GENERAL NOTES

THE EXISTING CONDITIONS SHOWN ARE A COMPILATION OF INFORMATION TAKEN FROM AN SURVEY DATED 10/ 27/17 WITH ELEVATIONS BY DMC ASSOCIATES.

THE ON-SITE STORM SEWER UPGRADES WILL FLOW INTO THE EXISTING COMBINED SEWER OFFSITE SEE PLAN.

ELEVATIONS ARE REFERENCED TO THE 1988 NGVD

LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM AVAILABLE RECORD INFORMATION OF THE RESPECTIVE UTILITY COMPANIES AND CITY AGENCIES, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. THIS INFORMATION IS NOT CERTIFIED AS TO ACCURACY OR COMPLETENESS. CONSULT THE APPROPRIATE UTILITY COMPANY OR AGENCY PRIOR TO DESIGNING IMPROVEMENTS, COMMENCING DESIGN DEMOLITION OR CONSTRUCTION.

NEW JERSEY STATE LAW, REQUIRES EXCAVATORS AND CONTRACTORS TO GIVE UTILITY COMPANIES OR AGENCIES AT LEAST TWO (BUT NO MORE THAN TEN) WORKING DAYS NOTICE BEFORE DIGGING, DRILLING OR BLASTING.

THIS SITE PLAN IS NOT A TITLE SURVEY. THIS SURVEY IS NOT TO BE USED FOR TITLE PURPOSES.

SEWER MANHOLE LOCATIONS, RIM AND INVERT ELEVATIONS SHOWN HEREIN ARE FROM FIELD MEASUREMENTS UNLESS SHOWN WITH AN (R) WHICH DENOTES AS PER RECORD INFORMATION. RECORD SEWER INFORMATION SHOWN WAS OBTAINED FROM NHSA. THE SIZES OF SEWERS ARE SHOWN AS PER RECORD INFORMATION AND APPROXIMATE VISUAL CONFIRMATION.

DUE HIGH WATER TABLE IN AREA IS KNOWN TO BE AROUND 6FT DEPTH, SEE SOIL TEST INFO.

REPLACE EXISTING PAVEMENT DAMAGED DURING CONSTRUCTION AND PROVIDE TEMPORARY CURBING TO REPLACE EXISTING DAMAGED DURING CONSTRUCTION.

ALL NEW PIPES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH UNITED WATER REQUIREMENTS OR OTHER APPLICABLE REQUIREMENTS IN THE PIPING SCHEDULE. HOWEVER, IN NO CASE SHALL THE TEST REQUIREMENTS BE LESS THAN 150 PSI FOR 90 MINUTES WITH ZERO LEAKAGE.

UNDER NO CONDITIONS SHALL PIPES BE INSTALLED SUCH THAT THEY ARE IN DIRECT PHYSICAL CONTACT. A RUBBER GASKET IS REQUIRED BETWEEEN ALL PIPES AS PER MANUFACTORS SPECIFICATIONS.

PIPING WILL GENERALLY SLOPE UNIFORMLY BETWEEN THE ELEVATION SHOWN ON THE DRAWINGS. NO SAGS OR CRESTS PERMITTED UNLESS OTHERWISE INDICATED.

ALL BURIED PIPING WILL HAVE A MINIMUM OF 2.6 FEET OF COVER FINISH GRADE, UNLESS OTHERWISE INDICATED ON A PIPING PROFILE.

PIPING WHICH IS EXPOSED DURING EXCAVATION AND IS TO REMAIN IN SERVICE. SHALL BE SUPPORTED, BRACED OR OTHERWISE PROTECTED DURING CONSTRUCTION

THE EARTH RETENTION SYSTEM SHALL BE DESIGNED TO SUPPORT HORIZONTAL PRESSURES FROM EARTH, AND ANY EQUIPMENT LOAD ADJACENT TO THE RETENTION SYSTEM.

ALL DISTURBED AREAS NOT SCHEDULED TO RECEIVE ASPHALTIC CONCRETE PAVEMENT, CONCRETE WALKS OR WALKWAYS SHALL BE SEEDED.

OPERATIONAL & MAINTENANCE PLAN

i. MAINTENANCE RECORDS MUST BE KEPT ON-SITE FOR A PERIOD OF THREE YEARS BY THE OWNER OF THE STORMWATER MANAGEMENT SYSTEM. THESE RECORDS SHALL BE MADE AVAILABLE TO THE AUTHORITY WITHIN 72 HOURS UPON THE AUTHORITY'S REQUEST TO REVIEW THESE RECORDS.

ii. THE AUTHORITY RESERVES THE RIGHT TO INSPECT ALL STORMWATER MANAGEMENT SYSTEMS. THE OWNER OF THE STORMWATER MANAGEMENT SYSTEM SHALL PROVIDE ACCESS FOR INSPECTION TO THE AUTHORITY WITHIN 72 HOURS OF THE AUTHORITY'S REQUEST TO INSPECT THE STORMWATER MANAGEMENT SYSTEMS.

iii. FAILURE TO MAINTAIN ADEQUATE MAINTENANCE RECORDS, PERFORM MAINTENANCE, AND/OR DENY THE AUTHORITY ACCESS TO MAINTENANCE RECORDS OR INSPECTION WITHOUT CAUSE IS SUBJECT TO FINES BY THE AUTHORITY AS DETAILED IN THE *SEWER CONNECTION: APPLICATION PROCEDURES AND FEE SCHEDULE* DOCUMENT.

UTILITY NOTES

ALL UTILITIES TO BE INSTALLED IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.

