
I-88 Exit 22 EB Ramp EB LR	S			C (21.8)			C (22.5)
Route 145 NB TR		--	--	A (3.2)	--	--	A (2.9)
Route 145 SB L				A (6.4)			B (5.7)
				A (3.1)			A (2.7)
Overall				A (6.6)			A (6.1)
Route 145/I-88 Exit 22 WB Ramp	TW	A (8.4)	A (9.5)	--	A (8.2)	A (9.2)	--
Route 145 NB L							
I-88 Exit 22 WB Ramp WB LR		C (15.8)	E (47.5)	--	B (12.3)	D (29.2)	--
Route 7/Route 145	S						
Route 7 EB T		C (32.2)	C (33.4)	C (30.0)	C (34.1)	D (36.4)	C (31.7)
		B (10.9)	B (10.9)	B (11.7)	B (10.9)	B (10.9)	B (11.7)
Route 7 WB L		C (29.3)	F (136.6)	B (17.1)	C (28.7)	F (109.4)	B (17.1)
		B (13.2)	B (13.5)	B (11.3)	B (13.5)	B (13.8)	B (11.5)
Route 145 NB L		C (24.4)	C (24.4)	C (34.1)	C (21.1)	C (21.1)	C (27.6)
		B (17.7)	C (23.9)	B (14.1)	B (18.1)	D (39.8)	B (16.9)
Overall		C (20.4)	D (43.8)	C (20.4)	B (19.4)	D (41.8)	B (19.1)
Route 7/Caverns Rd	TW						
Route 7 EB L		A (7.7)	A (8.7)		A (7.8)	A (9.0)	
Caverns Rd West Leg SB R		A (9.4)	B (12.3)	--	A (9.4)	B (12.8)	--
Caverns Rd East Leg SB L		B (10.6)	C (18.1)		B (11.0)	C (23.3)	
Caverns Rd West Leg NB L		A (9.6)	B (10.1)		A (9.5)	B (10.1)	
Rt 7/Sagendorf Corners Rd/CR 52	S						
Route 7 EB LTR		A (3.4)	A (5.9)	B (13.0)	A (3.4)	A (7.3)	B (16.1)
Route 7 WB LTR		A (3.4)	A (3.6)	A (7.9)	A (3.3)	A (3.5)	A (7.8)
CR 52 NB LTR		C (26.1)	C (26.1)	B (18.1)	C (26.0)	C (26.0)	B (18.0)
Sagendorf Corners Rd SB LTR		C (27.9)	F (251.5)	D (36.0)	C (26.1)	F (221.0)	C (29.3)
Overall		A (7.8)	F (94.6)	C (20.4)	A (5.8)	E (78.6)	B (19.1)
Caverns Rd/Barnerville Rd	TW						
Caverns Rd WB L		A (7.3)	A (7.4)	--	A (7.5)	A (7.7)	--
Caverns Rd NB LR		A (9.1)	A (9.6)		A (9.0)	A (9.6)	
Caverns Rd/Discovery Dr	TW						
Caverns Rd WB L		A (7.3)	A (7.5)		A (7.3)	A (7.4)	
Discovery North Leg NB R		A (8.5)	A (8.8)	--	A (8.5)	A (8.8)	--
Discovery South Leg NB L		A (9.3)	B (10.2)		B (10.2)	B (12.3)	
Discovery North Leg SB L		A (9.5)	A (9.5)		A (9.6)	A (9.6)	
Caverns Rd/Sagendorf Corners Rd	TW						
Caverns Rd EB L		A (7.3)	A (7.3)		A (7.3)	A (7.3)	
Caverns Rd WB L		A (7.2)	A (7.3)	--	A (7.3)	A (7.3)	--
Sagendorf Corners Rd NB LTR		A (9.7)	B (11.3)		B (10.1)	C (17.5)	
Sagendorf Corners Rd SB LTR		A (9.4)	B (11.3)		A (9.0)	B (11.5)	
Sagendorf Corners Rd/Main Access	TW						
Main Access EB LR		--	C (19.4)	--	--	E (35.7)	--
Sagendorf Corners Rd NB L			A (8.2)			A (8.6)	
Caverns Rd/Secondary Access	TW						
Secondary Access NB LR		--	A (9.5)	--	--	A (9.9)	--
Caverns Rd WB L			A (7.4)			A (7.5)	

S, TW = Signalized, Two-Way Stop controlled intersection
 EB, WB, NB, SB = Eastbound, Westbound, Northbound, or Southbound intersection approaches
 L, T, R = Left-turn, Through, and/or Right-turn intersection movements
 X (Y.Y) = Level of service (Average Delay in seconds per vehicle)
 -- = Not Applicable

The analysis shows that the study area intersections will generally operate with acceptable levels of service with construction of the proposed casino. Table 3.1 shows that the Route 145/I-88 Exit 22 EB Ramp intersection, the Route 7/Route 145 intersection, and the Route 7/Sagendorf Corners Road/CR 52 intersections will experience level of service F conditions during the Weekday and Weekend peak hours with construction of the proposed project. Review of the level of service calculations shows that the two signalized intersections will operate with acceptable levels of service with implementation of traffic signal timing modifications. To mitigate project impacts at the Route 145/I-88 Exit 22 EB Ramps intersection, a traffic signal should be installed which requires NYSDOT review and approval. With this improvement, the intersection will operate with acceptable levels of service during the peak conditions.

Primary access to the casino is proposed from Route 7 via Sagendorf Corners Road, while current access to the Howe Caverns site is provided from Route 7 via Caverns Road. Switching the primary access from Caverns Road to Sagendorf Corners Road creates the need for roadway segment improvements along Sagendorf Corners Road. The details of the upgrades are being confirmed, but will include at a minimum new pavement markings to improve driver guidance for visitors, some shoulder widening, and some new pavement. These improvements are subject to approval by the Town of Cobleskill.

Recognizing that Caverns Road currently serves as at the primary entrance, some visitors to the casino will continue to use this approach. The intersection of Caverns Road at Route 7 is currently configured as a triangular intersection with separate legs for east and west travel between Route 7 and Caverns Road. Reconfiguring this intersection as a standard T-shaped intersection should be explored in the long term with development of the casino. Installation of a traffic signal could also ultimately be needed if signal warrants are met. The reconfiguration and traffic signal would be subject to NYSDOT review and approval.

Stop sign control is recommended on the site driveway approaches to Caverns Road and Sagendorf Corners Road.

B. Parking Demand

The development plan indicates that patron and employee parking will be completely accommodated on-site. Guests of the resort will enter via the proposed access intersections with Sagendorf Corners Road and Caverns Road to access the internal roadway system directing guests to a valet area or self-park lots for the casino and waterparks. Resort employees will be directed to the employee parking lot near the casino. Overflow parking is also available on site with shuttles to and from the casino and hotels.

A review of available data for existing casinos indicates that the proposed program for *The Casino Resort at Howe Caverns* is similar to the Sands at Bethlehem Casino located in Pennsylvania which provides approximately 1.15 parking spaces per gaming position (inclusive of employees and patrons). Parking is also required for the hotel with indoor water park and the outdoor water park. Parking demand for these two uses was estimated based upon data published by ITE. The parking demand for the project is summarized in Table 3.2 and compared to the proposed parking supply for the project.

Table 3.2 – Parking Summary

Land Use	Size	Rate	Parking Spaces	
			Demand	Supply
Casino	1,772 GP	1.15 spaces/GP	2,038	2,107
Water Slide Park	50,000 SF (1.15 acres)	84.5 spaces/acre	97	435
Waterpark Hotel	250 Rooms	1.29 spaces per occupied room	323	
Total Trips			2,458	2,542

GP = Gaming Positions

Table 3.2 shows that the parking demand for the proposed project is 2,458 parking spaces. The proposed project includes 2,542 parking spaces which exceeds the parking demand.

CHAPTER IV CONCLUSIONS AND RECOMMENDATIONS

This Traffic Impact Study was completed for the proposed *Howe Caverns Casino Resort* located on the west side of Sagendorf Corners Road between CR 8 and CR 9 in Cobleskill. The project is expected to be completed in 2016 and generate approximately 907 new vehicle trips during the Weekday PM peak hour and 1,059 new vehicle trips during the Weekend Midday peak hour. Primary access to the site is proposed via Sagendorf Corners Road with secondary access via Caverns Road. The following conclusions and recommendations are offered:

1. The level of service analysis shows that the study intersections will generally operate with acceptable levels of service with construction of the proposed project.
2. The following mitigation is recommended:
 - Route 145/I-88 Exit 22 EB Ramps – installation of a traffic signal
 - Route 7/Route 145 – traffic signal timing modifications
 - Route 7/Sagendorf Corners Road/CR 52 – traffic signal timing modifications
 - Route 7/Caverns Road – Reconfigure at T-intersection (long term)
 - Stop sign control is recommended on the site driveway approaches to Sagendorf Corners Road, and Caverns Road.
3. The segment of Sagendorf Corners Road from Route 7 to the site should be upgraded to accommodate the traffic associated with the proposed project. At a minimum, the improvements should new pavement markings. Some roadway widening may also be accomplished.
4. The proposed parking supply is sufficient to accommodate *The Casino Resort at Howe Caverns*. Patrons and employees will park on-site.

With implementation of the above recommendations, traffic impacts associated with the proposed *Casino Resort at Howe Caverns* will be mitigated and there will be no local or regional impacts.

Appendix A

Site Plan

**Traffic Impact Study
Howe Caverns Casino Resort
Town of Cobleskill, New York**

Appendix B

Howe Caverns Estate TIS dated April 26, 2010

**Traffic Impact Study
Howe Caverns Casino Resort
Town of Cobleskill, New York**

Traffic Impact Study

Howe Caverns Estate

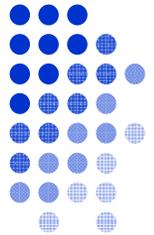
Town of Cobleskill, New York

CME Project No. 09-087d

Prepared For:

Howe Caverns, Inc.

255 Discovery Drive
Howes Cave, New York 12092



Prepared By:



CREIGHTON MANNING ENGINEERING, LLP
17 Computer Drive West
Albany, New York 12205
(518) 446-0396

April 26, 2010

Table of Contents

	<u>Page</u>
Title Page	i
Table of Contents	ii
List of Figures	iii
List of Tables	iii
List of Appendices	iii
I. INTRODUCTION	1
A. Planned Project	1
B. Study Area and Methodology	1
II. EXISTING CONDITIONS	4
A. Roadways Serving the Site	4
B. Study Area Intersections	4
C. Existing Conditions	6
D. Transit	8
E. Pedestrian/Bicycle Accommodations and Environment	8
III. TRAFFIC FORECASTS	10
A. No-Build Traffic Volumes	10
B. Trip Generation	10
C. Trip Distribution	11
D. Trip Assignment	12
E. Build Traffic Volumes	12
IV. ANALYSIS	17
A. Capacity/Level of Service Analysis	17
B. Saturday Departure Sensitivity Analysis	21
C. Sight Distance Analysis	24
V. CONCLUSIONS AND RECOMMENDATIONS	31

List of Figures

	<u>Page</u>
Figure 1.1 – Project Location	3
Figure 2.1 – 2009 Existing Traffic Volumes – Friday PM and Saturday Peak Hours.....	9
Figure 3.1 – 2012 No-Build Traffic Volumes – Friday PM and Saturday Peak Hours ...	13
Figure 3.2 – Trip Distribution	14
Figure 3.3 – Trip Assignment	15
Figure 3.4 – 2012 Build Traffic Volumes – Friday PM and Saturday Peak Hours	16
Figure 4.1 – Caverns Road/Discovery Drive Intersection Concept Plan	29
Figure 4.2 – 2012 Build Peak Summer Traffic Volumes – Sensitivity Analysis	30

List of Tables

Table 3.1 – Summary of Peak Hour Traffic Projections.....	10
Table 3.2 – Trip Generation Summary for Peak Summer Conditions.....	11
Table 4.1 – Level of Service Summary.....	18
Table 4.2 – Saturday Departure Sensitivity Level of Service Summary	23
Table 4.3 – Sight Distance Summary (feet).....	25

List of Appendices

Appendix A.....	Conceptual Site Plan
Appendix B.....	Turning Movement Counts and Automatic Traffic Recorders
Appendix C.....	Seasonal Factor Technical Memorandum
Appendix D.....	Level of Service Analysis
Appendix E.....	Level of Service Sensitivity Analysis

CHAPTER I INTRODUCTION

This report summarizes the results of the Traffic Impact Study (TIS) for the proposed Howe Caves Development, LLC Plan for the Development of the Howe Caverns Estate located in the Town of Cobleskill, Schoharie County, New York. The project site is located on the west side of Sagendorf Corners Road between County Road 8 and County Road 9 (Caverns Road). The project location is shown on Figure 1.1.

A. Planned Project

The proposed *Howe Caverns Estate* project is envisioned as a mixed-use recreational development consisting of a 22,000 square-foot (SF) entertainment building, a 2,500 SF gemstone building, various independent attractions such as a zip rider, dinosaur park, mountain coaster, etc., a 200 site RV Park, and a 250 room resort hotel with an indoor water park. Primary access to the site is proposed via the existing Discovery Drive access road located on Caverns Road. Secondary access is proposed via a new RV Driveway on Caverns Road and a new driveway on Sagendorf Corners Road. For the purposes of the evaluation, all of the site generated traffic associated with the new development will be assigned to the two site access points on Caverns Road. This will provide a worst-case analysis since proposed signing to the project will direct all traffic to these access locations. A conceptual site plan is included under Appendix A.

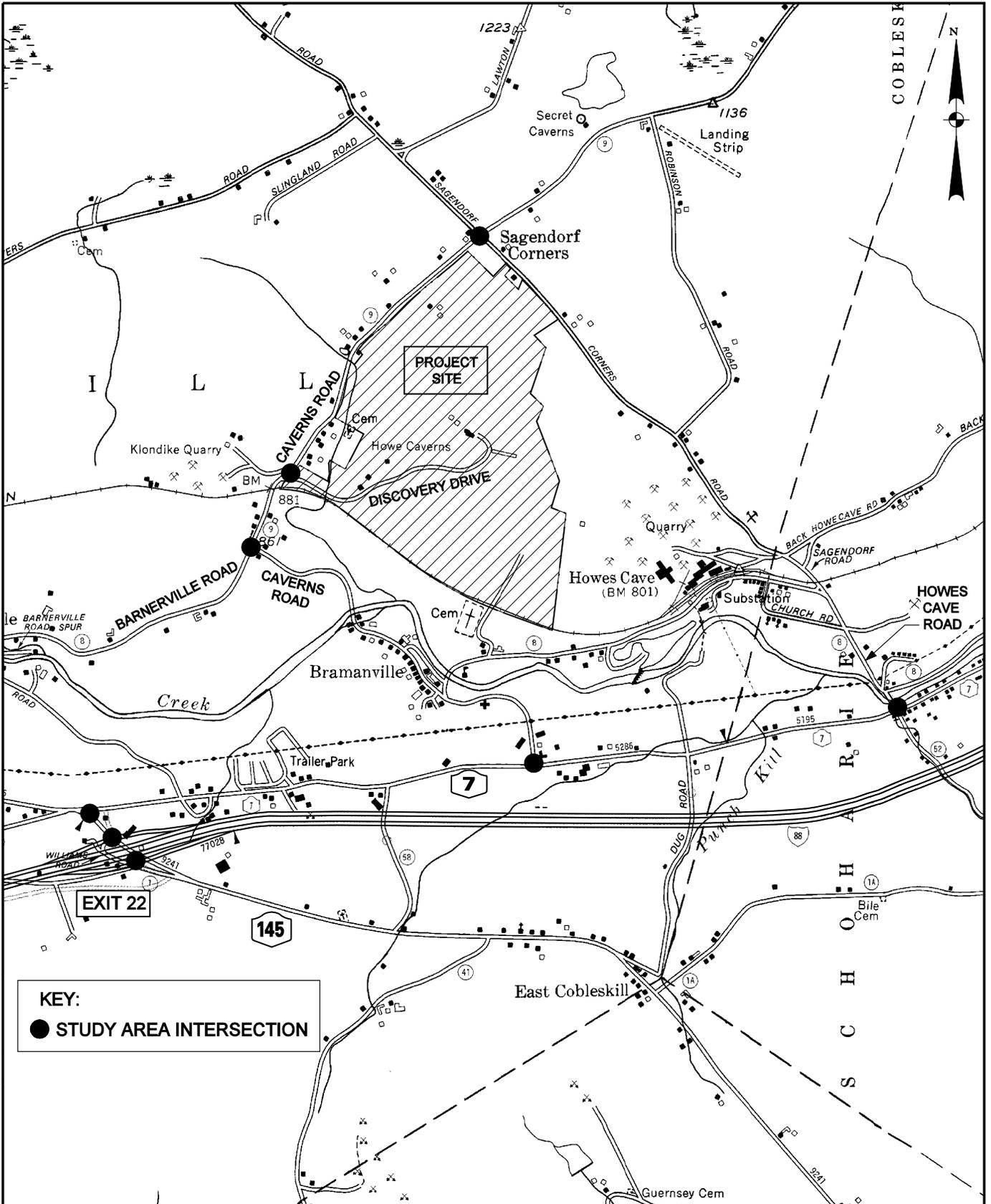
B. Study Area and Methodology

Based on a review of the project study area includes the following intersections:

- 1) NY Route 145/I-88 Exit 22 Eastbound Ramp
- 2) NY Route 145/I-88 Exit 22 Westbound Ramp
- 3) NY Route 7/NY Route 145
- 4) NY Route 7/Caverns Road
- 5) NY Route 7/Howes Cave Road (County Road 8)/County Road 52
- 6) Caverns Road (County Road 9)/Barnerville Road (County Road 8)
- 7) Caverns Road (County Road 9)/Discovery Drive

8) Caverns Road (County Road 9)/Sagendorf Corners Road

The potential traffic impact of the proposed project was determined by documenting the existing traffic conditions in the area, projecting future traffic volumes, including the peak hour trip generation of the site, and determining the operating condition of the study intersections after development of the proposed project.



KEY:
 ● STUDY AREA INTERSECTION

PROJECT LOCATION

**HOWE CAVERNS ESTATES
 TOWN OF COBLESKILL, NY**



PROJECT: 09-087d DATE: 4/10 FIGURE: 1.1

F:\P-projects\2009\09-087d Howe Caverns\cadd\fig\project_location.dgn

CHAPTER II

EXISTING CONDITIONS

A. Roadways Serving the Site

- Caverns Road – Caverns Road is County Road 9 providing access from Sagendorf Corners Road to NY Route 7 in Schoharie County. In the vicinity of the project site, Caverns Road consists of 9 to 10-foot wide travel lanes in each direction with 1-foot wide shoulders. The land uses along Caverns Road are generally residential and agricultural. Sidewalks are not provided and the posted speed limit in the study area is 35-mph.
- Sagendorf Corners Road – Sagendorf Corners Road is a local street that provides north-south travel from County Road 10 (Grovenors Corners Road) to Howes Cave Road. Sagendorf Corners Road has a total pavement width of approximately 20-feet providing one lane of travel in each direction with no on-street parking. Sidewalks are not provided and there is no posted speed limit. Land uses along Sagendorf Corners Road are residential and agricultural.

B. Study Area Intersections

- NY Route 145/I-88 Exit 22 Eastbound Ramp – This is a four-way intersection operating under stop sign control on the I-88 Exit 22 Eastbound (EB) Ramp approach. The I-88 Exit 22 EB Ramp approach (west leg) provides a single lane for shared left and right turn movements for eastbound vehicles exiting I-88 while the east leg provides a single, one-way travel lane for vehicles to access I-88 eastbound. The southbound NY Route 145 approach provides an exclusive left-turn lane and a separate through lane while the northbound NY Route 145 approach provides a single lane for shared through and right-turn movements. No crosswalks or pedestrian accommodations are provided at this intersection.
- NY Route 145/I-88 Exit 22 Westbound Ramp – This is a four-way intersection operating under stop sign control on the I-88 Exit 22 Westbound (WB) Ramp approach. The I-88 Exit 22 WB Ramp approach (east leg) provides a single lane for shared left and right turn movements for westbound vehicles exiting I-88 while the west leg provides a single, one-way travel lane for vehicles to access I-88 westbound. The northbound NY Route 145 approach provides an exclusive left-turn lane and a separate through lane while the southbound NY Route 145 approach provides a single lane for shared through and right-turn movements. No crosswalks or pedestrian accommodations are provided at this intersection.
- NY Route 7/NY Route 145 – This intersection is a T-intersection operating under an actuated traffic signal. The three phase cycle averages 83 seconds

during the peak hours. The eastbound NY Route 7 approach consists of a through lane and a separate right-turn lane while the westbound NY Route 7 approach consists of an exclusive left-turn lane and a through lane. The northbound NY Route 145 approach consists of separate left and right turn lanes. No crosswalks or pedestrian accommodations are provided at this intersection.

- NY Route 7/Caverns Road – This is a three-leg intersection that forms a triangle as Caverns Road forks and intersects NY Route 7 as shown below. Each approach provides a single lane for shared travel movements. The southbound Caverns Road West Leg approach to NY Route 7 operates under stop sign control while the northbound Caverns Road West Leg approach to the Caverns Road East Leg operates under yield control. The southbound Caverns Road East Leg intersects NY Route 7 and operates under stop sign control. No crosswalks or pedestrian accommodations are provided at this intersection.

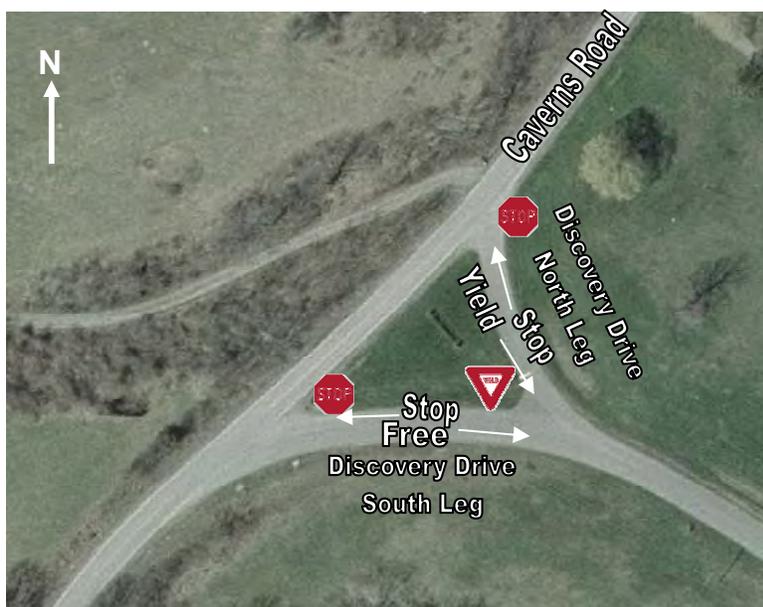


Aerial 1 – NY Route 7/Caverns Road Intersection

- NY Route 7/Howes Cave Road/County Road 52 – This intersection is a four-way intersection operating under an actuated traffic signal. The two phase cycle averages 70 seconds during the peak hours. The eastbound and westbound NY Route 7 approaches, the northbound County Road 52 approach, and the southbound Howes Cave Road approach each consist of a single lane for shared travel movements. A crosswalk and pedestrian push button is provided on the eastbound NY Route 7 approach while only a crosswalk is provided on the southbound Howes Cave Road approach.
- Caverns Road/Barnerville Road – This is a T-intersection operating under stop sign control on the northbound Caverns Road approach. All approaches

to this intersection consist of a single lane for shared travel movements. No crosswalks or pedestrian accommodations are provided at this intersection.

- Caverns Road/Discovery Drive – This is a three-leg intersection that forms a triangle as Discovery Drive forks and intersects Caverns Road as shown below. Each approach provides a single lane for shared travel movements. The northbound Discovery Drive South Leg approach to Caverns Road operates under stop sign control while the southbound Discovery Drive South Leg approach to the Discovery Drive North Leg operates under yield control. The northbound Discovery Drive North Leg intersects Caverns Road and operates under stop sign control. No crosswalks or pedestrian accommodations are provided at this intersection.



Aerial 2 – Caverns Road/Discovery Way Intersection

- Caverns Road/Sagendorf Corners Road – This is a four-way intersection operating under stop sign control on the northbound and southbound Sagendorf Corners Road approach. All approaches to this intersection consist of a single lane for shared travel movements. No crosswalks or pedestrian accommodations are provided at this intersection.

C. Existing Conditions

Intersection turning movement traffic counts were conducted at the study area intersections on Friday, November 6 and 13, 2009 during the weekday afternoon peak period from 4:00 to 6:00 p.m. and on Saturday, November 7 and 14, 2009 during the weekend mid-day peak period from 11:30 a.m. to 1:00 p.m. The raw traffic volumes are included in Appendix B.

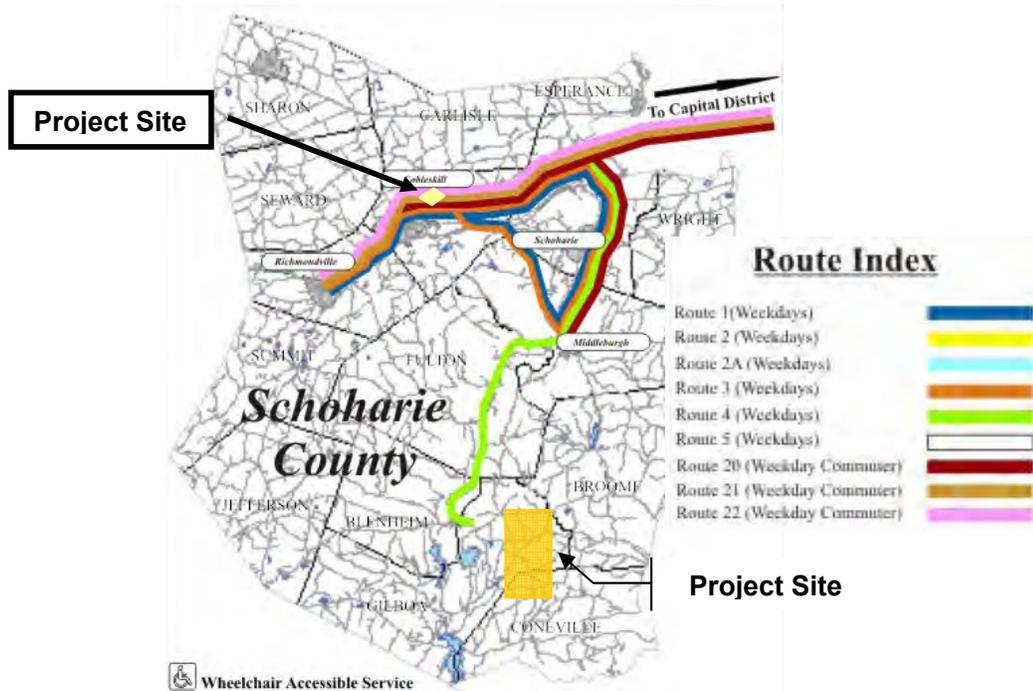
A review of ticket information data provided by Howe Caverns indicates that peak operating conditions of the development typically occur during the summer months. Therefore, the entering and exiting trips generated by Howe Caverns in November 2009 were factored to peak conditions observed in August 2009. The November 2009 Friday PM and Saturday mid-day peak hour trips generated by Howe Caverns were increased by a factor of 6.5 and 3.1, respectively. A detailed seasonal factor technical memorandum is included under Appendix C. The raw turning movement counts conducted in November 2009 were increased to account for these peak summer operating conditions. The factored, peak hour traffic counts shown on Figure 2.1 provide existing peak summer traffic conditions at the study area intersections and form the basis for all traffic forecasts.

The following observations are evident based on the existing traffic volume data:

- The Friday PM peak hour generally occurred from 4:00 to 5:00 p.m. while the Saturday peak hour generally occurred from 11:45 a.m. to 12:45 p.m.
- The two-way traffic volume on the existing entrance to Howe Caverns on Discovery Drive is approximately 110 vehicles during the Friday PM peak hour and 140 vehicles during the Saturday peak hour.
- The two-way traffic volume on Caverns Road adjacent to the project site is approximately 75 vehicles during the Friday PM peak hour and 155 vehicles during the Saturday peak hour. The two-way traffic volume on Sagendorf Road adjacent to the project site is approximately 85 vehicles during the Friday PM peak hour and 60 vehicles during the Saturday peak hour.
- Heavy vehicle percentages on Caverns Road generally range from 0% to 6% by approach during the Friday PM peak hour and range from 0% to 1% by approach during the Saturday peak hour. Buses generally range from 0% to 5% by approach during the Friday PM peak hour. No buses were observed during the Saturday peak hour.
- Heavy vehicle percentages on Sagendorf Corners Road generally range from 0% to 1% by approach during the Friday PM and Saturday peak hours. Buses generally range from 0% to 6% by approach during the Friday PM peak hour. No buses were observed during the Saturday peak hour.

D. Transit

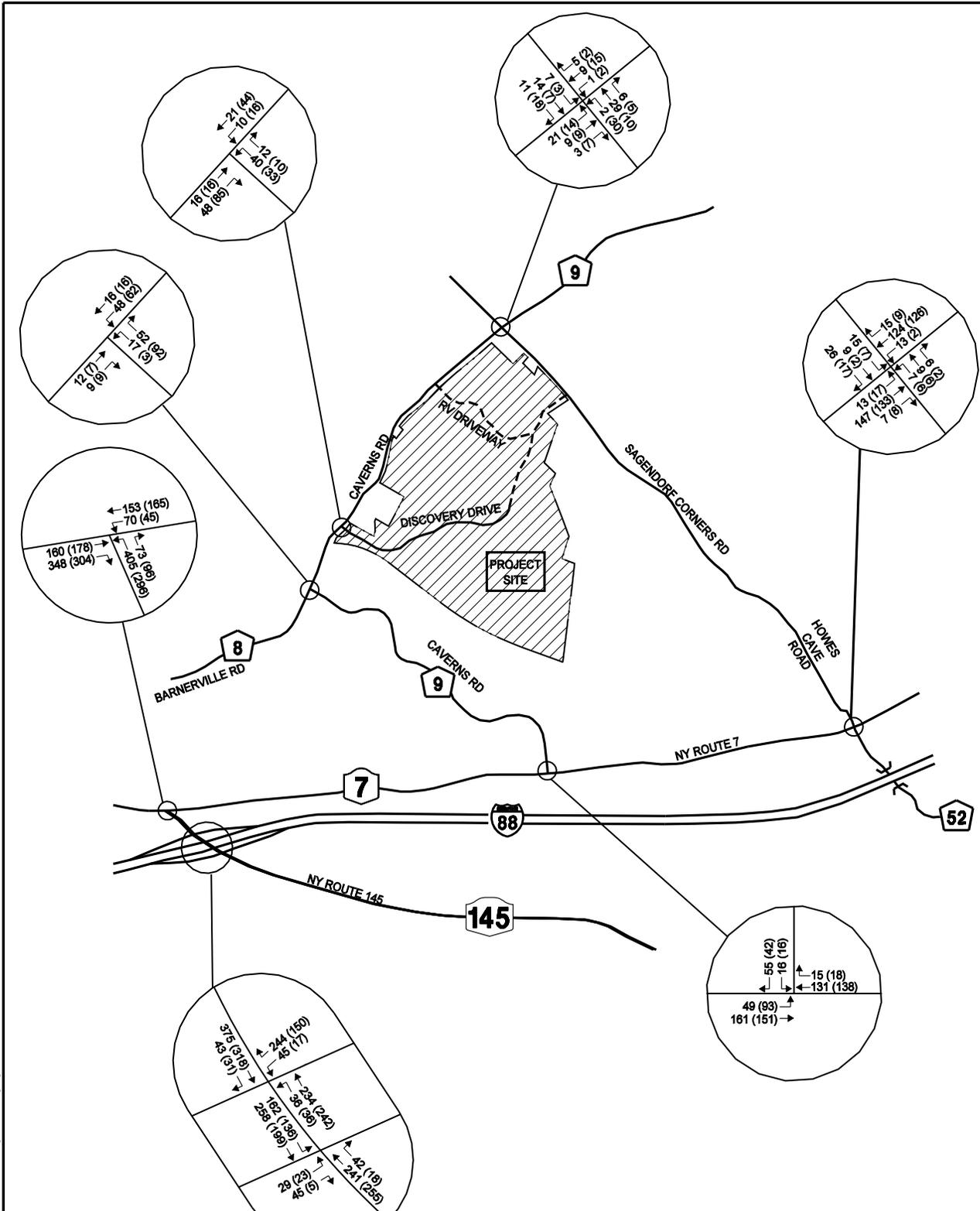
Transit service available in the project vicinity is provided by the *Schoharie County Public Transit (SCPT)*. Two SCPT lines (Route 1 and Route 3) currently travel past the project site on NY Route 7 but do not have a scheduled stop in the area. However, three other SCPT lines (Routes 20, 21, and 22) also travel past the project site on NY Route 7 and stop at the park-n-ride lot located just west of the NY Route 7/NY Route 145 intersection. The following map shows the available transit service in the immediate project area.



Map 1 – SCPT Transit Routes

E. Pedestrian/Bicycle Accommodations and Environment

A review of the existing road network indicates crosswalks with pedestrian push buttons are provided on two approaches of the NY Route 7/Howes Cave Road/ County Road 52 intersection. There are no sidewalks provided in the Town of Cobleskill on the project roadways. There are also no State Bike Routes posted in the project area. It is noted that there were no pedestrian or bicycle activity observed during the turning movement counts for either peak hour.



LEGEND:
 FRIDAY PM PEAK HOUR (SATURDAY PEAK HOUR)

2009 EXISTING
 PEAK SUMMER
 TRAFFIC VOLUMES

HOWE CAVERNS ESTATES
 TOWN OF COBLESKILL, NY



kdr:rick
 File:Projects\09-087d Howe Caverns\cadd\fig\trf_fig.dgn

CHAPTER III TRAFFIC FORECASTS

To evaluate the impact of the proposed development, a comparison was made between the future traffic volumes with and without the proposed mixed-use development. Table 3.1 describes the various traffic forecasts contained at the end of this chapter.

Table 3.1 – Summary of Peak Hour Traffic Projections

Figure Description	Figure Number
2012 No-Build Traffic Volumes – Friday PM and Saturday Peak Hour	Figure 3.1
Trip Distribution	Figure 3.2
Trip Assignment	Figure 3.3
2012 Build Traffic Volumes – Friday PM and Saturday Peak Hour	Figure 3.4

A. No-Build Traffic Volumes

The 2012 No-Build traffic volumes are based on traffic associated with other development projects in the study area and an analysis of existing traffic growth trends. A conversation with a representative of the Schoharie County planning department indicates that there are no other development projects in the study area that will increase traffic volumes on the study area roadways. Historical traffic volume data is found in the *2008 Traffic Data Report*, published by the New York State Department of Transportation (NYSDOT). The historical traffic volume data indicates that traffic volumes near the site have remained consistent or decreased slightly over the last several years. Nevertheless, to account for any other development projects outside the study area, a background growth rate of one percent per year was applied for three year to the 2009 Existing traffic volumes. The resulting 2012 No-Build traffic volumes illustrated on Figure 3.1 represent the traffic conditions expected at the study area intersections before development of the proposed *Howe Caverns Estate*.

B. Trip Generation

The *Howe Caverns Estate* site will consist of a 22,000 SF entertainment building, a 2,500 SF gemstone building, various independent attractions such as a zip rider,

dinosaur park, mountain coaster, etc., a 200 site RV Park, and a 250-room resort hotel with an indoor water park. In addition, all of the existing Howe Caverns attractions will still be in operation. Table 3.2 summarizes the estimated trip generation for the completed *Howe Caverns Estate* for Peak Summer Conditions.

Table 3.2 – Trip Generation Summary for Peak Summer Conditions

Land Use	Land Use Code	Size	Friday PM Peak Hour			Saturday Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
Existing Facility (Peak Summer Condition)	--	--	58	52	110	101	43	144
Entertainment Buildings ¹	435	22,000 SF	43	36	79	65	54	119
Gemstone Building	814	2,500 SF	3	4	7	5	4	9
Independent Attractions ²	--	--	6	5	11	10	4	14
RV Park ³	416	200 Sites	51	23	74	50	22	72
Hotel with Indoor Water Park	330	250 Rooms	48	64	112	69	91	160
Total New Trips			151	132	283	199	175	374
Total Trip Generation			209	184	393	300	218	518

1 = Friday PM peak hour trips were factored by 1.5 to provide Saturday peak hour trips based on related LUC 432 (Golf Driving Range).

2 = It is assumed that the independent attractions would increase the existing peak summer Howe Caverns trip generation by 10%.

3 = Friday PM peak hour trips were factored by 0.97 to provide Saturday peak hour trips based on data collected by CME for Skyway Campgrounds in Wawarsing, NY in July 2007.

Table 3.2 shows that the *Howe Caverns Estate* is expected to generate approximately 283 additional vehicle trips during the Friday PM peak hour (151 entering and 132 exiting) and 374 additional vehicle trips during the Saturday peak hour (199 entering and 175 exiting). As a result of the proposed project, the site is expected to generate a total of 393 vehicle trips during the Friday PM peak hour and 518 vehicle trips during the Saturday peak hour.

