WILTON PUBLIC WORKS DEPARTMENT

(203) 563-0152



TOWN HALL ANNEX 238 Danbury Road Wilton, Connecticut 06897

MEMORANDUM

- TO: WPCA Commission
- **FROM**: Stephen Santacroce, P.E., Senior Civil Engineer
- CC: Michael Wrinn Director of Planning & Land Use Management Daphne White, Assistant Town Planner Frank Smeriglio, P.E. Director of Public Works / Town Engineer

DATE: September 11, 2023

RE: 241 Danbury Rd - Wilton MeetingHouse - SP #498

This is written in regards to the review of revised Sanitary Sewer Report submitted by Hudson Engineering and Consulting, dated March 21, 2023, revised to August 30, 2023. The revised Sanitary Sewer Report was modified based on our review letter dated August 15, 2023. Based on the review of the above mentioned application at this time, the following are the Engineering Department's comments relating to the proposed sanitary sewer system:

Sanitary Sewer Items

- 1. Provide sanitary sewer calculations to compare existing flows verses proposed flows. Addressed by design engineer.
- The project is subject to obtaining approvals from Wilton's WPCA Commission to connect additional units into the sanitary sewer system.
 The project will be put on the WPCA commission agenda for the September meeting.
- Project may be subject to Norwalk WPCA's review and comment. Provide calculations described above for our review.
 Addressed. Norwalk WPCA has reviewed the project and has no comments.
- 4. The project will be subject to Sewer Capital Assessment as required by the WPCA. This will be levied upon completion of the project. The town will review the sewer use charges worksheet and will work with the developer during the construction process. **Engineer Acknowledged.**

WPCA Commission September 11, 2023 Page 2 of 2

- Please confirm with Architect that no footing drains shall connect to the sanitary system. Depict the location of footing drain discharge.
 Addressed.
- Provide sanitary lateral trench detail and manhole conection detail. Must core drill into the manhole and use a rubber boot to secure pipe at manhole.
 Addressed.
- Please note, any potential clogs in the lateral and/or sewer main connection points shall be the responsibility of the property owner to unclog. Property owner shall be responsible for maintenance of the lateral.
 Engineer Acknowledged.
- 8. All proposed sewer lines shall be air tested prior to sign off of certificate of occupancy. **Engineer Acknowledged.**
- 9. The project will be subject to the final technical review by the WPCA. **Engineer Acknowledged.**

If you have any questions, please do not hesitate to call.

q:\site plan reviews\reviews after 1-30-19\danbury road - 241 - sanitary\send to wpca for sept. 13 2023 meeting\danbury rd - 241 - sp# 498- wilton meeting house-wpca meeting package.doc



LEGEND

PROPERTY LINE	
PROPOSED CONCRETE CURB	
PROPOSED WALKWAY/PATIO	
PROPOSED CONTOUR	
PROPOSED SPOT GRADE	+175.75
PROPOSED FOOTING DRAIN	FD
PROPOSED STORM PIPE) ISTABIL ISTABIL
PROPOSED DRAIN INLET	
PROPOSED CURB INLET	
PROPOSED CURB INLET PROPOSED MANHOLE	
PROPOSED CURB INLET PROPOSED MANHOLE PROPOSED WATER SERVICE	₩S
PROPOSED CURB INLET PROPOSED MANHOLE PROPOSED WATER SERVICE PROPOSED ELECTRICAL SERVICE	
PROPOSED CURB INLET PROPOSED MANHOLE PROPOSED WATER SERVICE PROPOSED ELECTRICAL SERVICE PROPOSED SANITARY SEWER SERVICE	
PROPOSED CURB INLET PROPOSED MANHOLE PROPOSED WATER SERVICE PROPOSED SERVICE PROPOSED SANITARY SEWER SERVICE EXISTING TREE TO BE REMOVED	

GENERAL NOTES:

- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE SUPERVISION OF THE CONSTRUCTION.
 NO CHANGES SHALL BE MADE TO THESE PLANS UNLESS DONE BY OR UNDER THE DIRECTION OF THE LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM.
- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO ACI, AISC, ZONING, AND THE NEW YORK STATE BUILDING CODE.
 ALL CONDITIONS, LOCATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED AND THE ENGINEER
- SHALL BE IMMEDIATELY NOTIFIED OF ANY DISCREPANCIES.5. ALL CHANGES MADE TO THE PLANS SHALL BE APPROVED BY THE ENGINEER AND ANY SUCH CHANGES SHALL BE FILED AS AMENDMENTS TO THE ORIGINAL BUILDING PERMIT.
- 6. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR THE ACTS AND OMISSIONS OF HIS EMPLOYEES, SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, AND OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTACT WITH THE CONTRACTOR.
 SAFETY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL AGENCIES IN EFFECT DURING THE PERIOD OF CONSTRUCTION.
- THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL MAKE APPLICATION TO RECEIVE ALL NECESSARY PERMITS TO PERFORM THE WORK UNDER CONTRACT. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL BE LICENSED TO DO ALL WORK AS REQUIRED BY THE LOCAL, COUNTY, AND STATE AGENCIES WHICH MAY HAVE JURISDICTION OVER THOSE TRADES, AND SHALL PRESENT THE OWNER WITH COPIES OF ALL LICENSES AND INSURANCE CERTIFICATES.
 FINAL GRADING AROUND THE BUILDING AREA SHALL SLOPE AWAY FROM THE STRUCTURE.
 ALL WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ANY SCALED
- 12. ADJOINING PUBLIC AND PRIVATE PROPERTY SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION, REMODELING AND DEMOLITION WORK. PROTECTION MUST BE PROVIDED FOR FOOTINGS, FOUNDATIONS, PARTY WALLS, CHIMNEYS, SKYLIGHTS AND ROOFS. PROVISIONS SHALL BE MADE TO CONTROL WATER RUNOFF AND EROSION DURING CONSTRUCTION OR DEMOLITION ACTIVITIES. THE PERSON MAKING OR CAUSING AN EXCAVATION TO BE MADE SHALL PROVIDE WRITTEN NOTICE TO THE OWNERS OF ADJOINING BUILDINGS ADVISING THEM THAT THE EXCAVATION IS TO BE MADE AND THAT THE ADJOINING BUILDING SHOULD BE PROTECTED. SAID NOTIFICATION SHALL BE DELIVERED NOT LESS THAN 10 DAYS PRIOR TO
- THE SCHEDULED STARTING DATE OF THE EXCAVATION. 13. OWNER SHALL INSURE THAT THE INSURANCE PROVIDED BY THE CONTRACTOR HIRED TO PERFORM THE WORK SHALL BE ENDORSED TO NAME HUDSON ENGINEERING & CONSULTING, P.C., AND ANY DIRECTORS, OFFICERS, EMPLOYEES, SUBSIDIARIES, AND AFFILIATES, AS ADDITIONAL INSURED ON ALL POLICIES AND HOLD HARMLESS DOCUMENTS, AND SHALL STIPULATE THAT THIS INSURANCE IS PRIMARY, AND THAT ANY OTHER INSURANCE OR SELF-INSURANCE MAINTAINED BY HUDSON ENGINEERING & CONSULTING, P.C., SHALL BE EXCESS ONLY AND SHALL NOT BE CALLED UPON TO CONTRIBUTE WITH THIS INSURANCE.
- ISO ADDITIONAL INSURED ENDORSEMENT FORM NUMBER CG2010 1185 UNDER GL. COPIES OF THE INSURANCE POLICIES SHALL BE SUBMITTED TO HUDSON ENGINEERING & CONSULTING, P.C., FOR APPROVAL PRIOR TO THE SIGNING OF THE CONTRACT.
 14. INDUSTRIAL CODE RULE 753: THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS PRIOR TO THE START OF HIS OPERATIONS AND SHALL COMPLY WITH ALL THE
- 72 HOURS PRIOR TO THE START OF HIS OPERATIONS AND SHALL COMPLY WITH ALL THE LATEST INDUSTRIAL CODE RULE 753 REGULATIONS.

