WALKER
PARKING CONSULTANTS

CITY OF PORTSMOUTH

FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE: CONSTRUCTION DOCUMENTS
07/28/2017

Client:

City Of Portsmouth
1 Junkins Avenue
Portsmouth, NH
Tel: 603.766.1415

Prime Design Architect and Structural Engineer:

Walker Parking Consultants
20 Park Plaza, Suite 1202
Boston, MA
Tel: 617.350.5040

Civil Engineer:

Tighe & Bond
177 Corporate Drive
Portsmouth, NH
Tel: 603.433.8818

Image Architect:

DeStefano Architects
23 High St
Portsmouth, NH
Tel: 603.431.8701

Geotechnical Engineer:

Haley & Aldrich
75 Washington Av. Suite 1A
Portland, ME
Tel: 207.482.4609

Mechanical, Electrical,Plumbing, FP Engineer:

RDK Engineers
200 Brickstone Square
Andover, MA
Tel: 978.296.6232

Landscape Architecture:

Woodburn & CO
103 Kent PL
Newmarket, NH
Tel: 603.659.5949

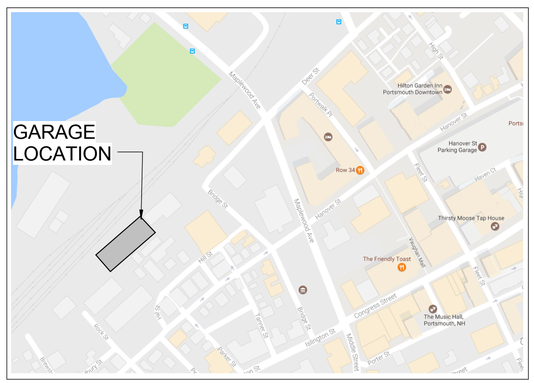
Cost Estimator:

Rider Levett Bucknall
2 Financial Ctr. Suite 810, 60 South St
Boston, MA
Tel: 617.737.9339

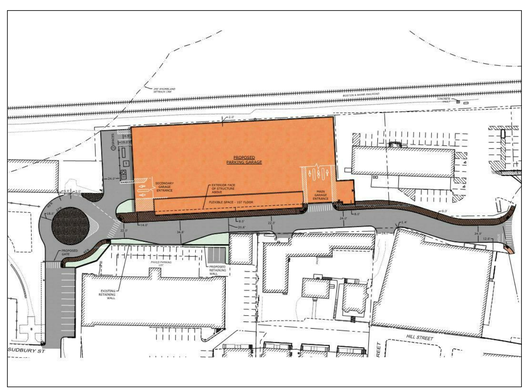
Archeologist:

Victoria Bunker Archeology
19 Pillsbury Street - 2 Floor
Concord, NH
Tel: 603.776.4306

WALKER PROJECT NO.: 16-2683.01



PROJECT LOCATION



PROJECT SITE PLAN

DRAWING ISSUE SCHEDULE

NO:	SHEET NAME	SITE ENABLING BID SET 04/14/2017	GARAGE DESIGN DEVELOPMENT (05/05/2017)	CONSTRUCTION DOCUMENTS (07/28/2017)
GENERAL				
G-000	COVER SHEET	X	X	X
G-001	DRAWING INDEX	X	X	X
CIVIL				
C-100	GENERAL NOTES SHEET	X	X	X
C-101	DEMOLITION PLAN	X	X	X
C-102	SITE PLAN	X	X	X
C-103	GRADING, DRAINAGE & EROSION CONTROL PLAN	X	X	X
C-104	GRADING & DRAINAGE ROAD PROFILE	X	X	X
C-105	UTILITIES PLAN	X	X	X
C-106	CONDUIT PLAN	X	X	X
C-107	UTILITIES PROFILE	X	X	X
C-301	ROAD SECTIONS	X	X	X
C-501	EROSION CONTROL NOTES & DETAILS SHEET	X	X	X
C-502	DETAILS SHEET	X	X	X
C-503	DETAILS SHEET	X	X	X
C-504	DETAILS SHEET	X	X	X
C-505	DETAILS SHEET	X	X	X
C-506	DETAILS SHEET	X	X	X
C-507	DETAILS SHEET	X	X	X
LANDSCAPE				
L-1	LANDSCAPE PLAN			X
STRUCTURAL				
S-001	GENERAL NOTES, ABBREVIATIONS, SYMBOLS & LEGEND	X	X	X
S-002	GENERAL NOTES, ABBREVIATIONS, SYMBOLS & LEGEND	X	X	X
S-003	TYPICAL DETAILS	X	X	X
S-004	TYPICAL DETAILS		X	X
S-100A	FOUNDATION PLAN	X	X	X
S-100B	FOUNDATION LOCATION PLAN			X
S-101	GROUND TIER PLAN	X	X	X
S-102	SECOND TIER PLAN		X	X
S-103	THIRD TIER PLAN		X	X
S-104	FOURTH TIER PLAN		X	X
S-105	FIFTH TIER PLAN		X	X
S-106	TOP TIER PLAN		X	X
S-401	ENLARGED PLANS		X	X
S-410	STAIR / ELEVATOR A - ENLARGED PLAN		X	X
S-411	STAIR / ELEVATOR A - ENLARGED PLAN		X	X
S-412	STAIR / ELEVATOR A - ENLARGED PLAN		X	X
S-420	STAIR / ELEVATOR B - ENLARGED PLAN		X	X
S-421	STAIR / ELEVATOR B - ENLARGED PLAN		X	X
S-422	STAIR / ELEVATOR B - ENLARGED PLAN		X	X
S-501	FOUNDATION DETAILS		X	X
S-502	FOUNDATION DETAILS		X	X
S-503	FOUNDATION DETAILS			X
S-510	STRUCTURAL DETAILS		X	X
S-511	STRUCTURAL DETAILS		X	X
S-512	STRUCTURAL DETAILS		X	X
S-513	STRUCTURAL DETAILS		X	X
S-520	PRECAST COLUMN DETAILS		X	X
S-521	PRECAST COLUMN DETAILS		X	X
S-525	PRECAST BEAM DETAILS, SCHEDULE & NOTES		X	X
S-530	PRECAST TEE DETAILS		X	X
S-535	PRECAST STRUCTURAL WALL DETAILS		X	X
S-536	PRECAST STRUCTURAL WALL DETAILS		X	X
S-550	PRECAST CONNECTION DETAILS		X	X
S-551	PRECAST CONNECTION DETAILS		X	X
S-560	WATERPROOFING DETAILS		X	X
S-561	WATERPROOFING DETAILS			X
S-580	MASONRY DETAILS			X
S-610	PILE CAP SCHEDULE & DETAILS		X	X
S-611	PILE CAP DETAILS			X
S-620	GRADE BEAM DETAILS AND SCHEDULE		X	X
S-690	LAP SPLICE SCHEDULE			X
ARCHITECTURAL				
A-001	CODE ANALYSIS AND LIFE SAFETY PLANS		X	X
A-002	GENERAL NOTES, SYMBOLS AND LEGENDS		X	X
A-101	GROUND TIER PLAN	X	X	X
A-102	SECOND TIER PLAN		X	X
A-103	THIRD TIER PLAN		X	X
A-104	FOURTH TIER PLAN		X	X
A-105	FIFTH TIER PLAN		X	X
A-106	TOP TIER PLAN		X	X
A-201	BUILDING ELEVATIONS		X	X
A-202	BUILDING ELEVATIONS		X	X
A-310	EXTERIOR WALL SECTIONS		X	X
A-401	FLEX SPACE ENLARGED PLANS		X	X
A-402	FLEX SPACE ROOF ENLARGED PLANS			X
A-403	FLEX SPACE ELEVATIONS ENLARGED PLANS			X
A-404	ENLARGED ROOM PLANS		X	X
A-410	STAIR / ELEVATOR A - ENLARGED PLANS		X	X
A-411	STAIR / ELEVATOR A - ENLARGED PLANS		X	X
A-412	STAIR / ELEVATOR A - ENLARGED PLANS		X	X
A-420	STAIR / ELEVATOR B - ENLARGED PLANS		X	X

DRAWING ISSUE SCHEDULE

NO:	SHEET NAME	SITE ENABLING BID SET 04/14/2017	GARAGE DESIGN DEVELOPMENT (05/05/2017)	CONSTRUCTION DOCUMENTS (07/28/2017)
A-421	STAIR / ELEVATOR B - ENLARGED PLANS		X	X
A-422	STAIR / ELEVATOR B - ENLARGED PLANS		X	X
A-440	STAIR / ELEVATOR A - ELEVATIONS			X
A-441	STAIR / ELEVATOR A - ELEVATIONS			X
A-442	STAIR / ELEVATOR B - ELEVATIONS			X
A-443	STAIR / ELEVATOR B - ELEVATIONS			X
A-501	PRECAST DETAILS		X	X
A-502	PRECAST DETAILS		X	X
A-503	PRECAST DETAILS			X
A-510	MISCELLANEOUS DETAILS			X
A-511	MISCELLANEOUS DETAILS			X
A-520	STOREFRONT DETAILS		X	X
A-521	STOREFRONT DETAILS			X
A-547	CURTAINWALL DETAILS			X
A-548	CURTAINWALL DETAILS			X
A-550	STAIR RAILING DETAILS		X	X
A-551	STAIR RAILING DETAILS			X
A-601	DOOR, FRAME, ROOM FINISH SCHEDULES			X
ARCHITECTURAL GRAPHICS				
AG-002	SIGN SCHEDULE AND DETAILS		X	X
AG-003	SIGN DETAILS			X
AG-004	SIGN DETAILS			X
AG-005	SIGN MOUNTING DETAILS			X
EQUIPMENT				
Q-401	PARCS LEGEND AND DETAILS		X	X
Q-402	PARCS ENLARGED PLANS		X	X
FIRE PROTECTION				
FP-000	FIRE PROTECTION LEGEND		X	X
FP-200	FIRE PROTECTION UNDER SLAB FLOOR PLAN		X	X
FP-201	FIRE PROTECTION GROUND TIER PLAN		X	X
FP-202	FIRE PROTECTION 2ND TIER PLAN		X	X
FP-203	FIRE PROTECTION 3RD TIER PLAN		X	X
FP-204	FIRE PROTECTION 4TH TIER PLAN		X	X
FP-205	FIRE PROTECTION 5TH TIER PLAN		X	X
FP-206	FIRE PROTECTION TOP TIER PLAN		X	X
FP-600	FIRE PROTECTION DETAILS		X	X
PLUMBING				
P-000	PLUMBING LEGEND		X	X
P-200	PLUMBING UNDER SLAB FLOOR PLAN		X	X
P-201	PLUMBING GROUND TIER PLAN		X	X
P-202	PLUMBING 2ND TIER PLAN		X	X
P-203	PLUMBING 3RD TIER PLAN		X	X
P-204	PLUMBING 4TH TIER PLAN		X	X
P-205	PLUMBING 5TH TIER PLAN		X	X
P-206	PLUMBING TOP TIER PLAN		X	X
P-400	PLUMBING ENLARGED PLANS		X	X
P-700	PLUMBING DETAILS		X	X
P-701	PLUMBING DETAILS			X
P-800	PLUMBING SCHEDULES		X	X
HVAC				
H-000	HVAC LEGEND		X	X
H-201	HVAC GROUND TIER PLAN		X	X
H-205	HVAC 5TH TIER PLAN		X	X
H-206	HVAC TOP TIER PLAN		X	X
H-800	HVAC DETAILS AND CONTROLS		X	X
H-900	HVAC SCHEDULES		X	X
ELECTRICAL				
E-000	ELECTRICAL LEGEND		X	X
E-100	ELECTRICAL SITE PLAN		X	X
E-101	ELECTRICAL SITE DETAILS			X
E-102	ELECTRICAL SITE DETAILS			X
E-201	ELECTRICAL LIGHTING GROUND TIER PLAN		X	X
E-202	ELECTRICAL LIGHTING 2ND TIER PLAN		X	X
E-203	ELECTRICAL LIGHTING 3RD TIER PLAN		X	X
E-204	ELECTRICAL LIGHTING 4TH TIER PLAN		X	X
E-205	ELECTRICAL LIGHTING 5TH TIER PLAN		X	X
E-206	ELECTRICAL LIGHTING TOP TIER PLAN		X	X
E-301	ELECTRICAL POWER GROUND TIER PLAN		X	X
E-302	ELECTRICAL POWER 2ND TIER PLAN		X	X
E-303	ELECTRICAL POWER 3RD TIER PLAN		X	X
E-304	ELECTRICAL POWER 4TH TIER PLAN		X	X
E-305	ELECTRICAL POWER 5TH TIER PLAN		X	X
E-306	ELECTRICAL POWER TOP TIER PLAN		X	X
E-401	ELECTRICAL FIRE ALARM GROUND TIER PLAN		X	X
E-402	ELECTRICAL FIRE ALARM 2ND TIER PLAN		X	X
E-403	ELECTRICAL FIRE ALARM 3RD TIER PLAN		X	X
E-404	ELECTRICAL FIRE ALARM 4TH TIER PLAN		X	X
E-405	ELECTRICAL FIRE ALARM 5TH TIER PLAN		X	X
E-406	ELECTRICAL FIRE ALARM TOP TIER PLAN		X	X
E-600	ELECTRICAL ENLARGED PLANS		X	X
E-601	ELECTRICAL ENLARGED PLANS			X
E-700	ELECTRICAL DETAILS		X	X

DRAWING ISSUE SCHEDULE

NO:	SHEET NAME	SITE ENABLING BID SET 04/14/2017	GARAGE DESIGN DEVELOPMENT (05/05/2017)	CONSTRUCTION DOCUMENTS (07/28/2017)
E-701	ELECTRICAL DETAILS		X	X
E-800	ELECTRICAL ONE LINE DIAGRAM		X	X
E-801	ELECTRICAL FIRE ALARM RISER DIAGRAM			X
E-900	ELECTRICAL SCHEDULES		X	X
E-901	ELECTRICAL SCHEDULES			X

WALKER
PARKING CONSULTANTS

20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com

Walker Parking Consultants / Engineers, Inc.

FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	ISSUE: DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	DESIGN DEVELOPMENT
	04/14/2017	SITE ENABLING BID SET

PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: GAG

SHEET TITLE:
DRAWING INDEX

G-001

GENERAL NOTES:

1. THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE SURVEYOR OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2. COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS.
3. CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES.
4. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILE) ON DISK TO THE CITY OF PORTSMOUTH UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR AND CONFORM TO THE CITY OF PORTSMOUTH STANDARDS.
5. CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
6. SEE AMBIT ENGINEERING, INC. "EXISTING CONDITIONS SITE PLAN", PREPARED BY AMBIT ENGINEERING, INC ON DECEMBER 19, 2016 FOR DATUM AND BENCHMARK INFORMATION.
7. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON-SITE AT ALL TIMES.
8. THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO EXISTING BUSINESSES AND HOMES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS AND HOME SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER, AND SEWER SERVICES. TEMPORARY SERVICES, IF REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL, AND UTILITY COMPANY STANDARDS. CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
9. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS AND CONSTRUCTION SPECIFICATIONS, LATEST REVISIONS.
10. FUTURE DEER STREET ASSOCIATES LOT 6 DEVELOPMENT CONNECTIONS PER DSA PLAN DATED JUNE 15, 2017.
11. FUTURE DEER STREET ASSOCIATES LOT 3 & 4 DEVELOPMENT CONNECTIONS TO LOTS PER DSA MARK-UPS DATED JULY 7, 2017.

DEMOLITION NOTES:

1. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
2. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
3. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. SAWCUT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
7. UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY AND CITY OF PORTSMOUTH STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK UNLESS OTHERWISE NOTED. CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
8. PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID.
9. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, LIGHTING, MANHOLES, CATCH BASINS, UNDER GROUND PIPING, POLES, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, TREES AND LANDSCAPING.
10. REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
11. CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR TO REPLACE ANY DISTURBED MONUMENTATION.
12. PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS THAT MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR APPROVED EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.
13. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
14. THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
15. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.

SITE NOTES:

1. PAVEMENT MARKINGS SHALL BE INSTALLED AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ACCESSIBLE SYMBOLS, PAINTED ISLANDS, FIRE LANES AND CENTERLINES. ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE PAVEMENT MARKINGS. ALL THERMOPLASTIC PAVEMENT MARKINGS INCLUDING LEGENDS, ARROWS, CROSSWALKS AND STOP BARS SHALL MEET THE REQUIREMENTS OF AASHTO M249. ALL PAINTED PAVEMENT MARKINGS INCLUDING CENTERLINES, LANE LINES AND PAINTED MEDIANS SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F".
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PAVEMENT MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES.
5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE, WHITE THERMOPLASTIC AND CONFORM TO CURRENT MUTCD STANDARDS.
7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8. CONTRACTOR SHALL COORDINATE WITH THE BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
9. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
10. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
11. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

RETAINING WALL NOTES:

1. RETAINING WALL IS A PERFORMANCE DESIGN SYSTEM AND THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL EMPLOY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER (HEREINAFTER REFERRED TO AS DESIGNER), LICENSED IN THE STATE OF NEW HAMPSHIRE AND ACCEPTABLE TO ENGINEER/ARCHITECT, TO PERFORM SUCH DESIGN. DESIGN SHALL MEET CRITERIA ESTABLISHED BELOW. DESIGNER SHALL PREPARE AND SEAL FINAL STRUCTURAL DESIGN DRAWINGS, DESIGN CALCULATIONS AND SHOP DRAWINGS SUBMITTED TO ENGINEER/ARCHITECT FOR REVIEW. DESIGNER SHALL BE RESPONSIBLE FOR STRUCTURAL DESIGN FOR RETAINING WALL.
2. RETAINING WALL DESIGN REQUIREMENTS:
   - A. RETAINING WALL SHALL BE DESIGNED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES:
   - B. RETAINING WALL SHALL BE DESIGNED SUCH THAT BEARING PRESSURES BELOW BASE OF WALL DO NOT EXCEED ALLOWABLE SOIL BEARING PRESSURES, AS PROVIDED BY HALEY & ALDRICH INC.. ALLOWABLE SOIL BEARING PRESSURES: 2,000 PSF.
   - C. RETAINING WALL SHALL BE DESIGNED TO RESISTS (AT A MINIMUM) THE FOLLOWING LOADS:
     - I. ACTIVE SOIL PRESSURE: 40 PSF/FT
     - II. DEAD LOAD SURCHARGE: 40 PSF
     - III. LIVE LOAD SURCHARGE: 250 PSF
     - IV. VEHICLE BARRIER DESIGN LIVE LOAD: 6 KIPS @ 18" AND 27" AFF (NON-CONCURRENT)
   - D. EXPOSED FACE OF RETAINING WALL SHALL BE NEAR VERTICAL AND LOCATED AS TO BEST ALIGN WITH EXISTING RETAINING WALL STRUCTURES.
   - E. BLOCK FINISH AT EXTERIOR FACE SHALL BE ACCEPTABLE TO OWNER.
3. BOTTOM OF RETAINING WALL SHALL BEAR A MINIMUM OF 4 FEET BELOW LOWEST ADJACENT GROUND SURFACE.
4. CONTRACTOR SHALL INSTALL FOUNDATION DRAIN AT BASE OF WALL, APPROXIMATELY 1-FOOT ABOVE LOWER FINISHED GRADE ELEVATION, WITH FILTER PROTECTED WEEPS. DRAIN SHALL CONSIST OF A 4-IN DIAMETER, PERFORATED HDPE PIPE EMBEDDED IN A GEOSYNTHETIC SEPARATION FABRIC WRAPPED IN 4" MIN ¾"-CRUSHED STONE.
5. CONTRACTOR SHALL VERIFY PLAN EXTENTS OF RETAINING WALL AND FINISHED GRADE ELEVATIONS WITH EXISTING CONDITIONS.
6. WALL DESIGN SHALL INCLUDE ENGINEERED VEHICLE BARRIER AND PEDESTRIAN GUARD AT TOP OF WALL. BARRIER AND GUARD SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (2009). SUBMITTAL SHALL INCLUDE SIGNED AND SEALED ENGINEERING CALCULATIONS, DRAWINGS AND SUBMITTALS FOR EACH SYSTEM.
7. REFER TO GEOTECHNICAL DESIGN RECOMMENDATION MEMORANDUM: *SUPPLEMENTAL GEOTECHNICAL DESIGN MEMORANDUM NO. 1, ADAMS BUILDING AND ROCK STREET RETAINING WALLS*, FILE NO. 129069-003 FOR ADDITIONAL DESIGN REQUIREMENTS.

GRADING AND DRAINAGE NOTES:

1. COMPACTION REQUIREMENTS:

BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%

* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.

2. ALL STORM DRAINAGE PIPES SHALL BE HP STORM HIGH PERFORMANCE PIPE (ADS OR APPROVED EQUAL), UNLESS OTHERWISE SPECIFIED.
3. ADJUST ALL MANHOLES, CATCHBASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
4. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
6. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
7. ALL PROPOSED CATCHBASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.
8. CONTRACTOR SHALL VERIFY EXISTING INVERT ELEVATIONS IN FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER IF ELEVATION DIFFERS FROM PLAN.

EROSION CONTROL NOTES:

1. SEE SHEET C-501 FOR GENERAL EROSION CONTROL NOTES AND DETAILS.

UTILITY NOTES:

1. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
   - WATER/SEWER - CITY OF PORTSMOUTH
   - NATURAL GAS - UNITIL
   - ELECTRIC - EVERSOURCE ENERGY
   - TELEPHONE/DATA - FAIRPOINT AND COMCAST
2. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
3. ALL WATERMAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH.
4. CONNECTIONS TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
5. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
6. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
8. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
9. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
10. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
11. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
12. ALL SEWER PIPE WITH LESS THAN 6' OF COVER SHALL BE INSULATED.
13. CONTRACTOR SHALL COORDINATE ALL ELECTRIC, TELEPHONE & CABLE WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH EVERSOURCE ENERGY, FAIRPOINT & COMCAST.
14. CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY INVERT ELEVATIONS IN FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER IF ELEVATION DIFFERS FROM PLAN.
15. ABANDON EXISTING SEWERS, WHERE NOTED ON DRAWINGS ONCE PROPOSED SEWERS HAVE BEEN INSTALLED, TESTED, AND ACCEPTED BY THE CITY. THE EXISTING 48" SEWER SHALL BE ABANDONED BY FILLING IT WITH CONTROLLED DENSITY FILL IN ACCORDANCE WITH SPECIFICATION SECTION 02 22 80. EXISTING SEWERS LESS THAN 24" DIAMETER SHALL BE ABANDONED BY PLACING CONCRETE PLUGS IN THE OPEN ENDS, IN ACCORDANCE WITH SPECIFICATION SECTION 02 22 80.

EXCAVATION NOTES:

1. EXCAVATION REQUIRED TO CONSTRUCT THE 48" DIA. SANITARY SEWER SHALL BE COMPLETED BY USING A TEMPORARY LATERAL EARTH SUPPORT SYSTEM, WHICH SHALL BE DESIGNED, INSTALLED, MAINTAINED AND REMOVED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTION 315000 EXCAVATION SUPPORT AND PROTECTION.
2. ANY AND ALL EXCAVATION AND TEMPORARY DEWATERING NEEDED TO COMPLETE THE WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTIONS 310000 AND 312312 AND THE SOIL AND GROUNDWATER MANAGEMENT PLAN, DATED JANUARY 13, 2017, PREPARED BY RANSOM CONSULTING, INC.

MONITORING WELL NOTES:

REPLACING MONITORING WELL REQUIREMENTS	
INSTALLATION	NH LICENSED WELL DRILLER
ROAD BOX	8-IN. DIAMETER, BOLT-DOWN; WATER TIGHT; CAST IRON SKIRT; H-20 LOAD RATED (MIN)
ROAD BOX PAD IN ASPHALT PAVEMENT	2-FT. SQUARE CONCRETE, 6 IN. THICK, WITH REINFORCING STEEL MESH (MIN)
SAND FOR BOREHOLE ANNULUS & FILTER PACK	CLEAN SILICA FILTER SAND, U.S. STD SIEVE SIZE 20-40
BENTONITE PELLETS	3/8- TO 1/2-IN. UNCOATED (OR EQUILVALENT)
WELL RISER (2" DIA, SCH 40 PVC)	2" DIA, SCH 40 PVC, THREADED JOINTS, NO GLUE OR SOLVENTS
WELL SCREEN (2" DIA, SCH 40 PVC)	2" DIA, SCH 40 PVC, 0.01-SLOT, THREADED JOINTS, NO GLUE OR SOLVENTS

WELL DETAIL, BY NAME:	MW202	GEO-1
TOP OF PVC RISER	4" BELOW FINISHED FLOOR	
ANNULUS FILL SAND, TOP	6" BELOW FINISHED FLOOR	
ANNULUS FILL SAND, BOTTOM ELEVATION	-1.5 FT.	10 FT.
BENTONITE PELLETS, TOP ELEVATION	-1.5 FT.	10 FT.
BENTONITE PELLETS, BOTTOM ELEVATION	-3.5 FT.	9 FT.
TOP OF FILTER PACK SAND, ELEVATION	-3.5 FT.	9 FT.
PVC RISER BOTTOM, ELEVATION	-5.5 FT.	8 FT.
PVC SCREEN TOP, ELEVATION	-5.5 FT.	8 FT.
PVC SCREEN BOTTOM, ELEVATION	-12.5 FT.	-2 FT.
BOTTOM OF FILTER PACK SAND, ELEVATION	-13 FT.	-2.5 FT.
BOREHOLE BOTTOM, ELEVATION	-13 FT.	-2.5 FT.
NOTE: VERTICAL DATUM IS MEAN SEA LEVEL NAVD88, BASIS IS NGS PID 0C0290 - B 2 1923, ELEVATION 19.55		

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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PROFESSIONAL ENGINEER — STATE OF NEW HAMPSHIRE — BRADLEE MEDONTA No. 08830 — CIVIL — 7/5/2017

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FOUNDRY PLACE PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
ISSUE		
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	04/14/2017	SITE ENABLING BID SET

PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
GENERAL NOTES SHEET

C-100

END 48" BRICK SEWER TBR
BEGIN 48" BRICK SEWER TO BE ABANDONED

BEGIN 48" BRICK SEWER TBR

EDGE OF GRAVEL (TYP.)

CB 12212 TBR

48" BRICK SEWER TO BE ABANDONED (SEE UTILITY NOTE #16)

END 48" BRICK SEWER TO BE ABANDONED

1-STORY CONCRETE BLOCK BUILDING TBR

FF 11.39 FF 11.23

FF 11.5

ASPHALT RAMP TBR

CUT AND PLUG EXISTING 48" SEWER W/BRICK & MORTAR BULKHEAD, INSTALL 12" PVC VENT

VERT. GRANITE CURB (FLUSH) TBR

CONCRETE

TBR #68 FF 11.39

SEWER TBR

EDGE OF GRAVEL

EDGE OF GRAVEL TBR

GRAVEL

GRAVEL TBR

FENCE GATE TBR

FENCE OPENING TBR

2" POST & PIPE FENCE, 3' HIGH TBR

GRAVEL

GATE

FF 10.86

FF 11.32

#151 STORGE TBR

GRAVEL

FF 11.35

INV. 17.36

POLE 17/1B

END FENCE TBR

OVERHEAD WIRE(S)

CB 12211 TBR

CITY PARKING LOT

WOOD PICKET FENCE w/ GATE TBR

FENCE TBR

PAVED PARKING LOT

POLE 21/17/1A

12" TWN MAPLE

12" MAPLE

LIMIT OF CONCRETE RETAINING WALL TBR

LIMIT OF RETAINING WALL TBR

BEGIN FENCE TBR

LIMIT OF CONCRETE RETAINING WALL TBR

SAWCUT PAVEMENT TYP.

125/17

138/62

POLE PSNH 33/8A w/ GUY TBR

6" FIRE SERVICE TBR

CUSTOMER PARKING

TIMBER PARKING BUMPER TBR

CONCRETE SIDEWALK TBR

CUT AND PLUG EXISTING 48" SEWER W/BRICK & MORTAR BULKHEAD, INSTALL 12" PVC VENT

END SEWER TBR

BEGIN SEWER TBR

END 48" BRICK SEWER TBR

SMH 1492

END SEWER TO BE ABANDONED

SMH 1491

END WATER MAIN TO BE RELOCATED

BEGIN WATER MAIN TO BE RELOCATED

SAWCUT PAVEMENT TYP.

END SEWER TBR BEGIN SEWER TO BE ABANDONED

BEGIN SEWER TBR

LEGEND

	APPROXIMATE LIMIT OF PROPOSED SAW CUT
	LIMIT OF WORK
SS	LIMIT OF SEWER TO BE REMOVED
SS	LIMIT OF SEWER TO BE ABANDONED
	APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
	BUILDING TO BE REMOVED
	LOCATION OF PROPOSED BUILDING

TBR	TO BE REMOVED
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE

SEE SHEET C-100 FOR DEMOLITION NOTES

SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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PROFESSIONAL ENGINEER
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7/5/2017

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	04/14/2017	SITE ENABLING BID SET
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

PROJECT NO: 16-2683.01
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SHEET TITLE:
DEMOLITION PLAN

C-101

7/5/2017 1:50:49 PM

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WAYFINDING SIGNAGE TO BE CONSTRUCTED AT THE DEER STREET/MAPLEWOOD AVENUE INTERSECTION COORD. W/CITY'S TRAFFIC CONSULTANT

FUTURE DEER STREET ASSOCIATES LOT 3 DEVELOPMENT CONNECTIONS TO LOT PER DSA MARK-UPS DATED JULY 7, 2017.

FUTURE DEER STREET ASSOCIATES LOT 4 DEVELOPMENT CONNECTIONS TO LOT PER DSA MARK-UPS DATED JULY 7, 2017.

FUTURE DEER STREET ASSOCIATES CIVIC SPACE

FUTURE DEER STREET ASSOCIATES LOT 6 DEVELOPMENT CONNECTIONS TO LOT PER DSA PLAN DATED JUNE 15, 2017.

PROPOSED PARKING GARAGE
600 SPACES

BEGIN 4" REVEAL SGC
END 4" REVEAL SGC
CONST. "RESERVED - RAILROAD EMPLOYEES ONLY" SIGNS
CONST. "RESERVED - CITY STAFF EMPLOYEES ONLY" SIGNS
PROPOSED GENERATOR (COORD. W/BUILDING DRAWINGS)
PROPOSED CHAINLINK FENCE (COORD. W/BUILDING DRAWINGS)
PROPOSED REPLACEMENT WELL MW202 (SEE NOTES ON SHEET C-100)
PROPOSED REPLACEMENT WELL GEO-1 (SEE NOTES ON SHEET C-100)
10' ACCESS EASEMENT
PROPOSED STREET LIGHTING ALONG GARAGE TO BE BUILDING MOUNTED (COORD. W/BUILDING DRAWINGS)
SECONDARY GARAGE ENTRANCE
EXTERIOR FACE OF STRUCTURE ABOVE
FLEXIBLE SPACE - 1ST FLOOR
MAIN GARAGE ENTRANCE
CONST. BIKE RACK
CONST. TIP DOWN RAMP AND RADIUS TYPE DETECTABLE WARNING PANEL
PROPOSED DRIVEWAY CURB CUT (COORD. W/HAPPNY)
CONST. MOUNTABLE ROUNDABOUT (SEE DETAIL)
CONST. GATE W/ KNOX LOCK (COORD. W/ FIRE DEPT.)
PROPOSED STONE DUST PATH CONNECTION TO PARK
CONST. BOLLARD (TYP.)
CONST. POST GATE STOP
FUTURE SIDEWALK
(11) SPACES
CONST. HISTORIC LIGHT (TYP. OF 2)
CONST. TIP DOWN RAMP AND DETECTABLE WARNING PANEL
PAVED PARKING LOT
APPROX. LIMIT OF RETAINING WALL FOOTING (TYP.)
PROPOSED RETAINING WALL, SEE RETAINING WALL NOTES ON SHEET C-100 (COORD. W/HEINEMANN)
CONST. TIP DOWN RAMP AND DETECTABLE WARNING PANEL
CONST. PARKING SPACES (COORD. W/HEINEMANN)
PROPOSED DRIVEWAY CURB CUT FOR FUTURE DRIVEWAY (COORD. W/DSA)
POTENTIAL TIP DOWN RAMP, DETECTABLE WARNING PANEL AND CROSSWALK (COORD. W/DSA SITE PLAN APPROVAL)
CONST. 8' ASPHALT SIDEWALK (TYP.)
CONST. HISTORIC LIGHT (TYP. OF 4) (DSA TO RELOCATE DURING CONST. OF LOT 3)
CONST. DOUBLE YELLOW LANE LINE
PROPOSED DRIVEWAY CURB CUT (COORD. W/ REDLON & JOHNSON
CONST. HYDRANT (TYP. OF 3)
CONST. CITY STANDARD INTERSECTION LIGHT
CONST. R1-1 "STOP" SIGN, LINE AND LEGEND
CONST. DETECTABLE WARNING PANEL AND CONCRETE PAD
BEGIN VGC W/TIP DOWN
END VGC W/TIP DOWN
RECONST. EXISTING ASPHALT SIDEWALK
CONST. CROSSWALK (TYP.)
RECONST. EXISTING ASPHALT SIDEWALK
CONST. RETAINING WALL (COORD. W/HEINEMANN
SUDBURY ST
ROCK STREET
HANOVER STREET
HILL STREET
AUTUMN SREET
TANNER STREET
PEARL STREET
PARKER STREE
ONE WAY
DEER STREET
NO PARKING
LANDSCAPED AREA
PAVED SIDEWALK
SLATE
CONCRETE VAULT
RAISED CENTER
CONCRETE PAVE
LANDSCAPE AREAS w/ TIMBER CURB
125/17
138/62

SEE SHEET C-100 FOR SITE NOTES

SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

LEGEND

- PROPERTY LINE
- PROPOSED R.O.W.
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CURB
- PROPOSED GRAVEL DRIVE
- PROPOSED BUILDING
- PROPOSED PAVEMENT SECTION
- PROPOSED ASPHALT SIDEWALK
- PROPOSED BRICK SIDEWALK
- PROPOSED BOLLARD

BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
30'R	PROPOSED CURB RADIUS
VGC	PROPOSED VERTICAL GRANITE CURB
SGC	PROPOSED SLOPED GRANITE CURB

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617.350.5048 Fax
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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	04/14/2017	SITE ENABLING BID SET
	06/06/2017	GARAGE DESIGN DEVELOPMENT
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE

PROJECT NO: 16-2683.01
DRAWN BY: NAH
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SHEET TITLE:
SITE PLAN

C-102

7/5/2017 1:50:49 PM
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CONST. SILT SOCK (TYP.)

CONST. 10 LF 12" HP STORM PIPE S=0.010

CORE MANHOLE INV.IN=4.65 (SEE GRADING & DRAINAGE NOTE #8)

PCB7

PDMH9

9.50

PROPOSED ROOF DRAIN CONNECTION (COORD. W/BUILDING DRAWINGS)

CONST. 33 LF 18" HP STORM PIPE S=0.006

CONST. 38 LF 8" HP STORM PIPE S=0.011

PROPOSED PARKING GARAGE

CONST. 11 LF 12" HP STORM PIPE S=0.009

CONST. 71 LF 18" HP STORM PIPE S=0.006

CONST. 55 LF 12" HP STORM PIPE S=0.005

PCB6 (5' DIA.) (DOUBLE GRATE)

END SILT SOCK

10.80

BEGIN SILT SOCK

12.50

CONST. 60 LF 18" HP STORM PIPE S=0.006

CONST. SILT SACK (TYP.)

CONST. 40 LF 10" HP STORM PIPE S=0.050

PROPOSED ROOF DRAIN CONNECTION (COORD. W/BUILDING DRAWINGS)

CONST. CLEAN OUT

12.30

CONST. 10 LF 12" HP STORM PIPE S=0.010

PDMH7

PDMH8

PDMH5

PCB3

PDMH1

PDMH6

PCB5

PCB4

11.90

13.00

12.95

12.65

12.55

12.00

12.13

10.65

11.95

11.25

CONST. 112 LF 12" HP STORM PIPE S=0.015

CONST. 141 LF 15" HP STORM PIPE S=0.006

PAVED PARKING LOT

CONST. 5 LF 12" HP STORM PIPE S=0.010

CONST. 12 LF 12" HP STORM PIPE S=0.017

PROPOSED STUB FOR FUTURE ROOF DRAIN CONNECTION (COORD. W/DSA)

138/62

PROPOSED STUB FOR FUTURE ROOF DRAIN CONNECTION (COORD. W/DSA)

CONST. 21 LF 12" HP STORM PIPE S=0.007

CONST. 13 LF 12" HP STORM PIPE S=0.008

PCB2

PDMH2

PCB1

PDMH3

END SILT SOCK

CONST. 120 LF 15" HP STORM PIPE S=0.005

PDMH4 (6' DIA.) (DOGHOUSE) (SEE GRADING & DRAINAGE NOTE #8)

CONST. 47 LF 18" HP STORM PIPE S=0.013

CONST. 4 LF 12" HP STORM PIPE S=0.025

FUTURE DEER STREET ASSOCIATES CIVIC SPACE

125/17

FUTURE DEER STREET ASSOCIATES LOT 3 DEVELOPMENT CONNECTIONS TO LOT PER DSA MARK-UPS DATED JULY 7, 2017.

FUTURE DEER STREET ASSOCIATES LOT 4 DEVELOPMENT CONNECTIONS TO LOT PER DSA MARK-UPS DATED JULY 7, 2017.

FUTURE DEER STREET ASSOCIATES LOT 6 DEVELOPMENT. CONNECTIONS TO LOT PER DSA PLAN DATED JUNE 15, 2017.