LOCATIONS OF UTILITIES WITHIN BUILDING SHOWN HERE ARE SCHEMATIC. ACTUAL LOCATIONS TO BE DETERMINED BY UTILITY CO. AND ARCHITECT.

REFER TO ANY PLUMBING PLANS FOR LOCATION OF DOWNSPOUTS, SANITARY LATTERALS & UTILITY SERVICE ENTRANCES.

ALL UTILITY & SEWER RISERS IN PARKING AREA ARE TO BE PROTECTED FROM IMPACT.

CONTACT UTILITIES TO DETERMINE EXACT LOCATION OF CONNECTION AND WHERE PRACTICAL, IF EXISTING CONNECTIONS ARE TO BE MAINTAINED.

DISCONNECT ALL UTILITIES, DETERMINE, WHERE APPLICABLE, IF ANY EXISTING LATERALS ARE TO BE REUSED. UNUSED SANITARY SEWER LATERALS ARE TO BE REMOVED TO THE MAIN AND THE MAIN SEALED.

INTERIOR ROOF DRAINAGE LINES TO BE SIZED AND ROUTED TO DETENTION BASIN BY BUILDING MECHANICAL ENGINEER. SEE ARCHITECTURAL PLANS.

NOTES:
1. THE OWNER IS RESPONSIBLE FOR THE O&M OF ALL LATERALS TO THE POINT OF CONNECTION WITH THE NHSA COMBINED SEWER WITHIN 57TH ST.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF THE EXISTING SEWER MAIN, STRUCTURES AND APPURTENANCES DURING CONNECTION.
3. NORTH HUDSON SEWERAGE AUTHORITY SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO CONNECTION TO THE SEWER MAIN.
4. NORTH HUDSON SEWERAGE AUTHORITY SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO INSTALLATION OF THE STORM WATER DETENTION SYSTEM.
5. THE INTERIOR BAFFLE WALL MUST HAVE ACCESS IN ORDER FOR MAINTENANCE

DETENTION DESIGN CONDITIONS

1. THE EXISTING CONDITIONS SHOWN ARE A COMPILATION OF INFORMATION OBTAINIED DURING AN INVESTIGATION ON FEBRUARY 2 2019 BY OPTIIZED ENGINEERING ASSOICATES PERC WAS TESTED WITHOUT SUCCESS THEREFORE USE OF NO PERFORATED PIPING IS RECOMMENDED.
2. BASED ON EXISTING TO PROPOSED CONDITIONS, THE DETENTION BASIN WAS DESIGNED POST DEVELOPMENT OUTFLOW FOR A 30MINUTE PERIOD OF A TEN YEAR STORM EVENT EQUAL TO TWO YEAR STORM EVENT DURING THE SAME TIME PERIOD.
3. MODIFIED RATIONAL METHOD WAS USE FOR THE RAINFALL EVENT TIME OF CONCERTRATION.
4. THE REQUIREMENTS OF THE DETENTION WILL COMPLY WITH THE NJAC 7:14A-23.6 REQUIREMENTS
5. SEE ATTACHED CALCULATIONS TO SUPPORT SHOWN DESIGN CONDITIONS.
6. SEE SPECIFICATIONS ATTACHED FOR ALL PLUMBING SANITARY AND STORM WATER LINES RELATED ITEMS.

ENGINEERED SURFACE DRAINAGE PRODUCTS

1. GENERAL:
ADS PVC SURFACE DRAINAGE INLETS SHALL INCLUDE THE DRAIN BASIN TYPE, DRAINS, INLET, MANHOLE COVERS, AND COLLECTORS

2. MATERIALS:
A. THE DRAIN BASINS REQUIRED FOR THIS CONTRACT SHALL BE MANUFACTURED FROM PVC PIPE STOCK, UTILIZING A THERMO-MOLDING PROCESS TO REFORM THE PIPE STOCK TO THE SPECIFIED CONFIGURATION. THE DRAINAGE PIPE CONNECTION STUBS SHALL BE MANUFACTURED FROM PVC PIPE STOCK AND FORMED TO PROVIDE A WATERTIGHT CONNECTION WITH THE SPECIFIED PIPE SYSTEM. THIS JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR JOINTS FOR DRAIN AND SEWER PLASTIC PIPE USING FLEXIBLE ELASTOMERIC SEALS. THE PIPE BELL SPIGOT SHALL BE JOINED TO THE MAIN BODY OF THE DRAIN BASIN OR CATCH BASIN. THE PIPE STOCK USED TO MANUFACTURE THE MAIN BODY AND PIPE STUBS OF THE SURFACE DRAINAGE INLETS SHALL MEET THE MECHANICAL PROPERTY REQUIREMENTS FOR FABRICATED FITTINGS AS DESCRIBED BY ASTM D3034, STANDARD FOR SEWER PVC PIPE AND FITTINGS; ASTM F1336, STANDARD FOR PVC GASKETED SEWER FITTINGS.

3. INSTALLATION:
THE SPECIFIED PVC SURFACE DRAINAGE INLET SHALL BE INSTALLED USING CONVENTIONAL FLEXIBLE PIPE BACKFILL MATERIALS AND PROCEDURES. THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR 2 MATERIAL AS DEFINED IN ASTM D2321. THE SURFACE DRAINAGE INLETS SHALL BE BEDDED AND BACK-FILLED UNIFORMLY IN ACCORDANCE WITH ASTM D2321. THE DRAIN BASIN BODY WILL BE CUT AT THE TIME OF THE FINAL GRADE SO AS TO MAINTAIN A ONE PIECE, LEAK PROOF STRUCTURE. NO BRICK, STONE OR CONCRETE BLOCK WILL BE USED TO SET THE GRATE TO THE FINAL GRADE HEIGHT. FOR H-25 LOAD RATED INSTALLATIONS, AN 8"TO 10"THICK CONCRETE RING WILL BE POURED UNDER THE GRATE AND FRAME AS RECOMMENDED BY DETAILS PROVIDED FROM THE MANUFACTURER.