C. Trip Distribution

Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on existing travel patterns. Regionally, it is expected that approximately 40 percent of the trips generated by the *Howe Caverns Estate* will travel to and from the east on I-88, 10 percent will travel to and from the east on NY Route 7, 5 percent will travel to and from the east on County Road 9, and 15 percent will travel to and from the north on Sagendorf Corners Road. Additionally it is expected that 15 percent of site generated trips will travel to and

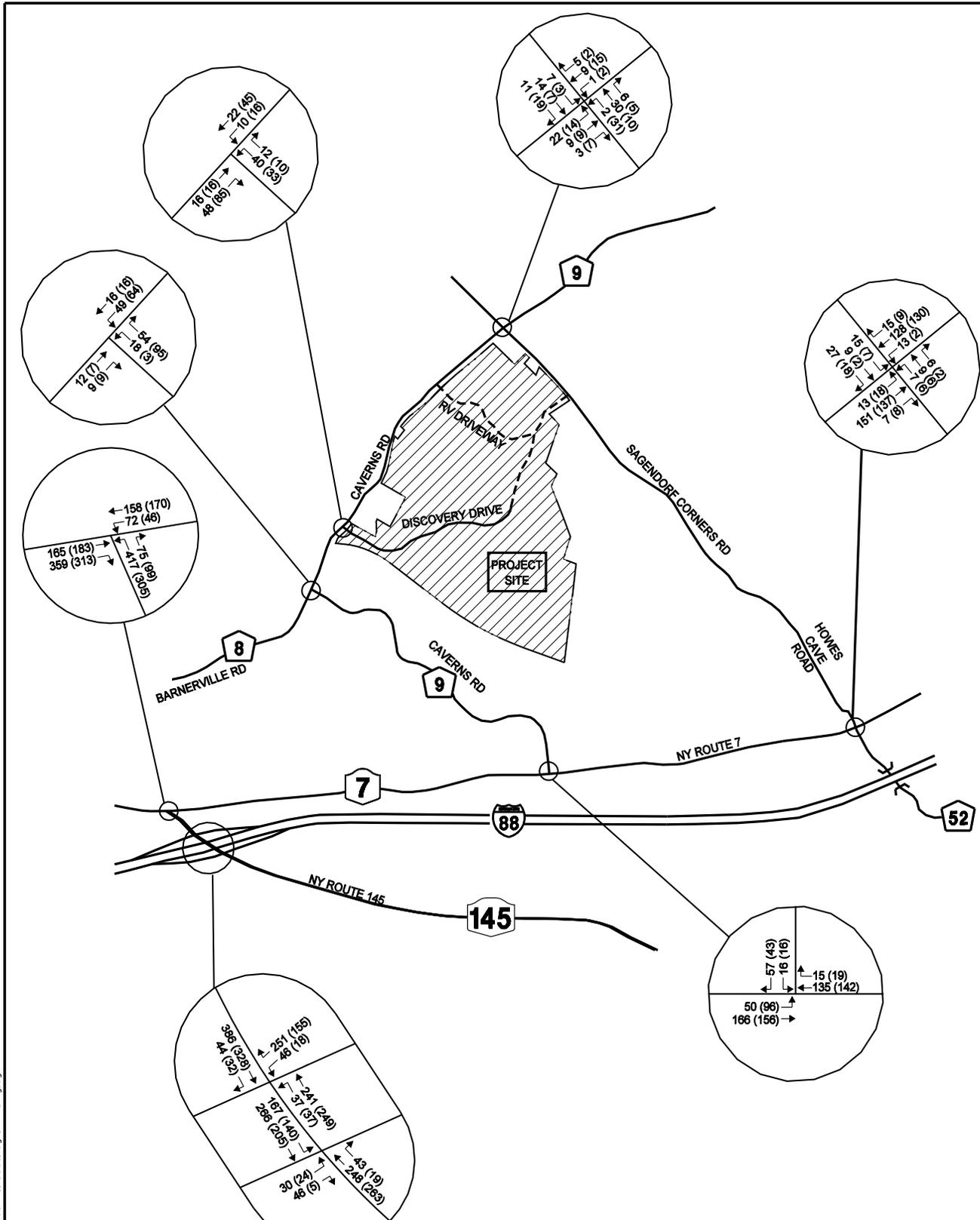
from the west via I-88, 5 percent will travel to and from the south on NY Route 145, 5 percent will travel to and from the west on NY Route 7, and 5 percent will travel to and from the west on County Road 8. The trip distribution for the project is summarized on Figure 3.2.

D. Trip Assignment

Trip assignment combines the results of the trip generation and trip distribution and determines the specific paths and roadways that will be used between various origin/destination pairs. Figure 3.3 shows the resulting trip assignment for project development.

E. Build Traffic Volumes

The results of the site generated traffic assignment were added to the 2012 No-Build traffic volumes to develop the 2012 Build traffic volumes. The 2012 Build peak summer traffic volumes are shown on Figure 3.4.



LEGEND:
 FRIDAY PM PEAK HOUR (SATURDAY PEAK HOUR)

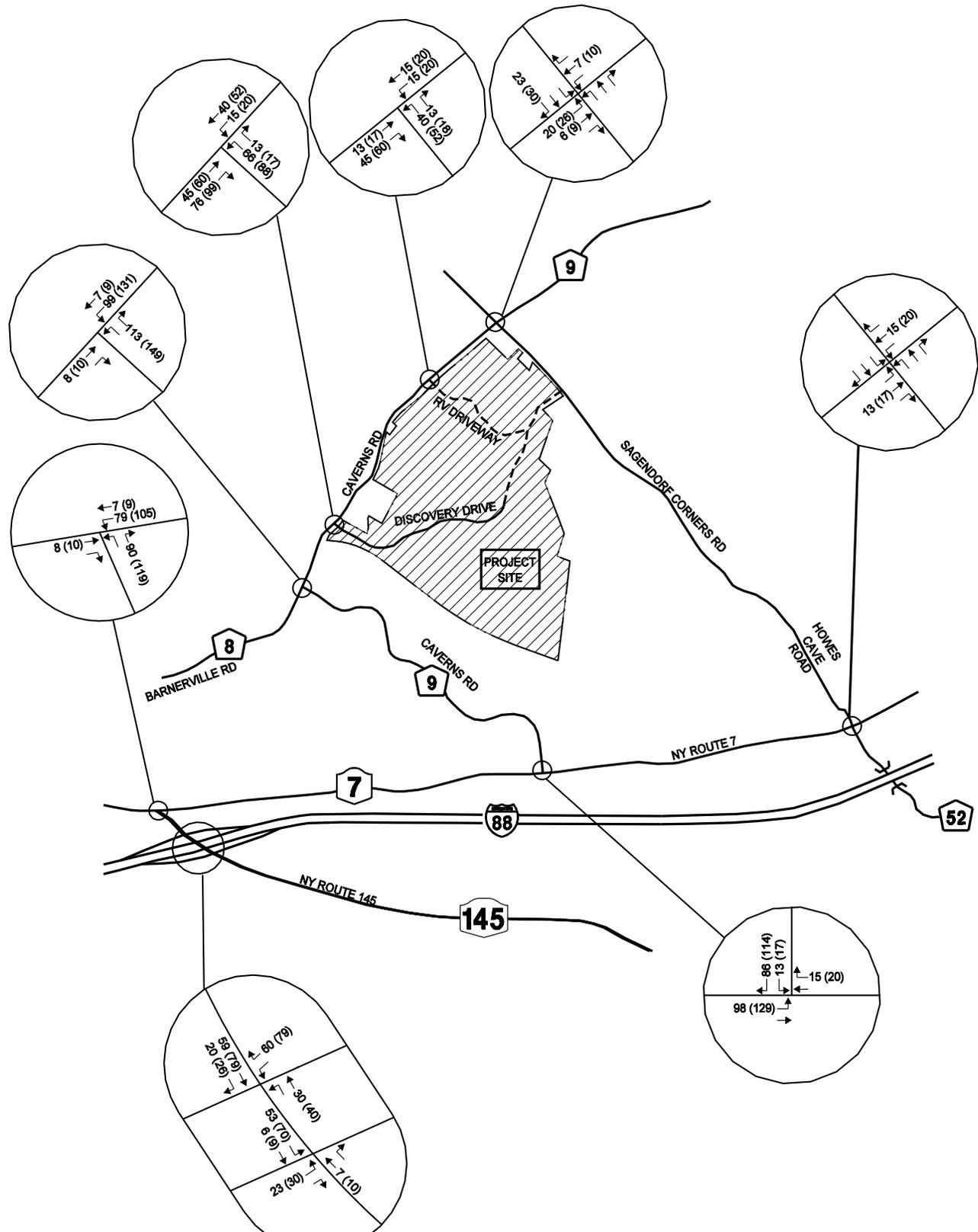
2012 NO-BUILD
 PEAK SUMMER
 TRAFFIC VOLUMES

HOWE CAVERNS ESTATES
 TOWN OF COBLESKILL, NY



PROJECT: 09-087d DATE: 4/10 FIGURE: 3.1

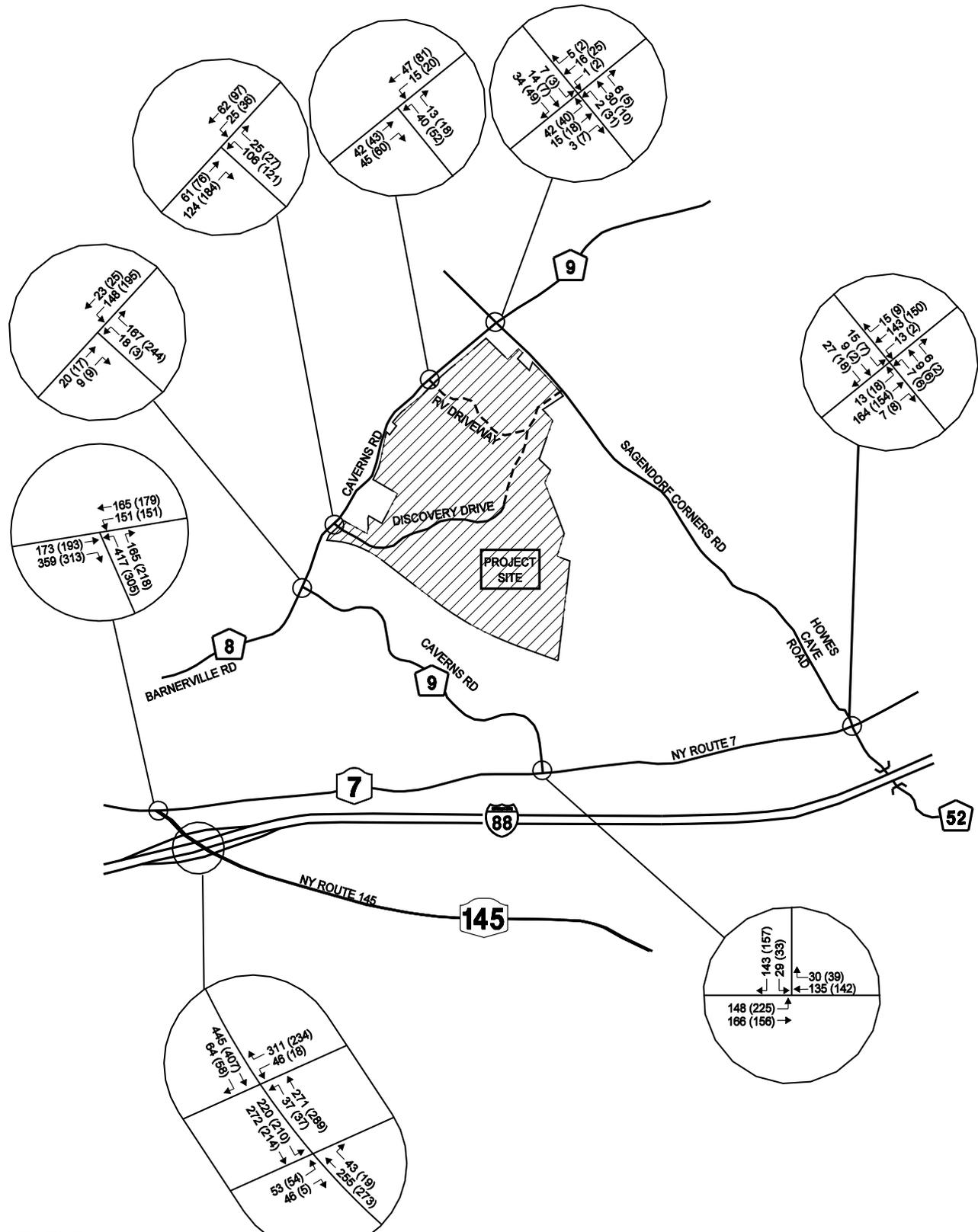
I:\6171\c\Projects\09-087d_Howe_Caverns\cadd\fig\trf_fig.dgn



I:\6171\c\09-087d\Howe_Caverns\cadd\fig\trf_fig.dgn
 F:\6171\c\09-087d\Howe_Caverns\cadd\fig\trf_fig.dgn



PROJECT: 09-087d DATE: 4/10 FIGURE: 3.3



LEGEND:
 FRIDAY PM PEAK HOUR (SATURDAY PEAK HOUR)

2012 BUILD
 PEAK SUMMER
 TRAFFIC VOLUMES

HOWE CAVERNS ESTATES
 TOWN OF COBLESKILL, NY



PROJECT: 09-087d DATE: 4/10 FIGURE: 3.4

I:\611\c\09-087d\09-087d_Howe_Caverns\cadd\fig\trf_fig.dgn

CHAPTER IV ANALYSIS

A. Capacity/Level of Service Analysis

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using the Highway Capacity Software (version +5.4) which automates the procedures contained in the *2000 Highway Capacity Manual* (HCM). Levels of service range from A to F with level of service A conditions considered excellent with very little delay while level of service F generally represents conditions with very long delays. Appendix D contains detailed descriptions of LOS criteria for signalized and unsignalized intersections and copies of the detailed Level of Service reports.

The relative impact of the proposed project can be determined by comparing the level of service during the 2012 design year for the No-Build and Build traffic volume conditions. Table 4.1 shows the results of the Level of Service calculations.

Table 4.1 – Level of Service Summary

Intersection	Control	Friday PM Peak Hour			Saturday Peak Hour		
		2009 Existing	2012 No-Build	2012 Build	2009 Existing	2012 No-Build	2012 Build
Route 145/I-88 Exit 22 EB Ramp	TW						
Route 145 SB L I-88 Exit 22 EB Ramp EB LR		A (8.5) C (17.6)	A (8.6) C (18.2)	A (8.8) D (32.8)	A (8.2) C (16.7)	A (8.2) C (17.3)	A (8.5) D (28.0)
Route 145/I-88 Exit 22 WB Ramp	TW						
Route 145 NB L I-88 Exit 22 WB Ramp WB LR		A (8.4) C (15.2)	A (8.4) C (15.8)	A (8.7) C (19.6)	A (8.1) B (12.0)	A (8.2) B (12.3)	A (8.5) B (14.7)
Route 7/Route 145	S						
Route 7 EB L		C (29.7)	C (29.8)	C (30.0)	C (30.3)	C (30.6)	C (31.2)
T		A (6.6)	A (6.7)	A (6.7)	A (6.5)	A (6.6)	A (6.6)
Route 7 WB T		C (29.8)	C (29.9)	C (33.4)	C (28.9)	C (28.9)	C (32.2)
R		B (13.1)	B (13.1)	B (13.2)	B (13.1)	B (13.2)	B (13.3)
Route 145 NB L		C (28.5)	C (29.2)	C (29.2)	C (21.7)	C (22.0)	C (22.0)
R	B (17.8)	B (17.9)	B (19.2)	B (18.1)	B (18.2)	B (19.7)	
Overall		C (20.3)	C (20.8)	C (21.8)	B (17.7)	B (17.9)	B (19.6)
Route 7/Caverns Rd	TW						
Route 7 EB L		A (7.7)	A (7.7)	A (7.9)	A (7.7)	A (7.8)	A (8.1)
Caverns Rd West Leg SB R		A (9.3)	A (9.4)	B (10.0)	A (9.4)	A (9.4)	B (10.3)
Caverns Rd East Leg SB L		B (10.8)	B (10.6)	B (10.8)	B (10.8)	B (11.0)	B (11.1)
Caverns Rd West Leg NB L		A (9.4)	A (9.6)	B (10.5)	A (9.5)	A (9.5)	B (12.4)
Route 7/Howes Cave Rd/CR 52	S						
Route 7 EB LTR		A (3.2)	A (3.2)	A (3.2)	A (3.3)	A (3.3)	A (3.4)
Route 7 WB LTR		A (3.3)	A (3.3)	A (3.3)	A (3.2)	A (3.2)	A (3.2)
CR 52 NB LTR		C (26.6)	C (26.6)	C (26.6)	C (26.5)	C (26.5)	C (26.5)
Howes Cave Rd SB LTR		C (27.2)	C (27.2)	C (27.2)	C (26.4)	C (26.5)	C (26.5)
Overall		A (7.9)	A (7.9)	A (7.7)	A (6.4)	A (6.4)	A (6.1)
Caverns Rd/Barnerville Rd	TW						
Caverns Rd WB L		A (7.3)	A (7.3)	A (7.5)	A (7.5)	A (7.5)	A (7.7)
Caverns Rd NB LR		A (8.9)	A (9.1)	A (9.8)	A (9.0)	A (9.0)	A (9.9)
Caverns Rd/Discovery Dr	TW						
Caverns Rd WB L		A (7.3)	A (7.3)	--	A (7.3)	A (7.3)	--
Discovery North Leg NB R		A (8.5)	A (8.5)	--	A (8.5)	A (8.5)	--
Discovery South Leg NB L		A (9.3)	A (9.3)	--	B (10.2)	B (10.2)	--
Discovery North Leg SB L		A (9.5)	A (9.5)	--	A (9.6)	A (9.6)	--
Caverns Rd WB L	TW	--	--	A (7.7)	--	--	A (8.0)
Discovery Dr NB LR		--	--	B (11.5)	--	--	B (13.5)
Caverns Rd/RV Driveway	TW						
Caverns Rd WB L		--	--	A (7.5)	--	--	A (7.5)
RV Driveway NB LR		--	--	A (9.8)	--	--	B (11.5)
Caverns Rd/Sagendorf Corners	TW						
Caverns Rd EB L		A (7.3)	A (7.3)	A (7.4)	A (7.3)	A (7.3)	A (7.4)
Caverns Rd WB L		A (7.2)	A (7.2)	A (7.2)	A (7.3)	A (7.3)	A (7.3)
Sagendorf Corners Rd NB LTR		A (9.6)	A (9.7)	B (10.2)	B (10.1)	B (10.1)	B (11.9)
Sagendorf Corners Rd SB LTR		A (9.4)	A (9.4)	A (9.4)	A (9.0)	A (9.0)	A (9.2)

Key: TW, S = Two-way stop or Signal controlled intersection
 NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound intersection approaches
 L, T, R = Left-turn, through, and/or right-turn movements
 L[T]R = LR represents the existing geometry, LTR represents the future geometry
 X (Y.Y) = Level of Service (Average delay in seconds per vehicle)
 -- = Not applicable

The following observations are evident from this analysis:

- NY Route 145/I-88 Exit 22 EB Ramp – The analysis indicates that the southbound NY Route 145 left-turn movement currently operates at a LOS A and will continue to operate at the same level of service through build conditions for both peak hours. The analysis also indicates that the eastbound I-88 Exit 22 EB Ramp stop approach currently operates at a LOS C during both peak hours and

will continue to operate at the same level of service through no-build conditions. With construction of the proposed project, the eastbound approach will degrade to LOS D with an increase in average vehicle delay of approximately 14 seconds during the Friday PM peak hour and approximately 10 seconds during the Saturday peak hour. A level of service D is considered an acceptable operating condition during the peak hours. A review of the eastbound volume to capacity (v/c) ratio indicates that while this approach may experience delays of approximately 32 and 27 seconds during the Friday PM and Saturday peak hours, respectively, it still provides adequate capacity. It is also noted that the 95th percentile eastbound queue on the I-88 Exit 22 EB Ramp approach is approximately one vehicle during both peak hours during the build condition. No improvements are recommended.

- NY Route 145/I-88 Exit 22 WB Ramp – The analysis indicates that the northbound NY Route 145 left-turn movement currently operates at a LOS A and will continue to operate at the same level of service through build conditions for both peak hours. The analysis also indicates that the westbound I-88 Exit 22 WB Ramp stop approach currently operates at a LOS C during the Friday PM peak hour and a LOS B during the Saturday peak hour and will continue to operate at the same levels of service through no-build conditions. With construction of the proposed project, the westbound approach will continue to operate at the same levels of service as no-build conditions with an increase in average vehicle delay of less than four seconds. No improvements are recommended.
- NY Route 7/NY Route 145 – The analysis indicates that this intersection currently operates at an overall LOS C during the Friday PM peak hour and an overall LOS B during the Saturday peak hour with all approaches operating at a LOS C or better and will continue to operate at similar levels of service through no-build conditions. With construction of the proposed project, this intersection will continue to operate at the same levels of service during both peak hours with an increase in overall delay less than two seconds. No improvements are recommended.
- NY Route 7/Caverns Road – The analysis indicates that the eastbound NY Route 7 left-turn movement currently operates at a LOS A and will continue to operate at the same level of service through build conditions for both peak hours. The analysis also indicates that the northbound Caverns Road yield approach currently operates at a LOS A during both peak hours and will continue to operate at the same level of service through no-build conditions. With construction of the proposed project, the northbound left-turn movement will operate at a LOS B during both peak hours with an increase in delay less than three seconds during either peak hour. The analysis also indicates that the southbound stop controlled Caverns Road right-turn movement currently operates at a LOS A while the southbound left-turn movement currently operates at LOS B during both peak hours. The southbound movements will continue to operate at the same levels of service through no-build conditions. With

construction of the proposed project, the southbound left and right turn movements will operate at a LOS B during both peak hours with an increase in delay less than one second during either peak hour. No improvements are recommended.

- NY Route 7/Howes Cave Road/County Road 52 – The analysis indicates that this intersection currently operates at an overall LOS A during both peak hours with all approaches operating at a LOS C or better and will continue to operate at similar levels of service through no-build conditions. With construction of the proposed project, this intersection will continue to operate at the same levels of service during both peak hours. No improvements are recommended.
- Caverns Road/Barnerville Road – The analysis indicates that the westbound Caverns Road left-turn movement currently operates at a LOS A and will continue to operate at the same level of service through build conditions for both peak hours. The analysis also indicates that the northbound Barnerville Road stop approach currently operates at a LOS A during both peak hours and will continue to operate at the same level of service through no-build conditions. With construction of the proposed project, the northbound approach will continue to operate at the same level of service as no-build conditions with an increase in average vehicle delay less than one second. No improvements are recommended.
- Caverns Road/Discovery Drive – The analysis indicates that the westbound Caverns Road left-turn movement currently operates at a LOS A and will continue to operate at the same level of service during no-build conditions for both peak hours. The analysis also indicates that the southbound Discovery Drive yield approach currently operates at a LOS A during both peak hours and will continue to operate at the same level of service through no-build conditions. The analysis indicates that the northbound stop controlled Discovery Drive right-turn movement currently operates at a LOS A while the northbound left-turn movement currently operates at LOS A during the Friday PM peak hour and a LOS B during the Saturday peak hour. The northbound left and right turn movements will continue to operate at the same levels of service during no-build conditions.

With construction of the proposed project, it is recommended that the existing forked entrance be reconstructed to provide a single point of access as shown on Figure 4.1. It is recommended that all of the turns to the development be accommodated in the vicinity of the existing northern leg of Discovery Drive to improve sight distance looking left along Caverns Road and that the intersection be designed to accommodate buses that visit the site. The new northbound Discovery Drive approach should operate under stop sign control with a single lane for shared left and right turn movements. The level of service analysis indicates that the westbound Caverns Road left-turn movement will operate at a

LOS A while the northbound Discovery Drive approach will operate at a LOS B during both peak hours.

- Caverns Road/RV Driveway – At full build-out of the development, the northbound RV Driveway approach will operate at a LOS A during the Friday PM peak hour and a LOS B during the Saturday peak hour with average delays less than 12 seconds. The level of service analysis also indicates that the westbound Caverns Road left-turn movement will operate at a LOS A during the both peak hours. It is recommended that the RV Driveway provide a single lane entering and exiting with the northbound approach operating under stop-sign control.
- Caverns Road/Sagendorf Corners Road – The analysis indicates that the eastbound and westbound Caverns Road left-turn movements currently operate at a LOS A and will continue to operate at the same levels of service through build conditions for both peak hours. The analysis also indicates that the southbound Sagendorf Corners Road stop approach currently operates at a LOS A during both peak hours and will continue to operate at the same level of service through no-build conditions. The analysis also indicates that the northbound Sagendorf Corners Road stop approach currently operates at a LOS A during the Friday PM peak hour and a LOS B during the Saturday peak hour and will continue to operate at the same levels of service through no-build conditions. With construction of the proposed project, the northbound approach will operate at a LOS B during both peak hours while the southbound approach will operate at a LOS A during both peak hours with an increase in delay less than two seconds on any approach during either peak hour. No improvements are recommended.

B. Saturday Departure Sensitivity Analysis

The Saturday mid-day peak hour that has been evaluated for this project primarily represents a peak arrival condition for the proposed *Howe Caverns Estate*. However, a sensitivity analysis has been conducted to determine if the study area intersections will continue to operate adequately during a peak departure condition on Saturday when traffic is primarily flowing in the opposite direction as the peak arrival period.

Peak arrival on Saturday typically occurs during the middle of the day (from noon to 2:00 p.m.) while peak departure occurs several hours later after the last tours of Howe Caverns have started (from 4:00 to 7:00 p.m.). A review of the ATR installed on Discovery Drive indicates that approximately 62 percent of traffic generated by the existing Howe Caverns site enters the development during the Saturday mid-day arrival period while 38 percent of traffic exits the site during the same arrival period. In

comparison, the ATR data indicates that only approximately 27 percent of traffic generated by the existing Howe Caverns site enters the development during the peak departure period on Saturday while 73 percent of the traffic exits the site during the same departure period.

Therefore, the 518 site generated trips on Saturday associated with the existing Howe Caverns site and the proposed *Howe Caverns Estate* were reassigned to the study area roadways based on the revised entering/exiting departure distribution. As shown on Figure 4.2, the revised departure trip assignment traffic volumes were added to the Saturday mid-day peak hour traffic volumes resulting in future 2012 Build traffic volumes for the peak departure period. This represents a conservative analysis since the adjacent street traffic volumes on Saturday are higher during the arrival/mid-day period than they would be during the departure period. Table 4.2 summarizes the traffic conditions for the Saturday peak hour at the study area intersections during a peak departure condition. Appendix E contains the detailed LOS reports.

Table 4.2 – Saturday Departure Sensitivity Level of Service Summary

Intersection	Control	Saturday Peak Hour	
		2012 Build	2012 Build Sensitivity
Route 145/I-88 Exit 22 EB Ramp	TW	A (8.5) D (28.0)	A (8.7) D (31.0)
Route 145 SB L I-88 Exit 22 EB Ramp EB LR			
Route 145/I-88 Exit 22 WB Ramp	TW	A (8.5) B (14.7)	A (8.9) B (13.1)
Route 145 SB L I-88 Exit 22 WB Ramp WB LR			
Route 7/Route 145	S	C (31.2) A (6.6) C (32.2) B (13.3) C (22.0) B (19.7)	C (30.7) A (6.6) D (53.4) B (13.4) C (22.0) B (18.2)
Route 7 EB L			
T			
Route 7 WB T			
R			
Route 145 NB L R			
Overall		B (19.6)	C (24.5)
Route 7/Caverns Rd	TW	A (8.1) B (10.3) B (11.1) B (12.4)	A (7.8) B (11.5) B (11.3) B (11.4)
Route 7 EB L			
Caverns Rd West Leg SB R Caverns Rd East Leg SB L Caverns Rd West Leg NB L			
Route 7/Howes Cave Rd/CR 52	S	A (3.4) A (3.2) C (26.5) C (26.5)	A (3.4) A (3.2) C (26.5) C (26.5)
Route 7 EB LTR			
Route 7 WB LTR CR 52 NB LTR Howes Cave Rd SB LTR			
Overall			
Caverns Rd/Barnerville Rd	TW	A (7.7) A (9.9)	A (8.0) A (9.2)
Caverns Rd WB L Caverns Rd NB LR			
Caverns Rd/Discovery Dr	TW	A (8.0) B (13.5)	A (7.6) B (14.5)
Caverns Rd WB L Discovery Dr NB LR			
Caverns Rd/RV Driveway	TW	A (7.5) B (11.5)	A (7.5) B (11.2)
Caverns Rd WB L RV Driveway NB LR			
Caverns Rd/Sagendorf Corners	TW	A (7.4) A (7.3) B (11.9) A (9.2)	A (7.4) A (7.3) B (12.9) A (9.5)
Caverns Rd EB L			
Caverns Rd WB L Sagendorf Corners Rd NB LTR Sagendorf Corners Rd NB LTR			

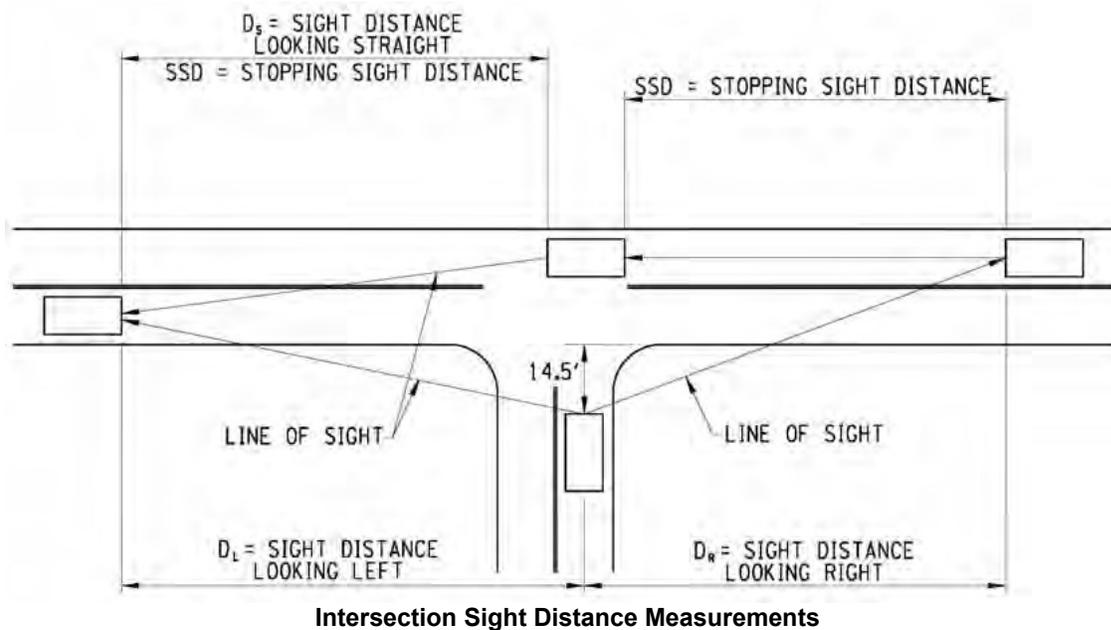
Key: TW, S = Two-way stop or Signal controlled intersection
 NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound intersection approaches
 L, T, R = Left-turn, through, and/or right-turn movements
 L[T]R = LR represents the existing geometry, LTR represents the future geometry
 X (Y.Y) = Level of Service (Average delay in seconds per vehicle)
 -- = Not applicable

The sensitivity analysis indicates that the study area intersections will continue to operate at adequate levels of service during the Saturday peak summer condition for the departure period of the proposed development. No improvements are recommended.

C. Sight Distance Analysis

A sight distance evaluation was completed at the existing intersections of Caverns Road/Discovery Drive (northern and southern legs) and Caverns Road/Barnerville Road. *Intersection* sight distances were measured from the perspective of a vehicle exiting both legs of Discovery Drive and Caverns Road. The intersection sight distance looking straight ahead for vehicles traveling west on Caverns Road and turning left into Discovery Drive and Caverns Road, was also measured. The available intersection sight distance approaching the intersection from a side street should allow drivers a sufficient view of the intersecting highway to allow vehicles to enter or exit the intersection without excessively slowing vehicles traveling at or near the operating speed on the main road.

Stopping sight distance was also measured for eastbound and westbound traffic on Caverns Road and Barnerville Road near Discovery Drive and Caverns Road. Stopping sight distance is the length of the roadway ahead that is visible to the driver. The available stopping sight distance on a roadway should be of sufficient length to enable a vehicle traveling at or near the operating speed to stop before reaching a stationary object in its path. The following diagram illustrates these sight distance measurements.



The posted speed limit on Caverns Road in the vicinity of the site is 35-mph. The posted speed limit on Barnerville Road transitions from 45-mph west of the Caverns Road intersection to 35-mph east of the Caverns Road intersection. The 85th percentile speed on Barnerville Road was measured to be 40-mph. The sight distances measured in the field were compared to the guidelines presented in AASHTO for a 40-mph operating speed (35-mph posted speed limit plus 5-mph on Caverns Road and the 85th percentile speed on Barnerville Road). The results of the sight distance analysis are summarized in Table 4.3.

Table 4.3 – Sight Distance Summary (feet)

Intersection		Intersection Sight Distance ¹				Stopping Sight Distance ²	
		Right-Turn from Site Drwy (D _L)	Left-Turn from Site Driveway		Left-Turn from Mainline (D _S)	SSD _{EB}	SSD _{WB}
			Looking Left (D _L)	Looking Right (D _R)			
Caverns Rd/ Barnerville Rd	Available	443	443	1000+	443	388	720
	Recommended ³	385	445	445	445	355 ⁴	305
Caverns Rd/ Discovery Drive Southern Leg	Available	235 (260)	235 (260)	485	280 (293)	260 (273)	371
	Recommended ³	385	445	445	325	280 ⁵	335 ⁶
Caverns Rd/ Discovery Drive Northern Leg	Available	425 (460)	425 (460)	650	454 (470)	429 (445)	550
	Recommended ³	385	445	445	325	280 ⁵	335 ⁶

1= Intersection sight distance is measured at 14.5 feet back from the travel way at an eye height and object height of 3.5 feet.

2 = SSD_{EB, WB} = Stopping sight distance measured for a 2 foot object located in the path of eastbound and westbound vehicles on Caverns Road and Barnerville Road

3 = Sight distances measured are compared to the AASHTO recommended guidelines for a 40-mph operating speed on Caverns Road and Barnerville Road.

4 = Eastbound stopping sight distance adjusted for a -9.0% grade on Barnerville Road.

5 = Eastbound stopping sight distance adjusted for a +6.5% grade on Caverns Road.

6= Westbound stopping sight distance adjusted for a -6.0% grade on Caverns Road.

XX (YY) = Sight distance available before clearing (sight distance available after clearing)

The following observations are evident from this analysis:

- Caverns Road/Barnerville Road – Table 4.3 indicates that the available sight distance for vehicles looking right from Caverns Road to make a left-turn onto Barnerville Road, looking left from Caverns Road to make a right-turn onto Caverns Road, and looking straight on Barnerville Road to make a left-turn onto Caverns Road all exceed the AASHTO recommended guidelines for a 40-mph operating speed. However, the available intersection sight distance for a vehicle looking left from Caverns Road to turn left onto Barnerville Road is nominally limited due to a vertical curve located to the west as shown on Photograph 1.



Photograph 1: Caverns Road – Looking Left

As of January 15, 2010, New York State officially adopted the National Manual on Uniform Traffic Control Devices for Streets and Highways – 2009 Edition (National MUTCD) to be used in conjunction with the current New York State Supplement. Together, the National MUTCD and the New York State Supplement (2007 Edition including Revision #1, effective March 19, 2008) constitute the “uniform system of traffic control devices” required by Section 1680 of the New York State Vehicle and Traffic Law. These documents do not provide specific guidance as to when sight distance mitigation measures are required. As such, Figure 232-1 in the 2005 New York Codes *Rules and Regulation, Title 17 Transportation* (NYCRR) and Table 5 in the 2008 *Traffic Sign Handbook for Local Roads* prepared by the Cornell Local Roads Program were reviewed. These resources indicate that the available sight distances is less than desirable but not critically limited and therefore does not require mitigation. However, it is noted that an intersection warning sign (MUTCD No. W2-2) is present and advises motorists of the condition.

The results of the stopping sight distance evaluation indicate that the AASHTO recommended distances are met for a vehicle traveling eastbound and westbound along Barnerville Road/Caverns Road toward Caverns Road.

Caverns Road/Discovery Drive (Southern Leg) – Table 4.3 indicates that the available sight distance for vehicles looking right from Discovery Drive to make a left-turn onto Caverns Road exceeds the AASHTO recommended guidelines for a 40-mph operating speed. However, the available intersection sight distance for a vehicle looking left from Discovery Drive to turn left or right onto Caverns Road or looking straight on Caverns Road to turn left into Discovery Drive is limited due to vegetation and a bridge abutment located to the west as shown on Photograph 2. It is noted that an intersection warning sign (MUTCD No. W2-2) is present and advises motorists of the condition. However, it is recommended that the vegetation be cleared or cut-back to maximize the available sight lines, and that Discovery Drive be re-configured as a T-intersection instead of its current Y-configuration as shown on Figure 4.1. The single point of access should be

located at the existing Discovery Drive northern leg location. This will maximize the available sight distance and will provide adequate capacity for traffic entering and exiting the *Howe Caverns Estate* development.