BEGIN SILT SOCK

SUDBURY ST

ROCK STREET

HANOVER STREET

DEER ST

BRIDGE STREET

HILL STREET

TANNER STREET

ONE WAY

BOSTON & MAINE RAILROAD

HEINEMANN PUBLISHING

REDLON & JOHNSON

ADAMS #191

#181 GARAGE

#165 GARY'S BEVERAGE 1 STORY CONCRETE BLOCK BUILDING

#163 1½ STORY BRICK BUILDING FF 11.57

2nd STORY LANDING

WOOD STAIRS

CANOPY

DMH 3543

CB 3528

CB 3527

CB 3529

CB 3530

CB 3531

CB 3532

CB 3542

CB 3491

CB 3492

CB 10516

PC: 1+54.98

PT: 1+16.43

PC: 0+83.74

PI: 3+66.25

PI: 3+24.86

PI: 2+69.88

PI: 2+13.54

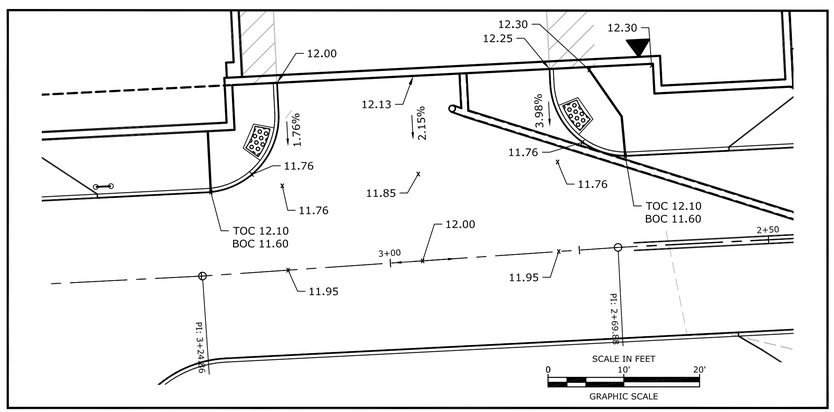
PI: 2+27.73

PI: 1+94.24

PI: 3+24.66

SCALE IN FEET 0 30' 60'

GRAPHIC SCALE



SEE SHEET C-100 FOR GRADING & DRAINAGE NOTES. SEE SHEET C-501 FOR EROSION CONTROL NOTES.

SEE SHEET C-104 FOR LEGEND, ROAD PROFILE & DRAINAGE STRUCTURE TABLE

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	SITE ENABLING BID SET	04/14/2017	
	GARAGE DESIGN DEVELOPMENT	05/05/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01

DRAWN BY: NAH

CHECKED BY: PMC/BLM

SHEET TITLE:

GRADING, DRAINAGE & EROSION CONTROL PLAN

C-103

7/5/2017 1:50:49 PM

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STRUCTURE TABLE

PCB1
RIM=8.65
INV.OUT=4.60 - N

PCB2
RIM=8.65
INV.OUT=4.60 - SE

PCB3
RIM=10.10
INV.OUT=6.90 - SE

PCB4
RIM=10.10
INV.OUT=6.85 - W

PCB5
RIM=12.50
INV.OUT=7.50 - NW

PCB6
RIM=9.85
INV.OUT=5.95 - NE

PCB7
RIM=9.50
INV.OUT=5.05 - SE

PDMH1
RIM=11.15
INV.IN=5.60 - SE
INV.IN=5.60 - SW
INV.IN=5.60 - NW
INV.OUT=5.50 - NE

PDMH2
RIM=9.40
INV.IN=4.90 - SW
INV.IN=4.90 - NW
INV.OUT=4.80 - NE

PDMH3
RIM=8.80
INV.IN=4.50 - SW
INV.IN=4.50 - S
INV.IN=4.50 - NW
INV.OUT=4.40 - NE

PDMH4
RIM=8.90
INV.IN=3.80 - SW
INV.OUT=2.31 - NW

PDMH5
RIM=10.20
INV.IN=6.80 - NW
INV.IN=6.80 - E
INV.OUT=6.70 - SW

PDMH6
RIM=12.10
INV.IN=5.90 - NE
INV.OUT=5.80 - NW

PDMH7
RIM=10.25
INV.IN=5.85 - SE
INV.IN=5.85 - SW
INV.OUT=5.75 - NE

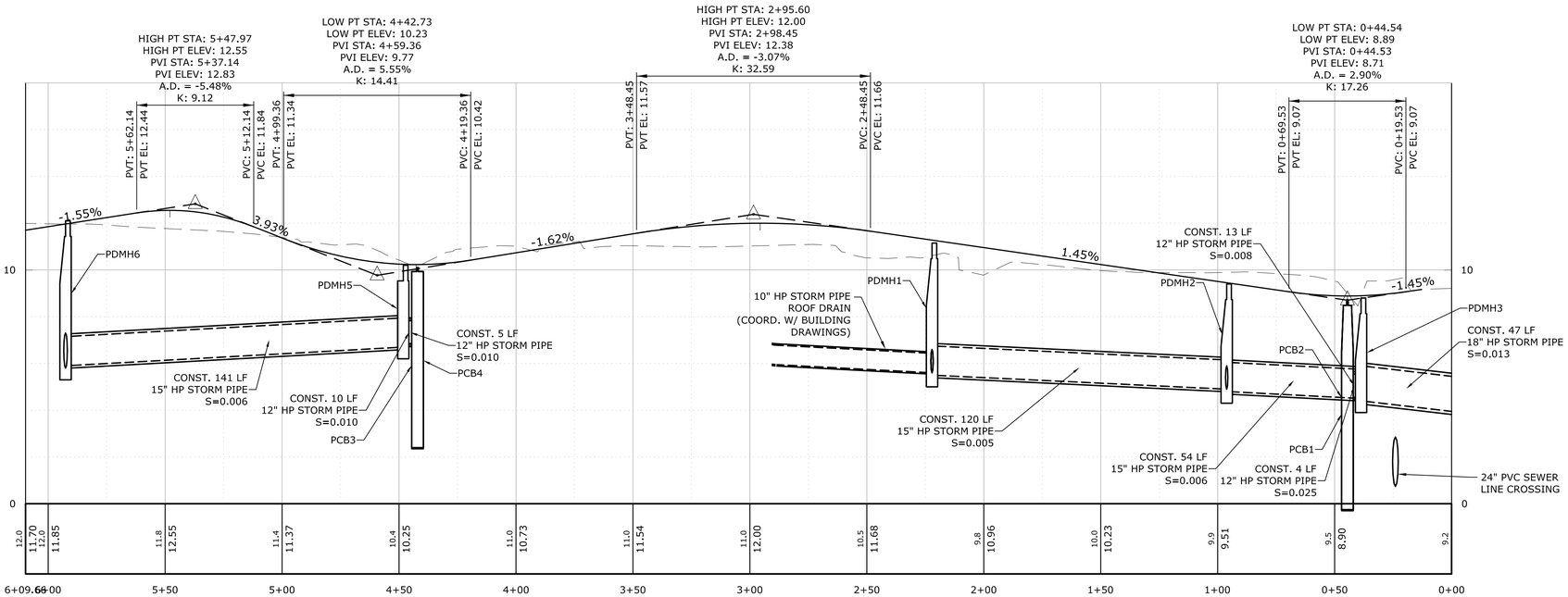
PDMH8
RIM=12.10
INV.IN=5.45 - SW
INV.IN=5.45 - SE
INV.OUT=5.35 - NW

PDMH9
RIM=9.95
INV.IN=4.95 - SE
INV.IN=4.95 - NW
INV.IN=4.95 - NE
INV.OUT=4.85 - SW

LEGEND

- PROPOSED MAJOR CONTOUR LINE
- PROPOSED MINOR CONTOUR LINE
- PROPOSED DRAIN LINE (TYP)
- PROPOSED SILT SOCK
- INLET PROTECTION SILT SACK
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE

BLDG — BUILDING
TYP — TYPICAL
COORD — COORDINATE



FOUNDRY PLACE

HORTZONTAL SCALE: 1" = 30'
30 0 30 60
VERTICAL SCALE: 1" = 3'
3 0 3 6

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20 Park Plaza, Suite 1202
Boston MA 02116
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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	04/14/2017	SITE ENABLING BID SET

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
GRADING AND DRAINAGE ROAD PROFILE

C-104

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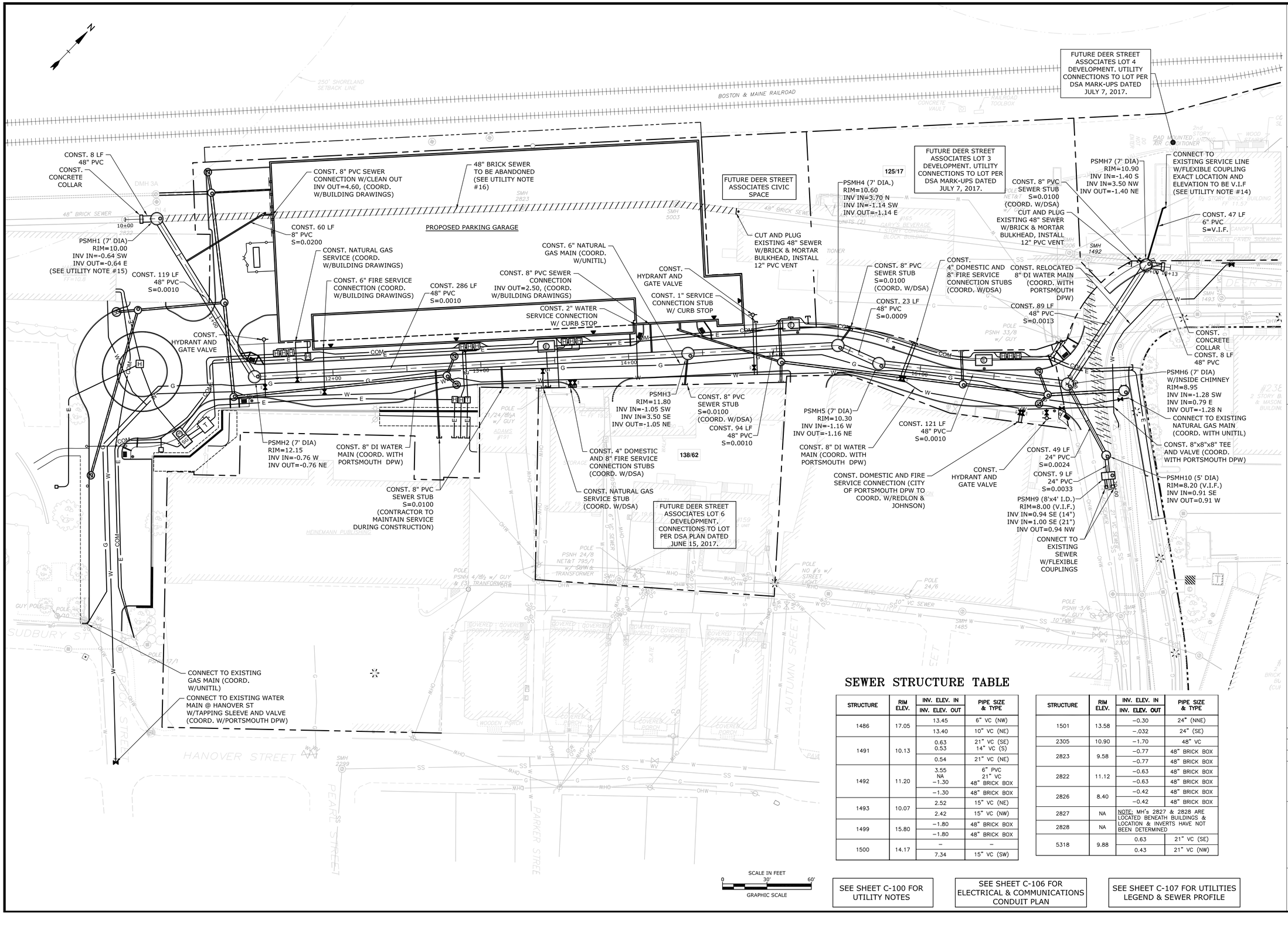

SEWER STRUCTURE TABLE

STRUCTURE	RIM ELEV.	INV. ELEV. IN / INV. ELEV. OUT	PIPE SIZE & TYPE
1486	17.05	13.45	6" VC (NW)
		13.40	10" VC (NE)
1491	10.13	0.63 0.53	21" VC (SE) 14" VC (S)
		0.54	21" VC (NE)
1492	11.20	3.55 NA −1.30	6" PVC 21" VC 48" BRICK BOX
		−1.30	48" BRICK BOX
1493	10.07	2.52	15" VC (NE)
		2.42	15" VC (NW)
1499	15.80	−1.80	48" BRICK BOX
		−1.80	48" BRICK BOX
1500	14.17	–	–
		7.34	15" VC (SW)

STRUCTURE	RIM ELEV.	INV. ELEV. IN / INV. ELEV. OUT	PIPE SIZE & TYPE
1501	13.58	−0.30	24" (NNE)
		−.032	24" (SE)
2305	10.90	−1.70	48" VC
2823	9.58	−0.77	48" BRICK BOX
		−0.77	48" BRICK BOX
2822	11.12	−0.63	48" BRICK BOX
		−0.63	48" BRICK BOX
2826	8.40	−0.42	48" BRICK BOX
		−0.42	48" BRICK BOX
2827	NA	NOTE: MH's 2827 & 2828 ARE LOCATED BENEATH BUILDINGS & LOCATION & INVERTS HAVE NOT BEEN DETERMINED	
2828	NA		
5318	9.88	0.63	21" VC (SE)
		0.43	21" VC (NW)

SEE SHEET C-100 FOR UTILITY NOTES

SEE SHEET C-106 FOR ELECTRICAL & COMMUNICATIONS CONDUIT PLAN

SEE SHEET C-107 FOR UTILITIES LEGEND & SEWER PROFILE

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
ISSUE:		
	04/14/2017	SITE ENABLING BID SET
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	07/28/2017	CONSTRUCTION DOCUMENTS

PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
UTILITIES PLAN

C-105

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THE CONTRACTOR PROVIDE CONTINUOUS UTILITY SERVICE TO THE HAPPNEY BUILDING THROUGHOUT THE CONSTRUCTION PERIOD. (SEE GENERAL NOTE #8 ON SHEET C-100)

250' SHORELAND SETBACK LINE

BOSTON & MAINE RAILROAD

FUTURE DEER STREET ASSOCIATES LOT 4 DEVELOPMENT. UTILITY CONNECTIONS TO LOT PER DSA MARK-UPS DATED JULY 7, 2017.

FUTURE DEER STREET ASSOCIATES LOT 3 DEVELOPMENT. UTILITY CONNECTIONS TO LOT PER DSA MARK-UPS DATED JULY 7, 2017.

FUTURE DEER STREET ASSOCIATES CIVIC SPACE

PROPOSED PARKING GARAGE

125/17

138/62

CONST. GENERATOR

CONST. SECONDARY ELECTRIC CONDUIT (COORD. W/BUILDING DRAWINGS)

CONST. TELEPHONE & CABLE (COORD. W/BUILDING DRAWINGS & UTILITY COMPANIES)

CONST. 1-3" TELEPHONE & CABLE CONDUIT (COORD. W/UTILITY COMPANIES)

CONST. 4-5" SECONDARY ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. 2-4" ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. HAND HOLE (COORD. W/EVERSOURCE)

CONST. 4-4" ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. SWITCH GEAR (COORD. W/EVERSOURCE)

CONST. METER PEDESTAL (COORD. W/EVERSOURCE)

CONST. 3 PHASE TRANSFORMER (COORD. W/EVERSOURCE)

CONST. 6-5" SECONDARY ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. 2-5" PRIMARY ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. COMMUNICATION PEDESTAL (COORD. UTILITY COMPANIES)

CONST. 4-3" COMMUNICATION CONDUIT (COORD. W/COMCAST & FAIRPOINT)

CONST. 3x3-5" ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. RISER FOR UTILITY TIE IN (COORD. W/UTILITY COMPANIES)

CONST. COMMUNICATION HAND HOLES (TYP.) (COORD. W/COMCAST & FAIRPOINT)

CONST. HAND HOLE (COORD. W/EVERSOURCE)

CONST. ELECTRIC MANHOLE (COORD. W/EVERSOURCE)

CONST. 4-3" COMMUNICATION CONDUIT (COORD. W/COMCAST & FAIRPOINT)

CONST. 2-5" ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. 4-5" SECONDARY ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. 4-5" ELECTRIC CONDUIT STUB (COORD. W/EVERSOURCE & HEINEMANN)

CONST. 3-3" COMMUNICATION CONDUIT STUB (COORD. W/COMCAST & FAIRPOINT)

CONST. 2-5" ELECTRIC CONDUIT STUB (COORD. W/EVERSOURCE)

CONST. 3-3" COMMUNICATION CONDUIT, STUB AT PROPERTY LINE (COORD. W/DSA)

CONST. 2-5" ELECTRIC CONDUIT, STUB AT PROPERTY LINE (COORD. W/EVERSOURCE & DSA)

CONST. SINGLE PHASE TRANSFORMER (COORD. W/EVERSOURCE)

FUTURE DEER STREET ASSOCIATES LOT 6 DEVELOPMENT. CONNECTIONS TO LOT PER DSA PLAN DATED JUNE 15, 2017.

CONST. 2-5" ELECTRIC CONDUIT STUB (COORD. W/EVERSOURCE & DSA)

STUB COMMUNICATIONS CONDUIT (COORD. W/DSA)

CONST. ELECTRIC MANHOLE (COORD. W/EVERSOURCE)

CONST. 4-5" ELECTRIC CONDUIT STUB (COORD. W/EVERSOURCE & DSA)

STUB COMMUNICATIONS CONDUIT (COORD. W/DSA)

STUB COMMUNICATIONS CONDUIT

CONST. 3x3-5" ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONST. 3x3-5" & 2-4" ELECTRIC CONDUIT (COORD. W/EVERSOURCE)

CONNECT 3x3-5" TO EXISTING CONDUIT STUB COORD. W/EVERSOURCE)

SUDBURY ST

ROCK STREET

HANOVER STREET

PEARL STREET

PARKER STREE

AUTUMN SREET

HILL STREET

TANNER STREET

BRIDGE STREET

ONE WAY

SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

SEE SHEET C-100 FOR UTILITY NOTES

SEE SHEET C-107 FOR UTILITIES LEGEND & SEWER PROFILE

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20 Park Plaza, Suite 1202
Boston MA 02116
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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	GARAGE DESIGN DEVELOPMENT	05/05/2017	
	SITE ENABLING BID SET	04/14/2017	

PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
CONDUIT PLAN

C-106

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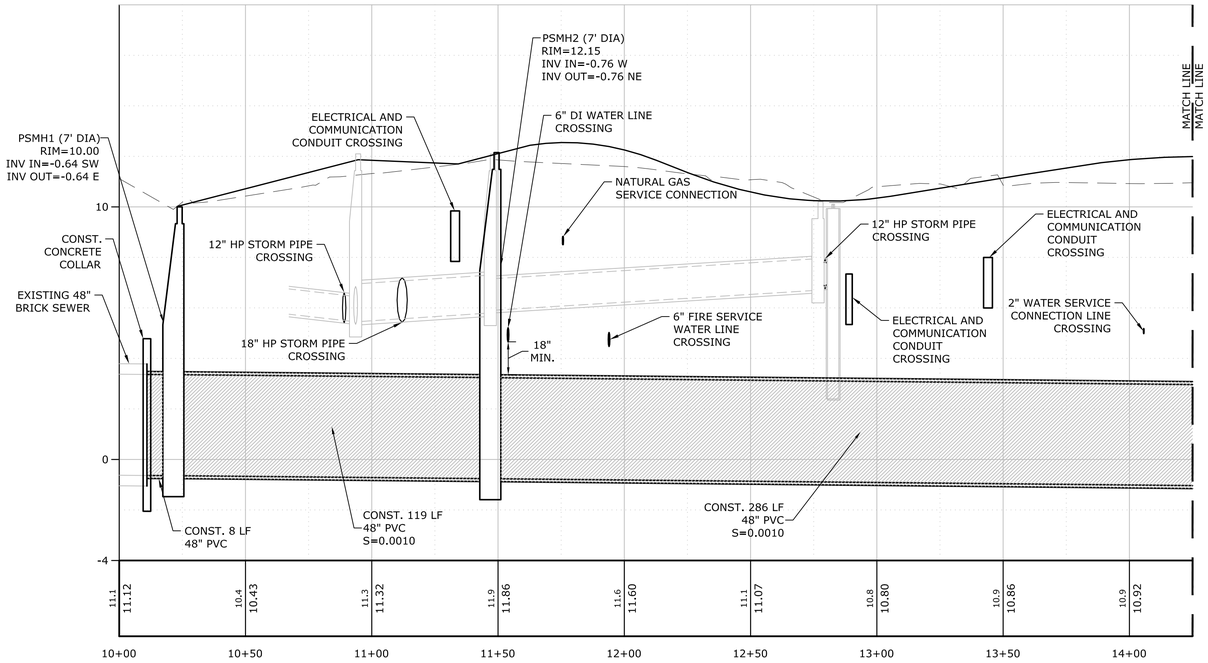
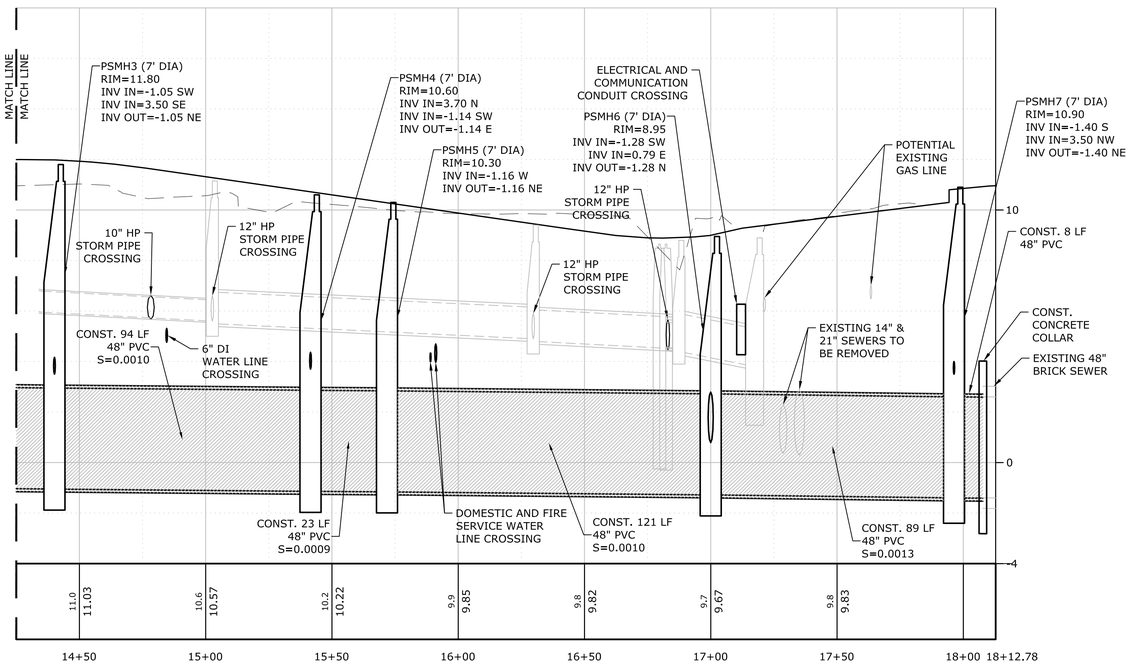


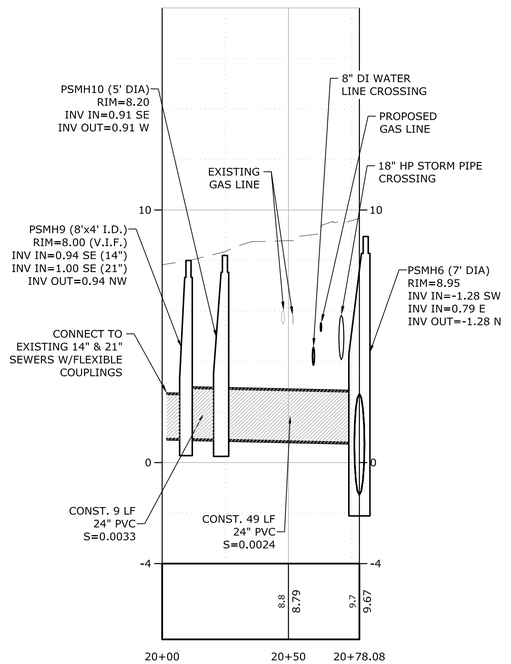


FOUNDRY PLACE SEWER

SEE SHEET C-104 FOR DETAILED DRAINAGE PROFILE

LEGEND

- MATCH LINE
- EXISTING STORM DRAIN
- SS — EXISTING SANITARY SEWER
- SS — EXISTING SANITARY SEWER TO BE REMOVED
- SS — EXISTING SANITARY SEWER TO BE ABANDONED
- W — EXISTING WATER
- G — EXISTING GAS
- E — EXISTING UNDERGROUND ELECTRIC
- OHW — EXISTING OVERHEAD UTILITY
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- W — PROPOSED WATER
- G — PROPOSED GAS
- E — PROPOSED UNDERGROUND ELECTRIC
- COM — PROPOSED UNDERGROUND COMMUNICATION
- EXISTING CATCHBASIN
- EXISTING DRAIN MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING ELECTRIC MANHOLE
- EXISTING TELEPHONE MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED WATER VALVE
- PROPOSED HYDRANT
- PROPOSED GAS VALVE
- PROPOSED ELECTRIC MANHOLE
- PROPOSED LIGHT POLE BASE
- BLDG — BUILDING
- TYP — TYPICAL
- COORD — COORDINATE
- VIF — VERIFY IN FIELD



BRIDGE STREET SEWER

HORTZONTAL SCALE: 1" = 30'
30 0 30 60
VERTICAL SCALE: 1" = 3'
3 0 3 6

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PORTSMOUTH, NEW HAMPSHIRE

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C-107

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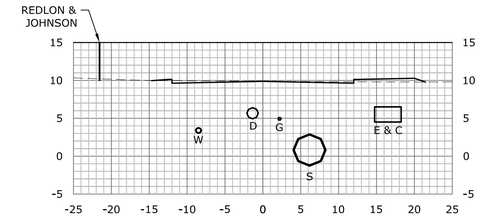

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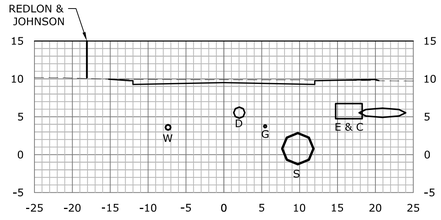

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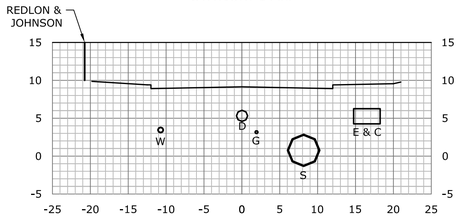

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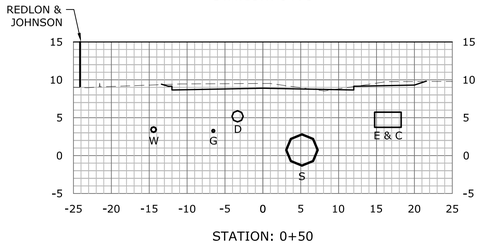

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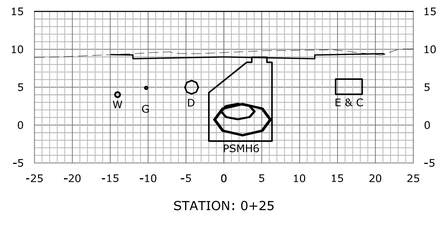

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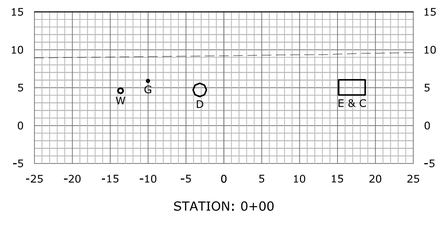

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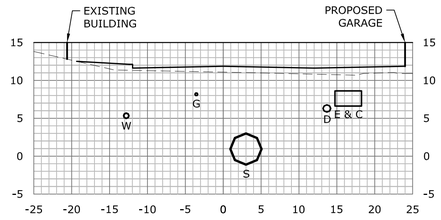

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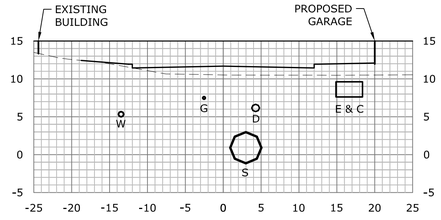

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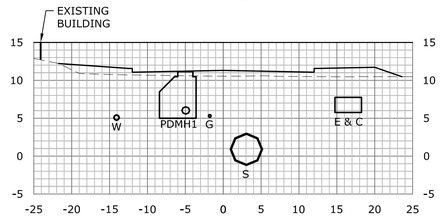

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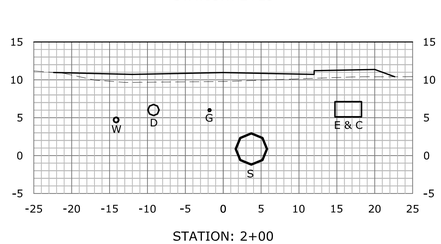

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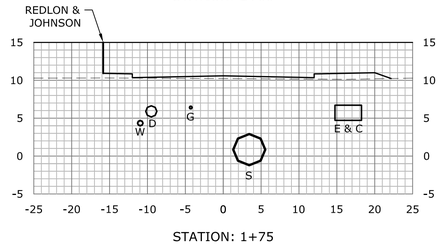

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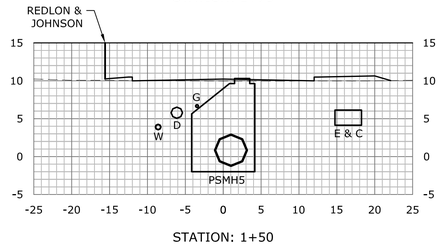

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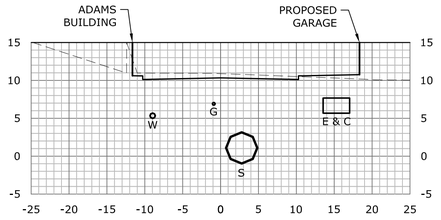

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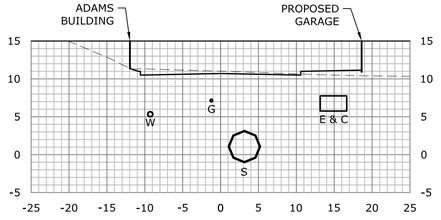

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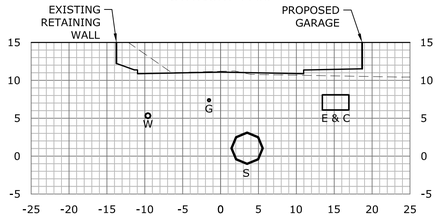

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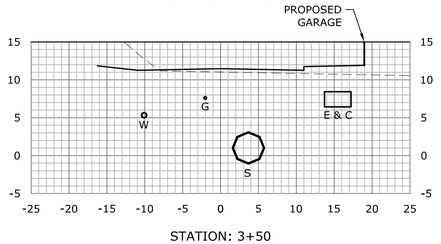

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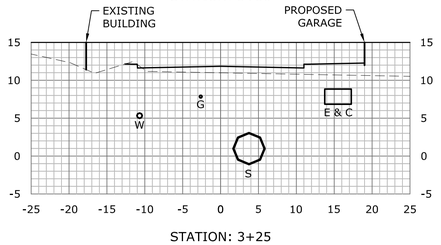

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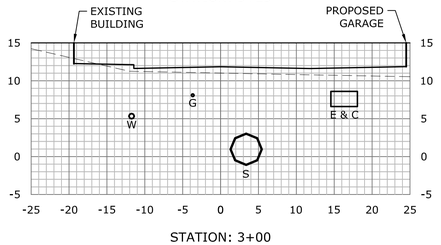

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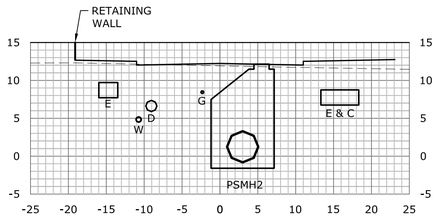

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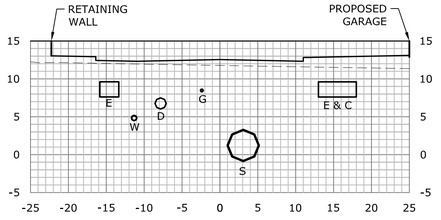

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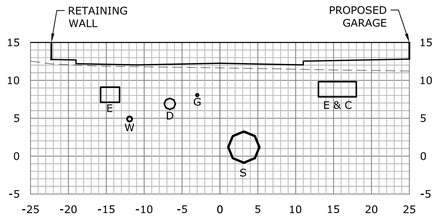

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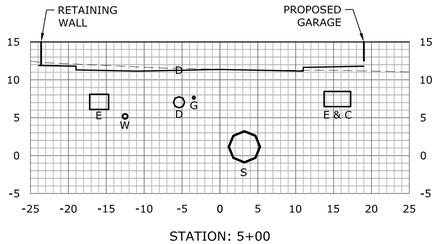

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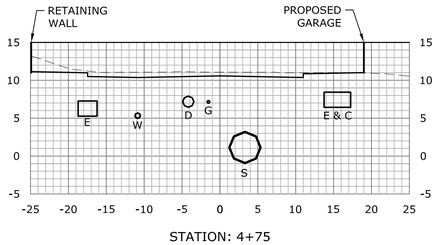

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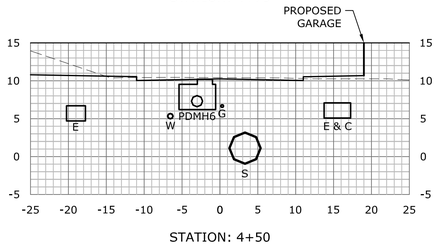

STATION: 4+50

SCALE IN FEET
0 10' 20'
GRAPHIC SCALE

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	SITE ENABLING BID SET	04/14/2017	
	GARAGE DESIGN DEVELOPMENT	05/05/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
ROAD
SECTIONS

C-301

7/5/2017 1:50:49 PM
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PROJECT NAME AND LOCATION
FOUNDRY PLACE PARKING GARAGE
FOUNDRY PLACE 43°-04'-35"N
PORTSMOUTH, NH 03801 70°-45'-50"W

DESCRIPTION
THE PROJECT CONSISTS OF THE CONSTRUCTION OF THE APPROX. 600LF FOUNDRY PLACE WITH ASSOCIATED UTILITIES FOR THE PROPOSED PARKING GARAGE AND FUTURE DEVELOPMENT. THE PROJECT ALSO INCLUDES THE RE-ROUTING OF THE EXISTING 4' BRICK SEWER LINE.
THE WORK IS ANTICIPATED TO START IN SPRING 2017 AND BE COMPLETED BY SPRING 2018.

DISTURBED AREA
THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 2.1 ACRES.

SOIL CHARACTERISTICS
BASED ON THE NRCS SOIL SURVEY FOR ROCKINGHAM COUNTY THE SOILS CONSIST OF URBAN LAND AND URBAN LAND - CANTON COMPLEX.

NAME OF RECEIVING WATERS
THE STORM WATER RUNOFF WILL FLOW VIA A CLOSED DRAINAGE SYSTEM TO ONE OF TWO EXISTING OUTFALLS INTO NORTH MILL POND. THE RUNOFF FROM THE PARKING GARAGE AND A PORTION OF THE PROPOSED ROAD WILL FLOW TO THE BREWSTER STREET OUTFALL AND THE REMAINDER OF THE ROAD RUNOFF WILL FLOW TO THE DEER STREET OUTFALL.

SEQUENCE OF MAJOR ACTIVITIES
1. CUT AND CLEAR TREES.
2. CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
   - NEW CONSTRUCTION
   - DEVELOPMENT OF BORROW PIT AREAS
   - DISPOSAL OF SEDIMENT SPOIL, STUMP AND OTHER SOLID WASTE
   - CONTROL OF DUST
   - CONSTRUCTION OF ACCESS AND HAUL ROAD
   - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
   - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
4. ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPS PRIOR TO DIRECTING RUNOFF TO THEM.
5. CLEAR AND DISPOSE OF DEBRIS.
6. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
7. GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
8. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES HALL BE SEEDED AND MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
9. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
10. FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
11. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
12. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
13. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

NOTE: THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.

EROSION CONTROL NOTES
1. ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES.
2. PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL.
3. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALE, SILT FENCES, SILT SACKS AND SILT SOCKS, AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
4. SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
5. PERIMETER CONTROLS INCLUDING SILT FENCES, HAY BALE BARRIERS, AND/OR SILT SOCKS SHALL MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
6. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
7. ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED, AND FERTILIZER.
8. INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
9. CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

STABILIZATION
1. AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
   A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
   B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
   C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
   D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
2. WINTER STABILIZATION PRACTICES:
   A. ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY NOVEMBER 15TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHOR NETTING, ELSEWHERE.
   B. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITION.
   C. AFTER NOVEMBER 15TH, INCOMPLETE ROAD SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
3. STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
   A. TEMPORARY SEEDING
   B. MULCHING
4. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES AND HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
5. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH HAY BALE BARRIERS AND SILT FENCES OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY NOVEMBER 15.

DUST CONTROL:
1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
2. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
3. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

STOCKPILES
1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

OFF SITE VEHICLE TRACKING
THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES PRIOR TO ANY EXCAVATION ACTIVITIES.

VEGETATION
1. TEMPORARY GRASS COVER
   A. SEEDBED PREPARATION:
      APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE.
   B. SEEDING
      1. UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE.
      2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
      3. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH,MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
   C. MAINTENANCE
      TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).

2. VEGETATIVE PRACTICE
   A. FOR PERMANENT MEASURES AND PLANTINGS.
      1. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.
      2. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER.
      3. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4-1/2 POUNDS AND 5-1/2 POUNDS PER INCH OF WIDTH.
      4. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH.
      5. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE.
      6. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED.
      7. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED.
      8. A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

SEEDING RATE	
CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
REDTOP	2 LBS/ACRE

      IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. SEEDING SHALL BE DONE NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.

3. DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL)
   FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

CONCRETE WASHOUT AREA
1. THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE.
   A. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY.
   B. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER.
   C. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS.
   D. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

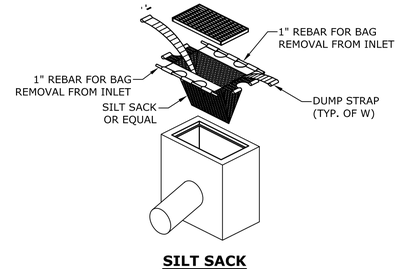
ALLOWABLE NON-STORMWATER DISCHARGES
1. DISCHARGES FROM FIRE-FIGHTING ACTIVITIES
2. FIRE HYDRANT FLUSHINGS
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED
4. WATER USED TO CONTROL DUST
5. POTABLE WATER INC. UNCONTAMINATED WATER LINE FLUSHINGS
6. ROUTINE EXTERNAL BUILDING WASH DOWN -NO DETERGENTS
7. PAVEMENT WASH WATERS -NO SPILLS OR DETERGENTS
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATE
9. UNCONTAMINATED GROUND WATER OR SPRING WATER
10. FOUNDATION OR FOOTING DRAINS -NOT CONTAMINATED
11. UNCONTAMINATED EXCAVATION DEWATERING
12. LANDSCAPE IRRIGATION

WASTE DISPOSAL
1. WASTE MATERIALS
   A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER.
   B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE.
   C. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
2. HAZARDOUS WASTE
   A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER.
   B. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
3. SANITARY WASTE
   A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

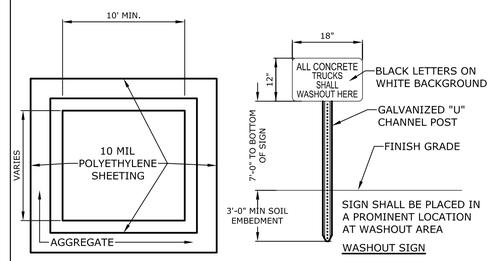
SPILL PREVENTION
1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
   A. GOOD HOUSEKEEPING:
      THE FOLLOWING GOOD HOUSEKEEPING PRACTICES SHALL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:
      1. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE.
      2. ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
      3. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
      4. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
      5. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
      6. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   B. HAZARDOUS PRODUCTS:
      THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
      1. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
      2. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
      3. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
   C. PRODUCT SPECIFICATION PRACTICES
      THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
      1. PETROLEUM PRODUCTS:
         a. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE.
         b. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
      2. FERTILIZERS:
         a. FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS.
         b. ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER.
         c. STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
      3. PAINTS:
         a. ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE.
         b. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM.
         c. EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
   D. SPILL CONTROL PRACTICES
      IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
      1. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
      2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
      3. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
      4. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
      5. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED.
      6. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
   E. VEHICLE FUELING AND MAINTENANCE PRACTICE:
      1. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPTMENT/VEHICAL FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY.
      2. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY.
      3. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED.
      4. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA.
      5. CONTRACTOR SHALL VEHICLES SHALL BE INSPECTED REGULARLY FOR LEAKS AND DAMAGE.
      6. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES
THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ONSITE AT ALL TIMES.

THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT.
1. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER.
2. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR.
3. A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES.
4. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

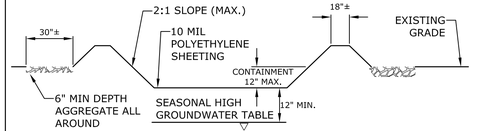


SILT SACK
NO SCALE



PLAN

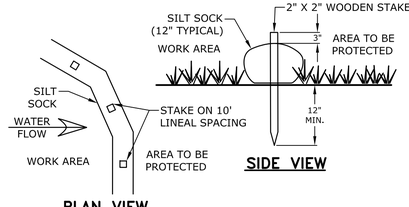
WASHOUT SIGN



TYPICAL SECTION

NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

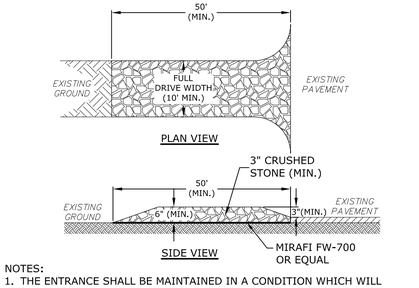
CONCRETE WASHOUT AREA
NO SCALE



PLAN VIEW **SIDE VIEW**

NOTES:
1. SILT SOCK SHALL BE SILT SOXX BY FILTREXX OR APPROVED EQUAL
2. INSTALL SILT SOCK IN ACCORDANCE WITH...

SILT SOCK
NO SCALE



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE SO RUNOFF DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.
2. SEE EROSION CONTROL NOTES FOR MATERIAL, INSTALLATION AND MAINTENANCE REQUIREMENTS.
3. LOCATIONS SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH IN ACCORDANCE WITH THE PHASING OF THE CONSTRUCTION

STABILIZED CONSTRUCTION ENTRANCE
NO SCALE

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

STATE OF NEW HAMPSHIRE PROFESSIONAL ENGINEER BRADLEE MEDONTA No. 08830

Tighe&Bond
Engineers | Environmental Specialists

FOUNDRY PLACE PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

ISSUE: DESCRIPTION	DATE	MARK
CONSTRUCTION DOCUMENTS	07/28/2017	
GARAGE DESIGN DEVELOPMENT	05/05/2017	
SITE ENABLING BID SET	04/14/2017	

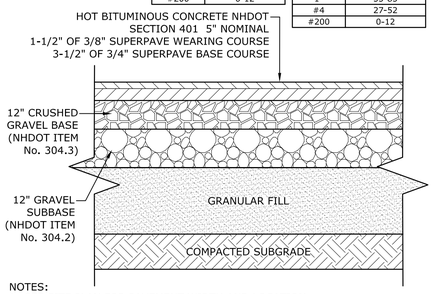
PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
EROSION CONTROL NOTES & DETAILS SHEET

C-501

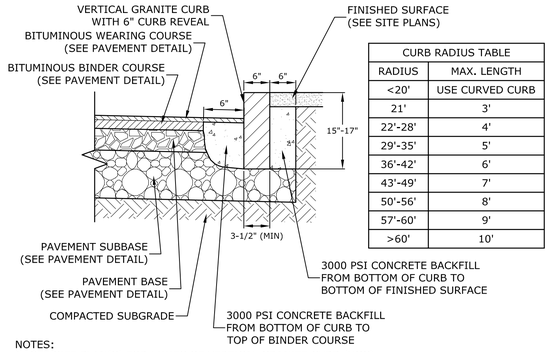
NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12



NOTES:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
3. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
4. REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.
5. INSTALL GEOTEXTILE MARKER/SEPARATING BARRIER BETWEEN ALL CLEAN IMPORTS SOILS AND SUBGRADE SOILS (BASE AND SIDEWALLS), WITH THE EXCEPTION OF CLEAN NATIVE SOILS.

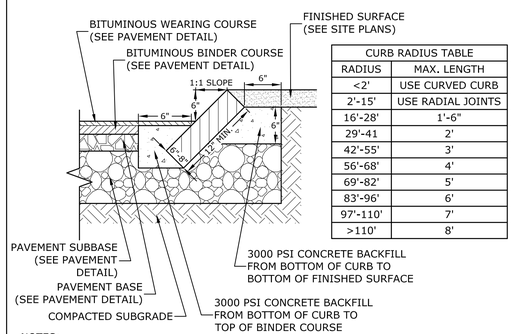
TYPICAL PAVEMENT SECTION
NO SCALE



CURB RADIUS TABLE	
RADIUS	MAX. LENGTH
<20'	USE CURVED CURB
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
>60'	10'

NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
7. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.
8. INSTALL GEOTEXTILE MARKER/SEPARATING BARRIER BETWEEN ALL CLEAN IMPORTS SOILS AND SUBGRADE SOILS (BASE AND SIDEWALLS), WITH THE EXCEPTION OF CLEAN NATIVE SOILS.

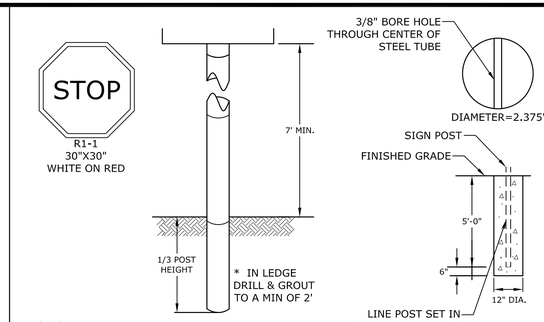
VERTICAL GRANITE CURB
NO SCALE



CURB RADIUS TABLE	
RADIUS	MAX. LENGTH
<2'	USE CURVED CURB
2'-15'	USE RADIAL JOINTS
16'-28'	1'-6"
29'-41	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
>110'	8'

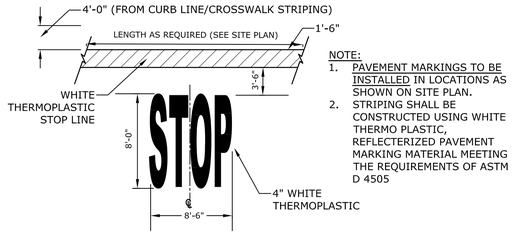
NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.
7. INSTALL GEOTEXTILE MARKER/SEPARATING BARRIER BETWEEN ALL CLEAN IMPORTS SOILS AND SUBGRADE SOILS (BASE AND SIDEWALLS), WITH THE EXCEPTION OF CLEAN NATIVE SOILS.

SLOPED GRANITE CURB
NO SCALE



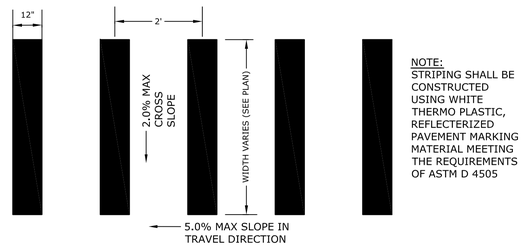
NOTES:
ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
POST: SCHEDULE 40 GALVANIZED STEEL PIPE (OUTSIDE DIA. = 2.375").
FINISH: POST TO BE POWDER COATED GLOSS BLACK
LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8" DIAMETER (AS REQUIRED)
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070-1080)

SIGN LEGEND & SIGN POST
NO SCALE



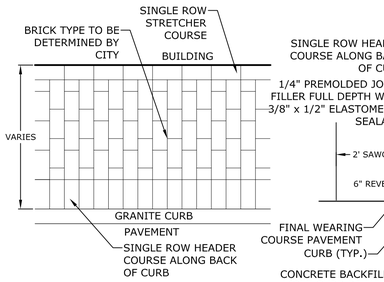
NOTE:
1. PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
2. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

STOP BAR AND LEGEND
NO SCALE

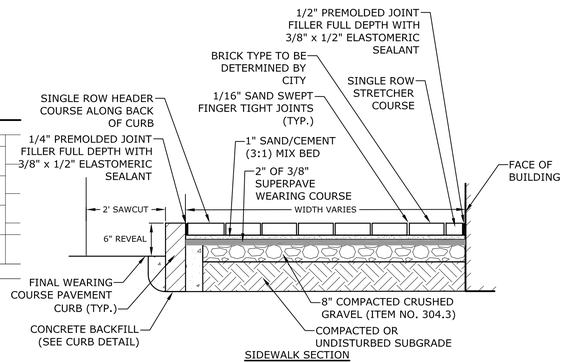


NOTE:
STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

CROSSWALK STRIPING
NO SCALE



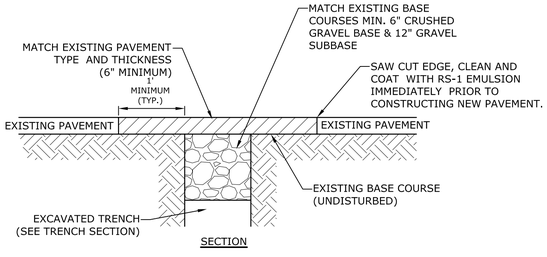
SIDEWALK PLAN VIEW



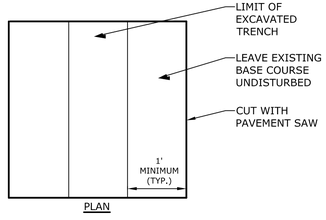
SIDEWALK SECTION

NOTES:
1. BRICK SIDEWALK SHALL BE INSTALLED AS DETAILED AND PER CITY OF PORTSMOUTH REQUIREMENTS/SPECIFICATIONS AND SHALL INCLUDE A CONTINUOUS APPROVED PAVER EDGE RESTRAINT SYSTEM AT ALL LOCATIONS NOT ADJACENT TO CURB OR BUILDINGS.
2. BEDDING MATERIAL SHALL BE A SAND/CEMENT MIX THAT IS 3 PARTS SAND AND 1 PART CEMENT. SAND SHALL CONFORM WITH ASTM C33 AND CEMENT SHALL BE PORTLAND CEMENT TYPE I/TYPE II.
3. INSTALL GEOTEXTILE MARKER/SEPARATING BARRIER BETWEEN ALL CLEAN IMPORTS SOILS AND SUBGRADE SOILS (BASE AND SIDEWALLS), WITH THE EXCEPTION OF CLEAN NATIVE SOILS.

BRICK SIDEWALK
NO SCALE



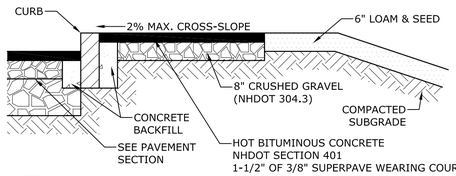
SECTION



PLAN

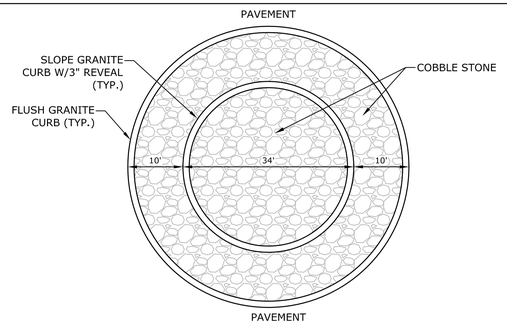
NOTE:
COORDINATE AND OBTAIN APPROVAL FOR ALL TRENCHING AND PATCHING WITHIN CITY RIGHT OF WAY WITH CITY OF PORTSMOUTH DPW PRIOR TO COMMENCING WORK.

ROADWAY TRENCH PATCH
NO SCALE

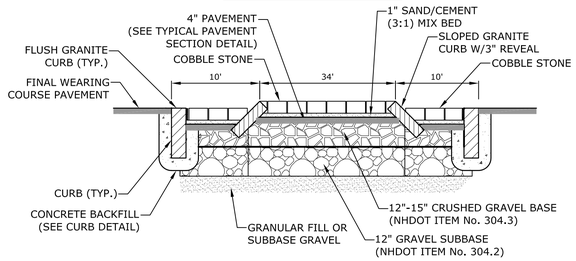


NOTES:
1. SEE SITE PLAN FOR SIDEWALK WIDTH, LOCATIONS AND CURB TYPE.
2. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR WALK AND SIDESLOPE GRADES.

BITUMINOUS CONCRETE SIDEWALK
NO SCALE



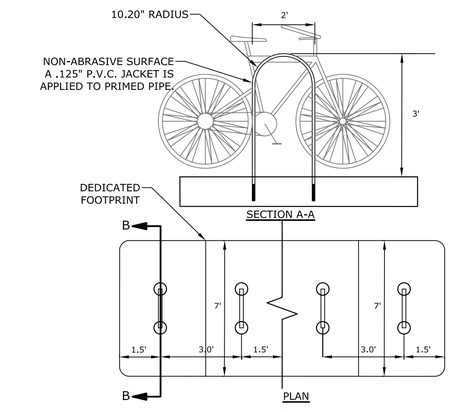
ROUNDABOUT CENTER PLAN VIEW



ROUNDABOUT CENTER SECTION

NOTES:
1. BEDDING MATERIAL SHALL BE A SAND/CEMENT MIX THAT IS 3 PARTS SAND AND 1 PART CEMENT. SAND SHALL CONFORM WITH ASTM C33 AND CEMENT SHALL BE PORTLAND CEMENT TYPE I/TYPE II.
2. COORDINATE FINAL DESIGN WITH LANDSCAPE ARCHITECT.
3. INSTALL GEOTEXTILE MARKER/SEPARATING BARRIER BETWEEN ALL CLEAN IMPORTS SOILS AND SUBGRADE SOILS (BASE AND SIDEWALLS), WITH THE EXCEPTION OF CLEAN NATIVE SOILS.

ROUNDABOUT CENTER
NO SCALE



BIKE RACK
NO SCALE

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

STATE OF NEW HAMPSHIRE
BRADLEE MEDONTA No. 08880 PROFESSIONAL ENGINEER
7/5/2017

Tighe&Bond
Engineers | Environmental Specialists

FOUNDRY PLACE PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

ISSUE:		
MARK	DATE	DESCRIPTION
	04/14/2017	SITE ENABLING BID SET
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	07/28/2017	CONSTRUCTION DOCUMENTS

PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
DETAILS SHEET

C-502

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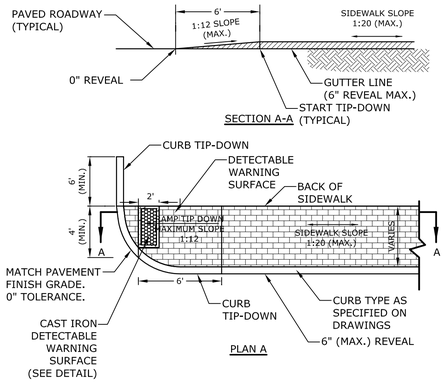
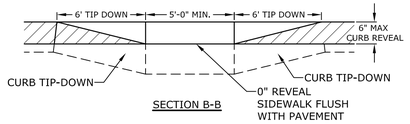
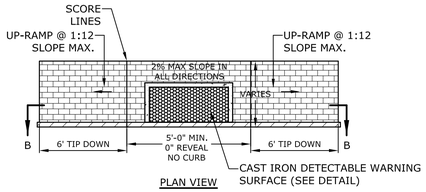


SECTION A-A

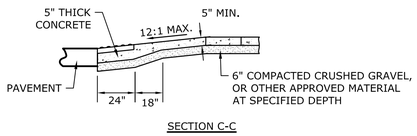
PLAN A



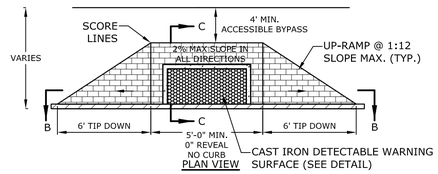
SECTION B-B



PLAN VIEW



SECTION C-C



PLAN VIEW

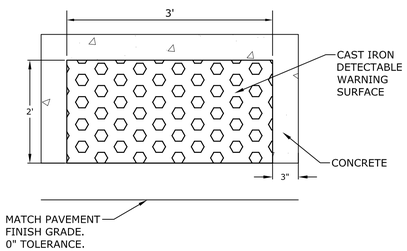
NOTES:

1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
2. A 6" COMPACTED CRUSHED GRAVEL BASE (NHDOT ITEM No. 304.3) SHALL BE PROVIDED BENEATH RAMPS.
3. DETECTABLE WARNING PANEL SHALL BE 2' X 3' CAST IRON SET IN CONCRETE (SEE DETAIL.)
4. PROVIDE DETECTABLE WARNING SURFACES ANYTIME THAT A CURB RAMP, BLENDED TRANSITION, OR LANDING CONNECTS TO A STREET.
5. LOCATE THE DETECTABLE WARNING SURFACES AT THE BACK OF THE CURB ALONG THE EDGE OF THE LANDING.
6. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 12:1, THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
7. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2 FT. FROM THE ROADWAY CURBLINE.
8. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS.
9. DETECTABLE WARNING PANELS SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION, OR LANDING AND THE STREET.
10. THE TEXTURE OF THE DETECTABLE WARNING FEATURE MUST CONTRAST VISUALLY WITH THE SURROUNDING SURFACES (EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT).

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12

CONCRETE WHEELCHAIR ACCESSIBLE RAMP

NO SCALE

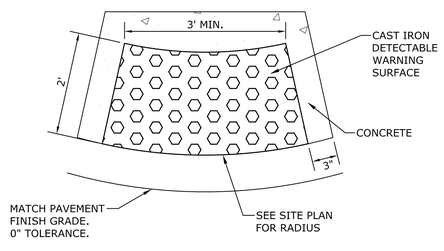


NOTES:

1. DETECTABLE WARNING SURFACE SHALL BE 2' X 3' CAST IRON PANEL SET IN CONCRETE.
2. DETECTABLE WARNING SURFACE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

CAST IRON DETECTABLE WARNING SURFACE

NO SCALE

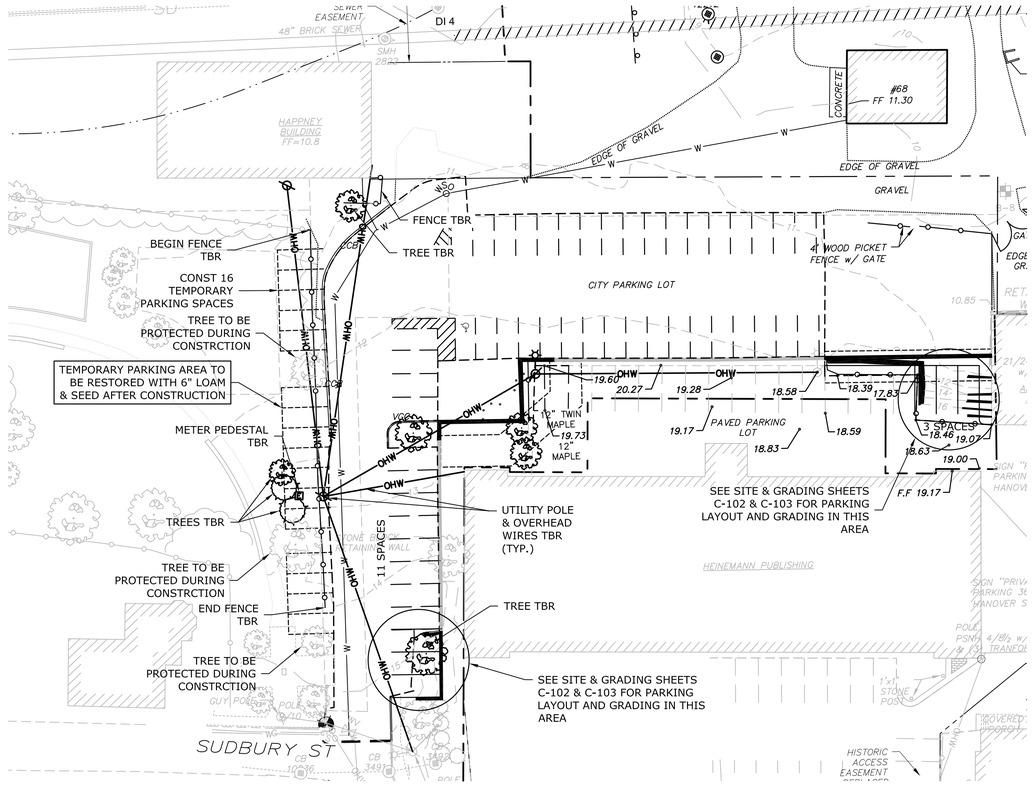


NOTES:

1. DETECTABLE WARNING SURFACE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

RADIUS TYPE CAST IRON DETECTABLE WARNING SURFACE

NO SCALE



TEMPORARY PARKING LOT

SCALE: 1"=30'

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

STATE OF NEW HAMPSHIRE — PROFESSIONAL ENGINEER — BRADLEE MEDONTA No. 08830 — CONSULTANT — 7/28/17

Tighe&Bond
Engineers | Environmental Specialists

FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	04/14/2017	SITE ENABLING BID SET

ISSUE:

PROJECT NO: 16-2683.01

DRAWN BY: NAH

CHECKED BY: PMC/BLM

SHEET TITLE:

DETAILS SHEET

C-503

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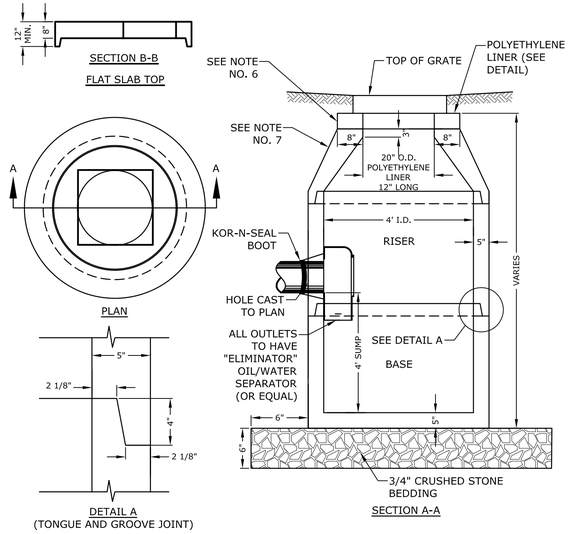
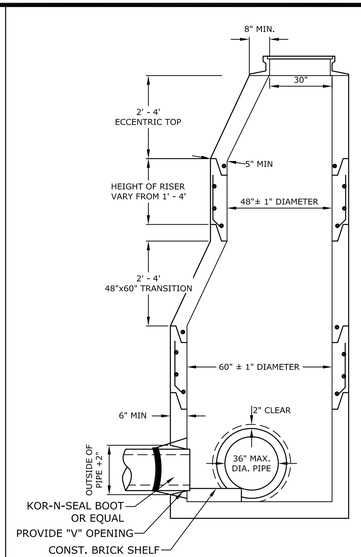
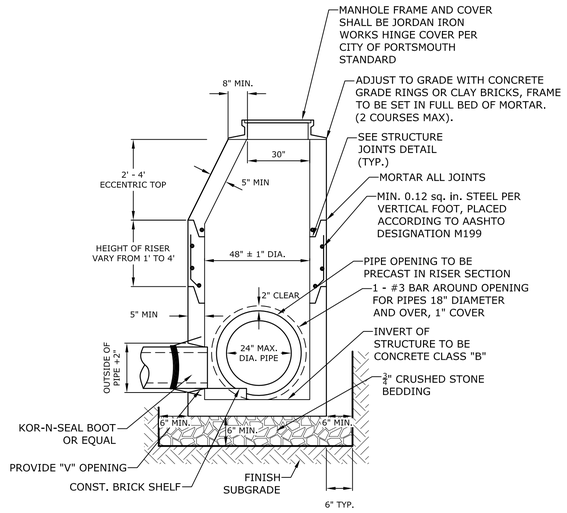


NOTES:
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 psi).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
5. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
6. FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
7. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
8. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
9. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
10. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
11. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
12. "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASIN.

4' DIAMETER CATCHBASIN
NO SCALE



5' DIAMETER DRAIN MANHOLE
NO SCALE

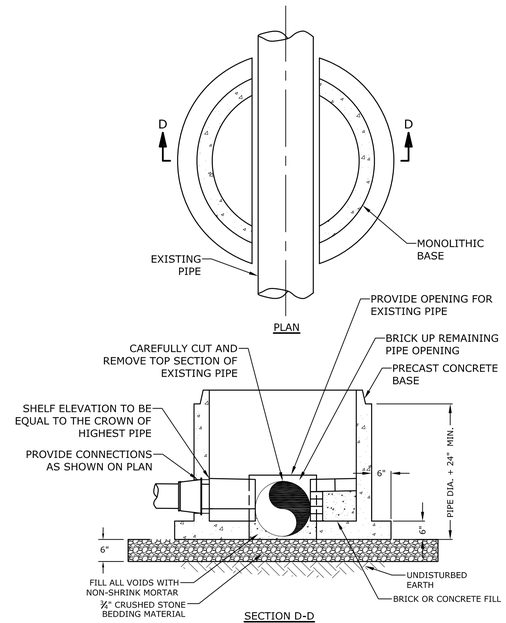


4' DIAMETER DRAIN MANHOLE
NO SCALE

NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS)
6. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
7. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
8. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZNTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

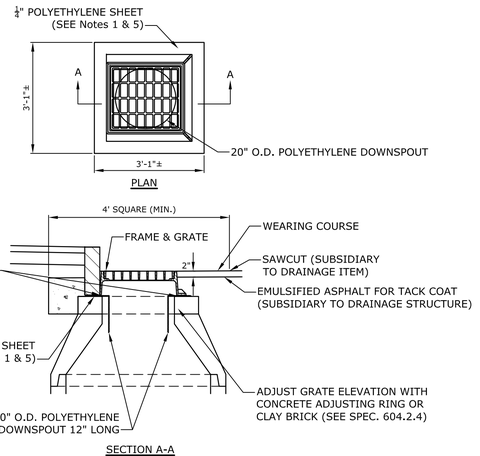
DRAIN MANHOLE
NO SCALE

NHDOT ITEM No. 304.4 (CRUSHED STONE - FINE)	
SIEVE SIZE	% PASSING
2"	100
1-1/2"	85-100
3/4"	45-75
#4	10-45
#200	0-5



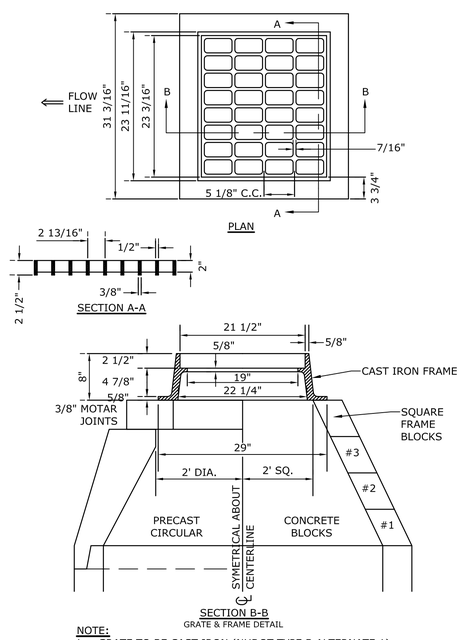
NOTES:
1. MANHOLE BASE SECTION SHOWN, ALL OTHER SECTIONS AND CONSTRUCTION DETAILS SHALL COMPLY WITH THE APPROPRIATE MANHOLE DETAIL.
2. MEET REQUIREMENTS OF SECTION 604 CATCH BASINS, DROP INLETS, AND MANHOLES OF NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION, AS AMENDED.
3. OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE EXISTING PIPE.
4. TOP HALF OF THE EXISTING PIPE TO BE REMOVED FOR FULL LENGTH EXPOSED INSIDE MANHOLE. EXISTING PIPE TO BE NEATLY CUT ALONG THE SPRING LINE OF THE PIPE.
5. SEE DRAIN MANHOLE DETAIL FOR ADDITIONAL INFORMATION.

PRECAST DOGHOUSE MANHOLE BASE
NO SCALE



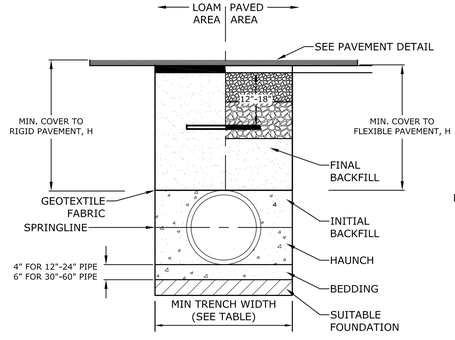
NOTES:
1. POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
3. PLACE CLASS AA CONCRETE TO 2" BELOW THE TOP OF THE GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE).
4. USE ON DRAINAGE STRUCTURES 4' MIN. DIAMETER ONLY.
5. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH 3-FLANGE FRAME AND CURB).
6. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6" FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.
7. PLACED ONLY IN DRAINAGE STRUCTURES IN PAVEMENT.
8. SEE NHDOT DR-04, "DI-DB, UNDERDRAIN FLUSHING BASIN AND POLYETHYLENE LINER DETAILS", FOR ADDITIONAL INFORMATION.

POLYETHYLENE LINER
NO SCALE



NOTE:
1. GRATE TO BE CAST IRON (NHDOT TYPE B ALTERNATE 1)
2. FRAME AND GRATE TO BE MANUFACTURED IN THE USA

CATCH BASIN FRAME & GRATE
NO SCALE



PIPE DIAM.	MIN. TRENCH WIDTH
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"

TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

	SURFACE LIVE LOADING CONDITION	
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
60"	24"	60"

TABLE 2, MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITION
* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

	CLASS I	CLASS II			CLASS III		CLASS IV
PIPE DIA.	COMPACTED	95%	90%	85%	95%	90%	95%
12"	41'	28'	21'	16'	20'	16'	16'
15"	42'	29'	21'	16'	21'	16'	16'
18"	44'	30'	21'	16'	22'	17'	16'
24"	37'	26'	18'	14'	19'	14'	14'

TABLE 3, MAXIMUM COVER FOR ADS HP STORM PIPE
FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS;
NO HYDROSTATIC PRESSURE
UNIT WEIGHT OF SOIL (ys) = 120 PCF

NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION, WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321. CLASS IVB MATERIALS (MH, CH) AS DEFINED IN PREVIOUS VERSIONS OF ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE AS JUDGED BY THE ENGINEER, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL. REFER TO SPECIFICATION 310000 EARTHWORK - SITE.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" (300mm-600mm) DIAMETER PIPE; 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF THE GEOTECHNICAL ENGINEER.
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF THE GEOTECHNICAL ENGINEER.
6. MINIMUM COVER: FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
7. FOR ADDITIONAL INFORMATION SEE TECHNICAL NOTE 2.04.

HP STORM TRENCH INSTALLATION DETAIL
NO SCALE

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

STATE OF NEW HAMPSHIRE
BRADLEE MEDOLIA
No. 08830
PROFESSIONAL ENGINEER
7/5/2017

Tighe&Bond
Engineers | Environmental Specialists

FOUNDRY PLACE
PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	04/14/2017	SITE ENABLING BID SET
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: NAH
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SHEET TITLE:
DETAILS SHEET

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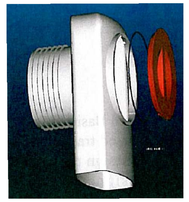
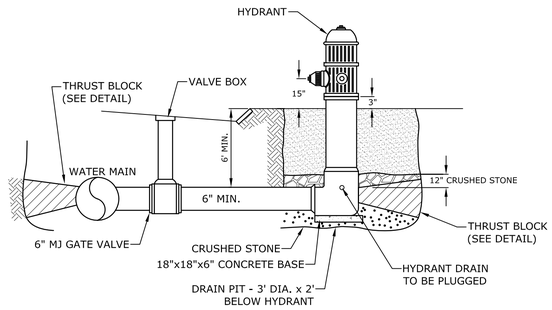


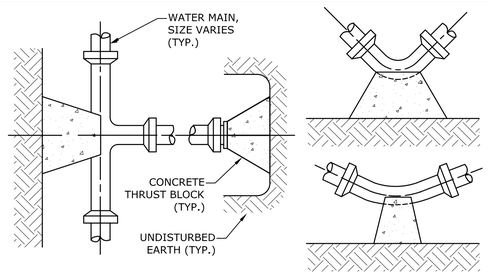
NOTES:
1. ALL CATCH BASIN OUTLETS TO HAVE "ELIMINATOR" OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (NO EQUAL)
2. INSTALL DEBRIS TRAP TIGHT TO INSIDE OF STRUCTURE.
3. 1/4" HOLE SHALL BE DRILLED IN TOP OF DEBRIS TRAP

"ELIMINATOR" OIL & FLOATING DEBRIS TRAP
NO SCALE



NOTE:
HYDRANT INSTALLATION AND OPERATION, MANUFACTURE AND MODEL, AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT AND FIRE DEPARTMENT.

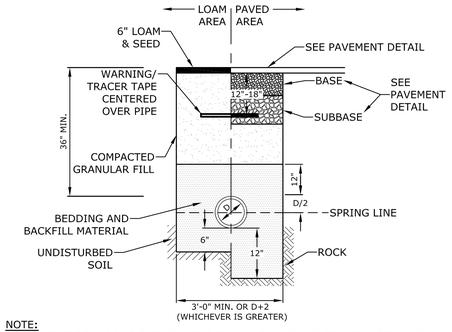
FIRE HYDRANT
NO SCALE



TEST PRESSURE = 200psi	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL					
	REACTION TYPE	PIPE SIZE				
		4"	6"	8"	10"	12"
	A 90°	0.89	2.19	3.82	11.14	17.24
	B 180°	0.65	1.55	2.78	8.38	12.00
	C 45°	0.48	1.19	2.12	6.02	9.32
	D 22-1/2°	0.25	0.60	1.06	3.08	4.74
	E 11-1/4°	0.13	0.30	0.54	1.54	2.38

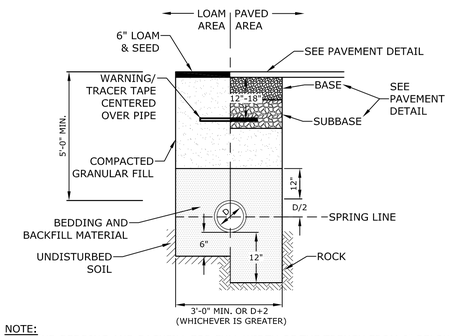
NOTES:
1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.

THRUST BLOCKING DETAIL
NO SCALE



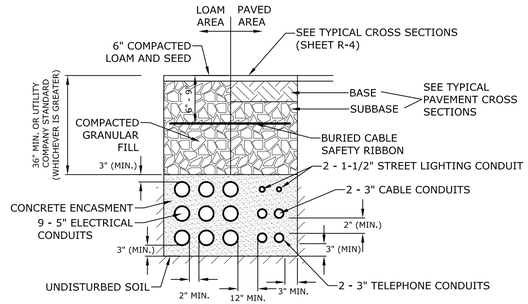
NOTE:
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
2. GAS SHALL BE INSTALLED PER UNITIL STANDARDS. COORDINATE ALL INSTALLATIONS WITH UNITIL AND THE CITY OF PORTSMOUTH.

GAS TRENCH
NO SCALE



NOTE:
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
2. WATER MAIN SHALL BE INSTALLED PER CITY OF PORTSMOUTH STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

WATER TRENCH
NO SCALE



NOTE:
1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL UTILITY OR AS SHOWN ON CONDUIT PLAN (SHEET C-106).
2. DIMENSIONS SHOWN REPRESENT OWNERS MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT SHALL NOT BE LESS THAN THOSE SHOWN.
3. NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
4. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
5. UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
6. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
7. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL. SWEEPS WITH A 36 TO 48 INCH RADIUS.