DESIGN NOTES

DESIGN METHOD BASED ON NJ RSI STANDARDS:

CALCULATIONS

TOTAL SITE AREA: 5,000 SF
PRE-DEVELOPED:
PRE-BUILDING: 0 SF
PERVIOUS AREA: 0 SF
IMPERVIOUS AREA TOTAL:2,057 SF
POST DEVELOPMENT
POST BUILDING: 1,661 SF
EXTENSION BUILDING: 0 SF
INCREASE OF IMPERVIOUS AREA TOTAL: 0SF

WATER QUALITY: DETAIN A 1.25" OF RAINFALL IN TWO HRS WITHOUT DISCHARGING FROM THE OFFICE. SECOND CONTAIN A 100% REDUCTION IN DISCHARGE FROM SITE FOR A 2, 75% REDUCTION FOR A 10YR, & 80% REDUCTION FOR 100 YEAR STORM EVENT AS PER NJDEP REGULATIONS FOR PRE-DEVELOPED TO POST DEVELOPED CONSTRUCTION. DESIGN METHODOLOGY: MODIFIED RATIONAL METHOD

PROPOSED AREA OF SITE BUILDING IMPERVIOUS: 1400SF C=0.98. NEW CONDITIONS WILL INCLUDE A SITE DRAINAGE SYSTEM TO HANDLE THE REQUIRED STORAGE ON SITE. A GREATER THAN 2YR STORM EVENT. PROPOSED CONDITIONS WILL ACCOUNT FOR A DETENTION SYSTEM WITH AN TANK AND ORIFIES FOR SLOW RELEASE OF WATER.

VOLUME PROVIDED BY FOR BASIN DETENTIONS:
VOLUME OF BASIN AT 10X16.12X2.5 FT. EQUALING A TOTAL OF 403 CUBE FT OR -3105 GALLONS.

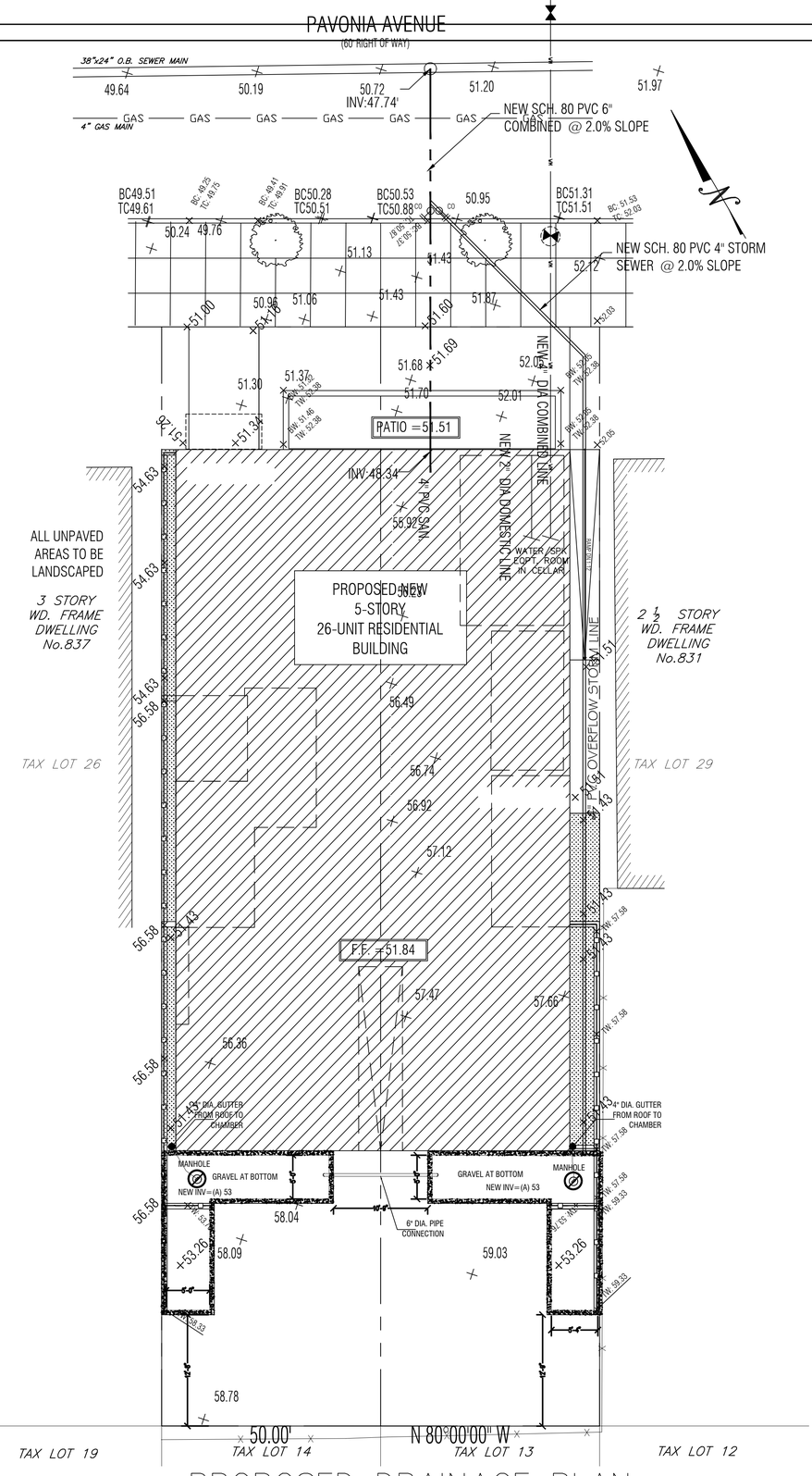
FOOTINGS OR CONCRETE BUILDINGS MEMBERS LOWER THAN THE BOTTOM OF THE BASIN.

