TTCX B17 CHILD DAY-CARE CENTER

GENSLER

ISSUED FOR PERMIT

DATE: 05/20/2022

777 Old Saw Mill River Road
Mount Pleasant, NY 10591

STRUCTURAL DRAWING LIST

SHEET LIST

SHEET NO	SHEET NAME
S-001	GENERAL NOTES I
S-002	GENERAL NOTES II
S-003	LOADING DIAGRAMS
S-004	GENERAL LAP SPLICE SCHEDULES
S-100	GROUND FLOOR PLAN
S-101	ROOF PLAN
S-150	PART PLANS
S-200	TYPICAL FOOTING DETAILS
S-201	TYPICAL SLAB ON GRADE DETAILS
S-202	TYPICAL FOUNDATION WALL DETAILS
S-210	FOUNDATION SECTIONS AND DETAILS
S-300	SHEAR WALL LOADS AND DETAILS
S-301	SHEAR WALL DETAILS
S-500	TYPICAL COLUMN BASE DETAILS
S-501	TYPICAL BEAM DETAILS
S-502	TYPICAL SUPERSTRUCTURE DETAILS
S-503	TYPICAL JOIST DETAILS
S-510	TYPICAL STEEL BEAM SHEAR CONNECTIONS 3/4" DIAMETER BOLTS
S-511	TYPICAL STEEL BEAM SHEAR CONNECTIONS 3/4" DIAMETER BOLTS
S-512	TYPICAL STEEL BEAM SHEAR CONNECTIONS 3/4" DIAMETER BOLTS
S-520	SCREEN WALL SECTIONS AND DETAILS
S-600	LGMF BEARING WALL DETAILS
S-601	LGMF BEARING WALL DETAILS II
S-602	LGMF BEARING WALL DETAILS III

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Building #17
Campus Expansion Child Day-care Center

777 Old Saw Mill River Road
Mount Pleasant, NY 10591

Project No. B17-DAYCARE

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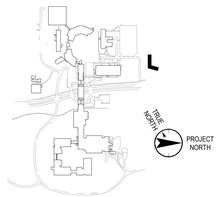
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 11/10/21

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

COVER SHEET & DRAWING LIST

Scale: Floor:

S-000

GR GENERAL REQUIREMENTS

GR-1 AS USED IN THESE GENERAL NOTES:
"DRAWINGS" MEANS THE LATEST STRUCTURAL DESIGN DRAWINGS, UON.
"SPECIFICATIONS" MEANS THE LATEST PROJECT SPECIFICATIONS, UON.
"CONTRACT DOCUMENTS" IS DEFINED AS THE DESIGN DRAWINGS AND THE SPECIFICATIONS
"SER" IS DEFINED AS THE STRUCTURAL ENGINEER OF RECORD FOR THE STRUCTURE IN ITS FINAL CONDITION.
"DESIGN PROFESSIONALS" IS DEFINED AS THE OWNER'S ARCHITECT AND SER.
"MEP" INCLUDES, BUT IS NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION.
"CONTRACTOR" IS DEFINED TO INCLUDE ANY OF THE FOLLOWING: GENERAL CONTRACTOR AND THEIR SUBCONTRACTORS, CONSTRUCTION MANAGER AND THEIR SUBCONTRACTORS, STRUCTURAL STEEL FABRICATOR OR STRUCTURAL STEEL ERECTOR.
"BASE BUILDING STRUCTURE" IS DEFINED AS THE STRUCTURAL FRAME DESIGNED BY THORNTON TOMASETTI.
"STRUCTURE IN ITS FINAL CONDITION" MEANS ALL STRUCTURAL ELEMENTS SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS ARE INSTALLED AND COMPLETELY CONNECTED AND INSPECTED WITH NO OUTSTANDING NON-COMPLIANCE ISSUES.
"DELEGATED DESIGN" MEANS A SCOPE OF WORK THAT MEETS PERFORMANCE CRITERIA ESTABLISHED IN THE CONTRACT DOCUMENTS AND IS TO BE COMPLETED BY THE CONTRACTOR'S LICENSED ENGINEER.
"SERVICE LEVEL" LOADS ARE DEFINED AS NOMINAL OR UNFACTORED LOADS TO BE COMBINED USING ALLOWABLE STRESS LOAD COMBINATIONS
"STRENGTH LEVEL" LOADS ARE DEFINED AS FACTORED LOADS TO BE COMBINED USING STRENGTH DESIGN LOAD COMBINATIONS

GR-2 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH THE ARCHITECTURAL, CIVIL, MEP CONTRACT DOCUMENTS, AS WELL AS ANY OTHER APPLICABLE TRADES.

GR-3 THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL THE CONSTRUCTION OF THE STRUCTURE REACHES ITS FINAL CONDITION.

GR-4 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS, FOR NEW AND EXISTING STRUCTURES, AS NECESSARY TO COMPLETE THE PROJECT. NO PORTION OF THE PROJECT WHILE UNDER CONSTRUCTION IS INTENDED TO BE STABLE IN THE ABSENCE OF THE CONTRACTOR'S TEMPORARY SUPPORTS AND BRACES. CONTRACTOR SHALL RETAIN A [PROFESSIONAL~~/STRUCTURAL]~~ ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN TEMPORARY BRACING AND CONSTRUCTION SUPPORTS.

GR-5 LATERAL LOAD RESISTANCE AND STABILITY OF THE STRUCTURE IN ITS FINAL CONDITION IS PROVIDED BY SHEAR WALLS, MOMENT FRAMES AND LATERAL STABILITY OF OTHER ELEMENTS IS PROVIDED THROUGH FLOOR SLABS; ROOF DECK; AND IN FLOOR BRACING.

GR-6 THE SPECIFICATIONS ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND SHALL BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS.

GR-7 THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND COORDINATE WITH THE STRUCTURAL DRAWINGS, ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER CONSULTANTS, PROJECT SHOP DRAWINGS AND FIELD CONDITIONS.

GR-8 IN CASES OF CONFLICT BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND OTHER DISCIPLINES OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.

GR-9 APPLY DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE.

GR-10 ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE DRAWINGS.

GR-11 ASSUME EQUAL SPACING BETWEEN ESTABLISHED DIMENSIONS, IF NOT INDICATED ON DRAWINGS.

GR-12 CENTERLINES OF COLUMNS AND FOUNDATIONS COINCIDE WITH GRID LINE INTERSECTIONS, UON.

GR-13 CENTERLINES OF GRADE BEAMS AND WALLS COINCIDE WITH CENTERLINES OF FOUNDATIONS, UON.

GR-14 CENTERLINES OF FRAMING MEMBERS COINCIDE WITH COLUMN CENTERLINES, UON.

GR-15 THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES FROM DAMAGE.

GR-16 THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF THE STRUCTURE AT THE TIME THE LOAD IS APPLIED.

GR-17 THE CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATIONS WITH THE AS-BUILT TOP OF SUPPORT ELEVATIONS.

GR-18 THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE SER.

GR-19 ELEVATIONS INDICATED ON STRUCTURAL DRAWINGS ARE BASED ON A PROJECT DATUM INDICATED ON THE ARCHITECTURAL/CIVIL DRAWINGS.

GR-20 SEE ARCHITECTURAL, CIVIL, MEP, CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION RELATING TO THE COORDINATION OF STRUCTURAL COMPONENTS INCLUDING, BUT NOT LIMITED TO:

CIVIL:
PROJECT DATUM
SITING OF BUILDING GRID LINES WITH RESPECT TO CITY BENCHMARKS
SITE PREPARATION
BACKFILLING MATERIALS AND REQUIREMENTS
PAVING AND SITE ELEMENTS OUTSIDE OF BUILDING ENVELOPE
NEW AND EXISTING SITE UTILITIES

ARCHITECTURAL:
PLAN DIMENSIONS AND PROJECT DATUM
SLAB EDGE DIMENSIONS
FINISH ELEVATIONS
WATERPROOFING AND DAMP-PROOFING DETAILS
RAMP GEOMETRY, PITS, SLAB SLOPES AND DEPRESSIONS
EXACT OPENING SIZES FOR PIPES, DUCTS, ETC.
CONCRETE FINISHES AND TOPPING SLABS
CONCRETE CURBS AND HOUSEKEEPING PADS
INTERIOR NON-STRUCTURAL MASONRY PARTITIONS
FIRE RATINGS
METAL PAN STAIRS AND SUPPORTS

MEP:
PIPE AND DUCT SIZES FOR OPENING AND SLEEVE COORDINATION
FLOOR DRAINS
UNDERFLOOR AND PERIMETER DRAINAGE SYSTEMS
EQUIPMENT CURBS
CONDUITS AND EMBEDMENTS IN WALLS AND SLABS

CD CODES AND DESIGN CRITERIA

CD-1 PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE BUILDING AND DESIGN CODES REFERENCED WITHIN THESE DOCUMENTS. THE PROJECT DOCUMENTS REFER TO THE FOLLOWING CODES AND STANDARDS, UON:

NEW YORK STATE BUILDING CODE, 2020 EDITION

STRUCTURAL CONCRETE:
"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
THE AMERICAN CONCRETE INSTITUTE (ACI 318-14)

STRUCTURAL STEEL:
"SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", (AISC 360-16) CONFORMING TO THE PROVISIONS OF LOAD RESISTANCE FACTOR DESIGN, BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC-LRFD)

CD-2 LIVE LOADS (SERVICE LEVEL):

CLASSROOMS	50 PSF
LOBBIES & CORRIDORS	100 PSF
ROOF MECHANICAL	SEE PLAN FOR DESIGN WEIGHTS
ROOFS	30 PSF (MIN.) - SEE SNOW LOADING

CD-3 SUPERIMPOSED DEAD LOADS (SERVICE LEVEL):

HANGING LOADS (BELOW ROOF)	25 PSF
ROOFING + INSULATION	12 PSF

CD-4 OCCUPANCY CATEGORY: III

CD-5 SNOW LOADS (SERVICE LEVEL):

FLAT ROOF SNOW LOAD (Pf):	33 PSF
GROUND SNOW LOAD (Pg)	30 PSF
SNOW EXPOSURE FACTOR (Ce):	1.0
SNOW LOAD IMPORTANCE FACTOR (Is):	1.1
THERMAL FACTOR (Ct):	1.0
SNOW DRIFTING PER CODE	

CD-6 WIND LOAD DESIGN DATA (STRENGTH LEVEL):

MAIN WIND FORCE RESISTING SYSTEM	
BASIC WIND SPEED, V	125 MPH
EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT	± 0.18
WIND LOAD IMPORTANCE FACTOR (Iw)	1.0
DESIGN BASE SHEAR	102 KIPS

COMPONENT AND CLADDING DESIGN PRESSURES a=**5'-6"**
EFFECTIVE WIND AREA= 10 SF WALL= 35 PSF WALL END ZONE= 45 PSF

ROOF EFFECTIVE WIND AREA = SEE LOADING DIAGRAM

CD-7 SEISMIC LOAD DESIGN DATA (STRENGTH LEVEL):

SEISMIC IMPORTANCE FACTOR (I_s)	1.25
S_s	0.295 g
S_1	0.061 g
S_{DS}	0.308 g
S_{D1}	0.098 g
SITE CLASS	D
SEISMIC DESIGN CATEGORY	B
LATERAL SYSTEM DESCRIPTION	LIGHT FRAME WALLS WITH SHEAR PANELS
SEISMIC RESPONSE COEFFICIENT (Cs)	2.5
RESPONSE MODIFICATION FACTOR (R)	3
ANALYSIS PROCEDURE DESCRIPTION	EQUIVALENT LATERAL FORCE
DESIGN BASE SHEAR	132 KIPS

CMU COMPONENT IMPORTANCE FACTOR (Ip) 1.5

CD-9 IN CASES WHERE THE CONTRACTOR DETERMINES THAT SUSPENDED OR FLOOR MOUNTED EQUIPMENT LOADS EXIST WHICH EXCEED DESIGN LOADS INDICATED ON CONTRACT DOCUMENTS, CONTRACTOR SHALL SUBMIT LOAD DATA TO DESIGN PROFESSIONALS FOR REVIEW PRIOR TO PROCEEDING WITH WORK.

CD-10 DISTRIBUTE THE MAXIMUM LOAD HUNG FROM ANY STRUCTURAL MEMBER FOR DUCTWORK, PIPING ETC OVER THE MEMBER'S TRIBUTARY AREA IN A WAY THAT THE MEP DESIGN SUPERIMPOSED DEAD LOADS LISTED IN CONTRACT DOCUMENTS ARE NOT EXCEEDED. THE CONTRACTOR SHALL COORDINATE THE LOADS OF ALL TRADES AND PROVIDE ADDITIONAL SUPPORT OR DISTRIBUTION FRAMING AS REQUIRED TO ACHIEVE THE ALLOWABLE LOAD DISTRIBUTION.

CD-11 ESCALATOR SUPPORTS AND PITS ARE BASED ON ESCALATOR TYPES INDICATED ON ARCHITECTURAL CONTRACT DOCUMENTS. CONTRACTOR SHALL SUBMIT FOR REVIEW ANY PLANNED CHANGE TO ESCALATORS TO DESIGN PROFESSIONALS PRIOR TO SUBMITTING CORRESPONDING STRUCTURAL SHOP DRAWINGS FOR ACTION.

CD-12 ELEVATOR GUIDERAIL SUPPORTS, MACHINE ROOMS, PITS, AND PENTHOUSES ARE BASED ON ELEVATOR TYPES INDICATED ON ARCHITECTURAL CONTRACT DOCUMENTS. CONTRACTOR SHALL SUBMIT FOR REVIEW ANY PLANNED CHANGE TO ELEVATORS TO DESIGN PROFESSIONALS PRIOR TO SUBMITTING CORRESPONDING STRUCTURAL SHOP DRAWINGS FOR ACTION.

CD-13 STRUCTURAL COMPONENTS ARE NOT DESIGNED FOR VIBRATING EQUIPMENT. MOUNT VIBRATING EQUIPMENT ON VIBRATION ISOLATORS.

CD-14 SERVICEABILITY

LIVE LOAD DEFLECTION IS LESS THAN **L/360**

LONG-TERM TOTAL DEFLECTION IS LESS THAN **L/240**

EXTERIOR EDGE BEAMS HAVE BEEN DESIGNED TO LIMIT LIVE LOAD MIDSPAN VERTICAL DEFLECTION TO 1/360 OF THE SPAN OR 3/8", WHICHEVER IS LESS.

EXTERIOR EDGE BEAMS HAVE BEEN DESIGNED TO LIMIT DEAD PLUS SUPERIMPOSED DEAD LOAD MIDSPAN VERTICAL DEFLECTION TO 1/**[XXX]** OF THE SPAN OR **[X"],** WHICHEVER IS LESS.

LATERAL DRIFT DUE TO WIND LOADS IS LESS THAN OR EQUAL TO H/400

CD-15 CONNECTIONS OF SYSTEMS DESIGNED BY CONTRACTOR'S ENGINEER SUCH AS, BUT NOT LIMITED TO, CLADDING, STAIRS, ELEVATORS, ESCALATORS, PRECAST, AND MEP LOADS ARE ASSUMED TO IMPOSE VERTICAL AND/OR HORIZONTAL LOADS ON THE BASE BUILDING STRUCTURAL MEMBERS WITHOUT GENERATING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SUPPLEMENTARY BRACING MEMBERS AS REQUIRED TO PREVENT TORSION ON THE BASE BUILDING STRUCTURE.

CD-16 FOR FIRE RATING AND FIREPROOFING ASSEMBLY EVALUATIONS, CONSIDER THE FOLLOWING ASSEMBLIES RESTRAINED: COMPOSITE WIDE-FLANGE STEEL FRAMING, INTERIOR BAYS OF CONTINUOUS CAST-IN-PLACE CONCRETE CONSTRUCTION. CONSIDER ALL OTHER ASSEMBLIES UNRESTRAINED.

CD-17 THERE HAVE BEEN NO LOAD RESTRICTION FACTORS APPLIED TO THE STRUCTURAL DESIGN FOR THE PURPOSES OF SELECTING FIREPROOFING ASSEMBLIES.

DI DELEGATED DESIGN ITEMS

DI-1 THE CONTRACTOR SHALL EMPLOY OR RETAIN A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THIS PROJECT IS LOCATED TO DESIGN AND DETAIL DELEGATED DESIGN ITEMS TO MEET THE PERFORMANCE AND DESIGN CRITERIA ESTABLISHED AS PART OF THE BASE BUILDING STRUCTURE INDICATED IN THE CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO:

LIGHT GAGE METAL FRAMING STRUCTURAL LOAD BEARING WALL SYSTEM
STRUCTURAL STEEL CONNECTIONS
STEEL JOISTS, BRIDGING AND CONNECTIONS
STEEL ROOF DECK

SU SUBMITTALS

SU-1 THE CONTRACTOR IS TO REVIEW EACH SUBMITTAL PRIOR TO FORWARDING TO DESIGN PROFESSIONALS. THE CONTRACTOR IS TO STAMP EACH SUBMITTAL VERIFYING THAT THE FOLLOWING IS ADDRESSED:

1. THE SHOP DRAWING IS REQUESTED.
2. THE SHOP DRAWING IS BASED ON THE LATEST DESIGN.
3. THE DESIGN PROFESSIONALS' COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
4. THE WORK IS COORDINATED AMONG ALL CONSTRUCTION TRADES.
5. REVISIONS FROM PREVIOUS SUBMITTALS ARE CLEARLY MARKED BY CIRCLING OR CLOUDS.
6. SUBMITTAL IS COMPLETE.
7. SUBMITTAL DOES NOT INCLUDE SUBSTITUTION REQUEST
8. SUBMITTAL SHALL INCLUDE A STAMP INDICATING PROJECT NAME AND LOCATION, SUBMITTAL NUMBER, SPECIFICATION SECTION NUMBER.

THE SER SHALL RETURN, WITHOUT COMMENT, SUBMITTALS WHICH THE CONTRACTOR HAS NOT STAMPED OR WHICH DO NOT MEET THE ABOVE REQUIREMENTS.

SU-2 THE SER'S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

SU-3 FOR COMPONENTS THAT REQUIRE ENGINEERING BY THE CONTRACTOR, PROVIDE A NOTE ON EACH SHOP DRAWING, WRITTEN AND SIGNED BY THE SUPPLIER'S ENGINEER, INDICATING THAT THE SHOP DRAWING IS IN CONFORMANCE WITH THE CALCULATIONS OF THE CONTRACTOR'S ENGINEER.

SU-4 THE FOLLOWING ITEMS REQUIRE SUBMITTALS FOR STRUCTURAL REVIEW AS OUTLINED IN THE SPECIFICATIONS:

031000	S	CALC	CONCRETE FORMWORK
032000	S		CONCRETE REINFORCING LAYOUT
033000			CONCRETE MIX DESIGNS
033000	S		CONCRETE CONSTRUCTION JOINT LAYOUT
051000	S		STRUCTURAL STEEL
051000	S	CALC	STRUCTURAL STEEL CONNECTIONS
051000	S		SHEAR STUD LAYOUT
052000	S	CALC	STEEL JOISTS, BRIDGING AND CONNECTIONS
053000	S	CALC	STEEL ROOF DECK
054000	S	CALC	COLD-FORMED METAL FRAMING

S = SHOP DRAWINGS REQUIRED

CALC = SUPPORTING CALCULATIONS REQUIRED, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

SU-5 THE ITEMS IN THIS SECTION REFER TO LOADS IMPOSED BY CONTRACTOR DESIGNED SYSTEMS, SPECIFICALLY:

COLD-FORMED METAL FRAMING
EXTERIOR CLADDING SYSTEMS
METAL STAIRS
ARCHITECTURAL ORNAMENTATION (FLAGPOLES, BANNERS, MASTS, ETC.)

WHERE CONTRACTOR LOADS IMPOSED DO NOT EXCEED AND/OR CONNECTION CONDITIONS DO NOT DIFFER FROM WHAT IS INDICATED IN THE STRUCTURAL DRAWINGS, SUBMIT FOR RECORD A LETTER SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED STATING THE FOLLOWING:

"THE CONTRACTOR DESIGNED SYSTEM HAS BEEN DESIGNED TO IMPOSE LOADS ON THE BASE BUILDING STRUCTURE THAT ARE WITHIN THE LOAD LIMITS AND AT THE LOCATIONS INDICATED ON THE STRUCTURAL DRAWINGS."

WHERE CONTRACTOR LOADS IMPOSED FOR THE FOLLOWING ITEMS EXCEED AND/OR CONNECTION CONDITIONS DIFFER FROM WHAT IS SHOWN IN THE STRUCTURAL DRAWINGS, SUBMIT FOR APPROVAL TO SER LOADS IMPOSED ON THE PRIMARY STRUCTURAL FRAME DUE TO THE DEAD, LIVE, AND WIND/SEISMIC LOADS INDICATED ON THE CONTRACT DOCUMENTS.

SUBMITTAL SHALL LIST THE DESIGN LOADS USED AND BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMITTAL SHALL INCLUDE LOCATION, MAGNITUDE AND DIRECTION OF UNFACTORED IMPOSED LOADS, GRAPHICALLY REPRESENTED IN THEIR APPROPRIATE LOCATIONS ON A COPY OF THE CONTRACT DOCUMENT STRUCTURAL FRAMING PLANS OR ELEVATIONS AS APPROPRIATE. DETAIL REFERENCES IN THE CONNECTIONS APPLICABLE AT EACH LOCATION SHALL BE NOTED ON THE SUBMITTAL DRAWINGS.

FOR EXTERIOR WALL ASSEMBLIES, THE LOADS IMPOSED SUBMITTAL SHALL BE COMPREHENSIVE INDICATING THE LOADS IMPOSED ON THE BASE BUILDING STRUCTURE AND SHALL INCLUDE THE REACTIONS BASED ON THE ACTUAL LOADS OF THE ENTIRE ASSEMBLY, INCLUDING BUT NOT LIMITED TO GLAZING, CLADDING, METAL STUD BACKUP, AND MULLIONS.

FOR MEP SYSTEMS, THE LOADS IMPOSED SUBMITTAL SHALL BE COMPREHENSIVE INDICATING THE LOADS IMPOSED ON THE BASE BUILDING STRUCTURE AND SHALL INCLUDE THE REACTIONS BASED ON THE ACTUAL LOADS OF THE ENTIRE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEM, INCLUDING BUT NOT LIMITED TO PIPING, DUCTS, ELECTRICAL RACEWAYS, AND EQUIPMENT WEIGHTS.

A SUBSTITUTION REQUEST MAY BE REQUIRED WHERE CONTRACTOR LOADS IMPOSED EXCEED AND/OR CONNECTION CONDITIONS DIFFER FROM THE BASIS OF DESIGN.

FN FOUNDATIONS

FN-1 THE FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT BY CARLIN SIMPSON ASSOCIATES DATED JULY 14, 2021.

FN-2 FOUNDATIONS HAVE BEEN DESIGNED BASED ON THE FOLLOWING DESIGN VALUES FROM THE GEOTECHNICAL REPORT (SERVICE LEVEL):

BEARING STRATUM	VIRGIN SOIL/NEW COMPACTED FILL
NET ALLOWABLE BEARING CAPACITY:	4,000 PSF

SEE GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS AND INFORMATION. DESIGN VALUES SHALL BE FIELD VERIFIED BY QUALIFIED GEOTECHNICAL ENGINEER RETAINED BY THE OWNER.

FN-3 THE CONTRACTOR SHALL VERIFY FOUNDATION INSTALLATION AND CONSTRUCTION IS IN CONFORMANCE WITH THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT.

FN-4 CONTRACTOR SHALL BE RESPONSIBLE TO ADEQUATELY PROTECT ALL EXCAVATION. WHERE NECESSARY, SHEET AND SHORE THE EXCAVATION WITH ALL REQUIRED TIEBACKS AND BRACING AS DETERMINED BY CONTRACTOR'S ENGINEER.

CM CONCRETE MATERIALS

CM-1 CONCRETE STRENGTH SHALL MEET THE FOLLOWING 28-DAY COMPRESSIVE STRENGTHS (f' c), UON:

FOOTINGS, PILE CAPS AND PIERS	4,000 PSI
GRADE BEAMS	4,000 PSI
FOUNDATION WALLS, PILASTERS, BUTTRESSES	4,000 PSI
NON-SHRINK GROUT	8,000 PSI
SLAB ON GRADE	4,000 PSI
CONCRETE HOUSEKEEPING PADS, AND FILL SLABS	4,000 PSI LIGHTWEIGHT

CM-2 PROVIDE NORMALWEIGHT CONCRETE WITH CURED DENSITY OF 145 +/- 5 PCF, AND AGGREGATE CONFORMING TO ASTM C33, UON. WHERE INDICATED, PROVIDE LIGHTWEIGHT CONCRETE WITH CURED DENSITY OF 112+/-3 PCF AND AGGREGATE CONFORMING TO ASTM C330.

CM-3 THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.

CM-4 ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER PENETRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER.

RE CONCRETE REINFORCEMENT

RE-1 ALL CONCRETE SHALL INCLUDE REINFORCEMENT. IF REINFORCEMENT IS NOT SPECIFICALLY INDICATED ON THE DRAWINGS VERIFY WITH THE SER.

RE-2 REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES UON:

DEFORMED BARS:	ASTM A615 GRADE 60
WELDABLE DEFORMED BARS:	ASTM A706
EPOXY COATED DEFORMED BARS:	ASTM A615 / A775
WELDED WIRE REINFORCEMENT	ASTM A1064
EPOXY COATED WELDED WIRE REINFORCEMENT	ASTM A1064 / A884

RE-3 DETAIL REINFORCEMENT BASED ON THE PROJECT REQUIREMENTS, ACI-318 AND ACI-315, UON.

RE-4 WHERE A 90-DEG, 135 –DEG OR 180-DEG HOOK IS GRAPHICALLY INDICATED, PROVIDE CORRESPONDING ACI STANDARD HOOKS UON.

RE-5 DOWELS SHALL MATCH SIZE AND SPACING OF MAIN REINFORCEMENT UON.

RE-6 REINFORCEMENT SHALL HAVE CONCRETE PROTECTION (CLEAR COVER) PER ACI 318 UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

RE-7 LAP REINFORCEMENT ONLY AT LOCATIONS AS SPECIFICALLY DETAILED ON THE DRAWINGS EXCEPT REINFORCEMENT MARKED AS CONTINUOUS CAN BE SPLICED AT LOCATIONS DETERMINED BY CONTRACTOR USING TENSION LAP SPLICES (LTS). SEE LAP SPLICE AND EMBEDMENT SCHEDULE.

RE-8 UNLESS OTHERWISE NOTED ALL LAP SPLICES ARE TO BE TENSION LAP SPLICES PER LAP SPLICE AND EMBEDMENT SCHEDULE.

RE-9 PROVIDE MECHANICAL SPLICES FOR BARS LARGER THAN #11 OR WHERE INDICATED. PROVIDE TENSILE, PRE-QUALIFIED, WELDED OR THREADED MECHANICAL SPLICES UON.