ELECTRICAL AND COMMUNICATION CONDUIT
NO SCALE

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

STATE OF NEW HAMPSHIRE
BRADLEE MEDOLIA
No. 08830
PROFESSIONAL ENGINEER
7/28/17

Tighe&Bond
Engineers | Environmental Specialists

FOUNDRY PLACE PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	GARAGE DESIGN DEVELOPMENT
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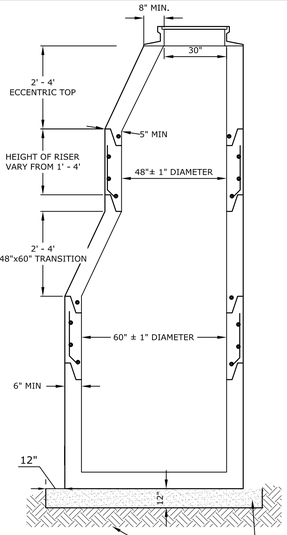
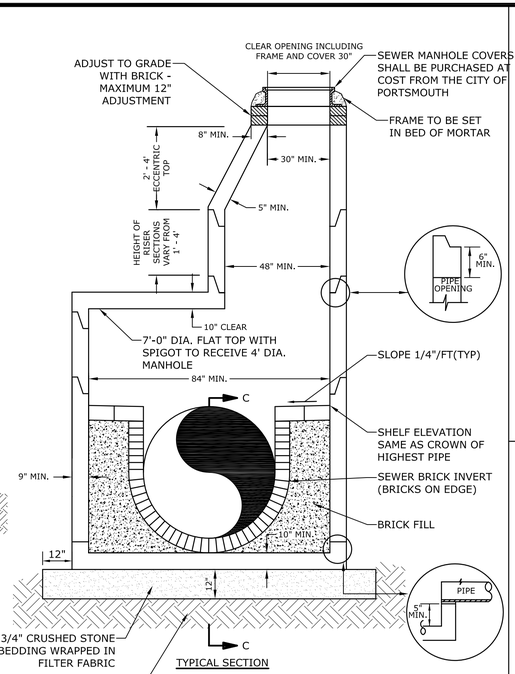
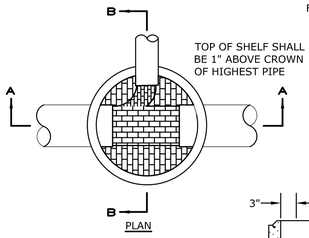
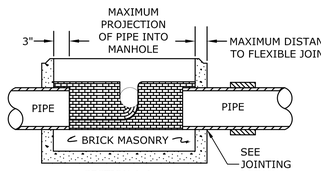


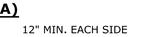
SEWER MANHOLE (5' DIA)
NO SCALE

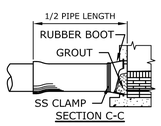


SEWER MANHOLE (7' DIA)
NO SCALE





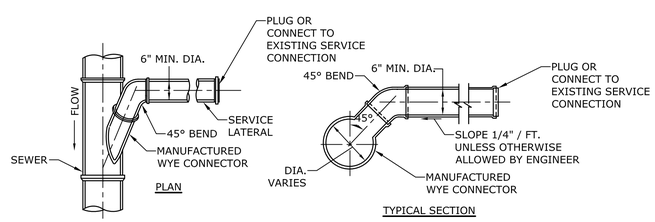




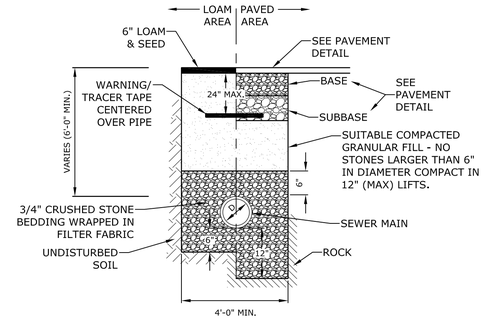
NOTES:

1. INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.
2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
3. INVERT BRICKS SHALL BE LAID ON EDGE.
4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
5. MANHOLE FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS HINGE COVER PER CITY OF PORTSMOUTH STANDARD.
6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H20 LOADING, AND CONFORMING TO ASTM C478-06.
8. INTERIOR OF SEWER MANHOLES SHALL BE LINED IN ACCORDANCE WITH SECTION 33 01 30.63.

SEWER MANHOLE
NO SCALE

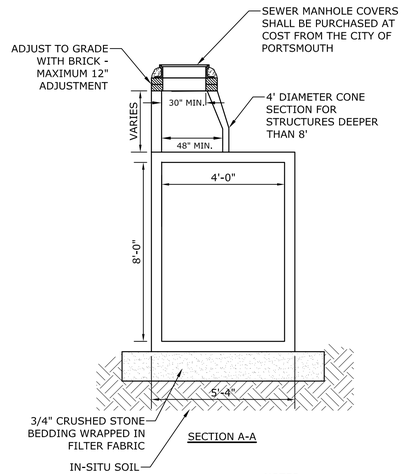


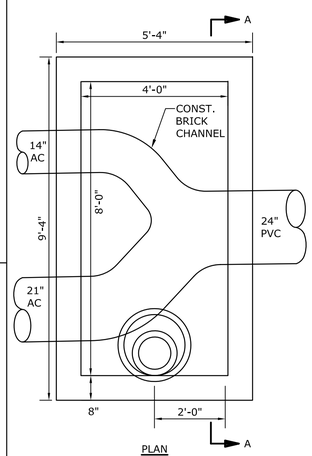
STANDARD SERVICE LATERAL CONNECTION
NO SCALE



NOTE:
1. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

TYPICAL SEWER TRENCH
NO SCALE

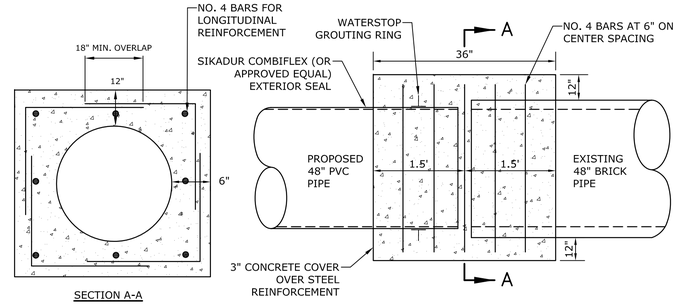




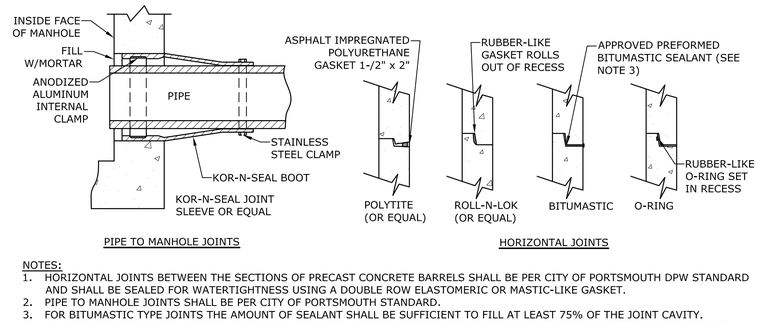
NOTES:

1. INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.
2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
3. INVERT BRICKS SHALL BE LAID ON EDGE.
4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
5. MANHOLE FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS HINGE COVER PER CITY OF PORTSMOUTH STANDARD.
6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H20 LOADING, AND CONFORMING TO ASTM C478-06.
8. CONCRETE COMPRESSIVE STRENGTH 5,000 PSI @ 28 DAYS
9. REINFORCEMENT: ASTM A-615 GRADE 60, 1" MIN. COVER
10. INTERIOR OF SEWER MANHOLES SHALL BE LINED IN ACCORDANCE WITH SECTION 33 01 30.63.

PSMH9
1" = 2'



REINFORCED CONCRETE COLLAR
NO SCALE

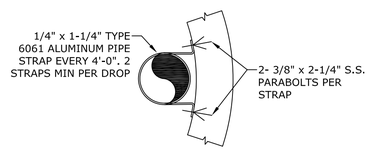


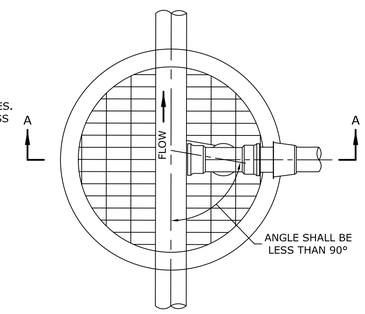
NOTES:
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

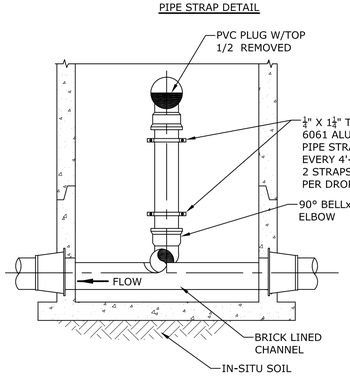
MANHOLE JOINTS
NO SCALE

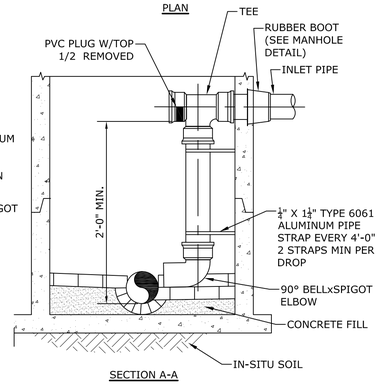
NOTES:

1. RISER PIPE AND FITTINGS SHALL BE THE SAME DIAMETER AS THE INLET PIPE AND SHALL BE CONSTRUCTED OF SDR35 PVC PIPE.
2. INTERIOR MANHOLE CHIMNEY SHALL ONLY BE INSTALLED IN 60" DIAMETER OR LARGER MANHOLES.
3. INTERIOR CHIMNEY SHALL BE USED FOR PIPES LESS THAN 12" IN DIAMETER.









INTERIOR MANHOLE CHIMNEY
NO SCALE

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
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STATE OF NEW HAMPSHIRE
BRADLEE MEDDAUGH
No. 08830
PROFESSIONAL ENGINEER
7/28/17

FOUNDRY PLACE PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	04/14/2017	SITE ENABLING BID SET
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

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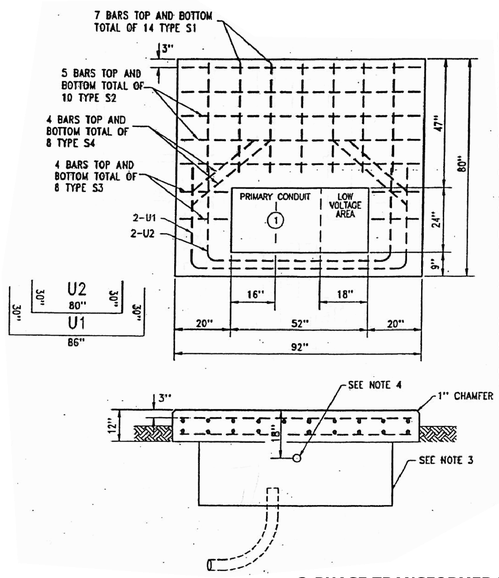


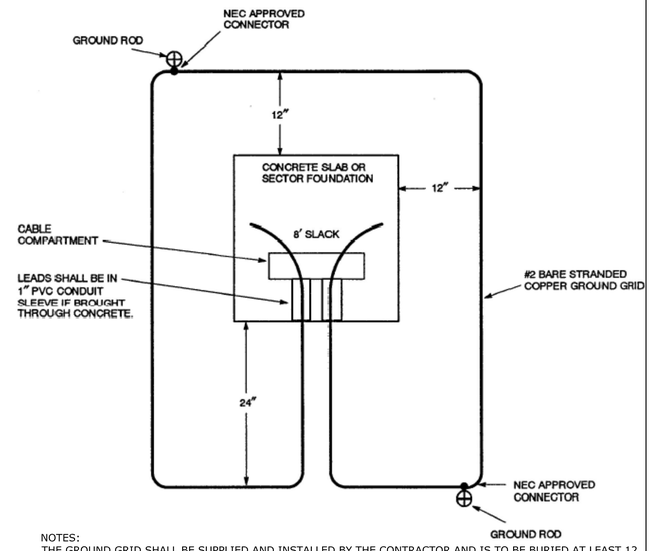
PREPARATION OF SLAB:
1. REMOVE ALL ORGANIC TOPSOIL UNDER FOUNDATION AND COMPACT NATIVE MATERIAL. BACKFILL, IF NECESSARY, WITH CLEAN WELL COMPACTED GRAVEL.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS.
3. ALL REINFORCING SHALL MEET ASTM #615 GRADE 60 SPECIFICATIONS.
4. ALL REINFORCING SHALL BE TIED AS ON UNIT.
5. MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE 3".
6. TOP OF SLAB SHALL BE NO MORE THAN 6" ABOVE GROUND LEVEL.
7. CHAMFER ALL EXPOSED CONCRETE EDGES 1".
8. TOP OF SLAB SHALL HAVE A WOOD FLOAT FINISH.

NOTES:
1. ELBOWS SHOULD BE CUT 4" ABOVE BOTTOM OF CONCRETE PAD, SURROUNDED WITH SAND, AND HAVE A PROTECTIVE CAP BRUSHING ON THEM.
2. A 1" PVC CONDUIT SLEEVE SHALL BE INCORPORATED INTO CONCRETE SLAB TO ALLOW GROUND GRID LEADS TO ENTER PIT OPENINGS AS SHOWN ON DETAILS.
3. SEE PREPARATION OF SLAB NOTES FOR SLAB DETAILS.
4. SEE PAD-MOUNT EQUIPMENT GROUNDING GRID DETAIL.
5. SEE THREE PHASE PAD MOUNTED TRANFORMER PIT DETAIL FOR DIMENSIONS.
6. 1" PVC CONDUIT FOR GROUNDING LEADS.
7. ALL REBAR #50.

CONCRETE PIT

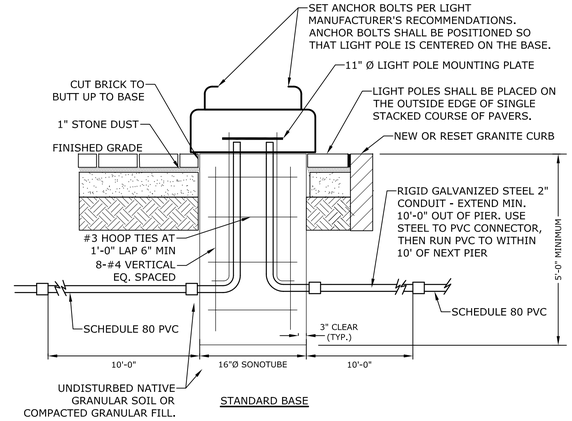
REINFORCING SCHEDULE			
TYPE	NO.	LENGTH	TOTAL
S1	14	3'-4"	46'-6"
S2	10	7'-0"	70'-0"
S3	8	1'-0"	8'-0"
S4	8	2'-0"	16'-0"
CONC. VOLUME=1.55 c.y. TOP SECTION ONLY			

3-PHASE TRANSFORMER PAD
NO SCALE



NOTES:
THE GROUND GRID SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AND IS TO BE BURIED AT LEAST 12 INCHES BELOW GRADE. EIGHT FEET OF EXTRA WIRE FOR EACH GROUND GRID LEG SHALL BE LEFT EXPOSED IN THE CABLE COMPARTMENT TO ALLOW FOR THE CONNECTION TO THE TRANSFORMER. THE TWO 8-FOOT GROUND RODS MAY BE EITHER GALVANIZED STEEL OR COPPERWELD AND THEY SHALL BE CONNECTED TO THE GRID WITH NEC APPROVED CONNECTORS.

PAD-MOUNTED EQUIPMENT GROUNDING GRID DETAIL
NO SCALE



STANDARD BASE

NOTES:
1. REFER TO ELECTRICAL PLANS FOR WIRING DETAILS.
2. CONCRETE: 4000 PSI, AIR ENTRAINED STEEL: 60 KSI
3. LIGHT POLE FOUNDATIONS SHALL BE PLACED PRIOR TO INSTALLATION OF BRICK PAVERS.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL, TO INCLUDE PERFORMANCE SPECIFICATIONS, CALCULATIONS AND NH LICENSED STRUCTURAL ENGINEER'S STAMP FOR LIGHT POLE FOUNDATION.
5. STANDARD BASE SHALL BE CONSTRUCTED UNLESS THERE IS CONFLICT WITH THE EXISTING DUCT BANK. SPREAD FOOTING BASE SHALL BE USED IN LIEU OF STANDARD BASE IN LOCATIONS WHERE TOP OF DUCT BANK ELEVATION WILL CONFLICT WITH STANDARD POLE BASE DEPTH. CONTRACTOR SHALL VERIFY LOCATIONS WHERE SPREAD FOOTINGS ARE REQUIRED PRIOR TO CONSTRUCTION. SEE NOTE#4 FOR SUBMITTAL REQUIREMENTS.

LIGHT FIXTURE BASE
NO SCALE

NOTES:
1. SEE PREPARATION OF SLAB NOTES FOR SLAB DETAILS.
2. ALL REBAR #50.
3. 1" PVC CONDUIT FOR GROUNDING LEADS.

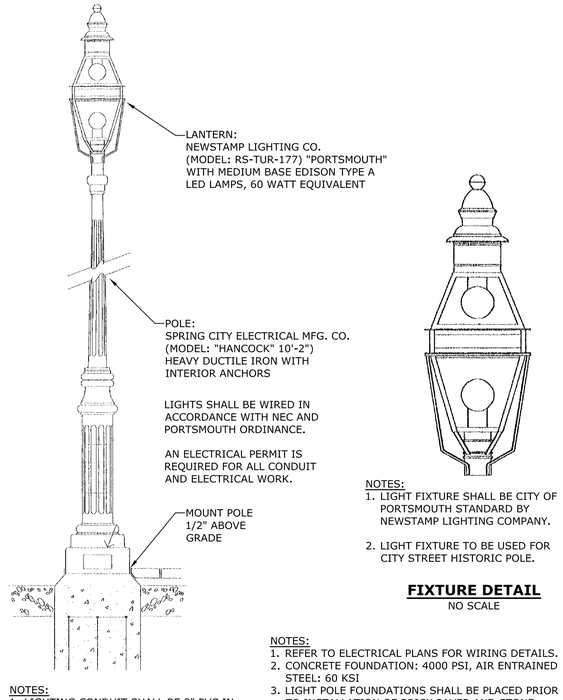
THREE PHASE PAD MOUNTED TRANSFORMER PIT
NO SCALE

NOTES:
1. CONCRETE MINIMUM STRENGTH 4,000 PSI AFTER 28 DAYS.
2. REINFORCEMENT: #6 REBAR.
3. 25 TO 75 KVA SINGLE PHASE.
4. MEETS EVERSOURCE NH SPECS.

SINGLE PHASE TRANSFORMER PAD
NO SCALE

NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. MANHOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO CONSTRUCTION
2. CONCRETE MINIMUM STRENGTH - 5,000 PSI @ 28 DAYS
3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
4. MINIMUM STEEL COVER - 1 INCH
5. DESIGN LOADING - AASHTO HS20-44
6. DESIGN SPECIFICATIONS - ACI 318 & AASHTO LOAD FACTOR DESIGN METHOD
7. MANUFACTURER'S NAME AND YEAR OF FABRICATION SHALL BE STENCILED ON VERTICAL WALL OF ACCESS CHIMNEY.
8. ALL TERMADUCTS TO HAVE BELL ENDS FLUSH WITH THE INSIDE WALL.
9. TERMADUCTS MAY BE SPECIFIED IN LIEU OF KNOCKOUTS AT THE DIRECTION OF NSTAR.
10. CONSTRUCTION JOINT - SEALED WITH 1" DIAMETER BUTYL RUBBER OR APPROVED EQUAL

TYPICAL ELECTRIC MANHOLE
NO SCALE



NOTES:
1. LIGHTING CONDUIT SHALL BE 2" PVC IN SAND AND 3'-0" BELOW FINISHED GRADE.
2. CITY OF PORTSMOUTH SHALL BE PROVIDED WITH THEIR OWN METER BOX AND KEY.
3. POWER SHALL BE PROVIDED PER CITY OF PORTSMOUTH REQUIREMENT.
4. POLE SHALL BE MADE FROM DUCTILE IRON.

POLE DETAIL
NO SCALE

NOTES:
1. LIGHT FIXTURE SHALL BE CITY OF PORTSMOUTH STANDARD BY NEWSTAMP LIGHTING COMPANY.
2. LIGHT FIXTURE TO BE USED FOR CITY STREET HISTORIC POLE.

FIXTURE DETAIL
NO SCALE

NOTES:
1. REFER TO ELECTRICAL PLANS FOR WIRING DETAILS.
2. CONCRETE FOUNDATION: 4000 PSI, AIR ENTRAINED STEEL: 60 KSI
3. LIGHT POLE FOUNDATIONS SHALL BE PLACED PRIOR TO INSTALLATION OF BRICK PAVER AND STONE DUST.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL, TO INCLUDE PERFORMANCE SPECIFICATIONS, CALCULATIONS AND ENGINEER'S STAMP FOR LIGHT POLE FOUNDATION.

LIGHT FIXTURE AND POLE
NO SCALE

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

STATE OF NEW HAMPSHIRE
PAUL M. CAMPBELL
No. 08830
PROFESSIONAL ENGINEER
7/5/2017

Tighe&Bond
Engineers | Environmental Specialists

FOUNDRY PLACE
PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	SITE ENABLING BID SET	04/14/2017	
	GARAGE DESIGN DEVELOPMENT	05/05/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: NAH
CHECKED BY: PMC/BLM

SHEET TITLE:
DETAILS SHEET

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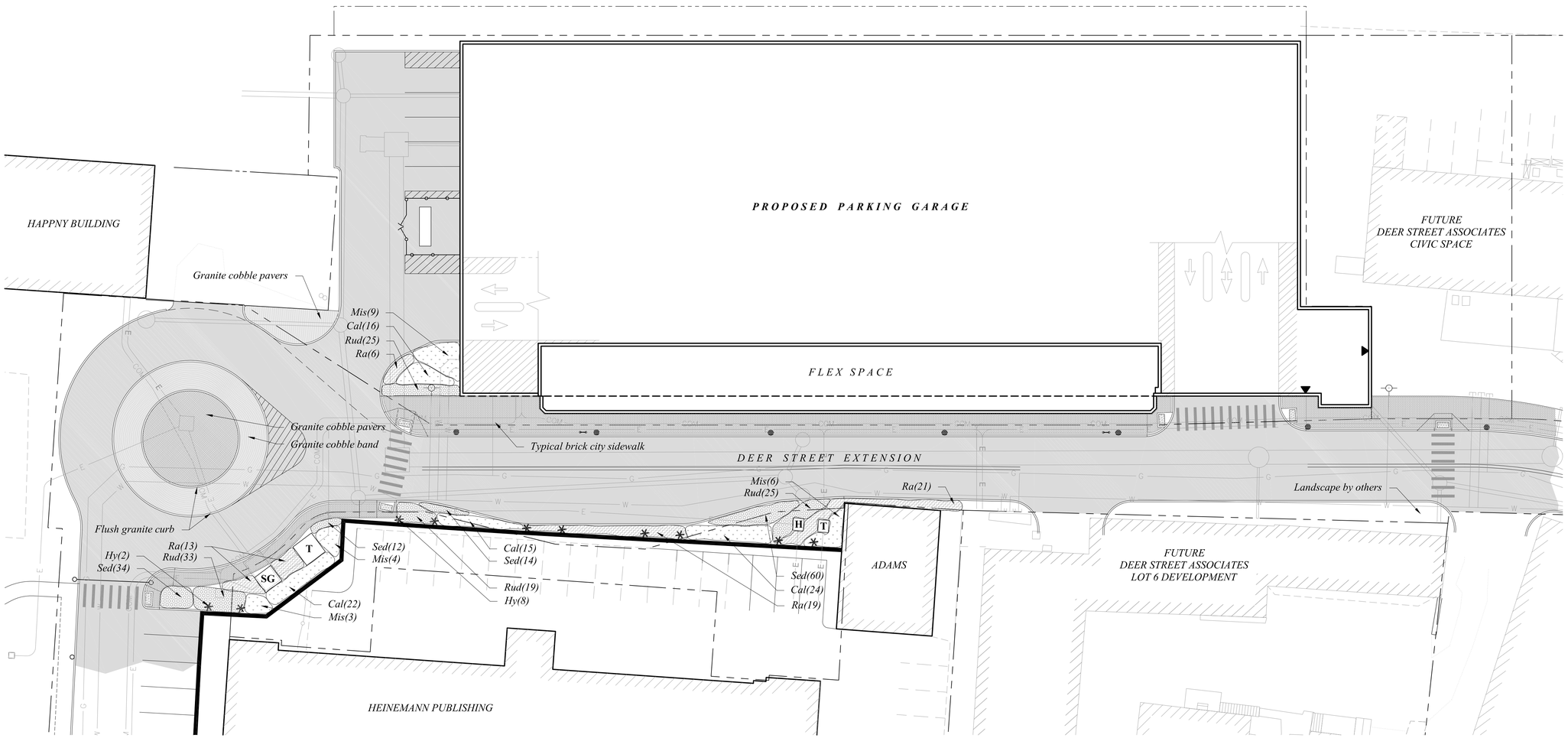

Plant List

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Minimum Height	Minimum Width
Ra	*Rhus aromatica 'Grow-Low'*	Grow Low Sumac	59	3 gal	1'	1'

PERENNIALS and VINES

Symbol	Botanical Name	Common Name	Quantity	Size
Cal	*Calamagrostis acutifolia 'Karl Foerster'*	Feather Reed Grass	77	1 gal
Hy	*Hydrangea anomela petiolaris*	Climbing Hydrangea	10	1 gal
Mis	*Miscanthus sinensis 'Purpurascens'*	Purple Maiden Grass	22	2 gal
Rud	*Rudbeckia fulgida 'Goldsturm'*	Black-Eyed Susan	102	1 gal
Sed	*Sedum 'Autumn Joy'*	Autumn Joy Sedum	120	1 gal

0 5 10 20 40

TRUE NORTH

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

woodburn & company
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone 603.659.5949

FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DATE	MARK
DESCRIPTION		
SITE ENABLING BID SET	04/14/2017	
GARAGE DESIGN DEVELOPMENT	05/05/2017	
CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: YY
CHECKED BY: RW

SHEET TITLE:
LANDSCAPE PLAN

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I. GENERAL

CONSTRUCTION

1. Construction shall be in accordance with all applicable Federal, State of New Hampshire, and City of Portsmouth codes and ordinances New Hampshire State Building Code (Referencing the International Building Code (IBC) 2009 with state amendments), including fire codes.
2. This structure is classified as an open parking structure, occupancy Group S-2, and construction Type IIB, Unprotected, Non-combustible.
3. Contractor shall check all plans, sections, and details drawn on Structural Drawings for compatibility with Architectural Drawings. Structural Drawings show only structural elements of parking structure. Discrepancies, if any, shall be reported to Engineer for clarification or adjustments before proceeding with work.

DESIGN LOADS (All loads are service loads unless noted)

Description	Load
1. DEAD LOADS	
A. Floor System and Framing	Self-Weight
B. Mechanical, Electrical, Plumbing (Dead Load)	3 psf
C. Photovoltaic Array and Support Steel (Future)	15 psf
2. LIVE LOADS	
A. Roof, (stair/elevator towers)	30 psf
B. Supported parking and drive areas	40 psf unreduced
**Minimum reduced live load shown. Actual reduced live load to be per applicable Building Code equations considering tributary area	32 psf unreduced
C. Concentrated load (on 4.5" x 4.5" area)	3,000 lbs
D. Bumper impact, on 1-ft sq, 18" & 27" (not concurrently) above finished floor	6,000 lb
E. Slabs on grade parking area	40 psf
F. Slab at grade Non-Parking	100 psf
G. Stairs, landings and lobbies	100 psf
3. Snow loads	
A. Ground snow load (Pg)	50 psf
B. Flat roof snow load (Pf)	42 psf
C. Minimum snow load (Ps,min)	30 psf
D. Snow exposure factor (Ce)	1.0
E. Snow load importance factor (Is)	1.0
F. Roof thermal factor (Ct)	1.2
4. Wind Design Criteria	
A. Basic wind speed (3-second gust)	100 mph (service)
B. Wind load importance factor (Iw)	1.0
C. Wind exposure	B
D. Internal pressure coefficient	+/- 0.18
E. Components and cladding	See Specifications
5. Seismic Design Criteria	
A. Seismic design criteria has been established in accordance with ASCE 7-10, Chapter 11. Seismic analysis has been performed in accordance with ASCE 7-10, Chapter 12.	
B. Seismic importance factor (Ie)	1.0
C. Spectral response acceleration for short period (Ss)	0.269 g
D. Spectral response acceleration for 1-second period (S1)	0.080 g
E. Site class	D
F. Design spectral response acceleration for short period (SDs)	0.284 g
G. Design spectral response acceleration for 1-second period (SD1)	0.128 g
H. Seismic design category	B
Resisting system in north-south direction	
1) Basic structure system	B.9) Building Frame System - Intermediate Precast Shear Walls
2) Design base shear (V)	1,470 k (ultimate)
3) Seismic response coefficient (Cs)	0.052
4) Response modification factor (R)	5
5) Deflection amplification factor (Cd)	4 1/2
6) Analysis procedure	Equivalent Lateral Force as per ASCE 7-10 Section 12.8
Resisting system in east-west direction	
1) Basic structural system	A.5) Bearing Wall System - Intermediate Precast Shear Walls
2) Design base shear (V)	2006 k ultimate
3) Seismic response coefficient (Cs)	0.071
4) Response modification factor (R)	4
5) Deflection amplification factor (Cd)	4
6) Analysis procedure	Equivalent Lateral Force as per ASCE 7-10 Section 12.8
6. Per PCI Design Handbook (7th Edition)	
a. Design temperature differential	60 deg F.
b. Annual average ambient relative humidity	70%

7. Fire ratings, conforming to MNL-124-89 and ASTM E119 are as follows:

Structural Element	Hours Provided	Hours Required
a. Precast concrete tees	1	0
b. Precast concrete beams	1	0
c. Precast concrete columns	2	0
d. Precast concrete walls	2	0
e. Precast Stair/elevator tower walls	2	2
f. Precast walls/beams at flex space	2	2

8. Future Expansion

a. This parking facility is not designed for future vertical expansion.

9. Existing Construction

a. Field verify all existing elevations, dimensions, and conditions shown on Drawings before any material fabrication and erection or concrete placement for new construction. Immediately report all discrepancies to Engineer.

II. FOUNDATION WORK

A. Foundations, retaining walls, basement walls, foundation drainage and slabs on grade have been designed in accordance with recommendations of Haley & Aldrich, Inc. Geotechical Design Memorandum dated January 18, 2017 with supplements dated June 2, 2017; June 14, 2017; June 22, 2017; and July 6, 2017. For more information see sections of Specification Division 31. These documents are provided for informational purposes only. Information shown on the drawings and provided in the specifications take precedence over the geotechnical related reference documents provided in specification division 31.

B. Foundation Design

Description	Allowable Load	
a. H-Piles	HP 14x117: 400 Kips*	Vertical
	16-23 Kips**	Lateral (Free-head, Strong Axis)
	42-60 Kips**	Lateral (Fixed-head, Strong Axis)
	12 Kips**	Lateral (Free-head, Weak Axis, Line-B between lines 2 and 6)

* Vertical Axial Capacity Reduced by 25 Kips to Account for Downdrag Loading.
** Lateral load capacity is based on up to 0.75 inches of allowable pile head deflection at the allowable lateral load and varies by pile location. See correspondance with Haley & Aldrich, Inc. dated July 6, 2017 for more information.

C. Retaining Wall Design

a. Design equivalent fluid pressure behind basement type walls laterally supported top and bottom — p = (60 x h +1/2q**)
b. Design equivalent fluid pressure behind cantilevered retaining walls — p = (40 x h + 1/2q**)

p = pressure(psf); h = height (ft);
q = surcharge(psf)** = 40 psf @ interior, 250 psf @ exterior

See Specifications Section of Division 2 for excavation, dewatering, subgrade preparation and protection and compaction requirements.

D. Foundation shall extend below finished grade 4'-0" (minimum; frost depth)

E. Excavation depths indicated on Drawings are to be used for bidding purposes only and are approximate.

F. Before placement of granular fill below slab-on-grade, the exposed subgrade shall be prepared in accordance with the requirements of specification section 310000. Remove unacceptable material and replace with approved granular fill.

III. CONCRETE

Material Properties - Concrete:

	F'c psi at 28 day	Max W/C Ratio	Slump Inches	Total Air Content (+/- 1.5%)	Max. Nom. Aggregate. Size
1. Cast-in-place concrete					
a. Spread Footing	4,000	0.45	4	No Test	2"
a. Pile Caps	4,000	0.45	4	No Test	2"
b. Column piers	6,000	0.45	4	5	3/4"
c. Grade Beams	4,000	0.45	4	5	3/4"
d. Walls	4,000	0.45	3*	6	3/4"
e. Grade Slabs	4,000	0.45	3*	6	3/4"
f. Stairs, landings, lobbies***	5,000	0.45	4	7	3/4"
g. Tee toppings, pour strips***	5,000	0.40	3*	7	3/4"
h. All other	4,000	0.45	4	5	3/4"
2. Precast concrete					
a. Columns	6,000	0.40	**	5 1/2	3/4"
b. Tees***	6,000	0.40	**	5 1/2	3/4"
c. Beams***	6,000	0.40	**	5 1/2	3/4"
d. Solid slabs***	6,000	0.40	**	5 1/2	3/4"
e. Wall panels	6,000	0.40	**	5 1/2	3/4"
3. Other concrete					
a. Columns base drypack	8,000	N/A	0	No Test	No. 4
b. Masonry wall grout fill	3,000	N/A	8-10	No Test	3/8"
e. NSNM grout	8,000	N/A	0	No Test	No. 4

*Prior to adding water reducer.
**No slump requirement.
***Concrete mixes shall include a corrosion inhibitor admixture at a dosage rate of 3 gal/ cu yd.

4. For additional information regarding Air Entrainment, see Specification Section 033000.
5. All concrete is Normal Weight 145 pcf.

B. Material Properties - Reinforcing and Connection Steel:

1. Welded bars	60,000	A615*
OR	60,000	A706
2. All bars, UN	60,000	A615
3. Welded wire reinforcement (smooth)	65,000	A185
4. Prestressing strand	270,000 (fpu)	A416
5. Coil bolts and coil rods	65,000 U.N.	
6. Welding for steel reinf.		AWS D1.4-11
7. Deformed bar anchors	70,000	A496
8. Headed anchor studs	60,000 (fs)	A108
9. Headed/terminator bars	60,000	A970

*with proper preheat per AWS standards.

C. General Notes for Cast-in-Place and Precast Concrete:

1. Column reinforcing shall be continuous, or shall be spliced according to ACI 318-08, Section 12.14.
2. Welded wire reinforcement shall be spliced per ACI 318-08, Section 12-19.
3. Provide extra reinforcing around all openings, including door openings: two #5 bars all four sides of each opening and extend 2 feet beyond corners of opening. Add two #5 bars 4 feet long as diagonal bars at each corner.
4. Where shown hooked, provide standard 90 degree bar hooks unless noted otherwise.
5. When reinforcement is lap spliced, provide Class B splice typical, unless noted otherwise. See details for splice locations.
6. Provide 3/4" chamfer on all exposed corners of concrete. Top edges may be tooled.
7. Provide control/construction joints as shown on the Drawings. For more information, see Specification Section 033000.
8. All inserts and coil rods shall be Galvanized. See Division 3 Specifications for more information.
9. P/C embed shop drawings must be approved and embedded items installed where required prior to placing concrete.
10. Stripping of forms shall be in accordance with Specification Section 033000.

D. Additional Notes for Precast Concrete:

1. Parking Structure contract Drawings are based on performance type design for precast superstructure. An integral part of this Project is preparation of final Design Drawings, Design Calculations, and Shop Drawings necessary for fabrication and construction of all precast concrete pieces and required accessories in accordance with all code and design requirements. See Specification Section 034100 for more requirements.
2. Provide all openings, reveals, drips, blockouts, inserts, etc., cast into precast according to Architectural, Mechanical and Electrical Drawings. Coordinate exact sizes and locations with respective Contractor.
3. Provide 2 #4 L bars minimum (3'-0" legs) at each corner of precast panels.
4. See Drawings for protection of embedded metals.
5. Bending requirements for reinforcing bars to be hot-dip galvanized vary slightly from ACI 318. Refer to ASTM A767 referenced in Specification Section 034100.
6. When erecting Precast structure, guy and plumb structure for stability. Guying and bracing shall remain until final stability is achieved. See Specification Section 034100 for information on plumbness.
7. Structure is designed for its final service condition. Contractor shall be responsible for piece design to withstand handling and erection forces, erection sequence, guying, staying, and shoring as required to assure structural stability during construction.
8. For exterior columns, no outward out-of-plumbness tolerance is permitted.
9. Install expansion joints after all guying and bracing has been removed and column plumbness has been measured to be within tolerance.
10. Minimum additional load factor of 1.2 shall be used for design of all superstructure connections unless superseded by seismic requirements of applicable building code. See specifications section 034100 for more information.
11. Floor drainage layout is based on a maximum double tee camber of 1 1/2". Design of P/C double tees shall be such that final in-service camber does not exceed this value. Precast Contractor shall review floor drainage layout and notify Engineer of any discrepancies or constructability issues prior to fabrication.
12. Steel connections providing gravity support either directly or indirectly (such as torsion connections) shall be fireproofed to meet fire rating requirement of supported structural element.