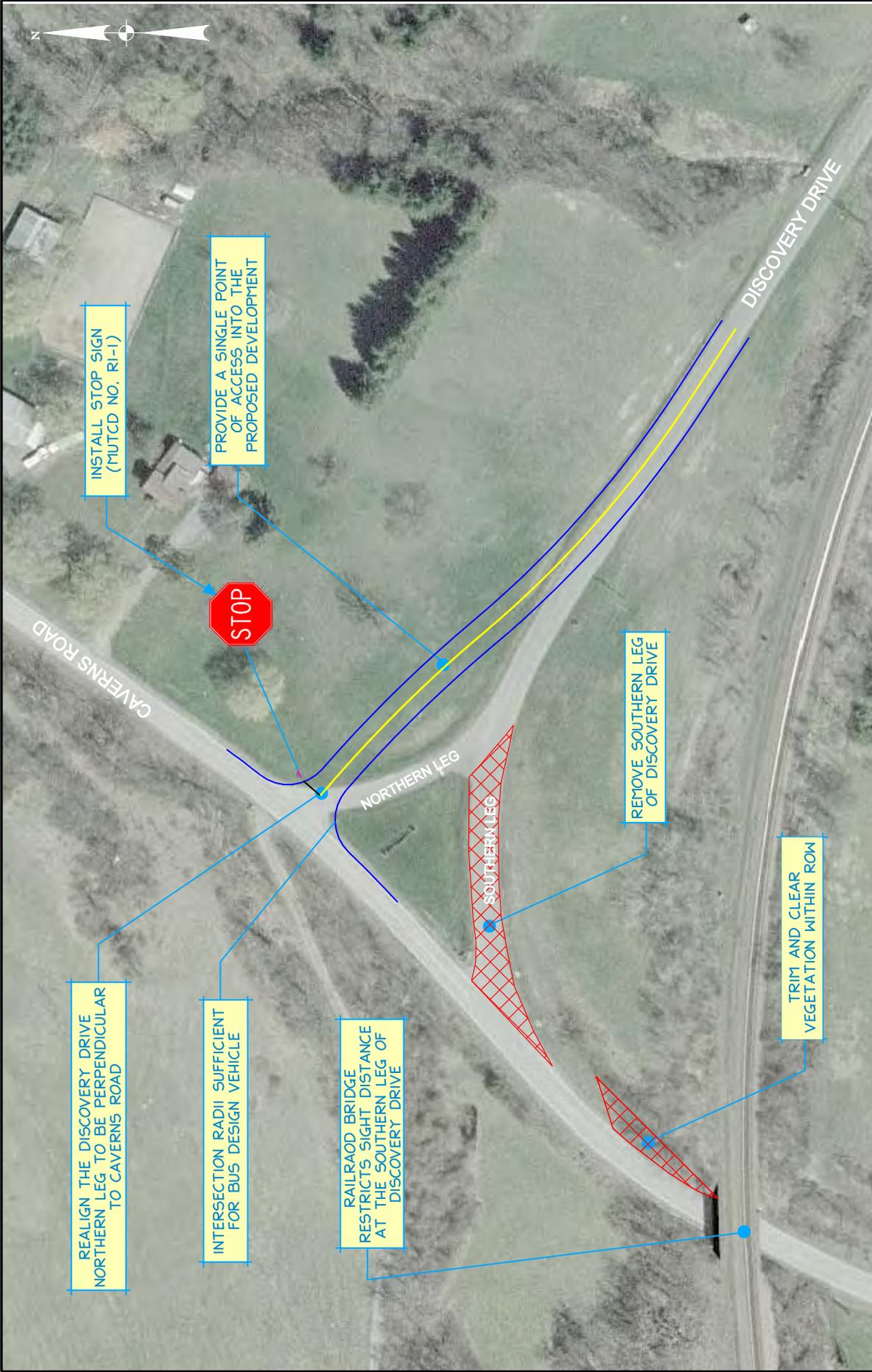
Photograph 2: Discovery Drive – Looking Left

- Caverns Road/Discovery Drive (Northern Leg) – The results of the intersection sight distance evaluation indicate that the available sight distance for a vehicle looking right from Discovery Drive to turn left onto Caverns Road, looking left to turn right onto Caverns Road, and looking straight on Caverns Road to turn left into Discovery Drive exceed the AASHTO guidelines for the 40-mph operating speed. However, the sight distance looking left is restricted by vegetation along Caverns Road as shown in Photograph 3 as discussed above. It is recommended that the vegetation be cleared within the right-of-way to increase the line of sight for vehicles looking left exiting the Discovery Drive. It is expected that clearing of the vegetation will result in a condition that exceeds the AASHTO guidelines for this movement. The sight distance evaluation also indicates that the AASHTO guidelines for stopping sight distance are met in both directions along Caverns Road.



Photograph 3: Discovery Drive – Looking Left

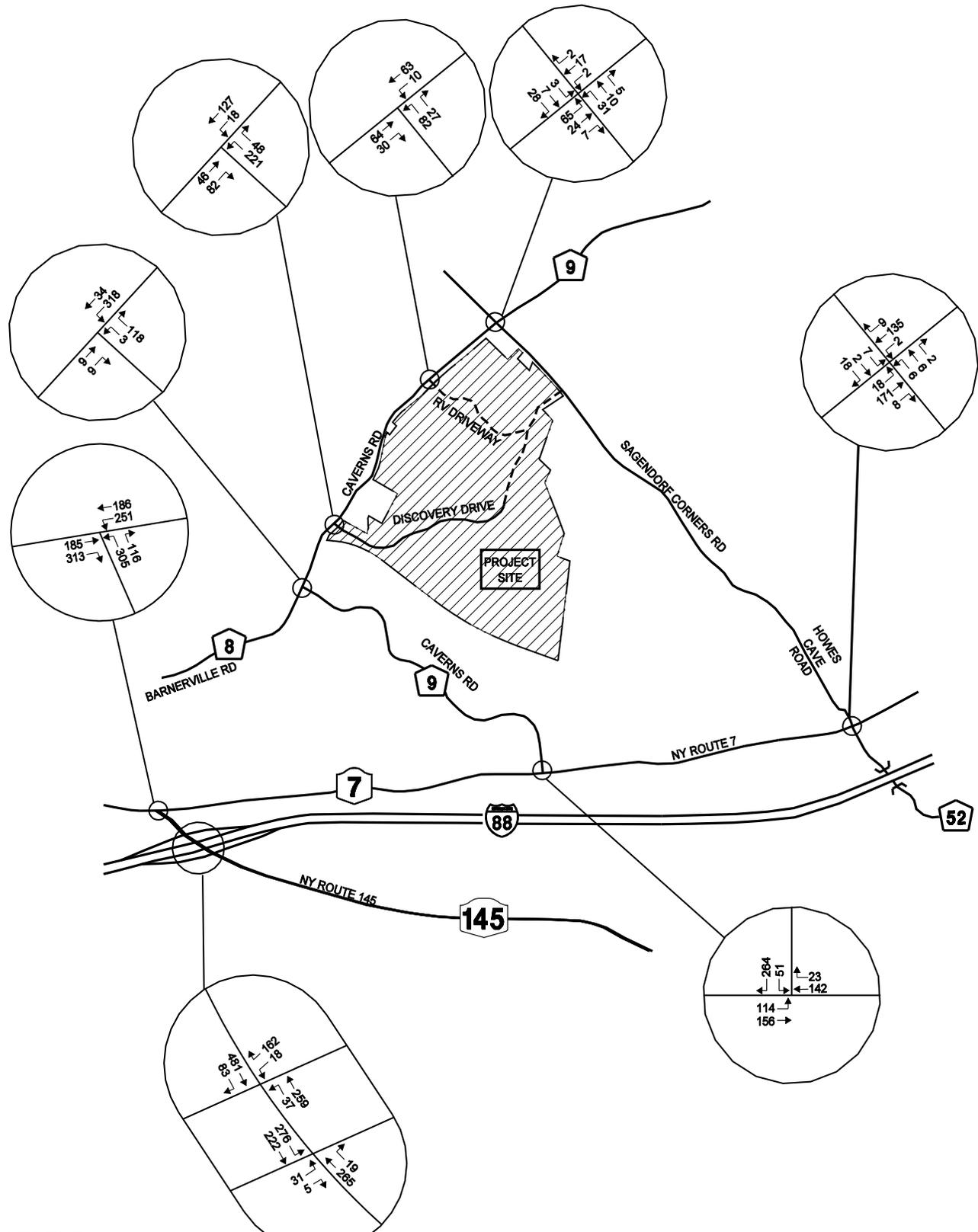
It is noted that the available sight distance for the RV Driveway on Caverns Road and for the secondary access driveway on Sagendorf Corners Road were not evaluated since the exact location of these access points have not been determined. Therefore, it is recommended that the available sight distance at these intersections be field verified to ensure that adequate sight lines are provided once the specific location of each driveway has been established.



**CAVERNS ROAD/DISCOVERY DRIVE
INTERSECTION
CONCEPT PLAN**

**HOWE CAVERNS ESTATES
TOWN OF COBLESKILL, NY**





LEGEND:
SATURDAY PEAK HOUR
 2012 BUILD PEAK SUMMER
 TRAFFIC VOLUMES
 SENSITIVITY ANALYSIS- DEPARTURE CONDITION

HOWE CAVERNS ESTATES
 TOWN OF COBLESKILL, NY



PROJECT: 09-087d DATE: 4/10 FIGURE: 4.2

I:\6111\Projects\09-087d_Howe_Caverns\cadd\sgm\trf_fig.dgn

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this Traffic Impact Study completed for the proposed *Howe Caverns Estate* development, the following conclusions and recommendations are offered:

1. The proposed project is envisioned as a mixed-use recreational development consisting of a 22,000 SF entertainment building, a 2,500 SF gemstone building, various independent attractions such as a zip rider, dinosaur park, mountain coaster, etc., a 200 site RV Park, and a 250 room resort hotel with an indoor water park.
2. Primary access to the site is proposed via the existing Discovery Drive access road located on Caverns Road. Secondary access is proposed via a new driveway on Sagendorf Corners Road and a new RV Driveway on Caverns Road.
3. It is anticipated that the proposed project will generate approximately 283 new trips during the Friday PM peak hour and 374 new trips during the Saturday peak hour.
4. The level of service analysis shows that the signalized study area intersections will operate at adequate overall levels of service during Existing and No-Build conditions. The level of service analysis also indicates that these intersections will continue to operate at the same levels of service after construction of the proposed development with an increase in overall delay less than two seconds at any intersection. No improvements are recommended.
5. The level of service analysis shows that the unsignalized study area intersections will operate adequately after construction of the proposed development. No improvements are recommended.
6. The level of service analysis indicates that the unsignalized Discovery Drive and RV Driveway intersections on Caverns Road will operate adequately after construction of the proposed project. It is recommended that these intersections operate under stop sign control on the minor street approaches and provide a single lane for entering traffic and a single lane for exiting traffic. It is noted that due to the limited sight distance at the southern leg of the Caverns Road/Discovery Drive intersection, it is recommended that Discovery Drive be re-configured as a T-intersection instead of its current Y-configuration. The single point of access should be located at the existing Discovery Drive northern leg location and should be designed to accommodate the buses that visit the site.

This will maximize the available sight distance and will still provide adequate capacity for traffic entering and exiting the *Howe Caverns Estate* development.

7. A sensitivity level of service analysis indicates that the study area intersections will continue to operate at adequate levels of service during the Saturday peak summer condition for the departure period of the proposed development.
8. A sight distance evaluation indicates that adequate intersection and stopping sight distance will be provided at the reconfigured Caverns Road/Discovery Drive intersection and with the clearing of existing vegetation located to the west.
9. It is recommended that the available sight distance at the RV Driveway on Caverns Road and at the secondary access driveway on Sagendorf Corners Road be field verified to ensure that adequate sight lines are provided once the specific location of each driveway has been established.

The above analysis indicates that the study area intersections will operate adequately with the recommended improvements based on the size of the development and traffic expected.

Appendix C

Level of Service Calculations

**Traffic Impact Study
Howe Caverns Casino Resort
Town of Cobleskill, New York**

LOS Definitions

The following is an excerpt from the 2010 Highway Capacity Manual (HCM).

Level of Service for Signalized Intersections

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay *and* volume-to-capacity ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group. The following paragraphs describe each LOS.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

Level of Service Criteria for Unsignalized Intersections

Level of service (LOS) for a TWSC intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns by using criteria given in Exhibit 19-1. LOS is not defined for the intersection as a whole or for major-street approaches for three primary reasons: (a) major-street through vehicles are assumed to experience zero delay; (b) the disproportionate number of major-street through vehicles at a typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay for all vehicles; and (c) the resulting low delay can mask important LOS deficiencies for minor movements. LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The LOS criteria for TWSC intersections are somewhat different from the criteria used in Chapter 18 for signalized intersections, primarily because user perceptions differ among transportation facility types. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will present greater delay than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals, which can reduce users' delay tolerance.

The level-of-service (LOS) criteria for All-Way Stop-Controlled (AWSC) intersections are given in Exhibit 20-2. LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

Exhibits 19-1/20-2: Level-of-Service Criteria for Stop Controlled Intersections

Control Delay (sec/veh)	LOS by Volume-to-Capacity Ratio	
	$v/c \leq 1.0$	$v/c \geq 1.0$
10.0	A	F
>10.0 and \leq 15.0	B	F
>15.0 and \leq 25.0	C	F
>25.0 and \leq 35.0	D	F
>35.0 and \leq 50.0	E	F
>50.0	F	F

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 EB Ramp		
Agency/Co.	CME, RT145EX22EBnbpm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: I-88 Exit 22 Eastbound Ramp				North/South Street: NY Route 145			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		248	43	167	266		
Peak-Hour Factor, PHF	1.00	0.84	0.84	0.84	0.84	1.00	
Hourly Flow Rate, HFR (veh/h)	0	295	51	198	316	0	
Percent Heavy Vehicles	0	--	--	3	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	30		46				
Peak-Hour Factor, PHF	0.80	1.00	0.80	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	37	0	57	0	0	0	
Percent Heavy Vehicles	13	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR					
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L					LR
v (veh/h)		198					94
C (m) (veh/h)		1207					365
v/c		0.16					0.26
95% queue length		0.59					1.01
Control Delay (s/veh)		8.6					18.2
LOS		A					C
Approach Delay (s/veh)	--	--					18.2
Approach LOS	--	--					C

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 EB Ramp		
Agency/Co.	CME, RT145EX22EBbupm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: I-88 Exit 22 Eastbound Ramp				North/South Street: NY Route 145			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		270	43	351	289		
Peak-Hour Factor, PHF	1.00	0.84	0.84	0.84	0.84	1.00	
Hourly Flow Rate, HFR (veh/h)	0	321	51	417	344	0	
Percent Heavy Vehicles	0	--	--	3	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	97		46				
Peak-Hour Factor, PHF	0.80	1.00	0.80	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	121	0	57	0	0	0	
Percent Heavy Vehicles	13	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR					
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L					LR
v (veh/h)		417					178
C (m) (veh/h)		1181					112
v/c		0.35					1.59
95% queue length		1.61					13.28
Control Delay (s/veh)		9.7					371.1
LOS		A					F
Approach Delay (s/veh)	--	--					371.1
Approach LOS	--	--					F

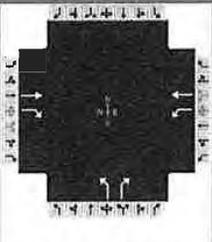
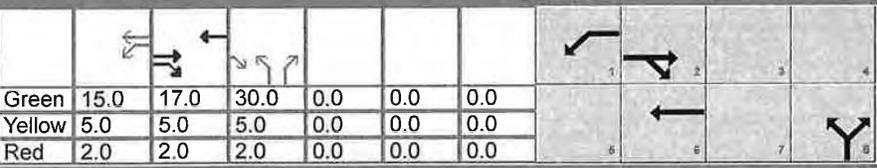
HCM 2010 Signalized Intersection Summary Route 145 & I-88 EB Off Ramp/I-88 EB On Ramp
 114-145 Howe Caverns Build Alternative 2 Improvement_Signal PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	97	0	46	0	0	0	0	270	43	351	289	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	105	0	50				0	293	47	382	314	0
Adj No. of Lanes	0	1	0				0	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	131	0	62				0	962	154	763	1144	0
Arrive On Green	0.11	0.00	0.11				0.00	0.61	0.61	0.61	0.61	0.00
Sat Flow, veh/h	1157	0	551				0	1567	251	1036	1863	0
Grp Volume(v), veh/h	155	0	0				0	0	340	382	314	0
Grp Sat Flow(s),veh/h/ln	1708	0	0				0	0	1818	1036	1863	0
Q Serve(g_s), s	2.9	0.0	0.0				0.0	0.0	2.9	9.1	2.6	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0				0.0	0.0	2.9	12.1	2.6	0.0
Prop In Lane	0.68		0.32				0.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	193	0	0				0	0	1116	763	1144	0
V/C Ratio(X)	0.80	0.00	0.00				0.00	0.00	0.30	0.50	0.27	0.00
Avail Cap(c_a), veh/h	834	0	0				0	0	1925	1223	1972	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.3	0.0	0.0				0.0	0.0	3.0	5.9	3.0	0.0
Incr Delay (d2), s/veh	7.5	0.0	0.0				0.0	0.0	0.2	0.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0				0.0	0.0	1.5	2.7	1.3	0.0
LnGrp Delay(d),s/veh	21.8	0.0	0.0				0.0	0.0	3.2	6.4	3.1	0.0
LnGrp LOS	C								A	A	A	
Approach Vol, veh/h		155						340			696	
Approach Delay, s/veh		21.8						3.2			4.9	
Approach LOS		C						A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		24.7		8.2		24.7						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		34.9		16.1		34.9						
Max Q Clear Time (g_c+I1), s		4.9		4.9		14.1						
Green Ext Time (p_c), s		6.8		0.0		6.2						
Intersection Summary												
HCM 2010 Ctrl Delay			6.6									
HCM 2010 LOS			A									

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 WB Ramp		
Agency/Co.	CME, RT145EX22WBnbpm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: I-88 Exit 22 Westbound Ramp				North/South Street: NY Route 145			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	37	241			386	44	
Peak-Hour Factor, PHF	0.89	0.89	1.00	1.00	0.93	0.93	
Hourly Flow Rate, HFR (veh/h)	41	270	0	0	415	47	
Percent Heavy Vehicles	3	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	1	1	0	0	1	0	
Configuration	L	T				TR	
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				46		251	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.93	1.00	0.93	
Hourly Flow Rate, HFR (veh/h)	0	0	0	49	0	269	
Percent Heavy Vehicles	0	0	0	0	0	2	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	L		LR				
v (veh/h)	41		318				
C (m) (veh/h)	1094		648				
v/c	0.04		0.49				
95% queue length	0.12		2.71				
Control Delay (s/veh)	8.4		15.8				
LOS	A		C				
Approach Delay (s/veh)	--	--	15.8				
Approach LOS	--	--	C				

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 WB Ramp		
Agency/Co.	CME, RT145EX22WBbupm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: I-88 Exit 22 Westbound Ramp				North/South Street: NY Route 145			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	37	330			593	114	
Peak-Hour Factor, PHF	0.89	0.89	1.00	1.00	0.93	0.93	
Hourly Flow Rate, HFR (veh/h)	41	370	0	0	637	122	
Percent Heavy Vehicles	3	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	1	1	0	0	1	0	
Configuration	L	T				TR	
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				46		429	
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.93	1.00	0.93	
Hourly Flow Rate, HFR (veh/h)	0	0	0	49	0	461	
Percent Heavy Vehicles	0	0	0	0	0	2	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	L			LR			
v (veh/h)	41			510			
C (m) (veh/h)	848			557			
v/c	0.05			0.92			
95% queue length	0.15			11.20			
Control Delay (s/veh)	9.5			47.5			
LOS	A			E			
Approach Delay (s/veh)	--	--		47.5			
Approach LOS	--	--		E			

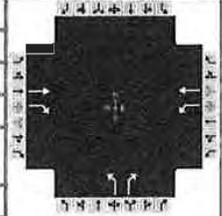
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	CME, RT7RT145nbmpms			Duration, h	0.25										
Analysis Date	Jun 19, 2014			Area Type	Other										
Analysis Year	2016 No-Build Summer			PHF	0.99										
Analysis Period	1 > 7:00														
File Name	RT7RT145nbmpms.xus														
Project Description															
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h		165	359	72	158		417		75						
Signal Information															
Cycle, s	83.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	15.0	17.0	30.0	0.0	0.0	0.0									
Yellow	5.0	5.0	5.0	0.0	0.0	0.0									
Red	2.0	2.0	2.0	0.0	0.0	0.0									
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase		2	1	6		8									
Case Number		7.3	2.0	4.0		9.0									
Phase Duration, s		24.0	22.0	46.0		37.0									
Change Period, (Y+Rc), s		7.0	7.0	7.0		7.0									
Max Allow Headway (MAH), s		0.0	2.8	0.0		2.8									
Queue Clearance Time (gs), s			5.1			18.7									
Green Extension Time (ge), s		0.0	0.0	0.0		0.6									
Phase Call Probability			1.00			1.00									
Max Out Probability			0.00			0.00									
Movement Group Results				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement		2	12	1	6		3		18						
Adjusted Flow Rate (v), veh/h		167	316	73	160		421		61						
Adjusted Saturation Flow Rate (s), veh/h/ln		1900	1563	1680	1863		1757		1438						
Queue Service Time (gs), s		6.3	9.1	3.1	4.1		16.7		2.3						
Cycle Queue Clearance Time (gc), s		6.3	9.1	3.1	4.1		16.7		2.3						
Green Ratio (g/C)		0.20	0.57	0.18	0.47		0.36		0.36						
Capacity (c), veh/h		389	885	304	875		635		520						
Volume-to-Capacity Ratio (X)		0.428	0.357	0.239	0.182		0.663		0.117						
Available Capacity (ca), veh/h		389	885	304	875		635		520						
Back of Queue (Q), veh/ln (50th percentile)		3.2	6.4	1.2	1.7		6.9		0.8						
Queue Storage Ratio (RQ) (50th percentile)		0.00	0.00	0.00	0.00		0.00		0.00						
Uniform Delay (d1), s/veh		28.8	9.8	29.1	12.8		22.3		17.7						
Incremental Delay (d2), s/veh		3.4	1.1	0.1	0.5		2.1		0.0						
Initial Queue Delay (d3), s/veh		0.0	0.0	0.0	0.0		0.0		0.0						
Control Delay (d), s/veh		32.2	10.9	29.3	13.2		24.4		17.7						
Level of Service (LOS)		C	B	C	B		C		B						
Approach Delay, s/veh / LOS	18.3		B	18.2		B	23.5		C	0.0					
Intersection Delay, s/veh / LOS	20.4			C											
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.3		B	0.7		A	2.3		B	2.4		B			
Bicycle LOS Score / LOS	1.3		A	0.9		A			F						

HCS 2010 Signalized Intersection Results Summary

General Information

Agency	CME, RT7RT145bupmps			Duration, h	0.25
Analysis	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other
Jurisdiction	Town of Cobleskill, NY	Time Period	PM Peak Hour	PHF	0.99
Intersection	Route 7/Route 145	Analysis Year	2016 Build Summer	Analysis Period	1> 7:00
File Name	RT7RT145bupmps.xus				
Project Description					



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		187	359	349	181		417		342			

Signal Information

Cycle, s	83.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	15.0	17.0	30.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0			
				Red	2.0	2.0	2.0	0.0	0.0	0.0			

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	2.0	4.0		9.0		
Phase Duration, s		24.0	22.0	46.0		37.0		
Change Period, (Y+R _c), s		7.0	7.0	7.0		7.0		
Max Allow Headway (MAH), s		0.0	2.8	0.0		2.9		
Queue Clearance Time (g _s), s			17.0			18.7		
Green Extension Time (g _e), s		0.0	0.0	0.0		1.1		
Phase Call Probability			1.00			1.00		
Max Out Probability			1.00			0.02		

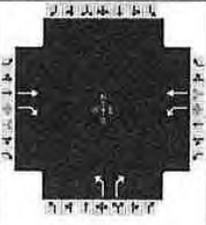
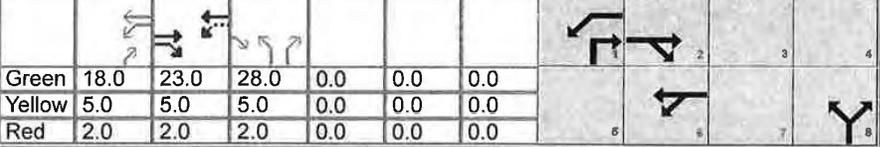
Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h		189	316	353	183		421		330			
Adjusted Saturation Flow Rate (s), veh/h/ln		1900	1563	1680	1863		1757		1438			
Queue Service Time (g _s), s		7.3	9.1	15.0	4.8		16.7		15.8			
Cycle Queue Clearance Time (g _c), s		7.3	9.1	15.0	4.8		16.7		15.8			
Green Ratio (g/C)		0.20	0.57	0.18	0.47		0.36		0.36			
Capacity (c), veh/h		389	885	304	875		635		520			
Volume-to-Capacity Ratio (X)		0.485	0.357	1.161	0.209		0.663		0.636			
Available Capacity (c _a), veh/h		389	885	304	875		635		520			
Back of Queue (Q), veh/ln (50th percentile)		3.7	6.4	14.6	2.0		6.9		5.4			
Queue Storage Ratio (RQ) (50th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh		29.1	9.8	34.0	12.9		22.3		22.0			
Incremental Delay (d ₂), s/veh		4.3	1.1	102.6	0.5		2.1		2.0			
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		33.4	10.9	136.6	13.5		24.4		23.9			
Level of Service (LOS)		C	B	F	B		C		C			
Approach Delay, s/veh / LOS	19.3	B		94.5	F		24.2	C		0.0		
Intersection Delay, s/veh / LOS	43.8						D					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.3	B		0.7	A		2.3	B		2.4	B	
Bicycle LOS Score / LOS	1.3	A		1.4	A			F				

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	CME, RT7RT145bupmpsi			Duration, h	0.25										
Analysis Date	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other										
Jurisdiction	Town of Cobleskill, NY	Time Period	PM Peak Hour	PHF	0.99										
Intersection	Route 7/Route 145	Analysis Year	2016 Build Summer	Analysis Period	1> 7:00										
File Name	RT7RT145bupmpsi.xus														
Project Description															
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h					187	359	349	181		417		342			
Signal Information															
Cycle, s	90.0	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	18.0	23.0	28.0	0.0	0.0	0.0					
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	0.0	0.0	0.0					
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					7.3	1.0	4.0		9.0						
Phase Duration, s					30.0	25.0	55.0		35.0						
Change Period, (Y+R _c), s					7.0	7.0	7.0		7.0						
Max Allow Headway (MAH), s					0.0	2.8	0.0		2.9						
Queue Clearance Time (g _s), s						14.5			21.6						
Green Extension Time (g _e), s					0.0	0.2	0.0		0.9						
Phase Call Probability						1.00			1.00						
Max Out Probability						0.54			0.18						
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h					189	316	353	183		421		330			
Adjusted Saturation Flow Rate (s), veh/h/ln					1900	1563	1680	1863		1757		1438			
Queue Service Time (g _s), s					7.4	9.9	12.5	4.6		19.6		13.1			
Cycle Queue Clearance Time (g _c), s					7.4	9.9	12.5	4.6		19.6		13.1			
Green Ratio (g/C)					0.26	0.57	0.48	0.53		0.31		0.51			
Capacity (c), veh/h					486	886	611	993		547		735			
Volume-to-Capacity Ratio (X)					0.389	0.357	0.577	0.184		0.771		0.450			
Available Capacity (c _a), veh/h					486	886	611	993		547		735			
Back of Queue (Q), veh/ln (50th percentile)					3.6	6.5	4.7	1.9		8.9		4.0			
Queue Storage Ratio (RQ) (50th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh					27.7	10.6	16.2	10.9		28.1		14.0			
Incremental Delay (d ₂), s/veh					2.3	1.1	0.9	0.4		6.0		0.2			
Initial Queue Delay (d ₃), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh					30.0	11.7	17.1	11.3		34.1		14.1			
Level of Service (LOS)					C	B	B	B		C		B			
Approach Delay, s/veh / LOS				18.6		B	15.1		B	25.3		C	0.0		
Intersection Delay, s/veh / LOS				20.4				C							
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				2.3		B	0.7		A	2.3		B	2.4		B
Bicycle LOS Score / LOS				1.3		A	1.4		A		F				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 7/Caverns Rd West Leg			
Agency/Co.	CME, RT7CAVWLnbpm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: NY Route 7				North/South Street: Caverns Road West Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	50	166			135			
Peak-Hour Factor, PHF	0.84	0.84	1.00	1.00	0.86	1.00		
Hourly Flow Rate, HFR (veh/h)	59	197	0	0	156	0		
Percent Heavy Vehicles	6	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT				T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)						57		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	0.81		
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	70		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	1		
Configuration						R		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT							R
v (veh/h)	59							70
C (m) (veh/h)	1400							895
v/c	0.04							0.08
95% queue length	0.13							0.25
Control Delay (s/veh)	7.7							9.4
LOS	A							A
Approach Delay (s/veh)	--	--					9.4	
Approach LOS	--	--					A	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 7/Caverns Rd West Leg			
Agency/Co.	CME, RT7CAVWLbupm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: NY Route 7				North/South Street: Caverns Road West Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	72	433			412			
Peak-Hour Factor, PHF	0.84	0.84	1.00	1.00	0.86	1.00		
Hourly Flow Rate, HFR (veh/h)	85	515	0	0	479	0		
Percent Heavy Vehicles	6	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT				T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)						80		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	0.81		
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	98		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	1		
Configuration						R		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT							R
v (veh/h)	85							98
C (m) (veh/h)	1063							591
v/c	0.08							0.17
95% queue length	0.26							0.59
Control Delay (s/veh)	8.7							12.3
LOS	A							B
Approach Delay (s/veh)	--	--						12.3
Approach LOS	--	--						B

TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	DMQ				Intersection	Route 7/Caverns Rd East Leg		
Agency/Co.	CME, RT7CAVELnbpm				Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014				Analysis Year	2016 No-Build Summer		
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: NY Route 7					North/South Street: Caverns Road East Leg			
Intersection Orientation: East-West					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		166			135	15		
Peak-Hour Factor, PHF	1.00	0.96	1.00	1.00	0.86	0.86		
Hourly Flow Rate, HFR (veh/h)	0	172	0	0	156	17		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T				TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				16				
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.75	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	21	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	0		
Configuration				L				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		
v (veh/h)						21		
C (m) (veh/h)						663		
v/c						0.03		
95% queue length						0.10		
Control Delay (s/veh)						10.6		
LOS						B		
Approach Delay (s/veh)	--	--				10.6		
Approach LOS	--	--				B		

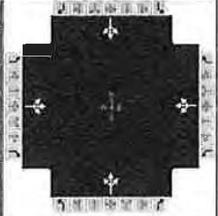
TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 7/Caverns Rd East Leg			
Agency/Co.	CME, RT7CAVELbupm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: NY Route 7				North/South Street: Caverns Road East Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		433			412	15		
Peak-Hour Factor, PHF	1.00	0.96	1.00	1.00	0.86	0.86		
Hourly Flow Rate, HFR (veh/h)	0	451	0	0	479	17		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T				TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				16				
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.75	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	21	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	0		
Configuration				L				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		
v (veh/h)						21		
C (m) (veh/h)						295		
v/c						0.07		
95% queue length						0.23		
Control Delay (s/veh)						18.1		
LOS						C		
Approach Delay (s/veh)	--	--				18.1		
Approach LOS	--	--				C		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns E Leg/Caverns W Leg			
Agency/Co.	CME, CAVELCAVWLnbpn			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road East Leg				North/South Street: Caverns Road West Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		16	57		15			
Peak-Hour Factor, PHF	1.00	0.95	0.95	1.00	0.50	1.00		
Hourly Flow Rate, HFR (veh/h)	0	16	60	0	30	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR		T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	50							
Peak-Hour Factor, PHF	0.39	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	128	0	0	0	0	0		
Percent Heavy Vehicles	6	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	0	0	0	0		
Configuration	L							
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration			L					
v (veh/h)			128					
C (m) (veh/h)			917					
v/c			0.14					
95% queue length			0.48					
Control Delay (s/veh)			9.6					
LOS			A					
Approach Delay (s/veh)	--	--	9.6					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns E Leg/Caverns W Leg			
Agency/Co.	CME, CAVELCAVWLbupm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road East Leg				North/South Street: Caverns Road West Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		80	16		72			
Peak-Hour Factor, PHF	1.00	0.95	0.95	1.00	0.50	1.00		
Hourly Flow Rate, HFR (veh/h)	0	84	16	0	144	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR		T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	15							
Peak-Hour Factor, PHF	0.39	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	38	0	0	0	0	0		
Percent Heavy Vehicles	6	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	0	0	0	0		
Configuration	L							
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration			L					
v (veh/h)			38					
C (m) (veh/h)			743					
v/c			0.05					
95% queue length			0.16					
Control Delay (s/veh)			10.1					
LOS			B					
Approach Delay (s/veh)	--	--	10.1					
Approach LOS	--	--	B					

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	CME, RT7HCnbpmmps			Duration, h	0.25
Analysis	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other
Jurisdiction	Town of Cobleskill, NY	Time Period	PM Peak Hour	PHF	0.87
Intersection	Route 7/Howe Caves Rd	Analysis Year	2016 No-Build	Analysis Period	1 > 7:00
File Name	RT7HCnbpmmps.xus				
Project Description					



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	151	7	13	128	15	7	9	6	15	9	27

Signal Information													
Cycle, s	70.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	50.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
				Red	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

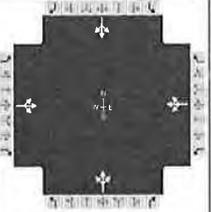
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		8.0
Phase Duration, s		55.0		55.0		15.0		15.0
Change Period, (Y+R _c), s		5.0		5.0		5.0		5.0
Max Allow Headway (MAH), s		0.0		0.0		3.3		3.3
Queue Clearance Time (g _s), s						2.8		4.0
Green Extension Time (g _e), s		0.0		0.0		0.1		0.1
Phase all Probability						1.00		1.00
Max Out Probability						0.01		0.02

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	197			179			25			59		
Adjusted Saturation Flow Rate (s), veh/h/ln	1826			1765			1695			1713		
Queue Service Time (g _s), s	0.0			0.0			0.0			0.0		
Cycle Queue Clearance Time (g _c), s	2.4			2.2			0.8			2.0		
Green Ratio (g/C)	0.71			0.71			0.14			0.14		
Capacity (c), veh/h	1359			1317			310			311		
Volume-to-Capacity Ratio (X)	0.145			0.136			0.082			0.188		
Available Capacity (C _a), veh/h	1359			1317			310			311		
Back of Queue (Q), veh/ln (50th percentile)	0.7			0.6			0.4			1.0		
Queue Storage Ratio (RQ) (50th percentile)	0.00			0.00			0.00			0.00		
Uniform Delay (d ₁), s/veh	3.2			3.2			26.1			26.6		
Incremental Delay (d ₂), s/veh	0.2			0.2			0.0			1.3		
Initial Queue Delay (d ₃), s/veh	0.0			0.0			0.0			0.0		
Control Delay (d), s/veh	3.4			3.4			26.1			27.9		
Level of Service (LOS)	A			A			C			C		
Approach Delay, s/veh / LOS	3.4	A		3.4	A		26.1	C		27.9	C	
Intersection Delay, s/veh / LOS	7.8						A					

Multimodal Results	EB		WB		NB		SB	
	Pedestrian LOS Score / LOS	2.0	B	2.0	B	2.1	B	2.1
Bicycle LOS Score / LOS	0.8	A	0.8	A	0.5	A	0.6	A

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	CME, RT7HCbupmps			Duration, h	0.25		
Analysis Date	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other		
Jurisdiction	Town of Cobleskill, NY	Time Period	PM Peak Hour	PHF	0.87		
Intersection	Route 7/Howe Caves Rd	Analysis Year	2016 Build	Analysis Period	1 > 7:00		
File Name	RT7HCbupmps.xus						
Project Description							



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	280	151	7	13	128	60	7	9	6	61	9	304

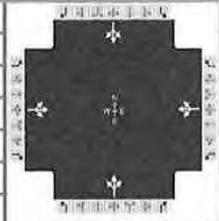
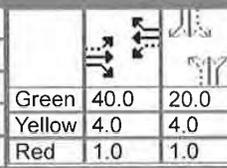
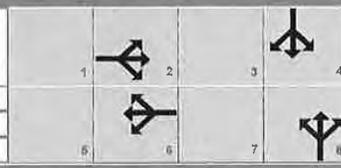
Signal Information				Signal Timing (s)									
Cycle, s	70.0	Reference Phase	2	Green	50.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On										

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		8.0
Phase Duration, s		55.0		55.0		15.0		15.0
Change Period, (Y+Rc), s		5.0		5.0		5.0		5.0
Max Allow Headway (MAH), s		0.0		0.0		3.4		3.4
Queue Clearance Time (gs), s						2.8		12.0
Green Extension Time (ge), s		0.0		0.0		0.7		0.0
Filter Call Probability						1.00		1.00
Max Out Probability						0.12		1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	503			231			25			430		
Adjusted Saturation Flow Rate (s), veh/h/ln	1366			1720			1615			1656		
Queue Service Time (gs), s	8.1			0.0			0.0			8.5		
Cycle Queue Clearance Time (gc), s	11.1			3.0			0.8			10.0		
Green Ratio (g/C)	0.71			0.71			0.14			0.14		
Capacity (c), veh/h	1060			1283			299			296		
Volume-to-Capacity Ratio (X)	0.475			0.180			0.085			1.450		
Available Capacity (ca), veh/h	1060			1283			299			296		
Back of Queue (Q), veh/ln (50th percentile)	2.5			0.8			0.4			23.1		
Queue Storage Ratio (RQ) (50th percentile)	0.00			0.00			0.00			0.00		
Uniform Delay (di), s/veh	4.4			3.3			26.1			31.0		
Incremental Delay (d2), s/veh	1.5			0.3			0.0			220.6		
Initial Queue Delay (d3), s/veh	0.0			0.0			0.0			0.0		
Control Delay (d), s/veh	5.9			3.6			26.1			251.5		
Level of Service (LOS)	A			A			C			F		
Approach Delay, s/veh / LOS	5.9	A		3.6	A		26.1	C		251.5	F	
Intersection Delay, s/veh / LOS	94.6						F					

Modal Results	EB			WB			NB			SB		
	Score	LOS										
Pedestrian LOS Score / LOS	2.0	B	2.0	B	2.1	B	2.1	B	2.1	B	2.1	B
Bicycle LOS Score / LOS	1.3	A	0.9	A	0.5	A	1.2	A	1.2	A	1.2	A