RE-10LAP WELDED WIRE REINFORCEMENT TWO PANEL SPACINGS, UON.

RE-11PROVIDE LAP SPLICE LOCATIONS AS FOLLOWS, UON:
A. GRADE BEAM / WALL (TOP HORIZONTAL REINFORCEMENT): AT CENTER OF SPAN
B. GRADE BEAM / WALL (BOTTOM HORIZONTAL REINFORCEMENT): AT SUPPORTS
C. WALL INSIDE FACE (VERTICAL REINFORCEMENT): AT SUPPORT
D. WALL OUTSIDE FACE (VERTICAL REINFORCEMENT): AT STORY MIDHEIGHT OF WALL FOR BELOW GRADE FOUNDATION WALLS, AT SUPPORT FOR OTHER WALLS
E. UNLESS OTHERWISE NOTED TERMINATE BARS AT DISCONTINUOUS ENDS WITH STANDARD HOOKS.

RE-12PROVIDE EPOXY COATED REINFORCEMENT AND ACCESSORIES IN AREAS OF DIRECT EXPOSURE TO THE ENVIRONMENT, CHEMICALS, OR DE-ICING FOR THE AREAS INDICATED ON THE DRAWINGS.

CJ CONCRETE CONSTRUCTION JOINTS

CJ-1 PROVIDE CONSTRUCTION JOINTS IN ACCORDANCE WITH ACI-318. SUBMIT SHOP DRAWINGS SHOWING PROPOSED CONSTRUCTION JOINT LOCATIONS, DETAILS AND THE PLACEMENT SEQUENCE FOR THE SER'S APPROVAL PRIOR TO PROCEEDING WITH WORK.

CJ-2 UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS, HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN FOOTINGS, PILE CAPS, MAT FOUNDATIONS, GRADE BEAMS, BEAMS, UPTURNED BEAMS, SLABS, AND WALLS WITHOUT PRIOR WRITTEN APPROVAL FROM THE SER BEFORE CONSTRUCTION.

CJ-3 PLACE VERTICAL CONSTRUCTION JOINTS TO PROVIDE A 60 FT MAXIMUM LENGTH OF CONCRETE PLACEMENT AND LOCATE AS FOLLOWS:
A. FOUNDATION WALLS: MINIMUM OF 8 FT FROM ANY WALL INTERSECTION, PILASTER, PIER, OR WALL OPENING
B. BEAMS AND GRADE BEAMS: WITHIN THE MIDDLE THIRD OF THE CLEAR SPAN AVOIDING LAP SPLICES, SUBJECT TO SER APPROVAL.

CJ-4 PROVIDE CONTINUOUS WATERSTOPS AT ALL CONSTRUCTION JOINTS EXPOSED TO SOIL OR WATER, AS DESCRIBED IN THE SPECIFICATIONS AND WHERE INDICATED IN THE ARCHITECTURAL DOCUMENTS.

SS STRUCTURAL STEEL

SS-1 STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS. SEE ADDITIONAL MATERIAL REQUIREMENTS RELATED TO MATERIAL TOUGHNESS BELOW:

ASTM A6 ROLLED W SHAPES AND CHANNELS:	ASTM A572 OR A992, MINIMUM YIELD STRENGTH 50 KSI
ANGLES FOR TRUSSES AND BRACES:	ASTM A572 OR A529, MINIMUM YIELD STRENGTH 50 KSI
MISCELLANEOUS ANGLES:	ASTM A36, MINIMUM YIELD STRENGTH 36 KSI
HOLLOW STRUCTURAL SECTIONS:	ASTM A500 GRADE B, MINIMUM YIELD STRENGTH 42 KSI FOR ROUND AND 46 KSI FOR RECTANGULAR HSS
PLATES:	ASTM A572 OR A529, MINIMUM YIELD STRENGTH 50 KSI

SS-2 CONNECTION MATERIAL SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS OR AS NEEDED FOR CONNECTION DESIGN:

ANGLES:	ASTM A572 OR A529, MINIMUM YIELD STRENGTH 50 KSI UON
WTs:	ASTM A572 OR A992, MINIMUM YIELD STRENGTH 50 KSI
PLATES:	ASTM A572 OR A529, MINIMUM YIELD STRENGTH 50 KSI UON
BOLTS:	ASTM F3125 GRADES A325 AND F1852 OR A490 AND F2280 OR AS INDICATED IN DETAILS
NUTS:	ASTM A563
WASHERS:	ASTM F436
ANCHOR RODS:	ASTM F1554 GRADE 55 WITH WELDABILITY SUPPLEMENT S1
HEADED STUDS	ASTM A108, GRADE 1010 THROUGH 1020 HEADED STUD TYPE, COLD-FINISHED CARBON STEEL, AWS D1.1, TYPE B 3/4" DIAMETER UON
WELD ELECTRODES:	MINIMUM TENSILE STRENGTH 70 KSI

SS-3 WHERE NO CAMBER IS INDICATED, FABRICATE BEAMS SO THAT ANY NATURAL CAMBER IS UPWARD AFTER ERECTION.

SS-4 SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE SER IN WRITING.

SS-5 FOR STEEL MEMBERS AND EMBEDMENTS EXPOSED TO WEATHER, PROVIDE HOT-DIPPED GALVANIZED FINISH OR APPROVED ZINC RICH EXTERIOR COATING SYSTEM.

SS-6 PROVIDE HOLES IN ALL STEEL AS REQUIRED TO PREVENT ANY ACCUMULATION OF WATER. ALL PENETRATIONS THROUGH MAIN MEMBERS SHALL NOT EXCEED 1 1/8" DIA. AND SHALL BE GROUND SMOOTH. THESE DRAINS MUST BE KEPT CLEAN AND OPEN.

SS-7 SHOW ALL COPES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE DESIGN PROFESSIONALS.

SS-8 FIELD MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN PROFESSIONALS.

SS-9 THE FOLLOWING STRUCTURAL STEEL SHAPES AND ELEMENTS MUST MEET ADDITIONAL MINIMUM MATERIAL TOUGHNESS REQUIREMENTS THROUGH CHARPY V-NOTCH (CVN) IMPACT TESTING VALUES AND ADDITIONAL MATERIAL PROPERTIES INDICATED:

ASTM A6 HOT-ROLLED W SHAPES
ALL STRUCTURAL STEEL INCLUDED IN THIS CATEGORY TO BE FULLY KILLED AND PRODUCED TO A FINE GRAIN PRACTICE PER SUPPLEMENTARY REQUIREMENT S28, AND SURFACES OF RE-ENTRANT CORNERS/INTERNAL RADII ARE TO BE GROUND TO BRIGHT METAL, SEE PROJECT SPECIFICATIONS.

ALL OTHER ASTM A6 HOT-ROLLED SHAPES

USED AS HANGERS WITH FLANGE THICKNESS EXCEEDING 1 1/2 INCHES REGARDLESS OF MEANS OF CONNECTION:
- WITH SERVICE TEMPERATURES MAINTAINED ABOVE 50 DEG F, 30 FT-LB @ 40 DEG F
- EXPOSED TO TEMPERATURES IN SERVICE BELOW 50 DEG F, 40 FT-LB @ LAST BUT NOT HIGHER THAN 40 DEG F
- TESTING TO BE IN ACCORDANCE WITH SUPPLEMENTARY REQUIREMENT S5 WITH CVN IMPACT TEST LOCATION IN THE FLANGE OR LEG PER ASTM A673 EXCEPT THE SPECIMEN SHALL BE LOCATED AT THE MID-DEPTH OF THE MATERIAL THICKNESS.

HSS SHAPES

USED AS TRUSS MEMBERS OR HANGERS REGARDLESS OF THICKNESS OR MEANS OF CONNECTION:
- WITH SERVICE TEMPERATURES MAINTAINED ABOVE 50 DEG F, 25 FT-LB @ 40 DEG F
- EXPOSED TO TEMPERATURES IN SERVICE BELOW 50 DEG F, 40 FT-LB @ LAST BUT NOT HIGHER THAN 40 DEG F

PLATES AND SHAPES BUILT-UP FROM PLATES

ALL PLATE TESTING TO BE PERFORMED IN ACCORDANCE WITH WITH ASTM A673 AND PERFORMED AT FREQUENCY P. ALL STRUCTURAL STEEL INCLUDED IN THIS CATEGORY TO BE FULLY KILLED AND PRODUCED TO A FINE GRAIN PRACTICE PER SUPPLEMENTARY REQUIREMENT S28.

1. COLUMN BASE PLATES WITH THICKNESS EXCEEDING 2 INCHES THAT ARE CONNECTED TO COLUMNS IN THE SEISMIC FORCE RESISTING SYSTEM WITH DEMAND CRITICAL WELDS:
   - WITH SERVICE TEMPERATURES MAINTAINED ABOVE 50 DEG F, 30 FT-LB @ 40 DEG F
   - EXPOSED TO TEMPERATURES IN SERVICE BELOW 50 DEG F, 40 FT-LB @ LAST BUT NOT HIGHER THAN 40 DEG F

WELD METAL

2. WELD METAL USED AS PART OF THE SEISMIC FORCE RESISTING SYSTEM:
   - WITH SERVICE TEMPERATURES MAINTAINED ABOVE 50 DEG F, 20 FT-LB @ -20 DEG F AND 50 FT-LB @ 0 DEG F
   - EXPOSED TO TEMPERATURES IN SERVICE BELOW 50 DEG F, 20 FT-LB @ -40 DEG F AND 60 FT-LB @ 0 DEG F
3. WELD METAL USED FOR CJP WELDS:
   - WITH SERVICE TEMPERATURES MAINTAINED ABOVE 50 DEG F, 40 FT-LB @ 40 DEG F AND 20 FT-LB @ 0 DEG F
   - EXPOSED TO IN SERVICE TEMPERATURES BELOW 50 DEG F, 50 FT-LB @ 40 DEG F AND 30 FT-LB @ 0 DEG F

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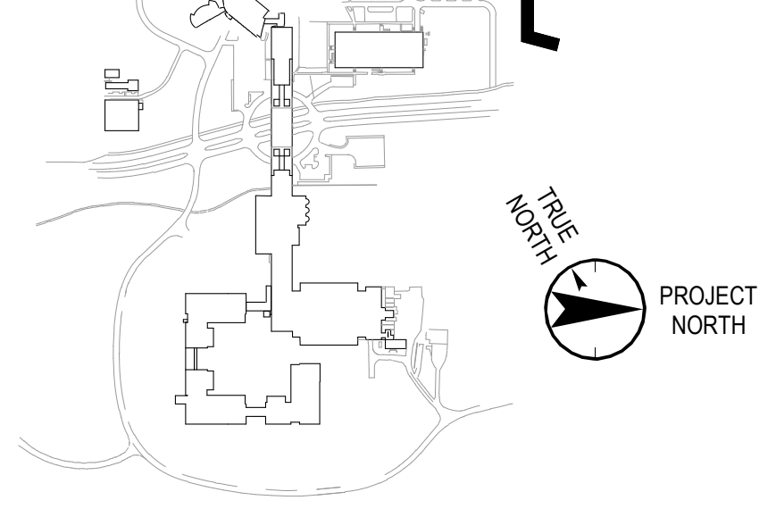
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 11/10/21

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

GENERAL NOTES I

Scale: Floor:

S-001

FILE: BIM 360://006.3608.000 - Regeneron, Day Care Facility Tarrytown/N21270.00-Regeneron_R20.rvt PLOTTED ON 11/10/21

SC STRUCTURAL STEEL CONNECTIONS

SC-1 ALL STEEL DETAILS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC-LOAD AND RESISTANCE FACTOR DESIGN.

SC-2 ALL CONNECTIONS, UNLESS INDICATED AS BEING COMPLETELY DESIGNED ON THE STRUCTURAL DRAWINGS, SHALL BE DESIGNED AND DETAILED BY A **PROFESSIONAL** ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE DESIGN AND DETAILING SHALL COMPLY WITH ALL APPLICABLE CODES AND SPECIFICATION SECTIONS.

SC-3 UNLESS INDICATED AS BEING COMPLETELY DESIGNED, DETAILS ON DRAWINGS INDICATE GENERAL CRITERIA FOR DESIGN AND DETAILING OF CONNECTIONS AND ARE NOT INTENDED TO CONVEY COMPLETE CONNECTOR SIZES, PLATE SIZES, WELD SIZES, NUMBER OF BOLTS, OR ANY OTHER SPECIFIC INFORMATION THAT IS OBTAINED THROUGH DESIGNING OF AN INDIVIDUAL CONNECTION FOR A GIVEN SET OF LOADS. DETAILS DO NOT SHOW ERECTION AIDS. PROVIDE ERECTION AIDS AS REQUIRED AND REMOVE THEM AFTER WORK IS COMPLETE.

SC-4 SUBMIT CONNECTIONS NOT SPECIFICALLY INDICATED AS COMPLETELY DESIGNED ON THE DRAWINGS TO THE SER FOR REVIEW PRIOR TO REVIEW OF SHOP DRAWINGS. FOR BIDDING PURPOSES, WHERE NO MOMENT IS INDICATED ON DRAWINGS PROVIDE FULL MOMENT CAPACITY OF MEMBER (.9 Fy Z) AND WHERE NO VERTICAL SHEAR IS INDICATED ON DRAWINGS PROVIDE FULL SHEAR CAPACITY (.54 Fy d tw).

SC-5 ALTERNATE CONNECTIONS TO THOSE SHOWN ON DRAWINGS WILL BE CONSIDERED AS A SUBSTITUTION REQUEST. SEE PROJECT SPECIFICATIONS.

SC-6 FOR CONNECTION DESIGN AND DETAILING, SET CONNECTION WORK POINT AT INTERSECTION OF MEMBER CENTERLINES, UON.

SC-7 DESIGN ALL CONNECTIONS FOR FORCES INDICATED ON THE DRAWINGS. CONNECTION DESIGN FORCES INDICATED ON THE DRAWINGS ARE FACTORED PER LRFD DESIGN BASIS UON.

SC-8 USE NO MORE THAN TWO BOLT DIAMETERS, ALL BOLTS OF THE SAME DIAMETER SHALL BE OF THE SAME GRADE, SKIP ONE SIZE BETWEEN DIAMETERS. BOLTS FOR THIS PROJECT SHALL BE:
3/4" DIAMETER F3125 GRADE A325 OR F1852 OR 1" DIAMETER F3125 GRADE A490 OR F2280

SC-9 BEAM CONNECTION DESIGN NOTES:

SEE PLANS AND ELEVATIONS FOR BEAM REACTIONS AND MOMENTS.

DEVELOP THE LARGER OF THE BEAM SHEAR REACTION SHOWN ON PLANS OR ELEVATIONS. IF NO SHEAR REACTIONS ARE SHOWN ON PLANS OR ELEVATIONS THEN ALLOW FOR SHEAR CONNECTION WITH FULL SHEAR CAPACITY (.54 Fy d tw).

DEVELOP THE LARGER OF THE MOMENT SHOWN ON PLANS OR ELEVATIONS. IF NO MOMENT REACTIONS ARE SHOWN ON PLANS OR ELEVATIONS THEN ALLOW FOR MOMENT CONNECTION THAT DEVELOPS THE FULL BEAM SECTION MOMENT CAPACITY (.9FyZ).

DEVELOP THE LARGER OF THE AXIAL FORCE DENOTED AS P OR TF SHOWN ON PLANS OR ELEVATIONS. SEE STEEL BEAM LEGEND.

ALL BEAM REACTIONS, AXIAL FORCES AND MOMENTS SHOWN ACT CONCURRENTLY. UON, BEAM REACTIONS ACT IN GRAVITY DIRECTION WHILE AXIAL FORCES AND MOMENTS ARE TO BE CONSIDERED REVERSIBLE.

WHERE NO AXIAL FORCE IS SHOWN, ALL BEAM CONNECTIONS SHALL BE DESIGNED FOR A MINIMUM AXIAL FORCE EQUAL TO 5% OF THE FACTORED DEAD LOAD PLUS LIVE LOAD VERTICAL BEAM SHEAR. FOR THE PURPOSES OF DESIGNING FOR THIS MINIMUM AXIAL FORCE: THE VERTICAL BEAM SHEAR AND CORRESPONDING MINIMUM AXIAL FORCE NEED NOT BE CONSIDERED TO ACT CONCURRENTLY AND BEARING BOLTS IN CONNECTIONS WITH SHORT SLOTTED HOLES PARALLEL TO THE AXIAL FORCE ARE PERMITTED. SHEAR CONNECTIONS INDICATED AS COMPLETELY DESIGNED IN THESE DRAWINGS HAVE BEEN DESIGNED TO MEET THESE MINIMUM AXIAL FORCE REQUIREMENTS.

EXCEPT WHERE "SNUG TIGHT" INSTALLATION IS SPECIFICALLY PERMITTED ON DRAWINGS OR "SLIP CRITICAL" DETAILING IS REQUIRED, ALL HIGH STRENGTH BOLTS SHALL BE INSTALLED AS FULL PRETENSIONED BOLTS.

AT A MINIMUM ALL BOLTED MOMENT AND AXIAL CONNECTION SHALL HAVE PRETENSIONED BOLTS IN STANDARD HOLES.

BOLTED MOMENT CONNECTIONS AT CANTILEVERS AND BACKSPANS SHALL USE SLIP CRITICAL BOLTS.

DO NOT USE OVERSIZED OR SLOTTED HOLES FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY THE SER.

SC-10 ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE STRUCTURAL WELDING CODE, ANSI/AWS D1.1, LATEST EDITION. ALL WELD SIZES SHALL BE THE LARGER OF THE SIZE REQUIRED BY CONNECTION FORCES, THE MINIMUM SIZE PER ANSI/AWS D1.1, OR 3/16 INCH MINIMUM FILLET WELD UON. ANY WELD SIZES SHOWN ON THE DESIGN DRAWINGS ARE CONSIDERED EFFECTIVE WELD SIZES AND SHALL BE INCREASED IN ACCORDANCE WITH AWS AS REQUIRED BY GAPS OR SKEWS BETWEEN COMPONENTS.

SC-11 USE RUNOFF TABS AT ALL BEVEL AND COMPLETE JOINT PENETRATION WELDS. REMOVE RUNOFF TABS BY NEAT CUTS AFTER WELD IS COMPLETED. GRIND SMOOTH WHERE REQUIRED BY DETAIL.

SC-12 WHERE REQUIRED BY DETAIL REMOVE WELD BACK UP BARS AND GRIND SMOOTH AFTER WELD IS COMPLETED.

SC-13 DESIGN, DETAIL, FURNISH AND INSTALL STIFFENERS, CONTINUITY PLATES, DOUBLER PLATES, OR OTHER NECESSARY ADDITIONAL LOCAL STRENGTHENING MEASURES AS REQUIRED. MEMBER SIZES INDICATED ON THE DRAWINGS ARE BASED ON MEMBER BEHAVIOR AWAY FROM CONNECTIONS.

SJ OPEN WEB STEEL JOISTS AND JOIST GIRDERS

SJ-1 DESIGN, MANUFACTURE, AND ERECT JOISTS AND BRIDGING IN ACCORDANCE WITH THE "STANDARD SPECIFICATION FOR OPEN WEB JOISTS" OF THE STEEL JOIST INSTITUTE (SJI), CURRENT EDITION, AS A MINIMUM.

SJ-2 JOISTS AND JOIST GIRDERS SHALL BE DESIGNED AND PROVIDED BY CONTRACTOR PER THE SJI SPECIFICATIONS AS INDICATED ON THE DRAWINGS. SEE DRAWINGS FOR JOIST SPACING, LOAD CRITERIA, AND DEPTH LIMITATIONS.

SJ-3 BRIDGING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR PER THE SJI SPECIFICATIONS.

SJ-4 BEFORE STEEL DECK IS PLACED, ATTACH ALL BRIDGING TO THE JOISTS AND ANCHOR ALL BRIDGING TERMINATING AT WALLS OR BEAMS TO THE WALLS OR BEAMS. WELD OR BOLT ALL BRIDGING CONNECTIONS TO STEEL JOISTS AND BEAMS.

SJ-5 DESIGN AND DETAIL STEEL JOISTS AND JOIST CONNECTIONS TO CARRY THE MOST SEVERE COMBINATION OF DIAPHRAGM FORCES, KICKER FORCES, GRAVITY LOADS, SNOW LOADS, AND WIND UPLIFT FORCES SHOWN ON THE DRAWINGS. IT IS NOT ACCEPTABLE TO DESIGN JOISTS FOR SJI STANDARD LOADS IN LIEU OF THE LOADS SHOWN ON THE DRAWINGS. IN ADDITION TO THE LOADS SHOWN ON THE DRAWINGS, JOISTS SHALL BE DESIGNED FOR:

A. A MINIMUM NET UPLIFT FORCE OF 10 PSF (SERVICE LEVEL), UON
B. ADDITIONAL SERVICE POINT LOAD AT ANY PANEL POINT OF 300 LBS FOR K-SERIES JOISTS AND 700 LBS FOR LH AND DLH-SERIES JOISTS

SJ-6 DESIGN JOISTS TO LIMIT DEFLECTION UNDER TOTAL LOAD TO SPAN LENGTH DIVIDED BY 240, UON. DESIGN JOISTS TO LIMIT DEFLECTION UNDER LIVE LOAD TO SPAN LENGTH DIVIDED BY 360, UON.

SJ-7 CAMBER JOISTS PER SJI STANDARDS, UON.

SJ-8 PROVIDE DOUBLE ANGLE TOP AND BOTTOM CHORDS.

SJ-9 HANGING AND POINT BEARING LOADS AT JOISTS SHALL ONLY BE PERMITTED AS INDICATED ON THE DRAWINGS. DESIGN JOIST FOR HANGING AND POINT BEARING LOADS AT ANY ADJACENT PANEL POINT. COORDINATE HANGING AND POINT BEARING LOADS WITH ARCHITECTURAL AND MEP DRAWINGS.

SJ-10 EXTEND BOTTOM CHORDS OF JOISTS AND JOIST GIRDERS AT COLUMNS, SEE JOIST DETAILS FOR ADDITIONAL INFORMATION. COORDINATE BOTTOM CHORD EXTENSIONS WITH ARCHITECTURAL DRAWINGS.

SJ-11 AT EDGE CONDITIONS EXTEND JOIST TOP CHORDS BEYOND SUPPORTING BEAMS TO PERIMETER ANGLE OR BENT PLATE, UNO.

SJ-12 JOIST SERIES, SEAT, AND SUPPORT INFORMATION SHOWN ON THE DRAWINGS IS A MINIMUM. JOIST DESIGN ENGINEER TO REVIEW ALL SJI REQUIREMENTS AND NOTIFY ENGINEER OF RECORD IF SELECTED SYSTEM DIFFERS FROM CONTRACT DOCUMENTS PRIOR TO FABRICATION OF JOISTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION BETWEEN SELECTED JOIST SYSTEM AND OTHER TRADES.

SD STEEL DECK GENERAL REQUIREMENTS

SD-1 THE DESIGN, MANUFACTURE AND ERECTION OF STEEL DECK AND ITS ANCHORAGE SHALL, AT A MINIMUM, BE IN ACCORDANCE WITH "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS" OF THE STEEL DECK INSTITUTE (SDI), CURRENT EDITION AND "SPECIFICATIONS FOR DESIGN OF LIGHT GAGE COLD FORMED STEEL STRUCTURAL MEMBERS" AS PUBLISHED BY THE AMERICAN IRON AND STEEL INSTITUTE (AISI), CURRENT EDITION.

SD-2 CONFIGURE ALL STEEL DECK USING THREE SPAN CONTINUOUS LAYOUTS WHEREVER POSSIBLE.

SD-3 CONFIGURE ALL STEEL DECK AS SHOWN ON THE DRAWINGS.

RD STEEL ROOF DECK

RD-1 STEEL ROOF DECK SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES:

STEEL FOR DECK ASTM A653, MINIMUM YIELD STRENGTH OF 33 KSI
HOT-DIP GALVANIZING ASTM A653 G60

ROOF DECK SHALL BE HOT-DIP GALVANIZED, UON

RD-2 DESIGN AND DETAIL ROOF DECK AND ITS ANCHORAGE TO SUPPORTING MEMBERS TO SUPPORT SCHEDULED DESIGN LOADS, INDICATED DIAPHRAGM SHEAR, AND INDICATED ROOF UPLIFT. ASSUME ROOF DIAPHRAGM LOADS AND ROOF UPLIFT LOADS TO BE APPLIED SIMULTANEOUSLY.

RD-2 STEEL ROOF DECK AND ITS ANCHORAGE TO STRUCTURAL FRAMING SHALL BE CAPABLE OF WITHSTANDING THE FOLLOWING MINIMUM LOADING REQUIREMENTS (SERVICE LEVEL):

A.	GRAVITY LOAD	30 PSF
B.	DIAPHRAGM SHEAR DESIGN FORCE	400 PLF
C.	NET UPLIFT FORCE	REF. TO LOADING DIAG. ON S-003

ASSUME ROOF DIAPHRAGM LOADS AND ROOF UPLIFT LOADS TO BE APPLIED SIMULTANEOUSLY.

RD-3 ROOF DECK AND ITS ANCHORAGE TO SUPPORTING MEMBERS SHALL MEET THE FOLLOWING MINIMUM FASTENING REQUIREMENTS
A. AT ENDS OF UNITS AND AT ALL INTERMEDIATE SUPPORTS: BY PUDDLE WELDS NOT LESS THAN 5/8 INCH DIAMETER SPACED NOT MORE THAN 12 INCHES ON CENTER MAX.
B. SIDE LAPS OF ADJACENT UNITS: SHALL BE FASTENED BY SIDE SEAM WELDING OR SIDELAP SCREWS SPACED PER MANUFACTURERS ENGINEERED CALCULATIONS WITH A MAXIMUM SPACING OF 24 INCHES ON CENTER. ARC SEAM WELDS SHALL BE A MINIMUM OF 1-1/2 INCH BY 1/2 INCH.

RD-4 NO LOADS SHALL BE HUNG DIRECTLY FROM STEEL ROOF DECK WITHOUT PRIOR WRITTEN APPROVAL OF THE DECK SUPPLIER AND REVIEW BY THE SER.

RD-5 DECKING CONTRACTOR SHALL COORDINATE DECK OPENING SIZES AND LOCATIONS FROM ARCHITECTURAL AND MEP CONTRACT DOCUMENTS, PROVIDE HEADER MEMBERS OR REINFORCEMENT AS REQUIRED BY TYPICAL DETAILS EVEN IF NOT SHOWN ON THE PLANS, AND SUBMIT PROPOSED OPENINGS THROUGH SLAB/DECK FOR REVIEW BY THE DESIGN PROFESSIONALS.