E. Concrete Protection for Reinforcement:

1. Specified concrete protection for reinforcement shall be per ACI 318-08, Section 7.7.
2. For prestressed and non-prestressed reinforcement in prestressed/precast concrete members, specified concrete protection at top members shall be 1-1/2 inches consistent with ACI 362.1R-97 (02), "Guide for the Design of Durable Parking Structures."
3. For reinforcement in cast-in-place concrete, specified concrete protection shall be as follows:

	Concrete Cover (inches)
a. Pile cap and footing top reinforcement	2
b. Pile cap and footing bottom and side reinforcement	3
c. Wall reinforcement #5 bar and smaller	1 1/2
d. Wall reinforcement #6 bar and large	2
e. Slab Top Reinf.	1 1/2
f. Slab in contact w/ ground bottom reinf.	3

F. Epoxy Coating for Reinforcement and Anchors:

1. For additional information regarding epoxy coating, see Specification Section 033000.

IV. CONCRETE MASONRY

Material Properties:

1. Compressive strength of masonry, f'm = 2000 psi.
2. Mortar type "M" or "S".

General Concrete Masonry Notes:

1. Provide dowels between foundations and walls equal to size and spacing of vertical wall reinforcing, unless noted otherwise.
2. Minimum reinforcement for masonry wall subject to bumper loads shall be #5 @ 8 in. o.c. for a height of 2 feet 8 inches above floor and grout all block cores solid up to 2 feet 8 inches above floor. Minimum reinforcement for masonry walls not subject to bumper loads shall be #4 @ 48" o.c. plus one #4 verticals at corners, edges of openings, and ends of walls. Grout block cells with reinforcement full.
3. In masonry walls, provide 8in. -wide bond beam lintels reinforced with two #5 bars continuous unless shown otherwise on Drawings. Concrete block for three courses directly below bond beam bearing and extending out at an angle of 45 degrees shall be solid block or shall be grouted solid, unless noted otherwise.
4. Provide control joints in masonry walls at 20 ft. on center maximum as noted on Drawings.

V. STRUCTURAL STEEL

	FY, psi	ASTM
A. Structural Shapes		
1. W-shapes	50,000	A992
2. HP-shapes,	50,000	A572 GR 50
3. M-shapes, S-shapes, channels, angles	36,000	A36
B. Hollow Structural Sections (all shapes)	50,000	A1085
C. Steel Pipes	35,000	A53 GR. B
D. Structural Plates and Bars	36,000	A36
E. Bolts		
1. 1/2" dia. to 1" dia., UN	92,000	A325
2. 1-1/8" dia. to 1-1/2" dia., UN	81,000	A325
F. Anchor Rods	36,000	F1554 GR. 36
G. Welding Electrodes	E70XX	AWS D1.1-10

H. General Structural Steel Notes

1. Lintel shall have a minimum end bearing on masonry of 8 inches, but not less than 1 inch of such bearing for each foot of opening.

VI. MISCELLANEOUS

A. For exact sizes and locations of mechanical and electrical items and openings, consult respective subcontractors.

B. See specifications for additional information.

C. Inserts called out on Drawings shall be as designated below for diameters indicated. Nomenclature is for Dayton/Richmond Concrete Accessories.

1. 1/2 inch diameter,	Type B-16	
2. 3/4" inch diameter,	Type F-56,	2 Strut
3. 1 inch diameter,	Type F-56,	2 Strut
4. 1-1/4: inch diameter,	Type F-58,	4 Strut

5. Provide coil bolts and rods with necessary penetration into inserts to develop full strength per manufacturer's recommendations.

D. Post-Installed Anchors

1. Post-installed anchors shall only be used where shown on the Construction Documents. The Contractor shall obtain approval from the Engineer-of-Record prior to installing post-installed anchors in place of missing or misplace cast-in-place anchors. Care shall be taken in placing post-installed anchors to avoid conflicts with existing rebar. Holes shall be drilled and cleaned in accordance with the manufacturer's written instructions. Substitution request, for installation other than those shown, shall be submitted by the Contractor to the Engineer-of-Record along with calculations that are prepared and sealed by a registered professional engineer. The calculations shall demonstrate that the substituted product is capable of achieving the pertinent equivalent performance values (minimum) of the specified product using the appropriate design procedure and/or standard(s) as required by the building code. See Specification Section 03300.

a. Concrete Anchors

1) Mechanical anchors for use in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC01 or AC106, respectively
2) Adhesive anchors for use in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC58.

b. Masonry Anchors

1) Anchorage to Solid-Grouted Concrete Masonry

a. Mechanical and concrete screw anchors for use in solid-grouted concrete masonry shall have been tested and qualified for use in accordance with ICC-ES AC01, respectively.
b. Adhesive anchors for use in solid-grouted concrete masonry shall have been tested and qualified for use in accordance with ICC-ES AC58.

2) Anchorage to Hollow Concrete Masonry/Unreinforced Clay Brick Masonry

a. Screw anchors for use in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC106.
b. Adhesive anchors with screen tubes shall be tested and qualified in accordance with ICC-ES AC58 or AC80, as appropriate. The appropriate screen tube shall be used as recommended by the adhesive manufacturer.

E. DO NOT SCALE THE DRAWINGS

VII. DEFERRED SUBMITTALS

1. Following items are portions of design that will not be submitted at time of building permit application. Design of these items will be performed and submitted by a specialty contractor during construction phase of project. For information see appropriate Specification Sections related to these items.

a) Precast concrete elements
b) Architectural facade and other light gage steel framing

2. Engineer of Record shall review deferred submittal drawings and calculations prepared by Contractor and forward them to Building Official with notation indicating deferred submittal documents have been reviewed and found to be in general conformance with design requirements. Deferred submittal items shall not be installed until design and submittal documents have been approved by Building Official.

VIII. TESTING & INSPECTION NOTES

1. Following test and inspection shall be performed by an independent testing and inspection agency employed by Owner and approved by Engineer and Building Official. Test and inspection reports shall be submitted for approval to Engineer and Building Official. Conform to requirements of IBC section 109 and 1704.

IX. CONNECTION COMPONENT COORDINATION

1. The following specifies the subcontractor responsible for providing connection components. Where connections occur between two different trades, the Construction Manager shall coordinate between the two subcontractors as required to locate and install these items. Refer to specifications for additional information.
2. Embedded plates in the precast concrete elements shall be provided by the precast contractor. CM shall coordinate between precast contractor and appropriate subcontractor to locate the embedded plates as necessary.
3. Precast-to-precast steel connection and bearing components, including angles, tubes and other steel shapes as required by design, shall be provided by the precast contractor. Where coating is removed or damaged during installation, precast contractor shall repair coating in field.
4. Structural steel-to-structural steel connection components shall be provided by the structural steel contractor. Where coating is removed or damaged during installation, structural steel contractor shall repair the coating in field.
5. Structural steel-to-precast connection components shall be provided by the structural steel contractor. Embedded plates (where required) in the precast for the connection shall be provided by the precast contractor. Where coating is removed or damaged during installation, structural steel contractor shall repair the coating in field.
6. Precast concrete-to-cast-in-place concrete connection components, including angles, shall be provided by the precast contractor. Where coating is removed or damaged during installation, precast contractor shall repair the coating in field.
7. Clip angles, plates and connection components for CMU wall to concrete elements shall be provided by the miscellaneous metals contractor. CM shall coordinate connections between the miscelaneous metals contractor and CIP or P/C contractor as appropriate. Where coating is removed or damaged during installation, miscellaneous metals contractor shall repair the coating in field.

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
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	05/05/2017	DESIGN DEVELOPMENT
	04/14/2017	SITE ENABLING BID SET

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
GENERAL NOTES, ABBREVIATIONS, SYMBOLS & LEGEND

S-001

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ABBREVIATIONS - STRUCTURAL

ABBRV	TERM
A/E	ARCHITECT/ENGINEER
AB	ANCHOR BOLT
ABBRV	ABBREVIATION
ACI	AMERICAN CONCRETE INSTITUTE
ADDM	ADDENDUM
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ARCH	ARCHITECT
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG	AVERAGE
AWS	AMERICAN WELDING SOCIETY
B	BEAM
B PL	BASE PLATE
BC	BACK OF CURB
BC	BOLT CIRCLE
BLDG	BUILDING
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRG	BEARING
BRG PL	BEARING PLATE
BS	BOTH SIDES
BTWN	BETWEEN
C	C SHAPE
C TO C	CENTER TO CENTER
CAM	CAMBER
CANTIL	CANTILEVER
CD	CONSTRUCTION DOCUMENTS
CERT	CERTIFY
CG	CENTER OF GRAVITY
CHFR	CHAMFER
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
CJ	CONTROL JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECT
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUE
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CP	CONCRETE PIER
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CTR	CENTER
CU YD	CUBIC YARD
D	DEEP
D	DEPTH
DAT	DATUM
DBA	DEFORMED BAR ANCHOR
DD	DESIGN DEVELOPMENT
DEG	DEGREE
DET	DETAIL
DEV	DEVELOPMENT
DIA	DIAMETER
DIAG	DIAGONAL
DL	DEAD LOAD
DOC	DOCUMENT
DP	DRILLED PIER
DWG	DRAWING
E	MODULUS OF ELASTICITY
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
ENGR	ENGINEER
EOS	EDGE OF SLAB
EQ	EQUAL
EQ	SEISMIC
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ETC	AND SO FORTH
EW	EACH WAY
EW EF	EACH WAY EACH FACE
EWP	ELEVATION WORKING POINT
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	FAHRENHEIT
FD	FLOOR DRAIN
FDTN	FOUNDATION
FF	FAR FACE

ABBREVIATIONS - STRUCTURAL

ABBRV	TERM
FIN	FINISH
FIN FLR	FINISH FLOOR
FLG	FLANGE
FLR	FLOOR
FO	FINISHED OPENING
FS	FAR SIDE
FT	FEET
FT	FOOT
FT-K	FOOT-KIPS
FT-LB	FOOT-POUNDS
FUT	FUTURE
G	GIRDER
GA	GAGE
GALV	GALVANIZED
GALV STL	GALVANIZED STEEL
GC	GENERAL CONTRACTOR
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GR	GRADE
GR BM	GRADE BEAM
H	HIGH
HC	HOLLOW CORE
HORIZ	HORIZONTAL
HP	HP-STEEL SECTION
HSS	HOLLOW STRUCTURAL STEEL SECTION
HST	HOIST
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
I	MOMENT OF INERTIA
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN-K	INCH-KIPS
IN-LB	INCH-POUND
INFO	INFORMATION
INT	INTERIOR
INV	INVERT
INV EL	INVERT ELEVATION
ISO	ISOMETRIC
K	KIP(S)
KLF	KIPS PER LINEAL FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
KWY	KEYWAY
L	ANGLE
LAT	LATITUDE
LBS	POUND
LF	LINEAR FEET (FOOT)
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LP	LIGHT POLE
LT GA	LIGHT GAGE
LT WT	LIGHTWEIGHT
LYR	LAYER
M	M-STEEL SHAPE
M	MOMENT
MAX	MAXIMUM
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MFR	MANUFACTURER
MH	MANHOLE
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MT	MT-STEEL SHAPE
N	NORTH
NA	NOT APPLICABLE
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NSNM	NON-SHRINK NON-METALLIC
NTS	NOT TO SCALE
O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
P	AXIAL LOAD
P/C	PRECAST
P/T	POST TENSIONED
PC	PILE CAP
PCF	POUNDS PER CUBIC FOOT
PCI	PRECAST/PRESTRESSED CONCRETE INSTITUTE
PL	PROPERTY LINE
PLF	POUNDS PER LINEAR FOOT

ABBREVIATIONS - STRUCTURAL

ABBRV	TERM
PRCST	PRECAST
R	RADIUS
RC	REINFORCED CONCRETE
RD	ROOF DRAIN
REBAR	REINFORCING STEEL BARS
REF	REFERENCE
REINF	REINFORCEMENT
REM	REMAINDER
REM	REMAINING
REQD	REQUIRED
REV	REVISION
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	SECTION MODULUS
SCHED	SCHEDULE
SDI	STEEL DECK INSTITUTE
SE	STRUCTURAL ENGINEER
SECT	SECTION
SF	SQUARE FOOT (FEET)
SHT	SHEET
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SOG	SLAB ON GROUND
SPEC	SPECIFICATION
SST	STAINLESS STEEL
STAG	STAGGERED
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL PL	STEEL PLATE
STRUCT	STRUCTURAL
SYM	SYMMETRICAL
SYS	SYSTEM
T	TORSION
T&B	TOP AND BOTTOM
TD	TRENCH DRAIN
TEMP	TEMPORARY
TFF	TOP OF FINISH FLOOR
THRU	THROUGH
TO CP	TOP OF CONCRETE PIER
TO DP	TOP OF DRILLED PIER
TO FDTN	TOP OF FOUNDATION
TO P/C	TOP OF PRECAST
TO PC	TOP OF PILE CAP
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOF	TOP OF FOUNDATION
TOS	TOP OF SLAB
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSVERSE
TS	TUBE STEEL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
ULT	ULTIMATE
UN	UNLESS NOTED
UNIF	UNIFORM
UNO	UNLESS NOTED OTHERWISE
V	SHEAR
VAR	VARIES
VERT	VERTICAL
VIF	VERIFY IN FIELD
VRFY	VERIFY
W	W-STEEL SHAPE
W	WIDE
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WL	WIND LOAD
WP	WORKING POINT
WT	WEIGHT
WT	WT-STEEL SHAPE
WWR	WELDED WIRE REINFORCEMENT
X BRACE	CROSS BRACE
YD	YARD
Z	MODULUS OF SECTION

SPECIAL INSPECTIONS SCHEDULE

		REQUIRED VERIFICATION & INSPECTION	CONT	PERIODIC
A. CONCRETE CONSTRUCTION				
1.		Inspection of reinforcing steel, including prestressing tendons, and placing		X
2.		Inspection of reinforcing steel welding:		
	A.	Verification of weldability of reinforcing steel other than ASTM A706		X
	B.	Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls	X	
	C.	Shear reinforcement	X	
	D.	Other reinforcing steel		X
	E.	Bumper wall reinforcing	X	
3.		Inspection of bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased or where strength design is used	X	
4.		Inspection of anchors installed in hardened concrete		X
5.		Verifying use of required design mix		X
6.		Perform sampling and testing of concrete according to specifications	X	
7.		Inspection of concrete and shotcrete placement for proper application techniques	X	
8.		Inspection for maintenance of specified curing temperature and techniques		X
9.		Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		X
10.		Inspect formwork for shape, location and dimensions of concrete member being formed		X
11.		Verify finish of concrete slabs and floors (see specification section 033000)		X
12.		Verify location and construction of pour strips and joints in concrete slabs and floors (see specification section 033000 and structural drawings)		X
B. PRECAST CONCRETE				
1.		Erection of precast concrete members		X
2.		Verification of precast member connections in accordance with structural drawings and precast construction (shop) drawings		X
C. STEEL CONSTRUCTION				
1.		Material verification of high-strength bolts, nuts, and washers:		
	A.	Identification markings to conform to ASTM standards specified in construction documents		X
	B.	Manufacturer's certificate of compliance required		X
2.		Inspection of high-strength bolting:		
	A.	Bearing-type connections		X
	B.	Slip-critical connections (see IBC 1704.3.3)	X	X
3.		Material verification of structural steel:		
	A.	Identification markings to conform to ASTM standards in approved construction documents		X
	B.	Manufacturer's certified mill test reports		X
4.		Material verification of weld filler materials:		
	A.	Identification markings to conform to AWS specification in approved construction documents		X
	B.	Manufacturer's certificate of compliance required		X
5.		Inspection of structural steel welding:		
	A.	Complete and partial penetration groove welds	X	
	B.	Multi-pass fillet welds	X	
	C.	Single-pass fillet welds > 5/16"	X	
	D.	Single-pass fillet welds < 5/16"		X
	E.	Floor and deck welds		X
6.		Inspection of steel frame joint details for compliance with construction documents:		
	A.	Details such as bracing and stiffening		X
	B.	Member locations		X
	C.	Application of joint details at each connection		X

SPECIAL INSPECTIONS SCHEDULE

		REQUIRED VERIFICATION & INSPECTION	CONT	PERIODIC
D. MASONRY CONSTRUCTION (SEE IBC SECTION 1704.5.2)				
1.		Verification of slump flow and VSI as delivered to the site for self-consolidating grout	X	
2.		Verification of masonry construction:		
	A.	Proportions of site-prepared mortar		X
	B.	Construction of mortar joints		X
	C.	Location of reinforcement, connectors, and anchorages		X
3.		During construction the inspection program shall verify:		
	A.	Size and location of structural elements		X
	B.	Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction		X
	C.	Specified size, grade, and type of reinforcement, anchor bolts, and anchorages		X
	D.	Preparation, construction and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)		X
4.		Prior to grouting, the following shall be verified to ensure compliance:		
	A.	Grout space is clean		X
	B.	Placement of reinforcement and connectors, and anchorages		X
	C.	Construction of mortar joints		X
5.		Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed		X
E. SOILS				
1.		Verify materials below footings are adequate to achieve design bearing capacity		X
2.		Verify excavations are extended to proper depth and have reached proper material		X
3.		Perform classification and testing of controlled fill materials		X
4.		Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	X	
5.		Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly		X
F. DRIVEN PILE FOUNDATIONS				
1.		Verify pile materials, sizes, and lengths comply with requirements	X	
2.		Determine capacities of test piles and conduct additional load tests as required	X	
3.		Observe driving operations and maintain complete and accurate records for each pile	X	
4.		Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve...	X	
5.		For steel piles, perform additional inspections in accordance with Item C. above		
6.		For concrete piles and concrete-filled piles, perform additional inspections in accordance with Item A. above		
G. MISCELLANEOUS ITEMS				
1.		Verify installation of expansion joints, traffic topping membranes, and joint sealants		X
2.		Verify attachment and/or bracing of miscellaneous items such as pipes, equipment, signs, bollards, etc.		X

LEGEND

- CIP CONCRETE
- PRECAST CONCRETE
- CMU
- CONCRETE WASH / TOPPING
- TRAFFIC TOPPING
- FD — FLOOR DRAIN
- s——s — FLOOR OR GRADE BEAM STEP

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
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	05/05/2017	DESIGN DEVELOPMENT
	04/14/2017	SITE ENABLING BID SET

ISSUE:

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CHECKED BY: MRS

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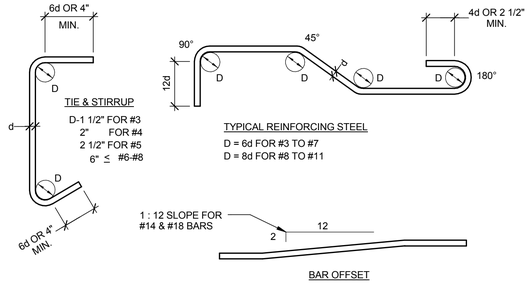
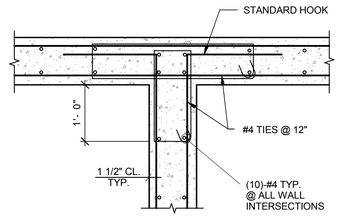
S-002

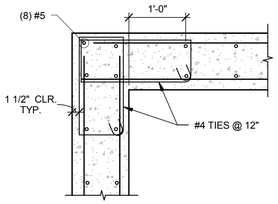


9 BAR BENDING DETAIL



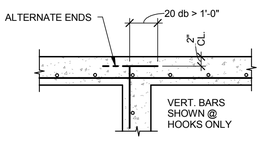
TYPICAL WALL INTERSECTION DETAIL AT WALLS W/ 2 LAYERS OF REINFORCEMENT

8



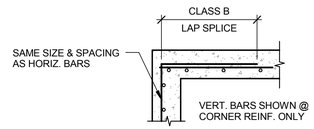
WALL CORNER JOINT DETAIL AT WALL W/ 2 LAYER OF REINFORCEMENT

7

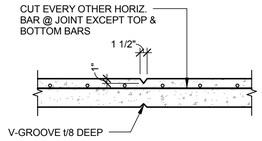


db = DIA OF BAR

6 INTERSECTION REINFORCEMENT

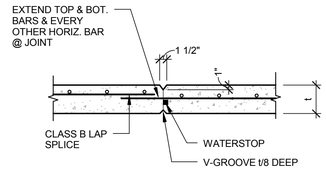


5 CORNER REINFORCEMENT



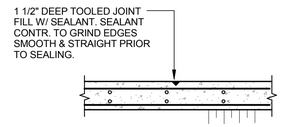
JOINT SPACING: 20' MAX. AND NO MORE THAN 10' FROM CORNER.

4 VERTICAL CONTROL JOINT

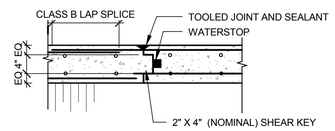


DO NOT CAST MORE THAN 100'-0" OF WALL WITHOUT CONSTRUCTION JOINT.

3 VERTICAL CONSTRUCTION JOINT

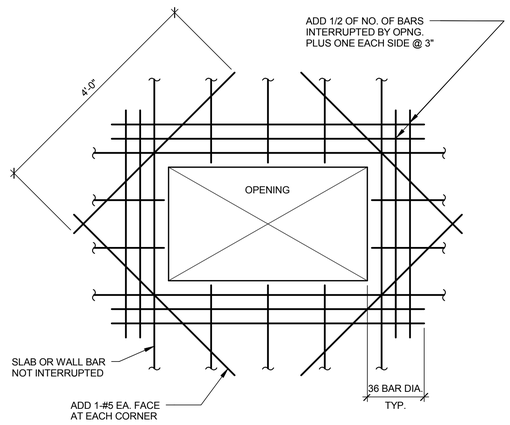


2 SLAB CONTROL JOINT



NOTE: LOCATION CONSTRUCTION JOINTS (WHERE REQUIRED) IN MIDDLE THIRD OF SLAB SPAN, TYP EA DIRECTION

1 SLAB CONSTRUCTION JOINT



10 TYPICAL SLAB/WALL OPENING

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20 Park Plaza, Suite 1202
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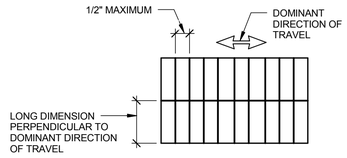
TYPICAL DETAILS

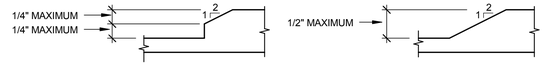
S-003



REFERENCED REGULATIONS AND STANDARDS
1. OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAT 1/2" DIAMETER EXCEPT AS ALLOWED FOR ELEVATORS ADA 409.4.3 AND ADA 407.4.3 AND PLATFORM LIFTS ADA 410.4.
2. ADA-ACCESSIBILITY GUIDELINES FIGURE 303.2 ELONGATED OPENINGS IN FLOOR OR GROUND SURFACES
3. ASTM F1637-02 STANDARD PRACTICE FOR SAFE WALKING SURFACES. SECTION 10.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

6 OPENING IN FLOOR SURFACES

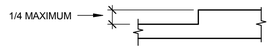
3/4" = 1'-0"



REFERENCED REGULATIONS AND STANDARDS
1. CHANGES IN LEVEL OF LESS THAN 1/4" AND 1/2".
2. ADA-ACCESSIBILITY GUIDELINES FIGURE 303.2 BEVELED CHANGE IN LEVEL..
3. ASTM F1637-02 STANDARD PRACTICE FOR SAFE WALKING SURFACES IN SECTION 5.2.3.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

5 VERTICAL CHANGE IN LEVEL

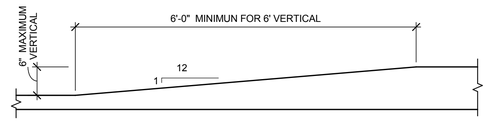
3/4" = 1'-0"



REFERENCED REGULATIONS AND STANDARDS
1. CHANGES IN LEVEL OF LESS THAN 1/4".
2. ADA-ACCESSIBILITY GUIDELINES FIGURE 303.2 CHANGE IN LEVEL FIGURE 1.
3. ASTM F1637-02 STANDARD PRACTICE FOR SAFE WALKING SURFACES IN SECTION 5.2.2.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

4 VERTICAL CHANGE IN LEVEL

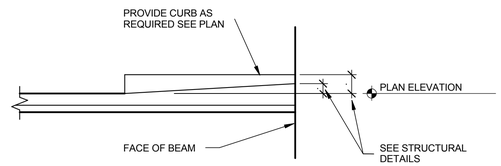
3/4" = 1'-0"



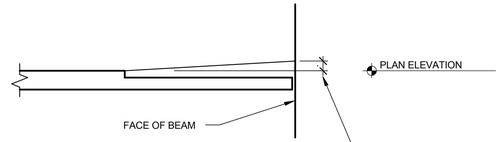
REFERENCED REGULATIONS AND STANDARDS
1. CHANGE IN LEVEL BETWEEN 1/2" AND 6".
   a. REFER TO REFERENCED STANDARDS FOR ADDITIONAL REQUIREMENTS
   b. MAXIMUM SLOPE ON RAMP SURFACE IS 8.33%
2. ADA - ACCESSIBILITY GUIDELINES RAMPS SECTION 405 AND CURB RAMPS SECTION 406
3. ASTM F1637-02 STANDARD PRACTICE FOR SAFE WALKING SURFACES. CHANGES IN LEVEL GREATER THAN 1/2" IN SECTION 5.2.4.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3 VERTICAL CHANGE IN LEVEL

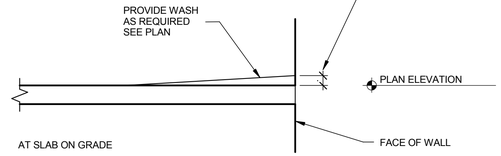
3/4" = 1'-0"



AT TOPPED TEE



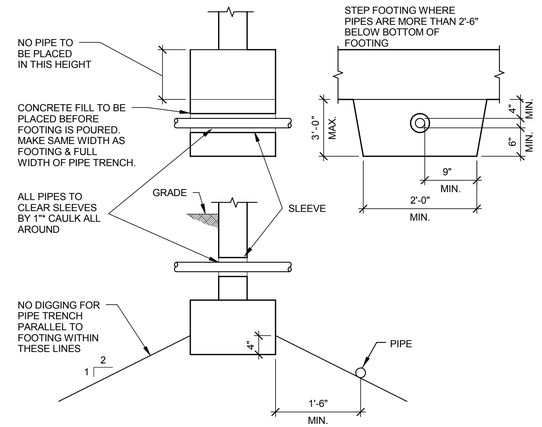
AT PRETOPPED TEE



AT SLAB ON GRADE

2 PLAN ELEVATION KEY

3/4" = 1'-0"



NOTE:
* INCREASE CLEARANCE IF REQUIRED PER SETTLEMENT REQUIREMENTS.

1 PIPE @ WALL & FOOTING DETAIL

3/4" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
TYPICAL DETAILS

S-004

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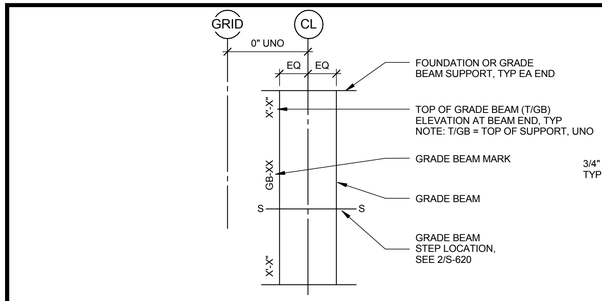
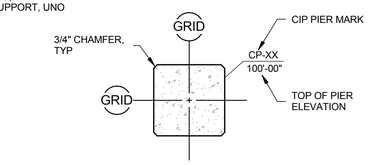


NOTES:
1. SEE S-620 FOR GRADE BEAM SCHEDULE AND NOTES
2. SEE S-620 FOR TYPICAL GRADE BEAM DETAILS

4 GRADE BEAM LEGEND

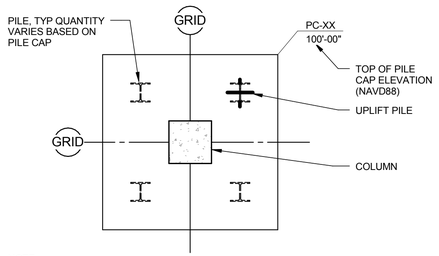
NTS



NOTES:
1. SEE CIP PIER SCHEDULE AND CIP PIER NOTES FOR ADDITIONAL INFORMATION

3 CIP PIER LEGEND

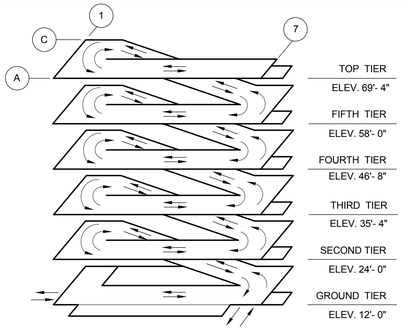
NTS



NOTE:
SEE PILE CAP SCHEDULE AND PILE CAP NOTES ON S-610 & S-611 FOR ADDITIONAL INFORMATION

2 PILE CAP LEGEND

NTS



ISOMETRIC

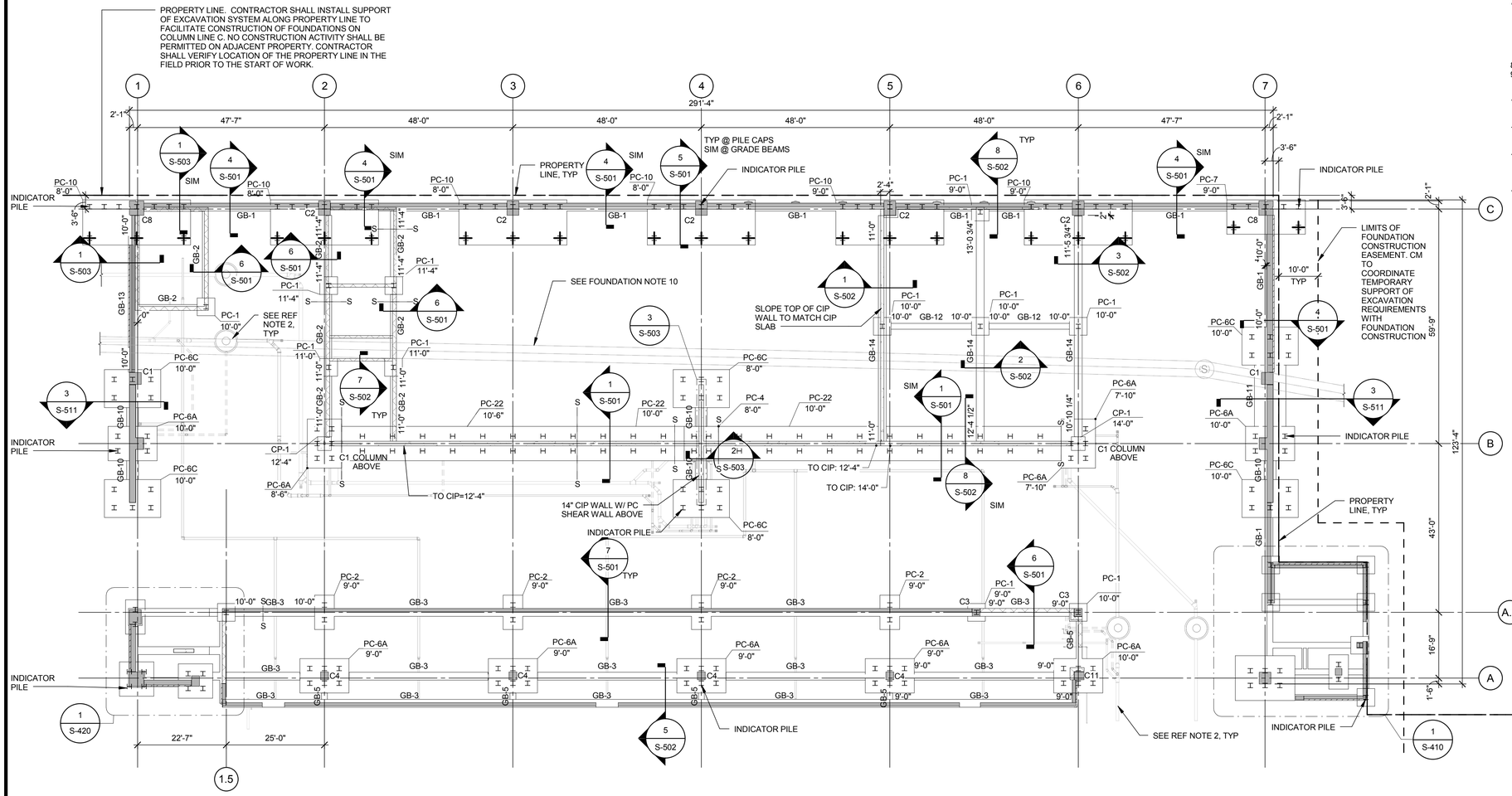
SHEET NOTES

REFERENCES:

1. REFER TO CIVIL DRAWINGS FOR EXTERIOR GRADES, UTILITIES, ADJACENT STRUCTURES AND PROPERTY LINES. (NOTIFY ENGINEER OF CONFLICTS IMMEDIATELY)
2. REFER TO MECHANICAL DRAWINGS FOR FLOOR DRAIN LOCATIONS, UNDERGROUND UTILITIES, AND DETAILS. SUB-SLAB UTILITIES SHOWN ON PLAN FOR INFORMATION/COORDINATION PURPOSES ONLY. CONTRACTOR SHALL REFER TO MECH, PLUMBING, ELECTRICAL DRAWINGS FOR REQUIREMENTS & FINAL CONDITIONS.
3. REFER TO SHEET S-001 FOR GENERAL NOTES.
4. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
5. REFER TO SHEET S-101 FOR GRADE SLAB AND SUBGRADE INFORMATION.
6. REFER TO SHEET SERIES S-500 FOR FOUNDATION DETAILS.
7. REFER TO SHEET SERIES S-600 FOR PILE CAP AND GRADE BEAM SCHEDULES.

PLAN NOTES:

1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ENGINEER IMMEDIATELY.
2. CONTRACTOR SHALL PROTECT SUBGRADE FROM DAMAGE DUE TO WEATHER. REFER TO SPECIFICATION SECTION 310000 FOR SUBGRADE PREPARATION AND PROTECTION REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ALL TEMPORARY EXCAVATION BRACING, SHEETING AND SHORING. REFER TO SPECIFICATION SECTION 315000 FOR REQUIREMENTS.
4. COORDINATE PENETRATIONS IN GRADE BEAMS & PRECAST MEMBERS WITH MEP AND CIVIL DRAWINGS, SHOW PENETRATIONS ON ALL SHOP DRAWINGS.
5. INTERCONNECTING GRADE BEAMS AND PILE CAPS SHALL BE FINISHED IN THEIR ENTIRETY BEFORE PRECAST IS ERECTED.
6. TOP OF GRADE BEAMS SHALL MATCH TOP OF PILE CAP, UNO.
7. ANCHOR BOLTS, PLATES WITH WELDED ANCHORS, REINFORCING BAR CAGES WITH NMB SPLICES (OR SIMILAR) OR ANY OTHER CONNECTION MATERIALS THAT CONNECT THE PRECAST CONCRETE MEMBERS TO THE CIP FOUNDATIONS ARE TO BE SUPPLIED BY THE PRECAST SUPPLIER AND INSTALLED BY THE CIP CONCRETE CONTRACTOR. CM TO COORDINATE NUMBER AND LOCATION OF EMBEDS BETWEEN PRECAST SUPPLIER AND CIP CONTRACTOR.
8. FOR ANCHOR BOLT REQUIREMENTS, SEE SHEET S-520.
9. AT LOCATIONS WHERE PRECAST WALLS ARE SUPPORTED IN FOUNDATIONS, PROVIDE EMBEDDED PLATES IN FOUNDATIONS, COORDINATE WITH PRECAST SUPPLIER.
10. APPROXIMATE LIMITS OF EXISTING SEWER. SEWER TO BE ABANDONED, FILLED WITH FLOWABLE FILL AND LEFT-IN PLACE PRIOR TO CONSTRUCTION OF FOUNDATIONS.
11. BACKFILL ADJACENT TO PILE CAPS & GRADE BEAMS SHALL BE COMPACTED TO 95% MAX DENSITY. BACKFILL MATERIAL TO BE ACCEPTABLE TO GEOTECHNICAL ENGINEER.
12. FOR BIDDING PURPOSES, CONTRACTOR SHALL ASSUME ALL PILES ARE DRIVEN TO BEDROCK AND ARE 60 FEET IN LENGTH. PROVIDE UNIT COST PER LINEAR FOR FOR ADD/DEDUCT FOR LENGTHS GREATER THAN OR LESS THAN BID QUANTITIES.
13. REFER TO SPECIFICATION SECTION 316216 FOR PILE TESTING AND INSTALLATION REQUIREMENTS.



