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# TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT: HUDSON VALLEY PERSONNEL SUPPORT CENTER OF

**JEHOVAH'S WITNESSES** 

PROJECT NO.: 2014-17

PROJECT LOCATION: SECTION 97, BLOCK 2, LOT 31.1, 30.22 & 33

PROJECT REPRESENTATIVE: MASER ENGINEERING

REVIEW DATE: 10 APRIL 2015 MEETING DATE: 16 APRIL 2015

- 1. Lot consolidation must be undertaken in order to eliminate issues regarding setbacks, etc. Lot consolidation should be a condition of approval.
- 2. Previous comment requested coordination with jurisdictional fire department regarding access control to the emergency access gate. Applicants continue to identify chain and bollard arrangement. This should be discussed with the jurisdictional emergency services.
- 3. Additional soil testing is identified in response to County Planning. Results of additional soil testing should be provided.
- 4. Applicant's Representative has addressed all other previous comments.

Respectfully submitted,

McGoey, Hauser & Edsall Consulting Engineers, D.P.C.

Patrick J. Hines Principal





Engineers
Planners
Surveyors
Landscape Architects
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April 3, 2015

### VIA HAND DELIVERY

Mr. John E. Ewasutyn, Planning Board Chairman Town of Newburgh 308 Gardnertown Road Newburgh, New York 12786

Re:

Hudson Valley Personnel Support Center of Jehovah's Witnesses

Tax Lot 97-2-30.1, 30.22, 33

Town of Newburgh, Orange County, New York

MC Project No. 13000398C

Dear Chairman Ewasutyn:

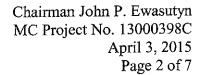
Below please find our responses to comments from comment letters received from Orange County Department of Planning dated 12/23/14, and received February 18, 2015, McGoey Hauser and Edsall Consulting Engineers DPC dated January 26, 2015, and Creighton Manning Engineers, dated February 17, 2015. The Comments have been repeated here for clarity.

# Orange County Department of Planning

The Department has received the above referenced site plan and has determined that the intended land use has the potential to cause inter-municipal and countywide impacts. Therefore, the following binding comments should be addressed and may not be acted contrary upon except by a majority plus one vote of the members of the Town of Newburgh Planning Board or by disapproving the action.

Comment 1: Environmental Concerns: According to the New York State Department of Environmental Conservation (NYSDEC)'s Environmental Assessment Form Mapper (EAF Mapper), the project site contains threatened or endangered animal species on the project site. This is not addressed in the proposed site plan.

a. The Town should work with the NYSDEC to determine what mitigation measures are necessary for the protection of the threatened or endangered animal species onsite. Minimally this should include a survey to determine what is present and where, and should suggest measures for the applicant to best protect the species onsite. Although the EAF Mapper did not specify, the area is known to present suitable habitat for the Indiana Bat; if this is the species present onsite, the applicant would need to modify construction periods so that they did not overlap with roosting times, among other protection measures.





Response 1:

The proposed area of development for this project is substantially within a maintained lawn area with minor encroachments to the north into some low scrubshrub and meadow area. Neither of these areas would provide suitable habitat for the Indiana Bat mentioned in the comment above.

Comment 2.

Light Pollution: The proposed lighting plan shows the approximate location of the proposed light fixtures and their height, but does not specify that the proposed lighting should be "dark sky" compliant. Dark sky lighting keeps light confined to the property to the greatest possible extent by minimizing pole heights, directing light to the object or pathway that requires illumination, and using fixtures that direct light downward only, shielding the top of the fixture to keep light from leaching into the sky. Bright stadium-style lighting along the Interstate 87 off-ramp, in addition to posing a quality of life issue for neighboring property owners, has the potential to distract drivers.

a. The lighting fixtures, particularly those closest to Interstate 87, should be mounted as low as is appropriate for their intended purpose, should be on timers, and should have all lamps directed downward in keeping with "dark sky" standards.

Response 2:

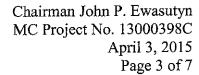
The proposed pole mounted, fixtures utilized for on-site lighting are IES full cutoff style fixtures which provide downward lighting for the parking areas and walkways. No lighting projects upward from these fixtures. The proposed single-fixture, poles along the eastern parking area adjacent to the Interstate 87 off-ramp are also equipped with a house side shield to further restrict light spill. The lighting plan depicts the illumination levels at the northern and eastern property lines and these are substantially at 0.0 footcandles, at the property line or well in advance. The proposed 20 foot mounting height is not excessive for the proposed facility and as described above light distribution on-site is controlled.

Comment 3.

Stormwater Management: The proposed project has completed a Stormwater Pollution Prevention Plan, and proposes construction of one onsite bioretention infiltration basin and subsurface water system. The project is located in close proximity to Washington Lake, which provides drinking water to the City of Newburgh, and through inter-municipal agreement to the Towns of Newburgh and New Windsor. Additional Green Infrastructure/Runoff Reduction methods should be incorporated into the project design to account for the substantial impervious surface coverage onsite.

Response 3:

The site is not tributary to Washington Lake but to Quassaick Creek. As the project Engineer and per the NYSDEC Design Manual, we have selected and incorporated Green Infrastructure and Run-off Reduction Practices to the project which exceed the permit requirements. These practices have been reviewed and found acceptable by the reviewing Engineer for the MS4. No additional practices are proposed.





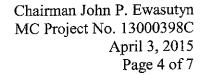
- a. The Town should reduce the areas of impervious surfacing onsite, which primarily consist of parking and drive lanes. This can be accomplished by building a parking structure, either beneath the proposed hotel or to one side, or on the adjacent site also owned by the applicants.
- Response 3a: The applicant will not be building a parking structure for this project. The development is below the maximum allowable lot coverage permitted by the Town in the IB Zoning District.
  - b. Soil testing should be done to determine the actual soil types present on the project site and their capacity for infiltration. If the soil onsite demonstrates that it is suitable for infiltration practices, then additional opportunities for infiltration should be included in the site design. These could include dry swales, additional bioretention basins in the parking lot planting areas and other locations onsite, planting more mature trees, and other measures.
- Response 3b: As a requirement of the Stormwater Design Manual, on-site soil testing will be conducted to confirm soil composition and infiltration rates to support the proposed stormwater management design.
  - c. Pervious pavement has been extensively studied in cold climates and has shown great success. The typical benefits include capital cost savings, reduction of deicing and anti-icing practices, minimal damage from frost heave, reduction of black ice and increased water quality. The entire parking lot should be considered for pervious pavement, leaving the driveways and loading areas impervious to handle the heavier loads.

Response 3c: The applicant will not be installing pervious pavement as part of this project.

Additionally, this Department offers the following advisory comments for your consideration.

Comment 4: Traffic Study: The Route 300 corridor and Route 17K corridor are two of the most heavily-traveled roadways in Orange County, particularly in the area of the project site. The traffic study provided with this application lists the intersections on Route 300 to the south of the project site, but does not study the impact of those intersections immediately north of the project site, such as the on-ramps for Interstates 84 and 87, and lists none of the intersections on NYS Route 17K except the intersection with Route 300. It is possible that we did not receive the full traffic study; no information regarding traffic volume, level of service or intersection data are provided. We advise the Town to ensure that the full traffic study is available to them, and that any mitigation measures proposed by the traffic study are sufficient for the already overburdened Routes 17K/300 intersection.

Response 4a: The majority of the traffic is expected to enter the site from the south as a northbound right turn movement. Exiting the site the majority of the traffic is





expected to make a right turn on to NYS Route 300 northbound towards the Interstate ramps. The total traffic to and from the north of the site access is expected to be less than 2% of the no-build traffic volumes along NYS Route 300 north of the site access. It appears the County was not provided the complete traffic study, which includes analysis of the NYS Route 17K/Unity Place/I-87 Northbound Off-Ramp. The Town has been provided the full traffic study, which has been reviewed by the Town's Traffic Engineer.

Access Road: The site takes access from a driveway, shared with the Palmerone Farms development directly to its south, which leads out to Route 300 at a signalized intersection immediately north of the Route 300/Route 17K intersection. This access road ends abruptly just a few feet past the Palmerone Farms onsite driveway access. We advise the Town that safety could be improved if the access driveway ended in a cul-de-sac with sufficient room to accommodate a fire truck.

Response 4b:

The applicant is constructing an emergency access from NYS Route 300 which benefits both this applicant and Palmerone Farms. Fire trucks will now have the ability to circulate through the site after entering the shared access roadway in order to return to NYS Route 300. We do not see a need for a cul-de-sac at the end of the shared access roadway.

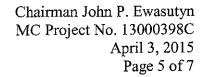
Primary Use: The Town of Newburgh Code §185-3 defines "hotel" as "one or more buildings containing rooms intended to be used or which are used, rented or hired out to be occupied for sleeping purposes by transient individuals or families and which provided rooms or areas for group assembly and a central kitchen only and a central dining room within the building or in an accessory building. A hotel shall not constitute an individual's primary residence and shall not be construed to be a multiple dwelling." The Town is currently in the process of revising this definition. We advise the Town that the purpose of this application as presented appears to be the construction of a residence hall or dormitory rather than a hotel or motel as defined in the code currently, and that residence halls or dormitories are not listed as permitted uses or uses subject to site plan review in the IB zoning district.

Response 4c:

The applicant has extensively reviewed the 'hotel' definition in the Town of Newburgh Zoning Code and its applicability to this project. It has been concluded that the applicant's proposal before the Planning Board is consistent with the 'hotel' definition and therefore a permitted use in the IB Zoning District subject to Site Plan review by the Planning Board.

### McGoey Hauser and Edsall Consulting Engineers DPC

Comment 5: The Applicant is requested to address the comments received from the 239 Orange County Planning Department review. It is noted the site is not tributary to Washington Lake but is tributary to Quassaick Creek.





Response 5: Responses to the comments of the Orange County Planning Department have been provided above.

Comment 6: Cover Sheet/Plan Set should be modified to incorporate all design plans. Sanitary Sewer Pump Station design prepared by Delaware Engineering must be incorporated into the plan set.

Response 6: The design plans and details for the proposed sanitary sewer pump station have been included into the Site Plan set.

Comment 7: A sanitary sewer pump station, valve vault, control panel and generator have been added to the plan sheets east of the entrance drive. Landscaping plans have not been revised to address this feature at the entrance of the project.

Response 7: Additional landscaping has been incorporated around the proposed sanitary sewer pump station to help screen these improvements.

Comment 8: The Sanitary Sewer Pump Station design plan identifies a 200 seat "banquet facility" proposed within the 100 room structure. This is the first mention of a 200 seat banquet room within the facility. Parking calculations must be adjusted to accommodate the additional use within the structure. The traffic report does not identify the banquet facility use.

Response 8: Mr. Canfield conducted a code review of the parking needs for the proposed hotel building and additional parking is needed to accommodate the "banquet facility" in the building. The applicant has reduced the seating capacity of the proposed dining area from 200 seats to 100 seats by dividing the space (see attached sketch) and the required 25 parking spaces (1 parking space per 4 seats) is proposed on-site. An additional traffic analysis has been prepared and attached to address the "banquet" area. A revised Sewer Flow Acceptance Letter has been requested through James Osborne, Town Engineer (see attached letter).

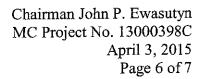
Comment 9: NYSDOT approval of the traffic study as well as the emergency access must be provided.

Response 9: We have received the March 5, 2015 response letter from the NYSDOT (copy attached) in which they mention reviewing the Traffic Study and a Highway Work Permit will be required. No other comments were provided. We request that securing this permit be a condition of Final Site Plan approval for the project.

Comment 10: Access control at the emergency access should be addressed on the plans.

Consultation with jurisdictional emergency services should be undertaken to assure access for emergency vehicles and restrict access to any other vehicles.

Detail of the emergency access drive at Route 300 should be provided. It appears



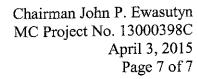


that runoff along the curb line will discharge to the emergency access drive from a northerly direction.

- Response 10: The plans call out and detail a proposed bollard and chain access control. This will be locked and the appropriate emergency service agencies will be provided keys to this access drive. The location of this was moved eastward into the site, 50 feet off the curbline to allow the fire truck the ability to pull completely off of Route 300. Mountable curbing is proposed at the emergency access drive, this will maintain the existing Route 300 drainage patterns and not allow drainage into the site.
- Comment 11: Code Compliance review of the revised hydrant location should be undertaken in consultation with jurisdictional emergency services.
- Response 11: We have reviewed the existing and proposed fire hydrant locations with Mr. Canfield and they are acceptable as depicted on the plans.
- Comment 12: Revised Town of Newburgh Water and Sewer Notes (2015) should be added to the plans. Copy attached.
- Response 12: The 2015 Town Water and Sewer notes have been included on sheet #9.
- Comment 13: Detail for sanitary sewer forcemain interconnect should be provided.
- Response 13: A detail for the forcemain interconnect has been provided as part of the sanitary sewer pump station details, see Sheet #13.
- Comment 14: Pumps should be specified and appropriate pump curves provided.
- Response 14: The proposed sanitary pumps have been specified in the attached Engineering Report along with the pump curve data.
- Comment 15: Lighting on pump station control panel should be addressed. Industrial style lighting proposed is not addressed on the lighting plan. Notes should state the lighting is controlled.
- Response 15: An alternate, cut-off style light fixture has been proposed for the pump station control panel on Sheet#12 and it is noted that these are for service only. They are not intended to be on each night.

# Creighton Manning Engineers

- Comment 16: Fire truck access appears adequate entering/exiting the emergency access point.
- Response 16: No further response required.





- Comment 17: Related to the Orange County Department of Planning letter dated January 27, 2015; are there any opportunities to decrease the amount of parking (i.e. impervious surface)? Does the use of shuttles to transport residents to and from the facility translate into a lower parking demand?
- Response 17: We believe that sufficient parking will be provided to accommodate the proposed site and the project meets the parking requirements of the Town Code. The applicant proposes to maintain all parking spaces as paved and anticipates the need for these spaces.
- Comment 18: Figure 12 was missing from our copy of the revised traffic study appendix. The 2019 No-Build Level of Service for the Route 17K/Thruway/Unity Place intersection during the Saturday peak hour in Table 2 and in the Synchro calc in the appendix does not match the volume shown on Figure 13. Replacement sheets were provided and are attached for reference.
- Response 18: The corrected information was provided to Mr. Wersted directly, who has provided this information to the board attached to his letter. It is now included in the revised traffic study appendix. No further response required.

Very truly yours,

MASER CONSULTING P.A.

broke Fatherston

Andrew B. Fetherston, P.E.

Principal Associate

ABF/jm Enclosures

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### **MEMORANDUM**

To:

Justin Dates, RLA

From:

Philip J. Grealy, Ph.D, P.E.