SI SPECIAL INSPECTIONS

SI-1 THE FOLLOWING STRUCTURAL ITEMS REQUIRE SPECIAL TESTING AND/OR INSPECTIONS:

CAST-IN-PLACE CONCRETE
CONCRETE REINFORCEMENT
CONCRETE FORMWORK
STRUCTURAL STEEL DETAILS
STEEL DECK

PA POST-INSTALLED ANCHORS

PA-1 ADHESIVE ANCHOR SYSTEMS USED FOR DESIGN:

SEISMIC DESIGN CATEGORY A - F

ADHESIVE: HILTI HIT-HY 200

THREADED ROD: HILTI HAS OR
THREADED ROD: HILTI HIT-Z

OVERHEAD AND/OR CONSTANT TENSION ADHESIVE ANCHOR INSTALLATIONS NOT SHOWN ON THE DRAWINGS SHALL NOT BE PERMITTED UNLESS EACH CONDITION IS REVIEWED AND APPROVED IN WRITING BY THE SER.

PA-2 PROOF TESTING OF ADHESIVE ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, ADHESIVE ANCHOR PROOF TENSION LOADS SHALL BE PER THE ADHESIVE ANCHOR PROOF SCHEDULES.

PA-3 FIELD DRILLED EXPANSION ANCHOR SYSTEMS USED FOR DESIGN:

HILTI KWIK BOLT TZ2

PA-4 PROOF TESTING OF EXPANSION ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. UNLESS NOTED OTHERWISE, EXPANSION ANCHOR PROOF TORQUE LOADS SHALL BE PER THE EXPANSION ANCHOR PROOF SCHEDULES.

PA-5 FIELD DRILLED THREADED SCREW ANCHOR SYSTEMS USED FOR DESIGN:

HILTI KH-EZ

PA-6 ALTERNATIVE SYSTEM EQUIVALENT TO OR EXCEEDING THE PROPERTIES OF THE SYSTEMS ABOVE WILL BE CONSIDERED AS A SUBSTITUTION REQUEST. SEE PROJECT SPECIFICATIONS.

PA-7 ANCHORS ARE TO BE MINIMUM **[3/4]"** DIAMETER WITH A MINIMUM EMBEDMENT OF **[6]",** UON.

PA-8 INSTALL ANCHORS TO MEET THE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS AND THE CURRENT MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS (MPII).

PA-9 LOCATE, BY NON-DESTRUCTIVE MEANS, AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCING LAYOUT PROHIBITS THE INSTALLATION OF ANCHORS AS INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONALS.

PA-10 INSTALL ANCHORS IN SOLID MASONRY OR IN HOLLOW MASONRY THAT HAS BEEN GROUTED SOLID AT LEAST ONE COURSE ABOVE TO ONE COURSE BELOW THE ANCHOR, UON.

PA-11 SEE PROJECT SPECIFICATIONS FOR POST-INSTALLED ANCHOR INSPECTION REQUIREMENTS.

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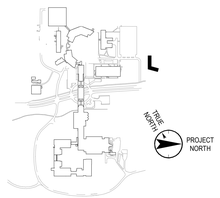
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 12/02/21

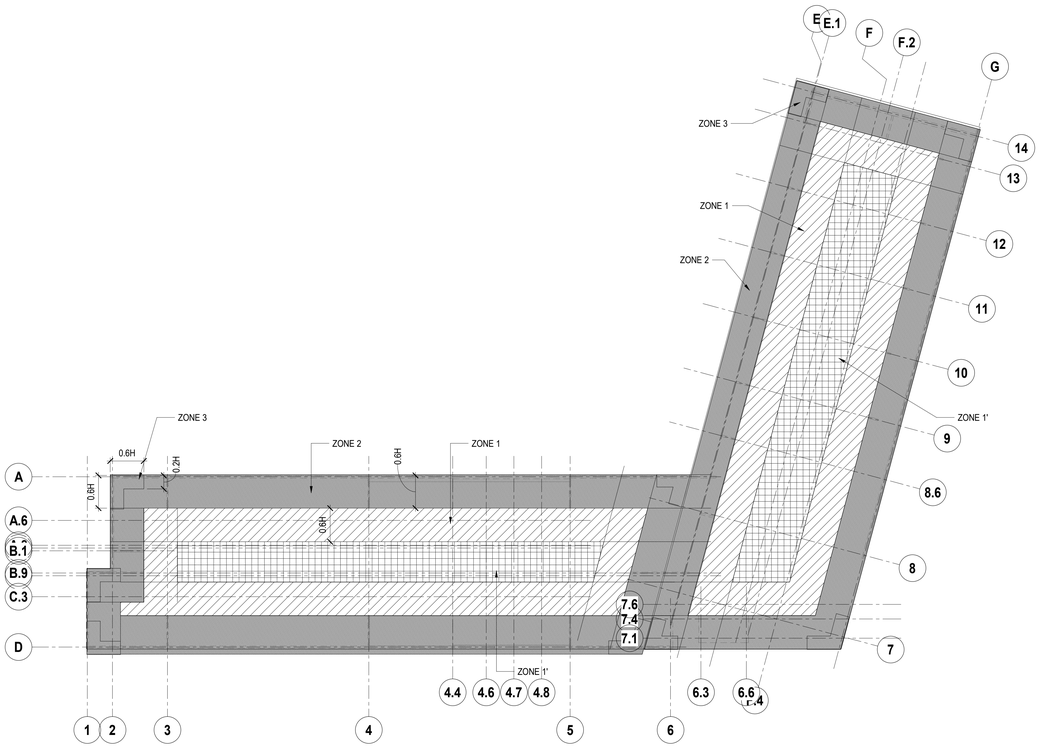
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

GENERAL NOTES II

Scale: Floor:

S-002



PLAN NOTES:

1. DIMENSIONS SHOWN ON PLAN ARE TYPICAL.
   H = BUILDING HEIGHT
2. REFER TO GENERAL NOTE CD-6, S-001 FOR WALL PRESSURES
3. FOR GRAVITY LOADING AT ROOF SEE CD-002, CD-003, CD-005, S-001

1 WIND PRESSURE DIAGRAM - ROOF

SCALE: 1/16" = 1'-0"

EFFECTIVE AREA (FT^2)	AREA 1' (PSF)	AREA 1 (PSF)	AREA 2 (PSF)	AREA 3 (PSF)
10	+16/-32	+16/-56	+16/-74	+16/-101
20	+16/-27.1	+16/-52	+16/-69	+16/-91
50	+16/-32	+16/-48	+16/-63	+16/-79
100	+16/-32	+16/-44	+16/-58	+16/-69
500	+16/-22	+16/-35	+16/-47	+16/-47

TABLE 1 NOTES:

1. (-) NEGATIVE PRESSURE ACT OUTWARD FROM BUILDING
2. (+) POSITIVE PRESSURES ACT INWARD TOWARD THE BUILDING
3. THESE PRESSURES REPRESENT THE EFFECTS OF THE WIND ON THE TOP SURFACES OF THE ROOFS.
4. THE VALUES SHOWN MAY BE USED TO ASSESS PRESSURES FOR:
   A. ROOFING ASSEMBLIES
   B. STRUCTURAL STEEL FRAMING
   C. OPEN-WEB JOISTS
5. PORTIONS OF THE LIGHT GUAGE TRUSSES THAT DO NOT HAVE A BOTTOM CHORD EXPOSURE.

2 WIND PRESSURE SCHEDULE

SCALE: 12" = 1'-0"

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Building #17
Campus Expansion Child Day-care Center

777 Old Saw Mill River Road
Mount Pleasant, NY 10591

Project No. B17-DAYCARE

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1700 Broadway, Suite 400
New York, NY 10019
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Landscape Architect
Langan
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
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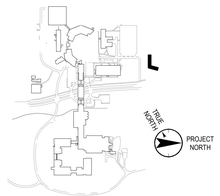
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 11/10/21

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

LOADING DIAGRAMS

Scale: As indicated Floor:

S-003

SLAB/SLAB-ON-GRADE REINFORCEMENT LAP SPLICE LENGTH SCHEDULE (INCHES)

SEE NOTE 5

BAR SIZE	MINIMUM BAR SPACING (INCHES)	TENSION (LTS)					
		f'c = 3 KSI	f'c = 4 KSI	f'c = 5 KSI	f'c = 6 KSI	f'c = 7 KSI	f'c = 8 KSI
#4	5.500	22	19	17	16	14	14
#5	5.375	32	28	25	23	21	20
#6	5.250	43	37	34	31	28	27
#7	5.125	69	60	54	49	46	43
#8	5.000	86	74	67	61	56	53

DEVELOPMENT LENGTH SCHEDULE (INCHES)

SEE NOTE 5

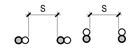
BAR SIZE	MINIMUM BAR SPACING (INCHES) [MAX(1",db) + db] NOTE 2	TENSION																				COMPRESSION									
		NOTED AS Ld ON DRAWINGS										NOTED AS Ldh ON DRAWINGS										NOTED AS Ldc ON DRAWINGS									
		f'c (PSI)										f'c (PSI)										f'c (PSI)									
		3000	4000	5000	6000	7000	8000	9000	10,000	11,000	12,000	3000	4000	5000	6000	7000	8000	9000	10,000	11,000	12,000	3000	4000	5000	6000	7000	8000	9000	10,000	11,000	12,000
#4	1.500	22	19	17	16	15	14	13	12	12	12	11	10	9	8	8	7	7	6	6	6	11	10	9	9	9	9	9	9	9	9
#5	1.625	28	24	22	20	18	17	16	15	15	15	14	12	11	10	9	9	8	8	8	8	14	12	12	12	12	12	12	12	12	12
#6	1.750	33	29	26	24	22	21	19	18	18	18	17	15	13	12	11	11	10	9	9	9	17	15	14	14	14	14	14	14	14	14
#7	1.875	48	42	38	34	32	30	28	27	27	27	20	17	15	14	13	12	12	11	11	11	20	17	16	16	16	16	16	16	16	16
#8	2.000	55	48	43	39	36	34	32	30	30	30	22	19	17	16	15	14	13	12	12	12	22	19	18	18	18	18	18	18	18	18
#9	2.375	62	54	48	44	41	38	36	34	34	34	25	22	20	18	17	16	15	14	14	14	25	22	21	21	21	21	21	21	21	21
#10	2.625	70	61	54	50	46	43	41	39	39	39	28	25	22	20	19	18	17	16	16	16	28	25	23	23	23	23	23	23	23	23
#11	2.875	78	67	60	55	51	48	45	43	43	43	31	27	24	22	21	19	18	17	17	17	31	27	26	26	26	26	26	26	26	26

DEVELOPMENT LENGTH SCHEDULE NOTES:

1. WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH, MULTIPLY Ld BY 1.3.
2. WHERE STIRRUPS OR TIES ARE NOT PRESENT THROUGHOUT Ld, MINIMUM BAR SPACING MUST BE INCREASED TO [MAX(1", db) + 2db] FOR SCHEDULED VALUES TO BE APPLICABLE.

LAP SPLICE NOTES:

1. TABULATED VALUES ARE PER ACI 318-11 REQUIREMENTS FOR NORMALWEIGHT CONCRETE. THE VALUES ON THIS SHEET DO NOT APPLY TO LIGHTWEIGHT CONCRETE
2. SEE TYPICAL DETAILS FOR CLEAR COVER
3. MINIMUM BAR SPACING DIAGRAM - "S"



FIRST BAR
SECOND BAR PLACED OR SPLICE BAR

4. WHERE ACTUAL CONDITIONS DIFFER FROM THE CLEAR COVER SHOWN ON THE TYPICAL DETAILS OR DIFFER FROM PROVIDED SCHEDULED BAR SIZE MINIMUM SPACING AND/OR f'c, LENGTHS SHALL BE ADJUSTED ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
5. TABULATED VALUES ARE FOR NON-EPOXY COATED GRADE 60 REINFORCEMENT IN NORMALWEIGHT CONCRETE

   FOR EPOXY COATED REINFORCEMENT:
   - MULTIPLY Ld BY 1.5
   - MULTIPLY Ldh BY 1.2
   - Ldc IS NOT AFFECTED
   - MULTIPLY LTS BY 1.3 FOR "TOP BARS"
   - MULTIPLY LTS BY 1.5 FOR ALL OTHER REINFORCEMENT

   FOR GRADE 75 REINFORCEMENT:
   - MULTIPLY Ld, Ldh, Ldc, AND LTS BY 1.25
   - MULTIPLY Lcs BY 1.45
6. WHERE BARS OF DIFFERENT SIZES ARE LAP SPLICED IN TENSION, THE TENSION LAP SPLICE LENGTH (LTS) SHALL BE THE LARGER OF THE TENSION DEVELOPMENT LENGTH (Ld) OF THE LARGER BAR AND THE TENSION LAP SPLICE LENGTH OF THE SMALLER BAR.
7. WHERE BARS OF DIFFERENT SIZES ARE LAP SPLICED IN COMPRESSION, THE COMPRESSION LAP LENGTH (LCS) SHALL BE THE LARGER OF THE COMPRESSION DEVELOPMENT LENGTH (Ldc) OF THE LARGER BAR OR THE COMPRESSION LAP SPLICE LENGTH OF THE SMALLER BAR.
8. "TOP BARS" ARE DEFINED AS HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE
   "OTHER BARS" ARE ALL BARS FOR WHICH THIS DOES NOT APPLY

GRADE BEAM/BEAM REINFORCEMENT LAP SPLICE LENGTH SCHEDULE (INCHES)

SEE NOTE 5

BAR SIZE	MINIMUM BAR SPACING (INCHES)	TENSION (LTS)													
		f'c = 4 KSI		f'c = 5 KSI		f'c = 6 KSI		f'c = 7 KSI		f'c = 8 KSI		f'c = 9 KSI		f'c = 10 KSI	
		TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER
#4	1.500	33	25	29	23	27	21	25	19	23	18	22	17	21	16
#5	1.625	41	31	36	28	33	26	31	24	29	22	27	21	26	20
#6	1.750	49	37	44	34	40	31	37	28	35	27	33	25	31	24
#7	1.875	71	54	63	49	58	45	54	41	50	39	47	36	45	35
#8	2.000	81	62	72	56	66	51	61	47	57	44	54	42	51	39
#9	2.375	91	70	81	63	74	57	69	53	64	50	61	47	58	44
#10	2.625	102	79	92	71	84	64	77	60	72	56	68	53	65	50
#11	2.875	114	87	102	78	93	71	86	66	80	62	76	58	72	55

FOOTING/MAT REINFORCEMENT LAP SPLICE LENGTH SCHEDULE (INCHES)

SEE NOTE 5

BAR SIZE	MINIMUM BAR SPACING (INCHES)	TENSION LAP (LTS)													
		f'c = 4 KSI		f'c = 5 KSI		f'c = 6 KSI		f'c = 7 KSI		f'c = 8 KSI		f'c = 9 KSI		f'c = 10 KSI	
		TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER	TOP BARS	OTHER
#4	5.500	20	15	18	14	16	13	15	12	14	12	13	12	13	12
#5	5.375	25	19	22	17	20	16	19	14	18	14	17	13	16	12
#6	5.250	29	23	26	20	24	19	22	17	21	16	20	15	19	15
#7	5.125	43	33	38	29	35	27	32	25	30	23	29	22	27	21
#8	5.000	49	37	44	34	40	31	37	28	35	27	33	25	31	24
#9	4.875	63	49	57	44	52	40	48	37	45	35	42	33	40	31
#10	4.750	82	63	74	57	67	52	62	48	58	45	55	42	52	40
#11	4.625	104	80	93	72	85	65	79	61	74	57	69	54	66	51

FOUNDATION WALL REINFORCEMENT - VERTICAL INSIDE BARS LAP SPLICE LENGTH SCHEDULE (INCHES)

SEE NOTE 5

BAR SIZE	MINIMUM BAR SPACING (INCHES)	TENSION (LTS)									COMPRESSION (LCS)
		f'c = 4 KSI	f'c = 5 KSI	f'c = 6 KSI	f'c = 7 KSI	f'c = 8 KSI	f'c = 9 KSI	f'c = 10 KSI	f'c = 11 KSI	f'c = 12 KSI	
#4	5.500	15	14	13	12	12	12	12	12	12	15
#5	5.375	23	20	18	17	16	15	14	14	14	19
#6	5.250	31	28	25	23	22	21	20	20	20	23
#7	5.125	50	45	41	38	35	33	32	32	32	27
#8	5.000	62	56	51	47	44	42	39	39	39	30
#9	4.875	76	68	62	57	54	51	48	48	48	34
#10	4.750	92	82	75	69	65	61	58	58	58	39
#11	4.625	108	97	89	82	77	72	69	69	69	43

FOUNDATION WALL REINFORCEMENT - HORIZONTAL INSIDE BARS LAP SPLICE LENGTH SCHEDULE (INCHES)

SEE NOTE 5

BAR SIZE	MINIMUM BAR SPACING (INCHES)	TENSION (LTS)									COMPRESSION (LCS)
		f'c = 4 KSI	f'c = 5 KSI	f'c = 6 KSI	f'c = 7 KSI	f'c = 8 KSI	f'c = 9 KSI	f'c = 10 KSI	f'c = 11 KSI	f'c = 12 KSI	
#4	5.500	20	18	16	15	14	13	13	13	13	15
#5	5.375	25	22	20	19	18	17	16	16	16	19
#6	5.250	29	26	24	22	21	20	19	19	19	23
#7	5.125	48	43	39	36	34	32	31	31	31	27
#8	5.000	61	54	50	46	43	41	39	39	39	30
#9	4.875	75	67	61	57	53	50	47	47	47	34
#10	4.750	91	82	75	69	65	61	58	58	58	39
#11	4.625	109	97	89	82	77	73	69	69	69	43

FOUNDATION WALL REINFORCEMENT - VERTICAL OUTSIDE BARS LAP SPLICE LENGTH SCHEDULE (INCHES)

SEE NOTE 5

BAR SIZE	MINIMUM BAR SPACING (INCHES)	TENSION (LTS)									COMPRESSION (LCS)
		f'c = 4 KSI	f'c = 5 KSI	f'c = 6 KSI	f'c = 7 KSI	f'c = 8 KSI	f'c = 9 KSI	f'c = 10 KSI	f'c = 11 KSI	f'c = 12 KSI	
#4	5.500	15	14	13	12	12	12	12	12	12	15
#5	5.375	19	17	16	14	14	13	12	12	12	19
#6	5.250	23	20	19	17	16	15	15	15	15	23
#7	5.125	33	29	27	25	23	22	21	21	21	27
#8	5.000	37	34	31	28	27	25	24	24	24	30
#9	4.875	49	44	40	37	35	33	31	31	31	34
#10	4.750	63	57	52	48	45	42	40	40	40	39
#11	4.625	80	72	65	61	57	54	51	51	51	43

FOUNDATION WALL REINFORCEMENT - HORIZONTAL OUTSIDE BARS LAP SPLICE LENGTH SCHEDULE (INCHES)

SEE NOTE 5

BAR SIZE	MINIMUM BAR SPACING (INCHES)	TENSION (LTS)									COMPRESSION (LCS)
		f'c = 4 KSI	f'c = 5 KSI	f'c = 6 KSI	f'c = 7 KSI	f'c = 8 KSI	f'c = 9 KSI	f'c = 10 KSI	f'c = 11 KSI	f'c = 12 KSI	
#4	5.500	20	18	16	15	14	13	13	13	13	15
#5	5.375	25	22	20	19	18	17	16	16	16	19
#6	5.250	29	26	24	22	21	20	19	19	19	23
#7	5.125	43	38	35	32	30	29	27	27	27	27
#8	5.000	49	44	40	37	35	33	31	31	31	30
#9	4.875	63	57	52	48	45	42	40	40	40	34
#10	4.750	82	74	67	62	58	55	52	52	52	39
#11	4.625	104	93	85	79	74	69	66	66	66	43

9 **LAP SPLICE SCHEDULES**
NOT TO SCALE

REGENERON
REAL ESTATE & FACILITIES MANAGEMENT

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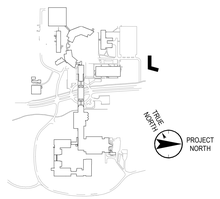
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 04/27/10

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

GENERAL LAP SPLICE SCHEDULES

Scale: NOT TO SCALE Floor:

S-004

NOTES:

1. SEE GENERAL NOTES FOR CONCRETE COMPRESSIVE STRENGTH
2. T/FOOTING = EL -2'-6" BELOW FF ELEVATION, UON
3. TOP OF SLAB EL +217'-3" UON THUS:

   X" X - INDICATES CHANGE IN STRUCTURAL SLAB ELEVATION
4. SLAB TO BE 6" THICK NORMALWEIGHT CONCRETE SLAB ON GRADE, UON. REINFORCED WITH WWF6X6-W2.9XW2.9
5. SEE GENERAL NOTES FOR CONCRETE COMPRESSIVE STRENGTH
6. FOR ADDITIONAL INFORMATION REFER TO THE FOLLOWING DRAWINGS:

DRAWING LISTS, GENERAL NOTES AND LOADING DIAGRAMS	S0 SERIES DRAWINGS
TYPICAL FOUNDATION DETAILS	S2 SERIES DRAWINGS
LATERAL SYSTEM ELEVATIONS, CONNECTION FORCES AND DETAILS	S3 SERIES DRAWINGS
STEEL SUPERSTRUCTURE SCHEDULES AND DETAILS	S5 SERIES DRAWINGS

7. INDICATES LGMF LOAD BEARING WALL (BY OTHERS)

   INDICATES LGMF SHEAR WALL (BY OTHERS)

   REFER TO ARCHITACTURL DRAWINGS FOR FINAL WALL LAYOUTS, LOCATIONS AND GEOMETERY. GC TO COORDINATE WITH LGMF SUB-CONTRACTOR
8. SEE CIVIL DRAWINGS FOR UNDERSLAB DRAINAGE PIPING. ELEVATIONS RANGE FROM EL 215' TO 215.5'. GC TO CONFIRM/COORDINATE PROVIDE PENETRATIONS THRU. KNEE WALLS WHERE REQUIRED. SEE 3/S-202 FOR WALL PENETRATION DETAILS
9. SEE MEP DRAWINGS FOR UNDERSLABD PIPING INFORMATION. ELEVATIONS RANGE FROM EL 215.5' TO 216'. GC TO CONFIRM/COORDINATE. PROVIDE VERTICAL PENETRATIONS THRU. SLABS (REF. 6/S-201) AND HORIZONTAL PENETRATIONS THRU. KNEE WALLS (REF. 3/S-202). VERTICAL PENETRATIONS THRU. KNEE WALLS ARE NOT PERMITTED.
10. EXTERIOR WALL FOOTING TO STEP WHERE REQUIRED TO ACCOMODATE SEWER AND STORMWATER TIE-ING. SEE PLANS FOR LOCATIONS. GC TO COORDINATE. REF. 3/S-200 FOR STEPPED WALL FOOTING DETAILS.

BEARING WALL	LOCATION	MAX.WALL HEIGHT (FT)	STUD SIZE	MIN. STUD SIZE
EXTERIOR	WEST WING	12'-0"	8" @ 16" O.C.	800S162-43
EXTERIOR	EAST WING	14'-0"	8" @ 16" O.C.	800S162-54
INTERIOR	WEST WING	12'-0"	6" @ 16" O.C.	600S162-33
INTERIOR	EAST WING	16'-0"	6" @ 16" O.C.	600S200-43
EXTERIOR	EAST WING - GRID 14	SLOPES 19'-0" AT GRID E.	12"	TBD
EXTERIOR	EAST WING - GRID E, 13/14	19'-0"	12"	TBD

BEARING WALL SCHEDULE
SCALE: 12" = 1'-0"

ISOLATED FOOTING SCHEDULE

f'c = SEE GENERAL NOTES

MARK	SIZE			REINFORCEMENT		REMARKS
	L	W	H	BOTTOM (SHORT)	TOP BARS	
F3	3'-0"	3'-0"	1'-6"	6#5 E.W.	-	-
F4	4'-0"	4'-0"	1'-6"	9#5 E.W.	-	-
F5	5'-0"	5'-0"	1'-6"	8#5 E.W.	-	-

NOTES:

1. REINFORCEMENT SHALL NOT BE SPLICED WITHOUT PRIOR WRITTEN APPROVAL FROM SER.

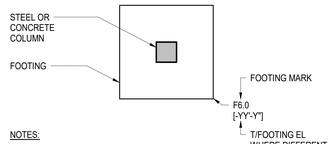
BASE PLATE SCHEDULE

COLUMN SIZE	BASE PLATE SIZE	ANCHOR ROD MARK
HSS10X6	3/4" X 18" X 18"	1
HSS10X8	3/4" X 16" X 16"	1
HSS8X8	3/4" X 16" X 16"	1
HSS10X4	3/4" X 18" X 18"	1

SEE S-500 FOR COLUMN BASE DETAILS

BASE PLATE SCHEDULE
SCALE: 3/4" = 1'-0"

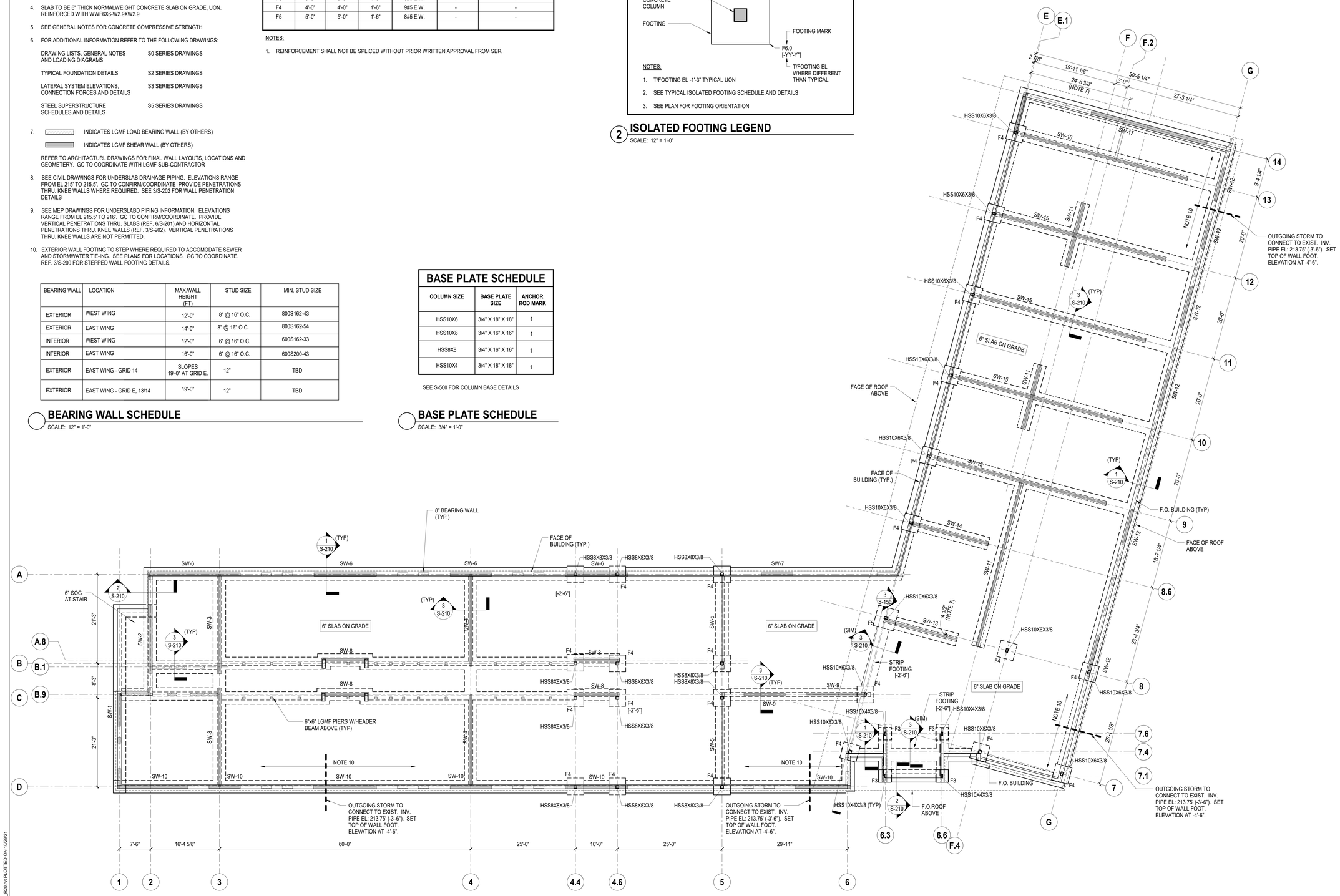
ISOLATED FOOTING LEGEND



NOTES:

