

Yonkers GCG Restoration PARKING GARAGE



RENDERING IS BEING PROVIDED FOR A CONCEPTUAL VISUAL DEPICTION OF THE BUILDING AND IS NOT MEANT TO BE INTERPRETED AS THE FINAL DESIGN. REFER TO PLANS WITHIN THIS SET.

Owner :

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ARCHITECT/ENGINEER

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DRAWING LIST

SHEET NO.		04/11/2022 BID DOCUMENTS
ARCHITECTURAL		
A0.0	COVER	•
VT-101	TOPOGRAPHIC SURVEY	•
D0.1	GROUND TIER DEMOLITION PLAN	•
D0.1A	GROUND TIER ENTRY LOBBY DEMO PLAN	•
D0.2	2ND TIER DEMOLITION PLAN	•
D0.3	3RD TIER DEMOLITION PLAN	•
D0.4	4TH TIER DEMOLITION PLAN	•
D0.5	5TH TIER DEMOLITION PLAN	•
D0.6	TOP TIER DEMOLITION PLAN	•
A0.1	OPENNESS CALCULATIONS	•
A0.1A	PHASING PLAN - VETERAN AFFAIRS AREA	•
A1.1	GROUND TIER ARCHITECTURAL PLAN & CONSTRUCTION NOTES	•
A1.2	2ND TIER ARCHITECTURAL & ENLARGED PLANS/DETAILS	•
A1.3	3RD TIER ARCHITECTURAL PLAN	•
A1.4	4TH TIER ARCHITECTURAL PLAN	•
A1.5	5TH TIER ARCHITECTURAL PLAN	•
A1.6	TOP TIER ARCHITECTURAL PLAN	•
A2.1	ARCHITECTURAL BUILDING ELEVATIONS	•
A4.1	MAIN LOBBY ENLARGED PLANS & RELATED DETAILS	•
A4.2	STAIR/ELEVATOR #1 ENLARGED PLANS	•
A4.3	STAIR #2 ENLARGED PLANS	•
A4.4	STAIR #3 & #4 ENLARGED PLANS	•
A4.5	ENLARGED ARCHITECTURAL PLANS	•
A5.1	DOOR SCHEDULE & DETAILS, ELEV. MODERNIZATION REQ., WALL TYPES AND MISC. DETAILS	•
A6.1	MAIN LOBBY & STAIR TOWERS INTERIOR ELEVATIONS	•
A6.2	STAIR TOWERS INTERIOR ELEVATIONS	•

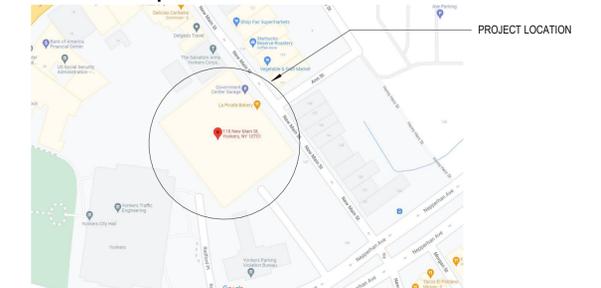
DRAWING LIST

SHEET NO.		04/11/2022 BID DOCUMENTS
G1.1	SIGNAGE SCHEDULE, NOTES AND DETAILS	•
G1.2	SIGNAGE AND GRAPHICS DETAILS	•
G1.3	SIGNAGE AND GRAPHICS DETAILS	•
STRUCTURAL		
SR0.1	STRUCTURAL GENERAL NOTES	•
SR0.2	REPAIR QUANTITIES TABLE	•
SR1.1	GROUND TIER STRUCTURAL RESTORATION FLOOR PLAN	•
SR1.2	2ND TIER STRUCTURAL RESTORATION FLOOR PLAN	•
SR1.3	3RD TIER STRUCTURAL RESTORATION FLOOR PLAN	•
SR1.4	4TH TIER STRUCTURAL RESTORATION FLOOR PLAN	•
SR1.5	5TH TIER STRUCTURAL RESTORATION FLOOR PLAN	•
SR1.6	TOP TIER STRUCTURAL RESTORATION FLOOR PLAN	•
SR2.1	GROUND TIER STRUCTURAL RESTORATION OVERHEAD PLAN	•
SR2.2	2ND TIER STRUCTURAL RESTORATION OVERHEAD PLAN	•
SR2.3	3RD TIER STRUCTURAL RESTORATION OVERHEAD PLAN	•
SR2.4	4TH TIER STRUCTURAL RESTORATION OVERHEAD PLAN	•
SR2.5	5TH TIER STRUCTURAL RESTORATION OVERHEAD PLAN	•
SR3.1	ENLARGED STAIR TOWER STRUCTURAL RESTORATION PLANS	•
SR4.1	REPAIR DETAILS	•
SR4.2	REPAIR DETAILS	•
SR4.3	REPAIR DETAILS	•
SR4.4	REPAIR DETAILS	•
SR4.5	REPAIR DETAILS	•
SR4.6	REPAIR DETAILS	•
SR5.1	BIRD CONTROL - SOFFIT PLANS	•
SR5.2	BIRD CONTROL - DETAILS	•

DRAWING LIST

SHEET NO.		04/11/2022 BID DOCUMENTS
MECHANICAL		
DM1.1	GROUND TIER FLOOR PLAN EXISTING CONDITIONS/DEMOLITION (HVAC)	•
M1.1	GROUND TIER FLOOR PLAN - EXISTING CONDITIONS/NEW WORK (HVAC)	•
M2.1	SCHEDULES	•
ELECTRICAL		
E000	GENERAL NOTE, LEGEND, & SPEC	•
E101	ELECTRICAL GROUND TIER PLAN	•
E102	LIGHTING 2ND TIER PLAN	•
E103	LIGHTING 3RD TIER PLAN	•
E104	LIGHTING 4TH TIER PLAN	•
E105	LIGHTING 5TH TIER PLAN	•
E106	LIGHTING TOP TIER PLAN	•
E200	LIGHTING ELEVATION PLAN	•
E700	POWER ONE LINE DIAGRAM	•