CONTRACTORS IS RESPONSIBLE FOR METHODS AND MEANS OF CONSTRUCTION.

THE RETENTION BASIN SHALL BE COLLECTING ONLY THE ROOF DRAINS .

THE OPENING FOR THE PROPOSED SADDLE INTO THE EXISTING MAIN SHALL BE DRILLED AND CUT.

PERC TEST 6" PER HOUR ON 8/10/2021



PROPOSED DRAINAGE PLAN

OPTIMIZED ENGINEERING ASSOCIATES
400 38TH STREET
UNION CITY, NJ 07087
201-965-3644
201-866-0913 (FAX)
E-mail: guy@oea-corp.com
Web: www.oea-corp.com

REVISIONS:

NO.	DATE	DESCRIPTION	APPR'D

PROJECT LOCATION:
833 & 835 PAVONIA AVE
JERSEY CITY, NJ
LOT: 27&28 BLOCK: 10601

PROJECT DESCRIPTION:
PROPOSED DETENTION SYSTEM
FOR NEW 5-STORY RESIDENTIAL

SEAL:

DR. GL TR. GJ
CK CK DES. CK
CK GUY LAGOMARSINO,P.E.
PROFESSIONAL ENGINEER
PROJECT MANAGER
LICENSE NO. (NJ): 24GE040534

SCALE:
1/8" = 1'-0"

DATE:
AUG 2021

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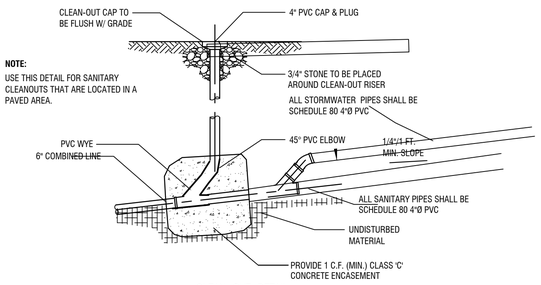

CLEAN OUT DETAIL

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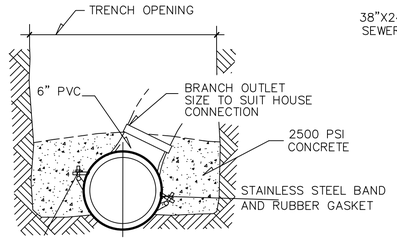
MAIN LINE TO COMBINED PIPE CONNECTION DETAILS

BACKFILL PLACEMENT

1) Provide all fill material required to achieve grades as shown on drawings.
2) Subbase shall be firm and approved by the engineer or his representive prior to placement.
3) Place and compact backfill in lifts not to exceed 3 feet where heavy compaction is used. Otherwise 6" lifts.
4) Compact backfill to 95% of the maximum density as by ASTM D1557. Maintain moisture content of the backfill material prior to and during compaction uniformly distributed throuhgout each layer and within 2% percent of optimum water content.
5)Contractor shall verify all demensions in field.



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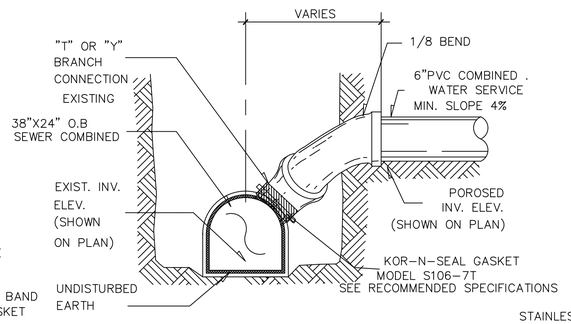
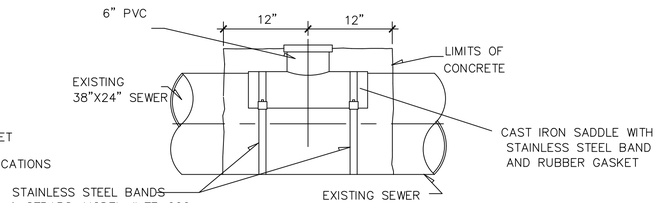
BUILDING LATERAL CONNECTION DET.

N.T.S.



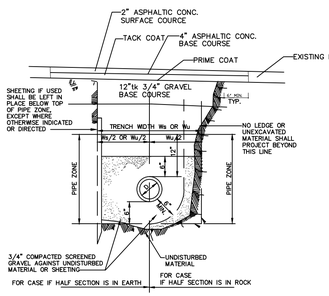


IF SEWER MATERIAL IS BRICK THEN CONNECTION MUST BE SEALED WITH AN A LOK OR CORE N SEAL GASKET TO PREVENT LEAKAGE

FIELD CUT-IN BRANCH CONNECTION

N.T.S.