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	CME, RT7HCbupmpsi			Duration, h	0.25										
Analysis Date	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other										
Jurisdiction	Town of Cobleskill, NY	Time Period	PM Peak Hour	PHF	0.87										
Intersection	Route 7/Howe Caves Rd	Analysis Year	2016 Build	Analysis Period	1 > 7:00										
File Name	RT7HCbupmpsi.xus														
Project Description															
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h	280	151	7	13	128	60	7	9	6	61	9	304			
Signal Information															
Cycle, s	70.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	40.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Red	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2		6		8		4				
Case Number					8.0		8.0		8.0		8.0				
Phase Duration, s					45.0		45.0		25.0		25.0				
Change Period, (Y+R _c), s					5.0		5.0		5.0		5.0				
Max Allow Headway (MAH), s					0.0		0.0		3.4		3.4				
Queue Clearance Time (g _s), s									2.7		19.4				
Green Extension Time (g _e), s					0.0		0.0		1.0		0.1				
Max Out Probability									1.00		1.00				
Max Out Probability									0.00		1.00				
Movement Group Results				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14			
Adjusted Flow Rate (v), veh/h	503			231			25			430					
Adjusted Saturation Flow Rate (s), veh/h/ln	1362			1724			1344			1664					
Queue Service Time (g _s), s	12.8			0.0			0.0			12.3					
Cycle Queue Clearance Time (g _c), s	17.4			4.6			0.7			17.4					
Green Ratio (g/C)	0.57			0.57			0.29			0.29					
Capacity (c), veh/h	863			1040			452			535					
Volume-to-Capacity Ratio (X)	0.584			0.222			0.056			0.803					
Available Capacity (c _a), veh/h	863			1040			452			535					
Back of Queue (Q), veh/ln (50th percentile)	5.0			1.6			0.3			8.2					
Queue Storage Ratio (RQ) (50th percentile)	0.00			0.00			0.00			0.00					
Uniform Delay (d ₁), s/veh	10.1			7.4			18.1			24.0					
Incremental Delay (d ₂), s/veh	2.9			0.5			0.0			12.1					
Initial Queue Delay (d ₃), s/veh	0.0			0.0			0.0			0.0					
Control Delay (d), s/veh	13.0			7.9			18.1			36.0					
Level of Service (LOS)	B			A			B			D					
Approach Delay, s/veh / LOS	13.0	B		7.9	A		18.1	B		36.0	D				
Intersection Delay, s/veh / LOS	20.4						C								
Modal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.1	B		2.1	B		2.1	B		2.1	B				
Bicycle LOS Score / LOS	1.3	A		0.9	A		0.5	A		1.2	A				

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Caverns Rd/Barnerville Rd		
Agency/Co.	CME, CAVBARNnbpm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: Barnerville Road/Caverns Road				North/South Street: Caverns Road			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		12	9	49	16		
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.91	0.91	1.00	
Hourly Flow Rate, HFR (veh/h)	0	15	11	53	17	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR	LT			
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	18		54				
Peak-Hour Factor, PHF	0.62	1.00	0.62	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	29	0	87	0	0	0	
Percent Heavy Vehicles	6	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR					
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
v (veh/h)		53		116			
C (m) (veh/h)		1601		987			
v/c		0.03		0.12			
95% queue length		0.10		0.40			
Control Delay (s/veh)		7.3		9.1			
LOS		A		A			
Approach Delay (s/veh)	--	--		9.1			
Approach LOS	--	--		A			

TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	DMQ				Intersection	Caverns Rd/Barnerville Rd		
Agency/Co.	CME, CAVBARNbupm				Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/20/2014				Analysis Year	2016 Build Summer		
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Barnerville Road/Caverns Road					North/South Street: Caverns Road			
Intersection Orientation: East-West					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		35	9	72	39			
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.91	0.91	1.00		
Hourly Flow Rate, HFR (veh/h)	0	44	11	79	42	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	18		76					
Peak-Hour Factor, PHF	0.62	1.00	0.62	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	29	0	122	0	0	0		
Percent Heavy Vehicles	6	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		79		151				
C (m) (veh/h)		1563		938				
v/c		0.05		0.16				
95% queue length		0.16		0.57				
Control Delay (s/veh)		7.4		9.6				
LOS		A		A				
Approach Delay (s/veh)	--	--	9.6					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr S Leg			
Agency/Co.	CME, CAVDISCSLnbpm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Discovery Drive South Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		16	48		22			
Peak-Hour Factor, PHF	1.00	0.78	0.78	1.00	0.66	1.00		
Hourly Flow Rate, HFR (veh/h)	0	20	61	0	33	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0				0	
Lanes	0	1	0	0	1	0		
Configuration			TR		T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	40							
Peak-Hour Factor, PHF	0.42	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	95	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	0	0	0	0		
Configuration	L							
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration			L					
v (veh/h)			95					
C (m) (veh/h)			924					
v/c			0.10					
95% queue length			0.34					
Control Delay (s/veh)			9.3					
LOS			A					
Approach Delay (s/veh)	--	--	9.3					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr S Leg		
Agency/Co.	CME, CAVDISCSLbupm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: Caverns Road				North/South Street: Discovery Drive South Leg			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		61	48		68		
Peak-Hour Factor, PHF	1.00	0.78	0.78	1.00	0.66	1.00	
Hourly Flow Rate, HFR (veh/h)	0	78	61	0	103	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR		T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	40						
Peak-Hour Factor, PHF	0.42	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	95	0	0	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	1	0	0	0	0	0	
Configuration	L						
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration			L				
v (veh/h)			95				
C (m) (veh/h)			782				
v/c			0.12				
95% queue length			0.41				
Control Delay (s/veh)			10.2				
LOS			B				
Approach Delay (s/veh)	--	--	10.2				
Approach LOS	--	--	B				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr N Leg			
Agency/Co.	CME, CAVDISCNLnbpm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Discovery Drive North Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		16		10	22			
Peak-Hour Factor, PHF	1.00	0.67	1.00	0.66	0.66	1.00		
Hourly Flow Rate, HFR (veh/h)	0	23	0	15	33	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T		LT				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)			12					
Peak-Hour Factor, PHF	1.00	1.00	0.38	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	31	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	1	0	0	0		
Configuration			R					
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R			
v (veh/h)		15			31			
C (m) (veh/h)		1605			1060			
v/c		0.01			0.03			
95% queue length		0.03			0.09			
Control Delay (s/veh)		7.3			8.5			
LOS		A			A			
Approach Delay (s/veh)	--	--	8.5					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr N Leg		
Agency/Co.	CME, CAVDISCNLbupm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: Caverns Road				North/South Street: Discovery Drive North Leg			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		61		68	10		
Peak-Hour Factor, PHF	1.00	0.67	1.00	0.66	0.66	1.00	
Hourly Flow Rate, HFR (veh/h)	0	91	0	103	15	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration		T		LT			
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)			12				
Peak-Hour Factor, PHF	1.00	1.00	0.38	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	31	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	1	0	0	0	
Configuration			R				
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT			R		
v (veh/h)		103			31		
C (m) (veh/h)		1517			972		
v/c		0.07			0.03		
95% queue length		0.22			0.10		
Control Delay (s/veh)		7.5			8.8		
LOS		A			A		
Approach Delay (s/veh)	--	--	8.8				
Approach LOS	--	--	A				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Discovery N Leg/Discovery S Leg			
Agency/Co.	CME, DISCNLDISCSnbpm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Discovery Drive South Leg				North/South Street: Discovery Drive North Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		48			40	12		
Peak-Hour Factor, PHF	1.00	0.56	1.00	1.00	0.50	0.50		
Hourly Flow Rate, HFR (veh/h)	0	85	0	0	80	24		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T				TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				10				
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	11	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	0		
Configuration				L				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		
v (veh/h)						11		
C (m) (veh/h)						817		
v/c						0.01		
95% queue length						0.04		
Control Delay (s/veh)						9.5		
LOS						A		
Approach Delay (s/veh)	--	--				9.5		
Approach LOS	--	--				A		

TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	DMQ				Intersection	Discovery N Leg/Discovery S Leg		
Agency/Co.	CME, DISCNLDISCSbupm				Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014				Analysis Year	2016 Build Summer		
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Discovery Drive South Leg					North/South Street: Discovery Drive North Leg			
Intersection Orientation: East-West					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		48			40	12		
Peak-Hour Factor, PHF	1.00	0.56	1.00	1.00	0.50	0.50		
Hourly Flow Rate, HFR (veh/h)	0	85	0	0	80	24		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T				TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				10				
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.90	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	11	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	0		
Configuration				L				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		
v (veh/h)						11		
C (m) (veh/h)						817		
v/c						0.01		
95% queue length						0.04		
Control Delay (s/veh)						9.5		
LOS						A		
Approach Delay (s/veh)	--	--				9.5		
Approach LOS	--	--				A		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Sagendorf Corners			
Agency/Co.	CME, CAVSAGnbpm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Sagendorf Corners Rd				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	22	9	3	1	9	5		
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.50	0.50	0.50		
Hourly Flow Rate, HFR (veh/h)	29	12	4	2	18	10		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal	0			0				
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	2	30	6	7	14	11		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.78	0.78	0.78		
Hourly Flow Rate, HFR (veh/h)	2	32	6	8	17	14		
Percent Heavy Vehicles	0	0	0	0	7	0		
Percent Grade (%)	0			0				
Flared Approach	N			N				
Storage	0			0				
RT Channelized	0			0				
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	29	2	40			39		
C (m) (veh/h)	1599	1615	811			863		
v/c	0.02	0.00	0.05			0.05		
95% queue length	0.06	0.00	0.16			0.14		
Control Delay (s/veh)	7.3	7.2	9.7			9.4		
LOS	A	A	A			A		
Approach Delay (s/veh)	--	--	9.7			9.4		
Approach LOS	--	--	A			A		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Sagendorf Corners			
Agency/Co.	CME, CAVSAGbupm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Sagendorf Corners Rd				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	45	9	3	23	9	5		
Peak-Hour Factor, PHF	0.75	0.75	0.75	0.50	0.50	0.50		
Hourly Flow Rate, HFR (veh/h)	60	12	4	46	18	10		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	2	76	29	7	59	33		
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.78	0.78	0.78		
Hourly Flow Rate, HFR (veh/h)	2	81	31	8	75	42		
Percent Heavy Vehicles	0	0	0	0	7	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	60	46	114			125		
C (m) (veh/h)	1599	1615	689			698		
v/c	0.04	0.03	0.17			0.18		
95% queue length	0.12	0.09	0.59			0.65		
Control Delay (s/veh)	7.3	7.3	11.3			11.3		
LOS	A	A	B			B		
Approach Delay (s/veh)	--	--	11.3			11.3		
Approach LOS	--	--	B			B		

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Sagendorf Corners/Main Access		
Agency/Co.	CME, SCRMAbupm			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/20/2014			Analysis Year	2016 Build Summer		
Analysis Time Period	PM Peak Hour						
Project Description 114-145. Howe Caverns Resort							
East/West Street: Main Access				North/South Street: Sagendorf Corners Rd			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	312	38			18	67	
Peak-Hour Factor, PHF	0.85	1.00	0.85	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	367	38	0	0	18	67	
Percent Heavy Vehicles	6	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	0	0	1		0
Configuration	LT						TR
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	69		323				
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.91	0.91	1.00	
Hourly Flow Rate, HFR (veh/h)	69	0	408	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0				0
Lanes	0	0	0	0	0	0	
Configuration		LR					
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration	LT						LR
v (veh/h)	367						477
C (m) (veh/h)	1487						718
v/c	0.25						0.66
95% queue length	0.98						5.08
Control Delay (s/veh)	8.2						19.4
LOS	A						C
Approach Delay (s/veh)	--	--					19.4
Approach LOS	--	--					C

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Secondary Access			
Agency/Co.	CME, CAVSAbupm			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/20/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	PM Peak Hour							
Project Description 114-145, Howe Caverns Resort								
East/West Street: Caverns Rd				North/South Street: Secondary Access				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		34	45	22	22			
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.91	0.91	1.00		
Hourly Flow Rate, HFR (veh/h)	0	43	56	24	24	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	46		23					
Peak-Hour Factor, PHF	0.85	1.00	0.85	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	54	0	27	0	0	0		
Percent Heavy Vehicles	6	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	LR					
v (veh/h)		24	81					
C (m) (veh/h)		1507	877					
v/c		0.02	0.09					
95% queue length		0.05	0.30					
Control Delay (s/veh)		7.4	9.5					
LOS		A	A					
Approach Delay (s/veh)	--	--	9.5					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 EB Ramp			
Agency/Co.	CME, RT145EX22EBnbsat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: I-88 Exit 22 Eastbound Ramp				North/South Street: NY Route 145				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		263	19	140	205			
Peak-Hour Factor, PHF	1.00	0.92	0.92	0.92	0.92	1.00		
Hourly Flow Rate, HFR (veh/h)	0	285	20	152	222	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	1	1	0		
Configuration			TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	24		5					
Peak-Hour Factor, PHF	0.79	1.00	0.79	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	30	0	6	0	0	0		
Percent Heavy Vehicles	10	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L					LR	
v (veh/h)		152					36	
C (m) (veh/h)		1267					329	
v/c		0.12					0.11	
95% queue length		0.41					0.36	
Control Delay (s/veh)		8.2					17.3	
LOS		A					C	
Approach Delay (s/veh)	--	--					17.3	
Approach LOS	--	--					C	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 EB Ramp			
Agency/Co.	CME, RT145EX22EBbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: I-88 Exit 22 Eastbound Ramp				North/South Street: NY Route 145				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		292	19	334	230			
Peak-Hour Factor, PHF	1.00	0.92	0.92	0.92	0.92	1.00		
Hourly Flow Rate, HFR (veh/h)	0	317	20	363	249	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0				0	
Lanes	0	1	0	1	1	0		
Configuration			TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	110		5					
Peak-Hour Factor, PHF	0.79	1.00	0.79	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	139	0	6	0	0	0		
Percent Heavy Vehicles	10	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0				0	
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L					LR	
v (veh/h)		363					145	
C (m) (veh/h)		1234					125	
v/c		0.29					1.16	
95% queue length		1.24					8.73	
Control Delay (s/veh)		9.1					197.6	
LOS		A					F	
Approach Delay (s/veh)	--	--					197.6	
Approach LOS	--	--					F	

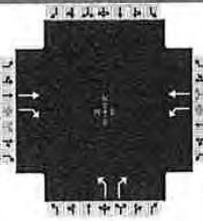
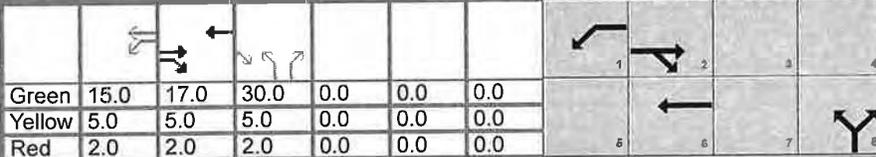
HCM 2010 Signalized Intersection Summary Route 145 & I-88 EB Off Ramp/I-88 EB On Ramp
 114-145 Howe Caverns Build Alternative 2 Improvement_Signal Sat Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	0	5	0	0	0	0	292	19	334	230	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900				0	1863	1900	1863	1863	0
Adj Flow Rate, veh/h	120	0	5				0	317	21	363	250	0
Adj No. of Lanes	0	1	0				0	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	149	0	6				0	1049	70	783	1131	0
Arrive On Green	0.09	0.00	0.09				0.00	0.61	0.61	0.61	0.61	0.00
Sat Flow, veh/h	1695	0	71				0	1728	114	1038	1863	0
Grp Volume(v), veh/h	125	0	0				0	0	338	363	250	0
Grp Sat Flow(s),veh/h/ln	1766	0	0				0	0	1843	1038	1863	0
Q Serve(g_s), s	2.1	0.0	0.0				0.0	0.0	2.6	7.6	1.8	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0				0.0	0.0	2.6	10.2	1.8	0.0
Prop In Lane	0.96		0.04				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	155	0	0				0	0	1119	783	1131	0
V/C Ratio(X)	0.80	0.00	0.00				0.00	0.00	0.30	0.46	0.22	0.00
Avail Cap(c_a), veh/h	962	0	0				0	0	2177	1379	2201	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	0.0				0.0	0.0	2.8	5.3	2.6	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.0				0.0	0.0	0.2	0.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0				0.0	0.0	1.3	2.2	0.9	0.0
LnGrp Delay(d),s/veh	22.5	0.0	0.0				0.0	0.0	2.9	5.7	2.7	0.0
LnGrp LOS	C								A	A	A	
Approach Vol, veh/h	125						338			613		
Approach Delay, s/veh	22.5						2.9			4.5		
Approach LOS	C						A			A		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		22.4		7.1		22.4						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		34.9		16.1		34.9						
Max Q Clear Time (g_c+I1), s		4.6		4.1		12.2						
Green Ext Time (p_c), s		6.1		0.0		5.7						
Intersection Summary												
HCM 2010 Ctrl Delay			6.1									
HCM 2010 LOS			A									

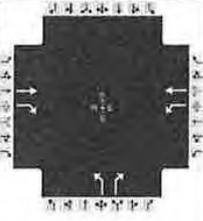
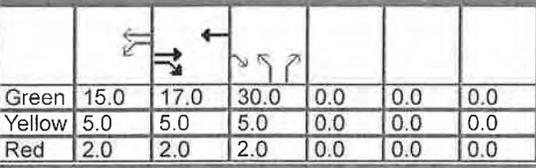
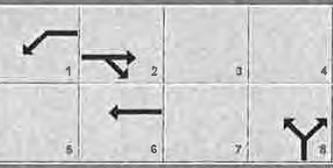
TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 WB Ramp			
Agency/Co.	CME. RT145EX22WBnbsat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: I-88 Exit 22 Westbound Ramp				North/South Street: NY Route 145				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	37	249			328	32		
Peak-Hour Factor, PHF	0.88	0.88	1.00	1.00	0.94	0.94		
Hourly Flow Rate, HFR (veh/h)	42	282	0	0	348	34		
Percent Heavy Vehicles	3	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	1	0	0	1	0		
Configuration	L	T				TR		
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				18		155		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.87	1.00	0.87		
Hourly Flow Rate, HFR (veh/h)	0	0	0	20	0	178		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L			LR				
v (veh/h)	42			198				
C (m) (veh/h)	1171			691				
v/c	0.04			0.29				
95% queue length	0.11			1.18				
Control Delay (s/veh)	8.2			12.3				
LOS	A			B				
Approach Delay (s/veh)	--	--	12.3					
Approach LOS	--	--	B					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 145/I-88 Exit 22 WB Ramp			
Agency/Co.	CME, RT145EX22WBbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: I-88 Exit 22 Westbound Ramp				North/South Street: NY Route 145				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	37	364			547	105		
Peak-Hour Factor, PHF	0.88	0.88	1.00	1.00	0.94	0.94		
Hourly Flow Rate, HFR (veh/h)	42	413	0	0	581	111		
Percent Heavy Vehicles	3	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	1	0	0	1	0		
Configuration	L	T				TR		
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				18		384		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.87	1.00	0.87		
Hourly Flow Rate, HFR (veh/h)	0	0	0	20	0	441		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L			LR				
v (veh/h)	42			461				
C (m) (veh/h)	898			592				
v/c	0.05			0.78				
95% queue length	0.15			7.30				
Control Delay (s/veh)	9.2			29.2				
LOS	A			D				
Approach Delay (s/veh)	--	--	29.2					
Approach LOS	--	--	D					

HCS 2010 Signalized Intersection Results Summary

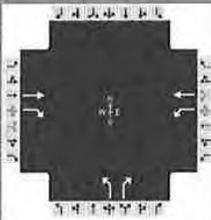
General Information				Intersection Information											
Agency	CME, RT7RT145nbsatps			Duration, h	0.25										
Analysis Date	Jun 19, 2014			Area Type	Other										
Analysis Year	2016 No-Build Summer			PHF	0.94										
Analysis Period	1> 7:00														
File Name	RT7RT145nbsatps.xus														
Project Description															
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h		183	313	46	170		305		99						
Signal Information															
Cycle, s	83.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	15.0	17.0	30.0	0.0	0.0	0.0									
Yellow	5.0	5.0	5.0	0.0	0.0	0.0									
Red	2.0	2.0	2.0	0.0	0.0	0.0									
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					7.3	2.0	4.0		9.0						
Phase Duration, s					24.0	22.0	46.0		37.0						
Change Period, (Y+R _c), s					7.0	7.0	7.0		7.0						
Max Allow Headway (MAH), s					0.0	2.8	0.0		2.9						
Queue Clearance Time (g _s), s						3.9			14.1						
Green Extension Time (g _e), s					0.0	0.0	0.0		0.6						
Phase Call Probability						1.00			1.00						
Max Out Probability						0.00			0.00						
Movement Group Results				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement		2	12	1	6		3		18						
Adjusted Flow Rate (v), veh/h		195	313	49	181		324		85						
Adjusted Saturation Flow Rate (s), veh/h/ln		1863	1563	1827	1845		1740		1425						
Queue Service Time (g _s), s		7.7	9.0	1.9	4.8		12.1		3.4						
Cycle Queue Clearance Time (g _c), s		7.7	9.0	1.9	4.8		12.1		3.4						
Green Ratio (g/C)		0.20	0.57	0.18	0.47		0.36		0.36						
Capacity (c), veh/h		382	885	330	867		629		515						
Volume-to-Capacity Ratio (X)		0.510	0.353	0.148	0.209		0.516		0.165						
Available Capacity (c _a), veh/h		382	885	330	867		629		515						
Back of Queue (Q), veh/ln (50th percentile)		3.9	6.3	0.8	2.0		4.8		1.1						
Queue Storage Ratio (RQ) (50th percentile)		0.00	0.00	0.00	0.00		0.00		0.00						
Uniform Delay (d ₁), s/veh		29.3	9.8	28.6	12.9		20.8		18.0						
Incremental Delay (d ₂), s/veh		4.8	1.1	0.1	0.5		0.3		0.1						
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0		0.0		0.0						
Control Delay (d), s/veh		34.1	10.9	28.7	13.5		21.1		18.1						
Level of Service (LOS)		C	B	C	B		C		B						
Approach Delay, s/veh / LOS	19.8	B		16.7	B		20.5	C		0.0					
Intersection Delay, s/veh / LOS	19.4						B								
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.3	B		0.7	A		2.3	B		2.3	B				
Bicycle LOS Score / LOS	1.3	A		0.9	A			F							

HCS 2010 Signalized Intersection Results Summary

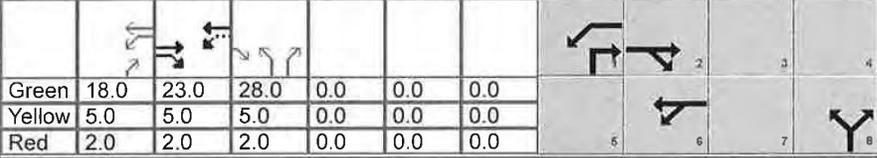
General Information				Intersection Information											
Agency	CME, RT7RT145busatps			Duration, h	0.25										
Approach	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other										
Jurisdiction	Town of Cobleskill, NY	Time Period	Saturday Peak Hour	PHF	0.94										
Intersection	Route 7/Route 145	Analysis Year	2016 Build Summer	Analysis Period	1> 7:00										
File Name	RT7RT145busatps.xus														
Project Description															
Demand Information															
				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h					212	313	338	194		305		443			
Signal Information															
Cycle, s	83.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	15.0	17.0	30.0	0.0	0.0	0.0									
Yellow	5.0	5.0	5.0	0.0	0.0	0.0									
Red	2.0	2.0	2.0	0.0	0.0	0.0									
Timer Results															
				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					7.3	2.0	4.0		9.0						
Phase Duration, s					24.0	22.0	46.0		37.0						
Change Period, (Y+R _c), s					7.0	7.0	7.0		7.0						
Max Allow Headway (MAH), s					0.0	2.8	0.0		2.9						
Queue Clearance Time (g _s), s						17.0		26.5							
Green Extension Time (g _e), s					0.0	0.0	0.0		0.6						
Phase Call Probability						1.00		1.00							
Max Out Probability						1.00		0.79							
Movement Group Results															
				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h					226	313	360	206		324		451			
Adjusted Saturation Flow Rate (s), veh/h/ln					1863	1563	1827	1845		1740		1425			
Queue Service Time (g _s), s					9.1	9.0	15.0	5.5		12.1		24.5			
Cycle Queue Clearance Time (g _c), s					9.1	9.0	15.0	5.5		12.1		24.5			
Green Ratio (g/C)					0.20	0.57	0.18	0.47		0.36		0.36			
Capacity (c), veh/h					382	885	330	867		629		515			
Volume-to-Capacity Ratio (X)					0.591	0.353	1.089	0.238		0.516		0.876			
Available Capacity (c _a), veh/h					382	885	330	867		629		515			
Back of Queue (Q), veh/ln (50th percentile)					4.7	6.3	13.4	2.3		4.8		10.0			
Queue Storage Ratio (RQ) (50th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh					29.9	9.8	34.0	13.1		20.8		24.8			
Incremental Delay (d ₂), s/veh					6.6	1.1	75.4	0.6		0.3		15.0			
Initial Queue Delay (d ₃), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh					36.4	10.9	109.4	13.8		21.1		39.8			
Level of Service (LOS)					D	B	F	B		C		D			
Approach Delay, s/veh / LOS				21.6	C			74.6	E			32.0	C		
Intersection Delay, s/veh / LOS				41.8						D					
Multimodal Results															
				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				2.3	B			0.7	A			2.3	B		
Bicycle LOS Score / LOS				1.4	A			1.4	A			F			

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	CME, RT7RT145busatpsi			Duration, h	0.25		
Ar t	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other		
Jursdiction	Town of Cobleskill, NY	Time Period	Saturday Peak Hour	PHF	0.94		
Intersection	Route 7/Route 145	Analysis Year	2016 Build Summer	Analysis Period	1> 7:00		
File Name	RT7RT145busatpsi.xus						
Project Description							



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		212	313	338	194		305		443			

Signal Information												
Cycle, s	90.0	Reference Phase	2	Green	18.0	23.0	28.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On									

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		30.0	25.0	55.0		35.0		
Change Period, (Y+R _c), s		7.0	7.0	7.0		7.0		
Max Allow Headway (MAH), s		0.0	2.8	0.0		2.9		
Q ₁ Clearance Time (g _s), s			13.5			22.4		
Green Extension Time (g _e), s		0.0	0.3	0.0		0.9		
Phase Call Probability			1.00			1.00		
Max Out Probability			0.24			0.29		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h		226	313	360	206		324		451			
Adjusted Saturation Flow Rate (s), veh/h/ln		1863	1563	1827	1845		1740		1425			
Queue Service Time (g _s), s		9.2	9.8	11.5	5.3		14.2		20.4			
Cycle Queue Clearance Time (g _c), s		9.2	9.8	11.5	5.3		14.2		20.4			
Green Ratio (g/C)		0.26	0.57	0.48	0.53		0.31		0.51			
Capacity (c), veh/h		476	886	627	984		541		728			
Volume-to-Capacity Ratio (X)		0.474	0.353	0.574	0.210		0.599		0.619			
Available Capacity (c _a), veh/h		476	886	627	984		541		728			
Back of Queue (Q), veh/ln (50th percentile)		4.5	6.4	4.7	2.2		5.9		6.4			
Queue Storage Ratio (RQ) (50th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh		28.4	10.6	16.3	11.0		26.3		15.7			
Incremental Delay (d ₂), s/veh		3.4	1.1	0.8	0.5		1.3		1.2			
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		31.7	11.7	17.1	11.5		27.6		16.9			
Level of Service (LOS)		C	B	B	B		C		B			
Approach Delay, s/veh / LOS	20.1	C		15.1	B		21.4	C		0.0		
Intersection Delay, s/veh / LOS	19.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	0.7	A	2.3	B	2.3	B
Bicycle LOS Score / LOS	1.4	A	1.4	A		F		

TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	DMQ				Intersection	Route 7/Cavrens Rd West Leg		
Agency/Co.	CME, RT7CAVWLnbsat				Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014				Analysis Year	2016 No - Build Summer		
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: NY Route 7					North/South Street: Caverns Road West Leg			
Intersection Orientation: East-West					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	96	156			142			
Peak-Hour Factor, PHF	0.82	0.82	1.00	1.00	0.84	1.00		
Hourly Flow Rate, HFR (veh/h)	117	190	0	0	169	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT				T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)						43		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	0.64		
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	67		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	1		
Configuration						R		
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT							R
v (veh/h)	117							67
C (m) (veh/h)	1421							880
v/c	0.08							0.08
95% queue length	0.27							0.25
Control Delay (s/veh)	7.8							9.4
LOS	A							A
Approach Delay (s/veh)	--	--				9.4		
Approach LOS	--	--				A		

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Route 7/Cavrens Rd West Leg		
Agency/Co.	CME, RT7CAVWLbusat			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 Build Summer		
Analysis Time Period	Saturday Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: NY Route 7				North/South Street: Caverns Road West Leg			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	125	500			434		
Peak-Hour Factor, PHF	0.82	0.82	1.00	1.00	0.84	1.00	
Hourly Flow Rate, HFR (veh/h)	152	609	0	0	516	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	0	0	1	0	
Configuration	LT				T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)							67
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	0.64	
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	104	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0				0
Lanes	0	0	0	0	0	1	
Configuration							R
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	LT						R
v (veh/h)	152						104
C (m) (veh/h)	1060						563
v/c	0.14						0.18
95% queue length	0.50						0.67
Control Delay (s/veh)	9.0						12.8
LOS	A						B
Approach Delay (s/veh)	--	--				12.8	
Approach LOS	--	--				B	

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Route 7/Caverns Rd East Leg		
Agency/Co.	CME, RT7CAVELnbsat			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer		
Analysis Time Period	Saturday Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: NY Route 7				North/South Street: Caverns Road East Leg			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		156			142	19	
Peak-Hour Factor, PHF	1.00	0.82	1.00	1.00	0.87	0.87	
Hourly Flow Rate, HFR (veh/h)	0	190	0	0	163	21	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration		T				TR	
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				16			
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.46	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	34	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	1	0	0	
Configuration				L			
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration						L	
v (veh/h)						34	
C (m) (veh/h)						639	
v/c						0.05	
95% queue length						0.17	
Control Delay (s/veh)						11.0	
LOS						B	
Approach Delay (s/veh)	--	--				11.0	
Approach LOS	--	--				B	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Route 7/Caverns Rd East Leg			
Agency/Co.	CME, RTTCAVELbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: NY Route 7				North/South Street: Caverns Road East Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		500			434	19		
Peak-Hour Factor, PHF	1.00	0.82	1.00	1.00	0.87	0.87		
Hourly Flow Rate, HFR (veh/h)	0	609	0	0	498	21		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T				TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				16				
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.46	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	34	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	0		
Configuration				L				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		
v (veh/h)						34		
C (m) (veh/h)						231		
v/c						0.15		
95% queue length						0.51		
Control Delay (s/veh)						23.3		
LOS						C		
Approach Delay (s/veh)	--	--				23.3		
Approach LOS	--	--				C		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns E Leg/Caverns W Leg			
Agency/Co.	CME, CAVELCAVWLnbsat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road East Leg				North/South Street: Caverns Road West Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		16	43		19			
Peak-Hour Factor, PHF	1.00	0.75	0.75	1.00	0.46	1.00		
Hourly Flow Rate, HFR (veh/h)	0	21	57	0	41	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR		T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	96							
Peak-Hour Factor, PHF	0.82	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	117	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	0	0	0	0		
Configuration	L							
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration			L					
v (veh/h)			117					
C (m) (veh/h)			914					
v/c			0.13					
95% queue length			0.44					
Control Delay (s/veh)			9.5					
LOS			A					
Approach Delay (s/veh)	--	--	9.5					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information					Site Information			
Analyst	DMQ				Intersection	Caverns E Leg/Caverns W Leg		
Agency/Co.	CME, CAVELCAVWLbusat				Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014				Analysis Year	2016 Build Summer		
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road East Leg					North/South Street: Caverns Road West Leg			
Intersection Orientation: East-West					Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		67	16		19			
Peak-Hour Factor, PHF	1.00	0.75	0.75	1.00	0.46	1.00		
Hourly Flow Rate, HFR (veh/h)	0	89	21	0	41	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR		T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	125							
Peak-Hour Factor, PHF	0.82	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	152	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	0	0	0	0		
Configuration	L							
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration			L					
v (veh/h)			152					
C (m) (veh/h)			857					
v/c			0.18					
95% queue length			0.64					
Control Delay (s/veh)			10.1					
LOS			B					
Approach Delay (s/veh)	--	--	10.1					
Approach LOS	--	--	B					

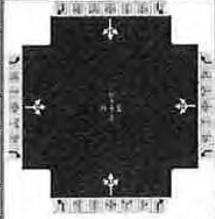
HCS 2010 Signalized Intersection Results Summary

General Information

Agency	CME, RT7HCnbsatps		
Analysis Date	Jun 19, 2014	Analysis Year	2016 No-Build Summer
Area Type	Other		
PHF	0.89		
Analysis Period	1 > 7:00		
File Name	RT7HCnbsatps.xus		
Project Description			

Intersection Information

Duration, h	0.25
Area Type	Other
PHF	0.89
Analysis Period	1 > 7:00



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	18	137	8	2	130	9	6	6	2	7	2	18

Signal Information

Cycle, s	70.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	50.0	10.0	0.0	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0		
				Red	1.0	1.0	0.0	0.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		8.0
Phase Duration, s		55.0		55.0		15.0		15.0
Change Period, (Y+R _c), s		5.0		5.0		5.0		5.0
Max Allow Headway (MAH), s		0.0		0.0		3.2		3.2
Queue Clearance Time (g _s), s						2.5		2.9
Green Extension Time (g _e), s		0.0		0.0		0.0		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		0.00

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	183			158			16			26		
Adjusted Saturation Flow Rate (s), veh/h/ln	1777			1858			1679			1690		
Queue Service Time (g _s), s	0.0			0.0			0.0			0.0		
Cycle Queue Clearance Time (g _c), s	2.2			1.9			0.5			0.9		
Green Ratio (g/C)	0.71			0.71			0.14			0.14		
Capacity (c), veh/h	1327			1379			313			308		
Volume-to-Capacity Ratio (X)	0.138			0.115			0.050			0.084		
Available Capacity (c _a), veh/h	1327			1379			313			308		
Back of Queue (Q), veh/ln (50th percentile)	0.6			0.5			0.2			0.4		
Queue Storage Ratio (RQ) (50th percentile)	0.00			0.00			0.00			0.00		
Uniform Delay (d ₁), s/veh	3.2			3.1			25.9			26.1		
Incremental Delay (d ₂), s/veh	0.2			0.2			0.0			0.0		
Initial Queue Delay (d ₃), s/veh	0.0			0.0			0.0			0.0		
Control Delay (d), s/veh	3.4			3.3			26.0			26.1		
Level of Service (LOS)	A			A			C			C		
Approach Delay, s/veh / LOS	3.4	A		3.3	A		26.0	C		26.1	C	
Intersection Delay, s/veh / LOS	5.8						A					

Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.0	B	2.0	B	2.1	B	2.1	B
Bicycle LOS Score / LOS	0.8	A	0.7	A	0.5	A	0.5	A

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	CME, RT7HCbusatps			Duration, h	0.25
Project	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other
Jurisdiction	Town of Cobleskill, NY	Time Period	Sat Peak Hour	PHF	0.89
Intersection	Rt 7/Howe Caves Rd	Analysis Year	2016 Build Summer	Analysis Period	1> 7:00
File Name	RT7HCbusatps.xus				
Project Description					



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	362	137	8	2	130	66	6	6	2	55	2	310

Signal Information												
Cycle, s	70.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	50.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

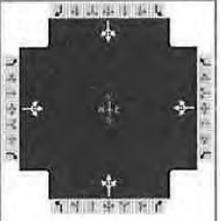
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		8.0
Phase Duration, s		55.0		55.0		15.0		15.0
Change Period, (Y+R _c), s		5.0		5.0		5.0		5.0
Max Allow Headway (MAH), s		0.0		0.0		3.4		3.4
Queue Clearance Time (g _s), s						2.5		12.0
Gr Extension Time (g _e), s		0.0		0.0		0.7		0.0
Phase Call Probability						1.00		1.00
Max Out Probability						0.09		1.00

Movement Group Results	EB			WB			NB			SB			
	L	T	R	L	T	R	L	T	R	L	T	R	
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate (v), veh/h	570			222			16			408			
Adjusted Saturation Flow Rate (s), veh/h/ln	1296			1773			1487			1657			
Queue Service Time (g _s), s	12.8			0.0			0.0			8.2			
Cycle Queue Clearance Time (g _c), s	15.6			2.9			0.5			10.0			
Green Ratio (g/C)	0.71			0.71			0.14			0.14			
Capacity (c), veh/h	1014			1319			286			296			
Volume-to-Capacity Ratio (X)	0.562			0.169			0.055			1.378			
Available Capacity (c _a), veh/h	1014			1319			286			296			
Back of Queue (Q), veh/ln (50th percentile)	3.3			0.8			0.2			20.6			
Queue Storage Ratio (RQ) (50th percentile)	0.00			0.00			0.00			0.00			
Uniform Delay (d ₁), s/veh	5.1			3.3			25.9			31.0			
Incremental Delay (d ₂), s/veh	2.3			0.3			0.0			190.0			
Initial Queue Delay (d ₃), s/veh	0.0			0.0			0.0			0.0			
Control Delay (d), s/veh	7.3			3.5			26.0			221.0			
Level of Service (LOS)	A			A			C			F			
Approach Delay, s/veh / LOS	7.3	A		3.5	A		26.0	C		221.0	F		
Intersection Delay, s/veh / LOS	78.6												E

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.0	B	2.0	B	2.1	B	2.1	B
Bicycle LOS Score / LOS	1.4	A	0.9	A	0.5	A	1.2	A

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	CME, RT7HCbusatpsi			Duration, h	0.25
Analysis Date	DMQ	Analysis Date	Jun 19, 2014	Area Type	Other
Jurisdiction	Town of Cobleskill, NY	Time Period	Sat Peak Hour	PHF	0.89
Intersection	Rt 7/Howe Caves Rd	Analysis Year	2016 Build Summer	Analysis Period	1> 7:00
File Name	RT7HCbusatpsi.xus				
Project Description					



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	362	137	8	2	130	66	6	6	2	55	2	310