<u>SITE NOTES:</u>

- EXISTING FEATURES AND TOPOGRAPHY WERE TAKEN FROM A SURVEY ENTITLED
 ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF A CONTROL BENCHMARK INTO THE WORKING AREA, AFTER SITE PREPARATION IS COMPLETE BY A LICENSED SURVEYOR.
- 3) THE INFORMATION GIVEN ON THESE PLANS IN RESPECT TO THE LOCATION OF SUBSURFACE STRUCTURES AND UTILITIES INDICATES ONLY THAT THE STRUCTURES AND UTILITIES EXIST AND NO RESPONSIBILITY IS ASSUMED BY THE ENGINEER FOR THE ACCURACY OF THE LOCATIONS SHOWN. UTILITY INFORMATION IS NOT GUARANTEED TO BE COMPLETE OR ACCURATE.
- 4) IN ACCORDANCE WITH CONNECTICUT PUBLIC ACT 87-71 AND CONNECTICUT GENERAL STATUTES SECTIONS 16-345 THROUGH 16-359, THE OWNER OR THE CONTRACTOR SHALL BE REQUIRED TO VERIFY THE DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION, AND SHALL CONTACT "CALL BEFORE YOU DIG, INC." AT 1-800-922-4455, 48-HOURS PRIOR TO COMMENCING CONSTRUCTION FOR MARK OUT OF UNDERGROUND UTILITIES.
 5) THE CONTRACTOR SHALL OBTAIN ALL APPROPRIATE PERMITS PRIOR TO COMMENCING
- 6) ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE SECTIONS OF THE STATE OF
- CONNECTICUT, LOCAL AND INTERNATIONAL BUILDING CODES, AND THOSE CRITERIA SHALL TAKE PRECEDENT OVER THESE PLANS.7) THE LOCATIONS AND ELEVATIONS OF THE PROPOSED STORMWATER MANAGEMENT SYSTEM
- DEPICTED HEREON MAY BE MODIFIED WITH THE APPROVAL OF THE PROJECT ENGINEER TO MEET FIELD CONDITIONS.
 8) FINAL LOCATIONS OF THE ROOF DRAIN DOWNSPOUTS SHALL BE COORDINATED BETWEEN THE ARCHITECT AND THE CONTRACTOR.
- 9) THE LOCATIONS OF PROPOSED UTILITIES DEPICTED HEREON ARE APPROXIMATE.
 10) THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND MAINTAINING TRAFFIC FLOW ON CRICKET LANE AND DANBURY ROAD THROUGHOUT THE DURATION OF THE PROJECT.
- UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL CLEAN ALL COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM INCLUDING, BUT NOT LIMITED TO THE ATTENUATION SYSTEM, DRAIN INLETS, MANHOLES, TRENCH DRAINS, PIPING, ETC..
 NO FOOTING DRAINS SHALL BE CONNECTED TO THE SANITARY SEWER SYSTEM.
- 13) ANY POTENTIAL CLOGS IN THE LATERAL AND/OR SEWER MAIN CONNECTION POINTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO UNCLOG. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE MALIGNANCE OF THE LATERAL CONNECTION BETWEEN THE BUILDING AND THE SEWER MAIN WITHIN DANBURY ROAD.
- 14) ALL PROPOSED SEWER LINES SHALL BE AIR TESTED PER TOWN OF WILTON REQUIREMENTS PRIOR TO SIGN OFF OF THE CERTIFICATE OF OCCUPANCY.

F: 914-560-2086

© 2023

EARTHWORK ANALYSIS

CUT	FILL	NET		
184.30 CU. YD.	1,264.41 CU. YD.	1,080.11 CU. YD. <fill></fill>		

PROJECT: WILTON MEETINGHOUSE THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS 241 DANBURY ROAD TOWN OF WILTON FAIRFIELD COUNTY - CONNECTICUT STORMWATER MANAGEMENT PLAN <u>8/19/22</u> 1" = 20' **HUDSON** Designed By: D Checked By: M. ENGINEERING Sheet No. CONSULTING, P.C. 45 Knollwood Road – Suite 201 Elmsford, New York 10523 \smile -T: 914-909-0420

















March 21, 2023 REVISED: July 13, 2023 REVISED: August 30, 2023

SANITARY SEWER REPORT: Wilton Meetinghouse The Church of Latter-Day Saints 241 Danbury Road Town of Wilton, Connecticut

This project includes the construction of a new church meeting house, and associated onsite parking, for the Church of Latter-Day Saints on a previously developed lot located at 241 Danbury Road. The proposed meeting house will consist of approximately 244 seats for worship services and an additional 437-seats for worship overflow & social events, resulting in an average daily flow rate of approximately 2,429-gallons per day. The calculated average daily flow rate will primarily occur during the weekends, specifically during hours of worship, which are typically held on Sundays between the hours of 8-am and 2:30-pm, with an additional small group meeting held on Wednesdays between the hours of 6-pm and 9-pm. With that being said, the busiest day would be Sunday, with an average flow of approximately 2,429-gallons per day, with an additional 303.63-gallons at 101.21-gallons per hour during the 3-hour meetings on Wednesday evenings for a total of 2,732.63-gallons per week.