Street Map

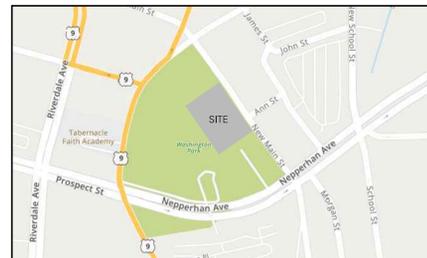


118 New Main St,
Yonkers, NY 10701



04/11/2022
BID DOCUMENTS

A0.0

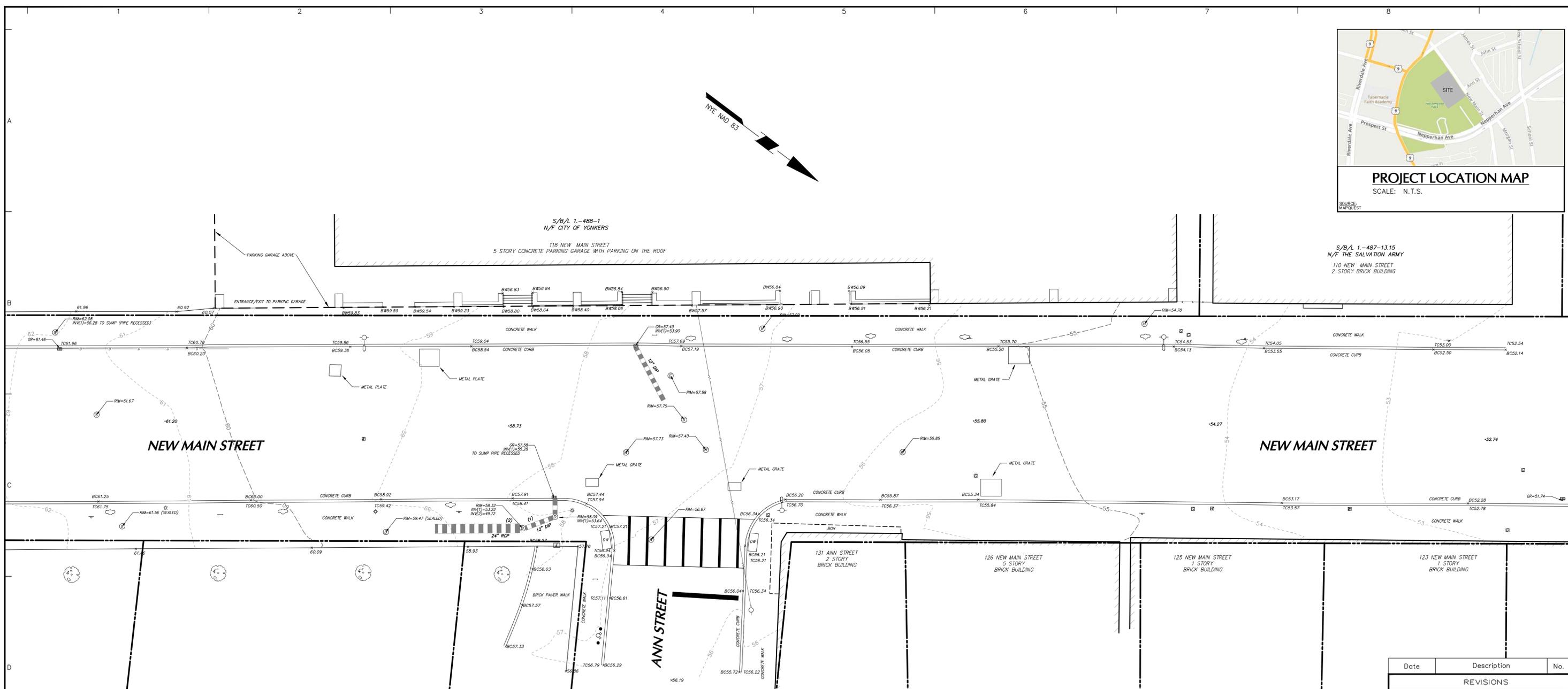


PROJECT LOCATION MAP

SCALE: N.T.S.

SOURCE: MAPQUEST

S/B/L 1-487-13.15
N/F THE SALVATION ARMY
110 NEW MAIN STREET
2 STORY BRICK BUILDING



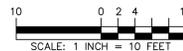
NOTES

- THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NEW YORK EAST STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83)(EPOCH2011) GRID NORTH.
- ELEVATIONS SHOWN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88) (GEOID12B) AS DETERMINED BY GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS).
- PARCELS ARE BASED UPON, AND THE SAME, RECORD DESCRIPTIONS.
- STREET NAMES AND R.O.W. WIDTHS, BLOCK AND LOT NUMBERS AS PER MAPS REFERENCED IN CITY OF NEW ROCHELLE TAX MAPS.
- PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING AND LANDSCAPE ARCHITECTURE, D.P.C. DURING SEPTEMBER OF 2017, JULY OF 2018 AND SEPTEMBER OF 2019. VISUAL INSPECTIONS OF THE SITE WERE PERFORMED ON 6/25/2021 AND 11/6/2021.
- OFFSETS (IF SHOWN) ARE FOR SURVEY REFERENCES ONLY AND ARE NOT TO BE USED IN CONSTRUCTION OF ANY TYPE.
- WETLANDS, ENVIRONMENTAL AND/OR HAZARDOUS MATERIALS LOCATION, IF ANY, NOT COVERED UNDER THIS CONTRACT.
- FEMA INFORMATION
- CURRENT, AS PER THE "NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP TITLED FOR WESTCHESTER COUNTY, NEW YORK (ALL JURISDICTIONS), PANEL 317 OF 426, MAP NUMBER 36119C0317F, EFFECTIVE DATE SEPTEMBER 28, 2007". THE ENTIRE SUBJECT PROPERTY LIES WITHIN ZONE X (NOT SHADED).
- PRELIMINARY, AS PER THE "NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP TITLED FOR WESTCHESTER COUNTY, NEW YORK (ALL JURISDICTIONS), PANEL 317 OF 426, MAP NUMBER 36119C0317G, REVISED DATE DECEMBER 8, 2014". THE ENTIRE SUBJECT PROPERTY LIES WITHIN ZONE X (NOT SHADED).
- UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC.). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND THE LOCATIONS WHERE DATA WAS OBTAINED, DESPITE MEETING THE REQUIRED STANDARD OF CARE THE SURVEYOR CANNOT AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.
- ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC...) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.
- UNLESS SPECIFICALLY NOTED HEREON THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.
- PRIOR TO ANY DESIGN OR CONSTRUCTION THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
- UNLESS NOTED BELOW SUPPLEMENTAL DOCUMENTS WERE NOT USED TO COMPILE THE SUBSURFACE UTILITY INFORMATION SHOWN HEREON.
- THIS PLAN WAS COMPILED FROM OTHER MAPS, RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FULL BOUNDARY SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY OF THE ENTIRE PROPERTY MAY DISCLOSE. THE PURPOSE OF THIS SURVEY IS TO DEPICT TOPOGRAPHIC FEATURES.
- UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
- THIS PLAN NOT VALID UNLESS EMBOSSED OR BLUE INK STAMPED WITH THE SEAL OF THE PROFESSIONAL.

LEGEND (NOT SHOWN TO SCALE)

	HYDRANT		ELECTRIC BOX		NORTH, EAST, SOUTH, WEST
	STAND PIPE		HAND HOLE		FINISHED FLOOR
	ROOF DRAIN		TELEPHONE BOX		OVERHEAD WIRE
	PEDESTAL LIGHT		TRAFFIC SIGNAL POLE		CHAINLINK FENCE
	STREET LIGHT		DOOR		IRON FENCE
	SIGNAL POLE		DOUBLE DOOR		EASEMENT LINE
	POWER POLE		ROLL UP DOOR		PROPERTY LINE
	GUY WIRE		CHAIN LINK FENCE		RIGHT-OF-WAY LINE
	MANHOLE (TYPE AS LABELED)		WROUGHT IRON FENCE		CONTOUR LINE
	WATER VALVE		BOTTOM OF WALL		GAS MARK OUT LINE
	GAS VALVE		TOP OF WALL		WATER MARK OUT LINE
	UNKNOWN VALVE		BOTTOM OF CURB		ELECTRIC MARK OUT LINE
	CATCH BASIN		TOP OF CURB		COMMUNICATION MARK OUT LINE
	SPOT ELEVATION		DROP CURB		SANITARY MARK OUT LINE
	CLEAN OUT		MEASUREMENT PER SURVEY		DRAINAGE MARK OUT LINE
	TREE		(D)		UNKNOWN UTILITY MARK OUT LINE
	SIGN		MEASUREMENT PER DEED		REFERENCE UTILITY MARK OUT LINE (TYPE AS NOTED) - PLOTTED FROM EXISTING MAPPING
	BOLLARD		CONC.		
	MONITORING WELL				
	PARKING METER				

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 146 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.