Date:

March 12, 2015

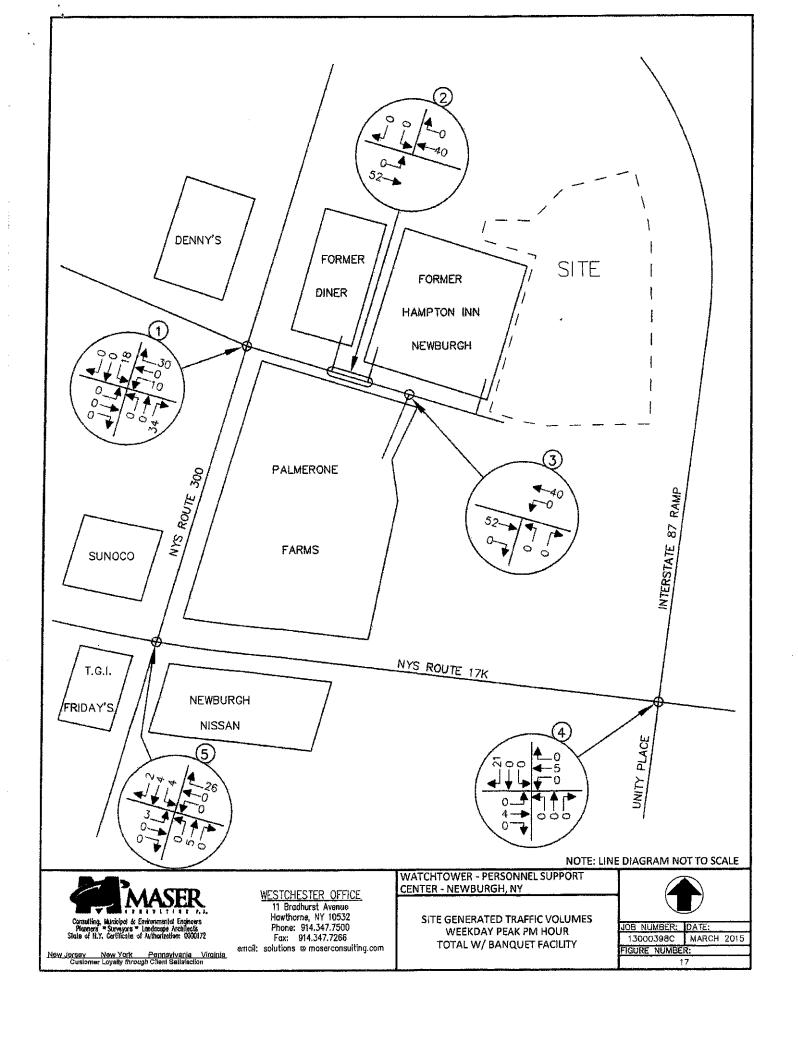
Re:

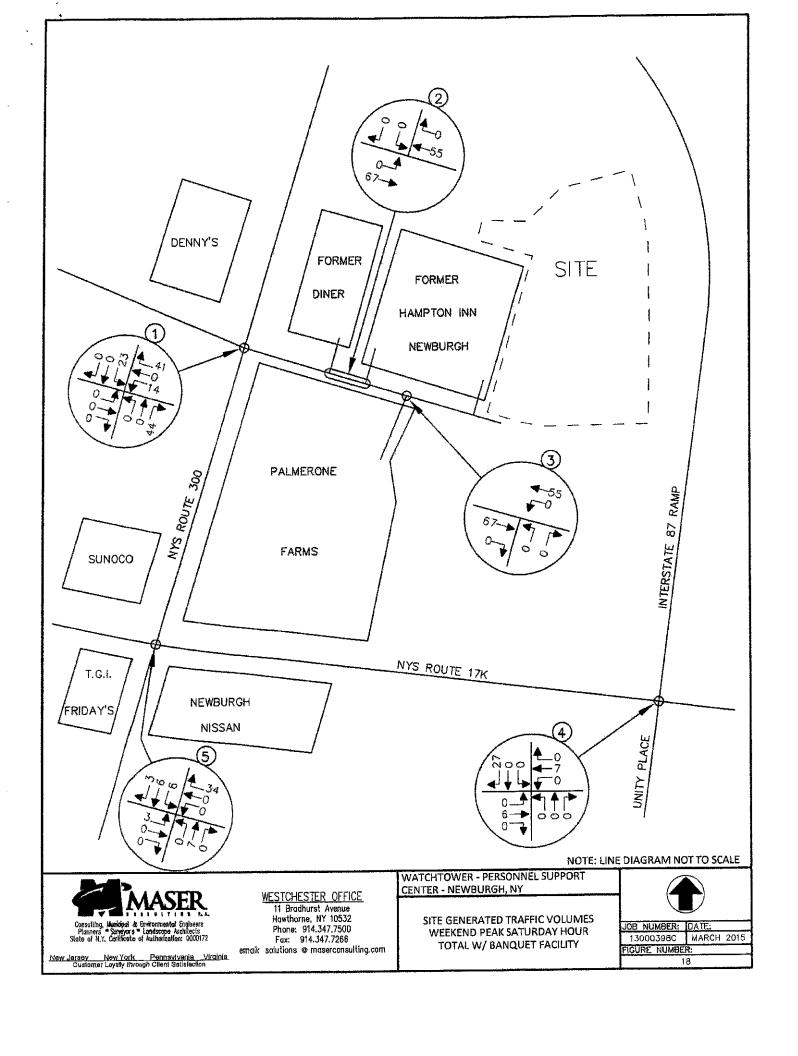
MC Project No. 13000398C

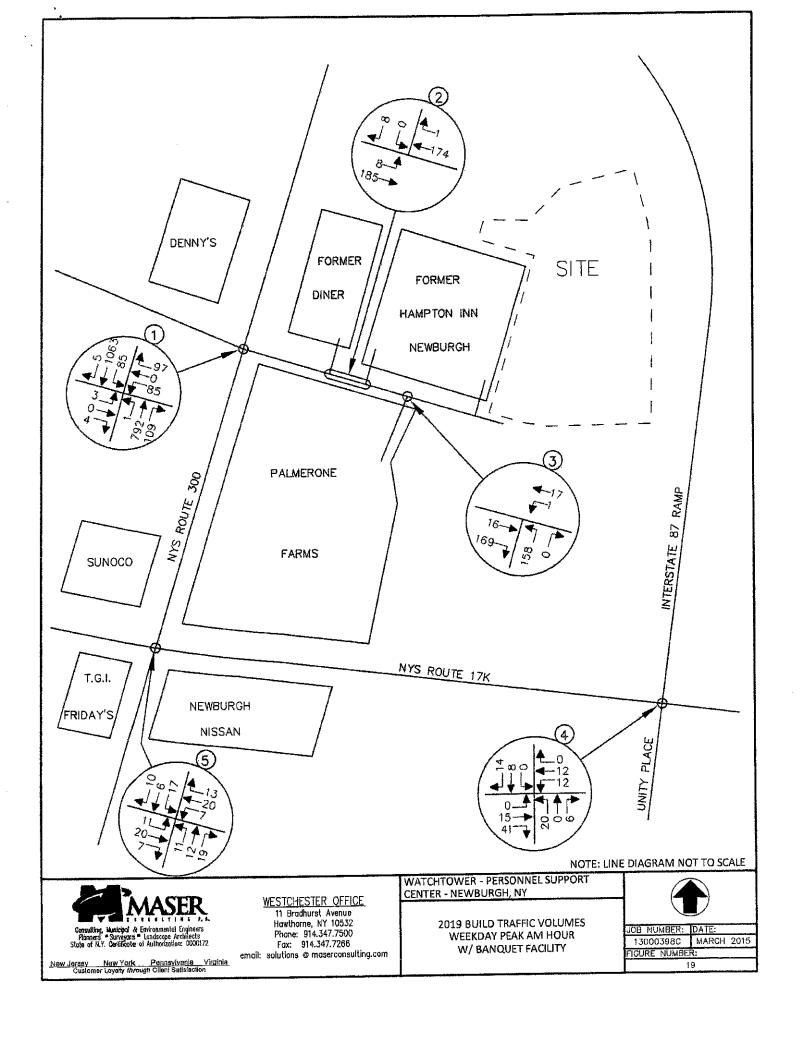
Hudson Valley Personnel Support Center of Jehovah's Witnesses

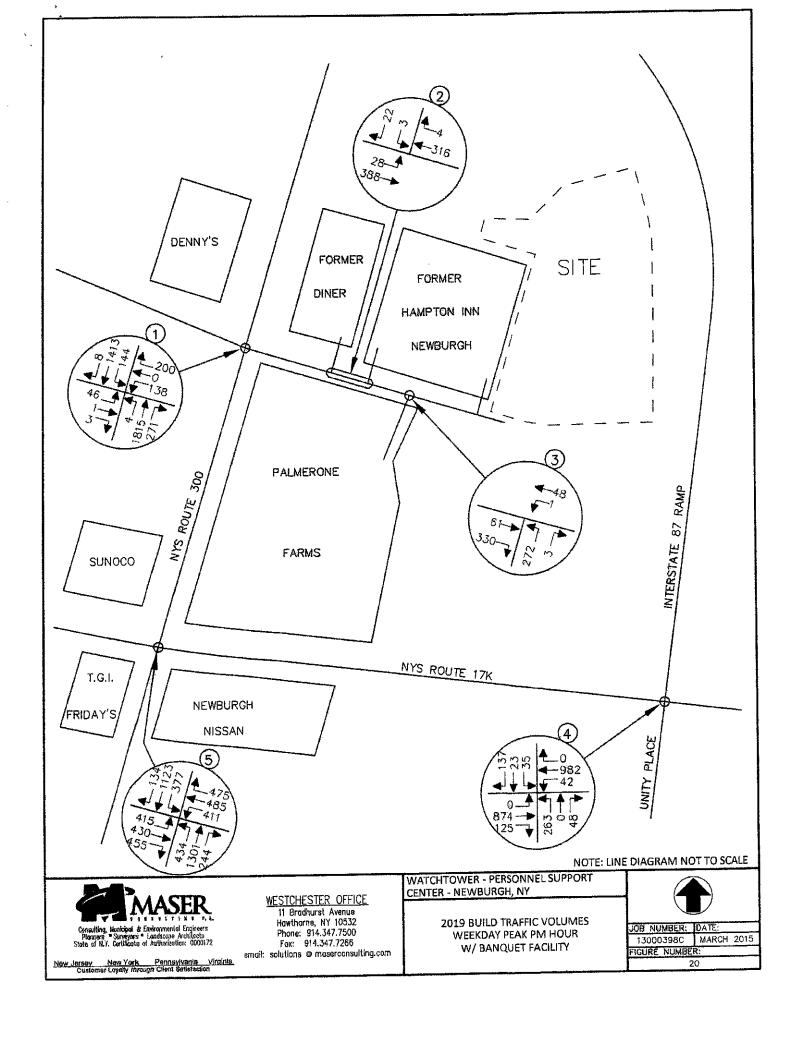
To supplement the traffic impact study completed for above project, we have prepared an additional analysis to address the inclusion of the 100 seat dining/storage area within the proposed building. While the current use by Watchtower is for facility residents only, in order to evaluate the effect if in the future if this was allowed to be used for outside purposes, we have prepared estimates of the expected trip generation for the PM and Saturday Peak hours for this area. Again this assumes this will be used by external people from the hotel and not hotel guests.

Table No. 1B includes the additional trip generation and the attached Figures show the additional trips expected on the roadway network. We have conducted a capacity analysis at the access road intersection which would receive the greatest number of trips from this potential and the results for the analysis are attached as summarized in Table No. 2B. As can be seen from the table, the results are similar to those conditions for the proposed use. Also, with the signal timing changes the levels of service under Build and No-Build conditions will be maintained.









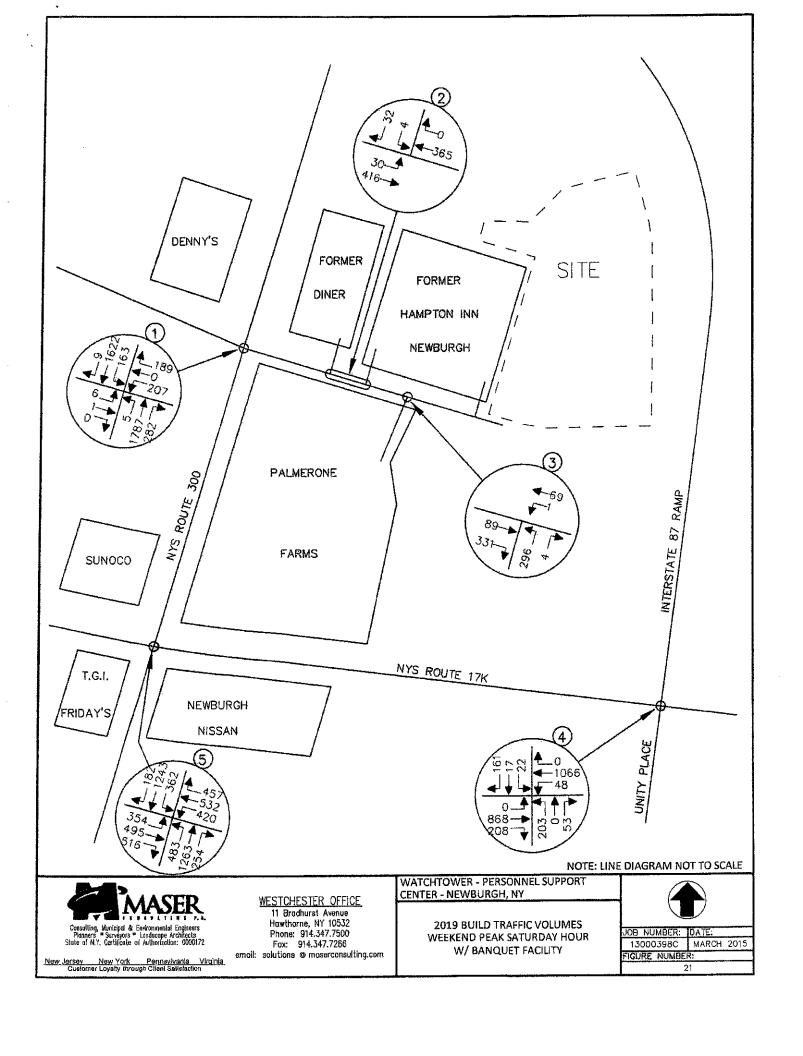


TABLE NO. 1B

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED

SITE GENERATED TRAFFIC VOLUMES

WATCHTOWER	EN'	TRY	E	(IT
PERSONAL SUPPORT FACILITY NEWBURGH, NY	HTGR*	VOLUME	HTGR*	VOLUME
PROPOSED WATCHTOWER BUILDING (100 ROOMS)				
PEAK AM HOUR	0.10	10	0.12	12
PEAK PM HOUR	0.34	34	0.28	28
PEAK SATURDAY HOUR	0.47	47	0.42	42
BANQUET (100 SEATS)				
PEAK AM HOUR	0.02	2	0.01	1
PEAK PM HOUR	0.18	18	0.12	12
PEAK SATURDAY HOUR	0.20	20	0.13	13
TOTALS				
PEAK AM HOUR		12		13
PEAK PM HOUR		52		40
PEAK SATURDAY HOUR		67		55

#### NOTES:

<sup>1) \*</sup> HTGR-HOURLY TRIP GENERATION RATES EXPRESSED IN TERMS OF TRIPS PER ROOM BASED ON COUNTS COLLECTED AT THE EXISTING 115 ROOM FACILITY.

<sup>2)</sup> INCLUDES TRIP GENERATION FOR USE OF BANQUET AREA FOR OUTSIDE USERS.

TABLE NO. 2B

# LEVEL OF SERVICE SUMMARY TABLE

			201	4 EXIST	ING	20	2019 NO-BUILD	Ū.	,,	2019 BUILD		2019 BU	2019 BUILD WITH BANQUE	ANQUET
			AM	Md	SAT	AM	PM	SAT	AM	ЬМ	SAT	AM	PM	SAT
L	NYS ROUTE 300 &	SIGNALIZED												
	PALMERONE FARMS/	EB	A[0.4]	E[66.2]	E[58.6]	A[0.4]		E[58.6]	A[0.4]	E[66.4]	E[58.6]	,	E[66.4]	E[58.6]
	WATCHTOWER ACCESS ROADWAY (2)	WB	D[41.9]	E[57.3]	F[127.8]	D[43.1]		F[140.3]	D[42.5]	E[67.2]	F[147.0]	ſ	<b>E[69</b> .0]	F[148.9]
		S S	AI5.1]	B[17.0]	A[3.8]	A[5.3]		A[7.6]	A[5.3]	C[32.9]	A[7.1]	1	C[34.3]	A[7.4]
		SB	A[3.9]	A 8.21	A[5.1]	A[4.1]		A 8.2	A[4.1]	B[12.6]	A[8.9]	•	B[12.7]	A[9.1]
		OVERALL	A[7.3]	B[17.9]	B[16.6]	A[7.6]	C[26.6]	B[18.9]	A[7.7]	C[28.2]	C[20.6]		C[29.2]	C[21.3]
								:			(		2	
	W/ SIGNAL TIMING IMPROVEMENTS	8	,	,	1	,	E[61.9]	[58.6]	ì	E[61.9]	[986]	1	E[61.9]	[0.86]
		WB	,	,	ı	1	D[38.6]	D[40.0]	ı	D[38.7]	D[39.5]	,	D[38.8]	D[39.3]
_		82	,	,	1	•	C[28.0]	B[12.9]	ı	c[30.0]	B[14.3]	ŧ	C[30.9]	B[15.0]
	- Al-	SBS			ı	ì	B[15.6]	B[14.3]	ı	B[16.6]	B[15.0]	ı	B[17.0]	B[15.2]
		OVERALL	,	٠	3	,	C[24.4]	B[15.8]		C[25.9]	B[16.9]	•	C[26.6]	B[17.4]
										- 7				

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS.

2) NOTE THAT INTERSECTION #1 IS AT TIMES IMPACTED BY THE POOR OPERATION OF THE NYS ROUTE 17KNYS ROUTE 300 INTERSECTION WHICH RESULTS IN QUEUES AND DELAYS ON THE SOUTHBOUND APPROACH WHICH EXTEND THROUGH THIS INTERSECTION.

3) SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

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tanta <u>Ciriliya karangan</u>	(52)54					er de s'a			SIEW.			
Lane Configurations		4			4	7	7	<b>†</b> †	7	M.	46	
Volume (vph)	46	- <b>- 1</b>	3	138	Ö,	200	4	1815	271	144	1413	8
Ideal Flow (vphpi)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	ଁ 10	10		11	11	* <b>*11</b>	- 11	13	11	11	10
Grade (%)	inginige∰i.	-7%		4-9 (38 <del>/4</del> )	7%			1%			-1%	
Storage Length (ft)	ា ១	w. 1960.	ា		1	125	105		105	100	W. Kill	0
	0	\$ 127 TeVV	0	n	- ವರ್ಗಳಳ	1	1		1	1		0
Storage Lanes	25	13.156		25	e grada	. KASTĀR	25	AGENTAL.		25	North Co	
Taper Length (ft)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Lane Util. Factor	1.00	0.992	1, <b>UU</b> (a ∮ ba da)	1.00	1.00	0.850			0.850		0,999	
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Fit Permitted	_	0.956	•		0.950	3400	262	3404	1628	81	3402	- 0
Satd. Flow (perm)	0	1741	. 0	0	1667	1492	202	3404	Yes	- P-1	\$40£	Yes
Right Turn on Red			Yes			Yes	3.1		102		1	100
Satd. Flow (RTOR)		2	- :			176	or self	20	102		30	
Link Speed (mph)		30			30	,		30		1	430	
Link Distance (ft)		497			284	276	19	712				
Travel Time (s)		11.3			6.5			16.2			9.8	n or
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Adj. Flow (vph)	48	1	- 3	145	0	211	4	1911	285	152	1487	8
Shared Lane Traffic (%)											4344	_
Lane Group Flow (vph)	0	52	0	0	145	211	4	1911	285	152	1495	.0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			<b>2</b> 2			22	
Link Offset(ft)		0			0	100		.0			0	. *
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane			5. S. J		5			1				
Headway Factor	1.05	1.05	1.05	1.14	1.09	1.09	1.05	1,05	0.96	1.04	1.04	1,09
	1.00		9	15		9.	15		9	15	78 3 7	9
Turning Speed (mph)	1	1		1	1	1	1	1	1	1	1	
Number of Detectors	Left		:	Left	•	er er by	£ 0.	. 4.		177	1.74	englije. Same
Detector Template		40		50	83	83	83	0	0	83	0	
Leading Detector (ft)	50	12			-10	-10	-10		Ö	-10	:0	
Trailing Detector (ft)	0	-8		0	-10	-10	-10		Ö	-10	0	
Detector 1 Position(ft)	0	-8		0		93			0	93	ŏ	
Detector 1 Size(ft)	50	20		50	93				CI+Ex	CI+Ex	CI+Ex	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CITEX	<b>UITEX</b>	OI LA	Ur LA	
Detector 1 Channel		11					91. N	2.00	0.0	0.0	0.0	
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0 Waran ing Ess	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt		pm+ov	pm+pt		
Protected Phases	4	4		3	3	1	5		3	1	6	
Permitted Phases	14-15	g to the				3	2		2	6		, 1
Detector Phase	4	4		3	3	1	5	2	3	1	6	
Switch Phase											_	
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0	5.0	3.0	3.0	
тиничент пресе (о)												

	•		<b>→</b> ✓	<b>←</b>	•	1	<b>†</b>	1	-	ţ	4
enescon					CM35	] <u>[]</u> [[6			( ) (SE)		
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	15.0	10.0	10.0	10.0	
Total Split (s)	25.0	25.0	15.0	15.0	23.0	23.0	71.0	15.0	23.0	71.0	
Total Split (%)	18.7%	18.7%	11,2%	11.2%	17.2%	17.2%	53.0%	11.2%	17.2%	53.0%	
Maximum Green (s)	20.0	20.0	10.0	10.0	18.0	18.0	66.0	10.0	18.0	66.0	
Yellow Time (\$)	4.0	4:0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1152 T.
Lost Time Adjust (s)		-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Venicle Extension (s)	2.0	2.0	2.0	2.0	2,0	2.0	2.0	2.0	2.0	2.0	State of the
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max	ety, et et au
Act Effct Green (s)	1 73.7	9.5	等分子 美型 後套	11.0	25.0	92.1	86.3	101.3	103.5	101,5	Add to the
Actuated g/C Ratio		0.07	·	80.0	0.19	0.69	0.64	0.76	0.77	0.76	
v/c Ratio		0.42		1.07	0.50	0.02	0.87	0.23	0.68	0.58	
Control Delay		66.4		153.0	11.4	5.8	27.0	4.5	45.4	9.4	
Queue Delay		0.0		0.0	0.0	0.0	11.8	0.0	0.0	0.0	
Total Delay		66.4		153.0	11.4	5.8	38.8	4.5	45.4	9.4	
LOS		Е		F	В	Α	D	Α	D.	A	
Approach Delay		66.4		69.0			34.3			12.7	
Approach LOS		Ę		E			C	٠.		В	
Queue Length 50th (ft)		42		~138	22	1	696	41	79	258	. 10
Queue Length 95th (ft)		85	the work of	#279	75	4	#1056	94	150	466	. (
Internal Link Dist (ft)		417		204			632		_	350	
Turn Bay Length (ft)		•			125	105		105	100		
Base Capacity (vph)	* 4	274		136	479	404	2192	1255	293	2577	
Starvation Cap Reductin		0	and the second	0	· · · · · · · · · · · · · · · · · · ·	0	297	0	0	.0	
Spillback Cap Reductn		ō		0	Ö.		0	0	0	0	
Storage Cap Reductin		ñ	$(x_1, x_2, \dots, x_n) \in \mathbb{R}^n$	0	0	0	_	0	0	0	
Reduced v/c Ratio		0.19		1.07	0.44	0.01	1.01	0.23	0.52	0.58	
Neutron No Natio		0.10				on way 15 to Sq.	53.309.40%.798	SS 22 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			A 35. 10

Area Type:

Other

Cycle Length: 134

Actuated Cycle Length: 134

Offset: 40 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of Red

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Capacity Utilization 77.6%

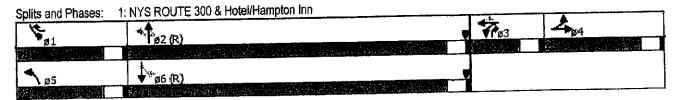
Intersection Signal Delay: 29.2 Intersection LOS: C ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.



Lane Configurations		۶	<b>→</b>	•	<	•	•	4	t	<i>&gt;</i>	-	ţ	4
Tane Configurations	brigats in the second second					3/1/10pg	N E T		in Naix				\$258E
Volume (oph)			Æ.			4	7	*	ተተ	7	*		
Ideal Flow (right)   1900		46		3	138					271	144	1413	
Lane Width (ft)			1900	1900				1900	1900	1900	1900	1900	1900
Grade (%)									11	13	11.	11	10
Storage Length (ft)					, 3 <del>.</del>							-1%	
Storage Lanes		Λ		- N	0		125	105	1985 C	105	100		0
Taper Length (R)		-		n		17.7	1	1		1	1		0
Lane Utili Factor		-	1. The St. 1.	ri i Grek.		erm Sout		25	an philips	$\mathcal{A}^{b_{1}}(S^{b_{1}})$	25	Salary.	4
Fit	A CONTRACTOR OF THE CONTRACTOR		1 00			1.00	1.00		0.95	1.00	1.00	0.95	0.95
Filt Protected   0.956   0.950   0.950   0.950   0.950   0.128   0.050   0.0	The state of the s	1.00		1.00	** - 15.75			n Wee				0.999	1,1,1
Satd. Flow (prot)	Accept to the control of the control	F. 10.4.17	and the second	44 1 5 4 4 6	5 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	0.950	, a.a., a.a.	0.950			0.950		
Salut   Flow (perm)		: 0		n n			1492		3404	1628		3402	0
Sadd. Flow (perm) 0 1741 0 0 1667 1492 229 3404 1628 93 3402 0 Right Turn on Red Yes Yes Yes Yes Yes Yes Sadd. Flow (RTOR) 2 2 844 1366 136 1 13		U								,			
Sadd. Flow (RTOR)		Λ		n	٠ ۸		1492		3404	1628		3402	0
Sald. Flow (RTOR)  2		υ	1141	_	U	1001		L	5101				Yes
Link Speed (mph)			2	162								1	
Link Distance (ft)						30	04		30	,,,,			
Travel Time (s)								e e					
Peak Hour Factor													
Heavy Vehicles (%)		0.05		0.05	0.05		0.05	0.05		0.05	กจร		0.95
Adj. Flow (yph)													
Shared Lane Traffic (%) Lane Group Flow (vph) No N													
Lane Group Flow (vph)		48	1.	3	140	U	, 211	*	1911	200	102	1701	·
Enter Blocked Intersection  No N				•		4.45	5 044		1011	205	152	1405	٠ ،
Left   Left   Left   Right   Left   Right   Left   Right   Left   Right   Left													
Median Width(ft)  Median Width(ft)  Median Width(ft)  Do													
Netward Not Note		Left		Right	Left		Right	Leπ		Right	Len		Mynt
Two way Left Turn Lane			-										
Two way Left Turn Lane Headway Factor 1.05 1.05 1.05 1.14 1.09 1.09 1.05 1.05 0.96 1.04 1.04 1.09 Turning Speed (mph) 15 9 15 9 15 9 15  Detector Template Left Leading Detector (ft) 50 12 50 83 83 83 0 0 83 0  Tralling Detector (ft) Detector 1 Position(ft) 0 8 0 10 10 10 10 0 0 10 10  Detector 1 Size(ft) Detector 1 Channel Detector 1 Channel Detector 1 Channel Detector 1 Queue (s) Detector 1 Delay (s) Detector 1 Delay (s) Detector Phase 4 4 4 3 3 3 1 5 2 3 1 6  Switch Phase			-			•							
Headway Factor   1.05   1.05   1.05   1.14   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05   1.05   1.05   0.96   1.04   1.04   1.09   1.09   1.05			16			10	3.5		10	e e e e e e e		10	
Turning Speed (mph) 15 9 15 9 15 9 15 9 15 9 15 10						4.00		4.05	4.05	0.06	4.04	1.04	1.00
Number of Detectors 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1.05			1.09			1.05			1.04	
Detector Template         Left         Leading Detector (ft)         50         12         50         83         83         83         0         0         83         0           Trailing Defector (ft)         0         -8         0         -10         -10         -10         0         0         -10         0           Detector 1 Position(ft)         0         -8         0         -10         -10         0         0         -10         0           Detector 1 Position(ft)         0         -8         0         -10         -10         0         0         -10         0           Detector 1 Size(ft)         50         20         50         93         93         93         0         0         93         0           Detector 1 Type         CI+Ex         C		15		9				10		1	10	1	. 4
Leading Detector (ft)         50         12         50         83         83         83         0         0         83         0           Trailing Defector (ft)         0         -8         0         -10         -10         0         0         -10         0           Detector 1 Position(ft)         0         -8         0         -10         -10         0         0         -10         0           Detector 1 Size(ft)         50         20         50         93         93         0         0         93         0           Detector 1 Type         CI+Ex	the state of the s	1	1	1 2 m	1	1	1						
Trailing Detector (ft)				er e i prove			Section and		/ 19 4 4 4	^	20.42.1	://. / •	1.00
Detector 1 Position(ft)													
Detector 1 Position(ft)				TO MAKE SECTION AND ADDRESS OF THE PARTY OF		-10	-10		U				
Detector 1 Type									U				
Detector 1 Channel  Detector 1 Extend (s)	Detector 1 Size(ft)												
Detector 1 Extend (s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+EX	CI+EX	CI+EX	CITEX	CITEX	
Detector 1 Queue (s)	Detector 1 Channel		1 #11+								0.0		
Detector 1 Delay (s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Detector 1 Extend (s)	0.0											
Turn Type Split NA Split NA pm+ov pm+pt NA pm+ov pm+pt NA Protected Phases 4 4 3 3 1 5 2 3 1 6 Permitted Phases 3 2 2 6 Detector Phase 4 4 3 3 1 5 2 3 1 6 Switch Phase	Detector 1 Queue (s)	0.0	0.0										
Turn Type         Split         NA         Split         NA pm+ov pm+pt         NA pm+pt		0.0											
Permitted Phases  3 2 2 6  Detector Phase 4 4 3 3 1 5 2 3 1 6  Switch Phase 5 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Turn Type	Split	NA		Split	.NA	pm+ov	pm+pt			. b₩÷bt		Karta Jan
Permitted Phases 3 2 2 6  Detector Phase 4 4 3 3 1 5 2 3 1 6  Switch Phase 5 2 3 0 30		4			3	3			2		1	6	
Switch Phase		1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		P		3						
Switch Phase	***		4		3	3	1	5		3	1	6	
								5.1				<b>=</b> =	
			5.0		5.0	5.0	3.0	3.0	10.0	5.0	3.0	3.0	

	•	-	•	•	4	•	1	<b>†</b>	1	-	ŧ	4
enterción despector	an Marie	han Ein	- Jaily		VVI 98	ž Vista		ANE IN	(i.)			
Minimum Split (s) *	10.0	10.0		10,0	10.0	10.0	10.0	15.0	10.0	10.0	10.0	
Total Split (s)	15.0	15.0		30.0	30.0	20.0	20.0	61.0	30.0	20.0	61.0	
Total Split (%)	11.9%	11.9%	x" tilter. Stationer	23.8%	23,8%		15.9%	48.4%	23.8%	15.9%	48.4%	••
Maximum Green (s)	10.0	10.0		25.0	25.0	15.0	15.0	56.0	25.0	15.0	56.0	
Yellow Time (s)	4.0	4.0	A Paris	4.0	40	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		-1.0	•		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2,0	2.0	2.0	2.0	2,0	2.0	
Recall Mode	None	None		None	None	None	None	C-Max	None	None	C-Max	and the same
Act Effct Green (s)	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9.3		الإهام والوراد	16.7	29.7	79.7	73.9	94.6	90.1	88.0	An Carlo
Actuated g/C Ratio		0.07			0.13	0.24	0.63	0.59	0.75	0.72	0.70	
v/c Ratio		0.40			0.66	0.51	0.02	0.96	0.23	0.68	0.63	+ 17
Control Delay		61.9			65.4	20.5	13.0	31.6	3.1	42.5	14.4	
Queue Delay		0.0			0.0	0.0	0.0	3.5	0.0	0.0	0.0	ŧ
Total Delay		61.9			65.4	20.5	13.0	35.1	3.1	42.5	14.4	
LOS		E			Ε	C	8	D	A	D	В	
Approach Delay		61.9			38.8			30.9			17.0	
Approach LOS		Ε			D			,C			В	
Queue Length 50th (ft)		40			114	72	1	531	24	71	309	
Queue Length 95th (ft)		81			175	110	m2	m#959	m16	149	614	
Internal Link Dist (ft)		417			204			632	400	400	350	
Turn Bay Length (ft)		1 2 2		in a right	4. 47	125	105		105	100	0070	
Base Capacity (vph)		158			343	460	347	1995	1363	272	2376	
Starvation Cap Reductn		0			0	,	0	57	Ŏ	0	0	
Spillback Cap Reductn		0			0	0	0	0	0	0	0	
Storage Cap Reductn		0		1	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.33			0.42	0.46	0.01	0.99	0.21	0.56	0.63	
								(V (C )				0.00

nie kregory ninger de sylver de kontrolekade die kregorie kontrolekade de sylver Area Type:

Other

Cycle Length: 126

Actuated Cycle Length: 126

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Red

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 26.6

Intersection Capacity Utilization 77.6%

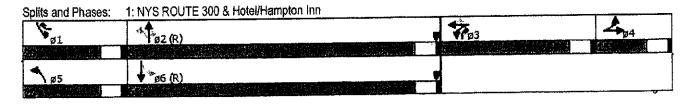
Intersection LOS: C ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



	<u> </u>		*	<b>*</b>	<b>←</b>	•	4	<b>†</b>	~	-	Ţ	1
valving in a second		i de i									19	289
Lane Configurations		43-			Æ	7	*	ተተ	7	*	<b>ት</b> ኩ	
Volume (vph)	6	· 1	0	207	Ö	189	5	1787	282	163	1622	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Wigth (ft)	10	10			11		- 11	11/11	- 13	11	11	10
Grade (%)	, 0,	-7%	· •• • • • • • • • • • • • • • • • • •	ran are	7%			1%	_		-1%	
Storage Length (ft)	0	7.0	. 0	0		125	105	4	105	100	. 1	0
Storage Lanes	Ö	. 4	Õ	ō		1	1		1	1		0
Taper Length (ft)	25	2.4	Ū	25			- 25	11 14 to 1	4.80	25		·
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
	1.00	1,00	1,00	1.00	1.00	0.850	ens (18)		0.850	12.50	0.999	
Fit and the second seco		0.959		AND DE	0.950	9.000	0.950		<del>- 1</del> -	0.950	****	
Fit Protected	:			0		1492	1702	3404	1628	1719	3435	0
Satd. Flow (prot)	0		U	v	0.950	1792	0.122	Q.TQ.T	10,00	0.055		. , .
Fit Permitted		0.959	. ^		1667	1492	219	3404	1628	100	3435	··· ~0
Satd. Flow (perm)	- 0	1760	. 0	0	1007	Yes	213	, 1404	Yes	(00	,0150	Yes
Right Turn on Red			Yes						128		. 1	
Satd. Flow (RTOR)					~~	193		30	120		30	
Link Speed (mph)		30			30						430	
Link Distance (ft)		497			284			712			9.8	
Travel Time (s)		11.3			6.5			16.2	2.00	0.00		0.98
Peak Hour Factor	0.98	0.98	0.98	0,98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	6	1	0	211	0	193	5	1823	288	166	1655	:9
Shared Lane Traffic (%)										400	4004	· o
Lane Group Flow (vph)	0	7	0	0	211	193	5	1823	288	166	1664	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	ା Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			22			22	
Link Offset(ft)	4	0			0		1,1,4	0			. 0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		to the terms				** 15-	7	6 - 6 Table		**	*	
Headway Factor	1.05	1.05	1.05	1.14	1.09	1.09	1.05	1.05	0.96	1.04	1.04	1.09
Turning Speed (mph)	15	**	9	15	11 8 11	. 9	15	17	9	15	17	9
Number of Detectors	1	1	-	1	1	1	1	1	1	1	1	
Detector Template	Left		4,	Left	1,000	to en in	1.5			er er er Græne i Station	en e	
Leading Detector (ft)	50	12		50	83	83	83	0	0	83	0	
	. 0			ŏ	-10	-10	-10	: · 0	0	-10	20	
Trailing Detector (ft)	0	-8		0	-10	-10	-10	ō	0	-10	0	
Detector 1 Position(ft)	50				- 60° 93	93	93	Ō		93	. 0	
Detector 1 Size(ft)		•		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	
Detector 1 Type	CI+Ex	CI+Ex	·	and the figure	CITEX	- grade	OI LA	OI LA	97.		<del> </del>	,
Detector 1 Channel		0.0		· //.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		ŅA	pm+ov	pm+pt	NA	
Turn Type	Split	NA		Split	NA	pm+ov	pm+pt		pni±ov 3	րու∗իլ	5 1VA	•
Protected Phases	4	4		3	3	1	5	. 2			0	Name
Permitted Phases				_	_	3	2	٠.	2	1	6	
Detector Phase	4	4		3	3	1	5	2	3	1	. 0	
Switch Phase		3									• •	
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0	5.0	3.0	3.0	