PRECAST COLUMN SCHEDULE		
TYPE	WIDTH	LENGTH
C1	3' - 0"	3' - 0"
C2	3' - 0"	3' - 8"
C3	2' - 0"	2' - 0"
C4	2' - 0"	2' - 0"
C5	1' - 6"	1' - 6"
C6	1' - 8"	1' - 8"
C7	3' - 8"	3' - 8"
C8	3' - 8"	3' - 8"
C9	2' - 0"	2' - 8"
C10	3' - 0"	3' - 8"
C11	2' - 6"	2' - 0"
C12	3' - 0"	5' - 11"

1 FOUNDATION PLAN

1/16" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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CONSTRUCTION DOCUMENTS	07/28/2017	
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SITE ENABLING BID SET	04/14/2017	

PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: MRS

SHEET TITLE:
FOUNDATION PLAN

S-100A

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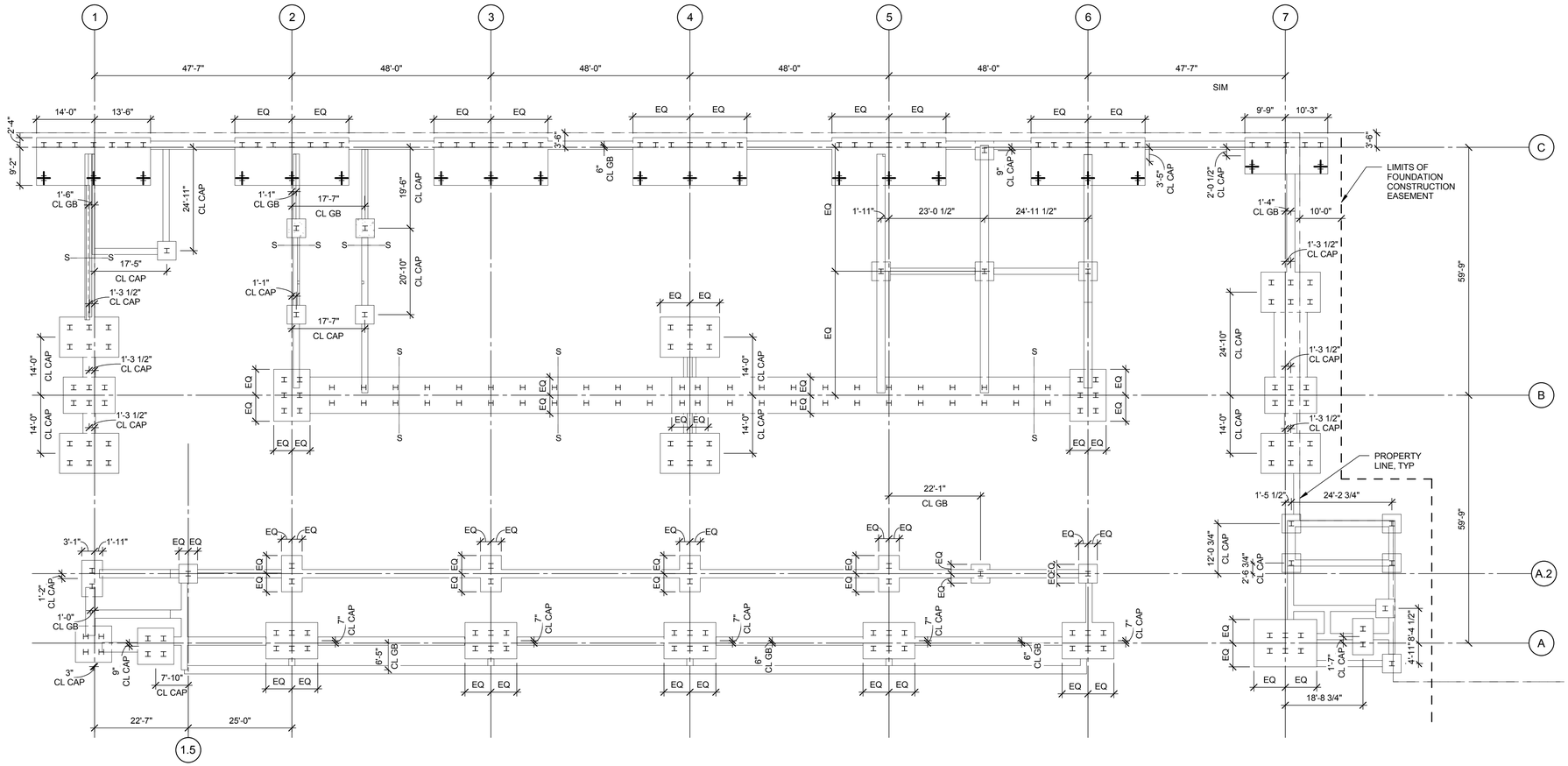
SHEET NOTES

1. REFER TO S-100A FOR FOUNDATION NOTES, DETAILS, AND SECTIONS.
2. PILE CAPS AND GRADE BEAMS SHOWN FOR THE PURPOSE OF LOCATING. REFER TO S-100A FOR CIP WALLS, PRECAST WALLS, COLUMNS, ETC.



1 FOUNDATION LOCATION PLAN

1/16" = 1'-0"

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FOUNDRY PLACE
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PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: JRM
CHECKED BY: MRS

SHEET TITLE:
FOUNDATION LOCATION PLAN

S-100B

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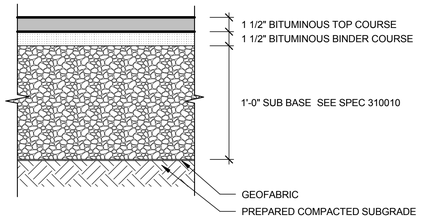
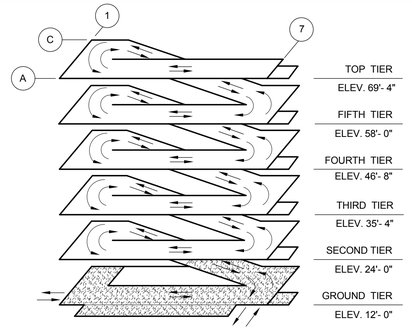


NOTES:
1. REFER TO SPECIFICATION SECTION 310000 FOR MATERAL AND SUBGRADE PREPARATION AND PROTECTION REQUIREMENTS.

2 BITUMINOUS CONCRETE PAVEMENT SECTION

1 1/2" = 1'-0"



ISOMETRIC

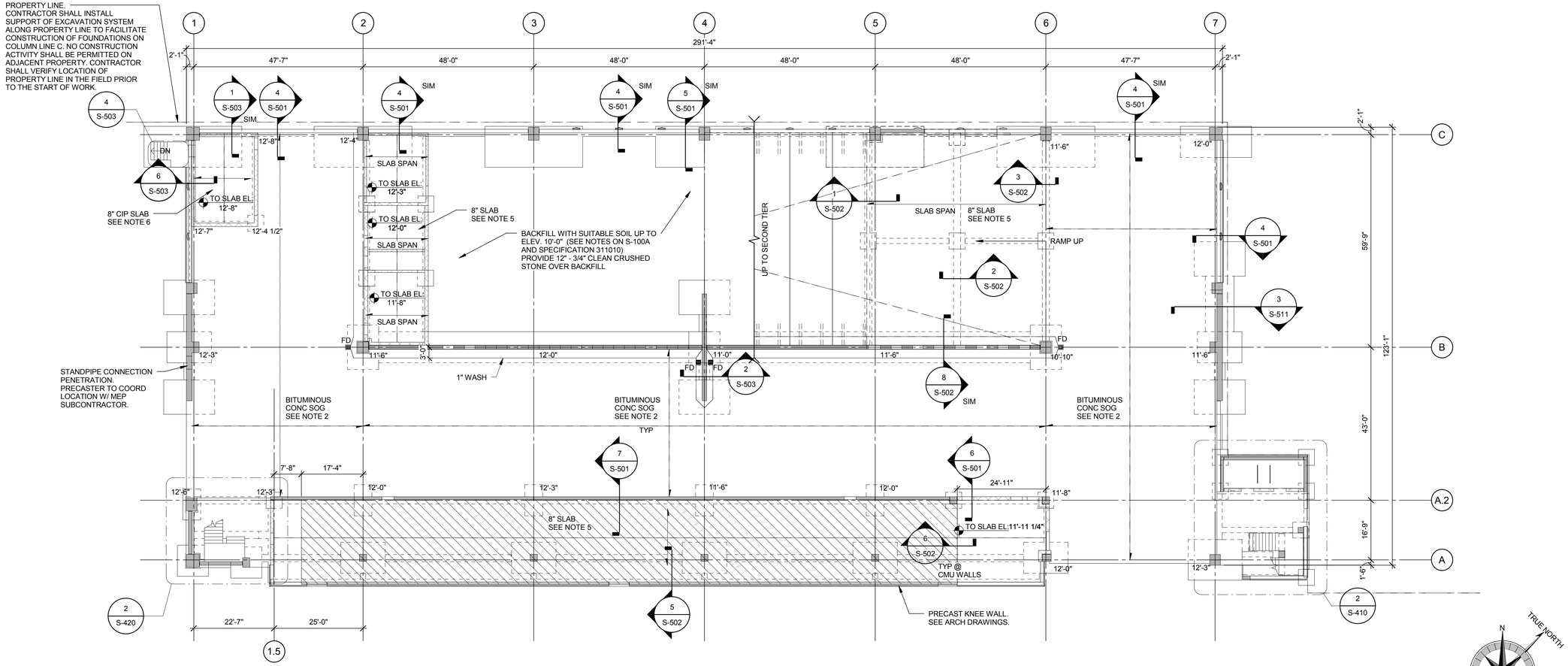
SHEET NOTES

REFERENCES:

1. REFER TO CIVIL DRAWINGS FOR EXTERIOR GRADES, UTILITIES, ADJACENT STRUCTURES AND PROPERTY LINES. (NOTIFY ENGINEER OF CONFLICTS IMMEDIATELY)
2. REFER TO MECHANICAL DRAWINGS FOR FLOOR DRAIN LOCATIONS, UNDERGROUND UTILITIES, AND DETAILS.
3. REFER TO SHEETS S-001 & S-002 FOR GENERAL NOTES.
4. REFER TO SHEETS S-003 & S-004 FOR TYPICAL DETAILS.

PLAN NOTES:

1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ENGINEER IMMEDIATELY.
2. INTERIOR SLAB WITHIN PARKING BAY SHALL BE 3" THICK BITUMINOUS CONCRETE PAVEMENT (UNO), CONSISTING OF 1 1/2" THICK BASE COURSE AND 1 1/2" THICK WEAR COARSE. PAVEMENT SHALL BE PLACE ON 12" (MIN) OF COMPACTED GRAVEL FILL. SEE DETAIL 2 ON THIS SHEET.
3. USE STRAIGHT LINE INTERPOLATION FOR ELEVATIONS BETWEEN THOSE SHOWN.
4. AT CONCRETE SLABS, PROVIDE 1/2" JOINT FILLER AT GRADE SLAB AROUND COLUMNS AND ADJACENT PRECAST WALLS.
5. PROVIDE #7 @ 1'-0" OC TOP AND #4 @ 1'-6" BOT IN SPAN DIRECTION. PROVIDE #4 @ 1'-6" OC TOP AND BOT PERPENDICULAR TO SPAN DIRECTION.
6. PROVIDE #7 @ 9" OC TOP AND #4 @ 1'-6" BOT IN SPAN DIRECTION. PROVIDE #4 @1'-6" OC TOP AND BOT PERPENDICULAR TO SPAN DIRECTION.
7. ▱ INDICATES AREA OF CIP CONCRETE SLAB THAT SHALL NOT BE PLACED UNTIL DESIGN OF FINISHED SPACE IS APPROVED AND FINAL FLOOR ELEVATIONS ARE SET. CM TO COORDINATE WITH OWNER, GARAGE ARCHITECT AND INTERIOR ARCHITECT.
8. PROVIDE THICKENED SLAB UNDER ALL INTERIOR CMU WALLS UNO. SEE 6/S-502



IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THERE IS A MINIMUM OF 8'-4" HEADROOM BETWEEN ALL DRIVING SURFACES AND OVERHEAD BEAMS PRIOR TO PLACING CONCRETE.

1 GROUND TIER

1/16" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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CONSTRUCTION DOCUMENTS	07/28/2017	
DESIGN DEVELOPMENT	05/05/2017	
SITE ENABLING BID SET	04/14/2017	

PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: MRS

SHEET TITLE:
GROUND TIER PLAN

S-101

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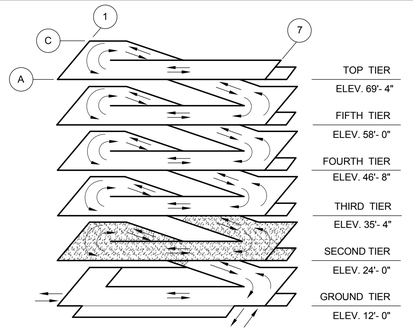

ISOMETRIC

SHEET NOTES

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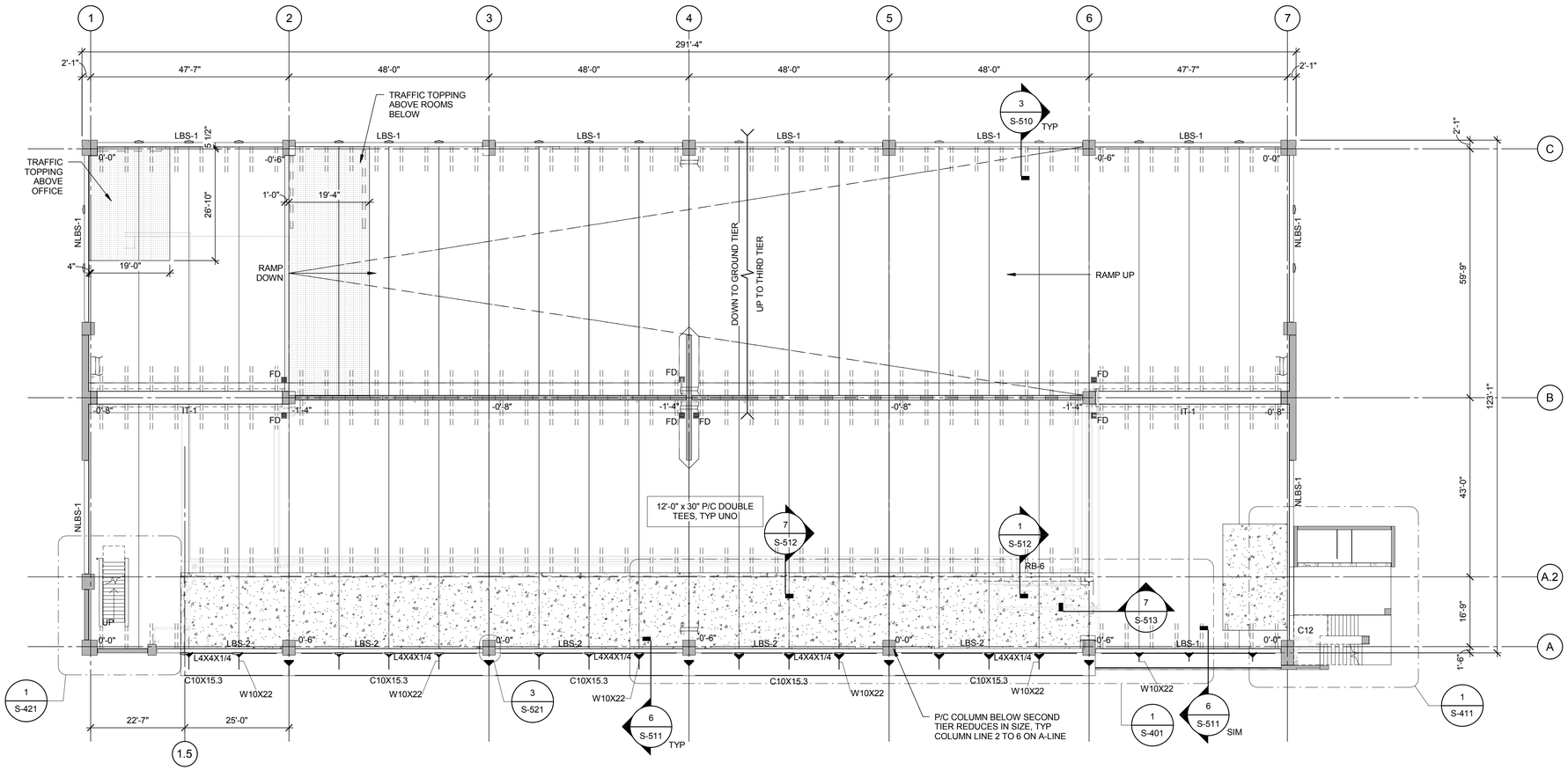
3. REFER TO SHEET S-001 FOR GENERAL NOTES.
4. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
5. REFER TO SHEET S-101 FOR GRADE SLAB AND SUBGRADE INFORMATION.
6. REFER TO SHEET SERIES S-500 FOR FOUNDATION DETAILS.
7. REFER TO SHEET SERIES S-600 FOR FOUNDATION SCHEDULES.

PLAN NOTES:

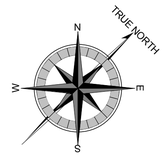
1. REFERENCE SHEET S-103 FOR TYPICAL SUPPORTED TIER DIMENSIONS, DETAILS, NOTES AND CALLOUTS.
2. REFER TO PLAN ELEVATION KEY DETAIL ON S-003 FOR FLOOR ELEVATIONS RELATIVE TO DATUM. DATUM ELEVATIONS SHOWN IN ISOMETRIC DRAWING.
3. USE STRAIGHT LINE INTERPOLATION FOR ELEVATIONS BETWEEN THOSE INDICATED.
4. PROVIDE CONTROL JOINTS IN CIP TOPPING DIRECTLY OVER P/C JOINTS. ROUT AND SEAL JOINTS.
5. IT-'X', LBS-'X', LB-'X' AND NLBS-'X' ARE PRECAST BEAM DESIGNATIONS. SEE SCHEDULE FOR BEAM DIMENSIONS AND DETAILING, SEE S-525.
6. LW-'X' AND SW-'X' ARE PRECAST LIGHT WALL AND SHEAR WALL DIMENSIONS DESIGNATIONS. SEE S-535 FOR DIMENSIONS AND DETAILING.
7. PRECAST @ TOP TIER AND WHERE EXPOSED TO OPEN SKY SHALL BE DESIGNED FOR ROOF SNOW LOADS, INCLUDING DRIFT LOADS.



1 SECOND TIER PLAN

1/16" = 1'-0"

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THERE IS A MINIMUM OF 7'-2" HEADROOM BETWEEN ALL DRIVING SURFACES AND OVERHEAD BEAMS PRIOR TO PLACING CONCRETE.



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FOUNDRY PLACE
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PROJECT NO: 16-2683.01

DRAWN BY: LEL

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SHEET TITLE:
SECOND TIER PLAN

S-102

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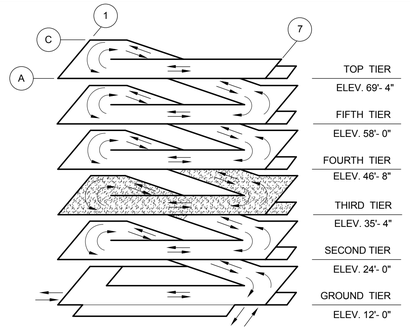

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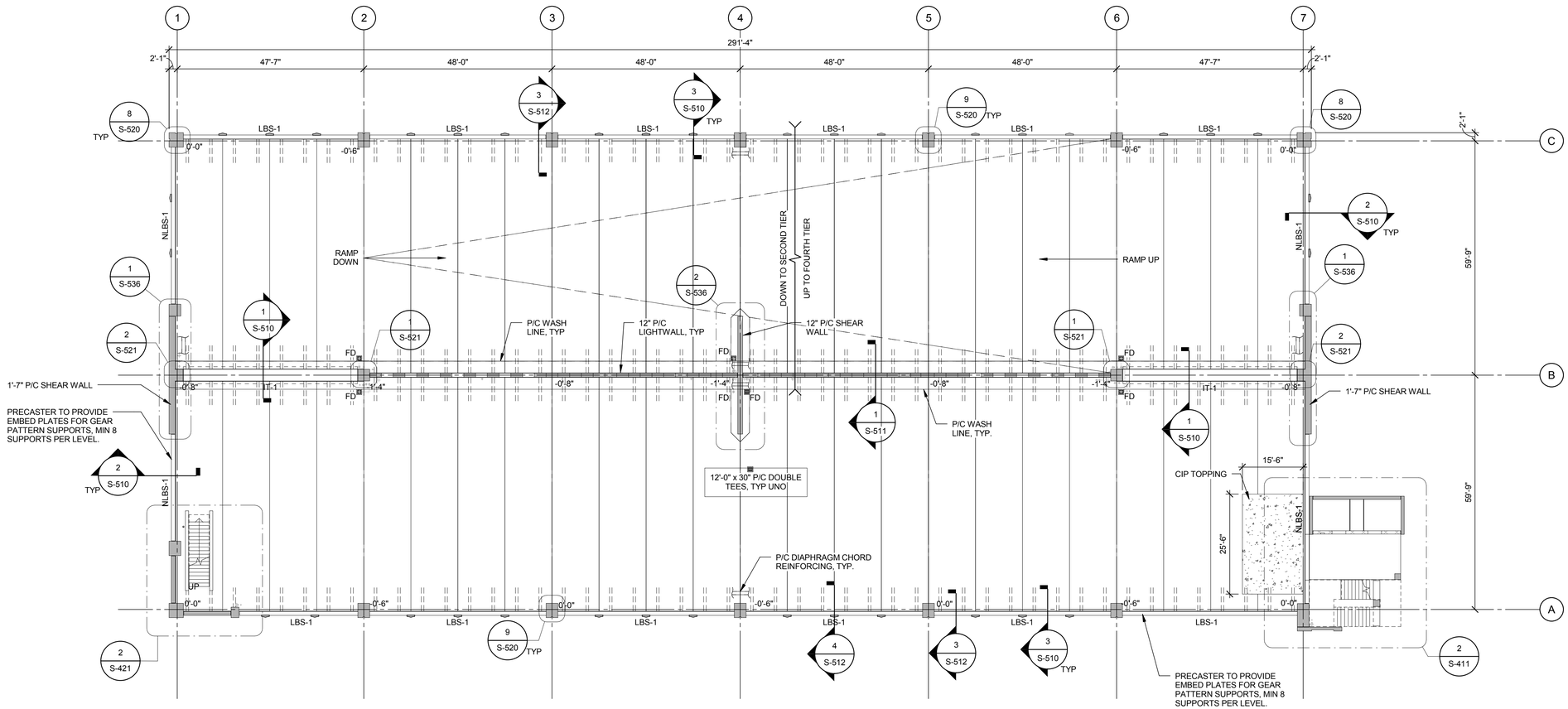
5. REFER TO SHEET S-101 FOR GRADE SLAB AND SUBGRADE INFORMATION.
6. REFER TO SHEET SERIES S-500 FOR FOUNDATION DETAILS.
7. REFER TO SHEET SERIES S-600 FOR FOUNDATION SCHEDULES.

PLAN NOTES:

1. REFERENCE SHEET S-103 FOR TYPICAL SUPPORTED TIER DIMENSIONS, DETAILS, NOTES AND CALLOUTS.
2. REFER TO PLAN ELEVATION KEY DETAIL ON S-003 FOR FLOOR ELEVATIONS RELATIVE TO DATUM. DATUM ELEVATIONS SHOWN IN ISOMETRIC DRAWING.
3. USE STRAIGHT LINE INTERPOLATION FOR ELEVATIONS BETWEEN THOSE INDICATED.
4. PROVIDE CONTROL JOINTS IN CIP TOPPING DIRECTLY OVER P/C JOINTS. ROUT AND SEAL JOINTS.
5. IT-'X', LBS-'X', LB-'X' AND NLBS-'X' ARE PRECAST BEAM DESIGNATIONS. SEE SCHEDULE FOR BEAM DIMENSIONS AND DETAILING, SEE S-525.
6. LW-'X' AND SW-'X' ARE PRECAST LIGHT WALL AND SHEAR WALL DIMENSIONS DESIGNATIONS. SEE S-535 FOR DIMENSIONS AND DETAILING.
7. PRECAST @ TOP TIER AND WHERE EXPOSED TO OPEN SKY SHALL BE DESIGNED FOR ROOF SNOW LOADS, INCLUDING DRIFT LOADS.



IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THERE IS A MINIMUM OF 7'-2" HEADROOM BETWEEN ALL DRIVING SURFACES AND OVERHEAD BEAMS PRIOR TO PLACING CONCRETE.

1 THIRD TIER PLAN

1/16" = 1'-0"

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FOUNDRY PLACE
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PROJECT NO: 16-2683.01
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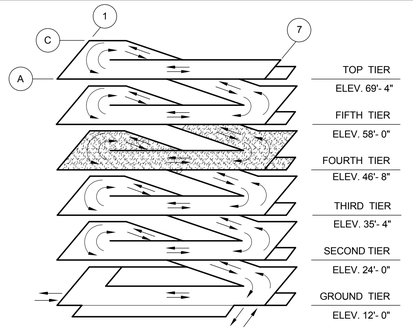
CHECKED BY: MRS

SHEET TITLE:
THIRD TIER PLAN

S-103



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6. REFER TO SHEET SERIES S-500 FOR FOUNDATION DETAILS.
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PLAN NOTES:

1. REFERENCE SHEET S-103 FOR TYPICAL SUPPORTED TIER DIMENSIONS, DETAILS, NOTES AND CALLOUTS.
2. REFER TO PLAN ELEVATION KEY DETAIL ON S-003 FOR FLOOR ELEVATIONS RELATIVE TO DATUM. DATUM ELEVATIONS SHOWN IN ISOMETRIC DRAWING.
3. USE STRAIGHT LINE INTERPOLATION FOR ELEVATIONS BETWEEN THOSE INDICATED.
4. PROVIDE CONTROL JOINTS IN CIP TOPPING DIRECTLY OVER P/C JOINTS. ROUT AND SEAL JOINTS.
5. IT-'X', LBS-'X', LB-'X' AND NLBS-'X' ARE PRECAST BEAM DESIGNATIONS. SEE SCHEDULE FOR BEAM DIMENSIONS AND DETAILING, SEE S-525.
6. LW-'X' AND SW-'X' ARE PRECAST LIGHT WALL AND SHEAR WALL DIMENSIONS DESIGNATIONS. SEE S-535 FOR DIMENSIONS AND DETAILING.
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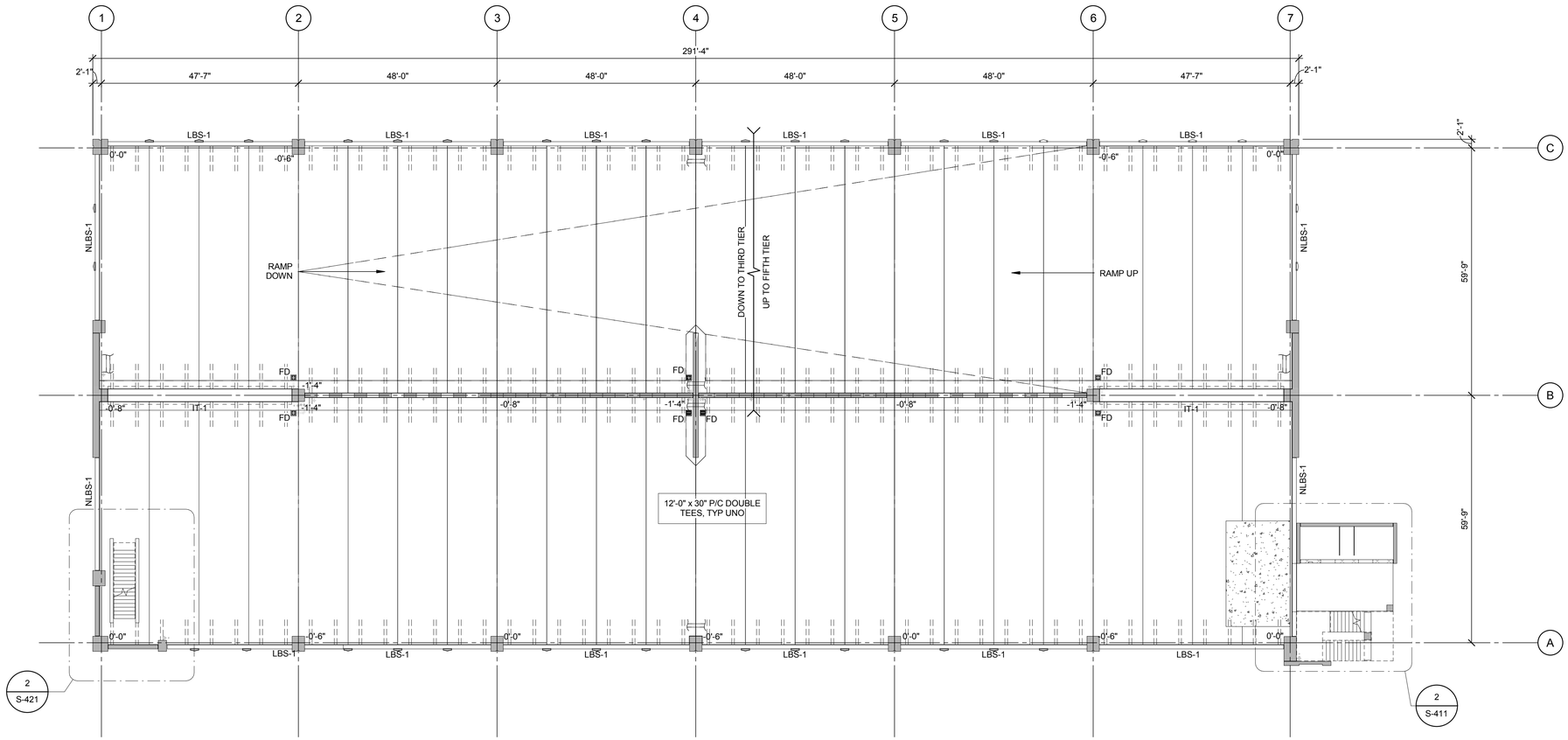

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1 FOURTH TIER PLAN

1/16" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

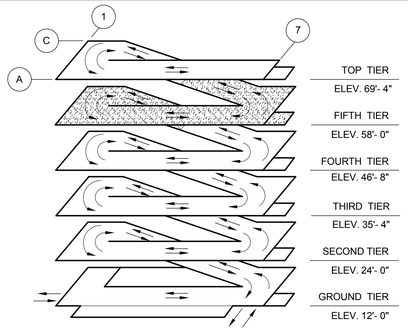
MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
FOURTH TIER PLAN

S-104



ISOMETRIC

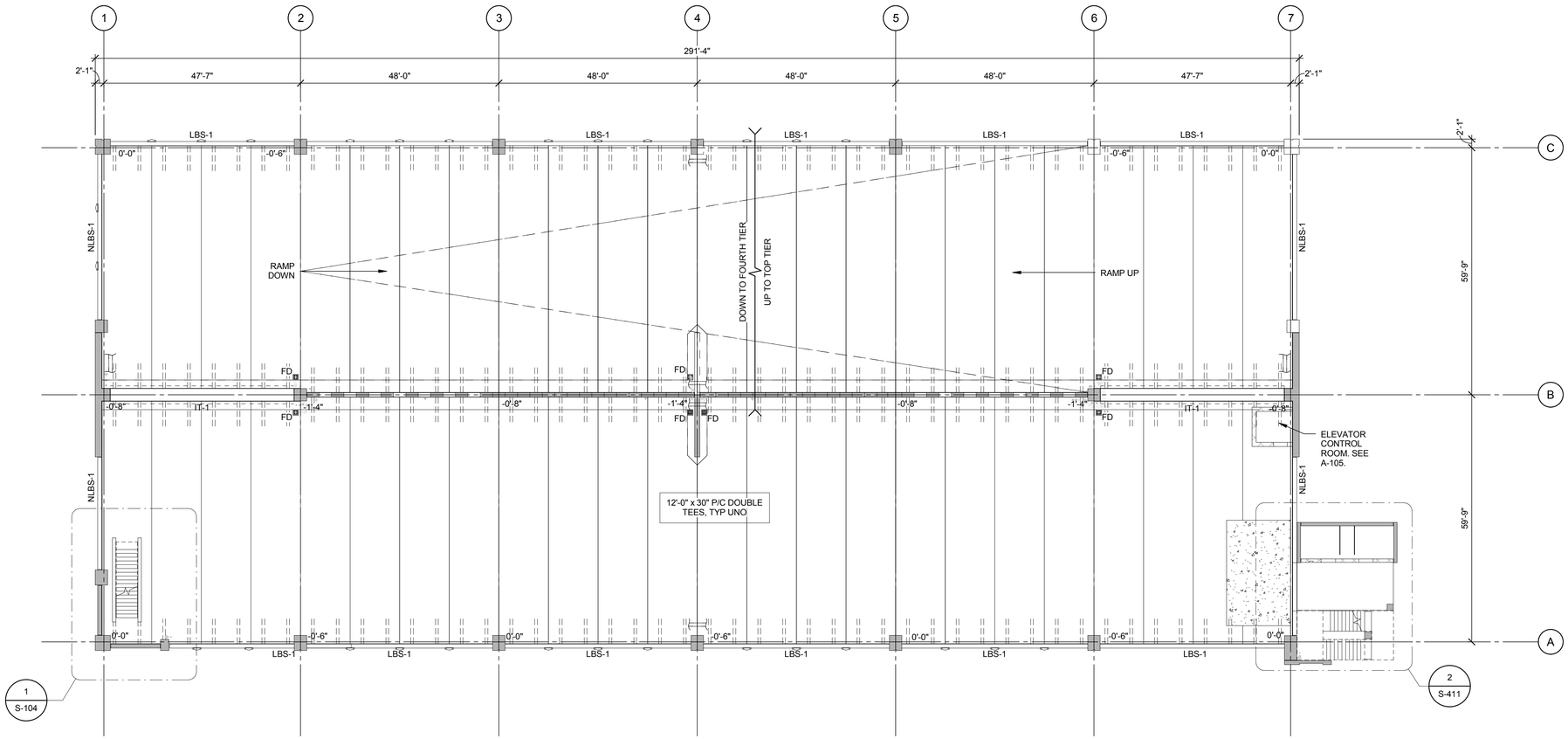
SHEET NOTES

REFERENCES:

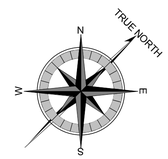
1. REFER TO CIVIL DRAWINGS FOR EXTERIOR GRADES, UTILITIES, ADJACENT STRUCTURES AND PROPERTY LINES. (NOTIFY ENGINEER OF CONFLICTS IMMEDIATELY)
2. REFER TO MECHANICAL DRAWINGS FOR FLOOR DRAIN LOCATIONS, UNDERGROUND UTILITIES, AND DETAILS.
3. REFER TO SHEET S-001 FOR GENERAL NOTES.
4. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
5. REFER TO SHEET S-101 FOR GRADE SLAB AND SUBGRADE INFORMATION.
6. REFER TO SHEET SERIES S-500 FOR FOUNDATION DETAILS.
7. REFER TO SHEET SERIES S-600 FOR FOUNDATION SCHEDULES.

PLAN NOTES:

1. REFERENCE SHEET S-103 FOR TYPICAL SUPPORTED TIER DIMENSIONS, DETAILS, NOTES AND CALLOUTS.
2. REFER TO PLAN ELEVATION KEY DETAIL ON S-003 FOR FLOOR ELEVATIONS RELATIVE TO DATUM. DATUM ELEVATIONS SHOWN IN ISOMETRIC DRAWING.
3. USE STRAIGHT LINE INTERPOLATION FOR ELEVATIONS BETWEEN THOSE INDICATED.
4. PROVIDE CONTROL JOINTS IN CIP TOPPING DIRECTLY OVER P/C JOINTS. ROUT AND SEAL JOINTS.
5. IT-'X', LBS-'X', LB-'X' AND NLBS-'X' ARE PRECAST BEAM DESIGNATIONS. SEE SCHEDULE FOR BEAM DIMENSIONS AND DETAILING, SEE S-525.
6. LW-'X' AND SW-'X' ARE PRECAST LIGHT WALL AND SHEAR WALL DIMENSIONS DESIGNATIONS. SEE S-535 FOR DIMENSIONS AND DETAILING.
7. PRECAST @ TOP TIER AND WHERE EXPOSED TO OPEN SKY SHALL BE DESIGNED FOR ROOF SNOW LOADS, INCLUDING DRIFT LOADS.



IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THERE IS A MINIMUM OF 7'-2" HEADROOM BETWEEN ALL DRIVING SURFACES AND OVERHEAD BEAMS PRIOR TO PLACING CONCRETE.



1 FIFTH TIER PLAN

1/16" = 1'-0"

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Boston MA 02116
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FOUNDRY PLACE
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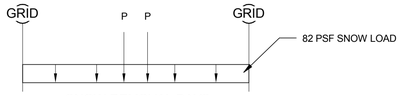
SHEET TITLE:
FIFTH TIER PLAN

S-105



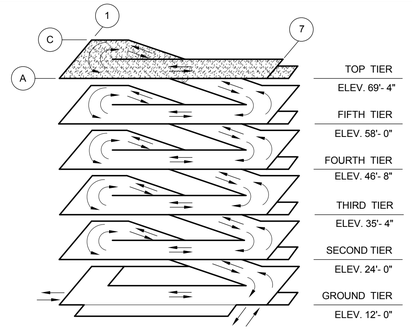
SNOW REMOVAL BAYS

P= 10K WHEEL LOAD SPACED @7'-0" APART PLACED FOR MAXIMUM EFFECT.

NOTE:
1. PLOWED / STOCK PILED SNOW SHALL NOT BE PILED GREATER THAN 3'-0" HIGH BEFORE BEING PLACED IN MELTER.
2. MELTER SHALL NOT BE TOWED WHILE FULL IN ANY OTHER BAYS THAN THOSE INDICATED ABOVE. MELTER SHALL BE TOWED EMPTY IN ALL OTHER BAYS ON THE ROOF LEVEL & ALL BAYS ON COVERED LEVELS.

2 SNOW LOADING / REMOVAL DIAGRAM

1" = 80'-0"



ISOMETRIC

SHEET NOTES

REFERENCES:

1. REFER TO CIVIL DRAWINGS FOR EXTERIOR GRADES, UTILITIES, ADJACENT STRUCTURES AND PROPERTY LINES. (NOTIFY ENGINEER OF CONFLICTS IMMEDIATELY)
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5. REFER TO SHEET S-101 FOR GRADE SLAB AND SUBGRADE INFORMATION.
6. REFER TO SHEET SERIES S-500 FOR FOUNDATION DETAILS.
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PLAN NOTES:

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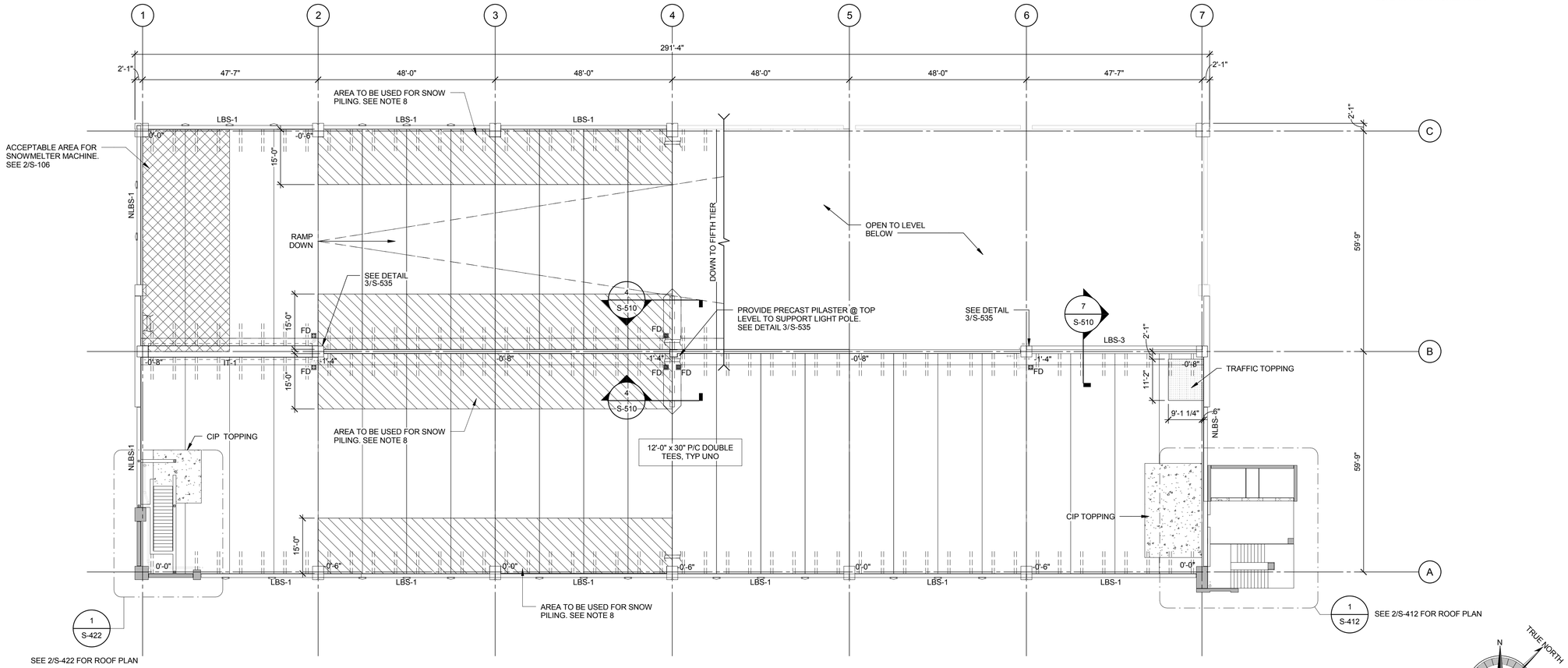
6. LW-'X' AND SW-'X' ARE PRECAST LIGHT WALL AND SHEAR WALL DIMENSIONS DESIGNATIONS. SEE S-535 FOR DIMENSIONS AND DETAILING.
7. PRECAST @ TOP TIER AND WHERE EXPOSED TO OPEN SKY SHALL BE DESIGNED FOR ROOF SNOW LOADS, INCLUDING DRIFT LOADS.
8. STRUCTURAL FRAMING WITHIN HATCHED AREA SHALL BE DESIGNED TO SUPPORT SNOW LOADS DUE TO TEMPORARY PILED SNOW. AN ADDITIONAL SNOW LOAD OF 42 PSF IS TO BE INCLUDED ON TOP OF EXISTING GROUND SNOW LOADS. THIS ADDITIONAL LOAD DOES NOT NEED TO BE TAKEN CONCURRENTLY WITH THE LIVE LOAD IN THE HATCHED AREA.