Date	Description	No.
REVISIONS		
LANGAN		
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Project
YONKERS GOVERNMENT PARKING GARAGE
SECTION 1, BLOCK No. 488, LOT No. 1
CITY OF YONKERS
COUNTY OF WESTCHESTER STATE OF NEW YORK

Drawing Title
TOPOGRAPHIC SURVEY

Project No. 190077501	Drawing No. VT-101
Date 02/25/2022	
Drawn By DJG	
Checked By AIG	
Sheet 1 of 1	

GENERAL NOTES

A. GENERAL CONDITIONS

- IT IS THE INTENT OF THE PLANS TO ADEQUATELY DESCRIBE AND INDICATE AREAS THAT REQUIRE RESTORATION WORK. IN THE EVENT IT BECOMES NECESSARY TO ALTER THE PLANS FOR THE BEST INTEREST OF THE PROJECT DUE TO CIRCUMSTANCES NOT KNOWN AT THE TIME OF SURVEY, WORK QUANTITIES MAY BE ADJUSTED IN ACCORDANCE WITH THE ENGINEER AND OWNER'S APPROVAL.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND SHALL REPORT IN WRITING TO THE ENGINEER ALL DISCREPANCIES WITH RESPECT TO DRAWINGS & SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ALL BRACING, SHEETING, AND SHORINGS AS REQUIRED. PROVIDE TEMPORARY SUPPORT WHERE REPAIR WORK WILL DEGRADE THE INTEGRITY OF THE STRUCTURE INCLUDING CONNECTIONS. SHORING SHALL BE DESIGNED, PREPARED, SIGNED, AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK, HIRED BY THE CONTRACTOR. SHORING ENGINEER SHALL FIELD VERIFY ALL DIMENSIONS, CONNECTION TYPES, ETC. AS NEEDED TO DETERMINE ALL APPLICABLE LOADING AND LOAD PATHS.
- CONTRACTOR IS REQUIRED TO INSTALL A TEMPORARY DUST ENCLOSURE AT EACH AREA OF WORK TO PREVENT DUST & ODOR MIGRATION. FOR BIDDING PURPOSES, ASSUME A CONTINUOUS PLASTIC SEAL AT THE PERIMETER OF EACH WORK AREA. ALL DUST/DEBRIS FROM THE WORK SHALL BE CLEANED/REMOVED PRIOR TO REMOVING TEMPORARY DUST ENCLOSURE.
- CONDUCT A PRECONSTRUCTION MEETING PRIOR TO COMMENCING WORK, HOLD PREINSTALLATION MEETINGS PRIOR TO EACH PHASE OF THE PROJECT, AND HOLD REGULAR COORDINATION MEETINGS.
- CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONDITION WHICH MAY ENDANGER THE STABILITY AND STRUCTURAL INTEGRITY OF, CAUSE DISTRESS TO, OR COMPROMISE THE DURABILITY OF THE STRUCTURE.
- CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THE DRAWINGS. IN CASE OF CONFLICT BETWEEN DRAWINGS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
- ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS, AND STANDARDS OF ALL AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION AND SITE SAFETY.
- THE FOLLOWING CODES AND STANDARDS APPLY TO THE DESIGN AND CONSTRUCTION OF THIS PROJECT:
 - "INTERNATIONAL BUILDING CODE" (IBC 2018) - INTERNATIONAL CODE COUNCIL
 - "INTERNATIONAL EXISTING BUILDING CODE" (IEBC 2015) - INTERNATIONAL CODE COUNCIL
 - "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" (ASCE 7-16) - AMERICAN SOCIETY OF CIVIL ENGINEERS
 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318-14) - AMERICAN CONCRETE INSTITUTE
 - "ACI MANUAL OF CONCRETE PRACTICE" (2016, PART 1 THROUGH PART 5) - AMERICAN CONCRETE INSTITUTE
 - "ACI CONCRETE REPAIR MANUAL" LATEST EDITION - AMERICAN CONCRETE INSTITUTE
 - "CODE REQUIREMENTS FOR ASSESSMENT, REPAIR AND REHABILITATION OF EXISTING CONCRETE STRUCTURES" (ACI 552-16) - AMERICAN CONCRETE INSTITUTE
 - "CRSI HANDBOOK" (2008) - CONCRETE REINFORCING STEEL INSTITUTE
 - "PCI DESIGN HANDBOOK" (8TH EDITION) - PRECAST/PRESTRESSED CONCRETE INSTITUTE
 - "STRUCTURAL WELDING CODE" (LATEST EDITION) - AMERICAN WELDING SOCIETY
- IF THE BID SCHEDULE INCLUDES COLD WEATHER MONTHS, INCLUDE COLD WEATHER PROVISIONS AS REQUIRED TO COMPLETE THE WORK.

B. PHASING OF WORK & WORK RESTRICTIONS

- BIDDERS SHALL INCLUDE A PRELIMINARY SITE UTILIZATION / PHASING PLAN WITH THEIR BIDS. SEE SHEET SR0.2 FOR TYPICAL CONSTRUCTION PHASING PLAN.
- THE SUCCESSFUL CONTRACTOR SHALL SUBMIT COMPOSITE SITE UTILIZATION/PHASING PLANS FOR APPROVAL PRIOR TO MOBILIZATION. THE CONTRACTOR SHALL COORDINATE CLOSELY WITH THE ENGINEER, THE OWNER, AND THE GARAGE OPERATOR WHILE DEVELOPING, MAINTAINING, AND REVISING THE PLANS AS NECESSARY. THE GARAGE SHALL BE PARTIALLY OCCUPIED BY VEHICLES AND PEDESTRIANS DURING CONSTRUCTION. THE COMPOSITE PLANS SHALL SHOW TEMPORARY FACILITIES, TEMPORARY UTILITY AND CONNECTIONS, STAGING AND STORAGE AREAS, DELIVERIES, SITE ACCESS, TEMPORARY VEHICLE AND PEDESTRIAN CIRCULATION, CONSTRUCTION PHASING, SHORING, TEMPORARY FENCING, BARRICADES, SIGNAGE, FLAGMEN, ETC.
- THE INTENT OF THE CONTRACTORS PHASING PLAN SHOULD BE TO DIVIDE THE WORK INTO THE LEAST NUMBER OF PHASES WHILE MAINTAINING VEHICLE ACCESSIBILITY TO ALL AREAS THAT ARE NOT BEING WORKED ON. CONCENTRATE ON THE ROOF LEVEL AND OPEN TO PARKING UPON COMPLETION OF THE WORK. MOVE TO THE NEXT LEVEL BELOW AND CONTINUE THE PROCESS OF OPENING THE LEVEL TO PARKING PRIOR TO PROCEEDING TO THE NEXT LEVEL DOWN. RAMP AS ARE ASSUMED TO BE ABLE TO BE SPLIT INTO TWO PHASES.
- WORK AT HIGH-VOLUME AREAS AND ENTRY/EXIT LANES SHALL BE PERFORMED AT NIGHT BETWEEN 9PM AND 6AM OR ON WEEKENDS (AS REQUIRED). ALL OTHER WORK CAN BE COMPLETED EITHER DURING THE DAY OR AT NIGHT, UNLESS NOTED OTHERWISE BY THE OWNER OR GARAGE OPERATOR OR BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. COMPLY WITH WORK HOUR RESTRICTIONS AND NOISE ORDINANCE OF THE AUTHORITY HAVING JURISDICTION.
- ONE ELEVATOR MUST REMAIN IN SERVICE AND BE ACCESSIBLE AT ALL TIMES, UNLESS AN ALTERNATE ACCESSIBILITY PLAN IS SUBMITTED TO AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- STAIR TOWERS MUST REMAIN IN SERVICE AND BE ACCESSIBLE AT ALL TIMES, UNLESS AN ALTERNATE MEANS OF EGRESS PLAN IS SUBMITTED TO AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- THE CONTRACTORS MAY TAKE A MAXIMUM OF 165 PARKING SPACES OUT OF SERVICE DURING WEEKENDS, WITH THE EXCEPTION OF EVENTS.
- THE CONTRACTORS MAY TAKE A MAXIMUM OF 110 PARKING SPACES OUT OF SERVICE DURING NORMAL BUSINESS HOURS, WITH THE EXCEPTION OF EVENTS.
- COMPLY WITH LIMITATIONS ON USE OF PUBLIC STREETS AND WITH OTHER REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHOULD COORDINATE THE SHUTDOWN OF AREAS FOR THE APPLICATION OF WATERPROOFING TRADE MATERIALS WITH THE EXTENDED WEATHER FORECAST TO AVOID WEATHER-RELATED DELAYS. TRAFFIC DECK MEMBRANE INSTALLATION SHALL OCCUR ON WEEKENDS TO MAXIMIZE INSTALLATION AREA AND MINIMIZE SEAMS.
- PARKING AND PEDESTRIAN ACCESS AT THE LEVEL BELOW DEMOLITION WORK AND/OR STRUCTURAL REPAIRS SHALL BE TAKEN OUT OF SERVICE UNTIL REPAIRS ARE COMPLETE. PARKING AND PEDESTRIAN ACCESS AT THE LEVEL BELOW WATERPROOFING WORK SHALL BE TAKEN OUT OF SERVICE UNTIL WORK IS COMPLETE. UNLESS CONTRACTOR TAKES APPROPRIATE ACTIONS TO PROTECT PEDESTRIANS AND VEHICLES FROM HARM/DAMAGE.
- REFER TO SPECIFICATION SECTION 011000 ("SUMMARY") FOR ADDITIONAL REQUIREMENTS AND RESTRICTIONS.