SANITARY OR STORM CONNECTION DETAIL



TRENCH WIDTH Ws OR Wu		
DIAMETER OF PIPE D	Wu UNSHEETED	Ws SHEETED
12" AND SMALLER	3'-0"	4'-2"

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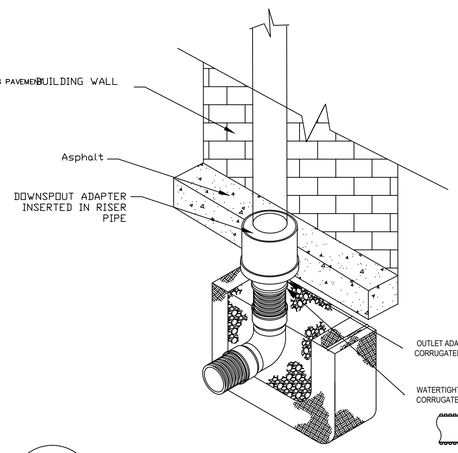
TRENCH DETAILS



1 - STANDARD GRATE/SOLID COVER SHALL BE PVC PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE PVC PER ASTM A536 GRADE 70-50-05.
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE PVC SEWER.
4. MINIMUN DISTANCE TO DOWNSPOUT IS 2" MAXIMUM IS 4" SEPRATION

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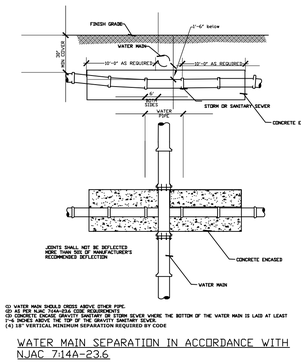
ROOF DRAIN W/CLEANOUT

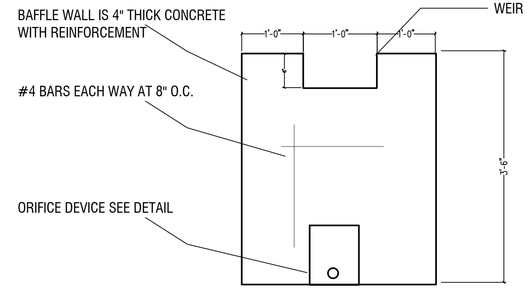
WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1) (4)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (2)	3 FT. MINIMUM	12" MINIMUM	Alternate 3 FT. MINIMUM
VACUUM SANITARY SEWER	3 FT. MINIMUM	12" MINIMUM	Alternate 3 FT. MINIMUM
GRAVITY SANITARY SEWER,LOW PRESSURE SANITARY SEWER FORCE MAIN, RECLAIMED WATER	3 FT. MINIMUM	12" MINIMUM	Alternate 6 FT. MINIMUM
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	—	—



(2) WATER MAIN SHALL CROSS ABOVE OTHER PIPE.
(3) AS PER FLORIDA DEPARTMENT OF HEALTH CODE.
(4) CONCRETE ENCASE GRAVITY SANITARY OR STORM SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 7'-6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
(4) 18" VERTICAL MINIMUM SEPARATION REQUIRED BY CODE

WATER MAIN SEPARATION IN ACCORDANCE WITH NJAC 7:14A-23.6



BAFFLE WALL AND WEIR DETAIL

WATER USAGE CHART

NO. OF D.U.'S	NO. OF FIXTURES /D.U.'S	TOTAL NO. OF FIXTURES	WSFU WATER SUPPLY FIXTURE UNITS	TOTAL WSFU
1 D.U.	1 BATHROOM	31	2.0 WSFU =	62 WSFU
1 D.U.	1 KITCHEN	25	3 WSFU =	75 WSFU
TOTAL				137 WSFU
137 WSFU (WSFU = 1 GPM) OK FOR 4" DOMESTIC SERVICE < 200WSFU ALLOWABLE				

OPTIMIZED ENGINEERING ASSOCIATES
400 38TH STREET
UNION CITY, NJ 07087
201-965-3644
201-866-0913 (FAX)
E-mail: guy@oea-corp.com
Web: www.oea-corp.com

REVISIONS:

NO.	DATE	DESCRIPTION	APPR'D

PROJECT LOCATION:
833 & 835 PAVONIA AVE
JERSEY CITY, NJ
LOT: 27&28 BLOCK:10601

PROJECT DESCRIPTION:
PROPOSED DETENTION SYSTEM
FOR NEW 5-STORY RESIDENTIAL

SEAL:

DR. GL TR. GJ
CK. GL CK. DES. CK.
GUY LAGOMARSINO,P.E.
PROFESSIONAL ENGINEER
PROJECT MANAGER
LICENSE NO. (NJ): 24GE040534