	۶	-	<b>→</b> ,		←	•	1	<b>†</b>		1	ţ	4
Sales Cignia		S. W.			Oline.			(a (West)	, gylary	(γ. οΣ <b>;</b> ξ	1000	
Minimum Split (s)	10.0	10.0		271F4781 1	10.0	· 10.0	10.0	15.0	10.0	10,0	10.0	
Total Split (s)	20.0	20.0			15.0	20.0	20.0	71.0	15.0	20.0	71.0	. r. ber va
Total Split (%)	15.9%	15.9%	11.	9% 11	1.9%	15,9%	15.9%	56.3%	11.9%	15.9%	56.3%	11.05
Maximum Green (s)	15.0	15.0	1	0.0	10.0	15.0	15.0	66.0	10.0	15.0	66.0	to a second
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	V
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	100	-1.0			-1.0	-1.0	10	-1,0	-1.0	-1.0	-1.0	
Total Lost Time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag	Le	ead i	Lead	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	•	res .	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	e e de
Recall Mode	None	None			Vone	None	None	C-Max	None	None	C-Max	
Act Effet Green (s)		6.4	ALL TOP OF		11.0	27.6	93.1	87.4	102.4	104.7	102,7	
Actuated g/C Ratio		0.05			0.09	0.22	0.74	0.69	0.81	0.83	0.82	
v/c Ratio		0.08			1.46	0.41	0.02	0.77	0.21	0.65	0.59	
Control Delay		58.6		2	78.9	6.8	1.6	8.0	0.8	35.7	6.5	
Queue Delay		0.0	1.2		0.0	0.0	0.0	0.5	0.0	0,0	0.0	
Total Delay		58.6	•	2	78.9	6.8	1.6	8.5	0.8	35.7	6.5	
LOS		E			F	A	A	A	A	D	A	
Approach Delay		58.6		1	48.9			7.4			9.1	
Approach LOS		E			F			A			Α	
Queue Length 50th (ft)		6			-234	0	0	146	9	64	153	
Queue Length 95th (ft)		21			#394	50	m0	m154	m6	143	486	
Internal Link Dist (ft)		417			204			632			350	
Turn Bay Length (ft)						125	105		105	100		
Base Capacity (vph)		223			145	511	365	2360	1346	297	2800	
		0			0	0	0	182	0	0	. 0	
Starvation Cap Reducts Spillback Cap Reducts		0	٠,		ō	ō	Ō	0	0	0	0	
The second secon	patring! -	n A	ALC: 47-84	و در د	. 0	Ō	0	0	0	0	0	
Storage Cap Reductn	100 TO 100 T	0.03	g y Siene	5-	1.46	0.38	0.01	0.84	0.21	0.56	0.59	
Reduced v/c Ratio		0,00			21.10				ender Viller	tre constitution		

Area Type:

Other

Cycle Length: 126

Actuated Cycle Length: 126

Offset: 40 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Red

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.46 Intersection Signal Delay: 21.3 Intersection LOS: C Intersection Capacity Utilization 80.8%

ICU Level of Service D

Analysis Period (min) 15

Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases:	1: NYS ROUTE 300 & Hotel/Hampton Inn	- A	
<b>1</b>	▼ ø2 (R)	1°03	- 1 <sub>04</sub>
<b>1</b> ø5	₩ ø6 (R)		
e film		<u> </u>	

	٨	-	~	•	•	*	4	<b>†</b>	-	-	ļ	1
igijos Crangaas gadagas g			da âl									<b>3848</b>
Lane Configurations		4			4	7	7	十十	7	<b>\</b>	<b>†</b> }	
Volume (vph)	. 6	1	0	207	Ö	189	5	1787	282	163	1622	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	-10	10	210	11	11	~.11	11	13	14/11/		. 10
Grade (%)		-7%	,		7%			1%			-1%	. w. orba
Storage Length (ft)	Page 0		. 0	0	1 700 1 100 100 100 100 100 100 100 100 100	125	105		105	100		- 0
Storage Lanes	0		0	Ō		1	1		1	1		Đ
Taper Length (ft)	25	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	grand to	25	14. Jugar	. The state of the	25		da da kar	25		4 4
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt. 1988 (1986)	1.00	3.00				0.850	1 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0.850		0,999	
Flt Protected	7.7	0.959	er Mai de		0.950	.,	0.950			0.950		
and the second s	0	1760	. 0	. 0	1667	1492	1702	3404	1628	1719	3435	0
Satd. Flow (prot)	U	0.959	Ū	J	0.950	1.10-	0.100	7 1-7 11		0.052		
Fit Permitted	^	1760	0	0	1667	1492	179	3404	1628	94	3435	0
Satd, Flow (perm)	Ō	1700	Yes	٧	1001	Yes			Yes			Yes
Right Turn on Red			res			155			144		1	
Satd. Flow (RTOR)					20	100		30	P. F. P		30	
Link Speed (mph)		30			30			712			430	
Link Distance (ft)		497	1		284		177.	16.2			9.8	
Travel Time (s)		11.3			6.5	8.00	0.00	0.98	0.98	0.98	0.98	0.98
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98		2%	2%	2%	2%
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	2%	2%	288	166	1655	9
Adj. Flow (vph)	6	_ : 1	0	211	0	193	5	1823	200	100	1000	
Shared Lane Traffic (%)								4000	600	400	1664	0
Lane Group Flow (vph)	0	7	. 0	.0	211	193	5	1823	288	166		No
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left		Right
Median Width(ft)		0			0			22			22	
Link Offset(ft)		0			0			0			. 0	
Crosswalk Width(ft)		16			16			16			16	,
Two way Left Turn Lane				2.4	. 1						4.04	4.00
Headway Factor	1.05	1.05	1.05	1.14	1.09	1.09	1.05	1.05	0.96	1.04		
Turning Speed (mph)	15		9	15		9	15	1000	9	15	_	9
Number of Detectors	1	1	et and at the	1	1	1	1	1	1	1	1	
Detector Template	Left	Y	4.	Left			21.00 E				11.0	
Leading Detector (ft)	50	12	P	50	83	83	83	0	0	83		
Trailing Detector (ft)	Õ	-8	800 A	0	-10	-10	-10	0	0	-10		1 P 11
Detector 1 Position(ft)	0	-8		0	-10	-10	-10	0	0	-10	0	
	50	20		50	93	93	93	0	0	93	. 0	Patrick C
Detector 1 Size(ft)	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	{
Detector 1 Type	CITLA	OFFLA		O1 - LA	Q) · Wait					1.1		
Detector 1 Channel	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	}
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0		
Detector 1 Delay (s)	0.0	0.0			NA	o.o pm±ov				pm+pl		
Turn Type	Split	NA		Split	3	√hiti⊆ita.	. իլն≖իք 5	2	-		i 6	
Protected Phases	4	4	No. 20 Person	3		ا د <b>ت</b> اریخ	2					
Permitted Phases		in the second	Version of		- 45 S	ડાનું¦-સં <b>3</b> 1	, ११६८ है. <b>5</b>	2		1		
Detector Phase	4	4		3	3	-	3		. <b>.</b>			
Switch Phase						4.4	3.0	10.0	5.0	3.0	7 Carl	
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0	0.0	U.(	, 4.1	

Synchro 8 Report Page 1

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angagan						e west					0004:00	# AS 4 16
Minimum Split (s)	10.0	10.0		10.0	10.0	10.0	10.0	15.0	10.0	10.0	10.0	1000000
Total Split (s)	15.0	15.0	, ,	30.0	30.0	20.0	20.0	61.0	30.0	20.0	61.0	
Total Split (%)	11.9%	11.9%		23.8%	23.8%	15.9%	15.9%	48.4%	23,8%	15,9%	48.4%	
Maximum Green (s)	10.0	10.0	•	25.0	25.0	15.0	15.0	56.0	25.0	15.0	56.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		-1.0	** .		-1.0	-1,0	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lag	Lead	Lead	Lag	***
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Paris 1
Recall Mode	None	None		None	None	None	None	C-Max	None	None	C-Max	
Act Effct Green (s)	To the	6.4	Specifical		20.8	37.4	83.3	77.5	102.3	94.9	92.8	
Actuated g/C Ratio		0.05			0.17	0.30	0.66	0.62	0.81	0.75	0.74	
v/c Ratio		0.08			0.77	0.35	0.03	0.87	0.21	0.68	0.66	
Control Delay		58.6			68.0	7.9	3.8	15.8	0.9	41.0	12.6	
Queue Delay		0.0			0.0	0.0	0.0	1.5	0.0	0.0	0.0	
Total Delay		58.6			68.0	7.9	3.8	17.3	0.9	41,0	12.6	
LOS		- Æ			Ε	А	• A	В	Α	D	В	
Approach Delay		58.6			39.3			15.0			15.2	
Approach LOS		Ε	3.8"		D			В			В	
Queue Length 50th (ft)		6			165	22	1	168	2	76	276	
Queue Length 95th (ft)		21		er eserción.	244	58	m1.	m#981	m23	158	702	
Internal Link Dist (ft)		417			204			632			350	
Turn Bay Length (ft)			inger Grande			125	105		105	100		
Base Capacity (vph)		153			343	587	324	2093	1410	286	2531	
Starvation Cap Reductn		0	1.		0	0	0	126	.0	0	0	
Spillback Cap Reductn	•	0	•		0	0	0	0	0	0	0	
Storage Cap Reductn		0:	11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	. 0	0	0	0	0	0	
Reduced v/c Ratio		0.05		•	0.62	0.33	0.02	0.93	0.20	0.58	0.66	
											15	Continue de la California

Area Type:

Other

Cycle Length: 126
Actuated Cycle Length: 126

Offset: 40 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Red

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 17.4

Intersection Capacity Utilization 80.8%

Intersection LOS: B

ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: NYS ROUTE 300 & Hotel/Hampton Inn

p1 p2 (R)

p5 p6 (R)



ANDREW M. CUOMO Governor JOAN McDONALD Commissioner WILLIAM J. GORTON, P.E. Regional Director

March 5, 2015

Watchtower Bible & Track Society 25 Columbia Heights Brooklyn, NY 11201 Attn: Richard Devine

Re: NYSDOT SEQRA# 14-0191

**Hudson Valley Personnel Support Center of** 

Jehovah's Witness

Route 300

Town of Newburgh, Orange County

Dear Mr. Devine:

As an involved agency, NYSDOT has consented to the Town of Newburgh Planning Board acting as Lead Agency as relates to the SEQRA process. We have reviewed the Traffic Impact Study dated November 19, 2014. A Highway Work Permit will be required as part of the proposed action.

As a part of Governor Cuomo's Lean NY initiative, the New York State Department of Transportation is undertaking a number of Lean process review projects, including a review of the Highway Work Permit process for commercial driveway permits. As a result of this review, and after a series of customer interviews, a structured process has been developed that is expected to provide a more consistent experience for permit applicants across all 11 Regions. This new process will provide clearer guidance on what information is required at each stage of the process, coupled with technical guidance and direction on what elements need to be included in plan submissions.

The Department is currently running a beta test of the new process in select regions, including Region 3 (Syracuse), Region 8 (Poughkeepsie), and Region 10 (Hauppauge).

As an applicant in one of these three Regions, we are asking that you submit your plans using the new PERM 33-COM form, which combines a three-stage application with an interactive checklist. The PERM 33-COM will replace use of the standard PERM 33 application for commercial work permit applications. The PERM 33-COM provides assistance in determining what studies, if any, may be required, provides direction to standard details, and clearly outlines what is to be shown on your plan submission. It is expected that with the use of this document, packages will be more complete, and review time will ultimately be reduced:

The Applicant can access the PERM 33-COM at <a href="www.dot.ny.gov/permits-beta">www.dot.ny.gov/permits-beta</a>.

The process is comprised of three stages; an Initial Proposal Review, a Design Review, and a Final Submission. The PERM 33-COM will indicate the information required and provide guidance at each stage of submission. Any new project should be initiated by completing Stage 1 of the PERM 33-COM (pages 3-6) and submission of your preliminary plans. A meeting is recommended in the first stage, and will be scheduled after receipt of your initial submission.

Please note, that as this is a beta test, some elements of the process may be modified prior to full statewide rollout of the process. In the meantime, please feel free to provide feedback on the process and the new form. You may email comments and feedback to me at <a href="michael.manning@dot.ny.gov">michael.manning@dot.ny.gov</a>, and ask that you also include HWP Program Manager, Anthony llacqua at <a href="mailto:Anthony.ilacqua@dot.ny.gov">Anthony.ilacqua@dot.ny.gov</a> as well. We greatly appreciate your participation in the test of this new process, as we work to upgrade the experience and improve our service to you.

Thank you for your interest in highway safety.

Very truly yours,

Michael P. Manning HWP/SEQR Unit

cc: M. Sassi, Traffic Safety & Mobility Group

S. Zachariah-Carbone, Permit Engineer, Residency 8-4

P. Grealy, Maser Consulting P.A. Kenneth Wersted, PE, PTOE,

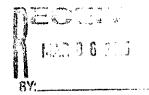


ANDREW M. CUOMO Governor JOAN McDONALD
Commissioner

WILLIAM J. GORTON, P.E. Regional Director

March 5, 2015

Maser Consulting P.A. 1607 Route 300 Suite 101 Newburgh, NY 12550 Attn: Philip J. Grealy



Re: NYSDOT SEQRA# 14-0191

**Hudson Valley Personnel Support Center of** 

Jehovah's Witness

Route 300

Town of Newburgh, Orange County

Dear Dr. Grealy:

As an involved agency, NYSDOT has consented to the Town of Newburgh Planning Board acting as Lead Agency as relates to the SEQRA process. We have reviewed the Traffic Impact Study dated November 19, 2014. A Highway Work Permit will be required as part of the proposed action.

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Maser Consulting P.A. March 5, 2015

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Thank you for your interest in highway safety.

Muchal P. Manning

Very truly yours,

Michael P. Manning HWP/SEQR Unit

cc: M. Sassi, Traffic Safety & Mobility Group

S. Zachariah-Carbone, Permit Engineer, Residency 8-4

Watchtower Bible & Track Society Kenneth Wersted, PE, PTOE



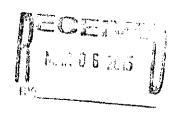
# Department of Transportation

ANDREW M. CUOMO Governor JOAN McDONALD
Commissioner

WILLIAM J. GORTON, P.E. Regional Director

March 5, 2015

Kenneth Wersted, PE, PTOE Project Manager Creighton Manning Engineering, LLP 2 Winners Circle Albany, NY 12205



Re: NYSDOT SEQRA# 14-0191

**Hudson Valley Personnel Support Center of** 

Jehovah's Witness

Route 300

Town of Newburgh, Orange County

Dear Mr. Wersted:

As an involved agency, NYSDOT has consented to the Town of Newburgh Planning Board acting as Lead Agency as relates to the SEQRA process. We have reviewed the Traffic Impact Study dated November 19, 2014. A Highway Work Permit will be required as part of the proposed action.

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Thank you for your interest in highway safety.

Very truly yours,

Michael P. Manning HWP/SEQR Unit

cc: M. Sassi, Traffic Safety & Mobility Group

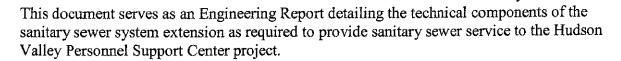
Muchael P. Warning

S. Zachariah-Carbone, Permit Engineer, Residency 8-4

Watchtower Bible & Track Society P. Grealy, Maser Consulting P.A.

# HUDSON VALLEY PERSONNEL SUPPORT CENTER OF JEHOVAH'S WITNESSES

# SANITARY SEWER SYSTEM ENGINEERING REPORT REVISED MARCH 2015



# **Project Summary:**

The Hudson Valley Personnel Support Center project is located within the Town of Newburgh, Orange County, New York The Support Center incorporates an existing 293 seat diner, an existing 115 room hotel and the construction of a new 100 room hotel. Sanitary sewer service for the existing diner and hotel is and will continue to be provided via an existing submersible, duplex pump station. This station discharges to the Town of Newburgh's wastewater collection system via a 3" ductile iron forcemain. The new 100 room hotel will be serviced via a sanitary sewer pump station which will convey all wastewater generated within the new hotel to the Town of Newburgh's wastewater collection system. A portion of the existing forcemain will be utilized to convey flow both from the existing and the new pump station.