Signal Information													
Cycle, s	70.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	40.0	20.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0			
				Red	1.0	1.0	0.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		8.0		8.0
Phase Duration, s		45.0		45.0		25.0		25.0
Change Period, (Y+Rc), s		5.0		5.0		5.0		5.0
Max Allow Headway (MAH), s		0.0		0.0		3.4		3.4
Queue Clearance Time (gs), s						2.4		18.2
Gr Extension Time (ge), s		0.0		0.0		0.9		0.2
Phase Call Probability						1.00		1.00
Max Out Probability						0.00		1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	570			222			16			408		
Adjusted Saturation Flow Rate (s), veh/h/ln	1295			1773			1196			1664		
Queue Service Time (gs), s	19.3			0.0			0.0			10.6		
Cycle Queue Clearance Time (gc), s	23.6			4.3			0.4			16.2		
Green Ratio (g/C)	0.57			0.57			0.29			0.29		
Capacity (c), veh/h	828			1065			415			535		
Volume-to-Capacity Ratio (X)	0.688			0.209			0.038			0.763		
Available Capacity (ca), veh/h	828			1065			415			535		
Back of Queue (Q), veh/ln (50th percentile)	6.5			1.5			0.2			6.8		
Queue Storage Ratio (RQ) (50th percentile)	0.00			0.00			0.00			0.00		
Uniform Delay (d1), s/veh	11.5			7.3			18.0			23.6		
Incremental Delay (d2), s/veh	4.6			0.4			0.0			5.8		
Initial Queue Delay (d3), s/veh	0.0			0.0			0.0			0.0		
Control Delay (d), s/veh	16.1			7.8			18.0			29.3		
Level of Service (LOS)	B			A			B			C		
Approach Delay, s/veh / LOS	16.1		B	7.8		A	18.0		B	29.3		C
Intersection Delay, s/veh / LOS	19.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.1	B	2.1	B	2.1	B	2.1	B
Bicycle LOS Score / LOS	1.4	A	0.9	A	0.5	A	1.2	A

TWO-WAY STOP CONTROL SUMMARY								
General Information			Site Information					
Analyst	DMQ		Intersection	Caverns Rd/Barnerville Rd				
Agency/Co.	CME, CAVBARNnbsat		Jurisdiction	Town of Cobleskill, NY				
Date Performed	6/19/2014		Analysis Year	2016 No-Build Summer				
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Barnerville Road/Caverns Road			North/South Street: Caverns Road					
Intersection Orientation: East-West			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		7	9	64	16			
Peak-Hour Factor, PHF	1.00	0.54	0.54	0.44	0.44	1.00		
Hourly Flow Rate, HFR (veh/h)	0	12	16	145	36	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	3		95					
Peak-Hour Factor, PHF	0.69	1.00	0.69	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	4	0	137	0	0	0		
Percent Heavy Vehicles	6	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		145		141				
C (m) (veh/h)		1599		1040				
v/c		0.09		0.14				
95% queue length		0.30		0.47				
Control Delay (s/veh)		7.5		9.0				
LOS		A		A				
Approach Delay (s/veh)	--	--		9.0				
Approach LOS	--	--		A				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Barnerville Rd			
Agency/Co.	CME, CAVBARNbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Barnerville Road/Caverns Road				North/South Street: Caverns Road				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		35	9	88	41			
Peak-Hour Factor, PHF	1.00	0.54	0.54	0.44	0.44	1.00		
Hourly Flow Rate, HFR (veh/h)	0	64	16	200	93	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	3		124					
Peak-Hour Factor, PHF	0.69	1.00	0.69	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	4	0	179	0	0	0		
Percent Heavy Vehicles	6	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		200		183				
C (m) (veh/h)		1531		967				
v/c		0.13		0.19				
95% queue length		0.45		0.70				
Control Delay (s/veh)		7.7		9.6				
LOS		A		A				
Approach Delay (s/veh)	--	--	9.6					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr S Leg			
Agency/Co.	CME, CAVDISCSLnbsat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Discovery Drive South Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		16	85		45			
Peak-Hour Factor, PHF	1.00	0.75	0.75	1.00	0.34	1.00		
Hourly Flow Rate, HFR (veh/h)	0	21	113	0	132	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR		T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	33							
Peak-Hour Factor, PHF	0.36	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	91	0	0	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	1	0	0	0	0	0		
Configuration	L							
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration			L					
v (veh/h)			91					
C (m) (veh/h)			783					
v/c			0.12					
95% queue length			0.39					
Control Delay (s/veh)			10.2					
LOS			B					
Approach Delay (s/veh)	--	--	10.2					
Approach LOS	--	--	B					

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr S Leg		
Agency/Co.	CME, CAVDISCSLbusat			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 Build Summer		
Analysis Time Period	Saturday Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: Caverns Road				North/South Street: Discovery Drive South Leg			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		73	85		94		
Peak-Hour Factor, PHF	1.00	0.75	0.75	1.00	0.34	1.00	
Hourly Flow Rate, HFR (veh/h)	0	97	113	0	276	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration			TR		T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	33						
Peak-Hour Factor, PHF	0.36	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	91	0	0	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	1	0	0	0	0	0	
Configuration	L						
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration			L				
v (veh/h)			91				
C (m) (veh/h)			586				
v/c			0.16				
95% queue length			0.55				
Control Delay (s/veh)			12.3				
LOS			B				
Approach Delay (s/veh)	--	--	12.3				
Approach LOS	--	--	B				

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr N Leg		
Agency/Co.	CME, CAVDISCNlnbsat			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer		
Analysis Time Period	Saturday Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: Caverns Road				North/South Street: Discovery Drive North Leg			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		16		16	45		
Peak-Hour Factor, PHF	1.00	0.80	1.00	0.37	0.37	1.00	
Hourly Flow Rate, HFR (veh/h)	0	19	0	43	121	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration		T		LT			
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)			10				
Peak-Hour Factor, PHF	1.00	1.00	0.42	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	23	0	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	1	0	0	0	
Configuration			R				
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		LT			R		
v (veh/h)		43			23		
C (m) (veh/h)		1611			1065		
v/c		0.03			0.02		
95% queue length		0.08			0.07		
Control Delay (s/veh)		7.3			8.5		
LOS		A			A		
Approach Delay (s/veh)	--	--	8.5				
Approach LOS	--	--	A				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Discovery Dr N Leg			
Agency/Co.	CME, CAVDISCNLbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Discovery Drive North Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		73		16	94			
Peak-Hour Factor, PHF	1.00	0.80	1.00	0.37	0.37	1.00		
Hourly Flow Rate, HFR (veh/h)	0	91	0	43	254	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T		LT				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)			10					
Peak-Hour Factor, PHF	1.00	1.00	0.42	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	23	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	1	0	0	0		
Configuration			R					
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT			R			
v (veh/h)		43			23			
C (m) (veh/h)		1517			972			
v/c		0.03			0.02			
95% queue length		0.09			0.07			
Control Delay (s/veh)		7.4			8.8			
LOS		A			A			
Approach Delay (s/veh)	--	--	8.8					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Discovery N Leg/Discovery S Leg			
Agency/Co.	CME, DISCNLDISCSLnbsat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No - Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Discovery Drive South Leg				North/South Street: Discovery Drive North Leg				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		85			33	10		
Peak-Hour Factor, PHF	1.00	0.72	1.00	1.00	0.54	0.54		
Hourly Flow Rate, HFR (veh/h)	0	118	0	0	61	18		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration		T				TR		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				16				
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.75	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	21	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	0		
Configuration				L				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		
v (veh/h)						21		
C (m) (veh/h)						806		
v/c						0.03		
95% queue length						0.08		
Control Delay (s/veh)						9.6		
LOS						A		
Approach Delay (s/veh)	--	--				9.6		
Approach LOS	--	--				A		

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	DMQ			Intersection	Discovery N Leg/Discovery S Leg		
Agency/Co.	CME, DISCNLDISCSLbusat			Jurisdiction	Town of Cobleskill, NY		
Date Performed	6/19/2014			Analysis Year			
Analysis Time Period	Saturday Peak Hour						
Project Description 114-145, Howe Caverns Casino							
East/West Street: Discovery Drive South Leg				North/South Street: Discovery Drive North Leg			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		85			33	10	
Peak-Hour Factor, PHF	1.00	0.72	1.00	1.00	0.54	0.54	
Hourly Flow Rate, HFR (veh/h)	0	118	0	0	61	18	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration		T				TR	
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				16			
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.75	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	21	0	0	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	1	0	0	
Configuration				L			
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration						L	
v (veh/h)						21	
C (m) (veh/h)						806	
v/c						0.03	
95% queue length						0.08	
Control Delay (s/veh)						9.6	
LOS						A	
Approach Delay (s/veh)	--	--				9.6	
Approach LOS	--	--				A	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Sagendorf Corners			
Agency/Co.	CME, CAVSAGnbsat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 No-Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Sagendorf Corners Rd				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	14	9	7	2	15	2		
Peak-Hour Factor, PHF	0.55	0.55	0.55	0.63	0.63	0.63		
Hourly Flow Rate, HFR (veh/h)	25	16	12	3	23	3		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	31	10	5	3	7	19		
Peak-Hour Factor, PHF	0.36	0.36	0.36	0.75	0.75	0.75		
Hourly Flow Rate, HFR (veh/h)	86	27	13	4	9	25		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	25	3	126			38		
C (m) (veh/h)	1601	1599	830			945		
v/c	0.02	0.00	0.15			0.04		
95% queue length	0.05	0.01	0.53			0.13		
Control Delay (s/veh)	7.3	7.3	10.1			9.0		
LOS	A	A	B			A		
Approach Delay (s/veh)	--	--	10.1			9.0		
Approach LOS	--	--	B			A		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Sagendorf Corners			
Agency/Co.	CME, CAVSAGbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/19/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Casino								
East/West Street: Caverns Road				North/South Street: Sagendorf Corners Rd				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	38	9	7	31	15	2		
Peak-Hour Factor, PHF	0.55	0.55	0.55	0.63	0.63	0.63		
Hourly Flow Rate, HFR (veh/h)	69	16	12	49	23	3		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Upstream Signal	0			0				
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	31	59	29	3	64	48		
Peak-Hour Factor, PHF	0.36	0.36	0.36	0.75	0.75	0.75		
Hourly Flow Rate, HFR (veh/h)	86	163	80	4	85	64		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage	0			0				
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LTR			LTR				
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LTR			LTR		
v (veh/h)	69	49	329			153		
C (m) (veh/h)	1601	1599	613			703		
v/c	0.04	0.03	0.54			0.22		
95% queue length	0.14	0.09	3.19			0.82		
Control Delay (s/veh)	7.3	7.3	17.5			11.5		
LOS	A	A	C			B		
Approach Delay (s/veh)	--	--	17.5			11.5		
Approach LOS	--	--	C			B		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Sagendorf Corners/Main Access			
Agency/Co.	CME, SCRMAbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/20/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Resort								
East/West Street: Main Access				North/South Street: Sagendorf Corners Rd				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	401	46			16	86		
Peak-Hour Factor, PHF	0.85	1.00	0.85	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	471	46	0	0	16	86		
Percent Heavy Vehicles	6	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration	LT					TR		
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	73		340					
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.91	0.91	1.00		
Hourly Flow Rate, HFR (veh/h)	73	0	430	0	0	0		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (veh/h)	471						503	
C (m) (veh/h)	1465						594	
v/c	0.32						0.85	
95% queue length	1.41						9.18	
Control Delay (s/veh)	8.6						35.7	
LOS	A						E	
Approach Delay (s/veh)	--	--					35.7	
Approach LOS	--	--					E	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	DMQ			Intersection	Caverns Rd/Secondary Access			
Agency/Co.	CME, CAVSAbusat			Jurisdiction	Town of Cobleskill, NY			
Date Performed	6/20/2014			Analysis Year	2016 Build Summer			
Analysis Time Period	Saturday Peak Hour							
Project Description 114-145, Howe Caverns Resort								
East/West Street: Caverns Rd				North/South Street: Secondary Access				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		30	57	29	65			
Peak-Hour Factor, PHF	1.00	0.79	0.79	0.91	0.91	1.00		
Hourly Flow Rate, HFR (veh/h)	0	37	72	31	71	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	1	0	0	1	0		
Configuration			TR	LT				
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	49		23					
Peak-Hour Factor, PHF	0.85	1.00	0.85	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	57	0	27	0	0	0		
Percent Heavy Vehicles	6	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LR				
v (veh/h)		31		84				
C (m) (veh/h)		1494		820				
v/c		0.02		0.10				
95% queue length		0.06		0.34				
Control Delay (s/veh)		7.5		9.9				
LOS		A		A				
Approach Delay (s/veh)	--	--	9.9					
Approach LOS	--	--	A					

HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

for

HOWE CAVERNS RESORT AND CASINO LLC COBLESKILL, NEW YORK



Project No. 124-1401
June 2014

JME | JOHN M. MCDONALD
ENGINEERING, P.C.

7 South Church Street • Schenectady, New York 12305 • Ph: 518 382 1774 Fax: 518 382 1776 • www.mcdonaldengineers.com

HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

CONTENTS

INTRODUCTION

BACKGROUND

DEVELOPMENT OF WATER AND SEWER DEMAND REQUIREMENTS

EXISTING WATER SYSTEM SOURCE OF SUPPLY CAPABILITIES

EXISTING WATER DISTRIBUTION/STORAGE FIRE PROTECTION
CAPABILITIES

PROPOSED ON-SITE WATER DISTRIBUTION SYSTEM
IMPROVEMENTS

EXISTING SEWER SYSTEM CAPABILITIES

PROPOSED SEWER COLLECTION SYSTEM IMPROVEMENTS

CONCLUSION

EXHIBITS

- A. TOWN OF COBLESKILL WATER AND SEWER SYSTEM
LOCATION MAP
- B. HOWE CAVERNS RESORT AND CASINO WATER AND SEWER
DEMAND TABLE
- C. HOWE CAVERNS PROPOSED ON-SITE WATER AND SEWER
INFRASTRUCTURE SITE PLAN
- D. ON-SITE WATER AND SEWER IMPROVEMENT COST ESTIMATES



HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

INTRODUCTION

Howe Caverns Resort and Casino, LLC proposes to develop a Resort and Casino at Howe Caverns located in the Town of Cobleskill, Schoharie County, New York. McDonald Engineering has been retained to conduct an independent analysis of the impacts of this Resort and Casino project on the local and regional water and sewer supply. The specific objectives of this study are as follows:

- To develop a projection of the gaming facilities water and wastewater base and peak demand requirements, and to determine that adequate capacity is available to meet these needs.
- Based on the projected demand, determine the water and wastewater infrastructure improvements that will be necessary to serve the gaming facility, along with cost estimates for said improvements.

BACKGROUND

The proposed Howe Caverns Resort and Casino is located within a 10-acre parcel of land that is part of the 330-acre Howe Caverns Planned Development (PDD) that included new amusement venues/attractions, several of which have been built and are in operation.

In 2012, the Town of Cobleskill completed a water and wastewater study to identify the long term infrastructure needs of the NYS Route 7/I-88 commercial corridor, including the Howe Caverns facility. This study incorporated the proposed water and sewer needs as identified in the Master Plan for the Howe Caverns PDD. With this information, the Town created the Town of Cobleskill Water District No. 1, and Sewer District No. 1, which included a \$9.2 million capital improvement project to supply both water and sewer services to the NYS Route 7/I-88 commercial corridor and the Howe Caverns facility. See Exhibit A entitled "Town of Cobleskill Water and Sewer System Location Map". Construction is nearly complete with an estimated startup date of August 31, 2014. This infrastructure was specifically designed and built to accommodate the long term water and sewer demand (base and peak) for the build-out of Howe Caverns as promulgated in the 2010 Facility Master Plan. The completion of a new Town water and sewer system, provides substantial excess capacity to meet the long-term base and peak demands for the entire Howe Caverns plan, including the Resort and Casino.

DEVELOPMENT OF WATER AND SEWER DEMAND REQUIREMENTS

The Town water and sewer district improvements, currently in the final phases of construction, were designed to meet the long term needs as identified in the Howe Caverns Master Plan. The impacts of the Resort and Casino can be determined by adding the net changes from the original Howe Caverns Master Plan water and sewer demand projections, with the proposed water and sewer demand projections of the Resort and Casino.

HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

The projected water and sewer demands for the Howe Caverns Planned Development were determined for each of the facilities based on the original water and wastewater report prepared as part of the adopted Howe Caverns Master Plan. Water and wastewater generation rates are computed using generally accepted flow rate standards and as published by regulatory agencies. As part of this analysis, water and sewer demands have been updated to reflect the current development plan. A tabulation of the water and sewer demand in gallons per day (GPD) for each facility/venue is summarized in A, B and C in the table below.

The proposed Howe Caverns Resort and Casino needs to be added to the Master Plan flows to determine the total demand. The Resort and Casino consists of a 248,000 square-foot gaming facility which includes gaming machines, table games, restaurants, bars/lounges, banquet space, 240-room hotel, and a 1,500 space parking garage. From these uses, floor plan area, occupancy loads and other factors, the water and sewer demand can be estimated. This analysis results in a projected base demand for the Resort and Casino of 88,300 GPD. The detailed line by line item flow demand for each use/category can be found in Exhibit B of this report. The table below presents the base demand for all components of the Howe Caverns Complex.

Projected Water and Sewer Demand

<u>Venue/Attraction</u>	<u>Projected Flow GPD</u>
A. Existing Caverns Facility Gemstone Building, Zip Rider, Mountain Coaster, Tree Canopy, Maintenance Building <i>TOTAL A.....</i>	 <i>12,800</i>
B. Dinosaur Canyon Entertainment Building, Rock Climbing, Radio Control Park <i>TOTAL B.....</i>	 <i>14,000</i>
C. 250 Room Water Park Hotel Indoor Water Park Outdoor Water Park <i>TOTAL C.....</i>	 <i>44,000</i> <i>17,000</i> <i>16,000</i> <i>77,000</i>
SUBTOTAL A+B+C	103,800
D. Casino/250 Room Hotel (See Exhibit B)	<u>88,300</u>
TOTAL AVERAGE BASE DEMAND	192,100

HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

The total projected base demand at build-out, in accordance with the Howe Caverns Master Plan, and including the Resort and Casino, is 192,100 GPD. The following information provides the background assessment and engineering documentation, which demonstrates that the existing Town and Village water and sewer system has the capability to meet the base and peak demand of the proposed Resort and Casino.

EXISTING WATER SYSTEM SOURCE OF SUPPLY CAPABILITIES

The soon to be completed Town of Cobleskill Water System (August 31, 2014), obtains its water supply from the Village of Cobleskill. The Village has a surface supply and water filtration plant with a rated base production capacity of 2,000,000 GPD. The current base demand for the Village system and projected Town system is 600,000 GPD. The table below summarizes the resulting available capacity for the peak demand day when the Howe Caverns peak day is included.

Water - Source of Supply	GPD
Approved Village Water Filter Plant Capacity.....	2,000,000
Less Current & Projected Peak Demand from Existing System.....	<u>900,000</u>
Available Village Filter Plant Capacity.....	1,100,000
Less Howe Caverns Peak Demand.....	<u>392,100</u>
Filter Plant Remaining Excess Capacity.....	707,900

As shown, there will be substantial excess source capacity available after taking into account the base and peak demands of Howe Caverns needs.

EXISTING WATER DISTRIBUTION/STORAGE FIRE PROTECTION CAPABILITIES

The new Town water system connects to the Village transmission line system at the Village/Town line boundary. The Town water system consists primarily of 12-inch transmission lines, which serves Howe Caverns. The Town water system also owns and maintains a water booster station and 270,000-gallon storage tank located at the higher elevations of the Howe Caverns property. This tank location was selected because it is at the highest elevation in the Town service area, and thus provides water system pressure and fire flow requirements. This system configuration provides Howe Caverns with the needed fire flow requirement of 1,500 GPM for a 2-hour duration (180,000 gallons), while still providing an available residual pressure of 20 psi in all areas of the water system.

PROPOSED ON-SITE WATER DISTRIBUTION SYSTEM IMPROVEMENTS

Water mains will have to be extended from the Town system to provide potable water and fire protection to each of the facilities to be constructed within the Howe Caverns Complex. The site plan provided as Exhibit C entitled, "Proposed On-Site Water and Sewer Infrastructure" presents the existing Town main, Town booster pump station, and 270,000-gallon storage tank. Two distribution branch mains will be installed from the Town main, which will serve the two facilities described below.

HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

- Water Branch A, which serves the Water Park/Hotel, will extend westerly from the Town’s water main on Discovery Drive, and will consist of the installation of approximately 1,850 linear feet of 12-inch water main, with hydrants and valves appropriately placed. To provide adequate system pressure and to meet fire flow requirements for the elevated 7-story hotel, a pump station will be necessary, which will include booster pumps and a fire pump system to serve this facility. The total estimated cost for Water Branch A and the pump station, including engineering and contingencies, is estimated at \$440,000.
- Water Branch B is a separate 12-inch main which will serve the Resort and Casino, and will connect directly to the tank outlet near the existing tank vault, as shown on the site plan. This branch consists of approximately 1,950 linear feet of 12-inch water main and related appurtenances. A pump station with booster pumps and a fire pump will also be needed to meet the system demand pressure and fire flow needs at the Resort and Casino. The estimated project cost for Water Branch B is approximately at \$450,000.

The total estimated cost for on-site water system improvements amounts to \$890,000. Detailed estimates are provided in Exhibit D.

EXISTING SEWER SYSTEM CAPABILITIES

The soon to be completed Town of Cobleskill Sanitary Sewer Collection System (August 31, 2014), will discharge wastewater from the Town's system into the Village collection system for subsequent treatment at the Village Wastewater Treatment Plant (WWTP). The approved permitted capacity of the Village's WWTP is 1,800,000 gallons per day (GPD), as per the SPDES permit. Currently the WWTP treats an average daily flow around 500,000 GPD. The current base demand for the Village system and projected Town system is 900,000 GPD. The table below summarizes the resulting WWTP available capacity for the peak demand day including the Howe Caverns facility peak demand day.

Sewer WWTP Capacity	GPD
WWTP Permitted Capacity.....	1,800,000
Less Current & Projected Peak Demand from Existing System.....	<u>900,000</u>
Available WWTP Plant Capacity.....	900,000
Less Howe Caverns Peak Demand.....	<u>392,100</u>
WWTP Remaining Excess Capacity.....	507,900

As shown, the Village WWTP has available excess treatment plant capacity to meet the long-term peak demands of both the Town's system and the Howe Cavern Development Project, including the Resort and Casino.

HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

PROPOSED SEWER COLLECTION SYSTEM IMPROVEMENTS

The Town sewer system has been designed to provide sanitary sewer to a point near the water booster pump station on Discovery Drive. From this point, the trunk sewer will be extended and three branch collection system sewer lines will be installed to serve the three facilities within the Howe Caverns Complex. All can be served via gravity sewer. The proposed on-site sewer system improvements have been broken down into four components, as shown on the site plan in Exhibit C, and as summarized below.

- The proposed trunk sewer line begins at the location where all the branches meet, just west of the existing Howe Caverns Building, and runs southerly to Discovery Drive, then connects into the existing Town sewer system near the water booster station. This portion will consist of approximately 16,000 linear feet of 8-inch gravity sewer main and five precast manholes. This portion is estimated at \$188,000.
- Sewer Branch A will run easterly from the trunk line to the Entertainment Building. This portion will consist of approximately 600 linear feet of 8-inch sewer main and two precast manholes. This will cost approximately \$75,000.
- Sewer Branch B will run westerly from the trunk line to the Water Park and Hotel Facilities. This portion will consist of approximately 1,000 linear feet of 8-inch sewer main and three precast manholes. This cost is estimated at \$121,000.
- Sewer Branch C will run northerly to serve the Resort and Casino. This portion will consist of approximately 2,750 linear feet of 8-inch sewer main and nine precast manholes. This project will cost approximately \$327,000.
- The receiving Town and Village sewer collection piping system has adequate capacity to handle the base and peak demand flows. However the hydraulic analysis completed indicates that the Village East End Pump Station will need to be upgraded at some point to handle the projected peak demand flow rates when the entire Town system is built-out. In all likelihood this may not occur within the next ten years. The estimated cost to upgrade the Village East End Pump Station is estimated at \$154,000.

The total estimated cost of the four on-site improvement components and the East End Pump Station upgrade amounts to \$865,000. Detailed cost estimates are provided in Exhibit D.

HOWE CAVERNS RESORT AND CASINO WATER AND SEWER STUDY

CONCLUSION

This study finds that the existing Town water system and sewer system have adequate capacity to meet the long-term base and peak demands of the Howe Caverns Resort and Casino. These findings are summarized below:

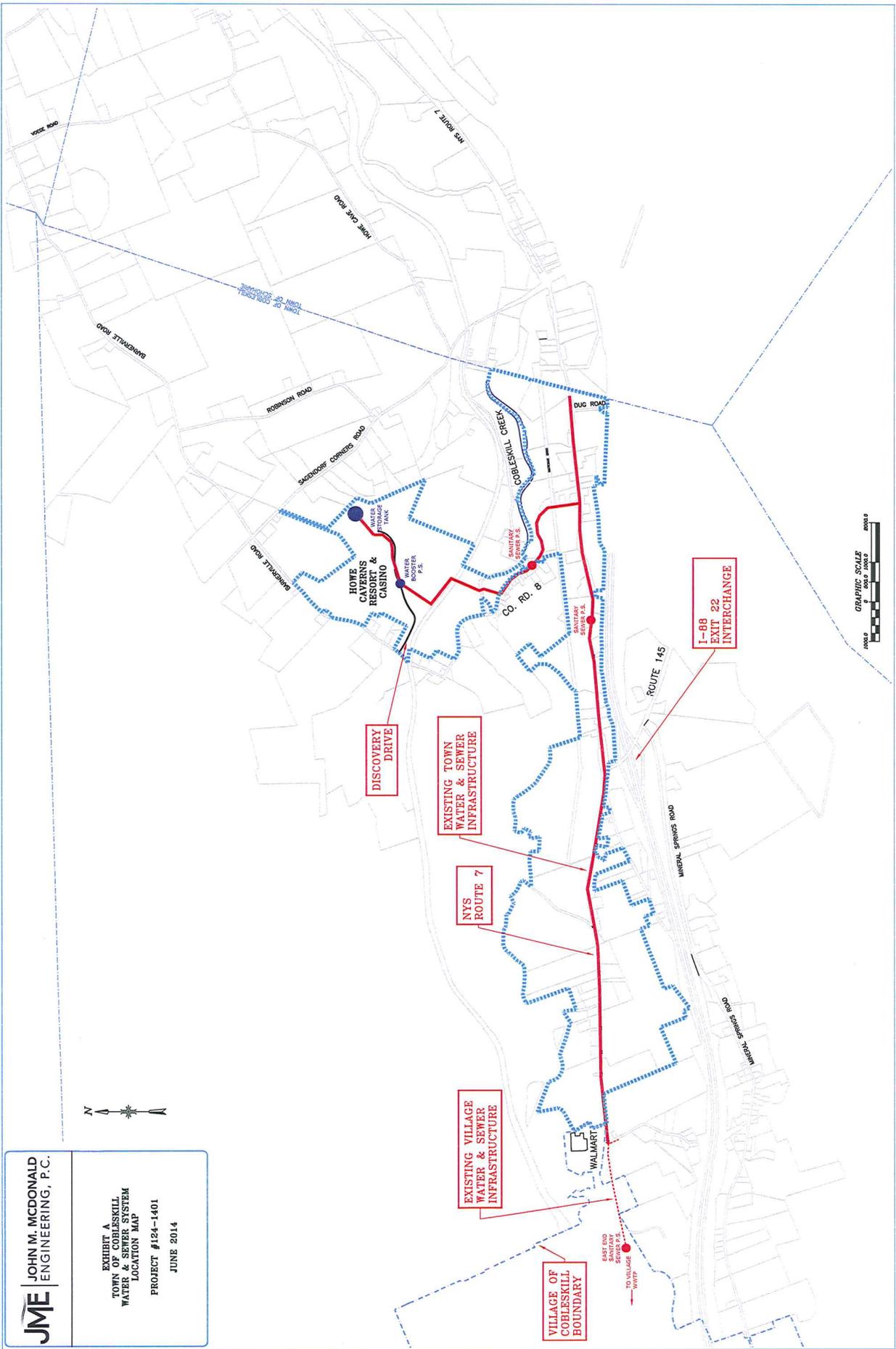
- The Town and Village water systems have adequate capacity to provide the base and peak demands, and fire flow requirements of the Howe Caverns Resort and Casino Complex.
- On-site water system improvements within the Howe Caverns property will be necessary to service the facilities. Water system improvements estimated costs of the on-site water work is \$890,000.
- The Town sewer system infrastructure has adequate capacity to handle the base and peak demands of the Howe Caverns Project.
- The Village sewer infrastructure has available capacity to meet the long-term Howe Caverns base and peak demand requirements. At some point in the distant future, the Village East End Pump Station will need to be upgraded as the growth occurs within the Town system.
- Sewer system improvements within the Howe Caverns property will be necessary to serve the proposed facilities. The total estimated cost of the four on-site improvement components, and the Village East End Pump Station, amounts to \$865,000.

In conclusion, this study finds that there is more than adequate water and sewer infrastructure capacity to meet the base and peak demands of the Howe Caverns Resort and Casino. Further, there will be no local or regional impacts as a result of this project.

HOWE CAVERNS RESORT AND CASINO
WATER AND SEWER STUDY

EXHIBIT A
TOWN OF COBLESKILL WATER AND SEWER SYSTEM
LOCATION MAP





JME JOHN M. McDONALD
ENGINEERING, P.C.

EXHIBIT A
TOWN OF COBLESKILL
WATER & SEWER SYSTEM
LOCATION MAP
PROJECT #124-1401
JUNE 2014

DISCOVERY DRIVE

EXISTING TOWN
WATER & SEWER
INFRASTRUCTURE

NYS
ROUTE 7

EXISTING VILLAGE
WATER & SEWER
INFRASTRUCTURE

VILLAGE OF
COBLESKILL
BOUNDARY

I-88
EXIT 22
INTERCHANGE



HOWE CAVERNS RESORT AND CASINO
WATER AND SEWER STUDY

EXHIBIT B
HOWE CAVERNS RESORT AND CASINO
WATER AND SEWER DEMAND TABLE



7 South Church Street • Schenectady, New York 12305 • Ph: 518 382 1774 Fax: 518 382 1776 • www.mcdonaldengineers.com

Howe Caverns Resort and Casino - Water/Sewer Demand

LOCATION	Unit	Quantity	Water/Sewer Demand	
			Rate	Total (Gallons Per Day)
CASINO LEVEL				
CASINO (1,500 slots, 34 tables)	SF	58,800		
POKER (10 tables)	SF	1,550		
HIGH LIMIT (6 tables)	SF	2,340		
HIGH LIMIT (44 slots)	SF	1,350		
HIGH LIMIT LOUNGE	SF	900		
TOTAL CASINO LEVEL	SF	64,940	14 gpd per employee/shift + 0.3 gpd/sf (use 0.4 gpd/sf)	25,976
CASINO FOH AND RESTAURANTS				
HIGH LIMIT CAGE	SF	420	0.1 gpd/sf	42
HIGH LIMIT TOILETS	SF	340	0.1 gpd/sf	34
CASHIER'S CAGE & COUNT	SF	3,600	0.1 gpd/sf	360
CASINO OFFICES	SF	1,800	0.1 gpd/sf	180
BACK-OF-HOUSE & MISC.	SF	6,805	0.1 gpd/sf	681
CASINO BAR	-	-	-	-
LOUNGE BAR (200 cap)	SEAT	200	35 gpd/seat	7,000
BAR B/U	-	-	-	-
COFFEE SHOP (200 cap)	SEAT	200	37 gpd/seat	7,000
VIEW DINING (180 cap incl bar)	SEAT	180	38 gpd/seat	6,300
FOOD FARE (204 cap)	SEAT	204	39 gpd/seat	7,140
SERVICE BARS (2)	-	-	-	-
GUEST TOILETS (3 Sets)	-	-	-	-
KITCHEN (coffee shop)	-	-	-	-
KITCHEN (view dining)	-	-	-	-
STAFF VERTICAL CIRCULATION	-	-	-	-
ATRIUM (open to below)	-	-	-	-
OPEN TO DOCK BELOW	-	-	-	-
TOTAL CASINO FOH AND RESTAURANTS LEVEL				54,713
CONVENTION LEVEL				
CONVENTION CORRIDOR	SF	5,400	0.1 gpd/sf	540
MULTI-PURPOSE ROOM	SF	14,400	0.1 gpd/sf	1,440
BANQUET HALL/MEETING ROOMS (3 rooms)	SF	7,190	0.1 gpd/sf	719
PREFUNCTION	SF	2,985	0.1 gpd/sf	299
BOARD ROOM	SF	600	0.1 gpd/sf	60
CONVENTION KITCHEN	SF	4,500	0.1 gpd/sf	450
CONVENTION STORAGE	-	-	-	-
CONVENTION SUPPORT	SF	2,400	0.1 gpd/sf	240
BACK-OF-HOUSE & MISC.	SF	9,375	0.1 gpd/sf	938
TOTAL CONVENTION LEVEL		50,450		4,685
ENTRY/BOH SERVICE LEVEL				
ATRIUM				
REGISTRATION	SF	1,800	0.1 gpd/sf	180
LOBBY BAR	SF	1,800	0.1 gpd/sf	180
SPA	SF	7,050	0.1 gpd/sf	705
HALLWAY TO POOL & SPA				
VESTIBULES	SF	1,000	0.1 gpd/sf	100
RETAIL	SF	1,460	0.1 gpd/sf	146
FRONT DESK BACK-UP	SF	1,135	0.1 gpd/sf	114
RESERVATIONS	SF	2,400	0.1 gpd/sf	240
BAGGAGE				
VALET	SF	200	0.1 gpd/sf	20
TOILETS				
CASINO STAFF LOUNGE	SF	1,685	0.1 gpd/sf	169
SLOT REPAIR	SF	1,200	0.1 gpd/sf	120
CASINO SUPPORT	SF	3,140	0.1 gpd/sf	314
OFFICES: EXECUTIVE, ACCOUNTING, INTERNAL AUDIT, RECORDS, ETC.	SF	4,500	0.1 gpd/sf	450
SURVEILLANCE	SF	1,270	0.1 gpd/sf	127
MIS	SF	1,800	0.1 gpd/sf	180
COMM KITCHEN (incl room service)	SF	7,850	0.1 gpd/sf	785
STAFF DINING	SF	4,040	0.1 gpd/sf	404
HOUSEKEEPING & PORTERS	SF	3,475	0.1 gpd/sf	348
UNIFORM ISSUE, CHANGE & TOILETS	SF	5,050	0.1 gpd/sf	505
STAFF TOILETS	SF	550	0.1 gpd/sf	55
ENGINEERING	SF	9,000	0.1 gpd/sf	900
CENTRAL PLANT				
WAREHOUSE				
LOADING DOCK				
LOADING DOCK OPEN				
TRASH & DOCK				
HUMAN RESOURCES	SF	4,500	0.1 gpd/sf	450
SECURITY	SF	2,250	0.1 gpd/sf	225
LINEN	SF	1,800	0.1 gpd/sf	180
FIRE COMMAND CENTER				
RECEIVING AND PURCHASING	SF	900	0.1 gpd/sf	90
ELECTRICAL				
DATA				
STAFF VERTICAL CIRCULATION				
BACK-OF-HOUSE & MISC.	SF	21,010	0.1 gpd/sf	2,101
TOTAL ENTRY/SERVICE LEVEL				9,087
HOTEL				
250 QUEST ROOMS	ROOM	250	110 gpd/room	27,500
TOTAL HOTEL				27,500
WATER DEMAND				95,984

INCLUDING 20% REDUCTION FOR WATER SAVINGS DEVICES + 15% FOR MECHANICAL AND IRRIGATION

88,305

GALLONS PER DAY (AVERAGE DAILY FLOW)

Use

88,300

GPD

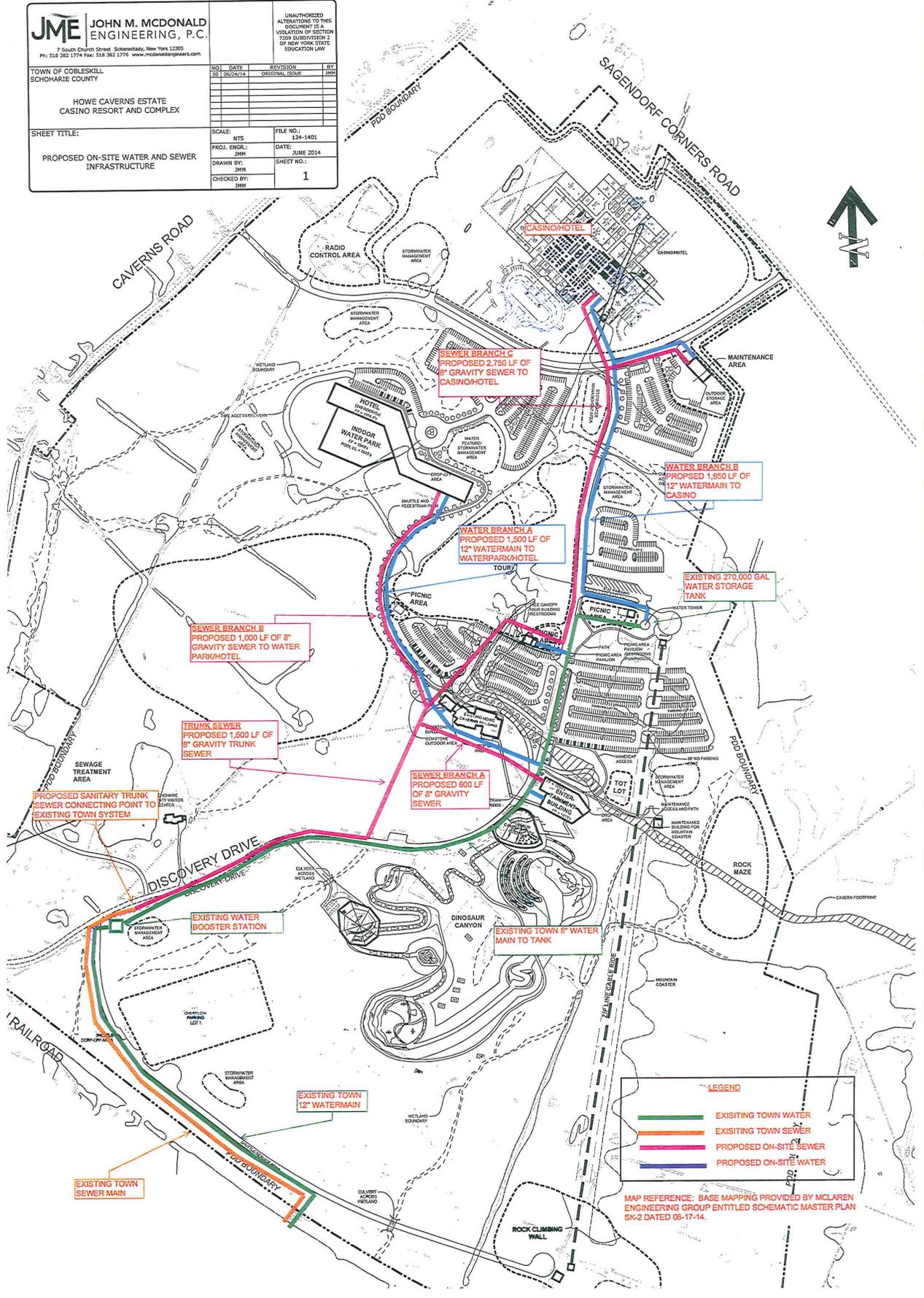
Note - The above flow information and calculations for the proposed Resort/Casino facility were provided by the McClaren Group.