C. MEASUREMENT AND RECORD DRAWINGS

- DO NOT SCALE DRAWINGS. VERIFY ALL DRAWING DIMENSIONS IN THE FIELD.
- CONTRACTOR SHALL MEASURE TO THE NEAREST INCH AND RECORD THE REPAIR AREAS AND QUANTITIES PERFORMED.
- ELECTRONIC COPIES OF THE DRAWINGS SHOWING THE ACTUAL SHAPE, LOCATION, AND SIZE OF THE REPAIRS AND A REPAIR TABULATION SPREADSHEET SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER AT THE END OF EACH PHASE OF THE PROJECT AND WITH EACH PAYMENT APPLICATION.
- AT THE PROJECT CONCLUSION, SUBMIT ONE SET OF REPRODUCIBLE RECORD DRAWINGS IN A NEAT AND ORDERLY FASHION TO THE OWNER & ENGINEER SHOWING ALL REPAIRS PERFORMED. PROVIDE ONE HARD COPY AND AN ELECTRONIC COPY IN CAD OR PDF FORMAT.

D. GENERAL PREPARATION FOR CONCRETE REPAIRS

- THE DRAWINGS INDICATE THE AREAS THAT HAVE BEEN DETERMINED TO REQUIRE REPAIR PER FIELD SURVEYS. CONTRACTOR SHALL USE APPROPRIATE TOOLS TO DETECT DELAMINATIONS AND SPALLS. ALL SUPPORTED STRUCTURAL ELEMENTS WITHIN THE GARAGE SHALL BE SOUNDED. THE LIMITS OF THE DELAMINATIONS SHALL BE MARKED FOR DEMOLITION. PRIOR TO REMOVAL, LIMITS OF REPAIR AREA SHALL BE REVIEWED BY ENGINEER IN THE FIELD. REPAIR QUANTITIES THAT DEVIATE FROM THAT SHOWN ON PLAN SHALL BE REPORTED IN WRITING TO THE ENGINEER AND OWNER FOR APPROVAL.
- SAWCUT PERIMETER OF REPAIR AREA EDGES TO AVOID FEATHERED EDGES. REMOVE SPALLED AND UNSOUND CONCRETE WITHIN MARKINGS. EXTEND REPAIR AREAS WITH THE APPROVAL OF ENGINEER AND OWNER IF ADDITIONAL UNSOUND CONCRETE IS EXPOSED. THE REPAIR EDGE SHALL BE EXTENDED A MINIMUM OF THREE INCHES BEYOND THE EXTENT OF CORRODED REINFORCING STEEL.
- ALL REINFORCING IN GOOD CONDITION (SECTION LOSS LESS THAN 20%) WITHIN THE REPAIR AREA SHALL BE UNDERCUT PER DETAIL 10SR4.1, SANDBLASTED CLEAN, AND TREATED WITH CORROSION INHIBITING COATING MATERIALS PER SPECIFICATIONS. ALL REINFORCING WITH SECTION LOSS GREATER THAN 20% WITHIN THE REPAIR AREA SHALL BE REPLACED WITH EQUAL REINFORCEMENT. DEVELOP TENSILE STRENGTH OF REPLACEMENT REINFORCEMENT BY SPLICING TO REINFORCING IN "GOOD CONDITION" OR BY DOWELING INTO SOUND CONCRETE AT PERIMETER OF REPAIR AREA USING ADHESIVE EPOXY ANCHORING SYSTEM.
- WATERBLAST OR SANDBLAST THE CAVITY SURFACES TO REMOVE ALL DEBRIS AND CONTAMINANTS. AIRBLAST AS THE FINAL STEP TO REMOVE REMAINING DEBRIS.

F. CONCRETE (FOR REPAIRS GREATER THAN 3 INCHES THICK)

- CONCRETE SHALL MEET THE FOLLOWING CRITERIA:
 - 28 DAY COMPRESSIVE DESIGN STRENGTH: 5000 PSI (MIN.)
 - MAXIMUM W/C RATIO OF 0.4
 - PORTLAND CEMENT CONCRETE (REGULAR OR HI-EARLY), TYPE I OR III
 - AGGREGATE TO CONFORM TO ASTM C33
 - AGGREGATE: #8, 1/2 INCH
 - SUPERPLASTICIZED
 - AIR ENTRAINED: 6 1/2 ± 1 1/2%
 - SLUMP: 4±1 INCH (BEFORE ADDING SUPERPLASTICIZER)
 - SYNTHETIC FIBER: 1.5 LB./C.Y. OF CONCRETE, MINIMUM
 - 3 GAL. OF CALCIUM NITRITE CORROSION INHIBITOR PER CU. YD. OF CONC.

- CONTRACTOR SHALL SUBMIT MIX DESIGN FOR ENGINEER'S APPROVAL. ADMIXTURES SHALL NOT BE CHANGED FROM THE APPROVED MIX DESIGN WITHOUT THE ENGINEER'S APPROVAL.
- CONFORM TO THE REQUIREMENTS OF ACI 301 AND ACI 318, LATEST EDITION.
- THE FIELD QUALITY CONTROL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY HIRED BY OWNER:
 - AIR ENTRAINMENT AND SLUMP TESTS FOR EVERY BATCH
 - COMPRESSION STRENGTH TESTS ON EVERY 50 C.Y. POUR AND IN ACCORDANCE WITH ACI 318, LATEST EDITION.