The details of the new hotel as it pertains to sanitary sewer requirements are as follows:

Description	Number of Units	Typical Per-Unit	Total Design Flow
	Chair of Lordon particles (* Lordon)	Hydraulic Loading Rate (gallons per	(gallons per day)
	CENTRE I AND	day)	
Banquet Area	100 seats	8	800
Sleeping Units	100 rooms	110	11,000
Total Hydraulic Dema	and		11,800

Water and Sanitary Sewer Design Flow based on New York State Design Standards for Intermediate Sized Wastewater Systems – Hydraulic loading rates based on new facility with water saving plumbing fixtures.

The projected sanitary sewer generated by the existing diner and hotel is as follows:

Description	Number of Units	Typical Per-Unit Hydraulic Loading Rate (gallons per day)	Total Design Flow (gallons per day)
Diner	293 seats	35	10,255
Hotel - Sleeping Units	115 rooms	110	16,650
Total Hydraulic Demand			22,905

Water and Sanitary Sewer Design Flow based on New York State Design Standards for Intermediate Sized Wastewater Systems

### **Existing and Proposed Sanitary Sewer Service Connection:**

Sanitary sewage from the new hotel within the Hudson Valley Personnel Support Center development will be conveyed to the Town of Newburgh's wastewater collection system on Route 300. All wastewater will flow via gravity from the hotel into a pump station to be located adjacent to the hotel. This pipeline will be 6" PVC piping, with a minimum slope of 1.0%. This provides a capacity 365 gpm, thereby providing capacity in excess of the design peak hydraulic flow of 33 gpm. This pump station will convey the entirety of the sanitary sewer generated within the new hotel via a 3" HDPE DR11 forcemain installed as part of this project. This forcemain will connect to the existing 3" ductile iron forcemain adjacent to the existing pump station. The existing forcemain will then convey the entirety of the flow from the existing and new pump stations.

The sanitary sewer pump station servicing the new hotel will be sized to for the projected sewer demand as follows:

Average Flow: 11,800 gpd

Peak Factor: 4

Pump Station Flow Capacity: 47,200 gpd (33 gpm)
Minimum Pump Capacity: 47,200 gpd (33 gpm)

Selected Pump: 47 gpm – Sulzer PIR09D 60 HZ

Pump Station Invert: 310' Pump Off Level: 306.5'

Forcemain Discharge Elevation: 318' (invert at connection to existing 3" ductile iron)

Forcemain: 435 linear feet 3" DR11 HDPE Velocity: 2.6 ft/sec (ID of 3" DR11 = 2.84")

Friction Loss: 4.2' Elevation: 11.5'

Flow in existing 3" ductile iron forcemain (combined flow after connection with forcemain servicing existing pump station)

Flow:

111 gpm - 64 gpm from existing pump station and 47 gpm

from proposed pump station

Connection Invert:

318'

Forcemain Discharge Elevation:

333' (connection to Town gravity sewer)

Forcemain:

225 linear feet 3" Ductile Iron

Velocity:

4.1 ft/sec (ID of 3" Ductile Iron = 3.34")

Friction Loss:

4.9' at 111 gpm

Added head on existing PS with new PS in operation: 3.2'

Elevation:

15°

Selected Pump:

Sulzer PIR09D 60 HZ

Pump will operate at 47 gpm at 36' TDH – pump curve is

attached

Following the hydraulic loading requirements noted above for the existing diner and hotel, the existing pump station should be sized for 64 gpm (peak factor = 4). The site owner completed drawdown testing of the existing pump station which shows that the existing pump station operates at 65 gpm with one pump in operation and 110 gpm with both pumps in operation. Based on this testing, the addition of 47 gpm within a portion of the forcemain during periods which both pump stations are operating will have minimal impact on the operation and capacity of the existing pump station and no upgrades are required.

The new pump station for the new hotel will be a submersible, duplex station, with each pump rated for a capacity of 47 gpm at 35' TDH. The pumps will be of a grinder type and the system will be fully automated, with alarm callout capabilities. Additionally, the station will be include a backup generator to ensure continuation of sanitary sewer service during power failures.

Curve number SULZER **Pump performance curves** Reference curve PIRANHA 09 D 60 HZ PIR09D 60HZ Frequency Discharge G11/4" 60 Hz Date Rated speed Density Viscosity Testnorm 2015-01-27 1.077E-5 ft2/s ISO 9906 Gr 2 Annex A1/A2 3410 rpm 62.31 lb/ft3 **NPSH** Hydraulic efficiency Flow Head Rated power 18.8 % 2.55 hp 46.3 US g.p.m. 38.1 ft H/ft 7, |110= 105 100-95 40 90 🖥 85 -36 80-75--32 70-∃ 65 -28 60-∄ -24 55<del>-</del> 50-20 45= 16.47 38.06 Ã1 30-∄ 12 25 🖥 20= -8 15 Head ◆ Application range

◆ *P*₂/hp∃ 2.552 2.5 2.4 2.3 2.2 2.1 2 Shaft power P2 n/rpm\_ 3450 3430 \$420-3410 3400-∃ Speed 44 46.27 8 52 Q / US g.p.m. 40 32 36 12 16 20 24 28 Revision Solid size Impeller Impeller size N° of vanes 5.31 inch Macerator



# TOWN OF NEWBURGH

MAR 3 0 2015

RECEVE

1496 Route 300, Newburgh, New York 12550SER CONSULTING P.A.

March 27, 2015

Mr. Jason Morris, P.E. City of Newburgh – City Hall 83 Broadway Newburgh, NY 12550

RE: S\ CROSSROADS S.D. – CITY OF NEWBURGH INTERMUNICIPAL SEWER AGREEMENT — (Hudson Valley Personnel Support Center of Jehovah's Witnesses)

Dear Mr. Morris:

As discussed with you, the site plan referenced above has been modified to include 100 seat banquet/dining room. The inclusion of this facility increases the projected sewage flow for the site to 11,800 gallons per day as described in the attached letter from Maser Consulting dated 20 March 2015.

Based on the above, we are requesting a modification of your original approval dated 6 January 2015 acknowledging the additional flow.

If you have any questions, I am available to discuss them with you. I look forward to your reply.

Respectfully,

James W. Osborne

Town Engineer

JMO\!q

Attachment

CC:

J. Platt, DPW Commissioner

S. Grogan, Sewer Dept.

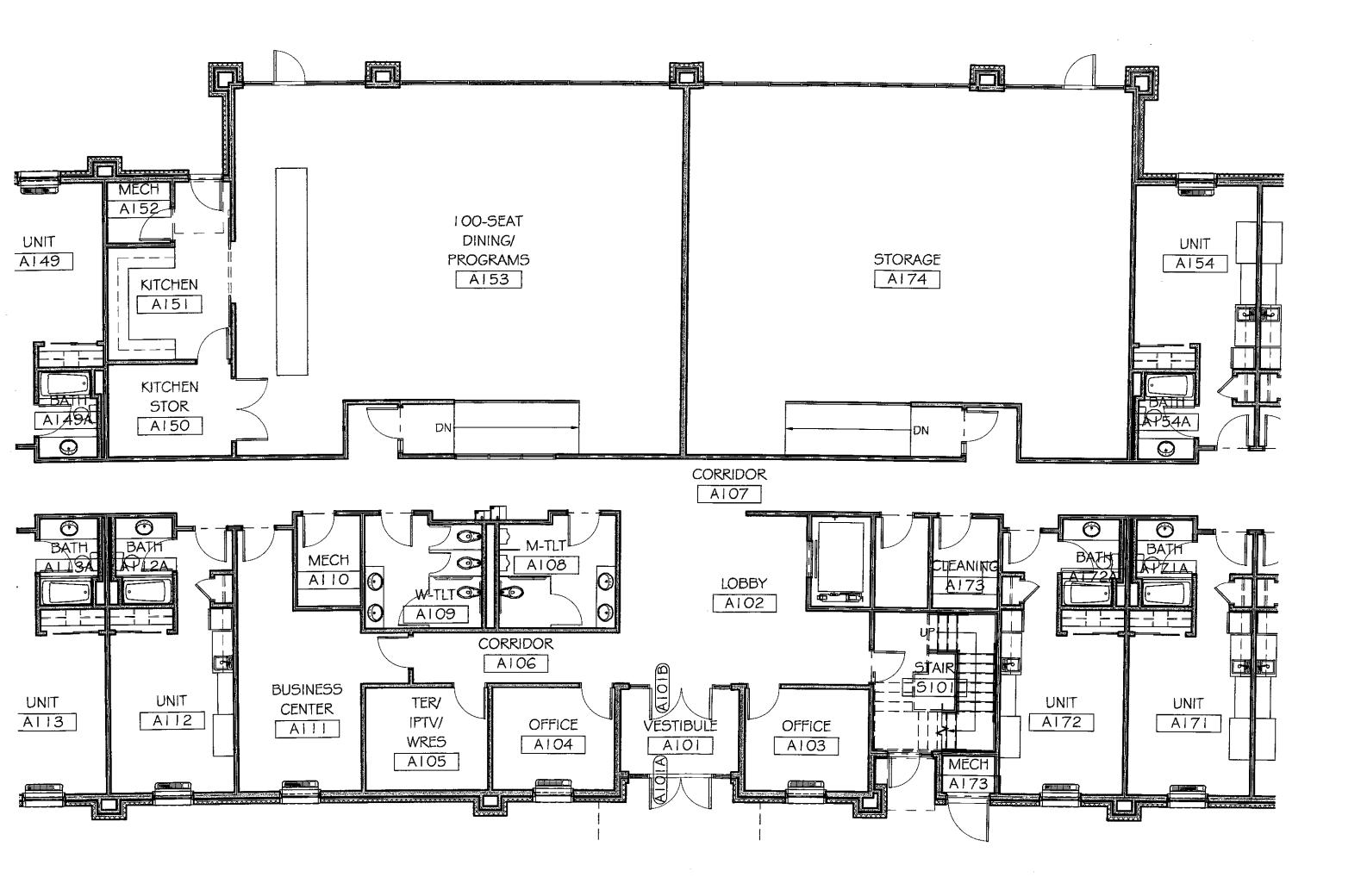
J. Ewasutyn, P.B. Chairman

P. Hines, MH&E

## ARCHITECTURAL REVIEW FORM TOWN OF NEWBURGH PLANNING BOARD

DATE: <u>VANUARY</u> 30, 2015
NAME OF PROJECT: HUDSON VALLEY PERSONNEL SUPPORT CENTER-
The applicant is to submit in writing the following items prior to signing of the site
plans.
EXTERIOR FINISH (skin of the building):
Type (steel, wood, block, split block, etc.)
EIFS (EXTERIOR INSULATION FINISH SYSTEM) STONE VENEER
COLOR OF THE EXTERIOR OF BUILDING:  STO - # 10622, INDIANA LIMESTONE (OF EQUAL)
ACCENT TRIM:
Location: NA
Color:
Type (material):
PARAPET (all roof top mechanicals are to be screened on all four sides):
ROOF:
Type (gabled, flat, etc.): MANGRO FLAT
Material (shingles, metal, tar & sand, etc.): EPDM / METAL STANDING SEAM
Color: EPPM- WHITE, MANSARD - MBCI MEDIUM BRONZE (OR EQUAL)

WINDO	DWS/SHUTTERS:
	Color (also trim if different): BRONZE
	Type: <u>Aluminum single Hung and fixed units</u>
DOORS	S:
	Color: PAINT TO MATCH BRONZE COLOR OF WINDOWS
SIGN:	Type (if different than standard door entrée): INSULATED STEEL AT MECHANICAL ROOMS
	Color:
	Material:
	Square footage of signage of site:
	EP: KEN ROSS, ARCHITECT
riease p	rint name and title (owner, agent, builder, superintendent of job, etc.)
K	an Room
Signatur	re ·

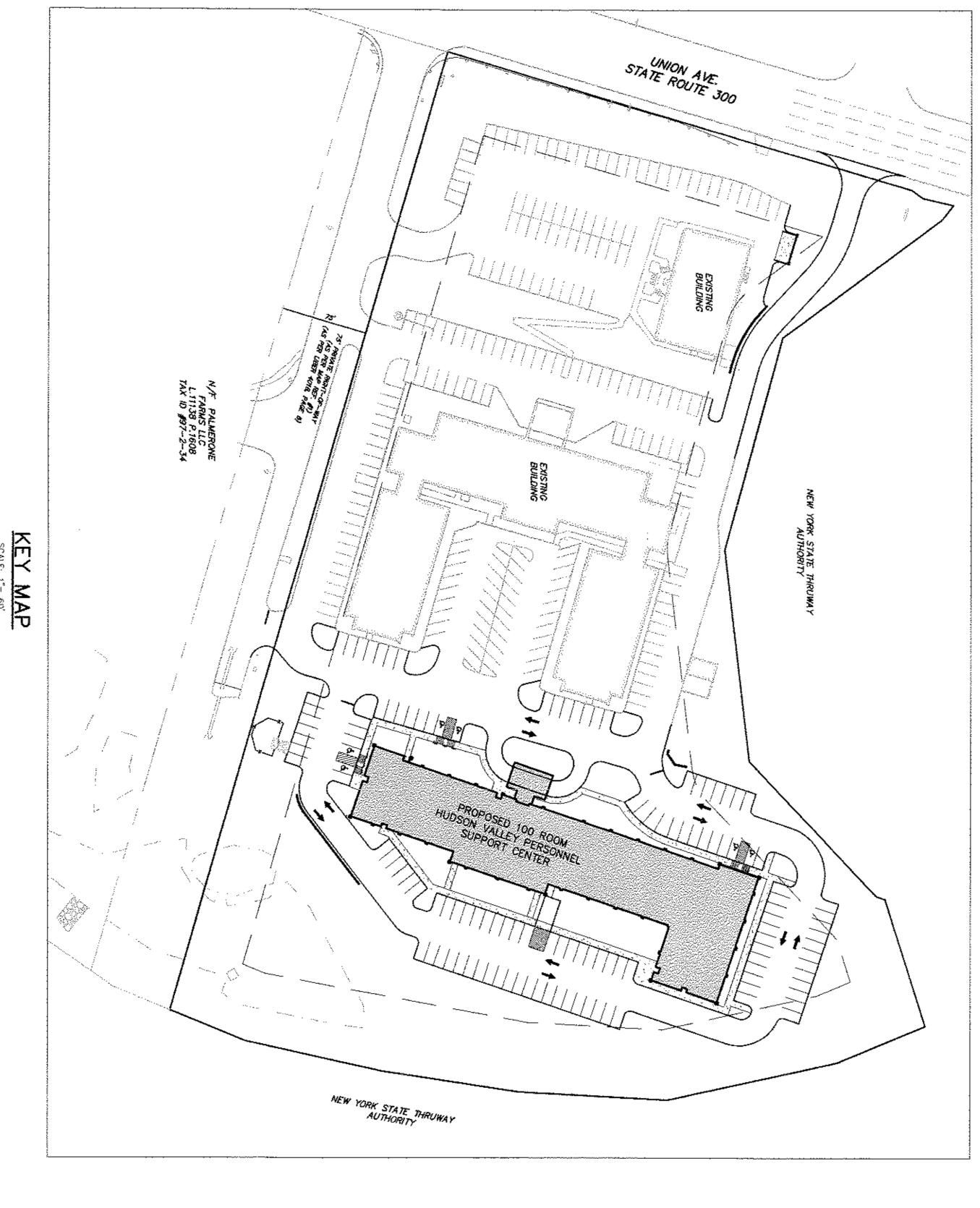


## FINAL SITE FOR PLANS

WATCHTOWER BIBLE  $\Gamma RACT$ SOCIETY NEW ORK,

## PERSONNEL TAX LOTS ENTER 30 OF EHOV S ITNESSES

ORANGE TOWN COUNTY 0FNEW NEW BURGH



## GENERAL NOTES:

LOCATION MAP

3. MAT	2. NO EFFE MAN	8. THE B IS TAI FOR V 2014.	
MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:	NO 100 YEAR FLOOD PLAINS ARE KNOWN TO EXIST ON THE SITE PER THE FLOOD INSURANCE RATE MAP, COMMUNITY—PANEL NO. 360627 0020 A, EFFECTIVE DATE: AUGUST 3, 2009; PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.	THE BOUNDARY, TOPOGRAPHIC AND PLANIMETRIC INFORMATION SHOWN HEREON IS TAKEN FROM A SURVEY ENTITLED, "BOUNDARY AND TOPOGRAPHIC SURVEY FOR WATCHTOWER" PREPARED BY MASER CONSULTING P.A., DATED MAY 20, 2014.	The second section of the second seco