1. T/FOOTING EL -1'-3" TYPICAL UON
2. SEE TYPICAL ISOLATED FOOTING SCHEDULE AND DETAILS
3. SEE PLAN FOR FOOTING ORIENTATION

ISOLATED FOOTING LEGEND
SCALE: 12" = 1'-0"



GROUND FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"

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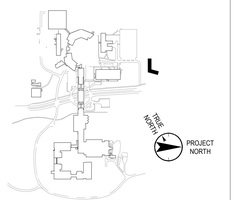

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Plot Date: 10/29/21

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

GROUND FLOOR PLAN

Scale: As indicated Floor:

S-100

FILE: BIM 360:/006.3608.000 - Regeneron_Day Care Facility Tarrytown/N21270.00-Regeneron_RDO.rvt PLOTTED ON 10/29/21

NOTES:

1. T/STRUCTURAL SLAB EL+15'-0" UON THUS:
   X' X - INDICATES CHANGE IN T/STRUCTURAL SLAB ELEVATION
2. T/STEEL EL+14'-5 3/4" UON
3. INDICATES DECK SPAN DIRECTION
4. FOR ADDITIONAL INFORMATION REFER TO THE FOLLOWING DRAWINGS:

DRAWING LISTS, GENERAL NOTES, AND LOADING DIAGRAMS	S0 SERIES DRAWINGS
TYPICAL FOUNDATION DETAILS	S2 SERIES DRAWINGS
LATERAL SYSTEM ELEVATIONS, CONNECTION FORCES, AND DETAILS	S3 SERIES DRAWINGS
STEEL SUPERSTRUCTURE SCHEDULES AND DETAILS	S5 SERIES DRAWINGS

6. SYMBOLS:
   INDICATES MOMENT CONNECTION
   INDICATES FULL HEIGHT FITTED STIFFENER CONNECTION SEE DETAIL 7/S-501
7. NOTATIONS:

SW	INDICATES SHEAR WALL (SEE FOUNDATION PLAN FOR TYP. AND S-300 FOR LOADING) SEE BRACED FRAME ELEVATIONS FOR BEAM INFORMATION AND CONNECTION FORCES
CA/CB	INDICATES COLUMN ABOVE/BELOW. COMPRESSION AXIAL FORCE IN COLUMN INDICATED WHERE APPLICABLE. SEE DETAIL 8/S-502
TC	INDICATES TORSIONAL CONNECTION FOR STAIR. SEE DETAIL 8/S-501

8. JOIST ENDS AT SPANDRELS SHALL BE DESIGNED TO BRACE TOP AND BOTTOM FLANGES OF SPANDRELS. SEE TYPICAL DETAILS ON 2/S03.07 FOR DETAILS
9. JOIST BRIDGING SHALL BE DESIGNED FOR TF1.5 TO BRACE TOP AND BOTTOM FLANGES OF WIDE FLANGE AT INDICATED LOCATIONS
10. INDICATES LGMF LOAD BEARING WALL (BY OTHERS)
    INDICATES LGMF SHEAR WALL (BY OTHERS)
11. PROVIDE CONNECTION AT JOISTS FOR V10, U.O.N ON PLAN. SEE PLAN FOR CONNECTION FORCES AT STEEL FRAMING

HEADER MARK	MAX. LENGTH	MINIMUM SIZE
H1	7'-0"	8000S162-68
H2	12'-0"	1400S162-118
H3	19'-0"	1600S162-118

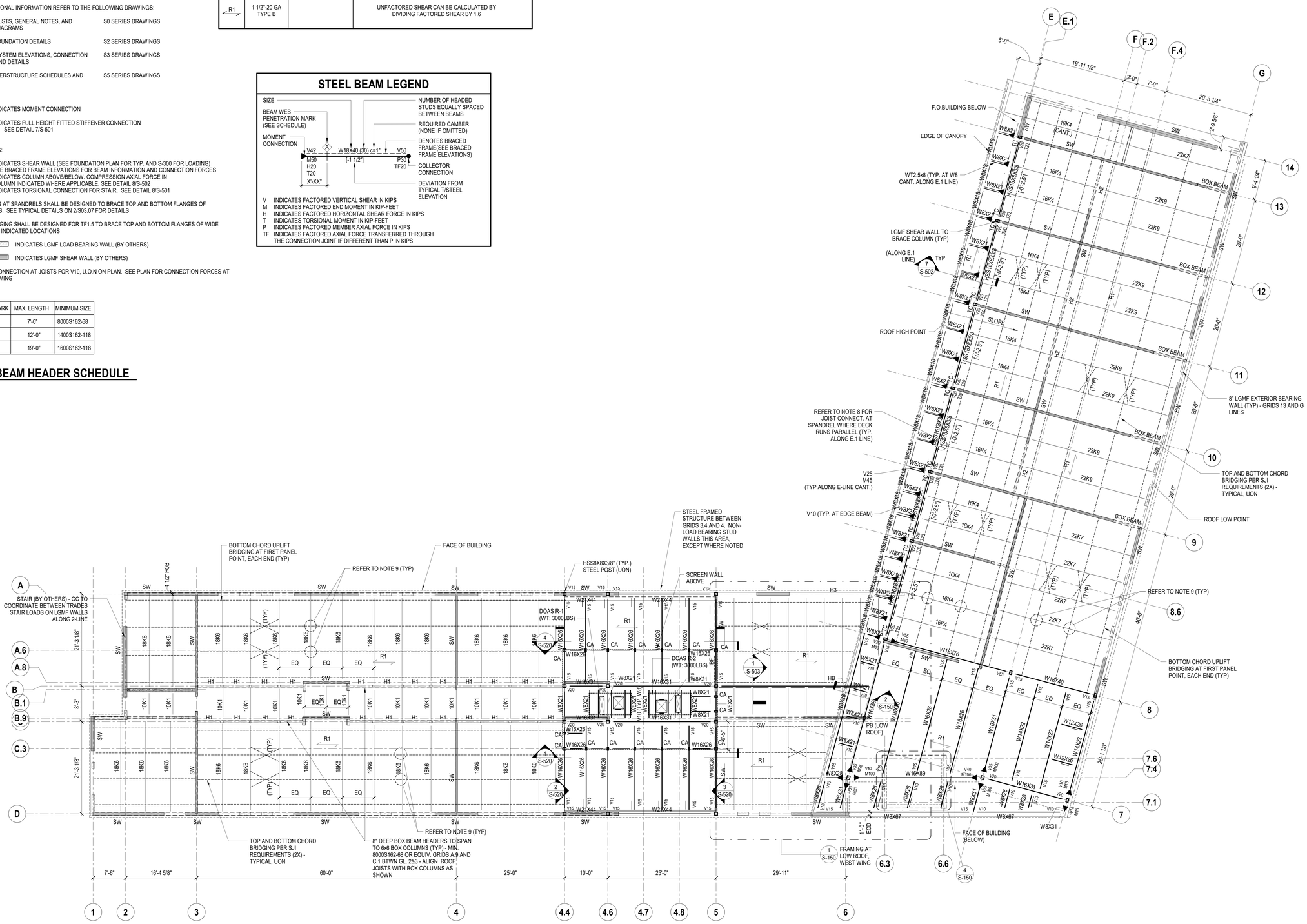
BOX BEAM HEADER SCHEDULE
12" = 1'-0"

ROOF DECK SCHEDULE

ROOF DECK MARK	ROOF DECK (MINIMUM)	UNFACTORED DIAPHRAGM SHEAR (PLF)	NOTES
R1	1 1/2"-20 GA TYPE B		UNFACTORED SHEAR CAN BE CALCULATED BY DIVIDING FACTORED SHEAR BY 1.6

STEEL BEAM LEGEND

V INDICATES FACTORED VERTICAL SHEAR IN KIPS
M INDICATES FACTORED END MOMENT IN KIP-FEET
H INDICATES FACTORED HORIZONTAL SHEAR FORCE IN KIPS
T INDICATES TORSIONAL MOMENT IN KIP-FEET
P INDICATES FACTORED MEMBER AXIAL FORCE IN KIPS
TF INDICATES FACTORED AXIAL FORCE TRANSFERRED THROUGH THE CONNECTION JOINT IF DIFFERENT THAN P IN KIPS



1 ROOF LEVEL FRAMING PLAN
SCALE: 1/8" = 1'-0"

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F: 914.847.7991
www.regeneron.com

Building #17
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777 Old Saw Mill River Road
Mount Pleasant, NY 10591

Project No. B17-DAYCARE

Architect
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New York, NY 10019
(212) 492-1400 Phone
(212) 492-1472 Fax

Structural Engineer
Thornton Tomasetti
120 Broadway, 15th Floor
New York, NY 10271
(917) 661-7800 Phone
(917) 661-7801 Fax

MEP / IT / Security Engineer
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Civil Engineer
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Landscape Architect
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New York, NY 10001
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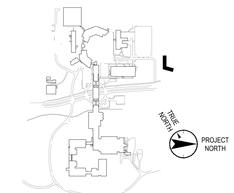
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 10/29/21

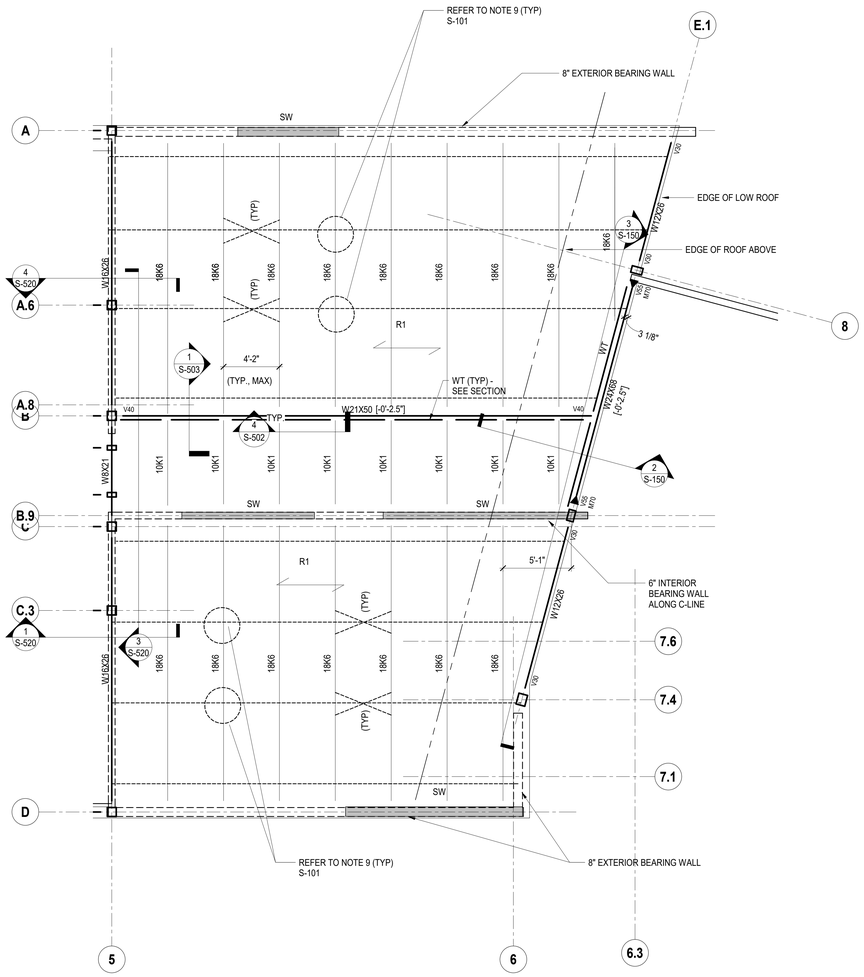
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

ROOF PLAN

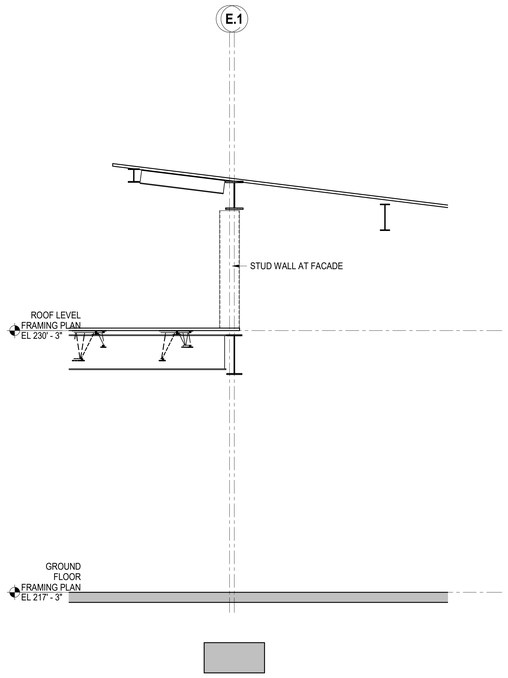
Scale: As indicated Floor:

S-101



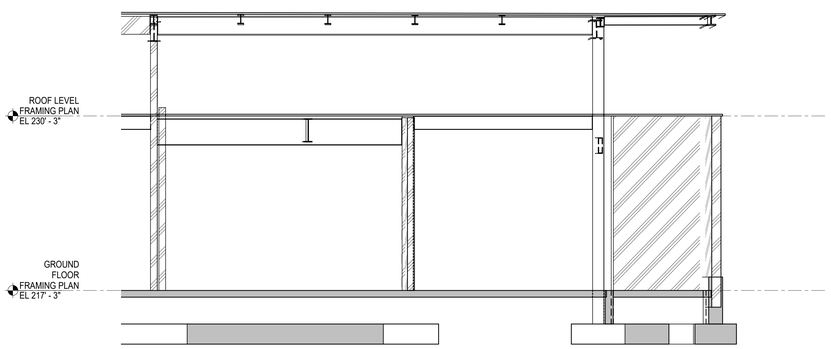
1 PART PLAN AT LOW ROOF_WEST WING

SCALE: 1/4" = 1'-0"



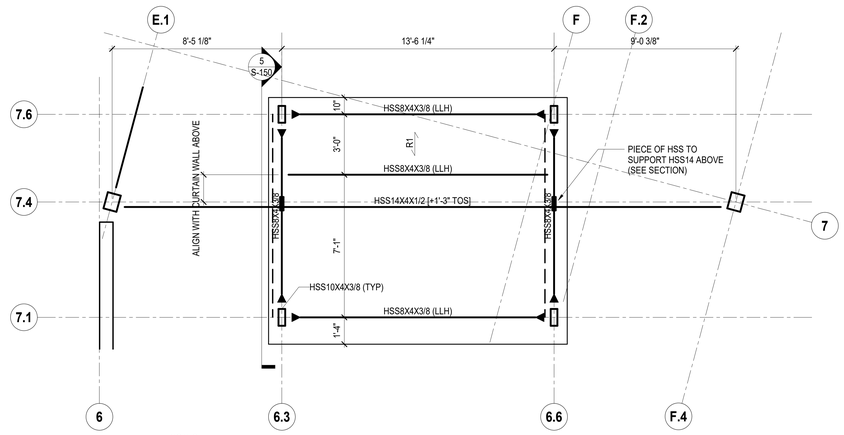
2 SECTION THRU. EAST - WEST WINGS

SCALE: 3/8" = 1'-0"



3 SECTION AT GRIDLINE E.1

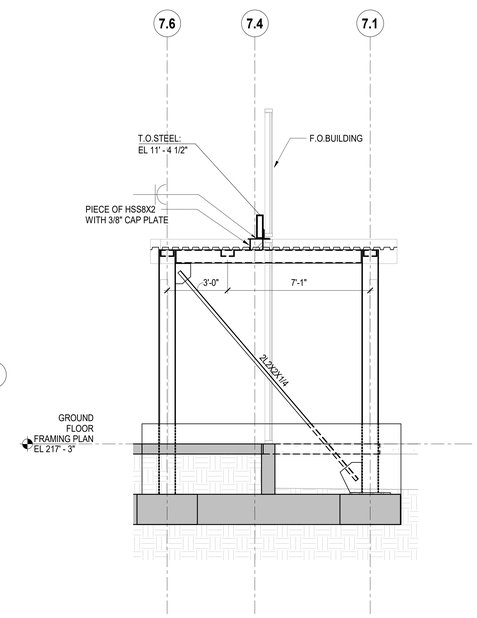
SCALE: 1/4" = 1'-0"



NOTES:
1. T/STEEL +9'- 7 3/4" UON

4 TOS LOBBY VESTIBULE

SCALE: 3/8" = 1'-0"



5 SECTION THRU. VESTIBULE

SCALE: 3/8" = 1'-0"

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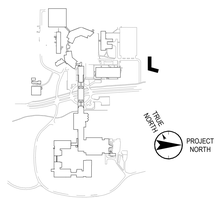
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

03/11/2021 - ISSUED FOR 50% CDS

Plot Date: 03/08/22

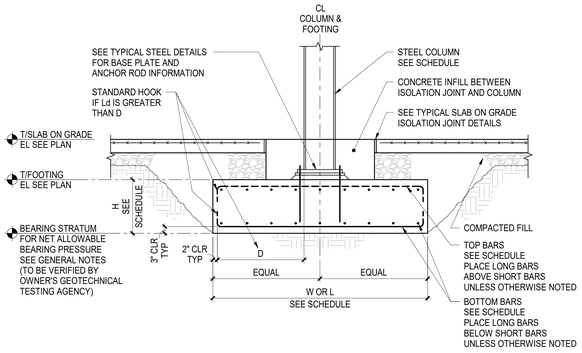
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

PART PLANS

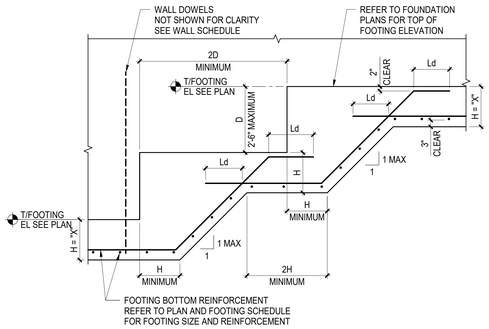
Scale: As indicated Floor:

S-150



1 TYPICAL ISOLATED FOOTING - BASE PLATE WITHIN CONCRETE INFILL

NOT TO SCALE



2 TYPICAL STEPPED WALL FOOTING DETAIL

SCALE: NOT TO SCALE

REGENERON

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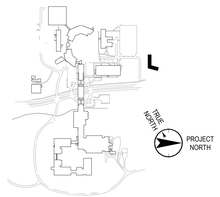


No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 04/14/10

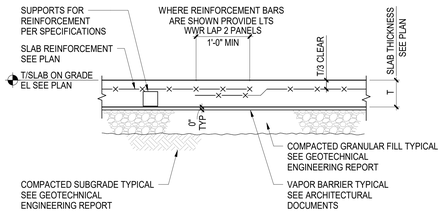
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

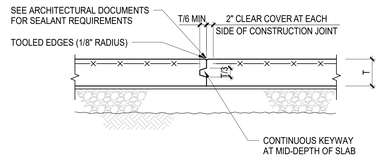
TYPICAL FOOTING DETAILS

Scale: NOT TO SCALE Floor:

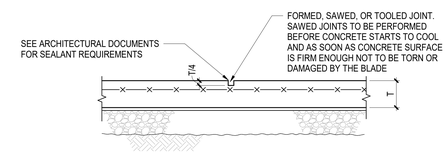
S-200



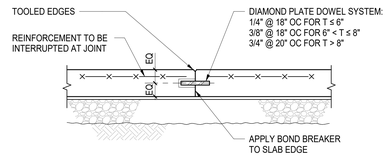
A SLAB ON GRADE



B CONSTRUCTION JOINT / CONTRACTION JOINT



C CONTRACTION JOINT

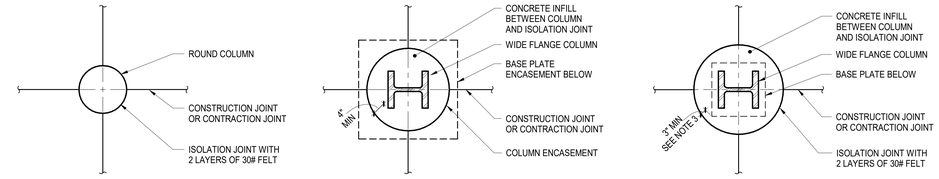


D DOWELED CONSTRUCTION JOINT (WHERE INDICATED ON PLAN)

NOTES:

1. WHERE NOT INDICATED ON DRAWINGS PROVIDE JOINTS AT COLUMN CENTERLINES AND BETWEEN COLUMN CENTERLINES WITH SPACING OF JOINTS NOT TO EXCEED 36 TIMES THE SLAB THICKNESS (T-INCHES)

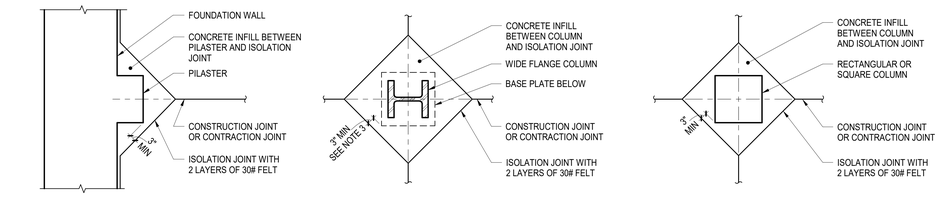
1 TYPICAL SLAB ON GRADE DETAILS
NOT TO SCALE



A ROUND COLUMN

B CONCRETE ENCASE COLUMN AND BASE PLATE WHERE INDICATED ON PLAN

C TYPICAL BASE PLATE WITHIN CONCRETE INFILL (ROUND ISOLATION JOINT OPTION)



D PILASTER

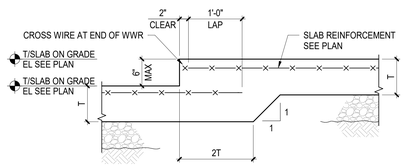
E TYPICAL BASE PLATE WITHIN CONCRETE INFILL UNLESS OTHERWISE NOTED

F RECTANGULAR OR SQUARE COLUMN

NOTES:

1. SEE TYPICAL SLAB ON GRADE DETAILS FOR JOINT SPACING REQUIREMENTS
2. CONCRETE INFILL BETWEEN COLUMN AND ISOLATION JOINT TO BE POURED AFTER ALL THE SLABS SUPPORTED BY THE COLUMN HAVE BEEN POURED
3. PROVIDE ADDITIONAL CLEARANCE AS REQUIRED TO ENSURE 3" MINIMUM CONCRETE COVER OVER BASE PLATE AND ANCHOR RODS BELOW.