G. REINFORCEMENT

- ALL NEW REINFORCEMENT SHALL COMPLY WITH ASTM A615 GR. 60.
- WELDED WIRE FABRIC SHALL BE PER ASTM A185 OR A497. USE MATS ONLY. ROLL STOCK IS NOT PERMITTED.
- ALL REINFORCING SHALL HAVE THE MINIMUM COVER PER ACI 318, LATEST EDITION.
- ALL EXISTING EXPOSED STEEL SHALL BE COATED WITH STEEL CORROSION INHIBITING TREATMENT IN ACCORDANCE WITH SPECIFICATION SECTION 039300.

H. EMBEDDED GALVANIC ANODES

- REFER TO CONCRETE REPAIR DETAILS SUCH AS TYPE PFR, SFR, FFR & REPAIR DETAILS FOR LOCATIONS WHERE ANODES ARE REQUIRED. REFER TO SPECIFICATION SECTION 039300 FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL ONLY ORDER 25% OF REQUIRED ANODES AT BEGINNING OF PROJECT ONCE SUBMITTAL HAS BEEN APPROVED BY ENGINEER. ENGINEER WILL GIVE DIRECTION FOR THE CONTRACTOR TO ORDER ADDITIONAL ANODES AFTER THEIR USE AND NECESSITY HAS BEEN IDENTIFIED DURING THE EARLY STAGES OF THE REPAIR WORK. CONTRACTOR TO INFORM ENGINEER IF A LONG LEAD TIME IS EXPECTED ON THE ANODE ORDERS.

I. CARBON FIBER REINFORCEMENT POLYMER (CFRP)

- REFER TO SPECIFICATION SECTION 039300 AND CFRP REPAIR DETAILS FOR ADDITIONAL REQUIREMENTS.
- THE CONTRACTOR SHALL PERFORM SURFACE PREPARATION AND INSTALL CFRP AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- IN ADDITION TO MANUFACTURER'S REQUIREMENTS, SURFACE PREPARATION SHALL INCLUDE CORNER ROUNDING, SMOOTHING CONCRETE, AND FILLING IN BUG-HOLES AND CRACKS.
- INCLUDE COST OF MANUFACTURER REPRESENTATIVE'S SUPERVISION DURING SURFACE PREPARATION, INSTALLATION, AND PULL TESTS. THE MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE A REPORT OF THEIR OBSERVATIONS, ANY CORRECTIVE ACTIONS THAT WERE REQUIRED, AND IF THE SURFACE PREPARATION, INSTALLATION, AND PULL TESTS ARE IN CONFORMANCE WITH THE MANUFACTURER'S WRITTEN REQUIREMENTS.
- REFER TO SPECIFICATION SECTION 039300 FOR MOCKUP AND PULL TEST REQUIREMENTS.

J. EPOXY INJECTION

- REFER TO SPECIFICATION SECTION 039300 AND EPOXY INJECTION REPAIR DETAIL 4/SR4.4 FOR ADDITIONAL REQUIREMENTS.

- USE APPROPRIATE METHODS AND PLACEMENT OF INJECTION PORTS TO ASSURE COMPLETE COVERAGE OF CRACKS. REVIEW PREPARED CRACK & REPAIR PROCEDURES ON-SITE W/ ENGINEER & OWNER'S INSPECTION AGENCY PRIOR TO INJECTION OF 1ST CRACK.
- CRACK REPAIR MATERIALS:
 - TYPE EI - CRACKS BETWEEN 1/32" & 1/4". PRESSURE INJECT CRACKS W/ A HIGH-STRENGTH, VERY-LOW-VISICOSITY STRUCTURAL EPOXY (SIKADUR 35 HI-MOD LV, SIKADUR 52, OR EQUAL). SEAL CRACKS PRIOR TO INJECTION W/ SIKADUR 31 HI-MOD GEL OR EQUAL.
 - TYPE EI# - HAIRLINE CRACKS < 1/32" THAT REMAIN AFTER INJECTION OF MAJOR CRACKS: PRESSURE INJECT CRACKS W/ A HIGH-STRENGTH, SUPER LOW-VISICOSITY STRUCTURAL EPOXY (SIKADUR 55 SLV OR EQUAL). SEAL CRACKS PRIOR TO INJECTION W/ SIKADUR 31 HI-MOD GEL OR EQUAL.
 - TYPE EI# - WET NON-STRUCTURAL WALL CRACKS: INJECT WITH HYDROPHILIC GROUT (SIKAFIX HH HYDROPHILIC, SIKAFIX HH LV, OR SIKAFIX HH PLUS). INSTALL PER MANUFACTURER'S REQUIREMENTS.

K. MASONRY REPAIR/REPLACEMENT AND REPOINTING

- THE ASSUMED MASONRY BLOCK SIZE FOR REPAIR TYPES M1, M2, & M3 SHALL BE 8"x8"x16" NOMINAL WITH 3/8" MORTAR JOINTS. FIELD VERIFY AND MATCH THE TYPE, SIZE AND FINISH OF THE EXISTING MASONRY BLOCK.
- REFER TO SPECIFICATION SECTION 040120.63 FOR MASONRY REPAIR/REPLACEMENT (REPAIR TYPE: "M1") REQUIREMENTS.
- REFER TO SPECIFICATION SECTION 04020.64 AND THE FOLLOWING FOR MASONRY REPOINTING (REPAIR TYPE: "M3") REQUIREMENTS:
 - CLEAN OUT OLD MORTAR. RAKE OUT DAMAGED, POWDERY, OR DISINTEGRATING MORTAR WITH A COLD CHISEL OR SCREWDRIVER. BRUSH OUT ANY BRICK DUST.
 - USE A SPONGE, BRUSH, OR RAG TO MOISTEN THE REPAIR AREA WITH WATER.
 - USE MORTAR AND A GROUT BAG AND APPLY FRESH MORTAR INTO THE JOINTS. GO BACK OVER THE JOINTS WITH A POINTING TROWEL AND TRIM OFF THE EXCESS. BE CAREFUL TO AVOID SMUDGING AND STAINING MORTAR ON TO THE FACE OF THE BRICKS.
 - AS THE MORTAR STARTS TO SET, SHAPE THE MORTAR JOINTS TO MATCH THE LOOK OF THE ORIGINAL, USING AN APPROPRIATE SHAPED TOOL. WHEN THE MORTAR IS ALMOST SET, USE A BRUSH AND LIGHTLY BRUSH OFF ANY EXCESS STILL ON THE BRICKWORK.
 - DO NOT CHIP, CUT, OR REMOVE THE BRICK'S SKIN WHICH WILL ACCELERATE DECAY.
 - REPOINT ONLY WHEN TEMPERATURES REMAIN BETWEEN 40 AND 90 DEGREES FAHRENHEIT.
 - PROVIDE MOCKUP SAMPLE OF REPOINTING IN FIELD FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.