Per the Town of Wilton Property Listing Report (attached herewith) the previously existing office building, which was demolished in 2019, consisted of approximately 2,429-square feet of livable area. The Connecticut Public Health Code requires 200square feet of gross floor area per employee, for a total of 14-employees, resulting in an existing average daily flow rate of 280-gallons per day discharging to the existing manhole located within Cricket Lane and subsequently conveyed to the existing 12-inch sewer main within Danbury Road. Based on an existing survey provided by the Town of Wilton, in addition to the existing office building on the subject property, a previously existing ±2,000-square foot, one story building located on the adjacent property of 249 Danbury Road also discharged to the same sewer manhole located within Cricket Lane. Using the aforementioned 200-square feet of gross floor area per employee, it was estimated that the previously existing building on the 249 Danbury Road property discharged an additional 200-gal/day, for a total of 480-gallons per day (2,400-gallons per week over a 5-day work week) being discharged to the existing manhole in the previously existing conditions. (See attached survey entitled 'Map of Property Prepared for Marcelino E. Lavin, last revised March 8, 1995). The proposed change in use is estimated to generate an increase of 1,949-gallons per day and 332.63-gallons per week over the previously existing conditions. See flow calculations attached herewith.

The sewer flows from the proposed meetinghouse are to be conveyed via a new 4-inch SDR-35 PVC sewer service to the existing manhole within Cricket Lane. The flows are



then conveyed via an existing 150-foot sewer service pipe which flows in an easterly direction where it ultimately discharges to an existing 5-foot riser connection at the existing 12-inch sewer main located within Danbury Road. As mentioned above, an offsite analysis was prepared for the previously existing building on 249 Danbury Road. However, since this building has since been demolished, the only flows tributary to the existing 12-inch main will be from the proposed use. A capacity analysis was prepared for the existing sewer service within Cricket Lane. Unfortunately, the size and invert of the existing sewer service pipe within Cricket Lane was not included in the information provided by the Town. Since the size and inverts of the pipe are unknown, the attached calculations were prepared with the assumption that the existing sewer line within Cricket Lane is a 4-inch diameter cast iron sewer service. Using Manning's Equation, the calculated capacity of the pipe (flowing full) is 0.183-cfs. The previously existing flows were calculated to be approximately 0.009-cfs, which is 4.88% of the overall pipe capacity. The proposed flow was calculated to be approximately 0.045-cfs, which is 24.71% of the overall pipe capacity, which is below 50% of the overall pipe capacity.

Based on the narrative above supported by the calculations provided herewith, it is in our professional opinion that the receiving municipal sewers have the capacity to accommodate flow from the redevelopment of the subject property.



Respectfully submitted,

Michael F. Stein, P.E. Connecticut State License #24181

ONSITE SEWER FLOW CALCULATIONS

Existing Onsite Flows:

Existing Total Living Area =	2,784.0	sf (per Town of Wilton Property Listing Report)
Number of Employees =	14	(200 sf gross floor area per employee, per CT Public Health Code)
Flow Rate per Employee =	20	gal/day (based on 20 gal/day per employee, per CT Public Health Code)
Average Daily Flow Rate =	280	gal/day
Peaking Factor=	4	
Average Hourly Flow Rate =	0.19	gpm
Peak Hourly Flow Rate (gpm) =	2.33	gpm
Peak Hourly Flow Rate (gph) =	140	gph
Peak Hourly Flow Rate (cfs) =	0.005	cfs
Potential Onsite Flows:		
Number of Seats (Worship Service) =	244	
Number of Seats (Social Event) =	437	
Flow Rate per Seat (Worship Service) =	1	gal/day (based on 1 gal/day per worship seating, per CT Public Health Code)
Flow Rate per Seat (Social Event) =	5	gal/day (based on 5 gal/day per social event seating, per CT Public Health Code)
Average Daily Flow Rate =	2,429	gal/day
Peaking Factor=	4	
Average Hourly Flow Rate =	1.69	gpm
Peak Hourly Flow Rate (gpm) =	20.24	gpm
Peak Hourly Flow Rate (gph) =	1,215	gph
Peak Hourly Flow Rate (cfs) =	0.045	cfs