HOWE CAVERNS RESORT AND CASINO
WATER AND SEWER STUDY

EXHIBIT C
HOWE CAVERNS PROPOSED ON-SITE
WATER AND SEWER INFRASTRUCTURE SITE PLAN



JME JOHN M. McDONALD ENGINEERING, P.C. 7 South Church Street, Schenectady, New York 12305 PH: 518 382 1774 Fax: 518 382 1776 www.mcdonaldengineers.com	UNAUTHORIZED ALTERATIONS TO THIS DOCUMENT IS A VIOLATION OF SECTION 2009 SUBSECTION 4 OF NEW YORK STATE EDUCATION LAW	
	NO. DATE REVISION BY	BY
TOWN OF COBLESKILL SCHOHARIE COUNTY	18 10/26/14	INTERNAL ISSUE
HOWE CAVERNS ESTATE CASINO RESORT AND COMPLEX		
SHEET TITLE:	SCALE: NTS	FILE NO.: 124-1401
PROPOSED ON-SITE WATER AND SEWER INFRASTRUCTURE	PROJ. ENGR.: JMM	DATE: JUNE 2014
	DRAWN BY: JMM	SHEET NO.: 1
	CHECKED BY: JMM	





HOWE CAVERNS RESORT AND CASINO
WATER AND SEWER STUDY

EXHIBIT D
ON-SITE WATER AND SEWER IMPROVEMENT
COST ESTIMATES



Exhibit D
Howe Caverns On-Site
Water Improvements

Cost Estimate

Water Branch A Cost Estimate

Item	Description	Qty.	Unit	Unit Price	Total
1	General Requirements	1	LS	\$60,000	\$60,000
2	Bedding	100	CY	\$30	\$3,000
3	Pipe Zone Backfill	400	CY	\$30	\$12,000
4	12" CL 52 DIP incl. excavation & backfill	1,850	LF	\$65	\$120,250
5	12" Main gate valves w/ box & cover	3	EA	\$3,000	\$9,000
6	Fire Hydrant	4	EA	\$3,500	\$12,950
7	6" CL 50 DIP incl. excavation (hydrant leads)	37	LF	\$45	\$1,665
8	6" Hydrant gate valves w/ box & cover	4	EA	\$2,000	\$7,400
9	12" x 6" Tee	4	EA	\$1,500	\$5,550
10	Booster pump and Fire Pump System	1	LS	\$125,000	\$125,000
	SUBTOTAL				\$356,815
	CONTINGENCIES (10%)				\$35,682
	ESTIMATED CONSTRUCTION COSTS				\$392,497
	ENGINEERING				\$47,100
	TOTAL PROJECT COST				\$440,000

Water Branch B Cost Estimate

Item	Description	Qty.	Unit	Unit Price	Total
1	General Requirements	1	LS	\$60,000	\$60,000
2	Bedding	110	CY	\$30	\$3,300
3	Pipe Zone Backfill	400	CY	\$30	\$12,000
4	12" CL 52 DIP incl. excavation & backfill	1,950	LF	\$65	\$126,750
5	12" Main gate valves w/ box & cover	3	EA	\$3,000	\$9,000
6	Fire Hydrant	4	EA	\$3,500	\$13,650
7	6" CL 50 DIP incl. excavation (hydrant leads)	39	LF	\$45	\$1,755
8	6" Hydrant gate valves w/ box & cover	4	EA	\$2,000	\$7,800
9	12" x 6" Tee	4	EA	\$1,500	\$5,850
10	Booster pump and Fire Pump System	1	LS	\$125,000	\$125,000
	SUBTOTAL				\$365,105
	CONTINGENCIES (10%)				\$36,511
	ESTIMATED CONSTRUCTION COSTS				\$401,616
	ENGINEERING				\$48,194
	TOTAL PROJECT COST				\$450,000

Water Branch A	\$440,000
Water Branch B	<u>\$450,000</u>
Total Project Cost	\$890,000

Exhibit D
Howe Caverns
Sewer Improvements

Cost Estimate

Trunk Sewer Cost Estimate

Item	Description	Qty.	Unit	Unit Price	Total
1	General Requirements	1	LS	\$20,000	\$20,000
2	8" PVC Sewer Pipe, incl. excavation & bedding	1,600	LF	\$60	\$96,000
3	Precast Concrete Manholes incl. frame & cover	5	EA	\$3,600	\$19,200
4	Pipe Bedding Material	89	CY	\$30	\$2,667
5	Pipe Zone Backfill Material	356	CY	\$35	\$12,444
6	Connect to existing system	1	LS	\$2,000	\$2,000
SUBTOTAL					\$152,311
CONTINGENCIES (10%)					\$15,231
ESTIMATED CONSTRUCTION COSTS					\$167,542
ENGINEERING					\$20,105
TOTAL PROJECT COST					\$188,000

Sewer Branch A Cost Estimate

Item	Description	Qty.	Unit	Unit Price	Total
1	General Requirements	1	LS	\$10,000	\$10,000
2	8" PVC Sewer Pipe, incl. excavation & bedding	600	LF	\$60	\$36,000
3	Precast Concrete Manholes incl. frame & cover	2	EA	\$3,600	\$7,200
4	Pipe Bedding Material	33	CY	\$30	\$1,000
5	Pipe Zone Backfill Material	133	CY	\$35	\$4,667
6	Connect to existing system	1	LS	\$2,000	\$2,000
SUBTOTAL					\$60,867
CONTINGENCIES (10%)					\$6,087
ESTIMATED CONSTRUCTION COSTS					\$66,953
ENGINEERING					\$8,034
TOTAL PROJECT COST					\$75,000

Sewer Branch B Cost Estimate

Item	Description	Qty.	Unit	Unit Price	Total
1	General Requirements	1	LS	\$15,000	\$15,000
2	8" PVC Sewer Pipe, incl. excavation & bedding	1,000	LF	\$60	\$60,000
3	Precast Concrete Manholes incl. frame & cover	3	EA	\$3,600	\$12,000
4	Pipe Bedding Material	56	CY	\$30	\$1,667
5	Pipe Zone Backfill Material	222	CY	\$35	\$7,778
6	Connect to existing system	1	LS	\$2,000	\$2,000
SUBTOTAL					\$98,444
CONTINGENCIES (10%)					\$9,844
ESTIMATED CONSTRUCTION COSTS					\$108,289
ENGINEERING					\$12,995
TOTAL PROJECT COST					\$121,000

Sewer Branch C Cost Estimate

Item	Description	Qty.	Unit	Unit Price	Total
1	General Requirements	1	LS	\$40,000	\$40,000
2	8" PVC Sewer Pipe, incl. excavation & bedding	2,750	LF	\$60	\$165,000
3	Precast Concrete Manholes incl. frame & cover	9	EA	\$3,600	\$33,000
4	Pipe Bedding Material	153	CY	\$30	\$4,583
5	Pipe Zone Backfill Material	611	CY	\$35	\$21,389
6	Connect to existing system	1	LS	\$2,000	\$2,000
SUBTOTAL					\$265,972
CONTINGENCIES (10%)					\$26,597
ESTIMATED CONSTRUCTION COSTS					\$292,569
ENGINEERING					\$35,108
TOTAL PROJECT COST					\$327,000

Off-Site Sewer Improvements Cost Estimate

Item	Description	Qty.	Unit	Unit Price	Total
1	East End Pump Station Upgrades	1	LS	\$125,000	\$125,000
SUBTOTAL					\$125,000
CONTINGENCIES (10%)					\$12,500
ESTIMATED CONSTRUCTION COSTS					\$137,500
ENGINEERING					\$16,500
TOTAL PROJECT COST					\$154,000

Trunk Sewer	\$188,000
Sewer Branch A	\$75,000
Sewer Branch B	\$121,000
Sewer Branch C	\$327,000
Off-Site Improvements	\$154,000
Total	\$865,000

STORMWATER REPORT

HOWE CAVERNS RESORT AND CASINO TOWN OF COBLESKILL, NY

Prepared for:

Howe Caverns Resort and Casino, LLC

**McLaren Project No. 140617
June 2014**



**Prepared by:
McLaren Engineering Group
100 Snake Hill Road
West Nyack, NY 10994**

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	MCLAREN ENGINEERING GROUP QUALIFICATIONS	1
3.0	SCOPE OF REPORT	2
4.0	SITE DESCRIPTION	2
4.1	Project Description	3
4.2	Watercourses and Storm Sewers.....	3
4.3	Land Cover.....	3
4.4	Soils	3
4.5	Rainfall Data.....	4
5.0	METHODOLOGY AND CRITERIA.....	5
5.1	Stormwater Management	5
5.2	Water Quality.....	5
5.3	Channel Protection Volume	6
5.4	Overbank Protection.....	6
5.5	Extreme Storm	6
6.0	HYDROLOGIC AND HYDRAULIC ANALYSIS.....	6
6.1	Existing Conditions	6
6.2	Proposed Conditions.....	8
6.2.1	Proposed Condition Stormwater Runoff.....	8
6.3	Water Quality.....	10
6.4	Water Quantity.....	11
6.5	Storm Drainage System.....	13
7.0	EROSION AND SEDIMENT CONTROL	13
7.1	Erosion and Sediment Control Measures	13
7.2	Construction Sequence Scheduling	14
7.3	Implementing the SWPPP	14
7.4	Best Management Practices.....	17
8.0	LONG TERM MAINTENANCE AND OPERATIONS	18
9.0	LOCAL AND REGIONAL IMPACT.....	18

1.0 INTRODUCTION

McLaren Engineering Group (MEG), has been retained by the Howe Caverns Resort and Casino, LLC to conduct an independent analysis regarding the proposed stormwater management system for Howe Caverns Resort and Casino, a proposed casino/hotel development in the Town of Cobleskill, Schoharie County, New York.

2.0 MCLAREN ENGINEERING GROUP QUALIFICATIONS

Founded in 1977, McLaren Engineering Group has a 37-year history of providing multidiscipline consulting engineering services to clients worldwide. Headquartered in West Nyack, NY and with offices in New York, NY; Orlando, FL; Baltimore, MD; Middletown, CT; and San Francisco, CA.

We have an excellent history of inspection, engineering and design experience working for both public and private entities. McLaren is currently providing or has recently provided structural engineering services for clients such as the Port Authority of New York and New Jersey, New York City Department of Transportation, New York City Economic Development Corporation, New York City Department of Corrections, New York State Department of Transportation, the Baltimore Center for the Performing Arts, Olympia & York, Carnival Cruise Corporation, U.S. Gypsum, Roseland Contractors, LLC., R&D Development, Turner Construction, Consolidated Edison Company, PSE&G, and the U.S. Navy.

The Site/Civil Division provides complete design and construction management services for all types public and private of civil and site development projects. Including drainage, grading, infrastructure, geotechnical services, utilities design, erosion control, stormwater management and zoning and entitlement permitting and assistance for large-scale public and private infrastructure, mixed-use developments, parks, and waterfront facilities. We have specific in-depth expertise in large site development projects and public transportation and infrastructure facilities.

Large-scale site development and infrastructure experience includes: the Club at Briarcliff Manor Senior Housing will be a 385 unit continuing care retirement community with on a 59 acre campus; the General Electric Training Center in Ossining, NY, which includes a new residential building, maintenance building, classroom addition, and renovations on the 52 acre campus; the Port Imperial development which consists of 6,500 residential units and approximately 2 million square feet of commercial space, including office, retail and a full service hotel; the Central Nyack Drainage Improvement Project for the Town of Clarkstown which is an infrastructure project including street and streetscape improvements, drainage improvements and a regional dam and detention basin; and the Village of Briarcliff Water Infrastructure projects which includes a water pump station to replace an existing elevated tank, water and sewer infrastructure and a comfort station at a Village Park. We have worked on casino/entertainment projects which include Philly Live! which contains which approximately 57,000 s.f. of entertainment/ retail space where

McLaren provided site/civil engineering and geotechnical engineering services and the Maryland Live! gaming facility that includes the 2 million square foot structure and parking for 4,300 cars on the six-level structure.

3.0 SCOPE OF REPORT

In 2010, as part of the Master Plan for the 300 acre Howe Caverns Estate Planned Development District (Howe Caverns PDD), McLaren Engineering Group (MEG) prepared a Preliminary Stormwater Pollution Prevention Plan (SWPPP) for the proposed development at Howe Caverns. The 2010 SWPPP addressed the requirements set forth by the New York State Department of Environmental Protection's (NYSDEC) Pollution Discharge Elimination System (SPDES) for Discharges for Construction Activities, General Permit GP0-10-001 (General Permit). The General Permit requires conformance with the technical standards for stormwater quantity and quality controls presented in the New York State Stormwater Management Design Manual (NYSDEC Design Manual).

This Report has been prepared to address the stormwater runoff from the proposed Project. The project will not increase the impervious when compared to the 2010 master plan and the impacts and mitigation outlined in the 2010 SWPPP continue to apply to the proposed Project.

4.0 SITE DESCRIPTION

This section describes the area within the project site, and areas adjacent to the overall Howe Caverns PDD and the approximately 110 acres Project Site with respect to stormwater management.

2.1 Location

The Howe Caverns PDD site, is located in the Town of Cobleskill, New York. The PDD Site can be generally characterized as actively maintained agricultural land. The agricultural land is comprised of tilled/planted cornfields and routinely harvested hay fields. The remaining portions of the Howe Caverns PDD site are comprised of forested upland and commercially developed land. The forested upland is restricted to lands that have not been farmed and is located within the northeast corner of the property. Additionally, wooded hedgerows separate some of the agricultural fields from one another. The developed component of the Site contains historical development associated with Howe's Cavern and the onsite farmland.

The Howe Caverns PDD, is bounded by Sagendorf Corners Road to the northeast, County Road 9/Caverns Road to the northwest, the site property line and railroad track to the west and southwest, and the existing rock quarry to the south.

4.1 Project Description

The Howe Caverns PDD will be to attract additional visitors to the new casino, entertainment and amusement and lodging components, including Casino/Hotel and hotel/water park associated with The Casino Resort at Howe Caverns (the Project). The other existing and future uses within the Howe Caverns PDD include the Howe Caverns building, picnic area, Gemstone building, zip line, and other entertainment and amusement uses. The overall PDD site will be designed to allow the Project components to be sequenced based on market conditions. The stormwater management system is also designed to allow the sequential development of the site. See Figure 1.

4.2 Watercourses and Storm Sewers

An unnamed tributary of the Cobleskill Creek flows south east through the southwester portion of the Howe Caverns PDD site. This stream is approximately 3-5 feet wide and possesses a rock/coble substrate and flows year round. It is classified by the NYSDEC as a Class C(t) trout stream. This stream is a direct, second order tributary of Cobleskill Creek. According to DEC Article 15 regulations, streams classified as Class C(t) or higher are subject to permit requirements and regulation under Article 15. This tributary discharges into the Cobleskill Creek approximately 0.5 miles south of the Howe Caverns PDD site.

In the northern portion of the Howe Caverns PDD site there is also a man-made pond. It has been determined that this irrigation pond does not serve any stormwater drainage purposes.

There are no storm sewers located within the Howe Caverns PDD site.

4.3 Land Cover

With respect to drainage analysis, the land within the Howe Cavern PDD is primarily classified as undeveloped agricultural land. For the purpose of the stormwater runoff analysis, the majority of the land coverage has been classified as meadows. This provides a conservative value for runoff from the agricultural land. The remainder of the land coverage is woods and impervious area. Impervious coverage consists of driveways, building and structures.

A wetland delineation study was performed within the PDD, and it was determined that there are 18 wetland areas within the PDD site, 11 of which will be subject to jurisdiction of the USACE. There are no NYSDEC regulated wetlands within the Howe Caverns PDD site.

4.4 Soils

A review of the USDA Natural Resources Conservation Service, National Cooperative Soil Survey indicates that there are twelve types of soils present on the site. Table 1 below summarizes the characteristics of the soil present on the site and the respective areas.

Table 1
Soil Characteristics

Map Unit	Soil Names	Hydrologic Group
Al	Alluvial land	D
DdB	Darien silt loam	C
DeB	Darien silty clay loam	C
DsB3	Darien silty clay loam	C
DuC3	Darien silty clay loam	C
FaB	Farmington very rocky silt loam	C
FaF	Farmington very rocky silt loam	C
HfB	Honeoye-Farmington complex	B
Ilc	Ilion and Lyons silt loams	D
MhC	Mohawk and Honeoye silt loams	B
MhC3	Mohawk and Honeoye silt loams	B
MhD	Mohawk and Honeoye silt loams	B

Source:<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

4.5 Rainfall Data

Rainfall data utilized in the analysis was obtained from the Northeast Regional Climate Center. These rainfall values are proposed by the NYSDEC in the pending changes to the Stormwater Design Manual and provide a conservative approach to the Project stormwater design. Site specific 24-hour storm event data for the Howe Caverns PDD site are presented in Table 2 below.

Table 2

Rainfall Data

24-Hour Storm Event	Type III, 24-Hour Rainfall (inches)
1-Year	2.24
2-Year	2.63
10-Year	3.70
25-Year	4.59
100-Year	6.36

Source: <http://www.nrcc.cornell.edu/>

5.0 METHODOLOGY AND CRITERIA

5.1 Stormwater Management

The Stormwater Management (SWM) Plan has been designed in accordance with Appendix D of the General Permit and the following publications:

- “Urban Hydrology for Small Watershed” (Technical Release No. 55), published by the United States Department of Agriculture, Soil Conservation Service, dated June 1986.
- New York State Stormwater Management Design Manual, latest version.

The pre and post-development runoff rates provided in this Report were calculated using the computer software program entitled “WinTR-55” published by USDA National Resources Conservation Service and “Hydraflow Hydrographs 2009” published by Autodesk Inc. These programs incorporates the methodology used in SCS TR-20 and TR-55 to compute and route flood hydrographs.

5.2 Water Quality

The General Permit requires the treatment of stormwater for site runoff prior to discharging off-site. This requirement is applicable for new construction on areas that will have a site disturbance of one (1) acre or more. New York State water quality requirements are satisfied through the implementation of properly designed and installed Stormwater Management Practices (SMP), as described in the NYSDEC Manual.

SMP’s are designed to capture and treat 100% of the Water Quality Volume (WQ_v), provide 80% Total Suspended Solids (TSS) removal and 40% Total Phosphorous (TP) removal, have longevity in operation, and incorporate a pretreatment system.

5.3 Channel Protection Volume

Stream Channel Protection Volume Requirements (Cpv) are designed to protect stream channels from erosion through the extended detention of the one (1)-year, 24-hour storm event. The Cpv requirement does not apply in certain conditions, including when recharge of the entire Cpv volume is achieved at a site or the site discharges directly tidal waters or fourth order (fourth downstream) or larger streams. Also, Cpv is not required at sites where the resulting diameter of the Extended Detention (ED) orifice is too small, to prevent clogging (A minimum 3" orifice with a trash rack or 1" if the orifice is protected by a standpipe having slots with an area less than the internal orifice are recommended to prevent clogging).

5.4 Overbank Protection

The primary purpose of the overbank flood control is to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by urban development. In accordance with Section 4.3 of the NYSDEC Design Manual, overbank control requires storage to attenuate the post development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The overbank flood control requirement (Qp) does not apply in certain conditions including when the site discharges directly tidal waters or fourth order (fourth downstream) or larger streams.

5.5 Extreme Storm

The Extreme Flood Control criteria is to prevent the increased risk of flood damage from large storm events, maintain boundaries of the pre-development 100-year floodplain and protect the integrity of stormwater management practices, the NYSDEC Design Manual requires storage to attenuate the post development 100-year, 24-hour peak discharge rate (Qr) to predevelopment rates.

6.0 HYDROLOGIC AND HYDRAULIC ANALYSIS

6.1 Existing Conditions

An investigation of the existing site and surrounding area was performed to understand the surface runoff patterns on, and adjacent to the Howe Caverns PDD site. Following a review of existing topography and site conditions, four (4) separate Drainage Areas have been defined within the Howe Caverns PDD site and surrounding areas (See Figure 2: Drainage Area Map – Existing Conditions). Descriptions of these Drainage Areas are as follows:

- E1- This Drainage Area is comprised of approximately 161 acres of land, of which, approximately 121 acres is on-site area and 40 acres is off-site area. The on-site area is comprised of agricultural fields, meadows and woods, and the off-site area is comprised of agricultural fields, woods, and impervious area. Stormwater runoff from this drainage area discharges into the Cobleskill Creek Tributary at the western portion of the Howe Caverns PDD site.
- E2 - This Drainage Area is comprised of approximately 68.8 acres of land. This area includes the area within the vicinity of the existing Howe Caverns Building and surrounding structures, the majority of Discovery Drive and the buildings adjacent to it. Stormwater runoff from portions of this site discharge off-site at the southern property line at a culvert under the railroad.
- E3 - This Drainage Area is comprised of approximately 75.4 acres of land. This area includes the existing motel, parking lot and the pool east of the motel. Stormwater runoff from portions of this site discharge off-site at the southern property line at a culvert under the railroad.
- E4- This Drainage Area is comprised of approximately 29.3 acres of land. Stormwater runoff from portions of this site discharge off-site at the southern property line at a culvert under the railroad.
- E4A - This Drainage Area is comprised of approximately 23.8 acres of land. This area includes open meadows/hay field and woods in the southeastern portion of the site. Approximately 11.3 acres of the drainage area is outside of the PDD Project Site. The stormwater runoff from this area discharges off-site at the southern property line at a culvert under the RR track.
- E6 - This Drainage Area is comprised of approximately 36.9 acres of land, of which, approximately 23 acres is on-site area and 13 acres is off-site area. The on-site area is comprised of agricultural fields, meadows and woods, and the off-site area is comprised of the single family homes along Caverns Road. Stormwater runoff from this drainage area discharges into the Cobleskill Creek Tributary at the western portion of the Howe Caverns PDD site.

A Design Point represents the general location where the majority of runoff from the respective drainage areas discharges stormwater runoff off-site. The same design points are used in pre-development and post-development analysis such that a comparison of peak flows can be made. Design Points have been identified for all drainage area, and are depicted on the Drainage Area Maps. A description of each of the design points is as follows:

- Design Point 1 – This design point corresponds to Drainage Area E1. The design point is the discharge point along the unnamed Cobleskill Creek tributary along the western

property line of the adjacent property at the southwestern portion of the Howe Caverns PDD site.

- Design Point 2 – This design point corresponds to Drainage Area E2. The design point is a discharge point at the southern property line.
- Design Point 3 – This design point corresponds to Drainage Area E3. The design point is a discharge point at the southern property line.
- Design Point 4 – This design point corresponds to Drainage Area E4. The design point is a discharge point at the southern property line.

A summary of the existing peak discharge rates from the Howe Caverns PDD site is shown in Table 3.

**Table 3
Existing Peak Stormwater Discharge Rates**

Location	Design Year Storm Peak Flow (CFS)				
	1-Year	2-Year	10-Year	25-Year	100-Year
E1	24.6	41.7	100.76	158.3	285.5
E2	20.9	30.4	60.0	86.9	143.5
E3	26.5	38.6	75.9	110.0	181.4
E4	2.7	5.7	18.7	32.5	64.6
E4A	10.2	17.6	42.0	65.5	116.8
E6	41.7	58.1	107.3	152.1	244.9

6.2 Proposed Conditions

6.2.1 Proposed Condition Stormwater Runoff

An analysis of the proposed site conditions was performed to determine the necessary measures required to satisfy the General Permit (See Figure 3 –Drainage Area Map – Proposed Conditions). The analysis utilized the same Drainage Areas and Design Points used for the existing condition analysis. Drainage Area E1 has been split into 8 separate sub-areas (P1A through P1H) with individual corresponding SMP’s. However, all these drainage areas discharge to Design Point 1. Drainage Area E3 has been subdivided into P3 and P3A. Subarea P3A is the entertainment venue, which will utilize ponds which will double as aesthetic purposes and drainage purposes. As noted above, the separate SMP’s will allow the sequencing of construction of the project components.

Descriptions of the Drainage Areas under proposed conditions are as follows:

- P1A- This Drainage Area is comprised of approximately 8.23 acres of land, of which, approximately 7.72 acres is on-site area and 0.51 acres is off-site area. The on-site area

is will include the access road to the Casino/Hotel and Waterpark/Hotel areas and landscape area along Caverns Road. Stormwater runoff from this drainage area will discharge into an SMP and ultimately discharge into the Cobleskill Tributary at the western portion of the PDD site.

- P1B- This Drainage Area is comprised of approximately 23.79 acres of land, of which, approximately 5.71 acres is on-site area and 18.08 acres is off-site area. The on-site area is comprised of meadow, and the off-site area is comprised of meadow and impervious area. Stormwater runoff from this drainage area will be re-routed around and through the Casino/Hotel and discharge to the onsite swale northwest of the proposed Hotel/Water Park. Runoff will continue through the PDD site to the Cobleskill Creek tributary at the western portion of the Howe Caverns PDD site.
- P1C- This Drainage Area is comprised of approximately 29.97 acres of land, of which, approximately 27.64 acres is on-site area and 2.33 acres is off-site area. The on-site area is comprised of the proposed Casino/Hotel, and the off-site area is comprised of agricultural land and impervious area. Stormwater runoff from this drainage area will discharge into an SMP and discharge to the onsite swale northwest of the proposed Hotel/Water Park. Runoff will continue through the PDD site to the Cobleskill Tributary at the western portion of the Howe Caverns PDD site.
- P1D- This Drainage Area is comprised of approximately 12.44 acres of land, of which, approximately 7.42 acres is on-site area and 5.02 acres is off-site area. The on-site the maintenance area and portions of the site road and the off-site area is comprised of agricultural land and impervious area. Stormwater runoff from this drainage area will discharge into an SMP and ultimately discharge to the onsite swale northwest of the proposed Hotel/Water Park. Runoff will continue through the Howe Caverns PDD site to the Cobleskill Tributary at the western portion of the PDD site.
- P1E- This Drainage Area is comprised of approximately 9.12 acres of on-site land. The area is comprised of the buildings and parking lots associated with the proposed Hotel/Water Park. Stormwater runoff from this drainage area discharge to the onsite swale northwest of the proposed Hotel/Water Park. Runoff will continue through the Howe Caverns PDD site to the Cobleskill Tributary at the western portion of the PDD site.
- P1F- This Drainage Area is comprised of approximately 6.54 acres of on-site land. The on-site area is comprised of portions of the Hotel/Waterpark and service road. Stormwater runoff from this drainage area will discharge into an SMP and ultimately discharge to the onsite swale northwest of the proposed Hotel/Water Park. Runoff will continue through the Howe Caverns PDD site to the Cobleskill Tributary at the western portion of the PDD site.

- P1G- This Drainage Area is comprised of approximately 66.40 acres of land, of which, approximately 64.86 acres is on-site area and 1.54 acres is off-site area. The on-site area is comprised of portions of the site roadway and the off-site area is comprised of meadow and impervious area. Stormwater runoff from this drainage area discharge to the onsite swale northwest of the proposed Hotel/Water Park. Runoff will continue through the Howe Caverns PDD site to the Cobleskill Tributary at the western portion of the PDD site.
- P1H- This Drainage Area is comprised of approximately 4.8 acres of on-site land. The on-site area is comprised of proposed roadways and parking lots and existing wooded areas. Stormwater runoff from this drainage area will discharge into an SMP and discharge to the onsite swale northwest of the proposed Hotel/Water Park. Runoff will continue through the Howe Caverns PDD site to the Cobleskill Tributary at the western portion of the PDD site.
- P2 - This Drainage Area is comprised of approximately 63.7 acres of land on-site. This area includes the Existing Howe Caverns building, proposed parking lots, Gemstone Building, paths, open space, woods and meadow. Stormwater runoff from this drainage area will discharge into an SMP and ultimately discharge at the southern property line.
- P3 - This Drainage Area is comprised of approximately 61.9 acres of land on-site. This area includes the proposed Entertainment Building, tot lot, parking lots, roadways, path, landscape areas and existing woods to remain. Stormwater runoff from this drainage area will discharge into an SMP and ultimately discharge at the southern property line.
- P3A - This Drainage Area is comprised of approximately 18.75 acres of land on-site. This area includes the future entertainment venue, including paths, landscaping and excavated canyons and pits. Runoff within the entertainment venue will be pumped at a controlled rate.
- P4- This Drainage Area is comprised of approximately 29.44 acres of land, of which, approximately 29.32 acres is on-site area and 0.12 acres is off-site area. The on-site area is comprised of meadow, gravel, and impervious area, and the off-site area is comprised of impervious area. Stormwater runoff from this drainage area will discharge into an SMP and ultimately discharge at the southern property line.

6.3 Water Quality

The site design will require that 100% of the water quality volume must be captured and treated for new impervious areas. The preliminary design has been developed to allow variation in the sequence of construction of the project components. This will allow construction of measures for each component as it is constructed without reliance on prior or subsequent components.

Approximate calculations of the required WQv have been performed for the site components in proposed conditions. Table 4 summarizes the required water quality volume for each drainage area.

**Table 4
Calculated Estimated Water Quality Volume**

DRAINAGE AREA	WATER QUALITY VOLUME (acre-ft)
P1A & C Casino/Hotel Area	0.92
P1D (Bus Parking and Employee Lot)	0.33
P1E (Hotel/Water Park)	0.45
P1F (Hotel/Water Park)	0.22
P1H (Road and Parking)	0.20
P2 (Ex. Howe Cavern, Gemstone, Parking, Paths)	1.0
P3 (Entertainment Building, Mountain Coaster, Parking Lots, Roads, Paths, Landscape areas)	0.71
P3A (future area)	1.0
P4 (Mountain Coaster, Rock Climbing)	0.57

The overall design and layout of the PDD site must be considered when determining specific types, sizes, and locations of acceptable SMPS. SMPs will be determined during final site design, and all specific calculations and data will be submitted in a revised SWPPP. All SMPs shall be in accordance with the criteria set forth by the NYSDEC Design Manual. The initial analysis assumes the use of micropool extended detention basins (P1).

6.4 Water Quantity

As noted, stormwater measures have been designed throughout the Howe Caverns PDD site to treat and control stormwater from the individual project components. Schematic Design was prepared for each SMF to determine the approximate storage volume required to detain the increase in peak stormwater discharge and to determine the land area required. The proposed stormwater measures are summarized below:

- Casino/Hotel Area (P1A&C) – Under existing conditions, stormwater runoff generated off-site, north of the project site, is channeled south, to the Project site at existing ditches and a culvert underneath Sagendorf Corners Road. It is proposed that this runoff will be diverted around the Casino Hotel by a culvert and drainage swale. Runoff generated upstream from the project site comes from undisturbed existing conditions; therefore, this drainage area is not required to be treated and can be discharged directly.
- Hotel/Water Park (P1E & P1F) - It is proposed that stormwater generated from the northern half of the hotel roof and the hotel parking lot will flow into a SMP on the

northeastern side of the hotel. Stormwater generated from the southern half of the hotel and the water park will be collected into a separate SMP and will discharge to the onsite drainage swale and off-site.

- New Road, Parking Lot, Entertainment Building (P3) - A SMP will be constructed to treat the discharge from the eastern portion of the parking lot, the proposed Entertainment Building, and the TOT area. Stormwater discharge from the western portion of the parking lot and runoff generated from Discovery Drive will flow southwest into a separate SMP.
- Future Entertainment Venue (P3A) - The entertainment venue will be designed with water features incorporated into it for aesthetic purposes. It is proposed that this venue double as SMP's. Water flow from this area will be by a pump system at a controlled rate.
- Mountain Coaster and Rock Climbing (P4) - East of the entertainment venue will be a mountain coaster and rock climbing, including the access road. A SMP will be provided in this location to treat runoff from this area.
- Southwest of the entertainment venue will be an overflow parking area and road. A water quality basin will be located south east of the overflow parking area to treat stormwater runoff.

Drainage Areas that have an increase in total peak discharge offsite will require measures to reduce peak discharge to pre-development conditions. This can be accomplished by constructing SMP's with detention or retentions capability, upstream from the corresponding Design Point. All final design calculations and details of SMP's will be developed during the site plan approval phase of the project.

Table 5 indicates the approximate storage required to mitigate the difference in peak stormwater discharge between existing and proposed conditions. Drainage Areas that have a decrease in total peak discharge will not require any additional detention facilities.

Table 5
Estimated Required Water Storage Volume

DRAINAGE AREA	APPROXIMATE REQUIRED STORAGE (acre-ft)
P1A	2.21
P1C	4.56
P1D	2.03
P1E	5.35
P1H	1.48

P2	4.80
P3	4.00
P4	2.50

6.5 Storm Drainage System

The proposed development will require the construction of a new storm drain system within the project streets to convey the runoff from ditches, parking areas, and other impervious area to SMP's. The storm drains would be designed in accordance with the Town of Cobleskill requirements.

7.0 EROSION AND SEDIMENT CONTROL

7.1 Erosion and Sediment Control Measures

During construction of the Project, the potential for soil erosion and sedimentation will be controlled through the use of temporary soil erosion and sediment control measures. These measures will be designed and installed in accordance with New York Guidelines for Urban Erosion and Sediment Control dated October 2005. The soil erosion and sediment control plan will minimize the downstream erosion by controlling runoff at its source, minimizing runoff from disturbed areas and de-concentrating storm water runoff. Temporary and permanent stabilization methods will be implemented before construction begins and will be continuously modified throughout the project to provide the best methods for stormwater management and pollution prevention.

Phasing of activities shall be as follows:

Pre-Construction Activities

- Identify all natural resources and mark and protect them as necessary i.e. trees, vegetation.
- Identify on-site and downstream surface water bodies and install controls to protect them from sedimentation.
- Establish temporary stone construction entrance pads to capture mud and debris from the tires of construction vehicles.
- Install perimeter sediment controls such as silt fence as shown on the project plans.
- All earth disturbances during this phase should be limited to work necessary to install erosion and sedimentation controls.

During Construction Activities

- Install runoff and drainage controls as shown on the project plans and as necessary. These controls should reduce run-off flow rates and velocities as well as divert off site and clean run-off.

- Stabilize the conveyance system (i.e. ditches, swales, berms etc.) by seeding, mulching, installing rock check dams.
- Stabilize all stormwater runoff outlets as shown on the project plans and as necessary.
- Stabilization measures should be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days. Where activities will resume within 21 days in that portion of the site, measures need not be initiated.
- Limit soil disturbance and exposure of bare earth to a minimum.
- All topsoil stockpiles should be staged in an area away from surface waters and storm drains and should be protected and stabilized.
- Construction vehicles shall enter and exit the site at the stabilized construction entrance. The construction entrances will be maintained during the life of the construction and repaired and/or cleaned periodically to ensure proper function.
- Water trucks will be used as needed during construction to reduce dust generated on the site. The contractor will provide dust control in compliance with applicable local and state dust control regulations.
- At any location where surface run-off from disturbed or graded areas may flow off-site, sedimentation control measures must be installed to prevent sedimentation from being transported.
- Regular inspections and maintenance should be performed as described in the following section.

Post-Construction Activities

- Identify the permanent structural or non-structural practices that will remain on the site.
- Provide an Operation & Maintenance (O&M) manual to the Owner who is expected to conduct the necessary O&M over the life of the structures.

7.2 Construction Sequence Scheduling

A phased construction sequence schedule of the Project will limit the acreage of exposed soils to a minimum extent possible at given time. Due to the size of the project area, the need to move earth between areas to balance the earthwork volume and the need for stockpile areas, it is anticipated that there will be periods when the project site disturbance will be greater than 5-acres. The NYSDEC and Town will be notified in advance when this is anticipated to occur. Limiting the exposed soils will reduce the amount of sediments in runoff water and ultimately preserve the quality of surface waters. The construction sequence will be developed as the project moves to the Site Development Plan approval and Building Permit Phase.

7.3 Implementing the SWPPP

The General Permit requires that site assessment and inspections for all construction activities in excess of one (1) acre.

The site assessment and inspections required for this project will include the following:

1. The operator shall have a "Qualified Inspector" conduct site inspections in conformance with the requirements of the General Permit. A Qualified Inspector is a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s). Someone working under the direct supervision of the licensed Professional Engineer or licensed Landscape Architect provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that an individual performing a site inspection has received four (4) hours of training, endorsed by the Department, from a Soil and Water Conservation District, CPESC, Inc. or other Department endorsed entity in proper erosion and sediment control principles no later than two (2) years from date this general permit is issued. After receiving the initial training, an individual working under the direct supervision of the licensed Professional Engineer or licensed Landscape Architect shall receive four (4) hours of training every three (3) years. Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.
2. Following the commencement of construction, site inspections shall be conducted by the qualified inspector as follows:
 - a. Where soil disturbance activities are on going, conduct a site inspection at least once every seven (7) calendar days.
 - b. Where the project has received authorization to disturb greater than five (5) acres of soil at any one time, conduct at least two (2) site inspections every seven (7) calendar days, separated by a minimum of two (2) full calendar days.
3. The qualified inspector shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:
 - a. Date and time of inspection.
 - b. Name and title of person(s) performing inspection.