L. CONCRETE MASONRY

- MATERIAL PROPERTIES - MASONRY:
 - PRISM STRENGTH OF UNIT MASONRY, $f_m = 1,900$ psi.
 - MORTAR TYPE "S" (ABOVE GRADE).
- MINIMUM VERTICAL REINFORCEMENT FOR MASONRY WALLS SHALL BE #4@8" O.C. TYP., U.N.O. PROVIDE ONE #4 VERTICAL AT ALL CORNERS, AT EACH SIDE OF OPENINGS, AND AT ENDS OF WALL. MASONRY WALLS SUBJECT TO VEHICULAR LOADING SHALL BE REINFORCED WITH #4@16" O.C. EXTENDED TO AT LEAST 2'-0" ABOVE FLOOR AND ALL CORES SHALL BE GROUDED SOLID UP TO 2'-0" ABOVE FLOOR.
- HORIZONTAL JOINT REINFORCEMENT FOR MASONRY WALLS SHALL BE STANDARD WEIGHT, GALVANIZED SPACED @ 16" O.C. TYP., U.N.O. PROVIDE ONE-PIECE PREFABRICATED UNITS SPACED @ 8" O.C. AT WALL CORNERS AND INTERSECTIONS.
- PROVIDE CONTROL JOINTS IN MASONRY WALLS AT 20'-0" O.C., MAXIMUM, U.N.O.
- PROVIDE ANGLE CLIP CONNECTION AT TOP OF INSTALLED MASONRY WALL PER DETAIL 7/SR4.5.
- PAINT ALL MASONRY BLOCKS AS DIRECTED IN TEXTURE & COLOR.

M. ADHESIVE ANCHORS / DOWEL AND MECHANICAL ANCHORS INSTALLED IN CONCRETE OR MASONRY AS REQUIRED

- MECHANICAL ANCHORS SHALL BE HILTI KWIK BOLT TZ OR EQUAL, U.N.O.
- ADHESIVE ANCHOR DOWELS SHALL BE HILTI HIT HY 200 OR EQUAL, U.N.O.
- ANCHORS, WASHERS, AND NUTS SHALL BE HOT DIP GALVANIZED OR TYPE 316 STAINLESS STEEL AND MUST BE SELECTED TO ASSURE COMPATIBILITY WITH THE BASE MATERIAL AND PREVENT CORROSION DUE TO DISSIMILAR METALS.
- WHEN INSTALLING ANCHORS / DOWELS IN EXISTING CONCRETE OR MASONRY, EXERCISE CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING.
- PREPARATION AND INSTALLATION OF THE ANCHORS / DOWELS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE MANUFACTURER'S WRITTEN INSTRUCTIONS. INCLUDE COST OF MANUFACTURER REPRESENTATIVE'S SUPERVISION DURING PREPARATION, INSTALLATION, AND PULL TESTS. THE MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE A REPORT OF THEIR OBSERVATIONS, ANY CORRECTIVE ACTIONS THAT WERE REQUIRED AND IF THE PREPARATION, INSTALLATION, AND PULL TESTS ARE IN CONFORMANCE WITH THE MANUFACTURER'S WRITTEN REQUIREMENTS.

N. STRUCTURAL STEEL

- TRAFFIC MARKINGS (STRIPING AND TRAFFIC ARROWS)
 - CONTRACTOR SHALL REPLACE ALL TRAFFIC MARKINGS (STRIPING AND TRAFFIC ARROWS) WITHIN THE GARAGE PER ARCHITECTURAL PLANS A.1.1 THRU A.1.5.
 - REMOVE TRAFFIC MARKINGS AT TOP TIER BY SHOT-BLASTING OR ADEQUATE METHODOLOGY AS NOT TO DAMAGE TRAFFIC DECK MEMBRANES.
- CEILING/WALL SURFACES OF CONCRETE
 - CONTRACTOR SHALL SANDBLAST CLEAN ALL CONCRETE MEMBERS.
 - ONCE CONCRETE REPAIR WORK IS COMPLETE, THE CONTRACTOR SHALL APPLY PAINT PER SPECIFICATION SECTION 099100.
- STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "STEEL CONSTRUCTION MANUAL" LATEST EDITION.
- SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO ANY FABRICATION.
- ALL EXTERIOR STEEL MEMBERS AND CONNECTIONS SHALL BE PAINTED WITH RUST-INHIBITING PRIMER OR HOT-DIP GALVANIZED, AND PAINTED PER SPECIFICATIONS. DO NOT GALVANIZE OR PAINT SURFACES TO BE FIELD WELDED. TOUCH UP ALL FIELD WELDS WITH RUST-INHIBITING PRIMER OR GALVANIZING REPAIR PAINT AND PAINT PER SPECIFICATIONS. REFER TO AWS D19.0 FOR ADDITIONAL INFO.

- BOLTED CONNECTIONS:
 - ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIA. ASTM A325 BOLTS WITH ASTM F436 WASHERS AND ASTM A563 NUTS, U.N.O.
 - ALL HIGH-STRENGTH BOLT CONNECTIONS SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL JOINT USING ASTM A325 BOLTS" AS ENDORSED BY AISC.
 - HIGH-STRENGTH BOLTED CONNECTIONS SHALL BE BEARING TYPE WITH THREADS ALLOWED IN THE SHEAR PLANE, U.N.O.
 - HIGH-STRENGTH BOLTS SHALL BE SNUG-TIGHTENED, UNLESS REQUIRED BY AISC SPECIFICATIONS TO BE FULLY PRETENSIONED OR NOTED AS PRETENSIONED ON THE DRAWINGS. PRETENSION BOLTS WITH A CALIBRATED TORQUE WRENCH OR BY THE "TURN OF THE NUT" METHOD.
 - ALL WELDING SHALL CONFORM TO AWS D1.1 OR AWS D19.0 (GALVANIZED STEEL), LATEST EDITION.

O. METAL PAN STAIRS

- AT LEAST ONE STAIRS MUST REMAIN OPEN DURING THE REPAIR WORK.
- STEEL PANS SHALL BE UNCOATED, COLD OR HOT-ROLLED STEEL SHEETS (ASTM A 1008 OR ASTM A 1011, RESPECTIVELY), GRADE 33, AND SAME GAUGE AS EXISTING.
- CONCRETE FILL SHALL BE HIGH EARLY STRENGTH (3000 PSI MIN. @ 4 HOURS) HAVING 3 GALLONS OF CALCIUM NITRITE CORROSION INHIBITOR PER CUBIC YARD OF CONCRETE AND SHALL BE REINFORCED WITH W.W.R. W2.5/W2.5-3/3 (MIN.).
- ANY DEVIATION FROM EXISTING CONSTRUCTION SHALL BE ACCOMPANIED BY SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK.

P. FIRE PROTECTION AND FIRESTOPPING (AS REQUIRED)

- MAINTAIN FIREPROOFING AND FIRE-RESISTANCE RATING OF EXISTING STRUCTURAL MEMBERS. WHERE CONTRACTOR'S WORK OR SELECTED MEANS AND METHODS RESULTS IN DAMAGE OR REMOVAL OF EXISTING FIREPROOFING MATERIAL THAT IS NOT SCHEDULED TO BE REMOVED, CONTRACTOR SHALL REPLACE THE FIREPROOFING TO MATCH THE EXISTING FIRE-RESISTANCE RATING, AND ANY ASSOCIATED COST SHALL BE PAID FOR BY THE CONTRACTOR.
- MAINTAIN FIRE RATING OF FIRE-RESISTANCE-RATED ASSEMBLIES SUCH AS FLOORS, CEILINGS, AND WALLS. MODIFICATIONS AND/OR PENETRATIONS TO EXISTING ASSEMBLIES FOR UTILITY RUNS OR OTHER REASONS AS IDENTIFIED IN THE CONTRACT DOCUMENTS SHALL BE SEALED WITH PENETRATION FIRESTOPPING AND/OR JOINT FIRESTOPPING EQUAL TO THE ORIGINAL RATING, U.N.O. EXISTING ASSEMBLIES ARE ASSUMED TO HAVE THE FIRE RESISTIVE RATING OF 2 HOURS.