1 TOP TIER PLAN

1/16" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
TOP TIER PLAN

S-106

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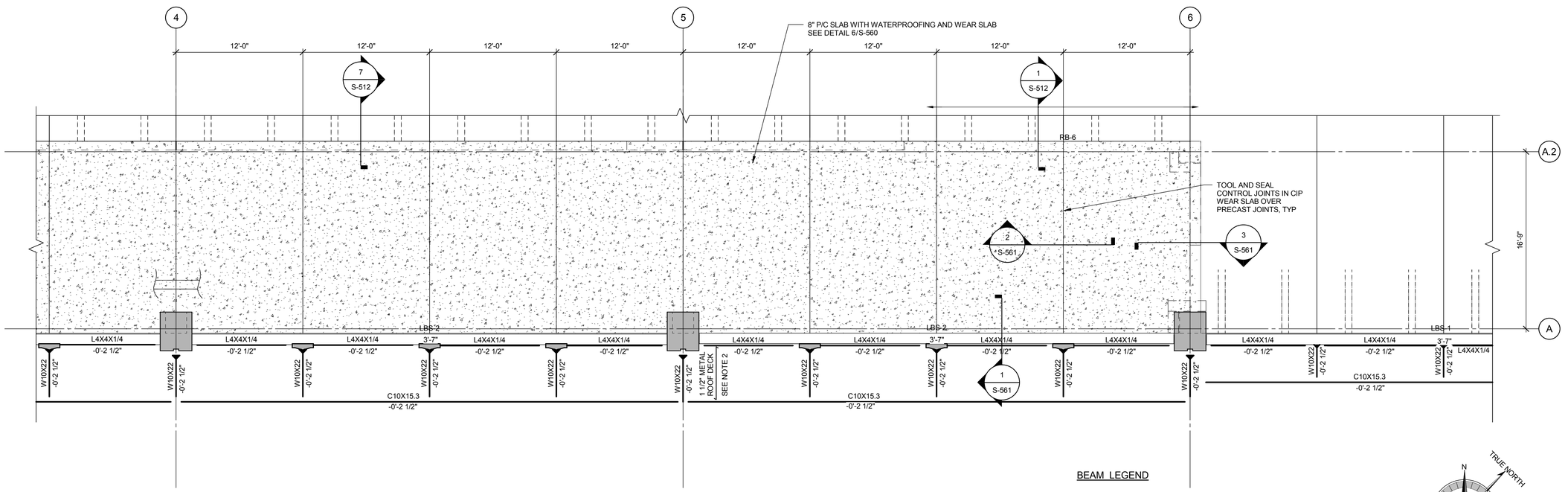
SHEET NOTES

1. PROVIDE VULCRAFT 1.5B 18 GAUGE METAL ROOF DECK OR ENGINEER APPROVED EQUIVALENT



NOTE:
1. TOS +0" DATUM = EL 24'-0"

1 ENLARGED FRAMING PLAN

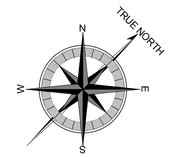
3/16" = 1'-0"

BEAM LEGEND

AISC SHAPE → W 18x35

+/- 0'-8" (20K,20k) ← FACTORED VERTICAL ULTIMATE REACTION FORCE AT ENDS OF BEAM

TOP OF STEEL ELEV. RELATIVE TO FLOOR ELEV



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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO: 16-2683.01

DRAWN BY: LEL

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SHEET TITLE:
ENLARGED PLANS

S-401

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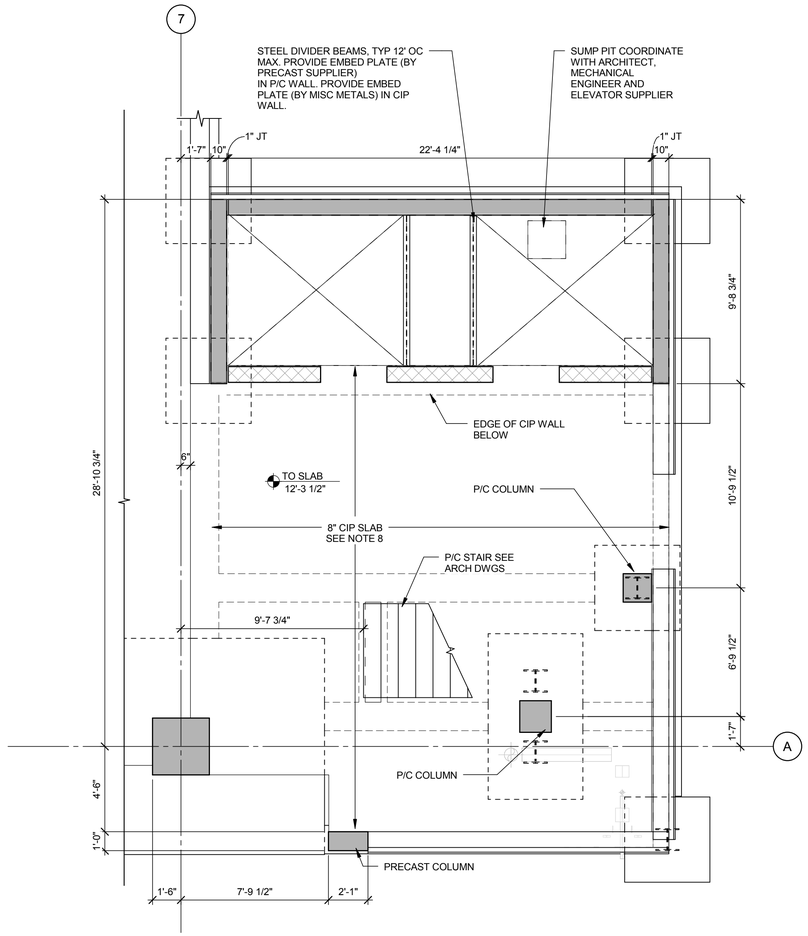
SHEET NOTES

REFERENCES:

1. REFER TO SHEET S-001 FOR GENERAL NOTES
2. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
3. REFER TO SHEET S-100 FOR TYPICAL FOUNDATION NOTES AND REQUIREMENTS.
4. REFER TO SHEET S-510 FOR PRECAST BEAM SCHEDULE.

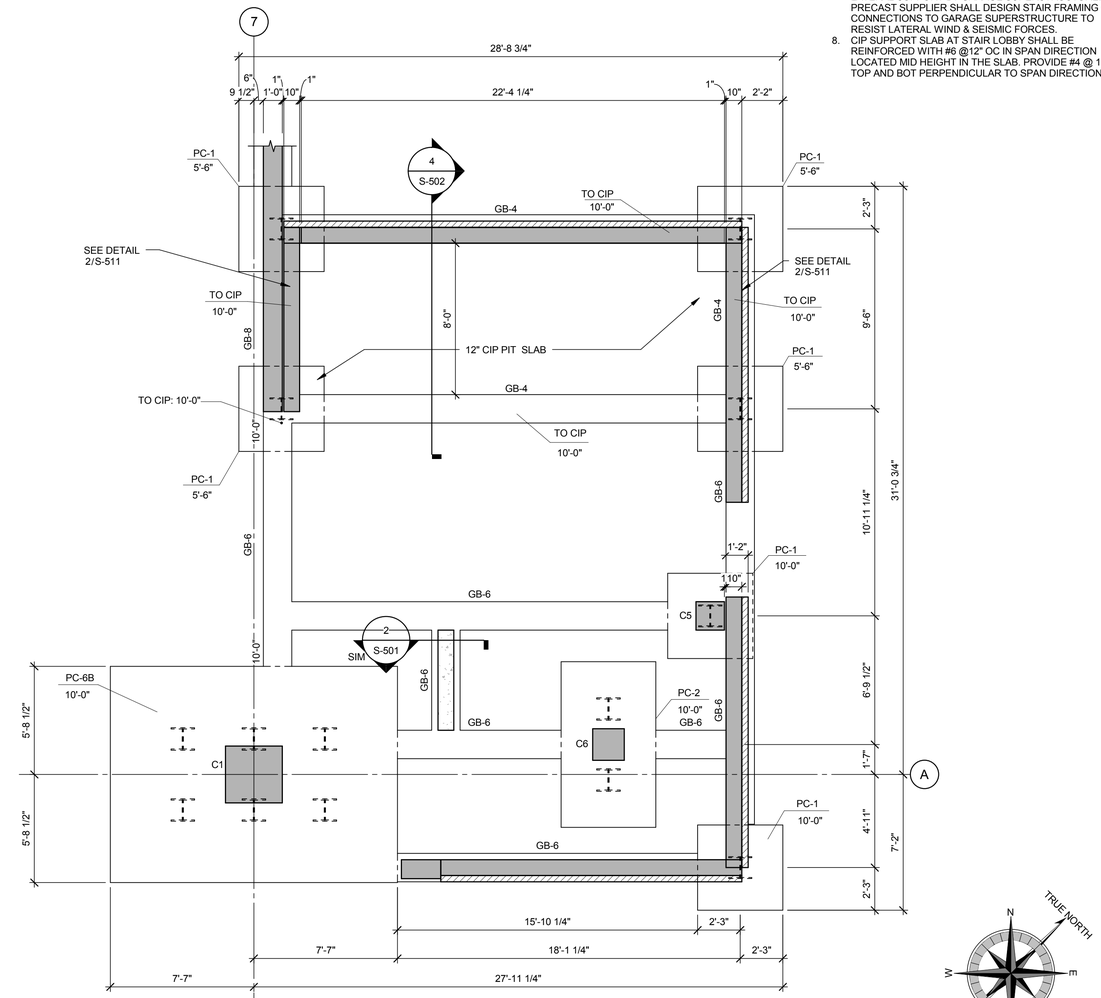
STAIR NOTES:

1. ALL DIMENSIONS AND ELEVATIONS TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ARCHITECT & ENGINEER PRIOR TO SUBMITTING SHOP DRAWINGS AND FABRICATION.
2. ALL PANEL JOINTS, WHERE SHOWN, SHALL BE 1" IN THICKNESS, UNO.
3. CONSTRUCTION MANAGER SHALL COORDINATE ALL REQUIRED EMBED BOLTS, PLATES, BLOCKOUTS, ETC BETWEEN PRECAST SUPPLIER AND APPROPRIATE SUB-CONTRACTORS.
4. CONSTRUCTION MANAGER SHALL COORDINATE CONNECTIONS BETWEEN PRECAST PANELS AND CIP FOUNDATIONS BETWEEN PRECAST SUPPLIER AND CIP CONCRETE SUB-CONTRACTOR
5. SEE ARCHITECTURAL DRAWINGS FOR HANDRAILS, CURTAIN WALL, FINISHES, ETC.
6. PRECAST WALL PANELS ARE PERFORMANCE DESIGN, INCLUDING SIZE, NUMBER AND LOCATION OF ALL REINFORCING. DESIGN SHALL INCLUDE CONNECTIONS TO CIP FOUNDATIONS, HAUNCHES, LEDGES AND DIAPHRAGM CONNECTIONS. SEE SPECIFICATION 003410 FOR PRECAST CONCRETE REQUIREMENTS.
7. STAIR TOWER HAS NOT BEEN DESIGNED AS A STANDALONE STRUCTURE AND AS SUCH REQUIRES LATERAL SUPPORT BY GARAGE SUPERSTRUCTURE. PRECAST SUPPLIER SHALL DESIGN STAIR FRAMING AND CONNECTIONS TO GARAGE SUPERSTRUCTURE TO RESIST LATERAL WIND & SEISMIC FORCES.
8. CIP SUPPORT SLAB AT STAIR LOBBY SHALL BE REINFORCED WITH #6 @12" OC IN SPAN DIRECTION LOCATED MID HEIGHT IN THE SLAB. PROVIDE #4 @ 18 OC TOP AND BOT PERPENDICULAR TO SPAN DIRECTION.



2 GROUND TIER PLAN

1/4" = 1'-0"



1 FOUNDATION PLAN

1/4" = 1'-0"

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PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: MRS

SHEET TITLE:

STAIR / ELEVATOR A - ENLARGED PLAN

S-410

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SHEET NOTES

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2. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
3. REFER TO SHEET S-100 FOR TYPICAL FOUNDATION NOTES AND REQUIREMENTS.
4. REFER TO SHEET S-510 FOR PRECAST BEAM SCHEDULE.

STAIR NOTES:

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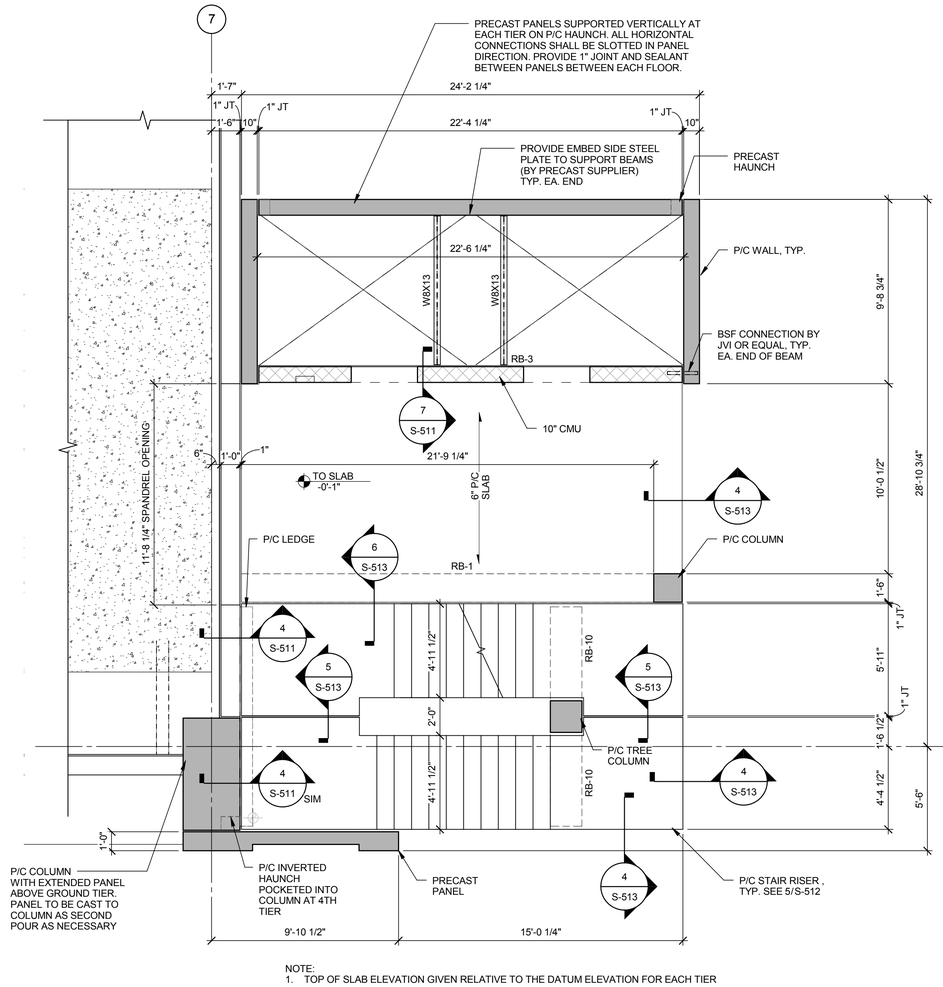
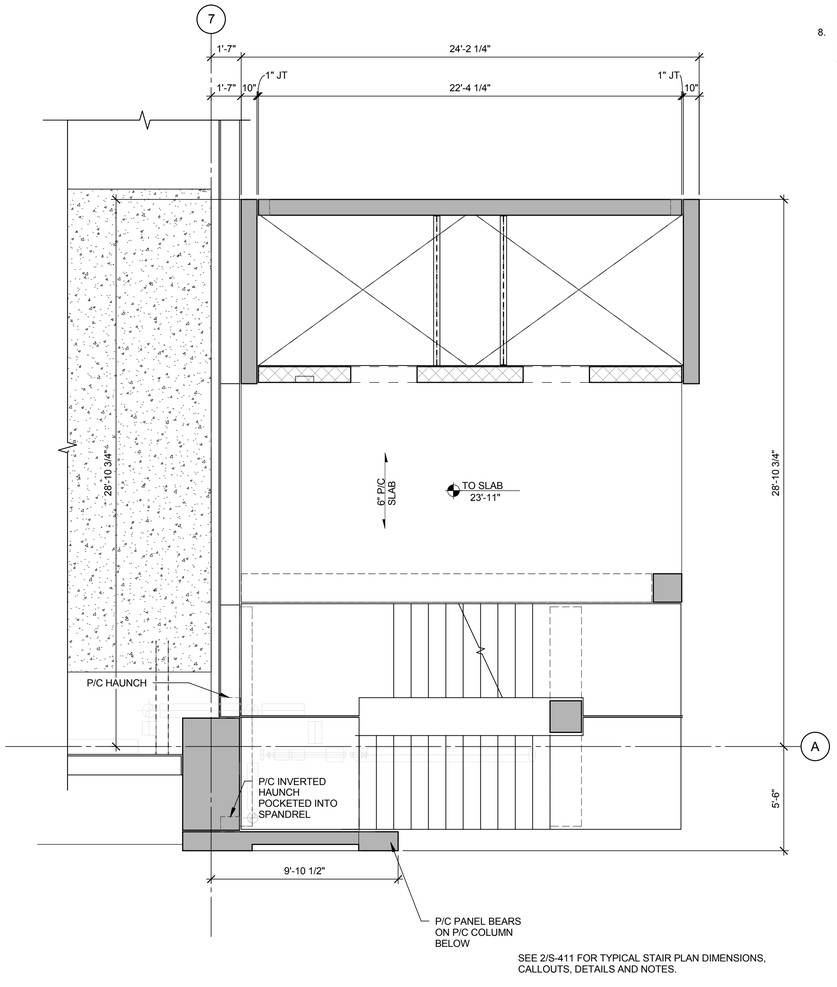
7. STAIR TOWER HAS NOT BEEN DESIGNED AS A STANDALONE STRUCTURE AND AS SUCH REQUIRES LATERAL SUPPORT BY GARAGE SUPERSTRUCTURE. PRECAST SUPPLIER SHALL DESIGN STAIR FRAMING AND CONNECTIONS TO GARAGE SUPERSTRUCTURE TO RESIST LATERAL WIND & SEISMIC FORCES.
8. CIP SUPPORT SLAB AT STAIR LOBBY SHALL BE REINFORCED WITH #6 @12" OC IN SPAN DIRECTION LOCATED MID HEIGHT IN THE SLAB. PROVIDE #4 @ 18 OC TOP AND BOT PERPENDICULAR TO SPAN DIRECTION.



NOTE:
1. TOP OF SLAB ELEVATION GIVEN RELATIVE TO THE DATUM ELEVATION FOR EACH TIER

2 TYPICAL TIER PLAN

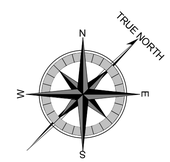
1/4" = 1'-0"



SEE 2/S-411 FOR TYPICAL STAIR PLAN DIMENSIONS, CALLOUTS, DETAILS AND NOTES.

1 SECOND TIER PLAN

1/4" = 1'-0"



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PROJECT NO:	16-2683.01
DRAWN BY:	LEL
CHECKED BY:	MRS

SHEET TITLE:
STAIR / ELEVATOR A - ENLARGED PLAN

S-411

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SHEET NOTES

REFERENCES:

1. REFER TO SHEET S-001 FOR GENERAL NOTES
2. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
3. REFER TO SHEET S-100 FOR TYPICAL FOUNDATION NOTES AND REQUIREMENTS.
4. REFER TO SHEET S-510 FOR PRECAST BEAM SCHEDULE.

STAIR NOTES:

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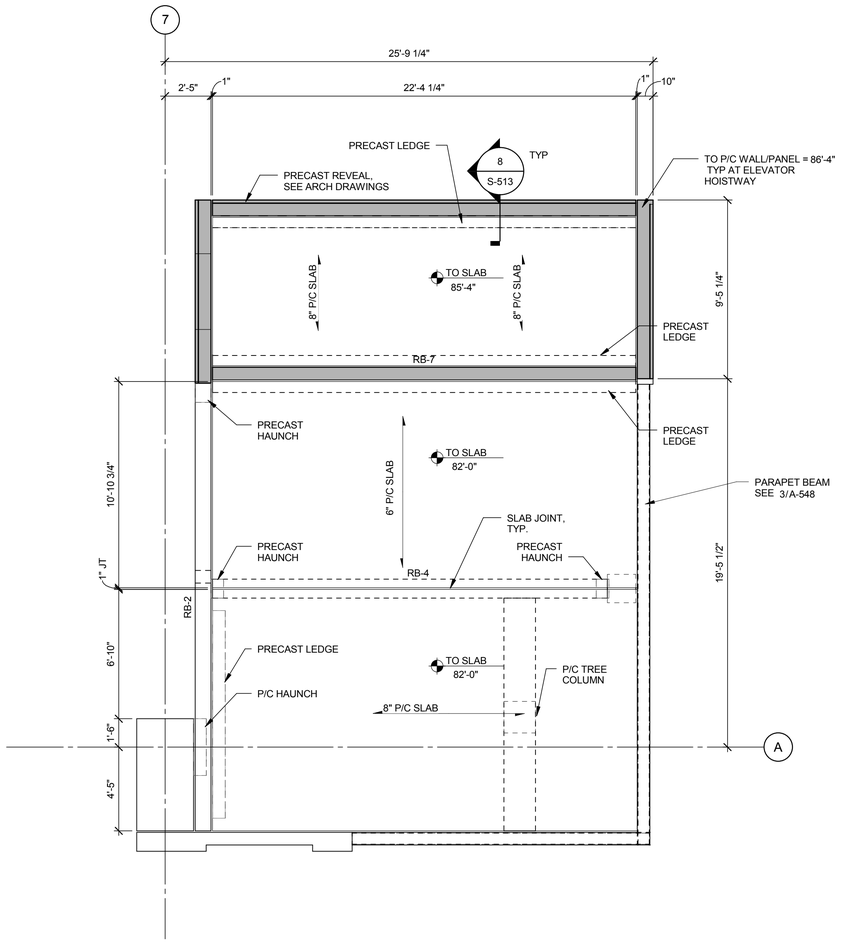
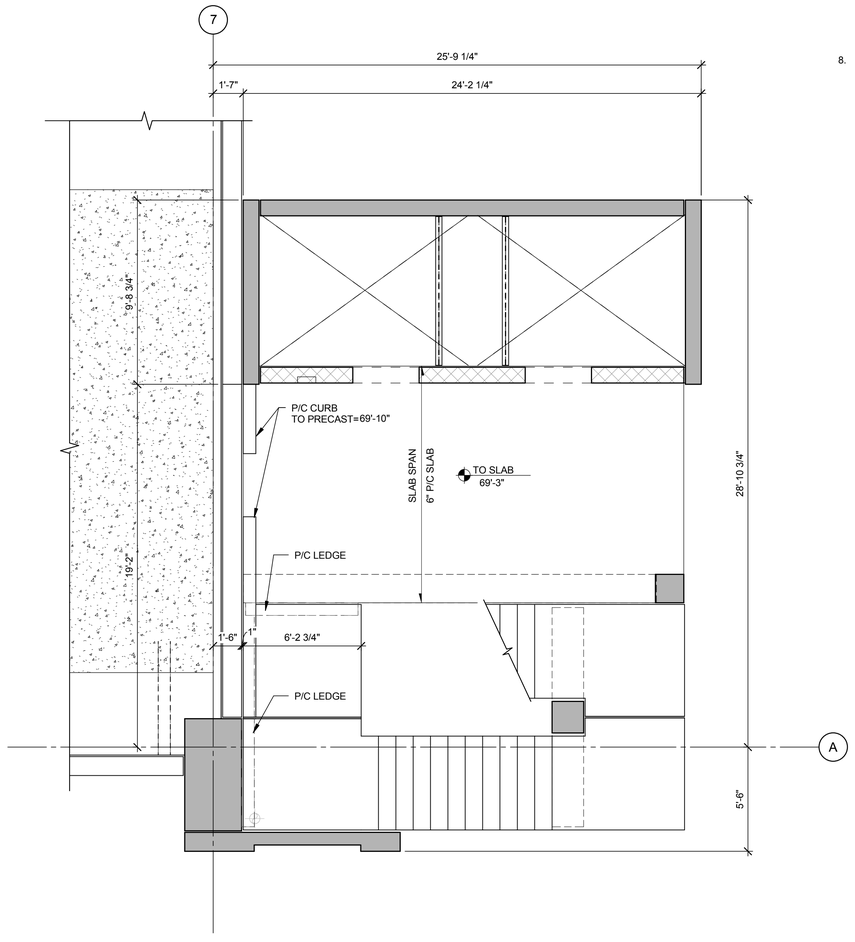


2 ROOF TIER PLAN

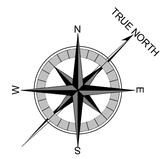
1/4" = 1'-0"



SEE 2/S-411 FOR TYPICAL STAIR PLAN DIMENSIONS, CALLOUTS, DETAILS AND NOTES.

1 SIXTH TIER PLAN

1/4" = 1'-0"



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SHEET TITLE:

STAIR / ELEVATOR A - ENLARGED PLAN

S-412

SHEET NOTES

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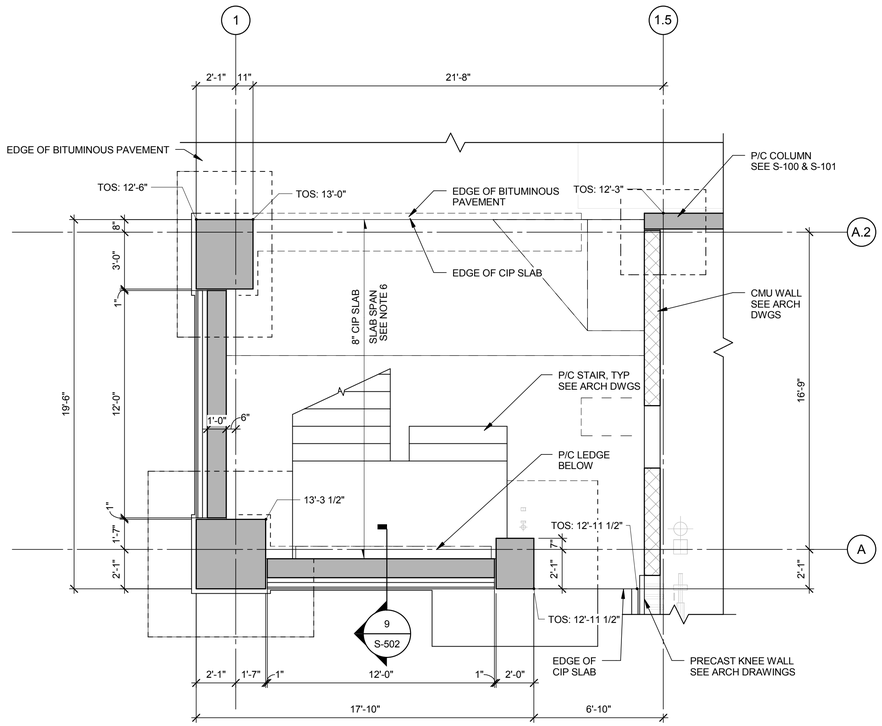
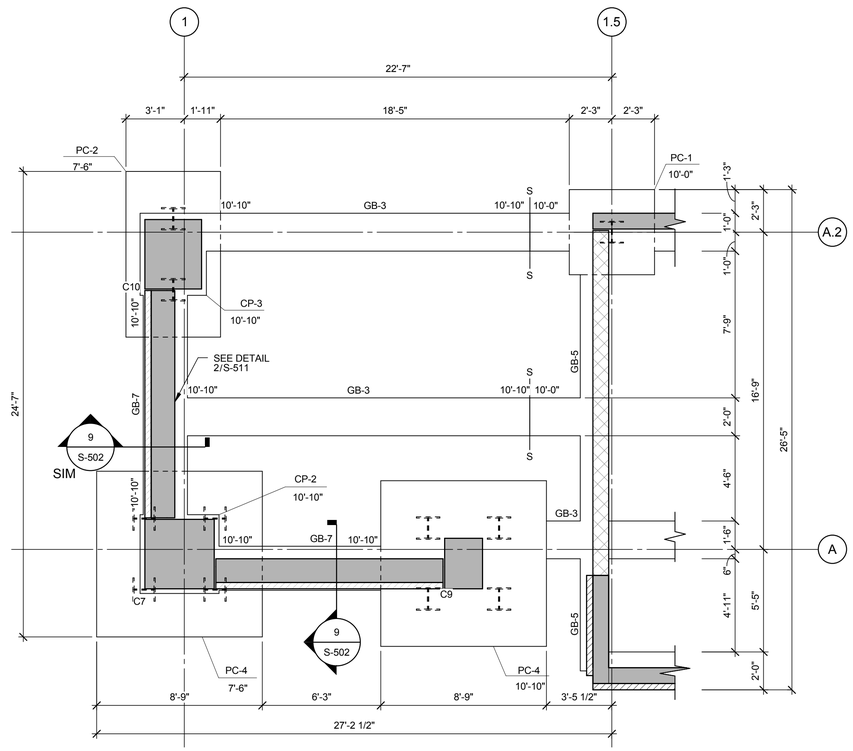
5. SEE ARCHITECTURAL DRAWINGS FOR HANDRAILS, CURTAIN WALL, FINISHES, ETC.
6. PROVIDE #7 @ 1'-0" OC TOP AND #4 @ 1'-6" BOT IN SPAN DIRECTION. PROVIDE #4 @ 1'-6" OC TOP AND BOT PERPENDICULAR TO SPAN DIRECTION.



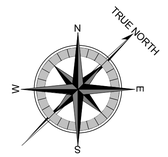
2 GROUND TIER PLAN

1/4" = 1'-0"



1 FOUNDATION PLAN

1/4" = 1'-0"



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ISSUE:

PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: MRS

SHEET TITLE:
STAIR / ELEVATOR B - ENLARGED PLAN

S-420

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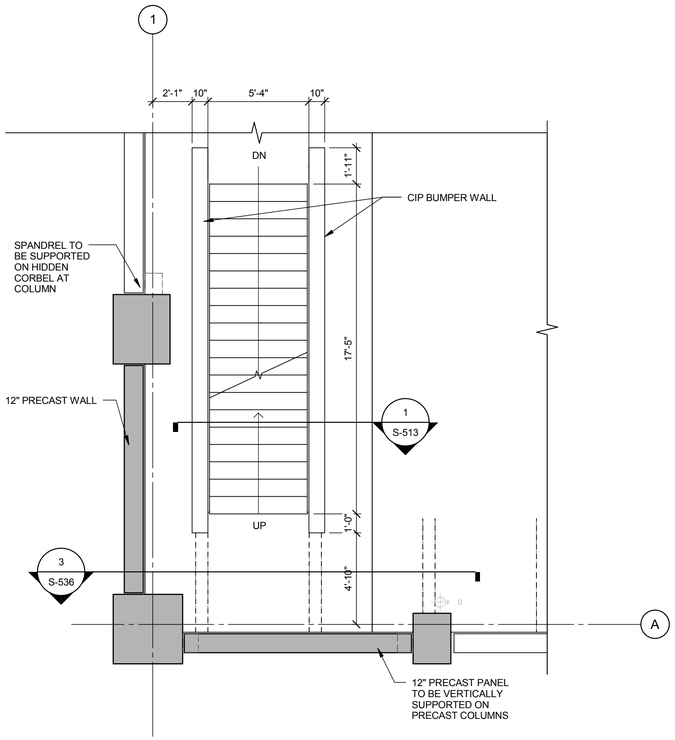
SHEET NOTES

REFERENCES:

1. REFER TO SHEET S-001 FOR GENERAL NOTES
2. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
3. REFER TO SHEET S-100 FOR TYPICAL FOUNDATION NOTES AND REQUIREMENTS.
4. REFER TO SHEET S-510 FOR PRECAST BEAM SCHEDULE.

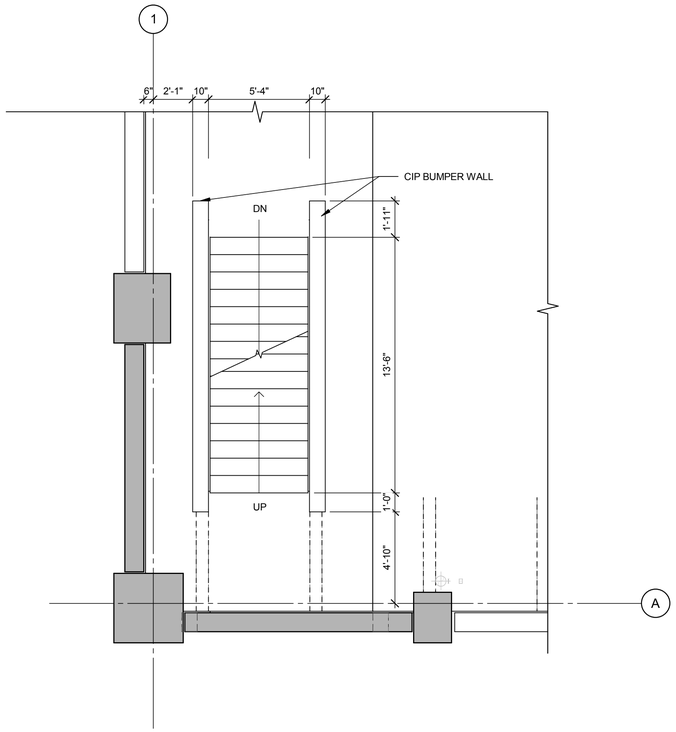
STAIR NOTES:

1. ALL DIMENSIONS AND ELEVATIONS TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ARCHITECT & ENGINEER PRIOR TO SUBMITTING SHOP DRAWINGS AND FABRICATION.
2. ALL PANEL JOINTS, WHERE SHOWN, SHALL BE 1" IN THICKNESS, UNO.
3. CONSTRUCTION MANAGER SHALL COORDINATE ALL REQUIRED EMBED BOLTS, PLATES, BLOCKOUTS, ETC BETWEEN PRECAST SUPPLIER AND APPROPRIATE SUB-CONTRACTORS.
4. CONSTRUCTION MANAGER SHALL COORDINATE CONNECTIONS BETWEEN PRECAST PANELS AND CIP FOUNDATIONS BETWEEN PRECAST SUPPLIER AND CIP CONCRETE SUB-CONTRACTOR
5. SEE ARCHITECTURAL DRAWINGS FOR HANDRAILS, CURTAIN WALL, FINISHES, ETC.
6. PROVIDE #7 @ 1'-0" OC TOP AND #4 @ 1'-6" BOT IN SPAN DIRECTION. PROVIDE #4 @ 1'-6" OC TOP AND BOT PERPENDICULAR TO SPAN DIRECTION.



2 TYPICAL TIER PLAN

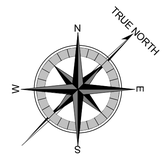
1/4" = 1'-0"



SEE 2/S-421 FOR TYPICAL STAIR PLAN DIMENSIONS, CALLOUTS, DETAILS AND NOTES.