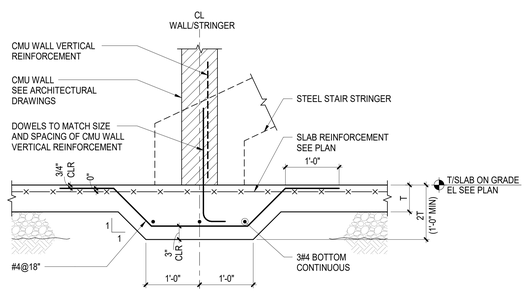
2 TYPICAL ISOLATION JOINT DETAILS AT SLAB ON GRADE
NOT TO SCALE



NOTES:

1. SEE TYPICAL SLAB ON GRADE DETAILS FOR ADDITIONAL INFORMATION

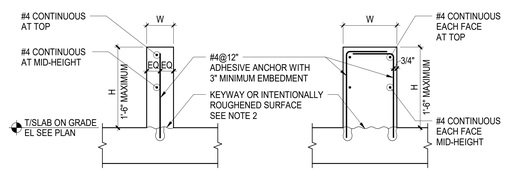
3 TYPICAL SLAB ON GRADE STEP 6" MAXIMUM
NOT TO SCALE



NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF WALLS AND STAIRS
2. SEE TYPICAL SLAB ON GRADE DETAILS FOR MORE INFORMATION

4 TYPICAL THICKENED SLAB ON GRADE AT NON-BEARING CMU WALL OR STAIR STRINGER
NOT TO SCALE



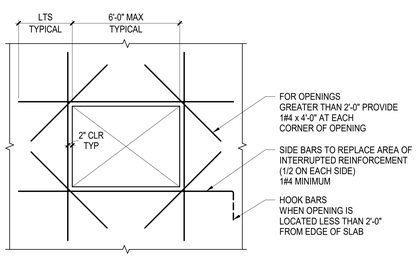
A NARROW CURB - 4" ≤ W ≤ 8"

B WIDE CURB - W ≥ 8"

NOTES:

1. FOR SIZE AND LOCATION SEE ARCHITECTURAL, MEP, OR STRUCTURAL DRAWINGS
2. ROUGHEN SURFACE OF SLAB TO 1/4" AMPLITUDE, CLEAN THOROUGHLY AND APPLY BONDING AGENT IMMEDIATELY BEFORE CASTING CURB
3. THIS DETAIL IS APPLICABLE AT CURBS FOR NON-STRUCTURAL ELEMENTS SUCH AS SKYLIGHTS, INTERIOR PARTITIONS, AND INTERIOR RAILINGS
4. SEE ARCHITECTURAL DRAWINGS FOR EMBEDDED PLATES AND BLOCKOUTS REPLACE REINFORCEMENT INTERRUPTED BY BLOCKOUTS
5. CORING AND/OR CUTTING OF REINFORCEMENT IS NOT PERMITTED USE EMBED PLATES FOR ATTACHMENT TO CURBS

5 TYPICAL CURB DETAILS AT INTERIOR
SCALE: NOT TO SCALE

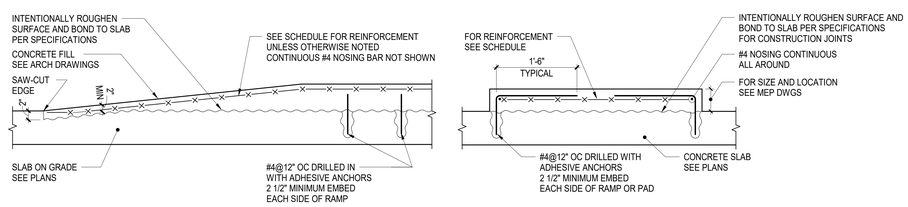


A PLAN

NOTES:

1. FOR SIZE OF OPENINGS SEE ARCHITECTURAL DRAWINGS
2. ADDITIONAL REINFORCEMENT IS NOT REQUIRED AT OPENINGS THAT DO NOT INTERRUPT THE TYPICAL REINFORCEMENT

6 TYPICAL SLAB ON GRADE DETAIL OF ADDITIONAL REINFORCEMENT AT ANY OPENINGS OR AT STEP GREATER THAN 6" UP TO 3'-0"
NOT TO SCALE



A DETAIL AT RAMP

B SECTION AT RAMP OR PAD

THICKNESS	REINFORCEMENT
≤ 3"	WWR 6x6 - W2.9xW2.9
≤ 4"	WWR 6x6 - W4.0xW4.0
≤ 6"	#4 @ 12" TOP EACH WAY
≤ 12"	#4 @ 12" TOP & BOTTOM EACH WAY

NOTES:

1. THIS DETAIL IS NOT APPLICABLE TO GENERAL RAISED SLAB AREA HIGHER THAN 4" OTHER THAN MECHANICAL PADS AND HOUSEKEEPING PADS

7 TYPICAL DETAIL OF CONCRETE FILL HOUSEKEEPING PAD / MECHANICAL PAD / RAMP
NOT TO SCALE

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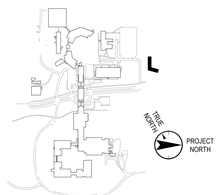
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 04/19/10

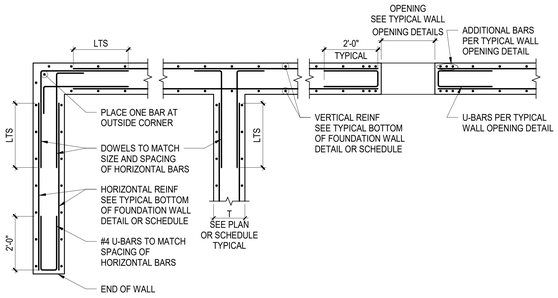
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

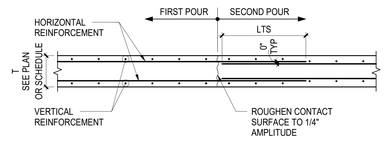
TYPICAL SLAB ON GRADE DETAILS

Scale: As indicated Floor:

S-201



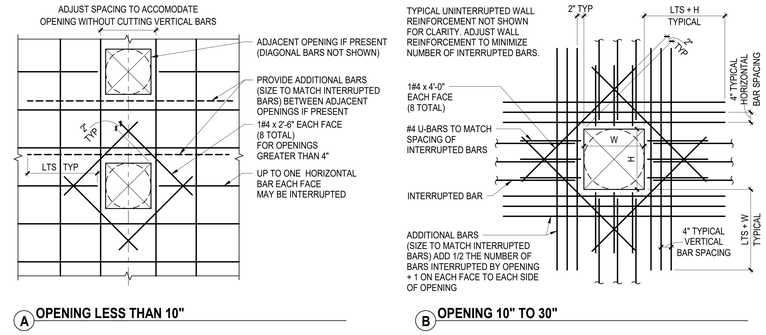
1 TYPICAL FOUNDATION WALL DETAIL - PLAN
NOT TO SCALE



NOTES:

1. SEE ARCHITECTURAL DOCUMENTS FOR WATERSTOP REQUIREMENTS
2. SEE GENERAL NOTES FOR CONSTRUCTION JOINT MAXIMUM SPACING

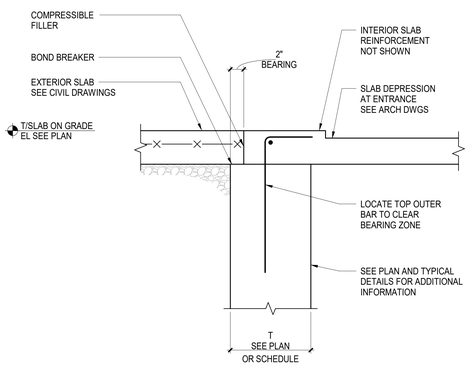
2 TYPICAL VERTICAL CONSTRUCTION JOINT IN CONCRETE WALL
NOT TO SCALE



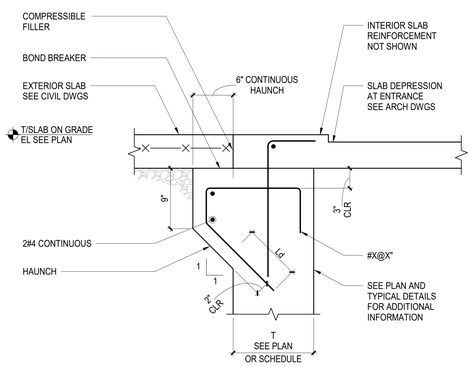
NOTES:

1. MINIMUM CLEAR DISTANCE BETWEEN OPENINGS IS 2 TIMES MAXIMUM OPENING SIZE
2. FOR OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS, CONTRACTOR TO SUBMIT LOCATIONS AND SPACING TO STRUCTURAL ENGINEER FOR WRITTEN APPROVAL

3 TYPICAL WALL OPENING DETAILS
NOT TO SCALE



4 TYPICAL SECTION AT ENTRANCE
SCALE: NOT TO SCALE



5 TYPICAL SECTION AT ENTRANCE WITH HAUNCH
SCALE: NOT TO SCALE

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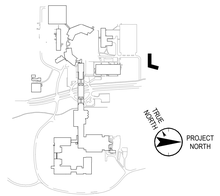


No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 06/04/10

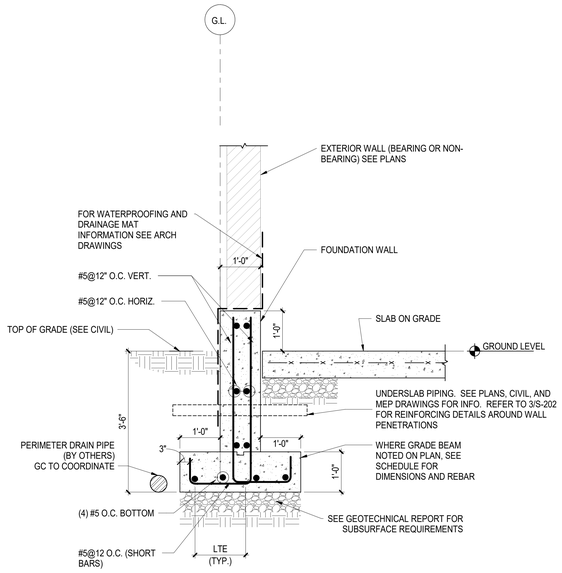
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

TYPICAL FOUNDATION WALL DETAILS

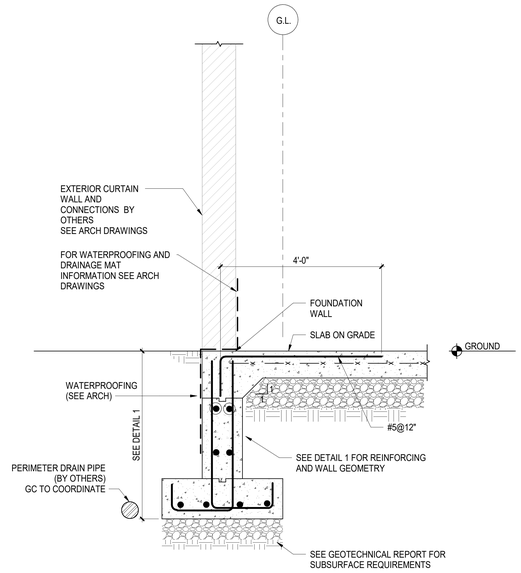
Scale: As indicated Floor:

S-202



1 TYPICAL PERIMETER WALL

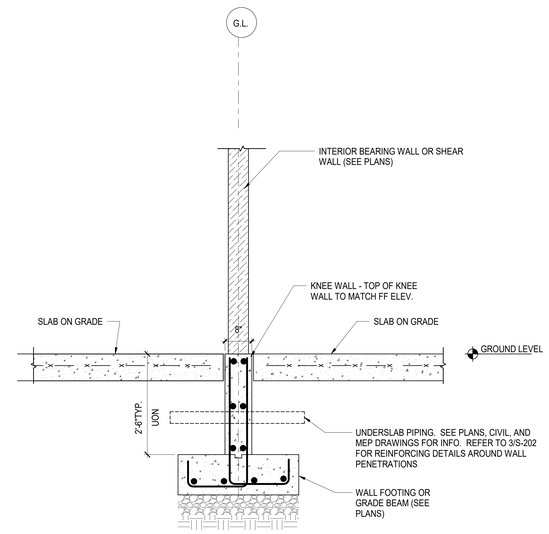
SCALE: 3/4" = 1'-0"



NOTE: WHERE REQUIRED, SEE DETAIL 5/S-202 FOR CONDITION WHERE CIVIL SLAB MEETS THE BUILDING FOUNDATION. GC TO COORDINATE WITH CIVIL DRAWINGS

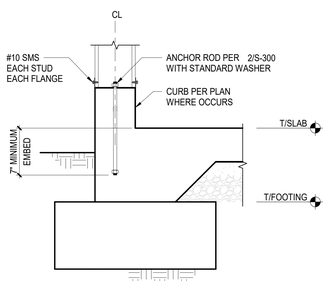
2 KNEE WALL AT DOORWAYS

SCALE: 3/4" = 1'-0"

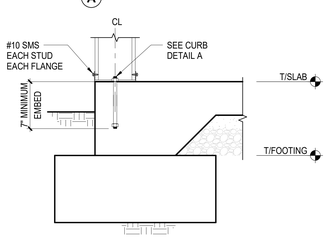


3 TYPICAL INTERIOR BEARING/SHEAR WALL FOOTING

SCALE: 3/4" = 1'-0"



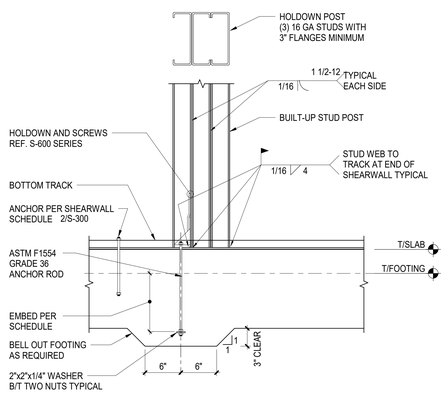
A CURB



B SLAB

4 SILL ANCHOR AT EXTERIOR

SCALE: 1 1/2" = 1'-0"



NOTES:

1. HOLDOWNS TO BE SIMPSON S/HDU SERIES PER IAPMO ER#124 OR APPROVED EQUIVALENT.
2. ADD CURB HEIGHT TO ANCHOR ROD LENGTH IF THERE IS A CONCRETE CURB.
3. FINAL DESIGN AND CONFIGURATION BY THE CONTRACTOR BASED ON PROJECT CRITERIA NOTED IN CONTRACT DOCUMENTS

5 HOLDOWN DETAIL

SCALE: 1" = 1'-0"

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Project No. B17-DAYCARE

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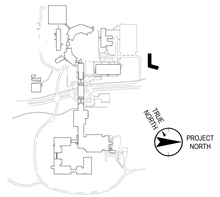
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 10/29/21

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

FOUNDATION SECTIONS AND DETAILS

Scale: As indicated Floor:

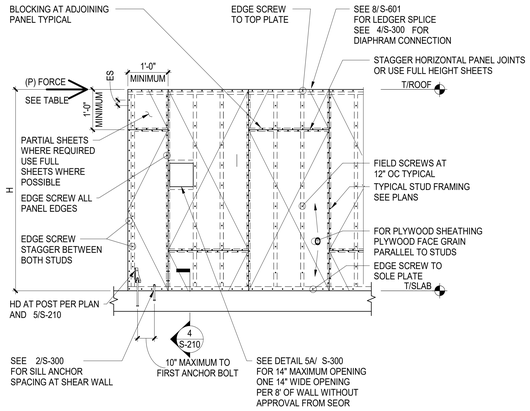
S-210

SHEAR WALL LOAD SCHEDULE

SHEAR WALL MARK	GRIDLINE	SHEAR LOAD (KIPS) - ULTIMATE	TENSION FORCE (KIPS)
SW-1	1	3.7	5.0
SW-2	2	2.6	1.5
SW-3	3	5.8	2.5
SW-4	4	8.6	3.5
SW-5	5	7.2	3.0
SW-6	A	1.1	1.0
SW-7	A, 5/6	4.0	5.0
SW-8	A.9, C	2.2	2.0
SW-9	C, 5/6	3.6	3.5
SW-10	D	1	1.0
SW-11	F	4.2	1.5
SW-12	G	1.2	1.5
SW-13	8	13	9.5
SW-14	8.5	9.1	3.0
SW-15	9, 10, 11, 12	8.6	3.0
SW-16	13	6.5	2.5
SW-17	14	1.1	1.0

DESIGN LOADS SHALL BE APPLIED AT THE TOP OF THE WALL. SEE STRUCTURAL PLANS AND ARCH DRAWINGS FOR WALL LOCATIONS AND FINAL GEOMETRY

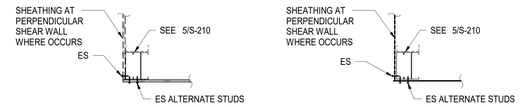
SHEAR WALL SCHEDULE
SCALE: 3/4" = 1'-0"



NOTE:
1. DETAIL PROVIDED FOR INFORMATION. FINAL SHEAR WALL DESIGN BY THE CONTRACTOR BASED ON PROJECT CRITERIA NOTED IN CONTRACT DOCUMENTS.

2. WHERE CROSS BRACING STRAPS ARE REQUIRED, SEE S-301 FOR DETAILS

1 SHEAR WALL ELEVATION
SCALE: 3/8" = 1'-0"



C PLAN AT BUILT-UP POST

NOTES:

1. FOR PLYWOOD ATTACHED TO METAL STUDS SEE 1/S-300 FOR INFORMATION NOT NOTED TYPICAL.
2. TYPICAL FIELD SCREWS TO BE #8 SMS @ 12" OC AT INTERMEDIATE MEMBERS.
3. USE #8 FLAT HEAD SELF-DRILLING TAPPING SCREW WITH A MINIMUM HEAD DIAMETER OF 0.285.
4. MINIMUM EDGE DISTANCE FOR SCREWS IN RECEIVING MEMBERS & SHEATHING SHALL BE 3/8".

A PLYWOOD SHEATHING

D PLAN AT BUILT-UP POST

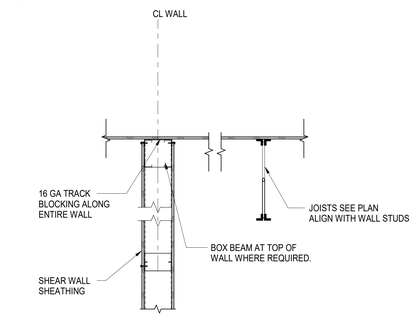
NOTES:

1. FOR STEEL SHEET ATTACHED TO METAL STUDS SEE 1/S-300 FOR INFORMATION NOT NOTED TYPICAL.
2. TYPICAL FIELD SCREWS TO BE #8 SMS @ 12" OC AT INTERMEDIATE MEMBERS.
3. USE SELF-DRILLING/SELF TAPPING #8 BUGLE HEAD SCREWS WITH MINIMUM 0.315" HEAD DIAMETER.
4. MINIMUM EDGE DISTANCE FOR SCREWS IN RECEIVING MEMBERS & SHEATHING SHALL BE 3/8".

B STEEL SHEET SHEATHING

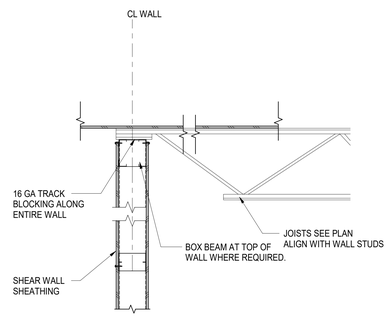
NOTE:
1. DETAIL PROVIDED FOR INFORMATION. FINAL SHEAR WALL DESIGN BY THE CONTRACTOR BASED ON PROJECT CRITERIA NOTED IN CONTRACT DOCUMENTS.

2 SHEAR WALL SCHEDULE
SCALE: 1" = 1'-0"



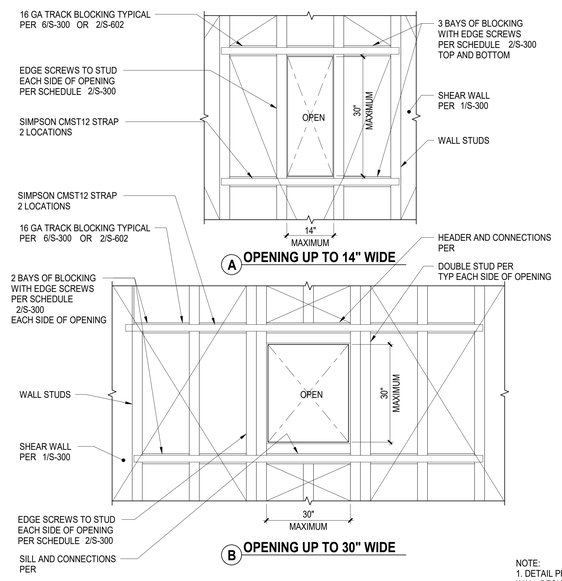
NOTE: WALLS TO BE DESIGNED FOR SHEAR FORCES NOTED IN SCHEDULE ABOVE PLUS TRANSFER AND/OR CHORD FORCES AS REQUIRED, SEE PLANS

3 WALL PERPENDICULAR TO JOISTS
SCALE: 1" = 1'-0"



NOTE: WALLS TO BE DESIGNED FOR SHEAR FORCES NOTED IN SCHEDULE ABOVE PLUS TRANSFER AND/OR CHORD FORCES AS REQUIRED, SEE PLANS

4 WALL PARALLEL TO JOISTS
SCALE: 1" = 1'-0"



A OPENING UP TO 14" WIDE

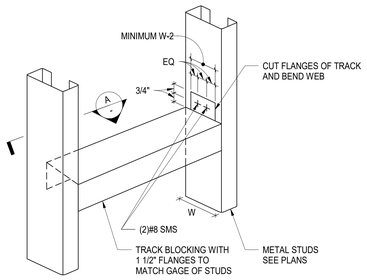
B OPENING UP TO 30" WIDE

NOTES:

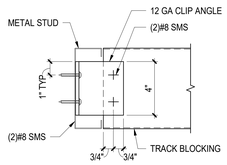
1. PROVIDE OPENING SO ONLY 1 STUD IS CUT AS SHOWN

NOTE:
1. DETAIL PROVIDED FOR INFORMATION. FINAL SHEAR WALL DESIGN BY THE CONTRACTOR BASED ON PROJECT CRITERIA NOTED IN CONTRACT DOCUMENTS.

5 TYPICAL OPENING IN SHEAR WALL DETAIL
SCALE: 3/4" = 1'-0"



6 BLOCKING DETAIL
SCALE: 1" = 1'-0"



A PLAN DETAIL

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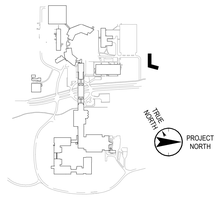


No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 02/24/22

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

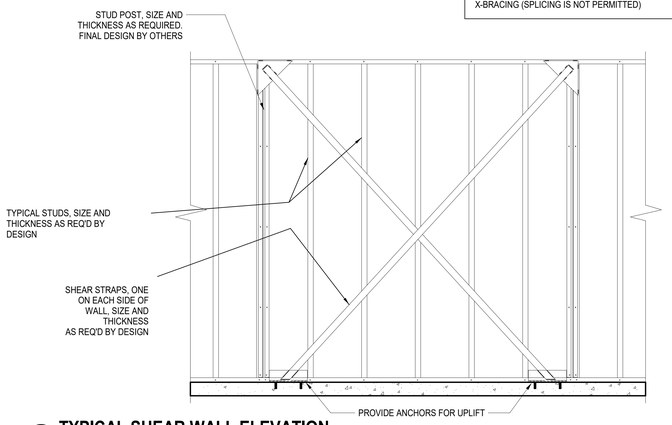
SHEAR WALL LOADS AND DETAILS

Scale: As indicated Floor:

S-300

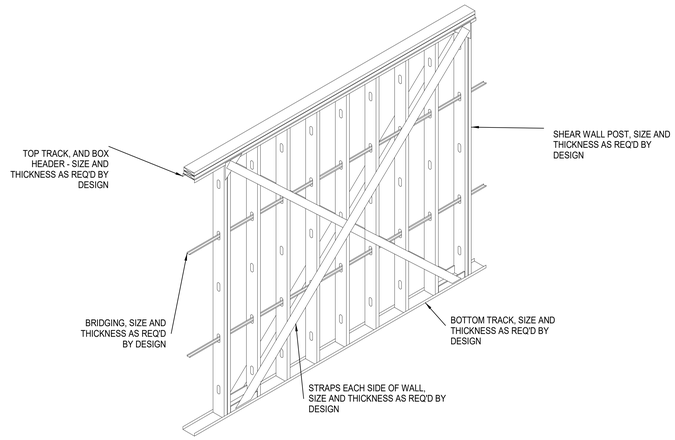
FILE: BIM 360:/006.3608.000 - Regeneron, Day Care Facility Tarrytown/N21270.00-Regeneron_R20.rvt PLOTTED ON 02/24/22

NOTE:
TOP TRACK MUST BE CONTINUOUS AT
X-BRACING (SPLICING IS NOT PERMITTED)



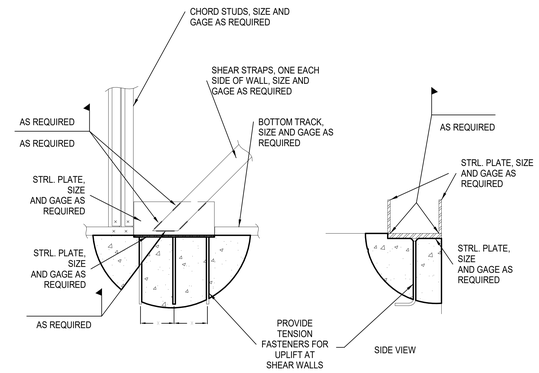
1 TYPICAL SHEAR WALL ELEVATION

SCALE: 1" = 1'-0"



2 TYPICAL SHEAR WALL ELEVATION II

SCALE: 1" = 1'-0"



TOP OF PLATE SHALL BE FLUSH W/ TOP OF CONCRETE

3 TYPICAL SHEAR WALL STRAP AT BASE

SCALE: 1" = 1'-0"

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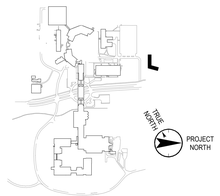


No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 03/11/22

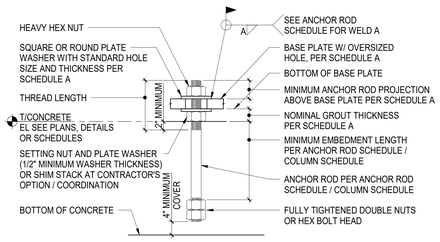
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

SHEAR WALL DETAILS

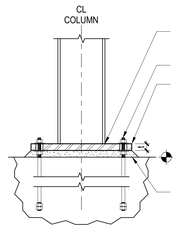
Scale: 1" = 1'-0" Floor:

S-301

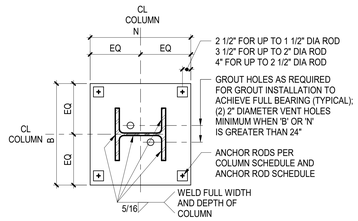


SCHEDULE A					
ANCHOR ROD DIAMETER	BASE PL HOLE DIA	MIN WASHER SIZE	MIN WASHER t	MIN PROJ ABOVE BASE PL	NOMINAL GROUT THICKNESS
3/4"	1-5/16"	2"	1/4"	3"	2"
1"	1-13/16"	3"	3/8"	3-1/2"	2"
1-1/4"	2-1/16"	3"	1/2"	4"	3"
1-1/2"	2-5/16"	3-1/2"	1/2"	4"	3"
1-3/4"	2-3/4"	4"	3/4"	5"	3"
2"	3-1/4"	5"	3/4"	5"	4"
2-1/2"	3-3/4"	5-1/2"	1"	5-1/2"	4"

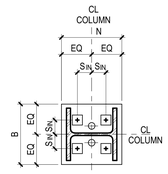
1 TYPICAL ANCHOR ROD DETAIL
NOT TO SCALE



A ELEVATION



B W8, W10, W12, W14 PLAN
WITH SQUARE ANCHOR ROD PATTERN OUTSIDE COLUMN



NOTES:

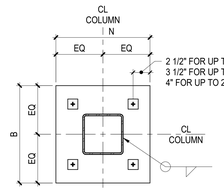
1. SEE ANCHOR ROD PATTERN OUTSIDE COLUMN FOR INFORMATION NOT SHOWN

C W10, W12, W14 PLAN
WITH SQUARE ANCHOR ROD PATTERN INSIDE COLUMN - SEE TABLE

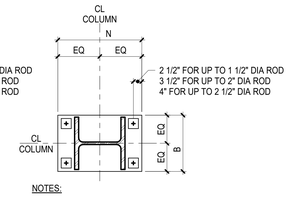
S_N FOR SQUARE ANCHOR ROD PATTERN INSIDE COLUMN	
SHAPE	S_N
W8	NA
W10	2 1/2"
W12	3"
W14	4"

NOTES FOR TABLE:

1. INSIDE ANCHOR ROD CONFIGURATION NOT APPLICABLE TO ROD DIAMETERS GREATER THAN 1 1/4" FOR W14, 1" FOR W12, AND 3/4" FOR W10. INSIDE BOLT CONFIGURATION NOT APPLICABLE TO W8
2. INSIDE ANCHOR ROD CONFIGURATION NOT APPLICABLE TO COLUMNS HEAVIER THAN W14X426



D ROUND OR RECTANGULAR HSS PLAN



NOTES:

1. SEE ANCHOR ROD PATTERN OUTSIDE COLUMN FOR INFORMATION NOT SHOWN

E RECTANGULAR BASE PLATE AT WIDE FLANGE COLUMN
WITH RECTANGULAR ANCHOR ROD PATTERN OUTSIDE COLUMN

NOTES:

1. SEE ANCHOR ROD SCHEDULE FOR BASE PLATE SIZE, ORIENTATION AND THICKNESS
2. BASE PLATE THICKNESS SHOWN ON SCHEDULE IS A MINIMUM. DIMENSION AFTER ALL MILLING IS COMPLETED
3. COLUMN STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR
4. SEE ANCHOR ROD SCHEDULE AND TYPICAL ANCHOR ROD DETAIL FOR ADDITIONAL INFORMATION
5. CONTRACTOR'S OPTION TO FIELD WELD COLUMNS TO BASEPLATES FOR HEAVY BASEPLATES
6. ANCHOR ROD CONFIGURATION IS TO USE SQUARE PATTERN OUTSIDE COLUMN. IF SPECIFIED BASE PLATE SIZE DOES NOT PERMIT OUTSIDE PLACEMENT USE SQUARE PATTERN INSIDE COLUMN. USE RECTANGULAR ANCHOR ROD CONFIGURATION WHERE NOTED

2 TYPICAL BASE PLATE DETAIL
NOT TO SCALE

ANCHOR ROD SCHEDULE					
ANCHOR ROD MARK	ANCHOR RODS				REMARKS
	NUMBER	TYPE	EMBED LENGTH	WELD A	
1	4	1" DIA ASTM F1554 GR 55 (SUPP S1)	1'-3"		

NOTES:

1. SEE TYPICAL ANCHOR ROD AND BASE PLATE DETAILS
2. WHERE WELD 'A' IS NOT SHOWN, TACK-WELD AS REQUIRED FOR ERECTION

3 ANCHOR ROD SCHEDULE
NOT TO SCALE

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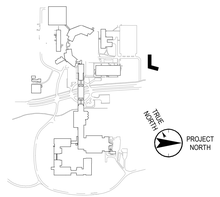
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 03/03/09

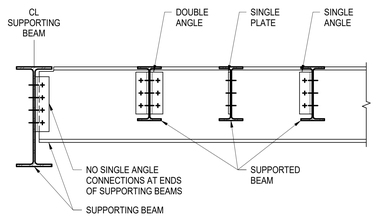
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

TYPICAL COLUMN BASE DETAILS

Scale: As indicated Floor:

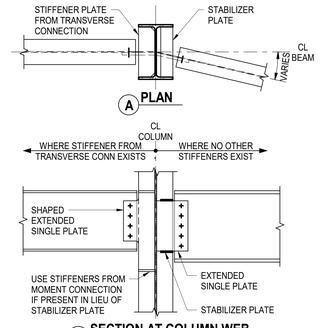
S-500



NOTES:

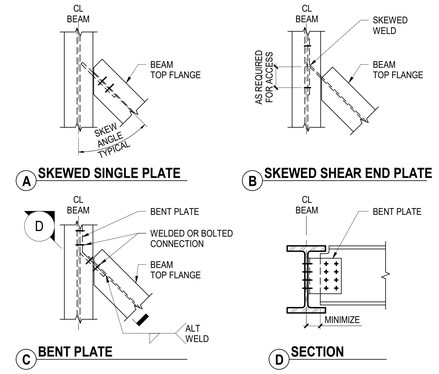
1. SUPPORTED BEAMS PRIMARILY SUPPORT DISTRIBUTED LOADS FROM SLABS OR DECKING
2. SUPPORTING BEAMS SUPPORT SIGNIFICANT POINT LOADS FROM ONE OR MORE SUPPORTED BEAMS OR FROM COLUMNS BEING TRANSFERRED. SUPPORTING BEAMS MAY BE SUPPORTED BY COLUMNS OR BY OTHER SUPPORTING BEAMS
3. FOR SHEAR CONNECTIONS AT SUPPORTED BEAM ENDS, DOUBLE ANGLE, SINGLE PLATE OR SINGLE ANGLE MAY BE USED UNLESS OTHERWISE NOTED
4. SEE TYPICAL STEEL BEAM SHEAR CONNECTIONS FOR INFORMATION NOT SHOWN

1 TYPICAL BEAM TO BEAM SHEAR CONNECTION (3 TYPES)
NOT TO SCALE



NOTES:
1. SEE TYPICAL STEEL BEAM SHEAR CONNECTIONS FOR INFORMATION NOT SHOWN

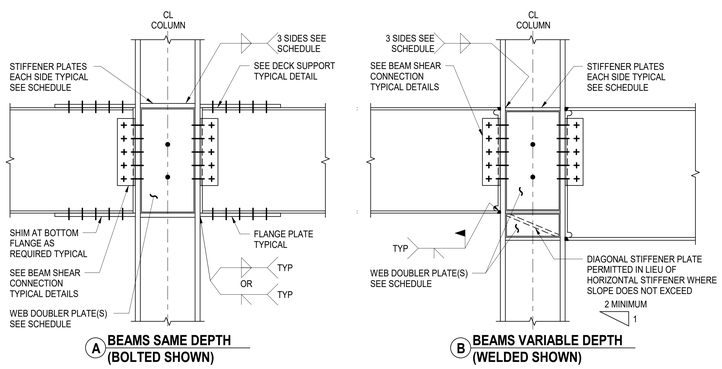
2 TYPICAL EXTENDED SINGLE PLATE BEAM TO COLUMN WEB SHEAR CONNECTION
NOT TO SCALE



NOTES:

1. SEE TYPICAL STEEL BEAM SHEAR CONNECTIONS FOR ADDITIONAL INFORMATION FOR DETAIL A.
2. DETAILS B AND C ARE CONCEPTUAL (NOT COMPLETELY DESIGNED) AND ARE INTENDED FOR FRAMING CONDITIONS OUTSIDE THE LIMITS OF COMPLETELY DESIGNED TYPICAL STEEL BEAM SHEAR CONNECTIONS IN THESE DRAWINGS

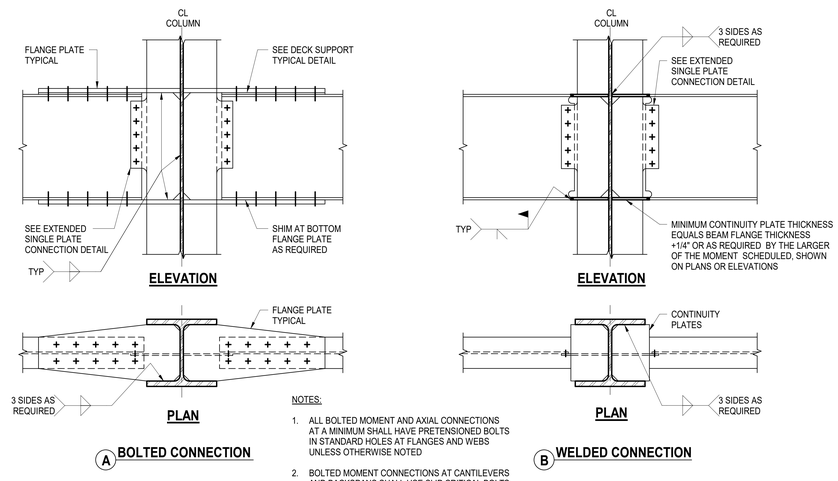
3 TYPICAL SKEWED BEAM SHEAR CONNECTION
NOT TO SCALE



NOTES:

1. ALL BOLTED MOMENT AND AXIAL CONNECTIONS AT A MINIMUM SHALL HAVE PRETENSIONED BOLTS IN STANDARD HOLES AT FLANGES AND WEBS UNLESS OTHERWISE NOTED
2. BOLTED MOMENT CONNECTIONS AT CANTILEVERS AND BACKSPANS SHALL USE SLIP CRITICAL BOLTS
3. AT CONTRACTOR'S OPTION, WEB DOUBLER PLATES CAN TERMINATE OUTSIDE STIFFENER PLATE. CONTRACTOR'S ENGINEER MUST FULLY DESIGN THE CONNECTION

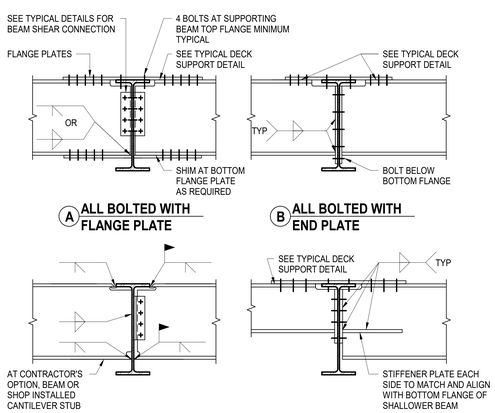
4 TYPICAL BEAM TO COLUMN FLANGE MOMENT CONNECTION - BOLTED/WELDED
NOT TO SCALE



NOTES:

1. ALL BOLTED MOMENT AND AXIAL CONNECTIONS AT A MINIMUM SHALL HAVE PRETENSIONED BOLTS IN STANDARD HOLES AT FLANGES AND WEBS UNLESS OTHERWISE NOTED
2. BOLTED MOMENT CONNECTIONS AT CANTILEVERS AND BACKSPANS SHALL USE SLIP CRITICAL BOLTS

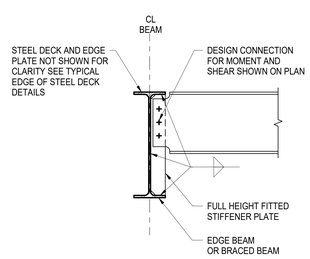
5 TYPICAL BEAM TO COLUMN WEB MOMENT CONNECTION - BOLTED / WELDED
NOT TO SCALE



NOTES:

1. ALL BOLTED MOMENT AND AXIAL CONNECTIONS AT A MINIMUM SHALL HAVE PRETENSIONED BOLTS IN STANDARD HOLES AT FLANGES AND WEBS UNLESS OTHERWISE NOTED
2. BOLTED MOMENT CONNECTIONS AT CANTILEVERS AND BACKSPANS SHALL USE SLIP CRITICAL BOLTS

6 TYPICAL BEAM TO BEAM MOMENT CONNECTION
NOT TO SCALE

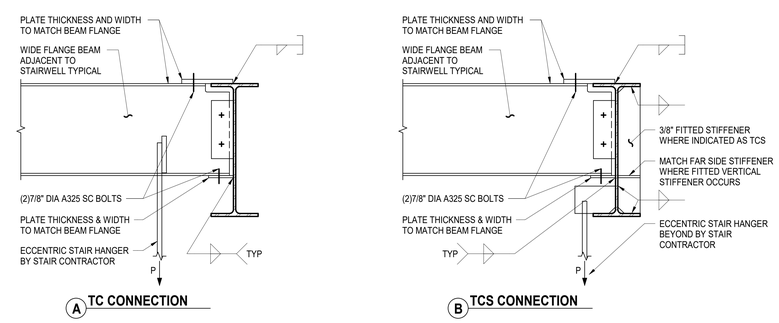


NOTES:

1. SEE PLAN FOR LOCATIONS

CT-BM-28

7 TYPICAL FULL HEIGHT FITTED STIFFENER AT EDGE BEAM OR BRACED BEAM CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. SEE TYPICAL PLAN DETAILS FOR STAIRWELLS
2. SUBMIT SHOP DRAWINGS THAT SHOW THE MAGNITUDES, DIRECTIONS, LOCATIONS, AND CONNECTION CONDITIONS OF ALL LOADS IMPOSED ON THE SUPPORTING STRUCTURE BY STAIR CONTRACTOR

CT-BM-27

8 TYPICAL TORSIONAL CONNECTION AT STAIRWELL / TC AND TCS LOCATIONS
SCALE: NOT TO SCALE

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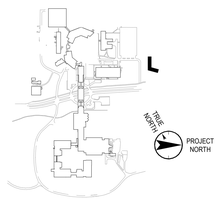
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 03/03/09

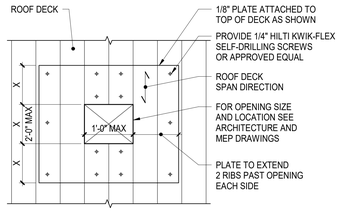
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

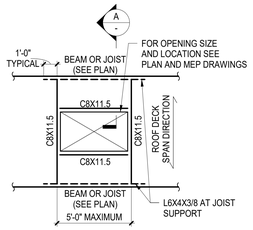
TYPICAL BEAM DETAILS

Scale: As indicated Floor:

S-501



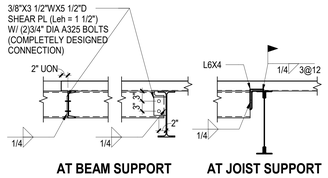
D TYPE D



F TYPE F

NOTES:

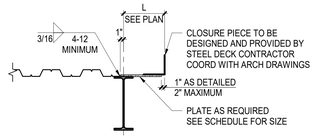
1. FOR EDGE OVERHANG GREATER THAN 2" SEE TYPICAL ROOF DECK AT EDGE
2. NO REINFORCEMENT REQUIRED IF OPENING IS 6"x6" OR SMALLER PROVIDED ONLY ONE RIB IS INTERRUPTED
3. CLUSTERED OPENINGS WITH CLEAR SPACE LESS THAN 1'-0" SHALL BE TREATED AS ONE LARGE OPENING AND PROVIDE THE REINFORCEMENT OR CHANNEL FRAMING AS PER DETAIL ABOVE
4. ATTACH DECK TO CHANNELS TYPICAL
5. TYPE D SHALL NOT BE USED TO SUPPORT MECHANICAL EQUIPMENT
6. TYPE F FRAMING SHALL BE COORDINATED WITH EQUIPMENT SUPPORT FRAMING



A SECTION

1 TYPICAL ROOF DECK AT OPENING

SCALE: NOT TO SCALE



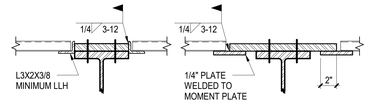
L	THICKNESS OF PLATE OR CLOSURE
≤ 1'-4"	1/4"
≤ 1'-0"	10 GAGE
≤ 0'-10"	12 GAGE

NOTES:

1. AT CONTRACTOR'S OPTION SINGLE BENT PLATE (OR EQUIV ANGLE) MAY BE USED PROVIDED IT IS FIELD INSTALLED AND ACCOMMODATES SLAB EDGE TOLERANCES

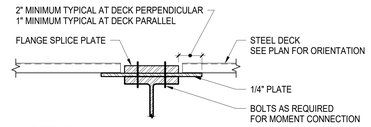
2 TYPICAL ROOF DECK AT EDGE

SCALE: NOT TO SCALE



B ALTERNATE DETAIL

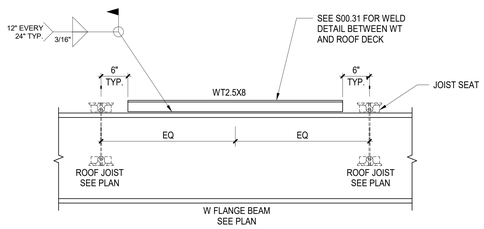
C ALTERNATE DETAIL



A DETAIL

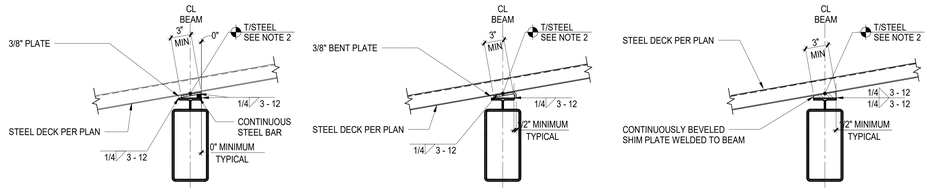
3 TYPICAL DECK SUPPORT AT MOMENT CONNECTION

SCALE: NOT TO SCALE



4 TYPICAL CONNECTION OF WT WITH WIDE FLANGE BEAM WITH JOISTS PERPENDICULAR

SCALE: 1" = 1'-0"



A CONSTANT SLOPE

B CONSTANT SLOPE - OPTION 1

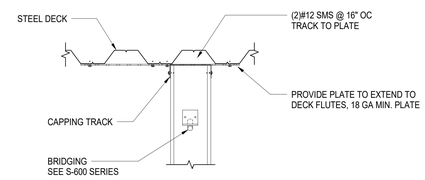
C CONSTANT SLOPE - OPTION 2

NOTES:

1. TOP OF STEEL ELEVATIONS INDICATED ON PLAN OR ELEVATION IS AT BOTTOM OF DECK AND CENTERLINE OF BEAM CONTRACTOR TO COORDINATE DETAILED TOP OF STEEL ELEVATION WITH SELECTED METHOD OF DECK SUPPORT

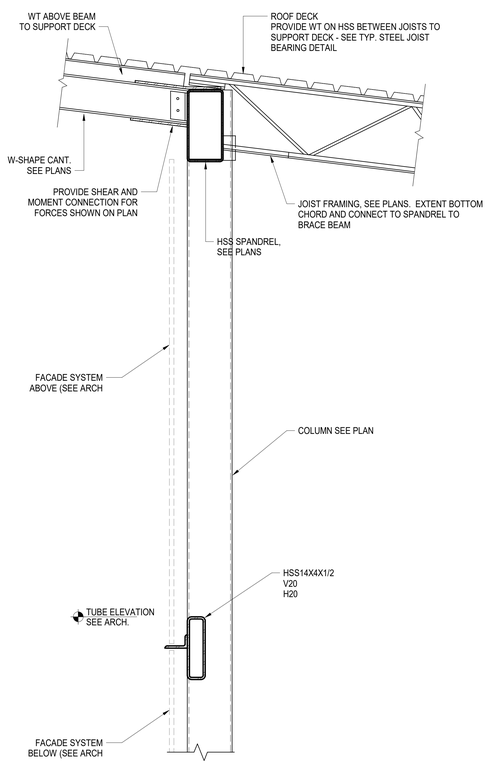
5 TYPICAL SUPPORT OF STEEL DECK INCLINED OVER BEAM

SCALE: NOT TO SCALE



6 TYPICAL DETAIL AT DECK CONNCETION TO BEARING WALL WHEN WALL IS BETWEEN FLUTES

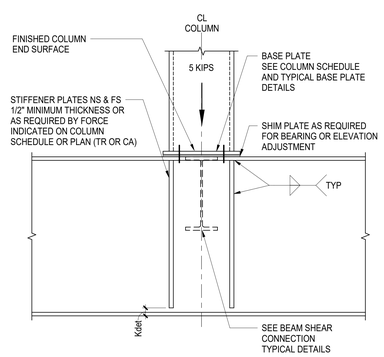
SCALE: 1 1/2" = 1'-0"



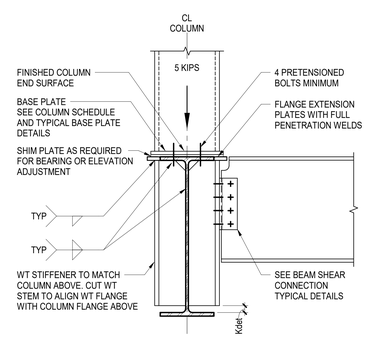
NOTE: SEE TYPICAL DETAIL FOR SUPPORT AT INCLINDED BEAM FOR ADD'L INFORMATION

7 SECTION THROUGH GRID E.1 AT ROOF OVERHANG

SCALE: 1" = 1'-0"



A COLUMN WEB PARALLEL TO BEAM WEB



B COLUMN WEB PERPENDICULAR TO BEAM WEB

ST-PM-14

8 TYPICAL COLUMN BEARING ON BEAM (COMPRESSION ONLY)

SCALE: NOT TO SCALE

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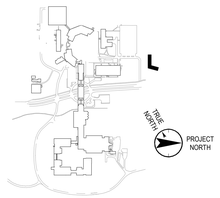
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 10/14/20

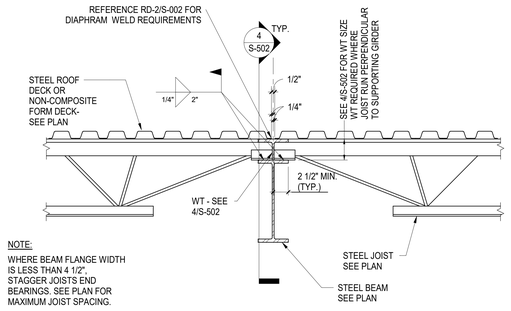
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

TYPICAL SUPERSTRUCTURE DETAILS

Scale: As indicated Floor:

S-502

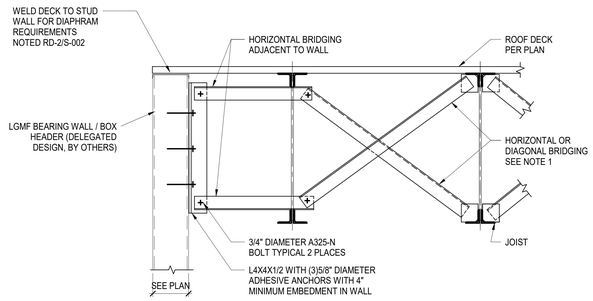


NOTE:

WHERE BEAM FLANGE WIDTH IS LESS THAN 4 1/2", STAGGER JOISTS END BEARINGS. SEE PLAN FOR MAXIMUM JOIST SPACING.

1 TYPICAL STEEL JOIST BEARING DETAIL

SCALE: 3/4" = 1'-0"

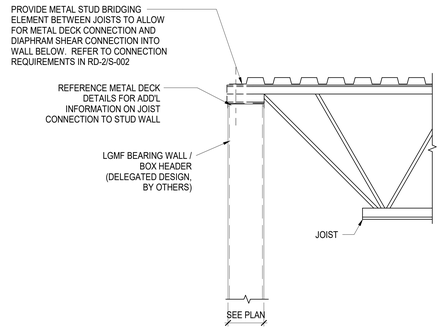


NOTES:

1. BRIDGING SHALL NOT BE CONNECTED TO JOIST WEB ELEMENTS.

2 TYPICAL JOIST BRIDGING TO BEARING WALL

SCALE: NOT TO SCALE

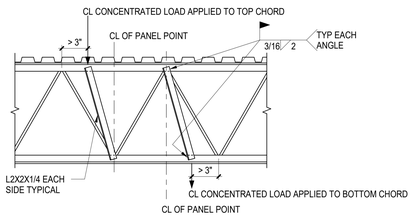


NOTES:

1. JOIST BEARING PLATE IS CENTERED ON BEARING WALL BELOW CONTRACTOR SHALL ACCOUNT FOR BEARING LOCATION IN DESIGN OF JOIST SEAT.

3 TYPICAL JOIST TO MASONRY WALL DETAIL

SCALE: NOT TO SCALE

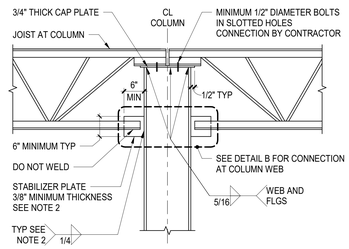


NOTES:

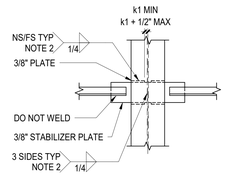
1. THE TOTAL SUPERIMPOSED LOAD ON ANY JOIST SHALL NOT EXCEED THE LOADING SHOWN ON THE STRUCTURAL DRAWINGS INCLUDING CONCENTRATED AND UNIFORM LOADS. CONTRACTOR SHALL COORDINATE ALL SUBCONTRACTORS HANGING METHODS, LOCATIONS, AND LOADS WITH LIMITS PROVIDED IN STRUCTURAL DRAWINGS.
2. HANGING CONCENTRATED LOADS SHALL BE APPLIED CONCENTRIC TO THE JOIST CHORD.
3. JOIST REINFORCEMENT IS NOT REQUIRED FOR CONCENTRATED LOADS LESS THAN 100 POUNDS.
4. CONCENTRATED LOADS LOCATED WITHIN 3" OF THE PANEL POINT CAN BE CONSIDERED TO ACT AT THE PANEL POINT.
5. FOR CONCENTRATED LOADS THAT DO NOT MEET THE CRITERIA OF NOTES 3 AND 4, PROVIDE JOIST REINFORCEMENT PER THIS DETAIL. TOTAL LOAD APPLIED TO THE JOIST MUST SATISFY NOTE 1.

4 TYPICAL JOIST REINFORCEMENT AT CONCENTRATED LOAD

SCALE: NOT TO SCALE



A SECTION



B CONNECTION AT COLUMN WEB

NOTES:

1. PROVIDE SIMILAR CONNECTION AT HSS COLUMNS.
2. IF TEMPORARY ERECTION BRACING IS ATTACHED TO THE BOTTOM CHORD STABILIZER PLATE, THE CONNECTION OF THE STABILIZER PLATE TO THE COLUMN MUST BE DESIGNED BY THE CONTRACTOR FOR THE ERECTION STABILITY LOADS AND THE REQUIRED PLATE AND WELDS MAY EXCEED THAT SHOWN IN THIS DETAIL.

5 TYPICAL JOIST TO TOP OF COLUMN DETAILS

SCALE: NOT TO SCALE

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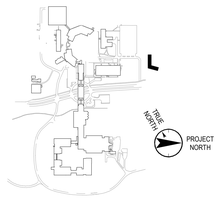


No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 03/03/22

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

TYPICAL JOIST DETAILS

Scale: As indicated Floor:

S-503

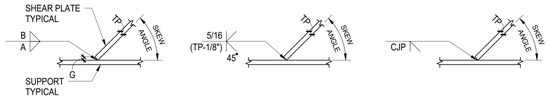
FILE: BIM 360:/006.3608.000 - Regeneron_Day Care Facility_Tarrytown/N21270.00-Regeneron_R20.rvt PLOTTED ON 03/03/22

NOTES:

1. ALL SHEAR CONNECTIONS PROVIDED ON THIS SHEET ARE COMPLETELY DESIGNED REFER TO STRUCTURAL GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
2. ALL CONNECTION CAPACITIES PROVIDED IN SCHEDULES ARE STRENGTH LEVEL PER AISC-LOAD AND RESISTANCE FACTOR DESIGN. SELECT CONNECTION CAPACITY BASED ON FACTORED SHEAR REACTIONS SHOWN ON PLAN AND REQUIREMENTS OF DETAILS.
3. SINGLE PLATE, SINGLE ANGLE, OR DOUBLE ANGLE SHEAR ONLY CONNECTIONS MAY BE USED AT THE CONTRACTOR'S OPTION UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DOCUMENTS
4. ALL CONNECTIONS SHOWN ARE DESIGNED UTILIZING BOLTS INDICATED
5. THE FOLLOWING MINIMUM BOLT EDGE DISTANCES AND SPACING SHALL BE USED:

   HORIZONTAL EDGE DISTANCE = 2 x BOLT DIAMETER
   VERTICAL EDGE DISTANCE = 1-1/2"
   SPACING = 3"
6. ALL CONNECTIONS SHOWN ARE DESIGNED UTILIZING PLATE MATERIAL CONFORMING TO ASTM A572 OR A529 GRADE 50
7. PROVIDE STANDARD HOLES IN BEAM. STANDARD OR HORIZONTAL SHORT SLOTTED HOLES ARE PERMITTED IN THE SINGLE PLATE
8. TYPICAL SINGLE PLATE SHEAR CONNECTION DETAILS SHOWN ARE FOR PERPENDICULAR FRAMING CONDITIONS.
   AT SKEWED FRAMING CONDITIONS, PROVIDE WELDS AS INDICATED IN TYPICAL SKEWED SINGLE PLATE WELD DETAILS.