Pipe Capacity - Manning Equation

SMH		Diameter	Area	Perimeter	Hydraulic	Length	In	vert	Slope	n	Flow - Full	Flow - Full
FROM	то	(Inches)	(sf)	(feet)	Radius (Ft)	(feet)	Upstream	Downstream	(ft/ft)	Cast Iron	(cfs)	(gpm)
		4	0.09	1.05	0.083	150	170.52	169.14	0.0092	0.013	0.183	81.93
Ex. SMH	12" MAIN											
(CRICKET	(DANBURY	Veloc	ity	Peak F	low (cfs)	% Pipe Ca	pacity Used	% Pipe Capaci	ity Remaining			
LN.)	RD.)	Full (f	ps)	Existing	Proposed	Existing	Proposed	Existing	Proposed			
		2.09)	0.009	0.045	4.88%	24.71%	95.12%	75.29%			

OFF-SITE SEWER FLOW CALCULATIONS

Previously Existing Offsite Flows:

Note: Includes the previously existing offsite bulding along Cricket Lane on the 249 Danbury Road property tributary to the existing 12-inch sewer main in Danbury Road. See attached survey entitled ' Map of Property Prepared for Marcelino E. Lavin, last revised March 8, 1995

Existing Gross Floor Area =	2,000.0	s.f. commercial building previously on 249 Danbury Road (per mapping provided by Town)
Number of Employees =	10	(200 sf gross floor area per employee, per CT Public Health Code)
Flow Rate per Employee =	20	gal/day (based on 20 gal/day per employee, per CT Public Health Code)
Average Daily Flow Rate =	200	gal/day
Peaking Factor=	4	
Average Hourly Flow Rate =	0.14	gpm
Peak Hourly Flow Rate (gpm) =	1.67	gpm
Peak Hourly Flow Rate (gph) =	100	gph
Peak Hourly Flow Rate (cfs) =	0.004	cfs





Town of Wilton, CT

Property Listing Report

Map Block Lot 72-5-1

Account

074478

Property Information

Property Location	2	241 DANBURY RD				
Owner	C	CORP OF THE PRESIDING BISHOP OF				
Co-Owner	C	CHURCH OF JESUS CHRIST OF				
Mailing Address	5	50 EAST NORTH TEMPLE ST 22FLR SALT LAKE CITY UT 84150				
Land Use	2	2-1V Commercial				
Land Class	C	;				
Zoning Code	C	PRD				
Census Tract						
Sub Lot						
Neighborhood		6000				
Acreage		1.31				
Utilities						
Lot Setting/Desc						
Survey Map						
Foundation		1				



Primary Construction Details

Year Built	0
Stories	
Building Style	
Building Use	
Building Condition	
Floors	Carpet
Total Rooms	

Bedrooms	
Full Bathrooms	
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	Gable/Hip
Roof Cover	Asphalt Shngl.

Exterior Walls	Brick Veneer
Interior Walls	Drywall
Heating Type	Forced Air
Heating Fuel	Electric
АС Туре	Central
Gross Bldg Area	9035
Total Living Area	2784



Property Listing Report

Map Block Lot 72-5-1

074478

Valuation Summary (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	263300	184310
Extras	0	0
Outbuildings	0	0
Land	1091600	764120
Total	1354900	948430

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		0

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
CORP OF THE PRESIDING BISHOP OF THE	2493/0509	1/4/2019	2500000
CH 241 DANBURY RD ASSOCIATES LLC	2474/0373	6/15/2017	1500000
CH DANBURY RD ASSOCIATES LLC &	2474/0287	6/15/2017	1487500

Outbuilding and Extra Items

Account

Туре	Description



MAP OF PROPERTY PREPARED FOR MARCELINO E. LAVIN WILTON , CONN. 4932 MARCH 8, 1995 REV MAY 23,1995 150' 200 100 BY ROLAND H. GARDNER - LAND SURVEYOR - WILTON , CONN. TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. Certified FIXED LINE MYLAR COPY produced by Reprographics Plus 87 Taytor Avenue Norwalk, CT

4932

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