SCALE: NTS

DATE: AUG 2021

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GENERAL STRUCTURAL AND CONSTRUCTION NOTES

GENERAL

1. All work shall conform to the "2015 International Building Code" NJ Edition and to all other applicable Federal, State, and Local regulations.
2. All work shall conform to the "New Jersey Uniform Construction Code" and to all other applicable Federal, State, and local regulations.
3. In case of conflict between the General Notes and details, the most rigid requirements shall govern.
4. Work not indicated on a part of the drawings but reasonably implied to be similar to that shown at corresponding places shall be repeated.
5. Job site safety and construction procedures are the sole responsibility of the Contractor.
6. The Contractor shall provide for dewatering as required during excavation and construction. Refer to Specifications for additional information.
7. The Contractor shall coordinate openings, sleeves, concrete housekeeping pads, inserts, and depressions shown on the Architectural, Structural, Mechanical, Electrical, and Plumbing Drawings.
8. See Architectural Drawings for locations of masonry and drywall non-load bearing partitions. Provide slip connections that allow vertical movement at the heads of all such partitions. Connections shall be designed to support the top of the walls laterally for the code-required lateral load.
9. All costs of investigation and/or redesign due to Contractor improper installation of structural elements or other items not in conformance with the Contract Documents shall be at the Contractor's expense.
10. The structural drawings shall be used in conjunction with the specifications, architectural and mechanical drawings. If there is a discrepancy between drawings, it is the Contractor's responsibility to notify the Architect prior to performing the work.
11. The Contractor shall verify and/or establish all existing conditions and dimensions at the site. Failure to notify Architect/Engineer of unsatisfactory conditions constitutes acceptance of unsatisfactory conditions.
12. If the existing field conditions do not permit the installation of the work in accordance with the details shown, the Contractor shall notify the Architect/Engineer immediately and provide a sketch of the condition with his proposed modification of the details given on the Contract Documents. Do not commence work until condition is resolved and modification is approved by the Architect.
13. The Contractor shall be responsible to determine allowable construction loads and to provide design and construction of falsework, formwork, stagings, bracing, sheeting, and shoring, etc.
14. Contractor to provide sheeting, bracing, and underpinning as necessary to prevent any lateral or vertical movements of existing buildings, streets, and any existing utility lines.
15. Bracing, sheeting, shoring, etc., required to insure the structural integrity of the existing buildings or new construction, sidewalks, utilities, etc., shall be designed by a Professional Engineer engaged by the Contractor. Detailed signed and sealed shop drawings shall be prepared indicating all work to be performed. Submit the shop drawings in accordance with the Contract requirements.
16. In no case shall heavy equipment be permitted closer than 8'-0" from any foundation wall. If it is necessary to operate such equipment closer than 8'-0" to the wall, the Contractor shall be the sole responsible party and, at his own expense, shall provide adequate supports or brace the wall to withstand the additional loads superimposed from such equipment.
17. No blasting shall be permitted without written approval.
18. The Contractor shall submit, for review, drawings and calculations for all performance assemblies identified in the General Notes and listed below: The design of these assemblies is the responsibility of the Contractor's Engineer registered in the Project's jurisdiction. All submittals shall bear this Engineer's seal and signature. Review shall be for general conformance with the project requirements as indicated on the Drawings and in the General Notes.
    A. Metal stairs and metal railings: Designs shall take into account all vertical and lateral loads required by applicable building codes. Where headers or other types of structural members have been designated by the Structural Engineer of Record to support the stairs, the connections from the stairs shall be designed so that no eccentric or torsional forces are induced in these structural members. The Contractor shall be responsible for furnishing and installing hardware as required by the stair design.
19. Shop drawings for all structural materials to be submitted to Architect for review prior to the start of fabrication or commencement of work. Review period shall be a minimum of two (2) weeks.
20. Reproduction of any portion of the Structural Contract Drawings for resubmittal as shop drawings is prohibited. Shop drawings produced in such a manner will be rejected and returned.
21. Shop drawings shall bear the Contractor's stamp of approval which shall constitute certification that the Contractor has verified all construction criteria, materials, and similar data and has checked each drawing for completeness, coordination, and compliance with the Contract Documents.
22. The shop drawings shall include dimensioned floor and roof edges, openings and sleeves at all floors required for all trades.
23. The drawings have been produced entirely on MPP Engineers Cadd System. Any other lettering, lines or symbols, other than professional stamps and signatures, have been made without the authorization of MPP Engineers are invalid.
24. The structural drawings shall govern the work for all structural features, unless noted otherwise. The architectural drawings shall govern the work for all dimensions.
25. Inspection is required of all construction delineated on the Structural Drawings and/or specifications. The Owner (Contractor) shall employ a Testing/Inspection Agency which shall provide personnel with the following minimum qualifications:
    A. Certified by Institute of Certified Engineering Technicians, or other recognized comparable organization, and,
        1. For inspection, sampling, testing concrete and masonry: ACI Certified Concrete Field-Testing Technician,

FOUNDATIONS

1. Foundations have been designed and footing elevations established on the basis of a Subsurface Investigation Report and recommendations See the report for additional requirements. The requirements contained in the geotechnical report are part of the Construction Documents.
2. Footings shall bear on undisturbed stratum or engineered fill with a minimum bearing capacity of 4000 psf.
3. Prior to footing concrete placement, the footing subgrade shall be approved by the inspecting Geotechnical Engineer. If conditions prove to be unacceptable at elevations shown, footing bottoms shall be lowered to acceptable subgrade material. Fill over-excavation with lean concrete (2,500 psi).
4. The bottom of exterior footings shall be a minimum of three foot six inches (3.5') below finished grade, or as required by Local building codes.
5. The bearing elevations of new footings adjacent to existing footings are to match the adjacent existing footing bearing elevations unless indicated otherwise on plans.
6. Slabs on grade shall bear on mechanically compacted soil capable of supporting 150 psf. Drainage fill under slabs shall be compacted gravel or crushed stone.
7. Concrete for foundations shall be poured on the same day the subgrade is approved by the Geotechnical Engineer.
8. Utility lines shall not be placed through or below foundations without the Structural Engineer's approval.
9. Provide a continuous waterstop at all horizontal and vertical construction joints in the elevator pit and all other pit walls.
10. The Contractor shall observe water conditions at the site and take the necessary precautions to ensure that the foundation excavations remain dry during construction. Any sheeting or shoring required for dewatering shall be the responsibility of the Contractor.
11. The Contractor shall be responsible for coordinating the need to use foundation rebar as a grounding electrode system and shall be responsible for installing the bonding clamp prior to placement of the concrete as per NJUCC Bulletin No. 02-2.