1 SINGLE PLATE SHEAR CONNECTION NOTES



A FILLET WELD B PJP WELD C CJP WELD

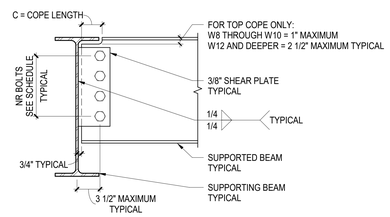
NOTES:

1. DETAIL NOTATIONS:
   TP INDICATES THICKNESS OF PLATE
   D INDICATES FILLET WELD SIZE AS SPECIFIED FOR PERPENDICULAR FRAMING CONDITION (OTHER DETAILS THIS SHEET)
   G INDICATES GAP IF SQUARE CUT PLATE IS USED
2. FILLET WELDS:
   FOR G ≤ 3/16" USE SQUARE CUT PLATE
   FOR G > 3/16", BEVEL PLATE SUCH THAT G = 0 (TOLERANCE = +1/16", -0)
   FOR (D + G) > 3/4", BEVEL PLATE SUCH THAT G = 0 (TOLERANCE = +1/16", -0)
3. PJP AND CJP WELDS:
   WELD PREPARATIONS NOT SHOWN

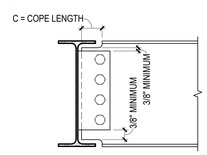
SKEWED SINGLE PLATE WELD SCHEDULE

SKEW ANGLE (DEGREES)	WELD A	WELD B
< 30	CJP WELD	
> 30 - 45	PJP WELD	
> 45 - 50	D + 1/8"	(D*1.31) + G
> 50 - 55	D + 1/8"	(D*1.28) + G
> 55 - 60	D + 1/8"	(D*1.25) + G
> 60 - 65	D	(D*1.23) + G
> 65 - 70	D	(D*1.19) + G
> 70 - 75	D	(D*1.16) + G
> 75 - 80	D	(D*1.12) + G
> 80 - 85	D	(D*1.08) + G
> 85 - 90	D	D + G

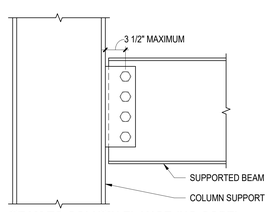
2 TYPICAL SKEWED SINGLE PLATE WELD DETAILS
NOT TO SCALE



A TOP COPE ONLY (TC)



B TOP AND BOTTOM COPE (TBC)
SEE NOTE 3



C BEAM TO COLUMN FLANGE (NO COPE)

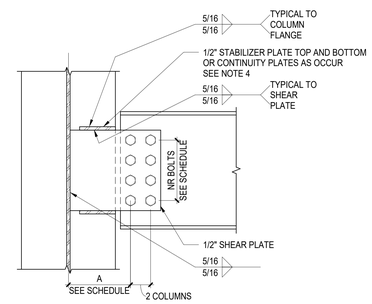
TYPE SP1 SINGLE PLATE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE		NR BOLTS	NO COPE	CONNECTION CAPACITY (KIPS) C = 4" TC	C = 4" TBC	C = 6" TC	C = 6" TBC	C = 8" TC	C = 8" TBC
W8	x10	2	23	20	9	14	6	11	4
	x13-24	2	23	23	13	19	9	14	7
	x28+	2	23	23	16	23	11	20	9
W10	x12	2	23	23	11	23	7	19	5
	x15-26	2	23	23	13	23	9	23	7
	x30+	2	23	23	17	23	12	23	9
W12	x14-16	2	23	23	11	23	8	20	6
		3	42	40	25	28	16	20	11
	x19-30	2	23	23	13	23	9	23	7
		3	42	42	30	37	20	28	14
	x35+	2	23	23	17	23	12	23	9
		3	42	42	38	42	27	41	20
W14	x22-30	3	42	42	29	42	19	37	14
	x34-48	3	42	42	36	42	26	42	19
	x53+	3	42	42	42	42	33	42	26
W16	x26-31	3	42	42	32	42	22	42	16
		4	62	62	57	62	37	54	26
	x36-40	3	42	42	38	42	27	42	20
		4	62	62	62	62	47	62	33
	x45+	3	42	42	42	42	31	42	24
		4	62	62	62	62	55	62	42
W18	x35-50	3	42	42	38	42	27	42	20
		4	62	62	62	62	48	62	34
		5	81	81	81	81	73	81	52
	x55+	3	42	42	42	42	35	42	27
		4	62	62	62	62	62	62	48
		5	81	81	81	81	81	81	75
W21	x44-63	4	62	62	62	62	56	62	43
		5	81	81	81	81	81	81	64
		6	85	85	85	85	85	85	85
	x68+	4	62	62	62	62	62	62	53
		5	81	81	81	81	81	81	81
		6	85	85	85	85	85	85	85
W24 - 4 MIN		4	62	62	62	62	62	62	49
		5	81	81	81	81	81	81	76
		6	85	85	85	85	85	85	85
W27, W30 - 5 MIN		5	81	81	81	81	81	81	81
		6	85	85	85	85	85	85	85
		7	104	104	104	104	104	104	104
		8	123	123	123	123	123	123	123
W33-W40 - 7 MIN		7	104	104	104	104	104	104	104
		8	123	123	123	123	123	123	123
		9	142	142	142	142	142	142	142
		10	161	161	161	161	161	161	161

NOTES:

1. SEE TYPICAL SINGLE PLATE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SELECT CONNECTION CAPACITY BASED ON COPED CONDITION OF BEAM
3. TBC VALUES IN TABLE ALSO APPLY TO BOTTOM COPE ONLY CONDITION

3 TYPICAL SINGLE PLATE SHEAR CONNECTION AT BEAM OR COLUMN FLANGE (TYPE SP1)
NOT TO SCALE



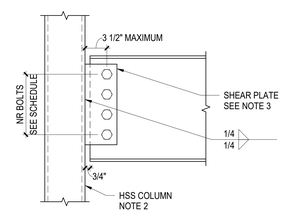
TYPE SP2 SINGLE PLATE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE	NR BOLTS	CONNECTION CAPACITY (KIPS) A ≤ 6"	A ≤ 8"	A ≤ 10 1/2"	A ≤ 12"
W8 - W12	2	13	10	8	8
W12 - W18	3	30	24	20	18
W16 - W24	4	54	44	36	32
W18 - W30	5	80	66	54	48
W21 - W40	6	110	91	75	68
W27 - W44	7	142	120	99	89
W30 - W44	8	177	151	125	114
W33 - W44	9	214	184	154	140
W36 - W44	10	251	219	186	169

NOTES:

1. SEE TYPICAL SINGLE PLATE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SELECT CONNECTION CAPACITY BASED ON DETAILING DIMENSION "A"
3. MINIMUM COLUMN WEB THICKNESS SHALL BE 0.29" (INCLUDES: W8x31+, W10x33+, W12x40+, W14x43+)
4. STABILIZER PLATES ONLY REQUIRED FOR SHADED CAPACITY CASES
5. SEE TYPICAL DETAIL FOR ADDITIONAL INFORMATION ON SINGLE PLATE CONNECTIONS TO COLUMN WEB WHEN STIFFENERS FROM OTHER CONNECTIONS ARE PRESENT

4 TYPICAL SINGLE PLATE SHEAR CONNECTION AT COLUMN WEB (TYPE SP2)
NOT TO SCALE



TYPE SP3 SINGLE PLATE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE	NR BOLTS	CONNECTION CAPACITY (KIPS) HSS WALL THICKNESS ≥ 3/8" SHEAR PLATE THICKNESS = 3/8"	HSS WALL THICKNESS = 1/4" or 5/16" SHEAR PLATE THICKNESS = 1/4"
W8 - W12	2	23	23
W12 - W18	3	42	42
W16 - W24	4	62	62
W18 - W30	5	81	78
W21 - W40	6	85	85
W27 - W44	7	104	104
W30 - W44	8	123	123
W33 - W44	9	142	142
W36 - W44	10	161	161

NOTES:

1. SEE TYPICAL SINGLE PLATE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. DETAIL APPLIES TO SQUARE, RECTANGULAR, OR ROUND HSS COLUMNS
3. SINGLE PLATE THICKNESS BASED ON HSS WALL THICKNESS PER SCHEDULE

5 TYPICAL SINGLE PLATE SHEAR CONNECTION AT HSS COLUMN (TYPE SP3)
NOT TO SCALE

REGENERON
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Building #17
Campus Expansion Child Day-care Center

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Project No. B17-DAYCARE

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Landscape Architect
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New York, NY 10001
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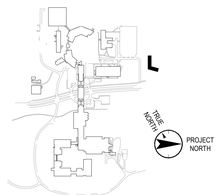
(212) 479-5444 Fax

Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 09/13/18

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: TLL
TYPICAL STEEL BEAM SHEAR CONNECTIONS 3/4" DIAMETER BOLTS

Scale: As indicated Floor:

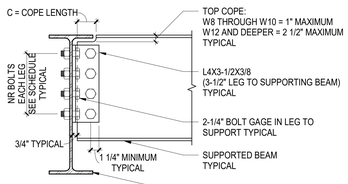
S-510

FILE: BIM 360://006.3608.000 - Regeneron_Day Care Facility Tarrytown/N21270.00-Regeneron_R20.rvt PLOTTED ON 09/13/18

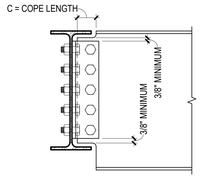
NOTES:

1. ALL SHEAR CONNECTIONS PROVIDED ON THIS SHEET ARE COMPLETELY DESIGNED REFER TO STRUCTURAL GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
2. ALL CONNECTION CAPACITIES PROVIDED IN SCHEDULES ARE STRENGTH LEVEL PER AISC-LOAD AND RESISTANCE FACTOR DESIGN. SELECT CONNECTION CAPACITY BASED ON FACTORED SHEAR REACTIONS SHOWN ON PLAN AND REQUIREMENTS OF DETAILS
3. SINGLE PLATE, SINGLE ANGLE, OR DOUBLE ANGLE CONNECTIONS MAY BE USED AT THE CONTRACTOR'S OPTION UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DOCUMENTS
4. ALL CONNECTION SHOWN ARE DESIGNED UTILIZING BOLTS INDICATED
5. THE FOLLOWING MINIMUM BOLT EDGE DISTANCES AND SPACING SHALL BE USED:
   HORIZONTAL EDGE DISTANCE = 1-1/2" UON
   VERTICAL EDGE DISTANCE = 1-1/2"
   SPACING = 3"
6. ALL CONNECTIONS SHOWN ARE DESIGNED UTILIZING ANGLE MATERIAL CONFORMING TO ASTM A572 OR A529 GRADE 50
7. WHERE SINGLE ANGLE OR DOUBLE ANGLE CONNECTIONS ARE ALIGNED EACH SIDE OF THE SUPPORTING BEAM WEB (SHARED BOLTS), MINIMUM SUPPORTING BEAM WEB THICKNESS SHALL BE 0.25" FOR W8-W14 CONNECTIONS AND 0.35" FOR W16 AND DEEPER CONNECTIONS. CONNECTION SHALL BE DETAILED TO PERMIT ERECTION OF BEAMS EACH SIDE PER OSHA STANDARDS
8. NOTATIONS:
   SSLT INDICATES SHORT SLOTTED HOLES TRANSVERSE TO LINE OF FORCE

1 ANGLE SHEAR CONNECTION NOTES



A TOP COPE ONLY (TC)



B TOP AND BOTTOM COPE (TBC)
SEE NOTE 3

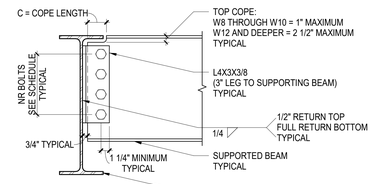
TYPE L1 SINGLE ANGLE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE		NR BOLTS	CONNECTION CAPACITY (KIPS)						
			NO COPE	C = 4"		C = 6"		C = 8"	
				TC	TBC	TC	TBC	TC	TBC
W8	x10	2	18	18	9	14	6	11	4
	x13-24	2	18	18	13	18	9	14	7
	x28+	2	18	18	16	18	11	18	9
W10	x12	2	18	18	11	18	7	18	5
	x15-26	2	18	18	13	18	9	18	7
	x30+	2	18	18	17	18	12	18	9
W12	x14-16	2	18	18	11	18	8	18	6
		3	33	33	25	28	16	20	11
	x19-30	2	18	18	13	18	9	18	7
		3	33	33	30	33	20	28	14
	x35+	2	18	18	17	18	12	18	9
		3	33	33	33	33	27	33	20
W14	x22-30	3	33	33	29	33	19	33	14
	x34-48	3	33	33	33	33	26	33	19
	x53+	3	33	33	33	33	33	33	26
W16	x26-31	3	36	36	32	36	22	36	16
		4	55	55	55	55	37	54	26
	x36-40	3	36	36	36	36	27	36	20
		4	55	55	55	55	47	55	33
	x45+	3	36	36	36	36	31	36	24
		4	55	55	55	55	55	55	42
W18	x35-50	3	36	36	36	36	27	36	20
		4	55	55	55	55	48	55	34
		5	74	74	74	74	73	74	52
	x55+	3	36	36	36	36	35	36	27
		4	55	55	55	55	55	55	48
		5	74	74	74	74	74	74	74
W21, W24 - 4 MIN		4	55	55	55	55	55	55	43
W27, W30 - 5 MIN		5	74	74	64	74	64	74	64
W33-W40 - 7 MIN		6	92	92	91	92	91	92	91
		7	107	107	107	107	107	107	107
		8	123	123	123	123	123	123	123
		9	138	138	138	138	138	138	138
		10	154	154	154	154	154	154	154

NOTES:

1. SEE TYPICAL ANGLE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SELECT CONNECTION CAPACITY BASED ON COPED CONDITION OF BEAM
3. TBC VALUES IN TABLE ALSO APPLY TO BOTTOM COPE ONLY CONDITION
4. SSLT HOLES IN ANGLE LEG TO SUPPORTED BEAM, STANDARD HOLES IN ANGLE LEG TO SUPPORT

2 TYPICAL SINGLE ANGLE SHEAR CONNECTION AT BEAM (TYPE L1) - BOLTED-BOLTED
NOT TO SCALE



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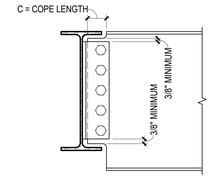

B TOP AND BOTTOM COPE (TBC)
SEE NOTE 3

TYPE L2 SINGLE ANGLE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE		NR BOLTS	CONNECTION CAPACITY (KIPS)						
			NO COPE	C = 4"		C = 6"		C = 8"	
				TC	TBC	TC	TBC	TC	TBC
W8	x10	2	25	20	9	14	6	11	4
	x13-24	2	32	27	13	19	9	14	7
	x28+	2	34	34	16	26	11	20	9
W10	x12	2	28	28	11	24	7	19	5
	x15-26	2	32	32	13	30	9	23	7
	x30+	2	34	34	17	34	12	34	9
W12	x14-16	2	30	29	11	28	8	20	6
		3	47	40	25	28	16	20	11
	x19-30	2	32	32	13	32	9	28	7
		3	50	49	30	37	20	28	14
	x35+	2	34	34	17	34	12	34	9
		3	54	54	38	54	27	41	20
W14	x22-30	3	50	48	29	48	19	37	14
	x34-48	3	53	53	36	53	26	51	19
	x53+	3	54	54	47	54	33	54	26
W16	x26-31	3	51	51	32	51	22	51	16
		4	69	67	57	67	37	54	26
	x36-40	3	54	54	38	54	27	54	20
		4	72	72	67	72	47	70	33
	x45+	3	54	54	44	54	31	54	24
		4	72	72	72	72	55	72	42
W18	x35-50	3	54	54	38	54	27	54	20
		4	72	72	68	72	48	72	34
		5	89	89	89	89	73	88	52
	x55+	3	54	54	50	54	35	54	27
		4	72	72	72	72	62	72	48
		5	89	89	89	89	89	89	75
W21, W24 - 4 MIN		4	72	72	72	72	56	72	43
W27, W30 - 5 MIN		5	89	89	64	89	64	89	64
W33-W40 - 7 MIN		6	107	107	91	107	91	107	91
		7	125	125	125	125	125	125	125
		8	143	143	143	143	143	143	143
		9	161	161	161	161	161	161	161
		10	179	179	179	179	179	179	179

NOTES:

1. SEE TYPICAL ANGLE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SELECT CONNECTION CAPACITY BASED ON COPED CONDITION OF BEAM
3. TBC VALUES IN TABLE ALSO APPLY TO BOTTOM COPE ONLY CONDITION
4. SSLT HOLES IN ANGLE LEG TO SUPPORTED BEAM, STANDARD HOLES IN ANGLE LEG TO SUPPORT

3 TYPICAL SINGLE ANGLE SHEAR CONNECTION AT BEAM (TYPE L2) - BOLTED-WELDED
NOT TO SCALE

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Mount Pleasant, NY 10591

Project No. B17-DAYCARE

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(914) 273-2102 Fax

Landscape Architect

Langan
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
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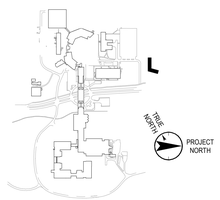
(212) 479-5444 Fax

Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 09/19/18

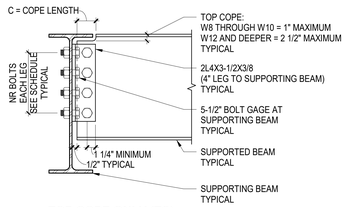
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: TLL

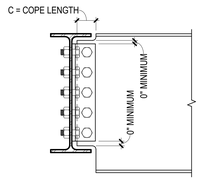
TYPICAL STEEL BEAM SHEAR CONNECTIONS 3/4" DIAMETER BOLTS

Scale: NOT TO SCALE Floor:

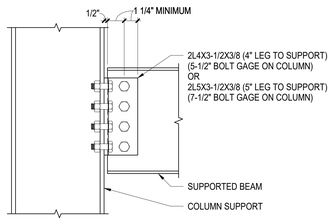
S-511



A TOP COPE ONLY (TC)



B TOP AND BOTTOM COPE (TBC)
SEE NOTE 3



C BEAM TO COLUMN FLANGE (NO COPE)

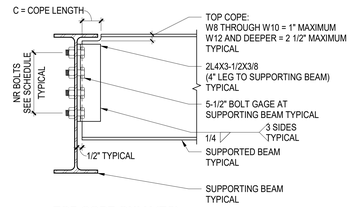
TYPE 2L1 DOUBLE ANGLE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE		NR BOLTS	CONNECTION CAPACITY (KIPS)						
			NO COPE	C = 4"		C = 6"		C = 8"	
				TC	TBC	TC	TBC	TC	TBC
W8	x10	2	25	20	9	14	6	11	4
	x13-24	2	34	27	13	19	9	14	7
	x28+	2	43	37	16	26	11	20	9
W10	x12	2	28	28	11	24	7	19	5
	x15-26	2	34	34	13	30	9	23	7
	x30+	2	44	44	17	44	12	37	9
W12	x14-16	2	30	30	11	28	8	20	6
		3	48	40	25	28	16	20	11
	x19-30	2	35	35	13	35	9	28	7
		3	56	49	30	37	20	28	14
	x35+	2	44	44	17	44	12	41	9
		3	66	65	38	54	27	41	20
W14	x22-30	3	55	53	29	49	19	37	14
	x34-48	3	66	66	36	66	26	51	19
	x53+	3	66	66	47	66	33	66	26
W16	x26-31	3	59	58	32	58	22	54	16
		4	81	71	57	71	37	54	26
	x36-40	3	70	68	38	68	27	68	20
		4	96	85	67	85	47	70	33
	x45+	3	82	80	44	80	31	80	24
		4	112	101	78	101	55	85	42
W18	x35-50	3	71	69	38	69	27	69	20
		4	98	88	68	88	48	88	34
		5	124	95	93	95	73	88	52
	x55+	3	92	90	50	90	35	90	27
		4	123	115	89	115	62	115	48
		5	154	128	121	128	98	126	75
W21	x44-63	4	114	103	80	103	56	103	43
		5	145	125	109	125	88	125	64
		6	175	133	131	133	126	133	91
	x68+	4	123	123	98	123	69	123	53
		5	154	153	134	153	108	153	83
		6	184	168	160	168	155	168	119
W24 - 4 MIN		4	123	116	90	116	63	116	49
W27, W30 - 5 MIN		5	154	141	123	141	99	141	76
W33-W40 - 7 MIN		6	184	165	147	165	142	165	108
		7	215	215	200	215	200	215	174
		8	246	246	234	246	234	246	232
		9	276	276	276	276	276	276	276
		10	307	307	307	307	307	307	307

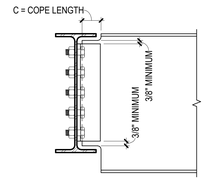
NOTES:

1. SEE TYPICAL ANGLE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SELECT CONNECTION CAPACITY BASED ON COPED CONDITION OF BEAM
3. TBC VALUES IN TABLE ALSO APPLY TO BOTTOM COPE ONLY CONDITION
4. SSLT HOLES IN ANGLE LEG TO SUPPORT
5. MINIMUM COLUMN FLANGE WIDTH SHALL BE 8" (INCLUDES: W10x33+, W12x40+, W14x43+)

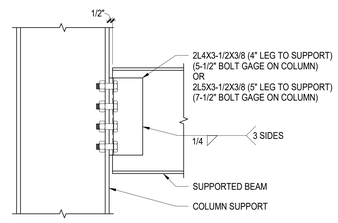
1 TYPICAL DOUBLE ANGLE SHEAR CONNECTION AT BEAM OR COLUMN FLANGE (TYPE 2L1) - BOLTED-BOLTED
NOT TO SCALE



A TOP COPE ONLY (TC)



B TOP AND BOTTOM COPE (TBC)
SEE NOTE 3



C BEAM TO COLUMN FLANGE (NO COPE)

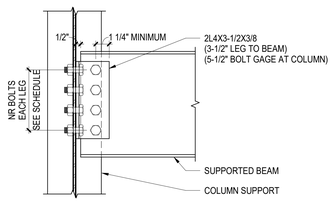
TYPE 2L2 DOUBLE ANGLE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE		NR BOLTS	CONNECTION CAPACITY (KIPS)						
			NO COPE	C = 4"		C = 6"		C = 8"	
				TC	TBC	TC	TBC	TC	TBC
W8	x10	2	44	20	9	14	6	11	4
	x13-24	2	44	27	13	19	9	14	7
	x28+	2	44	37	16	26	11	20	9
W10	x12	2	44	34	11	24	7	19	5
	x15-26	2	44	43	13	30	9	23	7
	x30+	2	44	44	17	44	12	37	9
W12	x14-16	2	44	40	11	28	8	20	6
		3	66	40	25	28	16	20	11
	x19-30	2	44	44	13	37	9	28	7
		3	66	52	30	37	20	28	14
	x35+	2	44	44	17	44	12	41	9
		3	66	66	38	54	27	41	20
W14	x22-30	3	66	66	29	49	19	37	14
	x34-48	3	66	66	36	66	26	51	19
	x53+	3	66	66	47	66	33	66	26
W16	x26-31	3	92	92	32	72	22	54	16
		4	123	99	57	72	37	54	26
	x36-40	3	92	92	38	91	27	70	20
		4	123	119	67	91	47	70	33
	x45+	3	92	92	44	92	31	85	24
		4	123	123	78	111	55	85	42
W18	x35-50	3	92	92	38	92	27	88	20
		4	123	123	68	114	48	88	34
		5	154	137	107	114	73	88	52
	x55+	3	92	92	50	92	35	92	27
		4	123	123	89	123	62	123	48
		5	154	154	139	154	98	126	75
W21	x44-63	4	123	123	80	123	56	123	43
		5	154	154	124	154	88	143	64
		6	184	184	179	184	126	143	91
	x68+	4	123	123	98	123	69	123	53
		5	154	154	153	154	108	154	83
		6	184	184	184	184	155	184	119
W24 - 4 MIN		4	123	123	90	123	63	123	49
W27, W30 - 5 MIN		5	154	154	140	154	99	154	76
W33-W40 - 7 MIN		6	184	184	184	184	142	184	108
		7	215	215	215	215	215	215	174
		8	246	246	246	246	246	246	232
		9	276	276	276	276	276	276	276
		10	307	307	307	307	307	307	307

NOTES:

1. SEE TYPICAL ANGLE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SELECT CONNECTION CAPACITY BASED ON COPED CONDITION OF BEAM
3. TBC VALUES IN TABLE ALSO APPLY TO BOTTOM COPE ONLY CONDITION
4. SSLT HOLES IN ANGLE LEG TO SUPPORT
5. MINIMUM COLUMN FLANGE WIDTH SHALL BE 8" (INCLUDES: W10x33+, W12x40+, W14x43+)

2 TYPICAL DOUBLE ANGLE SHEAR CONNECTION AT BEAM OR COLUMN FLANGE (TYPE 2L2) - BOLTED-WELDED
NOT TO SCALE



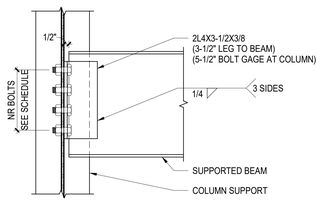
TYPE 2L3 DOUBLE ANGLE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE	NR BOLTS	CONNECTION CAPACITY (KIPS)
W8 - W12	2	25
W12	3	48
W14 - W18	3	55
W16 - W24	4	81
W18 - W30	5	124
W21 - W40	6	153
W27 - W44	7	178
W30 - W44	8	204
W33 - W44	9	229
W36 - W44	10	254

NOTES:

1. SEE TYPICAL ANGLE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SSLT HOLES IN ANGLE LEG TO COLUMN SUPPORT
3. PROVIDE ERECTION SEAT PER FABRICATOR WHEN SAME DEPTH CONNECTION IS REQUIRED ON BOTH SIDES AND BOLT STAGGERING IS NOT POSSIBLE
4. MINIMUM COLUMN WEB THICKNESS SHALL BE 0.29" (INCLUDES: W8x31+, W10x33+, W12x40+, W14x43+)

3 TYPICAL DOUBLE ANGLE SHEAR CONNECTION AT COLUMN WEB (TYPE 2L3) - BOLTED-BOLTED
NOT TO SCALE



TYPE 2L4 DOUBLE ANGLE SHEAR CONNECTION SCHEDULE:
3/4" DIAMETER ASTM F3125-N BOLTS GRADES A325 OR F1852

BEAM SIZE	NR BOLTS	CONNECTION CAPACITY (KIPS)
W8 - W12	2	45
W12	3	76
W14 - W18	3	76
W16 - W24	4	102
W18 - W30	5	127
W21 - W40	6	153
W27 - W44	7	178
W30 - W44	8	204
W33 - W44	9	229
W36 - W44	10	254

NOTES:

1. SEE TYPICAL ANGLE SHEAR CONNECTION GENERAL NOTES FOR ADDITIONAL INFORMATION
2. SSLT HOLES IN ANGLE LEG TO COLUMN SUPPORT
3. PROVIDE ERECTION SEAT PER FABRICATOR WHEN SAME DEPTH CONNECTION IS REQUIRED ON BOTH SIDES AND BOLT STAGGERING IS NOT POSSIBLE
4. MINIMUM COLUMN WEB THICKNESS SHALL BE 0.29" (INCLUDES: W8x31+, W10x33+, W12x40+, W14x43+)

4 TYPICAL DOUBLE ANGLE SHEAR CONNECTION AT COLUMN WEB (TYPE 2L4) - BOLTED-WELDED
NOT TO SCALE

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Project No. B17-DAYCARE

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Structural Engineer

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(914) 273-2102 Fax

Landscape Architect

Langan
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
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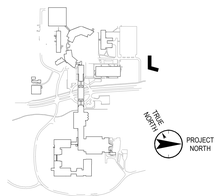
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 08/07/20

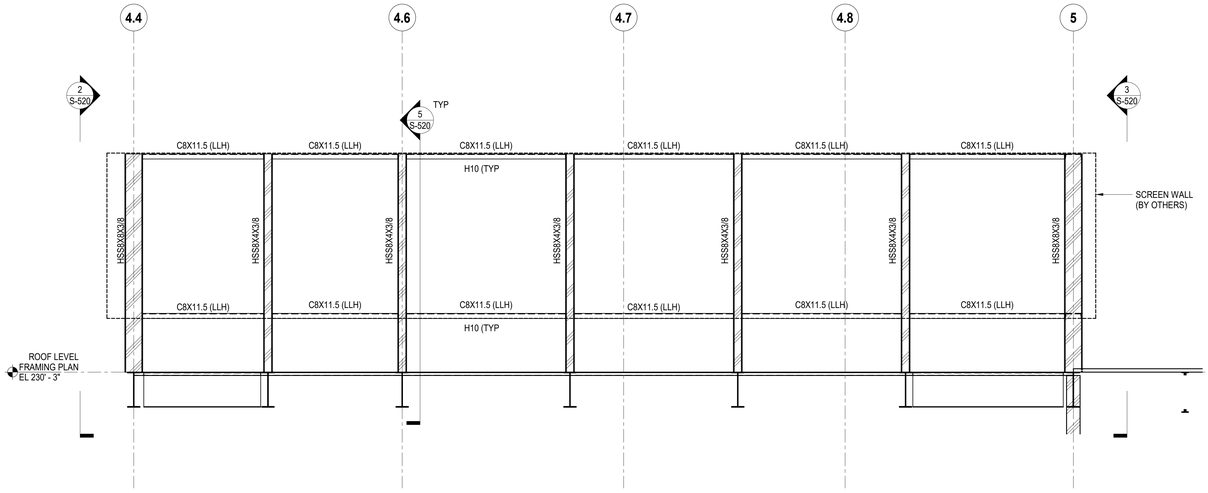
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

TYPICAL STEEL BEAM SHEAR CONNECTIONS 3/4" DIAMETER BOLTS

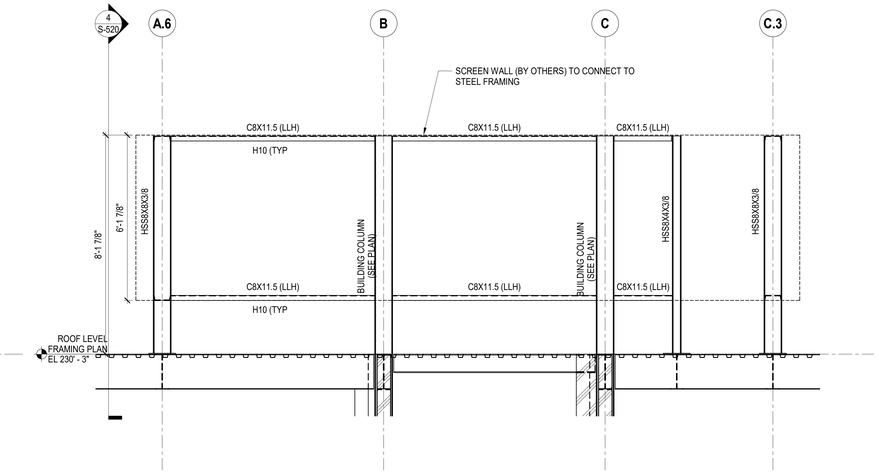
Scale: NOT TO SCALE Floor:

S-512



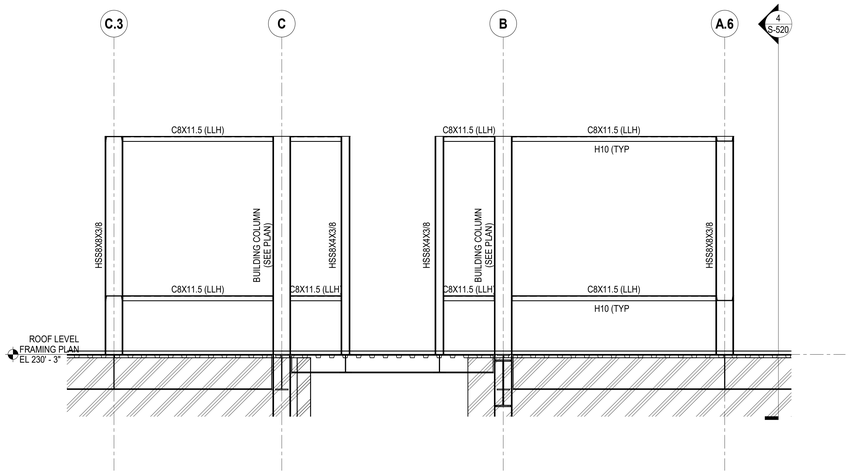
1 SCREEN WALL ELEVATION

SCALE: 1/2" = 1'-0"



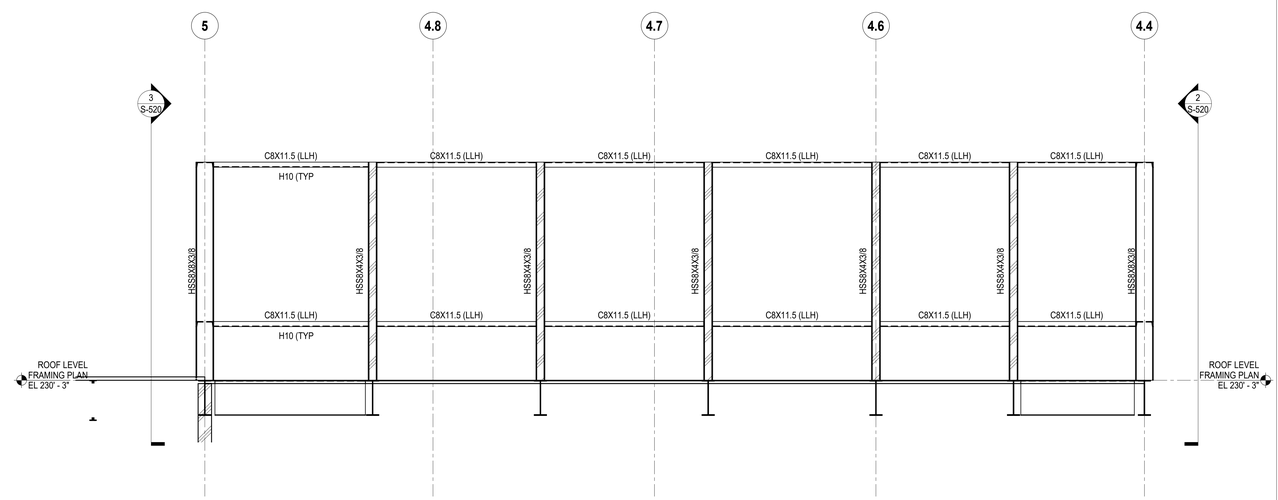
2 SCREEN WALL ELEVATION II

SCALE: 1/2" = 1'-0"



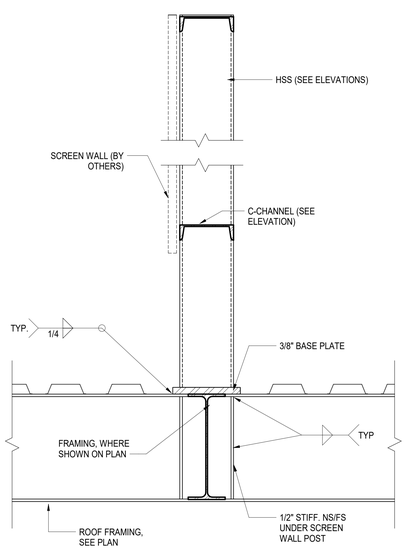
3 SCREEN WALL ELEVATION III

SCALE: 1/2" = 1'-0"



4 SCREEN WALL ELEVATION IV

SCALE: 1/2" = 1'-0"



REF. TO DETAIL 8/S-502 FOR ADD'L DETAILS. BASE CONNECTION OF POST ABOVE REQUIRED TO V5, M10, P5

5 SECTION THRU. SCREEN WALL

SCALE: 1 1/2" = 1'-0"

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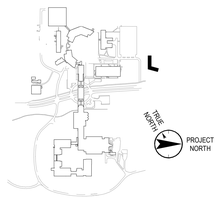
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 05/18/22

Professional Seal and Signature

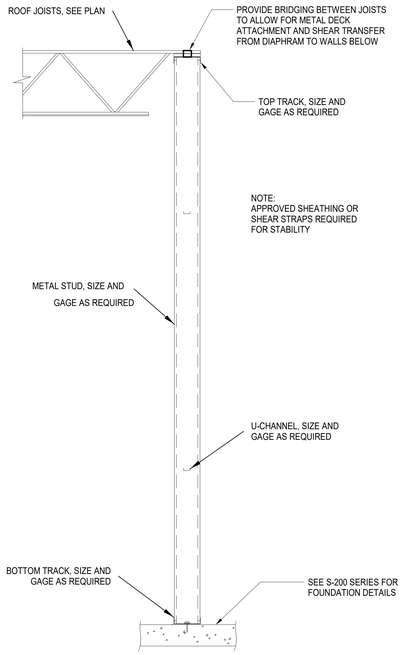
Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

SCREEN WALL SECTIONS AND DETAILS

Scale: As indicated Floor:

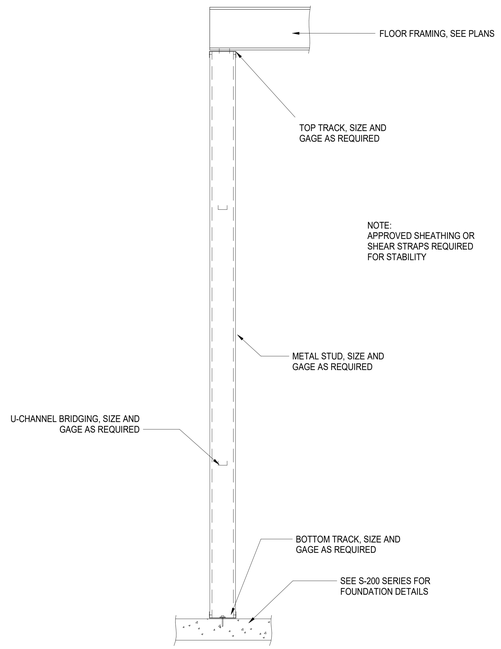
S-520

FILE: BIM 360:/006.3608.000 - Regeneron_Day Care Facility Tarrytown/N2 2270.00-Regeneron_R20.rvt PLOTTED ON 05/18/22



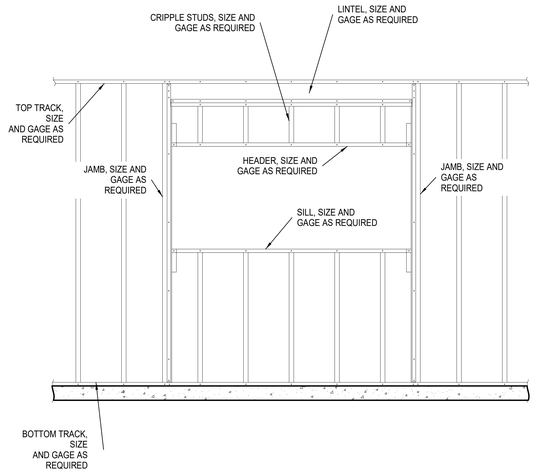
1 LOAD BEARING WALL WITH JOIST

SCALE: 1 1/2" = 1'-0"



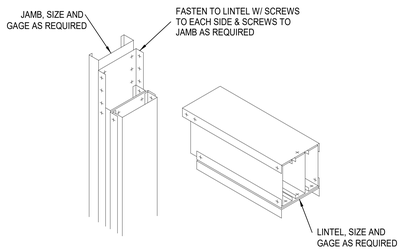
2 LOAD BEARING WALL WITH W-SHAPE

SCALE: 1 1/2" = 1'-0"



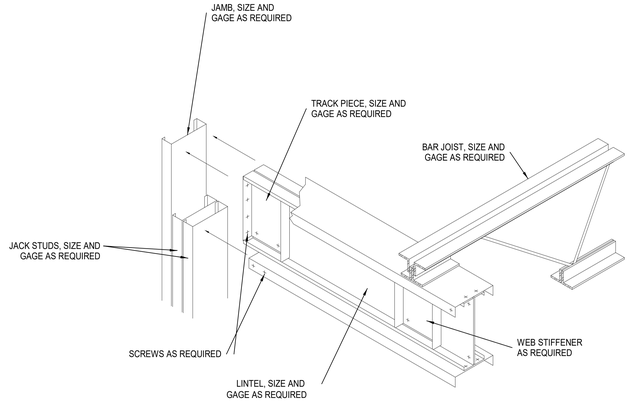
3 TYPICAL LOAD BEARING WINDOW OPENING ELEVATION

SCALE: 1" = 1'-0"



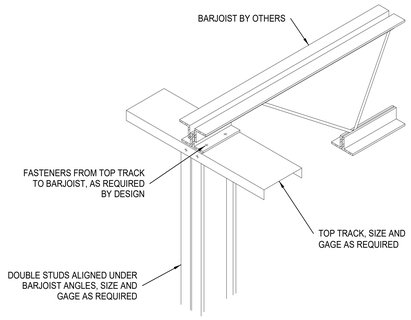
4 TYPICAL LOAD BEARING BOX HEADER LINTEL

SCALE: 1" = 1'-0"



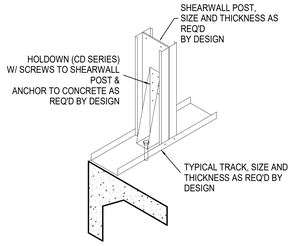
5 TYPICAL LOAD BEARING LINTEL AT BAR JOIST

SCALE: 1" = 1'-0"



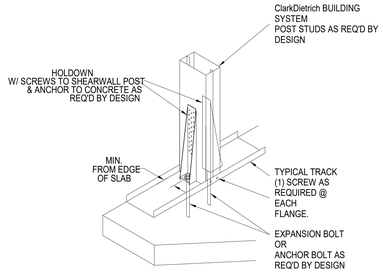
6 LOAD BEARING POST AT BAR JOIST

SCALE: 1" = 1'-0"



7 TYP. HOLD DOWN DETAIL I

SCALE: 3/4" = 1'-0"



8 TYP. HOLD DOWN DETAIL II

SCALE: 3/4" = 1'-0"

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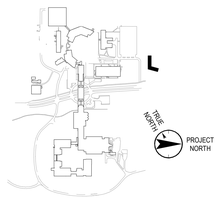


No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 03/08/22

Professional Seal and Signature

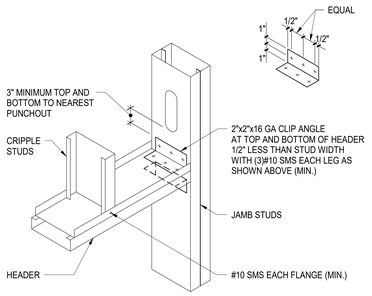
Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

LGMF BEARING WALL DETAILS

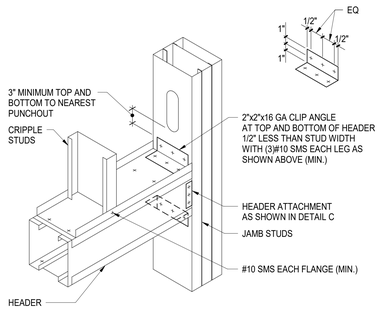
Scale: As indicated Floor:

S-600

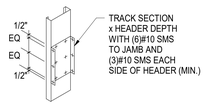
FILE: BIM 360://006.3608.000 - Regeneron, Day Care Facility Tarrytown/N21270.00-Regeneron_R20.rvt PLOTTED ON 03/08/22



A L ≤ 4'-0"



B 4'-0" < L ≤ 18'-0"

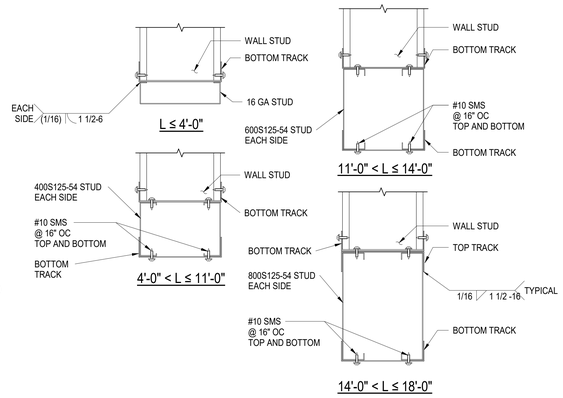


C HEADER ATTACHMENT

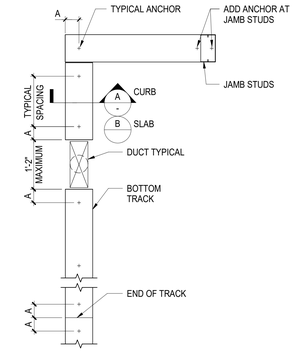
NOTES: DETAIL FOR INFORMATION ONLY. FINAL DESIGN OF LGMF SYSTEM IS DELEGATED TO THE CONTRACTOR BASED ON CONTRACT DOCUMENTS

1 TYPICAL INTERIOR HEADER AND JAMB CONNECTION

SCALE: 1" = 1'-0"



D HEADER SECTION



NOTES:

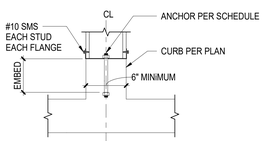
1. "A" DIMENSION SHALL BE 4" MINIMUM AND 12" MAXIMUM.
2. USE A MINIMUM OF 3 PAF IN EACH PIECE OF SILL TRACK.

2 TYPICAL INTERIOR BOTTOM TRACK

SCALE: 1" = 1'-0"

INTERIOR BOTTOM TRACK SILL ANCHOR SCHEDULE - W/ CURB	
ANCHOR TYPE	SIZE AND SPACING (MINIMUM, OR AS REQUIRED.)
ANCHOR BOLT	3/8"Ø @ 2'-8" OC W/ 5" EMBED
EXPANSION ANCHOR*	3/8"Ø HILTI KB-TZ @ 2'-8" OC
SCREW ANCHOR*	3/8"Ø @ 2'-8" OC

*EMBED PER GENERAL NOTES

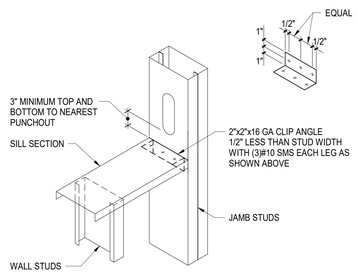


A CURB

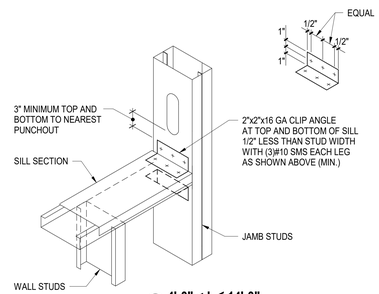
NOTES: DETAIL FOR INFORMATION ONLY. FINAL DESIGN OF LGMF SYSTEM IS DELEGATED TO THE CONTRACTOR BASED ON CONTRACT DOCUMENTS

3 BOTTOM TRACK SECTION

1 1/2" = 1'-0"



A L ≤ 4'-0"



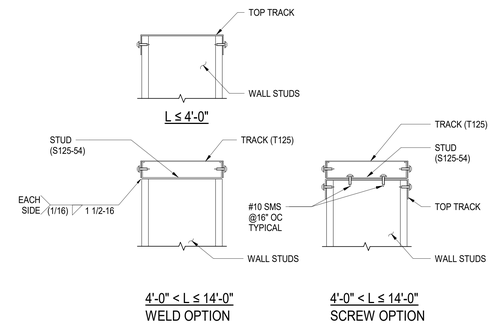
B 4'-0" < L ≤ 14'-0"

NOTES:

1. WHEN L > 14'-0", SEE -/--- FOR WALLS ON SLAB-ON-GRADE
2. DETAIL FOR INFORMATION ONLY. FINAL DESIGN OF LGMF SYSTEM IS DELEGATED TO THE CONTRACTOR BASED ON CONTRACT DOCUMENTS

4 TYPICAL INTERIOR SILL AND JAMB CONNECTION

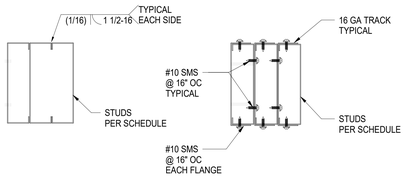
SCALE: 1" = 1'-0"



C SILL DETAILS

5 INTERIOR SILLS SECTION

3" = 1'-0"



A WELD OPTION B SCREW OPTION

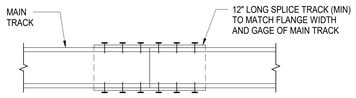
JAMB STUD SCHEDULE	
MAX ALLOWABLE OPENING WIDTH L OR COMBINED OPENING WIDTH L1 + L2 AT ADJACENT OPENING	STUDS
11'-0"	2-16GA STUDS
18'-0"	3-16GA STUDS

NOTES:

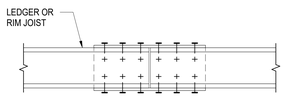
1. JAMB STUDS DEPTHS SHALL MATCH TYPICAL WALL STUD DEPTHS.
2. WHEN OPENING WIDTH IS GREATER THAN 14'-0" AND STORY "HT" IS GREATER THAN 14'-0", PROVIDE TOP TRACK REINF AT JAMB STUDS PER -/---

6 TYPICAL INTERIOR JAMBS

SCALE: 3" = 1'-0"



B TRACK SPLICE



A LEDGER AND RIM JOIST SPLICE

DEVELOP SPLICE FOR FULL MOMENT AND SHEAR CAPACITY AT SPLICE LOCATIONS

7 SPLICES

SCALE: 1 1/2" = 1'-0"

REGENERON
REAL ESTATE & FACILITIES MANAGEMENT

777 Old Saw Mill River Road
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F: 914.847.7991
www.regeneron.com

Building #17
Campus Expansion Child Day-care Center

777 Old Saw Mill River Road
Mount Pleasant, NY 10591

Project No. B17-DAYCARE

Architect
Gensler
1700 Broadway, Suite 400
New York, NY 10019
(212) 492-1400 Phone
(212) 492-1472 Fax

Structural Engineer

Thornton Tomasetti
120 Broadway, 15th Floor
New York, NY 10271
(917) 661-7800 Phone
(917) 661-7801 Fax

MEP / IT / Security Engineer

Cosentini Associates
498 Seventh Avenue
New York, NY 10018
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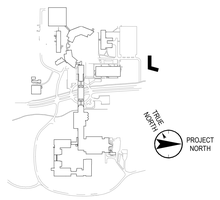
Civil Engineer

JMC
120 Bedford Road
Armonk, NY 10504
(914) 273-5225 Phone
(914) 273-2102 Fax

Landscape Architect

Langan
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
(212) 479-5400 Phone
(212) 479-5444 Fax

Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 03/08/22

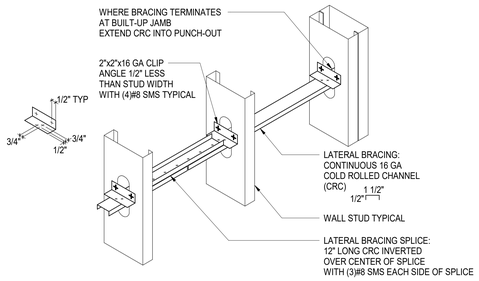
Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

LGMF BEARING WALL DETAILS II

Scale: As indicated Floor:

S-601



NOTES:

1. DETAIL 2/S-602 MAY BE USED AS AN ALTERNATE.

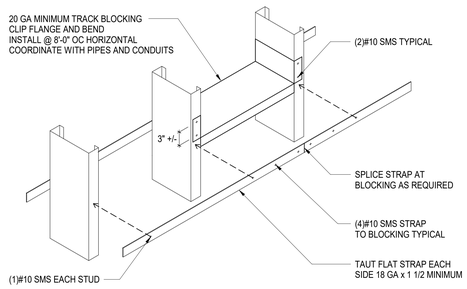
2. IF STUD DEPTH IS GREATER THAN 6", USE DETAIL 2/S-602 .

3. AT CONTRACTOR'S OPTION, IN LIEU OF 16GA CRC, USE EITHER OF (WITH SCREWS PER MANUFACTURER'S REQUIREMENTS):
   A. BRIDGECLIP BY THE STEEL NETWORK.
   B. SUBH/MSUBH BRIDGING CONNECTOR BY SIMPSON STRONG-TIE.

4. FINAL BRIDGING DETAILS AND CONNECTIONS TO BE ENGINEERED BY THE CONTRACTOR USING THE DESIGN CRITERIA PROVIDED IN THE CONTRACT DOCUMENTS

1 TYPICAL BRIDGING

SCALE: 1" = 1'-0"



NOTE:

1. FLAT STRAP BRIDGING MAY BE OMITTED ON EITHER SIDE OF STUD WHERE GYPSUM OR LATH OR PLYWOOD IS PROVIDED AND ATTACHED WITH FASTENERS AT 12" OC MAXIMUM ALONG THE FULL HEIGHT OF EACH WALL STUD

2. 4. FINAL BRIDGING DETAILS AND CONNECTIONS TO BE ENGINEERED BY THE CONTRACTOR USING THE DESIGN CRITERIA PROVIDED IN THE CONTRACT DOCUMENTS

2 ALTERNATE BRIDGING

SCALE: 1" = 1'-0"

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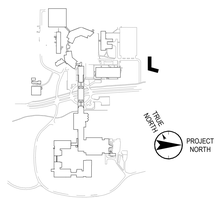
Key Plan



No.	Date	Description
0	05.20.22	ISSUED FOR PERMIT

Plot Date: 03/10/22

Professional Seal and Signature

Vendor Name: GENSLER
Vendor Project No.: 006.3608.000
Discipline: Drawn By: Author

LGMF BEARING WALL DETAILS III

Scale: 1" = 1'-0" Floor:

S-602