- c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection.
 - d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow. Identification of all erosion and sediment control practices that need repair or maintenance.
 - e. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced.
 - f. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection.
 - h. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards.
 - i. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The qualified inspector shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
4. The operator shall maintain a record of all inspection reports in a site logbook. The site logbook shall be maintained on site and be made available to the permitting authority upon request.
 5. Prior to filing of the Notice of Termination or the end of permit term, the operator shall have the qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed.

6. The SWPPP must clearly identify the contractor(s) and subcontractor(s) that will implement the measure(s). All contractors and subcontractors identified in a SWPPP must sign a copy of certification statement (see Appendix B) before undertaking any construction or activity at the site identified in the SWPPP. All certifications must be included in the SWPPP. The certification must include the name and title of the person providing the signature; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

7.4 Best Management Practices

Throughout construction, care shall be taken to ensure sediment does not enter surface water bodies and chemicals do not enter stormwater, potentially contaminating surface and groundwater supplies. The following Best Management Practices (BMP) shall be observed to maintain responsible environmental practices on the construction site.

Good Housekeeping

Good housekeeping is essential to reducing the risk of contaminating runoff waters during every stage of construction. The General Contractor shall ensure supervisors train each employee in good housekeeping practices as they pertain to the implementation of this SWPPP.

All equipment shall be operational while it is stored on site. Inspections shall be conducted regularly to ensure all equipment is free of leaks and that oil and grease are not in contact with soils or stormwater.

Temporary Facilities

Temporary sanitary facilities may be located on site for construction workers. This facility shall be located in an accessible and visible location. A waste management company will be contracted to provide the routine pumping and sanitization of the facility.

Solid Waste

No solid materials are allowed to be discharged from the site with stormwater. All solid waste shall be collected and placed in containers. The containers will be emptied periodically by a contract trash disposal service and hauled away from the site.

Sedimentation Tanks

The contractor will be responsible for providing portable sedimentation tanks for the discharge water of any dewatering operation. The contractor will size the tanks based on NYSDEC guidelines and the calculations will be submitted to the Engineer of Record for review. No discharge into stormwater drainage structures or piping without treatment will be permitted.

8.0 LONG TERM MAINTENANCE AND OPERATIONS

Periodic long-term inspection and maintenance of the Stormwater Management Practices (SMP) will be required by the owner and operator of the facility. These components consist of the water quality/detention ponds and devices, drainage swales and the storm drainage collection system (pipes, drain inlets and manholes). The descriptions of the long-term maintenance requirements will be developed based on the final design and the SMP's selected below.

9.0 LOCAL AND REGIONAL IMPACT

Conformance with this Storm Water Pollution Prevention Plan will insure the proposed Project will be in compliance with the General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001) and the Project will not have any local or regional impacts.

Respectfully submitted by,

The Office of
McLaren Engineering Group
M.G. McLAREN, P.C.

A handwritten signature in black ink, appearing to read 'S. L. Grogg', is written over the printed name of Steven L. Grogg.

Steven L. Grogg, P.E.
Vice President Site – Civil Division

FIGURES

LEGEND

- DP 1
- DESIGN POINT
- DRAINAGE BOUNDARY
- PDD BOUNDARY



LEGEND

DESIGN POINT



DRAINAGE BOUNDARY



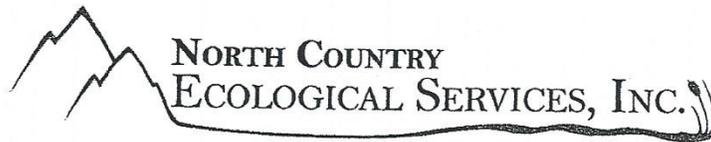
PDD BOUNDARY



STORMWATER MANAGEMENT AREA



GROUP ELECTRICITY DEMAND & INFRASTRUCTURE



August 23, 2010

Mr. John Lemery, Esq.
Lemery Greisler, LLC
60 Railroad Place, Suite 502
Saratoga Springs, New York 12866



**Re: *Endangered & Threatened Species Investigation
Lands of Howe Caverns, Inc.
Town of Cobleskill, Schoharie, New York***

Dear Mr. Lemery:

North Country Ecological Services, Inc. (NCES) completed an ecological investigation that included reviews for individual species listed and potential habitats conducive to Endangered, Threatened and/or Rare (ETR) species of flora and fauna within above-referenced project site. As part of the due-diligence for the project, NCES contacted the New York State Department of Environmental Conservation Natural Heritage Office (DEC) and the U.S. Fish and Wildlife Service (USFWS) regarding the potential for presence of endangered, threatened, and/or species special concern and rare community types on, or within the vicinity of, the Howes Cave property. The correspondences obtained from both agencies are attached for your reference.

According to the response received from the Natural Heritage Office dated June 25, 2010, the Natural Heritage Database possesses records of known occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of the site. Specifically, the information obtained from the DEC references the Eastern small-Footed bat (*Myotis leibii*), an endangered species; and Bat Colony Hibernacula, a significant ecological community; as being found on (or in the immediate vicinity of) the Site.

The information collected from the USFWS indicates that the Bald Eagle (*Haliaeetus leucocephalus*) and the Indiana bat (*Myotis sodalis*) have the potential to exist on or within the vicinity of the project. The speculated presence of these species is recognized by the USFWS based upon historically recorded occurrences of them within Schoharie County, New York. The information obtained from the USFWS does not specifically indicate that these species are known to exist on the Howe Caverns property.

438-2000

The information obtained from the USFWS also indicates that the Bald Eagle "...was de-listed on August 8, 2007. While there are no ESA requirements after this date, the eagles continue to receive protection under the Bald and Golden Eagle Protection Act" and that "While Indiana bats were known to winter in Albany County, we now believe that they are likely extirpated or in such small numbers that it is unlikely that they would be present and impacted by any specific proposed projects in Albany, Rensselaer, Saratoga, Schenectady and Schoharie Counties." NCES is also in possession of a direct correspondence with Ms. Robyn Niver of the USFWS (copy enclosed) that indicates that Indiana bats are not known to over winter in Howes Cave or at the Howes Caverns facility.

Site Location/Description

The site is located at the terminus of Discovery Drive and is positioned between Caverns Road and Sagendorf Corners Road, in the Town of Cobleskill, Schoharie County, New York (Figure 1). The centralized Site coordinates are 42° 41' 43.1" N Latitude and 74° 23' 50.8" W Longitude. Elevations within the property range from 1094± feet above Mean Sea Level (MSL), located atop an upland ridge found in the northeastern corner property boundary, to 870± feet above MSL, found along an active rail line that parallels the southern property boundary, resulting in an elevation difference of 224± feet.

The majority (70-75%) of the property can be generally characterized as actively maintained agricultural land. The agricultural land is comprised of tilled/planted cornfields, routinely harvested hay fields and pasture. The remaining portions of the Site are comprised of forested upland and commercially developed land accompanied with mowed lawn. The forested upland is restricted to lands that have not been farmed and is located within the northeast corner of the property. Wooded hedgerows separate some of the agricultural fields from one another.

The developed component of the Site is associated with "Howe Caverns". Howe Caverns is a commercial establishment that provides daily tours of the Howes Cave system and is one of the main focal tourism facilities within Schoharie County. The commercial establishment is comprised of the Caverns itself, a restaurant; motel; maintenance/grounds building; mowed lawn; playground/picnic area; and, associated parking lots. A large water tower that services the existing facilities is found immediately north of the main lodge.

Land use surrounding the property consists of agricultural and residential development; an active mine; and an active railroad. Single-family residences border the Site to the northwest and southwest along Caverns Road and Barnerville Road, respectively. Active agricultural lands border the site to the northeast along Sagendorf Corners Road. The

active mine, owned and operated by Cobleskill Stone, is located on the property that is found immediately to the southeast of the Site. The active railroad line borders the southern property boundary. A steel radio tower is also located near the northeast corner of the property, immediately adjacent to the active mine site.

Existing Ecological Conditions

Based upon the definitions presented in the *Ecological Communities of New York State* (Edinger, 2002) and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979), the following ecological communities have been identified on the property:

- Hemlock northern hardwood forest
- Cropland – row crops (Corn Field)
- Cropland – field crops (Hayfield, Pasture)
- Mowed lawn with trees
- Terrestrial cave community
- Rocky headwater stream
- Intermittent stream
- Farm Pond
- Palustrine forested wetland
- Palustrine scrub-shrub wetland
- Palustrine emergent wetland

The location and configuration of the individual ecological community types are portrayed on Figure 2. A list of the species of flora and fauna that were identified/observed within the aforementioned ecological communities during the site reviews is attached.

Soils

According to the USDA Natural Resources Conservation Service Web Soil Survey 2.2 for Schoharie County, New York (the “Soil Survey”), there are eight (8) soil series on the property. The soils are as follows: Alluvial land (Al); Darien silt loams, gently undulating (DdB); Darien silt loam, 2-8% slopes (DeB); Darien silty clay loam, 2-15% slopes (DsB3 and DuC3); Farmington very rocky silt loam, 0-70% slopes (Fab and FaF); Honeoye-Farmington complex, 2-10% slopes (HfB); Ilion and Lyons silt loam (IIC); and, Mohawk and Honeoye silt loams, 10-30% slopes (MhC, MhC3 and MhD) (Figure 3). Each of these soil types were confirmed in the field by NCES during the site reviews.

Vegetation

During the ecological review, NCEs identified nine (9) different ecological communities within the boundaries of the subject property. These ecological communities include: Hemlock northern hardwoods; Cropland – row crops: Cropland – field crops; Terrestrial cave community; rocky headwater stream; Intermittent stream; Palustrine forested wetland; Palustrine scrub-shrub wetland and Palustrine emergent wetland. Each of the ecological communities, with the exception of the stream and cave communities possess different vegetative cover types that are associated with them. The dominant species of vegetation observed within each of the identified ecological communities are listed below:

Some of the dominant species of vegetation observed within the Hemlock northern hardwoods ecological community included, but are not limited to: hemlock (*Tsuga canadensis*), american beech (*Fagus grandifolia*), northern red oak (*Quercus rubra*), black oak (*Quercus velutina*), black cherry (*Prunus serotina*), sugar maple (*Acer saccharum*), shagbark hickory (*Carya ovata*), quaking aspen (*Populus tremuloides*), white pine (*Pinus strobus*), common buckthorn (*Rhamnus cathartica*), tatarian honeysuckle (*Lonicera tatarica*), gray dogwood (*Cornus racemosa*), Japanese barberry (*Berberis thunbergii*), wood fern (*Dryopteris intermedia*), christmas fern (*Polystichum agrostichoides*), clubmoss (*Lycopodium* spp) and garlic mustard (*Alliaria officinalis*).

Some of the dominant species of vegetation observed within the Cropland – row crops ecological community included, but are not limited to: corn (*Zea mays*), horse nettle (*Solanum carolinense*), common burdock (*Arctium minus*), red clover (*Trifolium repens*), common plantain (*Plantago major*), English plantain (*Plantago lanceolata*), bull thistle (*Cirsium vulgare*), yellow foxtail (*Setaria glauca*) and orchard grass (*Phleum pratense*).

Some of the dominant species of vegetation observed within the Cropland – field crops ecological community included, but are not limited to: orchard grass, timothy (*Phleum pratense*), alfalfa (*Medicago sativa*), reed canary grass (*Phalaris arundinacea*), red clover, common plantain, English plantain, mullein (*Verbascum thapsus*), teasel (*Dipsacus fullonum*), wild carrot (*Daucus carota*), quack grass (*Elytrigia repens*), spotted knapweed (*Centaurea maculosa*) and canada goldenrod (*Solidago canadensis*).

Some of the dominant species of vegetation observed within the Palustrine forested wetlands included, but are not limited to: red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), american elm (*Ulmus americana*), cottonwood (*Populus deltoides*), gray birch (*Betula populifolia*), witch hazel (*Hamamelis virginiana*), silky dogwood (*Cornus amomum*), red osier dogwood (*Cornus stolonifera*), arrowwood (*Viburnum recognitum*), sensitive fern (*Onoclea sensibilis*), fowl manna grass (*Glyceria striata*), tussock sedge

(*Carex stricta*), skunk cabbage (*Symplocarpus foetidus*) and late goldenrod (*Solidago gigantea*).

Some of the dominant species of vegetation observed within the Palustrine scrub-shrub wetlands included, but are not limited to: silky dogwood, red-osier dogwood, gray dogwood, pussy willow (*Salix discolor*), spicebush (*Lindera benzoin*), reed canary grass, late goldenrod, sensitive fern, tussock sedge and skunk cabbage.

Some of the dominant species of vegetation observed within the emergent wetlands included, but are not limited to; common reed (*Phragmites australis*), cattail (*Typha angustifolia*), dark green bulrush (*Scirpus atrovirens*), soft rush (*Juncus effusus*), path rush (*Juncus tenuis*), beggar ticks (*Bidens cernua*), blue vervain (*Verbena hastata*), wool grass (*Scirpus cyperinus*), skunk cabbage, sensitive fern and tussock sedge.

Endangered/Threatened Species Review

Based upon the information obtained from the DEC and the USFWS, NCES visited the Site on ten (10) separate occasions during the winter of 2009 and spring/summer of 2010 to review the project area and obtain indigenous species information. In addition, NCES also reviewed the subject property for endangered, threatened and/or rare species of flora and fauna that were not specifically referenced by the DEC and USFWS. NCES completed the field reviews on December 9 and December 27, 2009 and April 22, April 27, May 8, May 14, May 17, May 24, June 28 and August 6, 2010.

Separate field reviews were conducted to increase survey times and the likelihood of identifying resident flora and fauna. By conducting the surveys in the winter, spring and early summer, the resident species of fauna that would utilize the property year-round for breeding and as a specific home range would be identified and transient/migratory species of fauna, such as songbirds, could be observed and identified for this report. Any apparent lack of individual species with regard to amphibians, reptiles, songbirds, and herbaceous vegetation that may be prevalent in the area can be attributed to the time of year and limited site reconnaissance in which the Site reviews were conducted.

To conduct the ecological reviews, NCES walked the entire property and adjacent lands searching for suitable habitats and/or evidence of utilization of the property by endangered, threatened or rare flora or fauna species. NCES searched each of the habitat types found on the site. During the review, the species of flora and fauna observed/identified were recorded and color photographs were taken to document the existing conditions during the surveys. A list of the species that were observed/identified during the site reviews is attached. Additionally, representative photographs taken during the 2009 and 2010 site reviews are attached for your reference.

During the Site reviews, NCES did not observe any Bald Eagles, Small-footed bats or Indiana Bats on the property. With the exception of a few potential Indiana Bat Roost trees and Howes Cave itself, NCES did not identify any habitats that are conducive to the existence of any of the species referenced by the DEC or USFWS correspondences. Additionally, NCES did not identify any other ETR or ecologically sensitive habitats on the property. The Howe Caverns estate is comprised of vegetative cover types that are characteristic of historical agriculturally developed properties that are predominant within the Schoharie Valley.

Conclusion

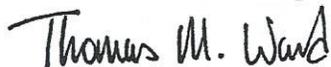
During the ecological investigations for ETR species, potential roosting and foraging habitat for Indiana bats was identified on the property. Additionally, potential hibernacula (Howes Cave and associated covered sink holes) were also identified. Despite habitat being present, the information obtained from the DEC and the USFWS indicate that the historic population of some species of bats within Schoharie County is likely extirpated as a result of the outbreak of White Nose Syndrome (WNS) or the overall populations of bats are in such low numbers that they would not likely be present at the Site and negatively impacted by proposed development.

During the ETR investigation, no suitable habitat for Bald Eagles, or any other ETR species of flora/fauna was found within, or immediately adjacent to, the property. Additionally, NCES did not identify any significant ecological communities (other than the existing cave systems) that would support endangered or threatened species of flora or fauna. Given the existing ecological conditions of the property and the continued agricultural and commercial activities presently undertaken, it is highly unlikely that the property would harbor endangered or threatened flora or fauna species.

If you have any questions or require additional information/clarification please do not hesitate to contact NCES at any time. Thank you.

Sincerely,

North Country Ecological Services, Inc.



Thomas M. Ward
Vice President/Ecologist

Attachments:

LITERATURE CITED

- Cowardin, L.M., V. Carter, F.C. Gocet and E.T. Laroe. December 1979. Classification of Wetlands and Deepwater Habitats of the United States. USFWS Office of Biological Service, FWS/IOBL-79/31.
- Edinger, Gregory. 2002. The Ecological Communities of New York State. New York State Department of Environmental Conservation Natural Heritage Program. 97 pp.
- U.S. Department of Agriculture Natural Resources Conservation Service. Web Soil Survey 2.0. Soil Survey of Washington County. www.
- U.S. Fish and Wildlife Service. Endangered Species Website. www.usfws.gov.



bridge, highway & rail engineering
entertainment engineering
subaqueous investigation
civil & site engineering
structural design
marine facilities
geotechnics
surveying
forensics

LIGHTING REPORT

1.0 INTRODUCTION

McLaren Engineering Group (MEG), has been retained by the Howe Caverns Resort and Casino, LLC to conduct an independent analysis regarding the proposed exterior lighting for Howe Caverns Resort and Casino, a proposed casino/hotel development in the Town of Cobleskill, Schoharie County, New York.

2.0 MCLAREN ENGINEERING GROUP QUALIFICATIONS

Founded in 1977, McLaren Engineering Group has a 37-year history of providing multidiscipline consulting engineering services to clients worldwide. Headquartered in West Nyack, NY and with offices in New York, NY; Orlando, FL; Baltimore, MD; Middletown, CT; and San Francisco, CA.

We have an excellent history of inspection, engineering and design experience working for both public and private entities. McLaren is currently providing or has recently provided structural engineering services for clients such as the Port Authority of New York and New Jersey, New York City Department of Transportation, New York City Economic Development Corporation, New York City Department of Corrections, New York State Department of Transportation, the Baltimore Center for the Performing Arts, Olympia & York, Carnival Cruise Corporation, U.S. Gypsum, Roseland Contractors, LLC., R&D Development, Turner Construction, Consolidated Edison Company, PSE&G, and the U.S. Navy.

3.0 PROPOSED LIGHTING STANDARDS

All exterior site lighting will be designed to be International Dark-Sky Association (IDA) Dark Sky Friendly. Lighting levels will not exceed Illuminating Engineering Society of North America (IESNA) guideline document RP-33-99 "Lighting for Exterior Environments" minimums. Light fixtures will be Illuminating Engineering Society (IES) full cutoff to prevent spill-over of lighting off-site.

4.0 PROPOSED LIGHTING

All fixtures for parking and roadway shall be LEED. The fixture mounting height shall be 25 feet maximum. Where adjacent to property line cutoff shall be provided to prevent the spillover of light off the property. Fixtures will have automatic controls with the capability of automatic shut for unused parking at night and at dawn and sunset, while still taking into account the safety

Offices: New York, Maryland, Florida, Connecticut, California

Licensed in:

Alabama • Arizona • Arkansas • California • Colorado • Connecticut • Delaware • District of Columbia • Florida • Georgia • Hawaii • Idaho • Illinois • Indiana • Kansas • Kentucky • Louisiana • Maine • Maryland • Massachusetts • Michigan • Minnesota • Mississippi • Missouri • Nebraska • Nevada • New Hampshire • New Jersey • New Mexico • New York • North Carolina • Ohio • Oklahoma • Oregon • Pennsylvania • Rhode Island • South Carolina • Tennessee • Texas • Trinidad & Tobago • Utah • USVI • Vermont • Virginia • Washington • West Virginia • Wisconsin • Wyoming

M. G. McLAREN, P.C.

330 West 42nd Street, 14th Fl

New York, NY 10036

Phone (212) 548-1440

Fax (212) 548-1431

e-mail: mgmclaren@mgmclaren.com

On the web: www.mgmclaren.com

of patrons and employees. All lighting will be subject to the review and approval of the Town of Cobleskill Planning Board during the Site Development approval.

5.0 OTHER LIGHT SOURCES

Other light sources will include lighting from the casino and hotels. Light pollution will be minimized through the use of down lighting for feature and accent lighting and use light control systems that will include the use of occupancy and vacancy sensors, photo sensors, and timers and insulated glazed windows that will be used to minimize heat and noise transfer between the indoor environment and the outdoor environment, while still allowing for natural light to reach the inside of the building and glazing to reduce outside light emission.

6.0 CONCLUSION

The proposed lighting for the project will provide safe pedestrian and vehicular circulation along the road and sidewalks. With the use of Dark Sky Friendly fixtures there will be no impact to the local and regional community.

Respectfully submitted by,

The Office of
McLaren Engineering Group
M.G. McLAREN, P.C.



Steven L. Grogg, P.E.
Vice President Site – Civil Division

P:\Proj140\140617\7_Permits\Gaming Application\RFA Sections\Exhibit IX. A.2.b Lighting Report.doc



M. G. McLAREN, P.C.

TAB

Exhibit IX. A.3. MITIGATION OF IMPACT TO HOST MUNICIPALITY AND NEARBY MUNICIPALITIES

Mitigation of Impacts on Host Municipality and Nearby Municipalities

Note: The information on mitigation of impacts identified for the public service providers in the host municipality and nearby municipal governments or other public agencies is based on THG/Armstrong assessments and our professional judgments. It is the responsibility of the Applicant to make commitments to address, or at least acknowledge these issues, and to engage in dialogue on mitigation needs – and, thereby comply with the Gaming Commission’s expectations as described in the Request for Proposals.

Our assessment recognizes that many potential impacts of the proposed casino and hotel project along with other envisioned facilities on the Howe Caverns site have been already clearly defined. However, handling these impacts requires proactive movement to address them, while others require further evaluation and definition of the degree and scope of potential adverse condition due to the project’s development. Specific mechanisms to address agreed upon mitigation needs, such as payments by the Applicant and/or responsible party to a public services provider or by substituting private in/out facilities services, will have to be developed and agreed upon.

Police

The Sheriff expressed the need to hire additional deputies to augment the current two shifts as well as adding an overnight patrols. It is the Sheriff’s belief this additional staffing could be accomplished through the use of full and part time deputies. In the Village of Cobleskill there have been discussions between the Village of Cobleskill and Town of Cobleskill with respect to making the police department a town wide department as currently the Village is providing some police service to the Town without written agreement or funding. Further staffing for the Cobleskill Police Department and Sheriff’s Office would be required if the project moves forward with funding coming from revenue derived by the host municipality.

Fire Protection

The Cobleskill Fire Chief and County Emergency Management Officer indicated that the department can handle fire and other calls to the casino complex and other venues at the site. This may be the case, but experience with actual calls and responses will be helpful to confirm these views. There is concern that the influx of 1.5 million visitors, and perhaps more, in and about a range of public and private space will generate many more calls for service than anticipated. Even if many of these calls are false alarms or easily handled incidents, the toll on a volunteer force and even equipment may be greater than expected. Therefore, a monitoring study and evaluation report should be prepared annually to assess the adequacy of fire protection service to the project site.

The Fire Chief further noted the department is seeking to purchase a combined pumper/rescue truck for more effective and efficient call responses. The cost of this truck is about \$550,000. Given that calls for service to the department from the proposed project complex is likely to reflect about 25 percent of all department annual calls, it is recommended that \$100,000 be allocated by the project developer/operator to assist in the vehicle's purchase.

Emergency Management Services

With the addition of a casino and hotel along with other facilities, the County Emergency Management Officer believes the County would need to add two additional full time ALS paramedics as well as two part time ALS paramedics bringing total staffing to four full time and four part time ALS paramedics. The building which currently houses the Office of Emergency Services is located at 2783 State Route 7 in Cobleskill; this building, which is newer, is within close proximity to the proposed casino site and is a temporary headquarters of the Office of Emergency Services until such time as a new public safety building is constructed as the existing building was destroyed by Hurricane Irene. Once the new public safety building is constructed the existing Emergency Services building, which is County owned, could be repurposed acting as an EMS and police substation to provide better response time to the proposed project.

Building and Zoning Codes Services

The workload for the part time Building and Code Enforcement Officer (CEO) will increase substantially especially during the construction phase. It also could increase ongoing demand for onsite related permit work and offsite induced development activity caused by the proposed project. Therefore, it is recommended that the COE position be made full time for the construction phase, with the additional cost be borne by the project developer/casino operator. Additional part-time administrative assistance that may be required should also be at least in part paid for by the casino developer/casino operator.

General Government- Town of Cobleskill and Village of Cobleskill

The only significant issue for potential mitigation concerns the Mayor of the Village of Cobleskill who expressed concerns about the increase in ongoing O&M demands upon her water and sewer departments due to the extension the village water and sewer services further into the town, to serve the Howe Caverns site and other users. This may require hiring additional staff for these functions. However, the added work load and costs should be folded into the calculation of the annual water and sewer user charges, as required under State law. As such, it is expected that the Howe Caverns site's water and sewer users will be paying a significant amount of annual charges for O&M, reflective of their very large water use and sewer flow required by/ generated by the project complex.

If indeed the village hires additional staffing, these costs can be compared to the user charges made by the Howe Caverns water and sewer users to determine if there is equity. Any actions after that regarding mitigation will depend upon these findings and any other relevant considerations.

Schoharie County Social Services and Mental Health/Addiction Services

The County Government and the project developer/casino operator should establish a committee at least a year before the casino opens to develop a monitoring and evaluation program on assessing if and how the casino operations is causing any growth in County residential addictive gambling or any other personal pathologies. State government will also be involved to

TAB

determine statewide implications of casino development on addictive gambling and other pathologies related. Three-years after it is opened an evaluation report should be issued to identify problems and identify and adopt mitigation measures.

Exhibit IX. A.4. HOUSING

This exhibit evaluates the likely impact on the housing stock of the host community and surrounding communities resulting from the new jobs to be at the proposed Howe Caverns casino and hotel project and the planned waterpark and hotel.

The assembled data is based upon assessing the applicable housing stock or market as being multicounty -at least the 5 counties , Schoharie and 4 surrounding counties, shown in table 1 below. The evaluation found no measurable potential adverse effects on the availability and cost/price of housing in this market for reasons as follows:

- Overwhelming majority of new jobs to be recruited for at the proposed project will be filled by persons currently living in the five county area and even some from beyond in the next ring. These people will commute relatively easily from their existing residences. A large majority will not seek to relocate to the Town of Cobleskill or other nearby communities. Of the projected first year employment - 634 low case, 813 average case and 907 high case scenarios – we expect only about 50, under any scenario, to be jobs filled by bringing specialists and management staff from outside the immediate area. These 50 or so, and with any families, will be dispersed in seeking housing in the general multi-county market area surrounding the casino location at Howe Caverns’
- Available data suggests sufficient housing stock will be available to those 50 possible out-of -area new hires and any small number of regional hires who might want to relocate closer to their new jobs. Table 1 shows for the Census year 2010 the vacant rental and for sale housing stock that was available in the 5 county area. There was large supply then relative to any demand due to prospective casino job holders.

Table 1: Housing Stock and Vacancies – 2010

<u>County</u>	<u>Total Housing Units</u>	<u>Vacant For Rent</u>	<u>Vacant for Sale</u>
Schoharie	17,231	246	242
Schenectady	68,196	1,839	747
Montgomery	23,063	590	350
Delaware	31,220	565	446
Otsego	<u>30,770</u>	<u>615</u>	<u>514</u>
Total Market Area	170,480	3,855	2,299

Source: 2010 Census of Population and Housing, American Factfinder website

While economic conditions are ever changing, based upon no major population growth and prevailing housing market supply conditions, there is ample reason to believe the general level of vacancies indicated in 2010 by Census data still prevails and will very likely continue for the next few years while the proposed project is built-out and opens and newly created jobs are filled. Therefore, the analyses completed does not support the need at present for any mitigation plans to remedy any adverse housing market consequences attributable to a shortness of supply and hence rising prices for sales housing or rental units. Further, there is not expected to be any such pressures in the near term, reflecting the facts and conditions noted above.

If anything, the casino and the waterpark facilities to be located at Howe's Caverns can generate a modest boom in construction of new housing in the general vicinity of the project site resulting in an economic benefit to the area

TAB

Exhibit IX. A.5. SCHOOL POPULATION

School Population Impact Analysis and Mitigation Considerations

The Cobleskill-Richmondville Central School District (School District) was created in 1993 when two neighboring school districts consolidated. The School District is a result of the combination of the Richmondville Central School District and the Cobleskill Central School District. This consolidation of two neighboring school districts gave the new School District the advantage to build new facilities as well as renovate existing buildings and acquire equipment to support a modern educational program with a lower than average tax rate.

The School District has a land area of about 181 miles within its boundaries in north-central Schoharie County, with small portions in Otsego and Montgomery Counties. The Village of Cobleskill is the largest municipality within the Town of Cobleskill and in Schoharie County. The School District centers around the Village of Cobleskill, the School District draws most of its students from the Towns of Cobleskill and Richmondville — however, students also come from 13 additional surrounding towns. The School District's current estimated population is 13,519. (Source: U.S. Census Bureau.)

Being the largest community in the county, the Village of Cobleskill is home to Bassett Hospital and SUNY Cobleskill. While public education is at the heart of our focus, neither the Act nor the gaming license application call for evaluation of the economic impacts on post-secondary school facilities but rather limit the focus on local school districts. However, the casino project developer recognizes SUNY Cobleskill will certainly provide the proposed casino, hotel and recreational facilities with new possibilities and opportunities to expand the college's programs and student employment options.

The School District serves about 1,800 students in kindergarten through 12th grade.

Since its inception, the merged district has invested more than \$70 million in facilities and equipment through voter-approved capital projects. These renovations initially connected the Ryder (grades K-2) and Golding Elementary (grades 3-5) buildings to the Golding Middle School (grades 6-8), housing three schools on one campus in the Village of Cobleskill. Each of the buildings experienced the addition of classrooms and renovation of learning and teaching spaces. The Radez Elementary School (grades K-5) added several new areas including 15 classrooms, a library, a gymnasium, and a student lunch room. The Cobleskill-Richmondville High School (grades 9-12) was brand-new construction, opening in 1998. The high school is located in the hamlet of Warnerville.

The State’s EXCEL project has allowed for safety and energy upgrades and the joining of the K-2 and 3-5 schools to become the Ryder Elementary School, serving grades K-5.

In 2011, the School District reconfigured the elementary schools, dedicating Ryder Elementary to K-2 and Radez Elementary to 3-5. William H. Golding Middle School serves students in grades 6-8 and Cobleskill-Richmondville High School serves students in grades 9-12. School District instructional staff consists of roughly 180 teachers, who are supported by six principals and assistant principals.

C.R.E.S.T. (Cobleskill-Richmondville Education Support Team) serves as the district’s parent/teacher organization.

The table below provides an overview of the correlation between student enrollment and the annual adopted school budgets.

School Year	2010	2011	2012	2013	2014
Student Population					
w/o Home Schooled	2,003	1,949	1,873	1,834	1,800
w. Home Schooled	2,047	1,994	1,933	1,893	1,865
Adopted Budget	36,082,646	\$34,168,511	\$35,057,119	\$36,570,653	\$37,583,403

In recent years, School District officials, like others across the State, have initiated a variety of cost-saving measures to address declining

enrollment, decreasing revenues and increasing costs. The School District has stayed under its tax levy limit for the last two years. While cost-saving measures together with the establishment of tax levy limits has temporarily stabilized school spending, budget creep remains likely without a major new source of revenues.

In the last five reportable years, the School District has not closed school buildings but has experienced a slow but steady decline in enrollment from 2,003 in school year 2010 down to 1,800 in school year 2014. The pattern of declining enrollment is a longstanding condition with the School District projecting school enrollment will decrease another 100 students in the next five-years.

The expected decline in student enrollment, suggests that the School District could serve more students especially at school facilities that are underutilized. Ryder Elementary (K- grade 2) is currently operating at an estimated 85% capacity, and Radez Elementary (grades 3-5) is at an estimated 98 percent capacity, William H. Golding Middle (grades 6-8) is at an estimated 90 percent capacity and Cobleskill-Richmondville High School (grades 9-12) is at an estimated 85 percent capacity. The School District serves tuition students from neighboring school districts (currently ten different districts) within special education programs housed within all four district buildings.

Declining enrollment also makes it difficult to balance class sizes and that condition may require future realignment of certain school facilities.

Given the data shows underutilized classroom space in certain school facilities, the School District can absorb an increase in school age children especially in the primary school and in the high school both of which have experienced sharper declines in student populations than the middle school.

Without knowing in advance the number of new students that will actually enter the School District and at what grade levels due to the

project's construction will require future evaluation of school bus transportation factors including specific bus routes and school bus fleet and driver needs. School District officials state they would like assurances that traffic patterns will be evaluated especially in the Eastern portion of the district, as it relates to morning and afternoon bus routes. They further advised there is a bridge on Shady Tree Lane that needs reconstruction, and is a second access to State Route 7 from Barnerville Road (currently Cavern Road is the only direct road to State Route 7 from Barnerville). Addressing the bridge repair is commonly a public safety issue for responsible government jurisdictions to explore, however, to the extent increased vehicular traffic, especially expected bus traffic will use this bridge and the surrounding roadways to access the proposed project could make the infrastructure in question a potential candidate for mitigation.

Because the proposed casino project involves primarily commercial, rather than residential development, it will not of itself increase the number of school children in the School District although there's the likelihood a number of new residents from outside the area will find employment at the proposed casino and hotel and recreational facilities. While the proposed casino project will offer a broad spectrum of wages ranging from six-figure upper management level positions to highly skilled gaming and support positions, along with numerous entry level positions that will primarily benefit area individuals who are unemployed or underemployed. The management level and skilled positions with higher wages are the ones that will likely attract people from outside the host and surrounding municipalities because those individuals are likely to relocate for career advancement opportunities attributable to higher-paying positions.

Preliminary data shows 82 positions at the proposed project involve various categories of professional and management level positions some of whom will likely come from outside the immediate area, where those individuals settle and whether or not they have school age children are

unknown (details in VIII.B.4.vi). Often, it is advantageous for high-level employees to live within the community of the employer they serve. To that end, School District officials are hopeful casino project developers will consider making a sum of money available (beyond the tax revenue that would come with the building of the casino) to the School District, so that the School District may enhance student opportunities across the entire district, and specifically, elective courses within the high school. Additionally, such support could enable the reduction of class sizes, which are reportedly running between 20-23 in the primary school, 23-25 in the upper elementary school, and 26-28 in the middle school. School District officials maintain such funds could support expansion of technology to provide additional electives, and build the capacity of the district to deepen the quality of educational offerings, which will undoubtedly be a primary concern for those at the management level considering moving their school-aged children to the community.

The proposed casino project is not expected to have any significant impact on the population of school age children in the School District given that new employees needed to staff the proposed casino project including its hotels and recreational facilities are expected to largely come from the local population and not cause any significant movement of the workforce from one school district to a neighboring school district. Rather, educational facilities in the School District will benefit financially from the proposed casino project. The increased valuations of the parcels and facilities within the proposed casino project are likely to result in increased school tax revenue but future actions by the Governor and State Legislature could alter current State educational aid. In addition, the School District is expected to share in the proceeds of the 80 percent share of the State's tax revenues that will be used across-the-state for elementary and secondary education or property tax relief. According to State officials, the educational aid from the State will be additive and will not be part of the State's existing education formulae.

School District officials maintain the current State aid formulas are not

currently positive for the school system. Because the combined wealth ratio for the School District is below the floor for computing State aid, they assert the School District receives the same amount of aid as districts with higher wealth (under current State aid distribution formulae). Additionally, the Gap Elimination Adjustment (GEA) imposed by the State has brought about a cumulative aid loss of \$14,237,717 for the years 2010-11 through 2014-15. The additional revenues from the casino will initially assist in rebuilding the vast reductions that have occurred in the past five years. While the shortfall in State aid, combined with the tax cap, probably has contributed to the School District's inability to deal with the larger class sizes, educational funding decisions by the State do not constitute mitigation issues.

However, additional assistance from the project should help accelerate the strengthening of school district opportunities and quality.

B. REGIONAL TOURISM AND ATTRACTIONS

TOURISM JOB INVESTMENT FUND
LANGUAGE

TAB

Exhibit IX. B.1. LOCAL BUSINESS PROMOTION

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("Memorandum") is made on June 24, 2014, by and between Howe Caverns Resort and Casino, a Delaware LLC ("Howe Caverns"), and the County Industrial Development Agency that is a signatory below ("IDA")(each a "Party" and collectively "the Parties") for the purpose of pledging their mutual support and cooperation toward achieving the job creation and economic development objectives enumerated in the Upstate New York Gaming Economic Development Act of 2013 ("Gaming Act") in conjunction with a resort and casino gaming development ("Project") to be located at Howe Caverns in Cobleskill, New York.

WHEREAS, the Parties desire to enter into an agreement pledging to work cooperatively together in good faith to employ their best efforts to serve and enhance the employment and economic development needs of the region they serve;

AND WHEREAS, the intent of the Gaming Act is to allow the selected regions of the State to fully capitalize on the economic development potential of legalized casino gambling;

AND WHEREAS, the Gaming Act acknowledges that appropriately regulated gaming resort developments in upstate New York can boost economic development, create thousands of well-paying jobs, and provide added revenue to the state and local governments;

AND WHEREAS, the Gaming Act acknowledges that the upstate New York tourism industry constitutes a critical component of our State's economic infrastructure and that upstate casinos will help attract non-New York residents and bring downstate New Yorkers to upstate;

AND WHEREAS, the Gaming Act provides that the local benefits to be derived from the casino sites will be considered in the casino evaluation process and revenue realized from casinos shall be utilized to increase support for education and to provide real property tax relief to localities;

THEREFORE, in consideration of the foregoing provisions, and in further consideration of the potential benefits the provisions of the Gaming Act could bring to our region through the Project, the Parties do hereby agree to work cooperatively and pledge their support for the Project proposed by Howe Caverns;

MOREOVER, and in addition, Howe Caverns agrees that it shall at all times use its best efforts to ensure that the Project:

- Is operated in a responsible, efficient, and businesslike manner to generate maximum revenue in support of the localities within the region;
- operates in partnership with and promotes local hotels, restaurants, and retail facilities so that patrons experience the full diversified regional tourism industry;
- implements a workforce development plan that utilizes the existing labor force, including both the construction of the Project and its operation thereafter;
- develops workforce training programs that serve the local under- and un-employed populations and works with the counties within the region to develop methods for residents within the region to access employment at the gaming facility;
- establishes, funds, and maintains human resource hiring and training practices that promote and enhance the development of a locally-based skilled and diverse workforce;

- purchases, whenever possible, local goods and services to be used in all phases of the construction and operation of the Project; and
- establishes a fair and reasonable partnership with regional live entertainment venues under which the Project actively supports the mission and the operation of the entertainment venues.