- NEW YORK STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", MAY 1, 2008; AS SUPPLEMENTED.
  CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
  CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
  CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
- 5. SANITARY SEWER SERVICE SHALL BE PROVIDED BY A PUMP STATION AND FORCEMAIN CONNECTION TO AN EXISTING SEWER MAIN IN THE ADJACENT PLAZA ACCESS ROAD, WITHIN THE CROSSROADS SEWER DISTRICT, OWNED AND OPERATED BY THE TOWN OF NEWBURGH SEWER DEPARTMENT. PROPOSED SEWER SERVICE EXTENSION AND PUMP STATION LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, ACCORDING TO MUNICIPAL AND ORANGE COUNTY MEALTH DEPARTMENT REGULATIONS. PIPE MATERIALS SHALL BE PVC SDR-35, EXCEPT AS NOTED OTHERWISE ON THE PLANS. EXCEPT WHERE SHALLOWER DEPTHS ARE PERMITTED BY THE MUNICIPALITY OR UTILITY AUTHORITY, SEWER LINES, INCLUDING FORCE MAINS AND LATERALS, SHALL BE INSTALLED TO PROVIDE A MINIMUM 4 FEET OF COVER FROM THE TOP OF PIPE TO PROPOSED GRADE. WATER SERVICE TO BE PROVIDED FROM THE EXISTING WATER MAIN LINE IN THE ADJACENT PLAZA ACCESS ROAD, WITHIN THE CONSOLIDATED WATER DISTRICT, OWNED AND OPERATED BY THE TOWN OF NEWBURGH WATER DEPARTMENT. PROPOSED WATER MAIN EXTENSIONS AND FIRE HYDRANT LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, AND AMERICAN WATERWORKS ASSOCIATION STANDARDS, FIPE MATERIALS SHALL BE CEMENT LINED DUCTILE RON PIPE, CLASS 52, WITH ASPHALTIC EPOXY TYPE COATING, WATER MAINS SHALL BE INSTALLED TO PROVIDE A WINIMUM 4.5 PEET OF COVER FROM THE TOP OF PIPE TO THE PROPOSED GRADE.
- ANITARY SEWERS SHALL BE SEPERATED FROM WATER MAINS BY AT LEAST TO EET HORIZONTALLY, IF SUCH SEPARATION IS NOT POSSIBLE, THE PIPES SHALL E IN SEPARATE TRENCHES WITH THE SANITARY SEWER AT LEAST 18 INCHES ELOW THE BOTTOM OF THE WATER MAIN. WHERE APPROPRIATE SEPERATION IS OT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE, OR ONSTRUCTED OF DUCTILE—IRON—PIPE USING MECHANICAL OR SLIP ON JOINTS, OR A DISTANCE OF TO FEET ON EITHER SIDE OF THE CROSSING. IN DOTTON, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH DOTTS ARE AS FAR AWAY AS POSSIBLE FROM THE WATER LINE.
- ELEPHONE, ELECTRIC, AND GAS LINES WILL BE INSTALLED UNDERGROUND. ROSSINGS OF PROPOSED PAVEMENTS WILL BE INSTALLED PRIOR TO THE ONSTRUCTION OF PAVEMENT BASE COURSE. AS, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALLE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE REA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ROMANCE REQUIREMENTS.
- UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
- REFUSE AND RECYCLABLES SHALL BE STORED WITHIN THE EXISTING OUTSIDE SCREENED TRASH ENCLOSURE. TRAFFIC SIGNAGE AND STRIPING SHALL CO TORM SEWERS SHALL BE CLASS III (OR HIGHER IF NOTED) REINFORCED DINCRETE PIPE (RCP) WITH "O" RING GASKETS, HIGH DENSITY POLYEHTYLENE PE (HDPE) OR APPROVED EQUAL AS NOTED, PROPER PIPE COVERAGE SHALL MAINTAINED DURING ALL PHASES OF CONSTRUCTION, PIPE LENGTHS SHOWN CREATER OF STRUCTURE. OND TO THE MANUAL ON
- BUILDING FOOTPRINT DIMENSIONS SHOWN HERON ARE APPROXIMATE, FINAL BUILDING FOOTPRINT DIMENSIONS FOR THE BUILDING SHALL BE FURNISHED ON THE ARCHITECTURAL PLANS AT THE TIME OF APPLICATION FOR A BUILDING PERMIT, ALL STRUCTURES SHALL CONFORM TO THE APPROVED BULK ZONING REQUIREMENTS. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HERON, IS NOT A SURVEY.
- DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
- 17. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION, WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTIONS, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES, TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE UNDER SIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON, SUCH CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE OR INEFFECTIVE, DIG SAFELY, CONTACT 1—800—962—7962 PRIOR TO EXCAVATION FOR UNDERGROUND UTILITY INFORMATION. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL, THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS REQUIRED HAVE BEEN OBTAINED, ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWNGS HAVE BEEN STAMPED "ISSUED FOR CONSTRUCTION". THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWNGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR MUNICIPALITY.
- CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY RECARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. MASER CONSULTING HAS PERFORMED NO EXPLORATORY OR TESTING SERVICES, INTERPRETATIONS, CONCLUSIONS OR OTHER POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY, INCLUDING OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING REQUIRED.

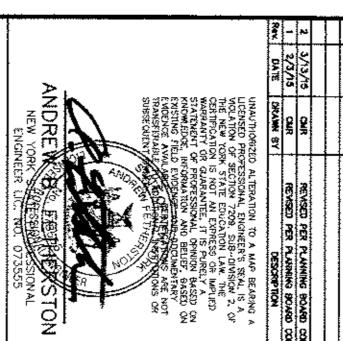
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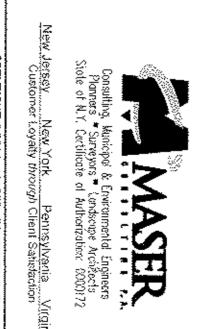
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1807 Route 300
Suite tot
Newburgh, NY 12550
Phone: 845.584.4495
Fax: 845.564.0278
solutions @ maserconsultin

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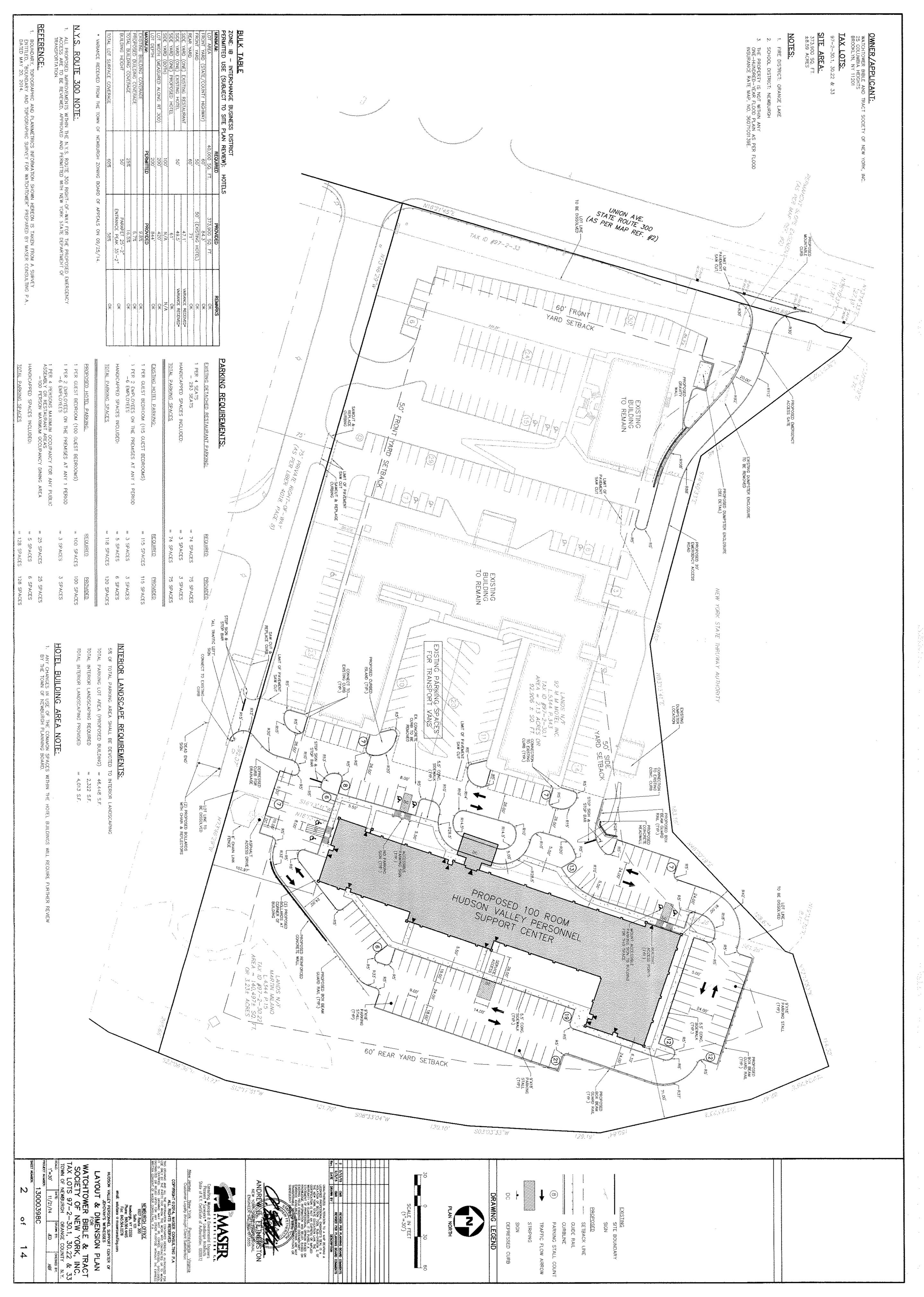
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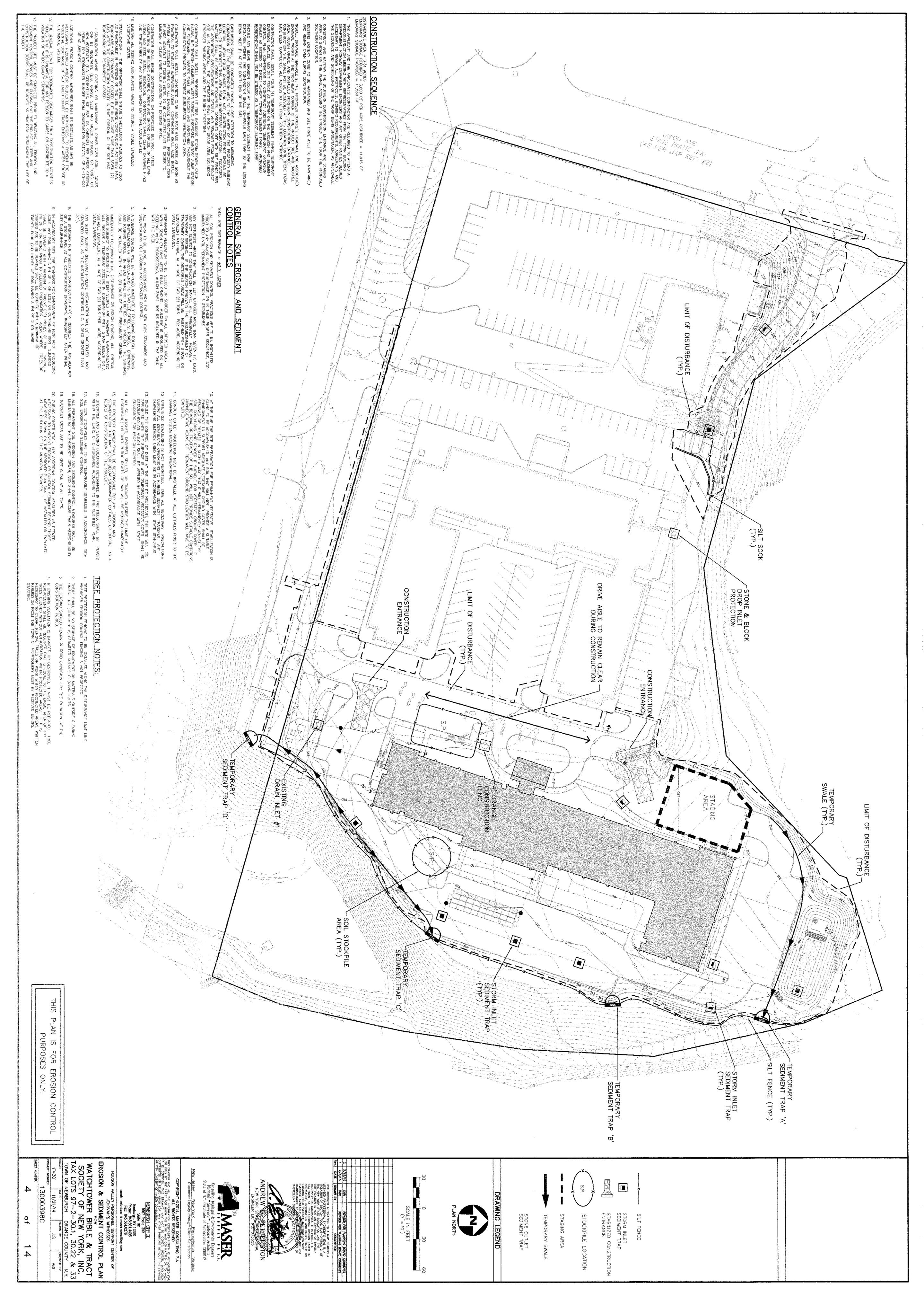
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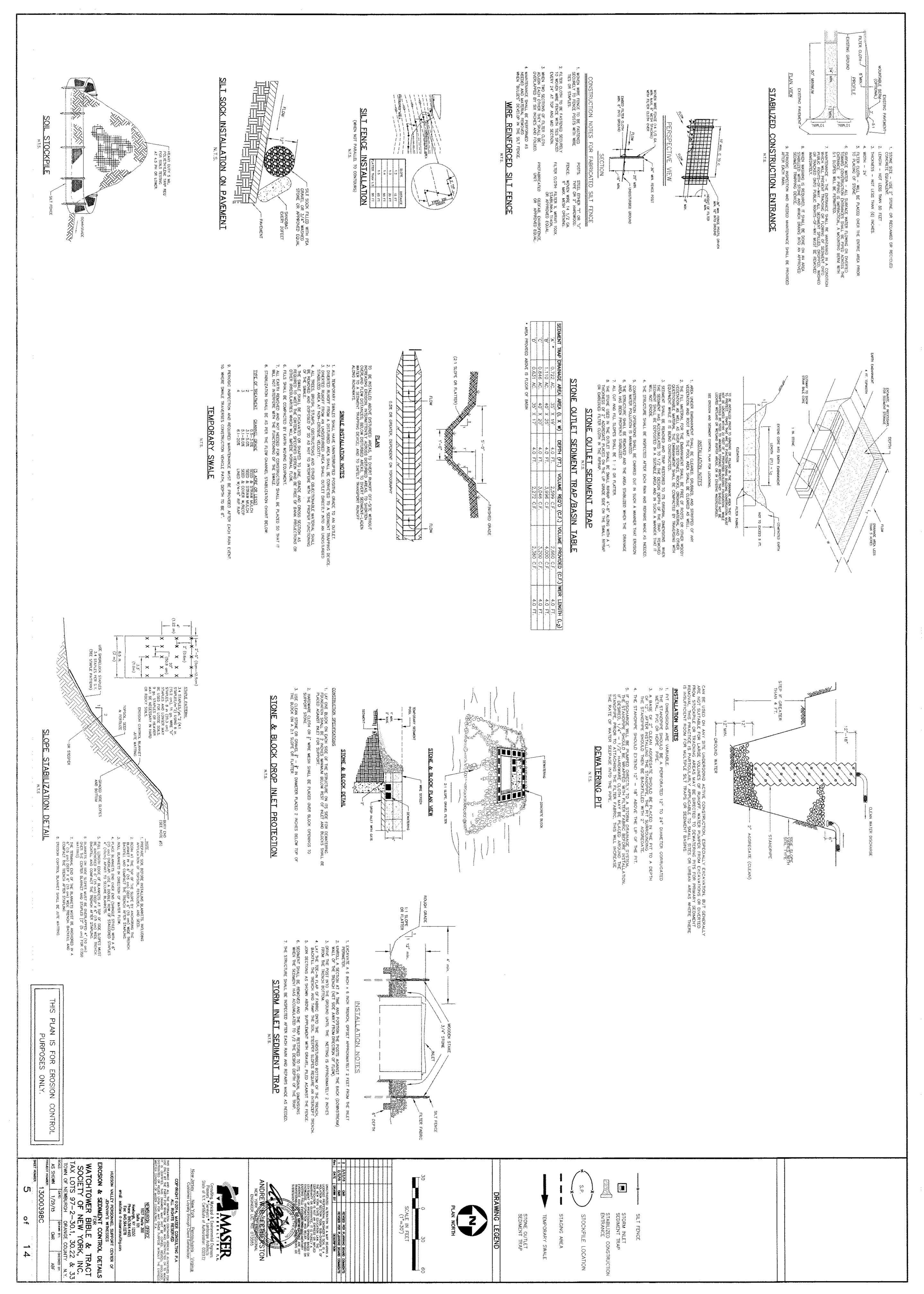
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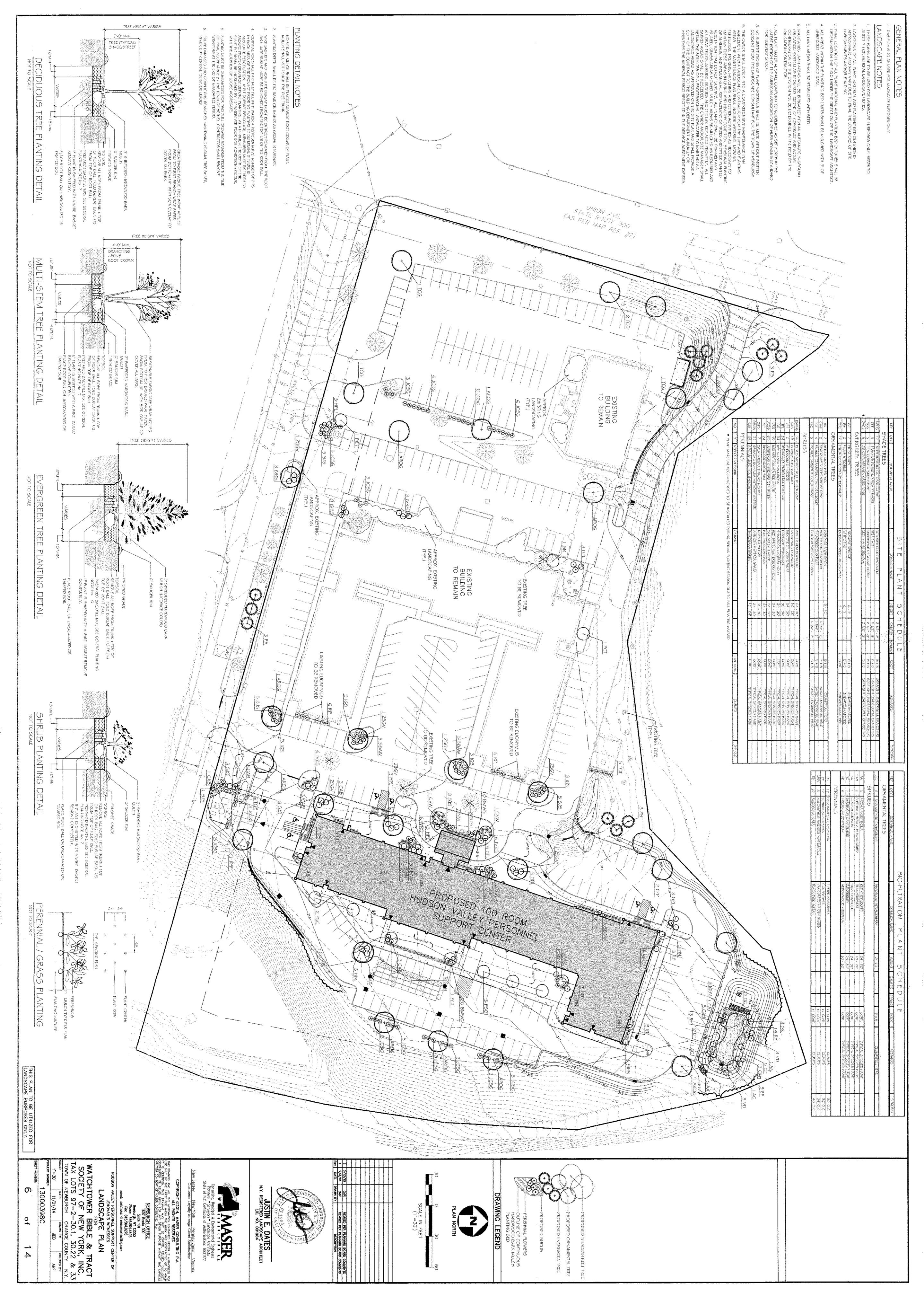
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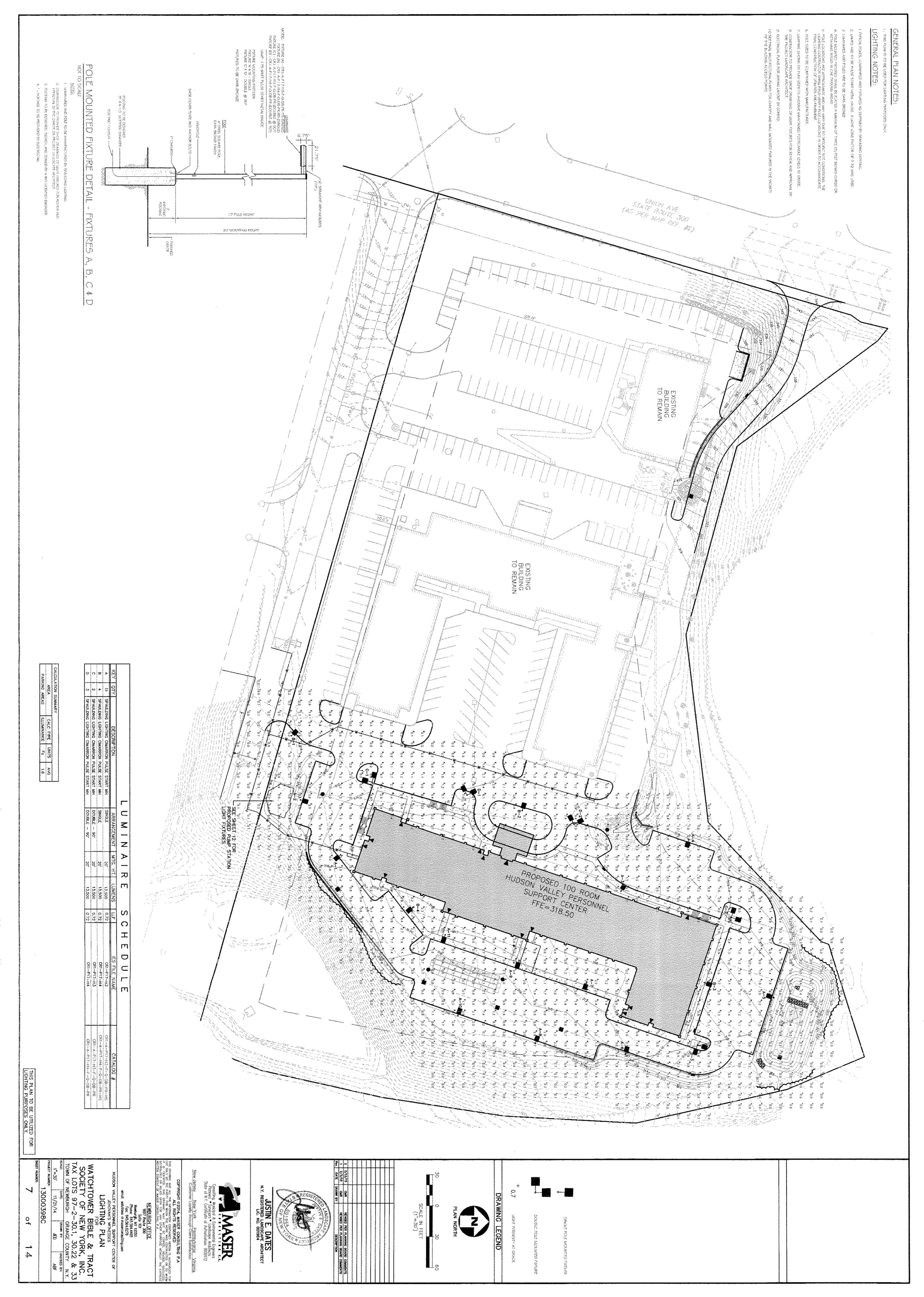