Q. CORROSION INHIBITING SEALER

- REFER TO SPECIFICATION SECTION 079020 FOR ACCEPTABLE CORROSION INHIBITING SEALERS.
- PROVIDE SURFACE PREPARATION OF THE FLOOR SLABS BY METHODS WHICH CAN BE PERFORMED WITHOUT DAMAGING EXISTING CONCRETE SURFACES.
- THE CORROSION INHIBITING SEALER BE APPLIED IN ACCORDANCE WITH SPECIFICATION SECTION 079020. THE FLOOR COVERAGE RATE SPECIFIED IS MINIMUM REQUIREMENT AND SHALL BE SATISFIED ON A BAY-BY-BAY BASIS. THE APPLICATION OF THE CORROSION INHIBITING SEALER SHALL BE INSPECTED BY MANUFACTURER'S REPRESENTATIVE AND ANY ASSOCIATED COSTS SHALL BE INCLUDED WITHIN THE BID.

R. TRAFFIC DECK COATING & VERTICAL WATERPROOFING MEMBRANE SYSTEM

- REFER TO SPECIFICATION SECTION 079020 FOR ACCEPTABLE PRODUCTS AND ADDITIONAL REQUIREMENTS OF THE WATERPROOFING COATINGS AND MEMBRANE SYSTEMS.
- PROVIDE SURFACE PREPARATION BY METHODS WHICH CAN BE PERFORMED WITHOUT DAMAGING EXISTING CONCRETE SURFACES.
- PREPARATION AND INSTALLATION OF THE WATERPROOFING COATINGS/MEMBRANES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE COVERAGE RATE SPECIFIED IS MINIMUM REQUIREMENT. THE APPLICATION OF THE WATERPROOFING COATINGS/MEMBRANES SHALL BE INSPECTED BY MANUFACTURER'S REPRESENTATIVES AND ANY ASSOCIATED COSTS SHALL BE INCLUDED WITHIN THE BID.
- APPLY HEAVY DUTY TRAFFIC DECK COATING TO AREAS SHOWN ON PLANS INCLUDING CURBS, STAIRS, STEPS, AND LANDINGS.
- APPLY VERTICAL WATERPROOFING MEMBRANE SYSTEM TO AREAS SHOWN ON THE DRAWINGS.
- THE REPAIR PROCEDURE OF COAT REPAIR (OVERHEAD SURFACE WITH FINE CRACKS):
 - REMOVE LOOSE CONCRETE OVER EXPOSED REINFORCING AS REQUIRED.
 - APPLY CORROSION INHIBITING AGENT OVER EXPOSED REINFORCING AS APPLICABLE.
 - APPLY MIN. 6" WIDE ANTI-CARBONATION VERTICAL MEMBRANE SYSTEM (SUCH AS "SIKAGARD 550W ELASTIC" OR EQUAL; REFER TO SPEC SECTION 079020) ON OVERHEAD SLAB SURFACE WITH AGENT OVER EXPOSED REINFORCING AS APPLICABLE.

S. SEALANT

- REFER TO SPECIFICATION SECTIONS 079020 & 079200 FOR ACCEPTABLE JOINT SEALANTS.
- REMOVE AND PROPERLY DISPOSE OF EXISTING SEALANT AND APPLY NEW SEALANT TO MATCH EXISTING COLOR. SAMPLES SHALL BE PROVIDED FOR ENGINEER'S & OWNER'S REVIEW AND APPROVAL.
- JOINT EDGES SHALL BE WATER-BLASTED, SANDBLASTED, OR OTHERWISE CLEANED AND PREPARED PRIOR TO THE SEALANT APPLICATION.
- PRIMER SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS PRIOR TO APPLICATION OF NEW SEALANT.

T. EXPANSION JOINT SYSTEMS

- REFER TO SPECIFICATION SECTION 079020 FOR ACCEPTABLE EXPANSION JOINT SYSTEM AND INSTALLATION PROCEDURES.
- JOINT EDGES AND BLOCKOUTS SHALL BE SANDBLASTED OR PREPARED ACCORDING TO THE MANUFACTURER'S REQUIREMENTS PRIOR TO THE EXPANSION JOINT APPLICATION.

U. PAINTING

- TRAFFIC MARKINGS (STRIPING AND TRAFFIC ARROWS)
 - CONTRACTOR SHALL REPLACE ALL TRAFFIC MARKINGS (STRIPING AND TRAFFIC ARROWS) WITHIN THE GARAGE PER ARCHITECTURAL PLANS A.1.1 THRU A.1.5.
 - REMOVE TRAFFIC MARKINGS AT TOP TIER BY SHOT-BLASTING OR ADEQUATE METHODOLOGY AS NOT TO DAMAGE TRAFFIC DECK MEMBRANES.
- CEILING/WALL SURFACES OF CONCRETE
 - CONTRACTOR SHALL SANDBLAST CLEAN ALL CONCRETE MEMBERS.
 - ONCE CONCRETE REPAIR WORK IS COMPLETE, THE CONTRACTOR SHALL APPLY PAINT PER SPECIFICATION SECTION 099100.

V. STORM AND SANITARY DRAINAGE SYSTEM

- HIGH-PRESSURE WATER JET CLEAN ALL DRAINAGE PIPES (STORM AND SANITARY) WITHIN THE GARAGE AND EXTENDING 5 FEET PAST THE FACE OF THE GARAGE. MARKUP THE FLOOR PLANS AND REPORT IMPENETRABLE BLOCKAGES, CRACKS, HEAVY RUSTING/SECTION LOSS, LEAKS, ETC. TO THE OWNER AND ENGINEER.

- THE EXTENT AND LOCATIONS OF DRAINAGE SYSTEM REPLACEMENT WILL BE VERIFIED BY THE ENGINEER AFTER RECEIVING THE CONTRACTOR'S POST-WATER JETTING REPORT. HOWEVER, IF ENGINEER DETERMINES THAT DRAINAGE SYSTEM REPLACEMENT WORK IS NECESSARY, THE WORK SHALL BE PERFORMED AT UNIT COST, IF DIRECTED BY THE ENGINEER. REPLACE DAMAGED PORTIONS OF THE DRAINAGE SYSTEM TO MATCH EXISTING CONDITIONS, UNLESS NOTED OTHERWISE.
- USE HUBLESS PIPE AND FITTINGS: ASTM A 888 OR CISPI 301.
- COUPLINGS SHALL BE HEAVY-DUTY, HUBLESS-PIPING COUPLINGS COMPLYING WITH ASTM C 1540. SHIELD ASSEMBLIES SHALL CONSIST OF STAINLESS-STEEL BI-DIRECTIONAL CORRUGATED SHIELD WITH STAINLESS-STEEL BANDS AND TIGHTENING DEVICES; AND ASTM C 564, RUBBER SLEEVE WITH INTEGRAL, CENTER PIPE STOP.
- PROVIDE GALVANIZED PIPE HANGERS, SUPPORTS, AND SLEEVES TO MATCH EXISTING.
- NEW DRAIN(S) AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND BUILDING CODE REQUIREMENTS. PROVIDE PIPE, FITTINGS, CLEANOUTS, HANGERS, SUPPORTS, SLEEVES, AND OTHER ANCILLARY COMPONENTS TO MATCH EXISTING CONDITIONS AND MEET CODE REQUIREMENTS. RUN PIPE AS HIGH AS POSSIBLE TO MINIMIZE PROJECTIONS BELOW STRUCTURE. RUN PIPE TIGHT TO COLUMNS, WALLS, AND SOFFIT IF POSSIBLE. PROVIDE 1/8" PER FT. MIN. PITCH & CONNECT TO EXISTING DRAIN LINE. MAINTAIN HEADROOM CLEARANCE.
- THE UNIT PRICE FOR REPAIR TYPE DPR (DRAINAGE PIPE REPLACEMENT) IS PER LINEAR FOOT AND SHALL INCLUDE PIPE, FITTINGS, CLEANOUTS, HANGERS, SUPPORTS, SLEEVES, AND OTHER ANCILLARY COMPONENTS AS NEEDED TO MEET REQUIREMENTS.

W. MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION SYSTEMS, EQUIPMENT, & SERVICES (MEP&FP SERVICES)

- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING MEP&FP SERVICES. CONTRACTOR SHALL REVIEW ALL REPAIR AREAS PRIOR TO COMMENCING EACH PHASE OF THE WORK AND NOTIFY ENGINEER IF REMOVAL, REPLACEMENT OR RELOCATION OF MEP&FP SERVICES IS NECESSARY TO COMPLETE THE WORK. IF MEP&FP WORK IS NECESSARY, INCLUDE THE PROPOSED SCOPE AND ESTIMATED COST. APPROVED MEP&FP WORK SHALL BE PERFORMED BY THE CONTRACTOR OR ITS APPROVED SUBCONTRACTOR AND BILLED AGAINST THE MEP&FP SERVICES ALLOWANCE.
- EMBEDDED CONDUITS WITHIN REPAIR AREA SHALL BE LOCATED, MARKED, AND DE-ENERGIZED PRIOR TO DEMOLITION.
- SPECIAL CARE SHALL BE TAKEN TO PREVENT CLOGGING EXISTING DRAINS.
- AFTER WORK IS COMPLETE, CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY EXISTING DRAIN SYSTEMS THAT HAVE BEEN CLOGGED BY CONSTRUCTION ACTIVITIES.

X. EXAMINATION PRIOR TO CUTTING, DRILLING, AND CORING THROUGH STRUCTURE

- DO NOT CUT, DRILL, OR CORE THROUGH ANY STRUCTURAL ELEMENT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER, U.N.O.
- THE CONTRACTOR SHALL SCAN THE CONCRETE AT ALL LOCATIONS OF PROPOSED CUTS AND PENETRATIONS TO LOCATE AND MARK ALL EMBEDDED OBJECTS INCLUDING, BUT NOT LIMITED TO, REINFORCING, PRESTRESS OR POST-TENSION STRANDS, CONNECTIONS, ELECTRICAL CONDUIT, AND ANY OTHER HARDWARE/EQUIPMENT. SCANNING SHALL BE PERFORMED BY A CERTIFIED TECHNICIAN USING A PACHOMETER OR GROUND PENETRATING RADAR (GPR) TYPE SCANNER. CALIBRATE THE SCANNER AT THE BEGINNING OF EACH SHIFT AND WHEN CONDITIONS CHANGE. LOCATE AT LEAST THREE REINFORCING BARS USING THE SCANNER, AND HAMMER DRILL TEST HOLES TO DETERMINE DEPTH OF COVER. CALIBRATE SCANNER USING THE DEPTH OF COVER MEASUREMENTS.
- ADJUST LOCATIONS OF CUTS AND PENETRATIONS AS REQUIRED TO AVOID EMBEDDED OBJECTS.
- SUBMIT SCANNING REPORT(S), INCLUDING PHOTOGRAPHS AND SCALED DRAWINGS AND/OR SKETCHES TO ENGINEER FOR APPROVAL. ALLOW SEVEN DAYS FOR ENGINEER TO REVIEW AND APPROVE OR COMMENT ON THE PROPOSED CUTS AND PENETRATIONS. ADJUST THE LOCATIONS AS DIRECTED BY THE ENGINEER.
- USE HAMMER DRILLS WHEN POSSIBLE; DO NOT CORE DRILL UNLESS THE SCANNING OPERATION HAS CLEARLY SHOWN THAT THE AREA IS FREE OF EMBEDDED OBJECTS.
- DO NOT CUT THROUGH OR DAMAGE THE EMBEDDED OBJECTS INCLUDING, BUT NOT LIMITED TO, REINFORCING, PRESTRESS OR POST-TENSION STRANDS, CONNECTIONS, ELECTRICAL CONDUIT, AND ANY OTHER HARDWARE/EQUIPMENT.

Y. ABBREVIATIONS

A.B.	ANCHOR BOLTS	G.W.B.	GYPSUM WALL BOARD
A.F.F.	ABOVE FINISHED FLOOR	H.A.S.	HEADED ANCHOR STUDS
ALT.	ALTERNATE	H.M.	HOLLOW METAL
ARCH.	ARCHITECT	HOR.	HORIZONTAL
BET.	BETWEEN	HT.	HEIGHT
BIT.	BITUMINOUS	H.V.A.C.	HEATING, VENTILATION & AIR CONDITIONING
BOTT.	BOTTOM	I.D.	INSIDE DIAMETER
B.R.G.	BEARING	INFO.	INFORMATION
C.I.P.	CAST-IN-PLACE	INSUL.	INSULATION
C.J.	CONTROL JOINT / CONSTRUCTION JOINT	INT.	INTERIOR
CL./CLR.	CLEAR	JT.	JOINT
C.M.	CONSTRUCTION MANAGER	LBS.	POUNDS
C.M.U.	CONCRETE MASONRY UNIT	LIN.	LINEAL
COL.	COLUMN	MAX.	MAXIMUM
CONC.	CONCRETE	M.ECH.	MECHANICAL
CONN.	CONNECTION	MANUF.	MANUFACTURER
CONTR.	CONTRACTOR	MIN.	MINIMUM
D.B.A.	DEFORMED BAR ANCHOR	MISC.	MISCELLANEOUS
DET.	DETAIL	MSB	MEDIUM SAND BLAST
DIA.	DIAMETER	MTL.	METAL
DIM.	DIMENSION	NEW	NEW
DN.	DOWN	N.F.	NEAR FACE
D.O.	DOOR OPENING	N.I.C.	NOT IN CONTRACT
DWG(S).	DRAWING(S)	NOM.	NOMINAL
(E)	EXISTING	N.S.N.S.	NON-SHRINK, NON-STAIN
E.A.	EACH	N.T.S.	NOT TO SCALE
E.B.F.	ELEVATION BOTTOM OF FOOTING	O.C., O/C	ON CENTERS
E.P.P.	ELEVATION BOTTOM OF PIER	O.D.	OUTSIDE DIAMETER
E.F.	EACH FACE	O.H.	OPPOSITE HAND
E.F.G.	ELEVATION FINISHED GRADE	P/C	PRECAST CONCRETE
E.J.	EXPANSION JOINT	PSI	POUNDS PER SQUARE INCH
ELEV.	ELEVATION	P.S.F.	POUNDS PER SQUARE FOOT
ELEC.	ELECTRICAL	P.T.	POST-TENSIONED