WHEREFORE, although the Parties acknowledge that no contractual relationship is created between them by this Memorandum, it is the Parties clear and unambiguous intent to work together in the true spirit of partnership to ensure that this Memorandum represents a meaningful and tangible statement of support by the Parties for the Project and for the representations and agreements of the Parties contained herein.

This Memorandum is accepted and agreed to by the following Parties giving their signatures below and shall be deemed effective as of the date contained in the first paragraph above:

Howe Caverns Resort and Casino, LLC
By:

Schoharie County IDA
By:

Ronald Wilma / CEO

DRAFT
Memorandum of Understanding
26 June 2014

This Memorandum of Understanding executed by Upstate Theater Coalition for a Fairgame LLC, see Appendix A, ("Fairgame"), 432 State Street, Schenectady, NY 12305, Saratoga Performing Arts Center, Saratoga; Saratoga City Center, Saratoga, Proctors, Schenectady, the Palace Performing Arts Center, Albany; the Troy Music Hall, Troy and the Times Union Center, Albany (being collectively referred to as the "Venues"), and Howe Caverns Resort and Casino, LLC, a New York based company, 255 Discovery Dr, Howe ("Casino Developer").

The parties recognizes that New York State is in the process of selecting live gaming operators for each of three regions in the state and that the New York State Gaming Commission has made clear the need for applicant gaming operators to "actively support the mission and operation of impacted live entertainment venues..."

It is the intent of the Casino Developer to construct and operate a Gaming Facility without an indoor entertainment facility, but with a significant dinosaur attraction/theater. This agreement is based on the foregoing intent and should the casino venue size, seats, number of events per year increase or include regular headliners, the parties will negotiate an amendment of the understanding reflected herein, and any more formal agreement reflecting such understanding, to offset the effect on the Venues of an expansion by Casino Developer in the number of

entertainment events or the capacity of the Entertainment Facility (including construction of one or more new or additional facilities).

Recognizing that it is not the intent of the Casino Developer to cause harm to the live entertainment facilities at the Venues, the following actions are to be put into place and acknowledged in the Casino Developer's application for a New York Gaming Facility License and will continue during the entire life of the Casino Developer's (or its assigns) license (if awarded) and any renewals thereof, unless earlier terminated in accordance with the provisions hereof:

- 1) Casino Developer, if awarded, a New York Gaming Facility License, will promote events of the Venues and use its gaming "loyalty" programs to purchase and distribute tickets for admission to events at the Venues.
- 2) Casino Developer and the Venues will establish joint marketing agreements, including agreements covering such matters as program sponsorships, ticketing kiosks, lodging package programs, in room promotions, and ticket purchases, etc.
- 3) Casino Developer will support the Venues, with a quarterly payment to Fairgame (to be divided among and paid to the Venues and Fairgame in accordance with the agreement among the Venues and Fairgame noted in Appendix A) of \$175,000 per year for the life of the

license, which will be utilized as outlined in Appendix A. Should the Casino Developer expand its Entertainment Facility, construct one or more new facilities or arrange for regular headline live performance events in a year, the Casino Developer will promptly notify the other parties hereto of such planned activities and all parties will promptly thereafter negotiate an additional amount (but not less than \$1,000,000 per year), to be paid to Fairgame each year commencing with the year that such plans are realized in whole or in part. In determining the additional amount, the parties shall consider the anticipated negative impact of such activities on each Venue based upon, among other factors, (i) the increase in the capacity of the Entertainment Facility and/or increase in the number of annual live performances, (ii) the proposed use of such expanded or new facilities, and (iii) the distance of the Entertainment Facility from the location of each Venue. The agreed amount will be divided among and paid to the Venues and Fairgame in such manner as the Venues and Fairgame may agree, taking into account the anticipated negative impact on each Venue based upon the foregoing factors. If the parties are unable to agree on the additional amount or the Venues and Fairgame are unable to agree on the allocation of the agreed amount, the dispute shall be resolved by arbitration among the applicable parties in New York City before an impartial arbitrator or tribunal.

The parties understand that the agreement contemplated hereby is not exclusive and that

Fairgame may enter into agreements with other applicants for a New York Gaming Facility License.

It is the intent of the parties to incorporate the understanding of the parties hereto into a more formal agreement, including the foregoing terms and provisions, as well as such other terms and conditions as may be normal and customary in the industry with regard to similar agreements. Until such more formal agreement is prepared and executed, this Memorandum shall be binding and enforceable upon the parties, it being understood this Memorandum shall be of no force or effect if Casino Developer is not awarded a New York Gaming Facility License and each of the Venues may terminate this Memorandum as to it, if it believes, in the exercise of its reasonable judgment, that the agreement contemplated by this Memorandum could be detrimental to its mission or operations.

If any provision of this Memorandum shall be determined by any applicable New York State Gaming Facility regulatory authority or other applicable authority to be inconsistent or in violation of applicable laws or regulations, the parties shall negotiate in good faith to amend this Memorandum to bring it into compliance with applicable laws or regulations, while preserving the general intentions of the parties expressed hereunder.

HOWE CAVERNS RESORT AND CASINO, LLC

By: 
MANAGER



Philip Morris, CEO, Proctors, Schenectady; Chair, Fairgame



Marcia White, President and CEO, SPAC, Saratoga



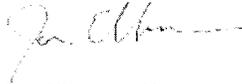
Holly Brown, Executive Director, Palace, Albany



Mark Baker, Executive Director, Saratoga City Center, Saratoga



Bob Belber, General Manager, TU Center, Albany



Jon Elbaum, Executive Director, Troy Savings Bank Music Hall, Troy



Mark Eagan, President, Albany-Colonie Regional Chamber

Tourism and Jobs Investment Fund

The Howe Caverns and Resort and Casino will create a special fund called the “Tourism and Jobs Investment Fund.”

The purpose of the fund will be to assist in the tourism promotion and awareness of buying and hiring within the local community.

The fund will be seeded with \$1,000,000. From there, up to 2.5% of revenue from both the casino hotel and waterpark hotel will be set aside annually into a special fund that will be specifically allocated to promote local businesses and area tourism, and support workforce development.

Through programs established within the local chambers of commerce, the funds will be used to create public awareness that places importance on supporting local businesses. This will help to stimulate the local economy and encourage small businesses to start up or invest in their own growth.

The fund will help to promote local tourist attractions such the National Baseball Hall of Fame, Cooperstown Dreams Park, beverage trails, farmers markets, ski resorts, hiking trails, historical museums, theaters, concert venues, Glimmerglass Opera, the Herkimer Diamond Minds and a host of other regional and local attractions.

The fund will support training opportunities at SUNY Cobleskill, specifically their Hotel Management and Culinary Arts programs. The fund will also support the Casino Management program at Schenectady County Community College as well as create a casino management program at SUNY Cobleskill.

Creating a local workforce that is highly trained and ready to work will be essential building blocks for long-term revitalization and ongoing success of the local economy. This will create a strong economic engine that will be the core of a successful economy.

TAB

Exhibit IX. B.2. PARTNERSHIPS WITH LIVE ENTERTAINMENT VENUES

Exhibit IX. B.2.a. Agreements with Impacted Entertainment Venues

DRAFT

Memorandum of Understanding

26 June 2014

This Memorandum of Understanding executed by Upstate Theater Coalition for a Fairgame LLC, see Appendix A, ("Fairgame"), 432 State Street, Schenectady, NY 12305, Saratoga Performing Arts Center, Saratoga; Saratoga City Center, Saratoga, Proctors, Schenectady, the Palace Performing Arts Center, Albany; the Troy Music Hall, Troy and the Times Union Center, Albany (being collectively referred to as the "Venues"), and Howe Caverns Resort and Casino, LLC, a New York based company, 255 Discovery Dr, Howe ("Casino Developer").

The parties recognizes that New York State is in the process of selecting live gaming operators for each of three regions in the state and that the New York State Gaming Commission has made clear the need for applicant gaming operators to "actively support the mission and operation of impacted live entertainment venues..."

It is the intent of the Casino Developer to construct and operate a Gaming Facility without an indoor entertainment facility, but with a significant dinosaur attraction/theater. This agreement is based on the foregoing intent and should the casino venue size, seats, number of events per year increase or include regular headliners, the parties will negotiate an amendment of the understanding reflected herein, and any more formal agreement reflecting such understanding, to offset the effect on the Venues of an expansion by Casino Developer in the number of

entertainment events or the capacity of the Entertainment Facility (including construction of one or more new or additional facilities).

Recognizing that it is not the intent of the Casino Developer to cause harm to the live entertainment facilities at the Venues, the following actions are to be put into place and acknowledged in the Casino Developer's application for a New York Gaming Facility License and will continue during the entire life of the Casino Developer's (or its assigns) license (if awarded) and any renewals thereof, unless earlier terminated in accordance with the provisions hereof:

- 1) Casino Developer, if awarded, a New York Gaming Facility License, will promote events of the Venues and use its gaming "loyalty" programs to purchase and distribute tickets for admission to events at the Venues.
- 2) Casino Developer and the Venues will establish joint marketing agreements, including agreements covering such matters as program sponsorships, ticketing kiosks, lodging package programs, in room promotions, and ticket purchases, etc.
- 3) Casino Developer will support the Venues, with a quarterly payment to Fairgame (to be divided among and paid to the Venues and Fairgame in accordance with the agreement among the Venues and Fairgame noted in Appendix A) of \$175,000 per year for the life of the

license, which will be utilized as outlined in Appendix A. Should the Casino Developer expand its Entertainment Facility, construct one or more new facilities or arrange for regular headline live performance events in a year, the Casino Developer will promptly notify the other parties hereto of such planned activities and all parties will promptly thereafter negotiate an additional amount (but not less than \$1,000,000 per year), to be paid to Fairgame each year commencing with the year that such plans are realized in whole or in part. In determining the additional amount, the parties shall consider the anticipated negative impact of such activities on each Venue based upon, among other factors, (i) the increase in the capacity of the Entertainment Facility and/or increase in the number of annual live performances, (ii) the proposed use of such expanded or new facilities, and (iii) the distance of the Entertainment Facility from the location of each Venue. The agreed amount will be divided among and paid to the Venues and Fairgame in such manner as the Venues and Fairgame may agree, taking into account the anticipated negative impact on each Venue based upon the foregoing factors. If the parties are unable to agree on the additional amount or the Venues and Fairgame are unable to agree on the allocation of the agreed amount, the dispute shall be resolved by arbitration among the applicable parties in New York City before an impartial arbitrator or tribunal.

The parties understand that the agreement contemplated hereby is not exclusive and that

Fairgame may enter into agreements with other applicants for a New York Gaming Facility License.

It is the intent of the parties to incorporate the understanding of the parties hereto into a more formal agreement, including the foregoing terms and provisions, as well as such other terms and conditions as may be normal and customary in the industry with regard to similar agreements. Until such more formal agreement is prepared and executed, this Memorandum shall be binding and enforceable upon the parties, it being understood this Memorandum shall be of no force or effect if Casino Developer is not awarded a New York Gaming Facility License and each of the Venues may terminate this Memorandum as to it, if it believes, in the exercise of its reasonable judgment, that the agreement contemplated by this Memorandum could be detrimental to its mission or operations.

If any provision of this Memorandum shall be determined by any applicable New York State Gaming Facility regulatory authority or other applicable authority to be inconsistent or in violation of applicable laws or regulations, the parties shall negotiate in good faith to amend this Memorandum to bring it into compliance with applicable laws or regulations, while preserving the general intentions of the parties expressed hereunder.

HOWE CAVERNS RESORT AND CASINO, LLC

By:  _____
MANAGER



Philip Morris, CEO, Proctors, Schenectady; Chair, Fairgame



Marcia White, President and CEO, SPAC, Saratoga



Holly Brown, Executive Director, Palace, Albany



Mark Baker, Executive Director, Saratoga City Center, Saratoga



Bob Belber, General Manager, TU Center, Albany



Jon Elbaum, Executive Director, Troy Savings Bank Music Hall, Troy



Mark Eagan, President, Albany-Colonie Regional Chamber

TAB

Exhibit IX. B.2.b. Declined Agreements

None

TAB

Exhibit IX. B.3. LOCAL BUSINESS OWNERS

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("Memorandum") is made on June 24, 2014, by and between Howe Caverns Resort and Casino, a Delaware LLC ("Howe Caverns"), and the County Industrial Development Agency that is a signatory below ("IDA")(each a "Party" and collectively "the Parties") for the purpose of pledging their mutual support and cooperation toward achieving the job creation and economic development objectives enumerated in the Upstate New York Gaming Economic Development Act of 2013 ("Gaming Act") in conjunction with a resort and casino gaming development ("Project") to be located at Howe Caverns in Cobleskill, New York.

WHEREAS, the Parties desire to enter into an agreement pledging to work cooperatively together in good faith to employ their best efforts to serve and enhance the employment and economic development needs of the region they serve;

AND WHEREAS, the intent of the Gaming Act is to allow the selected regions of the State to fully capitalize on the economic development potential of legalized casino gambling;

AND WHEREAS, the Gaming Act acknowledges that appropriately regulated gaming resort developments in upstate New York can boost economic development, create thousands of well-paying jobs, and provide added revenue to the state and local governments;

AND WHEREAS, the Gaming Act acknowledges that the upstate New York tourism industry constitutes a critical component of our State's economic infrastructure and that upstate casinos will help attract non-New York residents and bring downstate New Yorkers to upstate;

AND WHEREAS, the Gaming Act provides that the local benefits to be derived from the casino sites will be considered in the casino evaluation process and revenue realized from casinos shall be utilized to increase support for education and to provide real property tax relief to localities;

THEREFORE, in consideration of the foregoing provisions, and in further consideration of the potential benefits the provisions of the Gaming Act could bring to our region through the Project, the Parties do hereby agree to work cooperatively and pledge their support for the Project proposed by Howe Caverns;

MOREOVER, and in addition, Howe Caverns agrees that it shall at all times use its best efforts to ensure that the Project:

- Is operated in a responsible, efficient, and businesslike manner to generate maximum revenue in support of the localities within the region;
- operates in partnership with and promotes local hotels, restaurants, and retail facilities so that patrons experience the full diversified regional tourism industry;
- implements a workforce development plan that utilizes the existing labor force, including both the construction of the Project and its operation thereafter;
- develops workforce training programs that serve the local under- and un-employed populations and works with the counties within the region to develop methods for residents within the region to access employment at the gaming facility;
- establishes, funds, and maintains human resource hiring and training practices that promote and enhance the development of a locally-based skilled and diverse workforce;

- purchases, whenever possible, local goods and services to be used in all phases of the construction and operation of the Project; and
- establishes a fair and reasonable partnership with regional live entertainment venues under which the Project actively supports the mission and the operation of the entertainment venues.

WHEREFORE, although the Parties acknowledge that no contractual relationship is created between them by this Memorandum, it is the Parties clear and unambiguous intent to work together in the true spirit of partnership to ensure that this Memorandum represents a meaningful and tangible statement of support by the Parties for the Project and for the representations and agreements of the Parties contained herein.

This Memorandum is accepted and agreed to by the following Parties giving their signatures below and shall be deemed effective as of the date contained in the first paragraph above:

Howe Caverns Resort and Casino, LLC
By:

Schoharie County IDA
By:

Ronald Wilma / CEO



Bread Basket of the American Revolution

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,

Shirley Ball
President
Schoharie County Farm Bureau



PO Box 92
321 Main Street
Schoharie, NY 12157
518-702-5084
www.hive321.com

June 26, 2014

Dear Governor Cuomo and New York State Gaming Commission:

As a new, small business owner in the Village of Schoharie, I ask that you give serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region. You are aware that Schoharie County suffered incredible loss during the flooding caused by Hurricanes Irene and Lee. The county is still suffering from this disaster. During our time of distress, Governor, you literally stood with us shoulder to shoulder to help pick up the pieces.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism. Howe Caverns' close proximity to Albany, Cooperstown, and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region in the state.

Please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State. For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

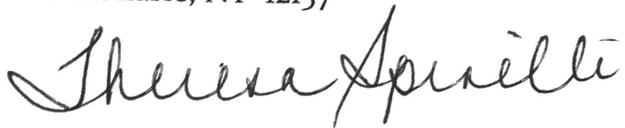
Your approval will be the much needed shot in the arm that this region needs.

Sincerely,

Theresa Spinelli
Owner/Manager

hive

321 Main Street
Schoharie, NY 12157

A handwritten signature in cursive script that reads "Theresa Spinelli". The signature is written in black ink and is positioned below the typed name and address.

Long House Holdings, LLC

Emil Galasso
Howe Caverns Resort and Casino
Cobleskill, NY 12043

June 27, 2014

Dear Mr. Galasso,

As per our phone call I am writing to let you know we are very interested in creating a brew pub in the proposed casino located on the Howe Cavern Site. We believe the Cobleskill location is best suited to create a resort atmosphere, setting this site apart from the other proposed locations. Craft brewing is a perfect adjunct to the gaming world where there is fun with a touch of class.

As you know the craft brewery industry is continuing on an explosive growth path. The interest lies beyond the beer and flows deeply into the social fabric of our nature. People crave the overall experience of seeing where their beer is made and to have a good meal in a comfortable social environment. This is a great combination with either the excitement of gaming or to have a meal with the family in a comfortable environment

I have been involved with the beer industry in the Cooperstown area and have experienced its growth as a consumer product and as a tourist draw. I have a background in engineering and will ensure we create an efficient state-of-the-art system. Our experienced team will manage the brewing process and help create an overall experience that includes tours, tastings and a great meal.

We look forward to working with your organization on this exciting and economically transforming project.

Thank you

Sincerely,



John Lorence

President

Long House Holding, LLC

COBLESKILL STONE PRODUCTS, INC.

112 Rock Road., P.O. Box 220

Cobleskill, NY 12043

(518) 234-0221

FAX #(518) 234-0226

Dear Governor Cuomo and the Casino Location Board,

On behalf of Cobleskill Stone, I ask you to give serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

Allowing a casino in Schoharie County will have an incredible impact on our local and regional economy. Schoharie County currently experiences a high unemployment rate and as we attempt to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

Cobleskill Stone will specifically benefit, as we will have an opportunity to be involved during the construction stage of the resort and casino. This will create several new jobs and help bring new revenues to our community even before the doors open on a new resort.

Schoharie County suffered incredible loss during the flooding caused by Hurricanes Lee and Irene. Our economic recovery has been exasperated by these disasters.

Cobleskill Stone, in business for over 60 years in Schoharie County, has been fortunate enough to be resilient during this time of economic distress. Allowing this plan for a resort and casino will not only benefit us, but our entire community will have the opportunity to enjoy the benefits of full come back.

I respectfully ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

Your approval will be the boost this community and region needs.

Sincerely,



Noble ACE Hardware

783 East Main Street #1
Cobleskill, NY 12043
518 234 3518

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

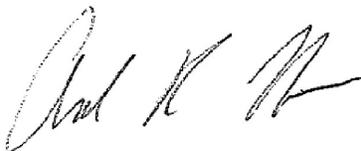
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,



ANDREW R NOBLE
SENIOR MANAGER / OWNER



PO Box 92
321 Main Street
Schoharie, NY 12157
518-702-5084
www.hive321.com

June 26, 2014

Dear Governor Cuomo and New York State Gaming Commission:

As a new, small business owner in the Village of Schoharie, I ask that you give serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region. You are aware that Schoharie County suffered incredible loss during the flooding caused by Hurricanes Irene and Lee. The county is still suffering from this disaster. During our time of distress, Governor, you literally stood with us shoulder to shoulder to help pick up the pieces.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism. Howe Caverns' close proximity to Albany, Cooperstown, and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region in the state.

licenses to be awarded by New York State. For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

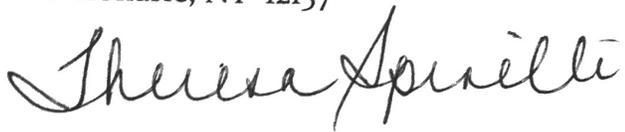
Your approval will be the much needed shot in the arm that this region needs.

Sincerely,

Theresa Spinelli
Owner/Manager

hive

321 Main Street
Schoharie, NY 12157

A handwritten signature in cursive script that reads "Theresa Spinelli". The signature is written in black ink and is positioned below the typed name and address.



June 23, 2014

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces – literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,

Maple Downs Farms II, LLC
David L. and Denise M. Lloyd
Jason D. and Gregory L. Lloyd

Maple Downs Farms II, LLC
167 Amelia Lane, Middleburgh, NY 12122 | (518) 827-4552 | www.mapledowns.com
www.holsteinworld.com/mapledowns/



494 Western Turnpike, Altamont, New York 12009
T: (518) 355-6034 F: (518) 356-7282

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the Country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

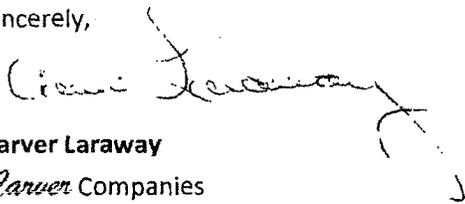
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces – literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,



Carver Laraway

Carver Companies

494 Western Turnpike

Altamont, New York 12009

Tel (518) 355-6034 Ext 109

Fax (518) 356-7282

claraway@carverstone.com

VanDyke Enterprises, Inc.

Established 1969



Onistagawa

Governor Andrew M. Cuomo
Governor of the State of New York
NY State Capital Building
Albany, NY, 12224

June 24, 2014

Dear Governor Cuomo,

We the undersigned businesses and business leaders of Schoharie County and the neighboring communities ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from all over the country, will be easily expanded on to create a successful casino and resort in Schoharie County.

Howe Cavern's close proximity to Albany, Cooperstown and New York City as well as the ski resorts of the Northern Catskills region make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces – literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich. It is about the rebirth of a hard working community whose goal it is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the shot in the arm this region needs.

Sincerely,

Georgia A. VanDyke
President



Apple Barrel Country Store and Cafe
115 State Route 30A
Schoharie, NY 12157
518-295-7179 Phone
518-295-7167 Fax
info@applebarrelcountrystore.com
www.applebarrelcountrystore.com



We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in New York State, the highest in the Capital Region. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces-literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,



Jessica Loden Kirby
Managing Director

Dear Governor Cuomo and the NYS Casino Gaming Location Board,

This letter is not only to express my support for a resort and casino to be located in Cobleskill, NY, but to also demonstrate my enthusiasm to become a partner with the operator of the facility.

As the head Golf Professional at the Cobleskill Golf and Country Club, I look forward to developing a partnership with the Howe Caverns Resort and Casino.

As I'm sure you are aware, recreational businesses like golf courses are the first to feel the effects from a depressed economy. However, when it comes to promoting an area to potential businesses and new residents quality of life is an important factor.

A new destination resort will not only directly help our business, but will put Schoharie County in a better position for future growth and prosperity through job creation and economic revitalization.

A partnership with this new resort will create a better destination for tourist, while also strengthening our position to serve the immediate and surrounding area.

It is my hope that you will give serious consideration to awarding a casino gaming license to Howe Caverns.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads "Paul Jaycox". The signature is written in a cursive, flowing style.

Paul Jaycox, Head Golf Professional
Cobleskill Golf and Country Club



THE HARVA COMPANY, INC.

100 FAIR STREET
SCHOHARIE, N.Y. 12157
PHONE (518) 205-8101
FAX (518) 295-7827
EMAIL harva@harva.com

June 26, 2014

TO: The Honorable Governor Andrew Cuomo
Members of the New York State Gaming Commission

I write this letter in support of locating a casino in Schoharie County, specifically at the Howe Caverns Property. Having lived in Schoharie County since 1945, I can almost call myself a native. The changes I have witnessed over the years have not been positive in nature. We have lost so many businesses and services. When good jobs are no longer to be found, people, especially our youth, leave the area. This, in turn, negatively affects the businesses that have chosen to stay. To add to our already poor economic climate, the 2011 flood caused by Hurricane Irene devastated the entire Schoharie Valley, and many residents and businesses are still in a recovery mode.

A casino at Howe Caverns could do so much to help put our struggling county back together again. Adding thousands of good jobs as well as fostering more business for existing establishments and even creating an opportunity for entrepreneurs to grow new businesses.

On a personal level, as owner of a small, female-owned manufacturing firm operating in Schoharie since 1949, we see a real opportunity to supply various parts in support of table games and other areas within the casino. This additional business would go a long way in helping us recover from the damage done by Irene.

As you make your decision regarding this application, please consider the positive economical impact a casino would mean to one of the poorest counties in the state.

Sincerely,

A handwritten signature in cursive script that reads "Susan K. McGiver".

Susan K. McGiver
President, The Harva Company, Inc.

SKM/kb

Plastics Fabricators and Distributors since 1949

JOANNE DARCY CRUM, L.S.
PROFESSIONAL LAND SURVEYOR

25 June 2014

Governor Andrew Cuomo
New York State Capitol Building
Albany, New York
12224

Dear Governor Cuomo,

Please accept these comments in support of the Howe Caverns Casino proposal.

As an employer in Schoharie County I cannot understate the importance of job creation, retention and general economic development Howe Caverns has offered this community and the entire region. Howe Caverns is already an economic driver and the addition a casino will promote the growth this area needs so desperately.

A casino at Howe Caverns will add to the tax base and provide excellent job opportunities. As important will be the fact that our youth will have the ability to get a good education and return to this community to be productive members of our society. It was with great sadness that my own daughter and son in law were unable to find careers in their field in this locale and moved elsewhere. The economy since then has worsened due to the devastating flooding from Hurricane Irene and Tropical Storm Lee.

My business is very small but sir, it pays for mortgages and taxes for five homes in this community. My employees want to be here and cooperate even when I am unable to provide cost of living increases let alone the performances increases they are so deserving of. My business and my employees are committed to this county and region. I hope we can expect support from your administration as we continually try to grow and improve our beautiful county and our way of life. A casino would go far to enhance our efforts and Howe Caverns is a perfect venue for that undertaking.

Howe Caverns offers a unique opportunity to blend the natural and historic Caverns with the many people who would come to a Casino venue. With a strong tourist draw of nearly 200,000 visitors each year it will be a true destination resort, and proximity to the Capital and Leatherstocking Regions will create a remarkable symbiosis for other tourist and business opportunities.

I ask for your support in this important venture to create a destination resort casino.

Yours truly,



Joanne Darcy Crum

479 WEST MAIN STREET * COBLESKILL, NEW YORK 12043
TELEPHONE 518-234-4650 * FAX 518-234-7405
JOANNE@JDARCYCRUM.COM

Dear Governor Cuomo and New York State Gaming Commission,

We, the undersigned businesses and business leaders of Schoharie County and the neighboring communities, including the counties of Delaware, Greene, Otsego, Montgomery and Schenectady, ask you to give your utmost serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

The proposed site at Howe Caverns provides a unique opportunity to expand upon one of New York State's oldest natural attractions to create a true tourist destination resort. Already more than 200,000 people visit Howe Caverns each year, with nearly 500,000 tourists visiting attractions in the surrounding region.

This built-in base that includes people from not only all over the Country, but the world, will be easily expanded on to create a successful casino and resort in Schoharie County, a true family destination that would support regional tourism.

Howe Caverns' close proximity to Albany, Cooperstown and New York City, as well as the ski resorts of the Northern Catskills region, make the site a centrally located regional attraction that will benefit several localities and businesses for miles.

Allowing a casino in Schoharie County will have an extraordinary impact on our local and regional economy. Schoharie County currently experiences one of the highest unemployment rates in the Capital region, as well as in New York State. As we look to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

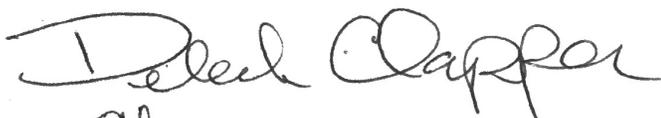
As you are aware, Schoharie County suffered incredible and heartbreaking loss during the flooding caused by Hurricanes Lee and Irene, and the county is still suffering from this disaster. During our time of distress, Governor, you stood with us shoulder to shoulder to help pick up the pieces - literally.

We now ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

For all of us, the plan to build a destination resort and casino is not about making money or getting rich, it is about the rebirth of a hard working community whose goal is to pick ourselves up, achieve greatness and provide opportunity for future generations.

Your approval will be the much needed shot in the arm that this region needs.

Sincerely,



Clapper's Glass Bar

Main St. Schoharie NY.

June 23, 2014

Dear Governor Cuomo and NYS Gaming Commission,

We as residents and business owners in Schoharie, New York ask that you give Howe Caverns your most serious consideration as the location to be awarded a gaming license in the Capital Region.

There are many reasons which we are sure you are aware of, Howe Cavern is already a tourist attraction, centrally located to all of New York's finest attractions, the most beautiful landscape & panoramic views in the region, but most off all this will help our efforts for recovery from devastating flooding and economic hardships from Hurricane Irene.

Our motivation slogan has been "Schoharie Strong" as we work towards our goal of bringing vitality & prosperity back to the Schoharie region. We truly feel the gaming license is the boost we need in making our goal a reality.

Thank you for your consideration and we trust your approval.

Sincerely,

James & Nancy Cooke
Village Hardware of Schoharie
4291 State Route 7
Schoharie, NY 12157

TAB

Exhibit IX. B.4. LOCAL AGREEMENTS

Long House Holdings, LLC

Emil Galasso
Howe Caverns Resort and Casino
Cobleskill, NY 12043

June 27, 2014

Dear Mr. Galasso,

As per our phone call I am writing to let you know we are very interested in creating a brew pub in the proposed casino located on the Howe Cavern Site. We believe the Cobleskill location is best suited to create a resort atmosphere, setting this site apart from the other proposed locations. Craft brewing is a perfect adjunct to the gaming world where there is fun with a touch of class.

As you know the craft brewery industry is continuing on an explosive growth path. The interest lies beyond the beer and flows deeply into the social fabric of our nature. People crave the overall experience of seeing where their beer is made and to have a good meal in a comfortable social environment. This is a great combination with either the excitement of gaming or to have a meal with the family in a comfortable environment

I have been involved with the beer industry in the Cooperstown area and have experienced its growth as a consumer product and as a tourist draw. I have a background in engineering and will ensure we create an efficient state-of-the-art system. Our experienced team will manage the brewing process and help create an overall experience that includes tours, tastings and a great meal.

We look forward to working with your organization on this exciting and economically transforming project.

Thank you

Sincerely,



John Lorence

President

Long House Holding, LLC

Tourism and Jobs Investment Fund

The Howe Caverns and Resort and Casino will create a special fund called the “Tourism and Jobs Investment Fund.”

The purpose of the fund will be to assist in the tourism promotion and awareness of buying and hiring within the local community.

The fund will be seeded with \$1,000,000. From there, up to 2.5% of revenue from both the casino hotel and waterpark hotel will be set aside annually into a special fund that will be specifically allocated to promote local businesses and area tourism, and support workforce development.

Through programs established within the local chambers of commerce, the funds will be used to create public awareness that places importance on supporting local businesses. This will help to stimulate the local economy and encourage small businesses to start up or invest in their own growth.

The fund will help to promote local tourist attractions such the National Baseball Hall of Fame, Cooperstown Dreams Park, beverage trails, farmers markets, ski resorts, hiking trails, historical museums, theaters, concert venues, Glimmerglass Opera, the Herkimer Diamond Minds and a host of other regional and local attractions.

The fund will support training opportunities at SUNY Cobleskill, specifically their Hotel Management and Culinary Arts programs. The fund will also support the Casino Management program at Schenectady County Community College as well as create a casino management program at SUNY Cobleskill.

Creating a local workforce that is highly trained and ready to work will be essential building blocks for long-term revitalization and ongoing success of the local economy. This will create a strong economic engine that will be the core of a successful economy.

COBLESKILL STONE PRODUCTS, INC.

112 Rock Road., P.O. Box 220

Cobleskill, NY 12043

(518) 234-0221

FAX #(518) 234-0226

Dear Governor Cuomo and the Casino Location Board,

On behalf of Cobleskill Stone, I ask you to give serious consideration to the selection of Howe Caverns as the location to be awarded a gaming license in the Capital Region.

Allowing a casino in Schoharie County will have an incredible impact on our local and regional economy. Schoharie County currently experiences a high unemployment rate and as we attempt to create jobs and bring our economy back to life, this plan will have an effect on job creation unparalleled in any other region of the state.

Cobleskill Stone will specifically benefit, as we will have an opportunity to be involved during the construction stage of the resort and casino. This will create several new jobs and help bring new revenues to our community even before the doors open on a new resort.

Schoharie County suffered incredible loss during the flooding caused by Hurricanes Lee and Irene. Our economic recovery has been exasperated by these disasters.

Cobleskill Stone, in business for over 60 years in Schoharie County, has been fortunate enough to be resilient during this time of economic distress. Allowing this plan for a resort and casino will not only benefit us, but our entire community will have the opportunity to enjoy the benefits of full come back.

I respectfully ask you to please make our community's recovery complete and allow us one of the four gaming licenses to be awarded by New York State.

Your approval will be the boost this community and region needs.

Sincerely,



TAB

Exhibit IX. B.5. CROSS MARKETING

DRAFT

Memorandum of Understanding

26 June 2014

This Memorandum of Understanding executed by Upstate Theater Coalition for a Fairgame LLC, see Appendix A, ("Fairgame"), 432 State Street, Schenectady, NY 12305, Saratoga Performing Arts Center, Saratoga; Saratoga City Center, Saratoga, Proctors, Schenectady, the Palace Performing Arts Center, Albany; the Troy Music Hall, Troy and the Times Union Center, Albany (being collectively referred to as the "Venues"), and Howe Caverns Resort and Casino, LLC, a New York based company, 255 Discovery Dr, Howe ("Casino Developer").

The parties recognizes that New York State is in the process of selecting live gaming operators for each of three regions in the state and that the New York State Gaming Commission has made clear the need for applicant gaming operators to "actively support the mission and operation of impacted live entertainment venues..."

It is the intent of the Casino Developer to construct and operate a Gaming Facility without an indoor entertainment facility, but with a significant dinosaur attraction/theater. This agreement is based on the foregoing intent and should the casino venue size, seats, number of events per year increase or include regular headliners, the parties will negotiate an amendment of the understanding reflected herein, and any more formal agreement reflecting such understanding, to offset the effect on the Venues of an expansion by Casino Developer in the number of

entertainment events or the capacity of the Entertainment Facility (including construction of one or more new or additional facilities).

Recognizing that it is not the intent of the Casino Developer to cause harm to the live entertainment facilities at the Venues, the following actions are to be put into place and acknowledged in the Casino Developer's application for a New York Gaming Facility License and will continue during the entire life of the Casino Developer's (or its assigns) license (if awarded) and any renewals thereof, unless earlier terminated in accordance with the provisions hereof:

- 1) Casino Developer, if awarded, a New York Gaming Facility License, will promote events of the Venues and use its gaming "loyalty" programs to purchase and distribute tickets for admission to events at the Venues.
- 2) Casino Developer and the Venues will establish joint marketing agreements, including agreements covering such matters as program sponsorships, ticketing kiosks, lodging package programs, in room promotions, and ticket purchases, etc.
- 3) Casino Developer will support the Venues, with a quarterly payment to Fairgame (to be divided among and paid to the Venues and Fairgame in accordance with the agreement among the Venues and Fairgame noted in Appendix A) of \$175,000 per year for the life of the

license, which will be utilized as outlined in Appendix A. Should the Casino Developer expand its Entertainment Facility, construct one or more new facilities or arrange for regular headline live performance events in a year, the Casino Developer will promptly notify the other parties hereto of such planned activities and all parties will promptly thereafter negotiate an additional amount (but not less than \$1,000,000 per year), to be paid to Fairgame each year commencing with the year that such plans are realized in whole or in part. In determining the additional amount, the parties shall consider the anticipated negative impact of such activities on each Venue based upon, among other factors, (i) the increase in the capacity of the Entertainment Facility and/or increase in the number of annual live performances, (ii) the proposed use of such expanded or new facilities, and (iii) the distance of the Entertainment Facility from the location of each Venue. The agreed amount will be divided among and paid to the Venues and Fairgame in such manner as the Venues and Fairgame may agree, taking into account the anticipated negative impact on each Venue based upon the foregoing factors. If the parties are unable to agree on the additional amount or the Venues and Fairgame are unable to agree on the allocation of the agreed amount, the dispute shall be resolved by arbitration among the applicable parties in New York City before an impartial arbitrator or tribunal.

The parties understand that the agreement contemplated hereby is not exclusive and that

Fairgame may enter into agreements with other applicants for a New York Gaming Facility License.

It is the intent of the parties to incorporate the understanding of the parties hereto into a more formal agreement, including the foregoing terms and provisions, as well as such other terms and conditions as may be normal and customary in the industry with regard to similar agreements. Until such more formal agreement is prepared and executed, this Memorandum shall be binding and enforceable upon the parties, it being understood this Memorandum shall be of no force or effect if Casino Developer is not awarded a New York Gaming Facility License and each of the Venues may terminate this Memorandum as to it, if it believes, in the exercise of its reasonable judgment, that the agreement contemplated by this Memorandum could be detrimental to its mission or operations.

If any provision of this Memorandum shall be determined by any applicable New York State Gaming Facility regulatory authority or other applicable authority to be inconsistent or in violation of applicable laws or regulations, the parties shall negotiate in good faith to amend this Memorandum to bring it into compliance with applicable laws or regulations, while preserving the general intentions of the parties expressed hereunder.

HOWE CAVERNS RESORT AND CASINO, LLC

By: 
MANAGER



Philip Morris, CEO, Proctors, Schenectady; Chair, Fairgame



Marcia White, President and CEO, SPAC, Saratoga



Holly Brown, Executive Director, Palace, Albany



Mark Baker, Executive Director, Saratoga City Center, Saratoga



Bob Belber, General Manager, TU Center, Albany



Jon Elbaum, Executive Director, Troy Savings Bank Music Hall, Troy



Mark Eagan, President, Albany-Colonie Regional Chamber