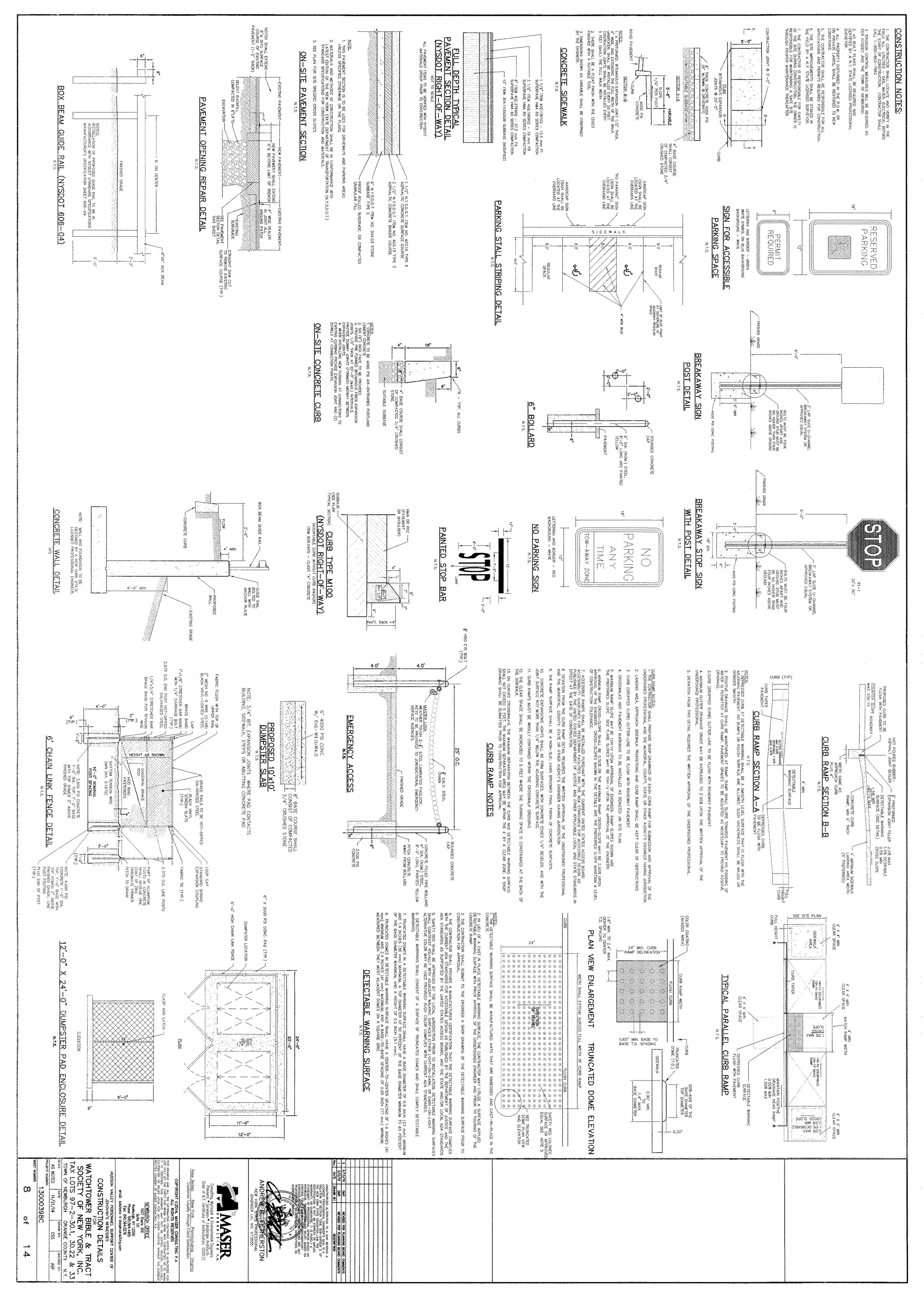


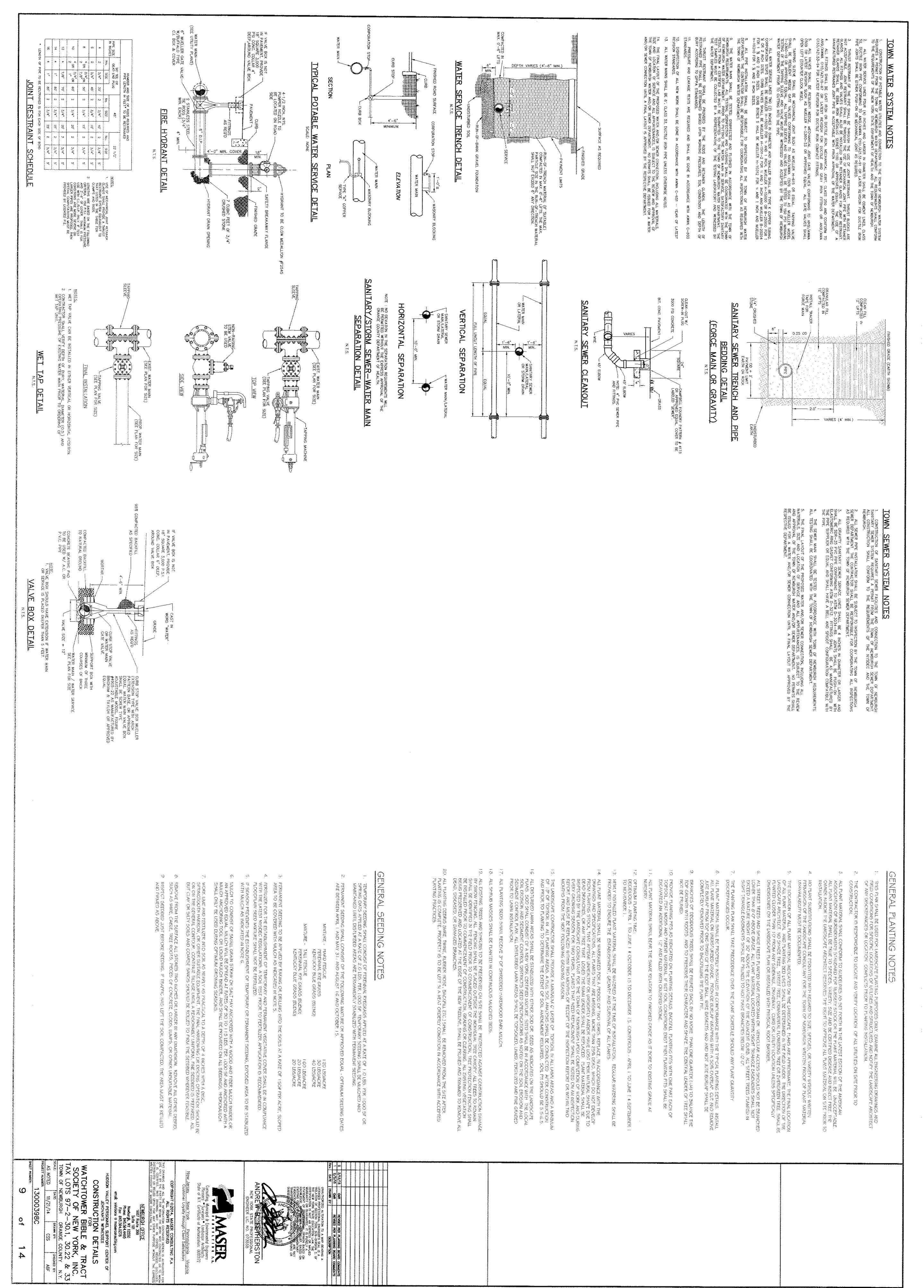












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NEWBURGH OFFICE 1607 Route 300 Suite 101 Newburgh, NY 12550 Phone: 845.564.4495 Fax: 845.564.0278 enal: solutions & moserconsultin