SHEETING AND SHORING

1. Sheeting, shoring, and associated excavation shall be performed in accordance with OSHA guidelines.

CAST-IN-PLACE CONCRETE

1. Concrete shall be designed and detailed in accordance with the Building Code Requirements for Structural Concrete (ACI-318-14), and constructed in accordance with the CRSI Manual of Standard Practice.
2. Concrete shall have a minimum compressive 28 day strength of 4000 psi. Air Entrainment 4% to 6% in all exposed concrete.
3. Maximum water/cement ratios:
    A. Foundations 0.50
    B. Interior Slabs 0.47
    C. Exterior Slabs 0.44
4. All concrete shall be normal weight concrete (144 pcf +) with all cement conforming to ASTM C150, Type I. Maximum aggregate size shall be 1-1/2" for footings and 3/4" for walls and slabs, conforming to ASTM C33.
5. Reinforcing steel: ASTM A615 Grade 60.
6. Welded Wire Reinforcement: (WWR) ASTM A-185.
7. Leveling Grout shall be non-shrink, non-metallic type, factory pre-mixed grout in accordance with CE-CRD-C621 or ASTM C109, with a minimum compressive 28-day strength of 5,000 psi.

CAST-IN-PLACE CONCRETE CONTINUED

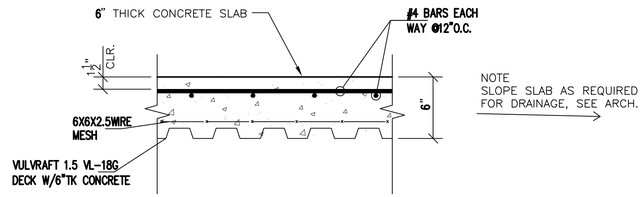
8. Reinforcing steel clear cover shall be as follows unless noted otherwise:
    A. Concrete cast against and permanently exposed to earth 3".
    B. Concrete exposed to earth or weather
        #6 bars and larger 2"
        #5 bars and smaller 1-1/2"
    C. Concrete not exposed to weather or in contact with ground
        Slabs, walls, joists
            #11 bars and smaller 3/4"
        Beams and columns
            Primary reinforcement, ties, stirrups, or spirals 1-1/2"
9. Submit to Architect/Engineer reinforcing steel shop drawings for approval and mix designs for review prior to placing any concrete.
10. All reinforcement shall be securely held in place while placing concrete. If required, additional bars, stirrups or chairs shall be provided by the Contractor to furnish support for all bars.
11. Lap welded wire reinforcement two (2) full wire spaces at splices and wire together.
12. Provide plastic tipped bolsters and chairs at all locations where the concrete surface in contact with the bolsters or chairs is exposed.
13. Placing of concrete shall not start until the placement of reinforcing has been approved by the Inspection Agency.
14. Bonding agent shall be used where new concrete is placed against existing concrete.
15. Epoxy adhesive shall be used where dowels are to be installed into existing concrete. Submit manufacturer information for engineer review.
16. No sleeve shall be placed through any concrete element unless shown on the approved shop drawings or specifically authorized in writing by the Structural Engineer. The Contractor shall verify dimensions and locations of all slots, pipe sleeves, etc. as required for mechanical trades before concrete is placed.
17. Pipes or conduits placed in slabs shall not have an outside diameter larger than 1/3 the slab thickness and shall not be spaced closer than 3 diameters on center. Aluminum conduits shall not be placed in concrete. No conduits shall be placed in slabs within 12 inches of column face or face of bearing wall. No conduits may be placed in exterior slabs or slabs subjected to fluids.
18. Prior to placing concrete, the Contractor shall submit for review by the structural engineer, a concrete pour schedule showing location of all proposed construction joints and waterstops.
19. Prior to concrete placement, the Contractor shall submit to the structural engineer for review, concrete mix designs prepared in accordance with the specifications and requirements indicated in the general notes.
20. Concrete shall not be pumped through aluminum pipes and shall not be placed in contact with aluminum forms, mixing drums, buggies, chutes, conveyors or other equipment made of aluminum.
21. All inserts and sleeves shall be cast-in-place whenever feasible. Drilled or powder driven fasteners will be permitted when proven to the satisfaction of the Structural Engineer that the fasteners will not spall the concrete and have the same capacity as cast-in-place inserts.
22. When installing expansion bolts or adhesive anchors, the Contractor shall take measures to avoid drilling or cutting of any existing reinforcing and destruction of concrete. Holes shall be blown clean prior to placing bolts or adhesive anchors.
23. Chamfer all exposed concrete corners unless noted otherwise on Architectural Drawings.
24. Construction joints for mild-reinforced concrete shall be located within the middle third of span. Proposed construction joint locations shall be shown on reinforcing steel shop drawings. Any stop in concrete work must be made with vertical bulkheads and horizontal keys, unless otherwise shown. All reinforcing is to be continuous through joints.
25. Early drying out of concrete, especially during the first 24 hours, shall be carefully guarded against. All surfaces shall be moist cured or protected using a membrane curing agent applied as soon as forms are removed. If membrane curing agent is used, exercise care not to damage coating.
26. Cold weather concreting shall be in accordance with ACI-306. Hot weather concreting shall be in accordance with ACI-305R.
27. Throughout construction, the concrete work shall be adequately protected against damage due to excessive loading, construction equipment, materials or methods, ice, rain, snow, excessive heat, and freezing temperatures.
28. Prepare concrete test cylinders from each day's pour. Cylinders shall be properly cured and stored. Sample fresh concrete in accordance with ASTM C172.
29. Owner shall retain laboratory to provide testing service. Slump per ASTM C143l air content per ASTM C231 or C173, cylinder tests per ASTM C31 and C39. One set of six (6) cylinders for each 50 cubic yards for each mix used. Reports of all tests to be submitted to the Architect.

METAL DECK

1. Metal deck shall be designed and detailed in accordance with "Design Manual for Floor Decks and Roof Decks", Steel Deck Institute. All composite steel floor deck shall be in conformance with the "Specifications for Composite Steel Floor Deck" of the Steel Deck Institute, latest edition.
2. Deck properties are based on products manufactured by United Steel Deck, Inc. (USD). Decks by other manufacturer's may be supplied provided load carrying capacity based on manufacturer's standard load tables, deflection characteristics, and UL fire ratings equal or exceed those of materials specified and if approved by the Architect and Structural Engineer.
3. Install in accordance with SDI suggested Specifications unless noted otherwise on the drawings. Individual deck sheets shall extend over at least three spans, with laps to be placed over supports.
4. Deck supplier shall provide all additional framing, closure angles and plates, pour stops, screed angles, and roof sump pans as required at the edges of all openings and at all slab depressions, or changes of deck direction, including those which have not been detailed.
5. Composite decks shall be welded to all supports including the edge support parallel to the deck span with 5/8" diameter (effective fusion diameter) plug welds at 12 inches on center. Fasten side laps with #10 self-tapping screws at 30" o.c. Headed studs shall be field installed by welding through the metal deck.
6. All steel floor deck shall be welded to all supporting steel elements. Welding washers shall be used as required by the deck manufacturer.
7. Steel deck supplier shall submit shop drawings indicating the shear stud placement.
8. Prior to and during concrete placement, the floor deck shall be planked to prevent damage to the deck. Concentrated and impact loads shall be avoided.
9. No mechanical or electrical piping, fixtures, units or systems may be hung directly from the roof deck.

CONCRETE WALL SCHEDULE

WALL TYPE / No. OF FLOOR	(A)
GROUND FLOOR	6" CONCRETE V: 2#6 @ 16" O.C. H: 2#6 @ 32" O.C.
DOWEL	#6-54" LONG W/9" HOOK@16"O.C.

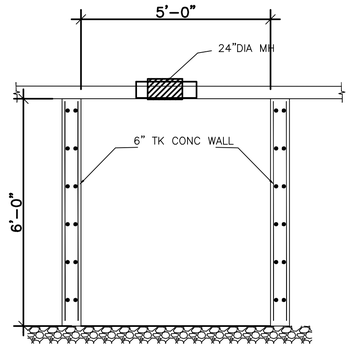


NOTES:
1. FOR FOUNDATION DRAIN AND WATERPROOFING REQUIREMENTS, COORDINATE WITH GEOTECHNICAL REPORT & CIVIL DWGS.

TYPICAL STRUCTURAL SLAB ON GRADE

2.5"

172.66



ORIFICE DETAIL

OPTIMIZED ENGINEERING ASSOCIATES
400 38TH STREET
UNION CITY, NJ 07087
201-965-3644
201-866-0913 (FAX)
E-mail: guy@oea-corp.com
Web: www.oea-corp.com

REVISIONS:

NO.	DATE	DESCRIPTION	APPR'D

PROJECT LOCATION:
833 & 835 PAVONIA AVE
JERSEY CITY, NJ
LOT: 27&28 BLOCK: 10601

PROJECT DESCRIPTION:
PROPOSED DETENTION SYSTEM
FOR NEW 5-STORY RESIDENTIAL

SEAL:

DR.: GL TR.: GJ
CK.: CK DES.: CK
GUY LAGOMARSINO, P.E.
PROFESSIONAL ENGINEER
PROJECT MANAGER
LICENSE NO. (NJ): 24GE040534

SCALE: NTS

DATE: MAY 2021

S-101
SHEET 5 OF 5

OPTIMIZED ENGINEERING ASSOCIATES, P.C.

CIVIL ♦ STRUCTURAL ♦ GEOTECHNICAL

PERCOLATION TEST DATA

W.O. No.: 2021-221 Client: GREEN HOMES Date: 8/4/2021

Project: 833 PAVONIA AVENUE Lot No.:

Project Engineer: Guy Lagomarsino,P.E.

Inspector: Guy Lagomarsino, P.E. #40534

Percolation Test Location: (see reverse) Project Site Area side SOUTH rear yard MID SECTION OF YARD

Weather Conditions: sunny Temperature: 86

TEST HOLE NO.	TEST HOLE DEPTH	TEST HOLE DIA.	TIME	PERCOLATION TEST RUNS (TIME FOR 1" DROP IN WATER LEVEL)						STABLE RATE
TP-1	4ft	12"	FINISH	2:38:53	2:09:25	2:16:52	2:26:21	2:35:22		7min
			START	2:32:10	2:02:40	2:10:15	2:18:54	2:28:23		
			TIME	0:06:43	0:06:45	0:06:37	0:07:27	0:06:59		
COMMENTS:										
COMMENTS: TP-1 location is at the location of proposed detention system on the REAr corner of the house										
The drop of 1" at a rate of 7min within the test pit results in a total hourly rate of 8" per hour										