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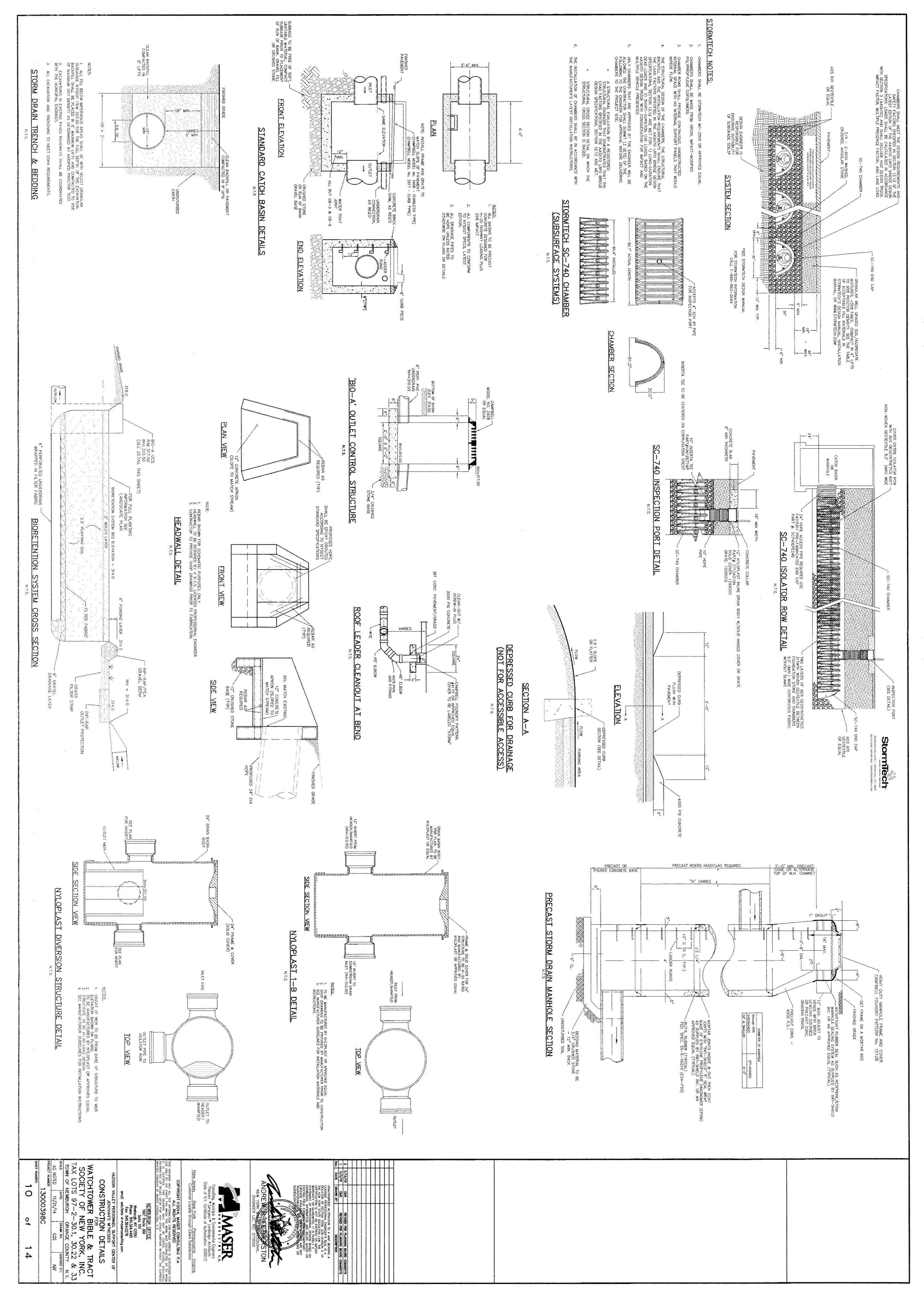
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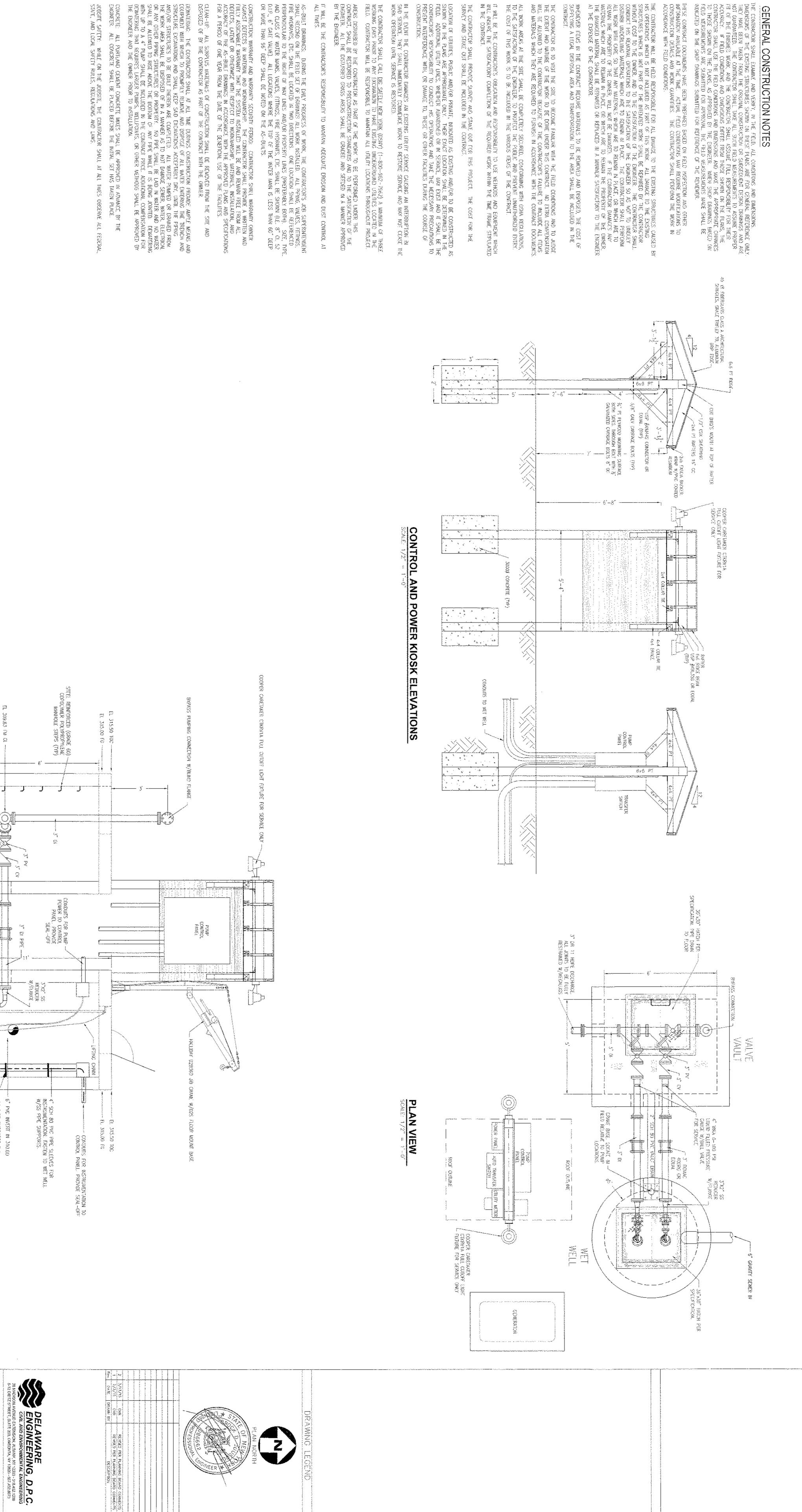
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CIVIL AND ENVIRONMENTAL ENGINEERING
28 MADISON AVENUE EXTENSION, ALBANY, NY 12203 - 819, 452, 1293
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NEWBURGH OFFICE 1667 Route 300 Suite 191 Hewburgh, NY 12550 Phone: 845.564.4495 Fac: 845.864.0278 sidutions @ matterconsultin

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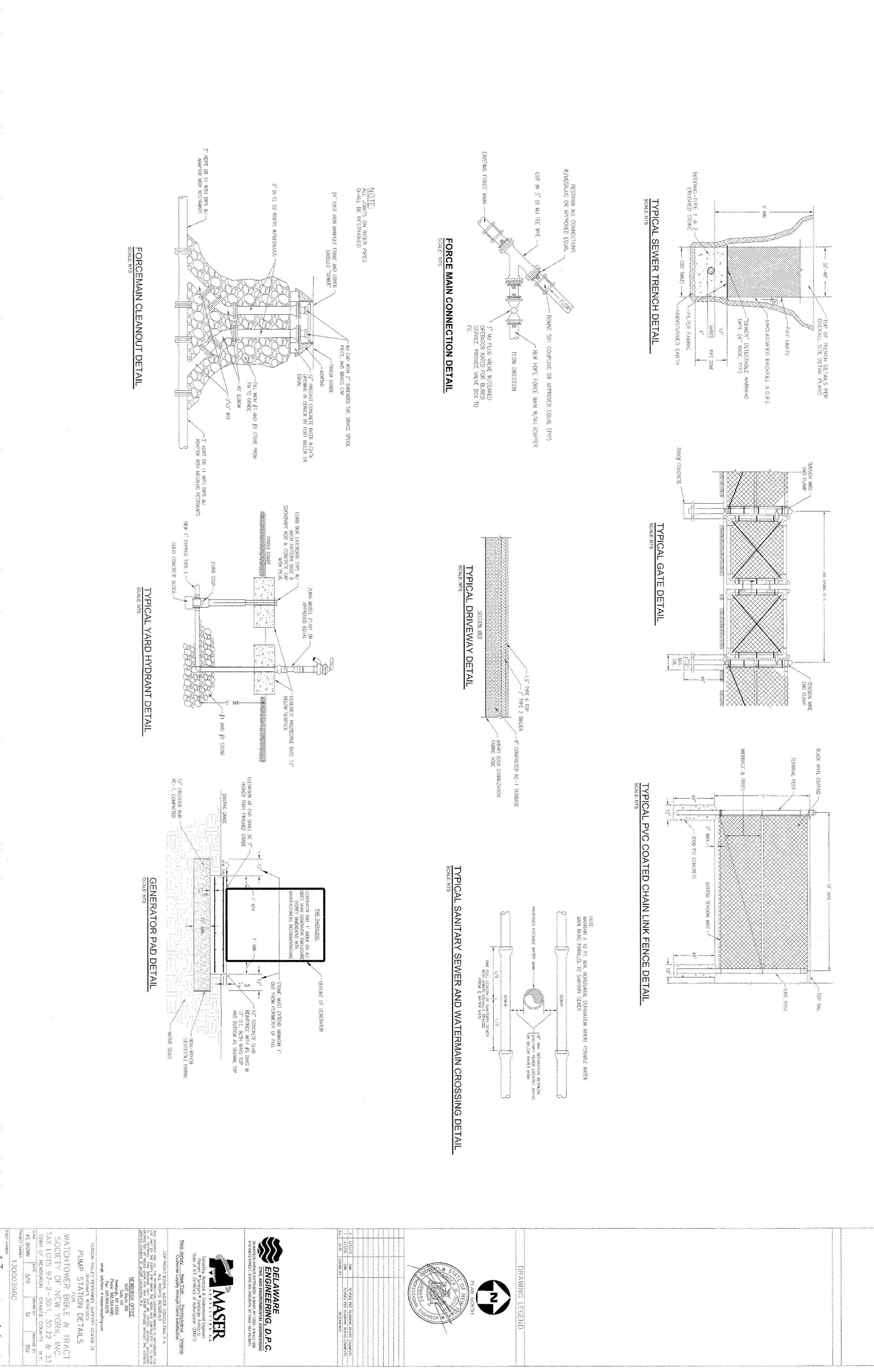
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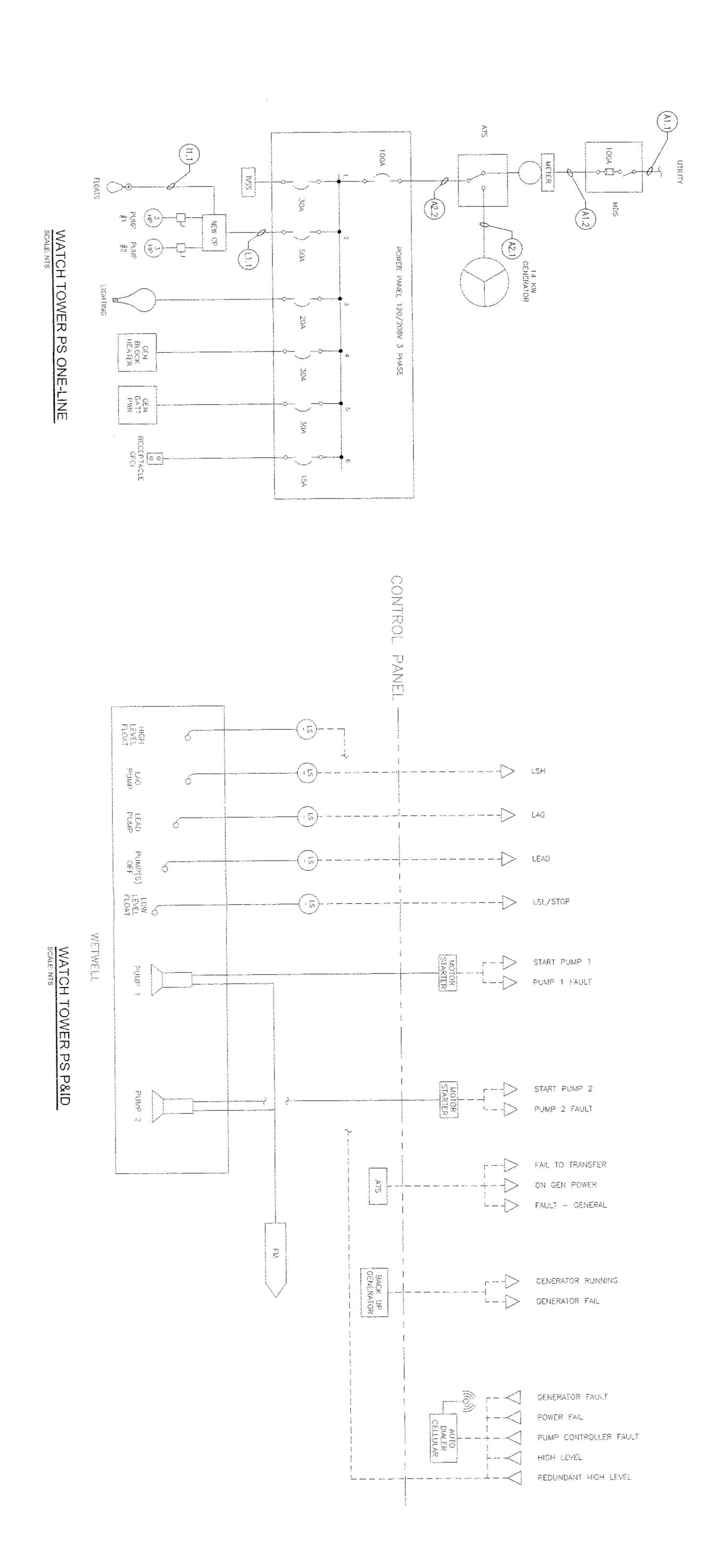


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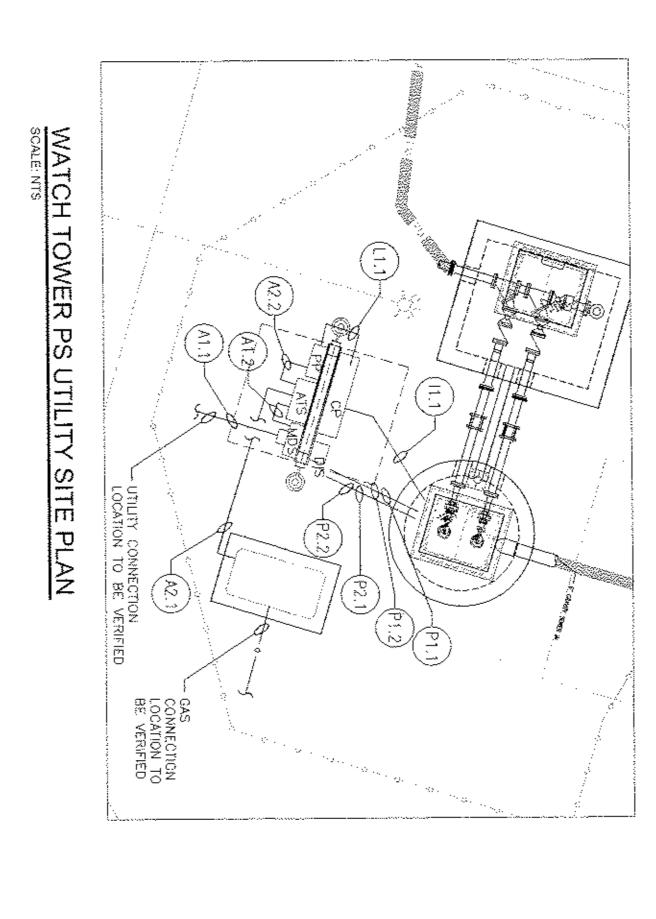
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. GAS SUPPLY CONNECTION LOCATION TO BE VERHED IN FIELD. PROVIDE GASTITE SDR 11 POLYETHYLENE GAS LINE UNDERGROUND TO GENERATOR, SIZE TO BE DETERMINED WHEN LENGTH OF SERVICE IS DETERMINED, PROVIDE GASTITE CONSTAB ANODELESS RISERS @ TRANSITION TO ABOVE GRADE, USE SCH 40 BI PIPE ABOVE GRADE AND TO GENERATOR ON DOWNSTREAM SIDE, UPSTREAM SIZE TO BE DETERMINED BY SUPPLY PRESSURE.

CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING PROTECTION IN POWER PANEL.

ELECTRICAL CONTRACTOR SHALL PROVIDE Y TYPE SEAL OFFS ON ALL CONDUITS ENTERING THE WETWELL ALL DISCONNECTS, POWER PANEL, ATS, ETC SHALL BE STAINLESS STEEL NEMA 3R, UNLESS OTHERWISE NOTED. IGHTS SHALL BE CARETAKER CTKRV1A FULL CUTOFF WITH WITCH BY COPPER LIGHTING.

THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND CONDUCTORS FROM THE PUMP OF TO THE PUMPS, FLOATS, AND LEVEL TRANSDUCER.
ALL CONDUIT SHALL BE GRO. HE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL OMDUIT AND CONDUCTORS FROM THE POWER PANEL TO THE UMP CONTROL PANEL.

DELAWARE
ENGINEERING, D.P.C.
CIVIL AND ENVIRONMENTAL ENGINEERING
NAMESON AVENUE EXTENSION, ALBANY, NY 13020 - C07.432.8273

NUMBURGH OFFICE

JEOT Route 3007

Suite 107

Newborgh, NY 12350

Phose 845.544.0278

JEHOVAN'S MITNESSES

PUMP STATION UTILUTY PLANS

FOR

WATCHTOWER BIBLE & TRACT

SOCIETY OF NEW HORANGE COUNTY N.Y.

TAX LOTS 97-2-30.1, 30.22 & 33

TOWN OF NEWBURGH ORANGE COUNTY N.Y.

SCALE TOWN 3/15

PROJECT NOWBER

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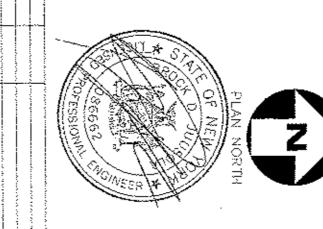
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