1 SECOND TIER PLAN

1/4" = 1'-0"



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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 16-2683.01

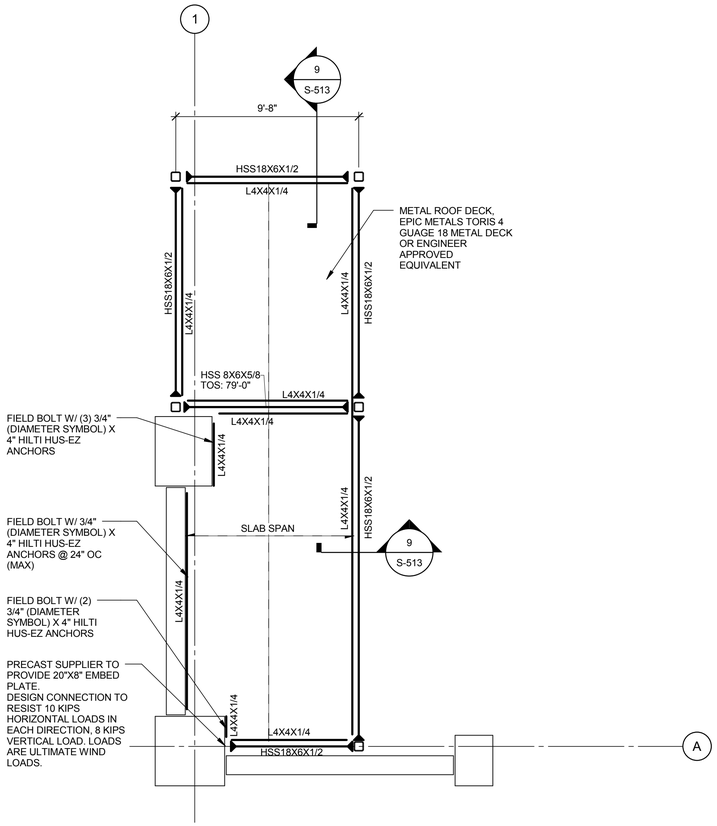
DRAWN BY: LEL

CHECKED BY: MRS

SHEET TITLE:

STAIR / ELEVATOR B - ENLARGED PLAN

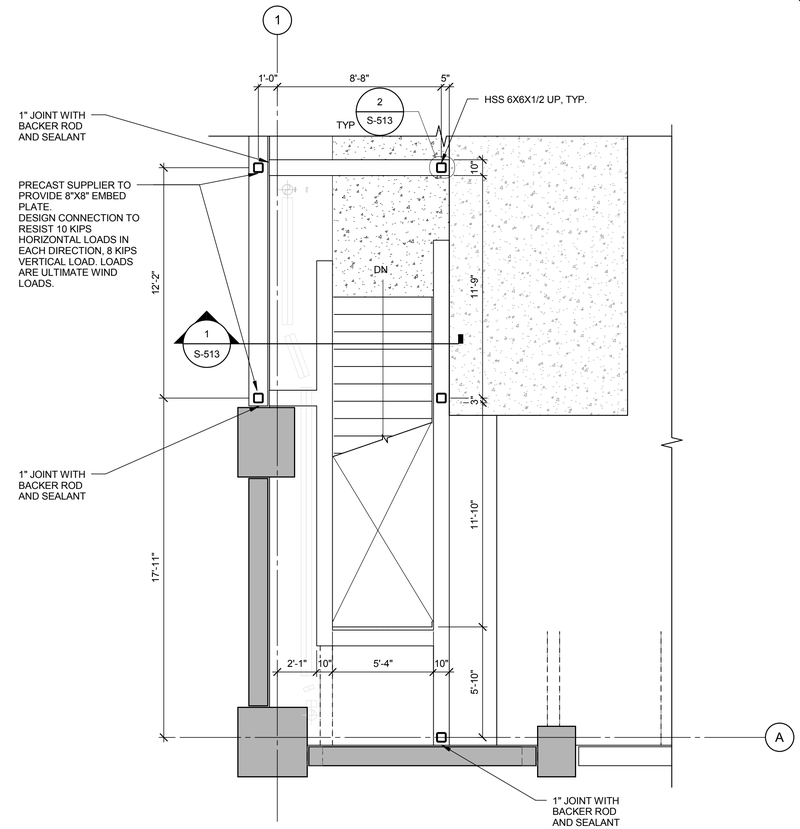
S-421



NOTES:
1. TOS = EL 79'-10", UNO
2. METAL ROOF DECK SHALL BE HDG, SHOP PRIMED AND PAINTED
3. SEE ARCHITECTURAL DRAWINGS FOR ROOFING INFORMATION.
4. WHERE MOMENT CONNECTIONS ARE SHOWN, REFER TO DETAIL 3/S-513.

2 ROOF TIER FRAMING PLAN

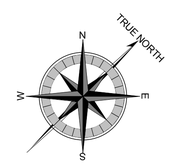
1/4" = 1'-0"



NOTES:
1. CENTER OF STEEL COLUMNS ALIGNED WITH CENTER LINE OF WALLS BELOW UNO.

1 TOP TIER PLAN

1/4" = 1'-0"



SHEET NOTES

REFERENCES:

1. REFER TO SHEET S-001 FOR GENERAL NOTES
2. REFER TO SHEET S-003 & S-004 FOR TYPICAL DETAILS.
3. REFER TO SHEET S-100 FOR TYPICAL FOUNDATION NOTES AND REQUIREMENTS.
4. REFER TO SHEET S-510 FOR PRECAST BEAM SCHEDULE.

STAIR NOTES:

1. ALL DIMENSIONS AND ELEVATIONS TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ARCHITECT & ENGINEER PRIOR TO SUBMITTING SHOP DRAWINGS AND FABRICATION.
2. ALL PANEL JOINTS, WHERE SHOWN, SHALL BE 1" IN THICKNESS, UNO.
3. CONSTRUCTION MANAGER SHALL COORDINATE ALL REQUIRED EMBED BOLTS, PLATES, BLOCKOUTS, ETC BETWEEN PRECAST SUPPLIER AND APPROPRIATE SUB-CONTRACTORS.
4. CONSTRUCTION MANAGER SHALL COORDINATE CONNECTIONS BETWEEN PRECAST PANELS AND CIP FOUNDATIONS BETWEEN PRECAST SUPPLIER AND CIP CONCRETE SUB-CONTRACTOR
5. SEE ARCHITECTURAL DRAWINGS FOR HANDRAILS, CURTAIN WALL, FINISHES, ETC.
6. PROVIDE #7 @ 1'-0" OC TOP AND #4 @ 1'-6" BOT IN SPAN DIRECTION. PROVIDE #4 @ 1'-6" OC TOP AND BOT PERPENDICULAR TO SPAN DIRECTION.

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	DESIGN DEVELOPMENT	05/05/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01

DRAWN BY: LEL

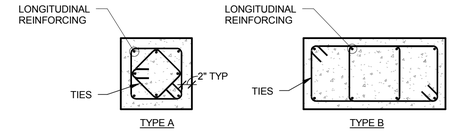
CHECKED BY: MRS

SHEET TITLE:
STAIR / ELEVATOR B - ENLARGED PLAN

S-422

PIER SCHEDULE			
	SIZE		REINFORCING
MARK	WIDTH	DEPTH	LONGITUDINAL
CP-1	3' - 6"	3' - 6"	(6) #9 EF
CP-2	4' - 2"	4' - 2"	(8) #9 EF
CP-3	3' - 6"	4' - 4"	(8) #9 EF

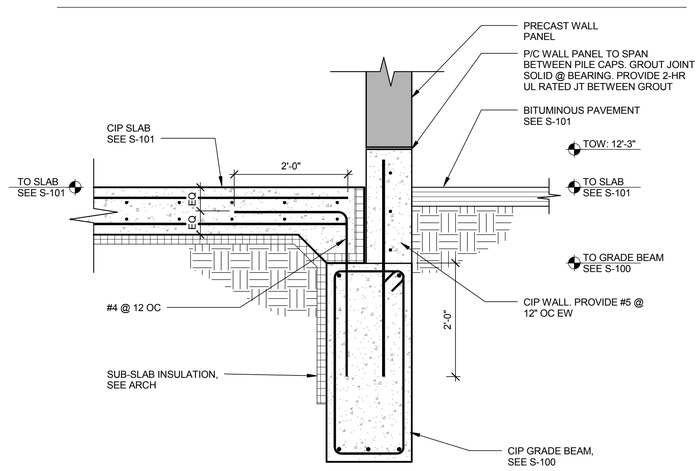
NOTE:
1. PROVIDE #4 TIES @ 6" OC W/ (3) ADDITIONAL #4 TIES TOP AND BOT @3" OC TYP SEE 2/S-610 FOR ADDITIONAL PIER REINFORCEMENT INFORMATION.



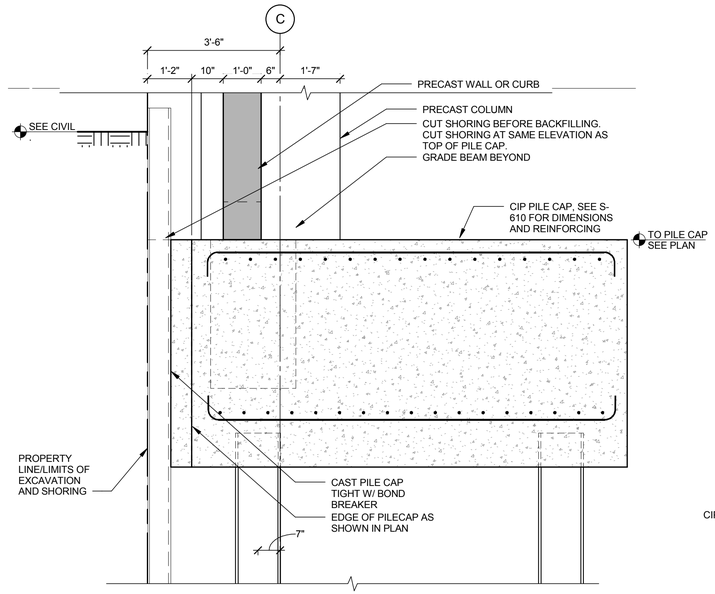
NOTES

1. SEE PIER SCHEDULE FOR PIER SIZES AND REINFORCING
2. INTERMEDIATE TIES ARE SAME SIZE AND SPACING AS LATERAL TIES.
3. FOR TIE AND BAR SPACING, REFERENCE ACI 318-08 SECTION 7.10.5.3.

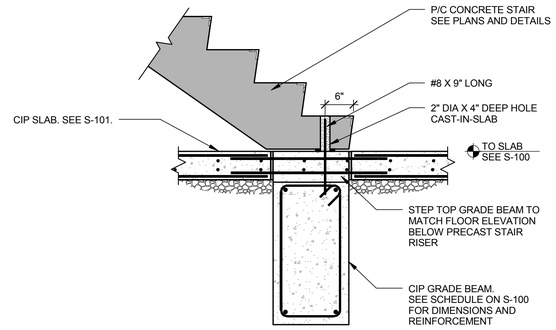
3 CIP PIER TYPE DETAILS
3/4" = 1'-0"



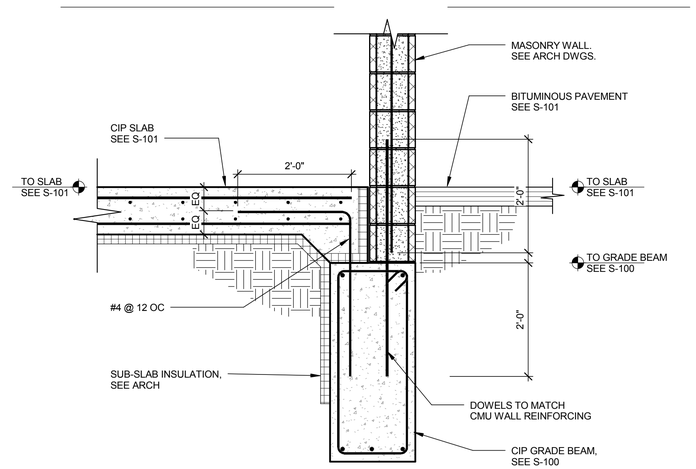
7 GRADE BEAM DETAIL
3/4" = 1'-0"



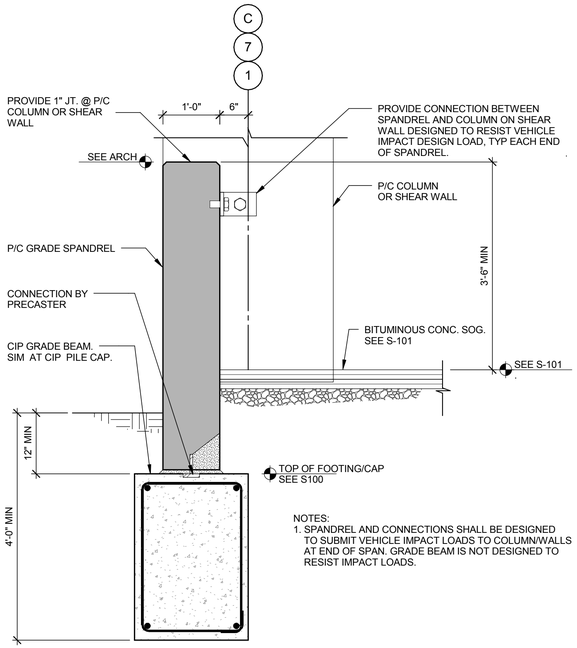
5 PILE CAP DETAIL
1/2" = 1'-0"



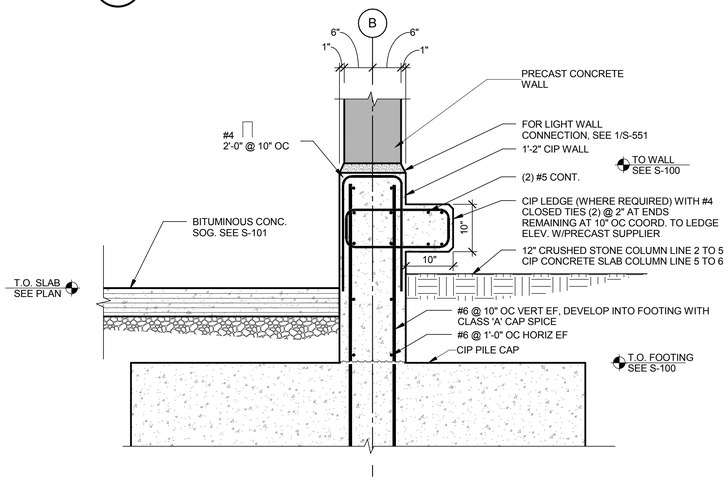
2 P/C STAIR/SLAB DETAIL
3/4" = 1'-0"



6 GRADE BEAM DETAIL
3/4" = 1'-0"



4 WALL/PANEL DETAIL
3/4" = 1'-0"



1 CIP / PRECAST SLAB TO TRANSITION FOUNDATION WALL
3/4" = 1'-0"

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FOUNDRY PLACE
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PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO:	16-2683.01
DRAWN BY:	LEL
CHECKED BY:	MRS

SHEET TITLE:
FOUNDATION DETAILS

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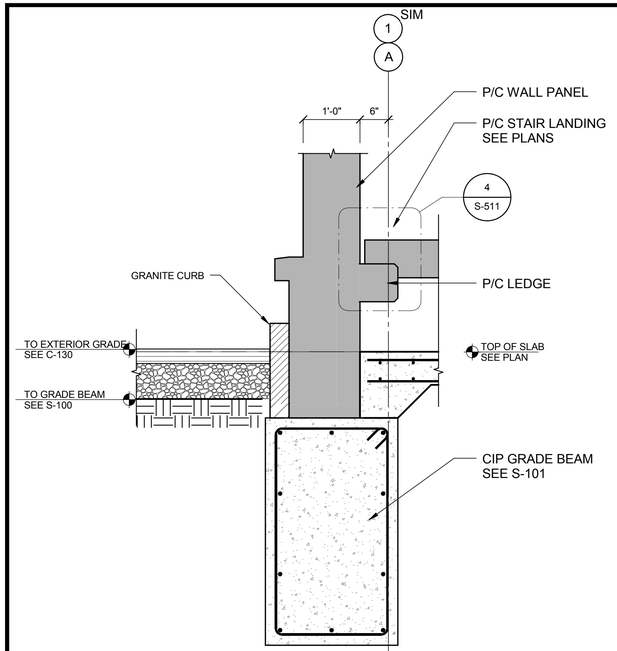
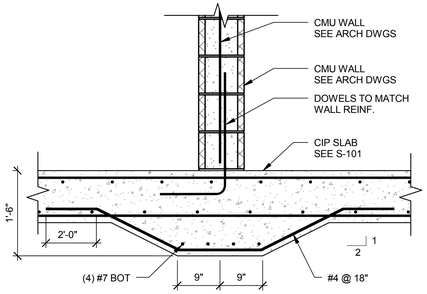


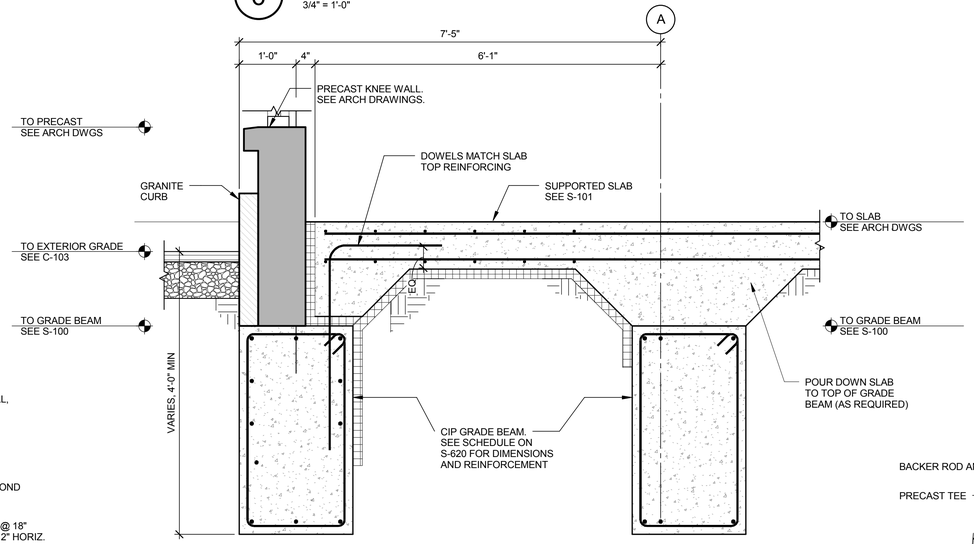
9 GRADE BEAM/WALL DETAIL

3/4" = 1'-0"



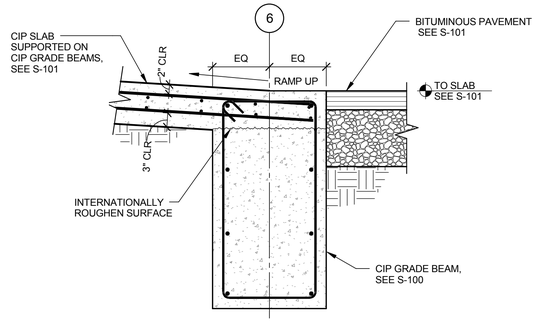
6 THICKENED SLAB DETAIL

3/4" = 1'-0"



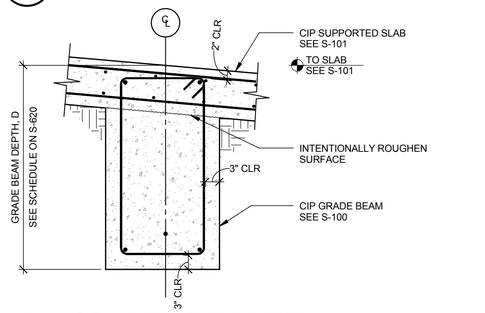
5 GRADE BEAM/SLAB DETAIL

3/4" = 1'-0"



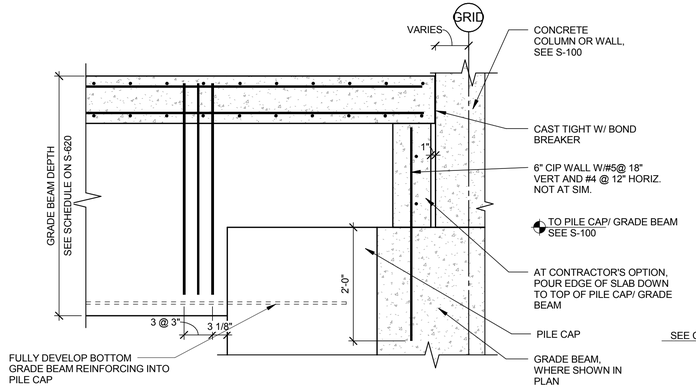
3 GRADE BEAM DETAIL

3/4" = 1'-0"



2 GRADE BEAM DETAIL

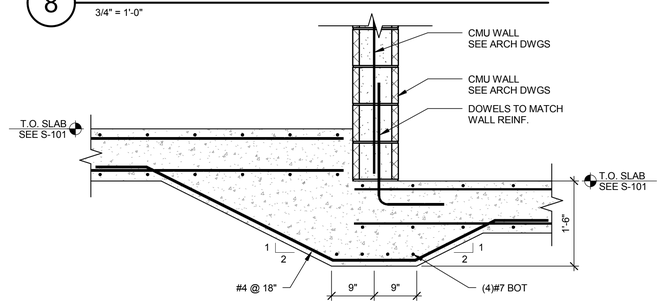
3/4" = 1'-0"



NOTE: TOP OF GRADE BEAM SLOPES WITH TOP OF SLAB. SEE SLAB ELEVATIONS ON S-101

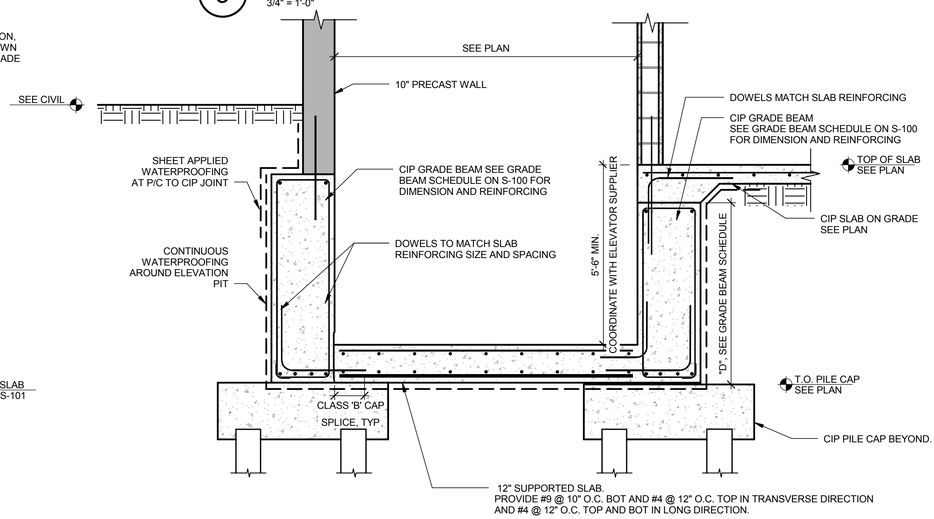
8 GRADE BEAM DETAIL

3/4" = 1'-0"



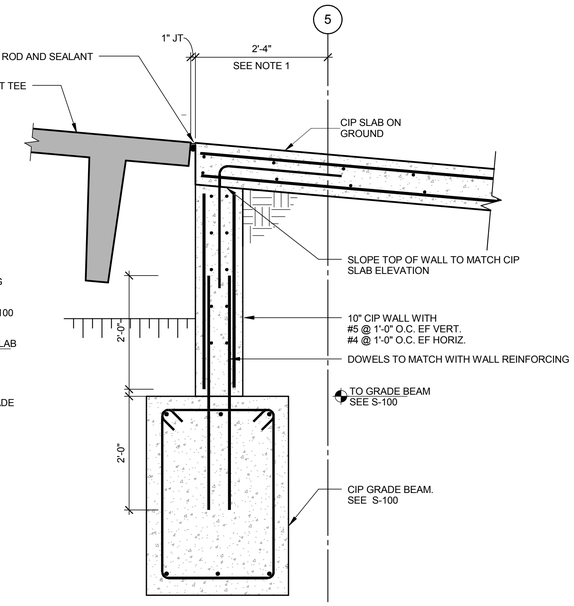
7 THICKENED SLAB DETAIL

3/4" = 1'-0"



4 WALL/GRADE BEAM/SLAB DETAIL

1/2" = 1'-0"



NOTES:
1. CM TO COORDINATE DIMENSION TO LOCATE FACE OF WALL BETWEEN CIP CONTRACTOR AND PRECAST SUPPLER.
2. CM TO COORDINATE INSTALLATION OF CIP SLAB, WALL AND SUPPORTING GRADE BEAM WITH PRECAST SUPPLIER TO AVOID CONFLICT WITH PRECAST ERECTION CRANE.

1 CIP / PRECAST SLAB TO TRANSITION FOUNDATION WALL

3/4" = 1'-0"

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PROJECT NO: 16-2683.01
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SHEET TITLE:
FOUNDATION DETAILS

S-502

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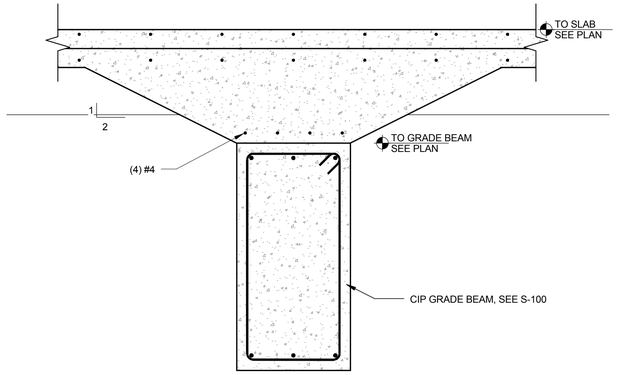
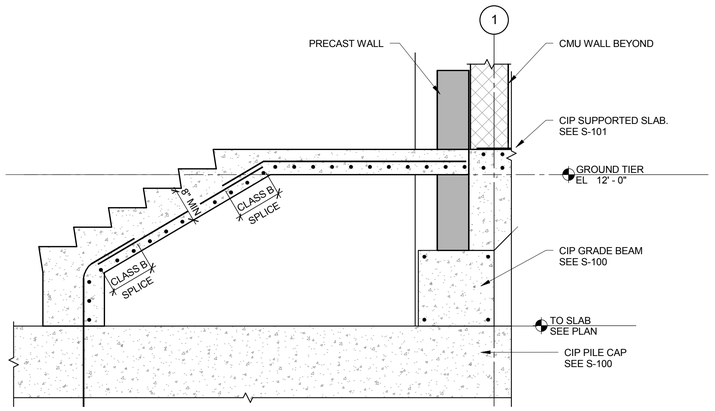


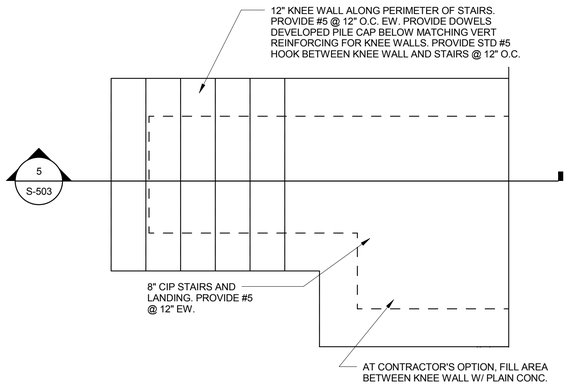
6 SLAB/GRADE BEAM DETAIL

3/4" = 1'-0"



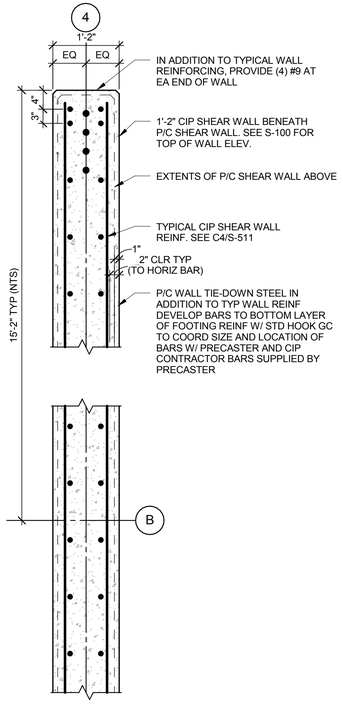
5 CIP STAIR ELEVATION DETAIL

1/2" = 1'-0"



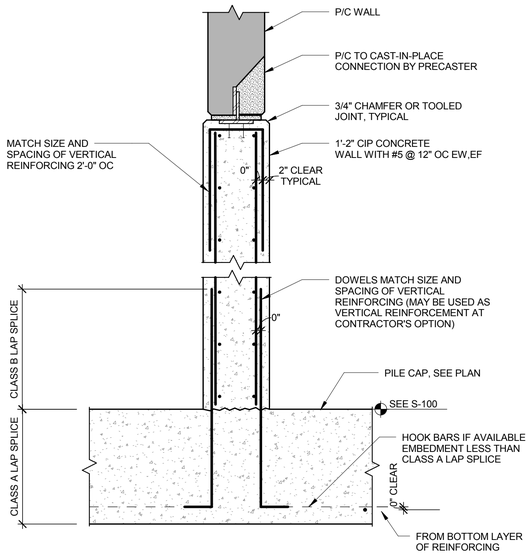
4 CIP STAIR PLAN DETAIL

1/2" = 1'-0"



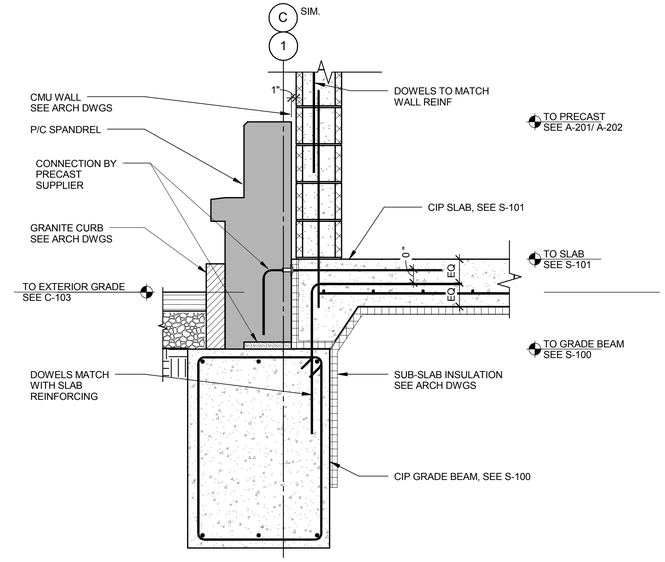
3 CIP SHEAR WALL DETAIL

3/4" = 1'-0"



2 CAST-IN-PLACE WALL DETAIL

3/4" = 1'-0"



1 GRADE BEAM DETAIL

3/4" = 1'-0"

SHEET NOTES

CRITICAL COORDINATION ITEM:

PRECAST SHEAR WALL AND LIGHT WALL TIE DOWN REINFORCING SHALL BE CONTINUED TO BOTTOM OF CIP CAP AND TERMINATED WITH A STANDARD 90° HOOK. REINFORCING BARS SHALL BE EXTENDED ABOVE THE TOP OF CIP WALL FOR SPLICE CONNECTION INTO PRECAST WALL ABOVE. NUMBER, SIZE AND LOCATION OF REINFORCING BARS IS SUBJECT TO PERFORMANCE DESIGN OF PRECAST CONCRETE STRUCTURE. NUMBER, SIZE AND LOCATION OF BARS SHALL BE COORDINATED BETWEEN CIP AND PRECAST CONTRACTORS BY CM. REINFORCING BARS SHALL BE SUPPLIED BY THE PRECAST CONTRACTOR AND INSTALLED BY THE CIP CONTRACTOR. PLACEMENT TOLERANCES ARE TIGHTER THAN TYPICAL REINFORCING. SEE PRECAST SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS AND TOLERANCES.
ALL PRECAST TIE-DOWN STEEL SHALL BE SHOWN ON CIP SHOP DRAWINGS.

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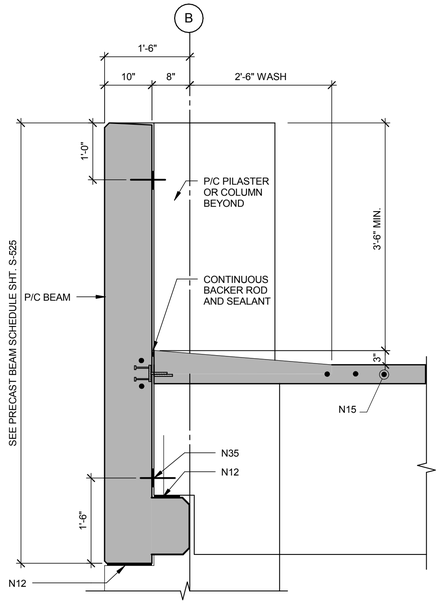
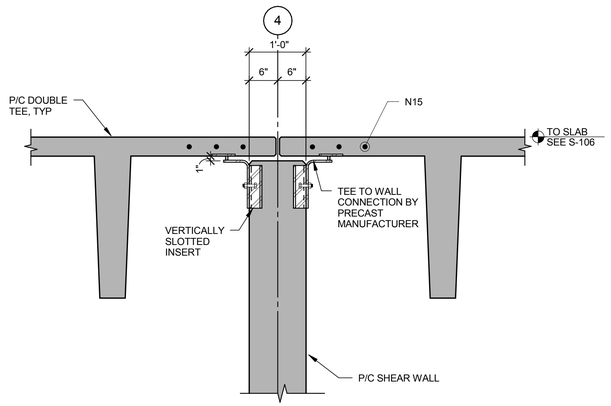


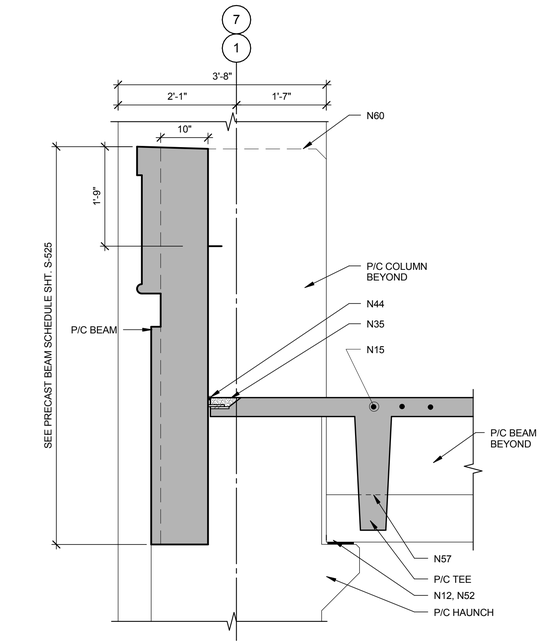
7 TEE / SPANDREL / COLUMN DETAIL

3/4" = 1'-0"



4 TEE / WALL DETAIL

3/4" = 1'-0"



2 TEE / SPANDREL / COLUMN DETAIL

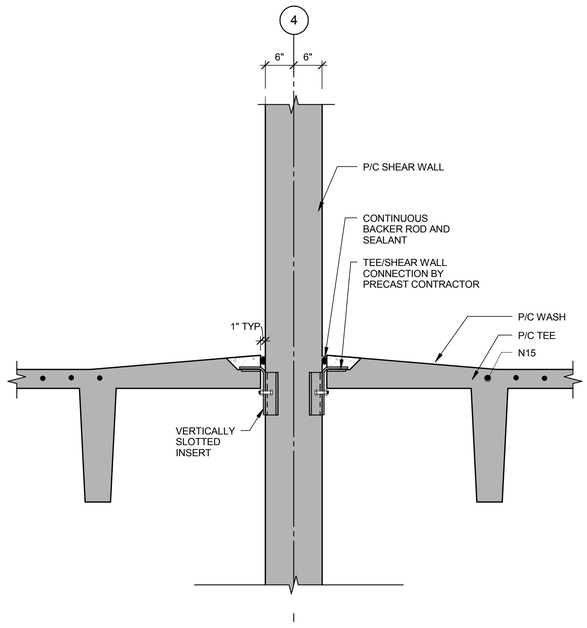
3/4" = 1'-0"

SHEET NOTES

1. REFER TO SHEET S-001 FOR GENERAL NOTES.
2. REFER TO SHEET S-002 FOR TYPICAL DETAILS.
3. REFER TO SHEET S-525 FOR TYPICAL PRECAST BEAM DETAILS AND SCHEDULE.
4. REFER TO SHEET S-530 FOR TYPICAL PRECAST TEE DETAILS.
5. PROVIDE TOOLED AND SEALED JOINTS IN ALL CIP TOPPING DIRECTLY OVER PRECAST JOINTS.

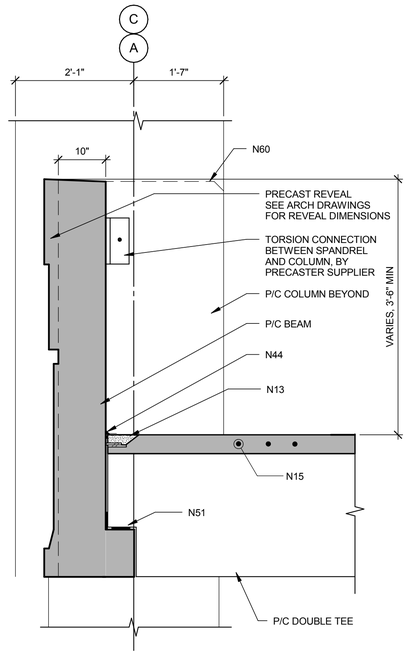
KEY NOTES

N10. FOR GENERAL NOTES SEE SHEET S-001
N12. SLOPE BEARING PLATES IN BEAMS AND SUPPORT PLATES IN COLUMNS, AS REQ'D, TO PROVIDE UNIFORM BEARING ON PA (TYPICAL).
N13. FLANGE TO WALL CONNECTION BY PRECASTER, TYEA } STEM
N15. DIAPHRAGM REINFORCEMENT SEE 1/S-530
N20. #5 (MIN) X 7'-0" @ EACH TEE STEM (EPOXY COATED).
N21. #4 L-BAR W/ 2'-0" LEGS
N22. #4 X 3'-0" W/ 180° STD HOOK @ 4'-0" OC AND 1-#4 X CONTINUOUS.
N23. 3-#5 (MIN) X CONT (EPOXY COATED)
N27. 6" X 6" W2.9 X W2.9 ADDED WWR.
N28. #5 (MIN) X 4'-6" @ EACH TEE STEM (EPOXY COATED)
N34. ERECTION CONNECTION BY PRECASTER
N35. TORSION/STABILITY CONNECTIONS TOP & BOT EA EACH END OF BEAM BY PRECASTER.
N36. CONNECTION REQUIRED TO RESIST BUMPER LOAD FORCES.
N40. COVE SEALANT AT TOP TIER ONLY (EXPOSED TO SKY). SEE DETAIL 1/S-530
N42. CONTINUOUS ETHAFOAM CONC DAM AS REQ'D.
N43. TOOLED JOINT W/ SEALANT.
N44. TOP OF COLUMN AT TOP TIER.
N50. SORBTEX BRG PAD X 1/2", GLUE TO BEAM.
N51. RANDOM ORIENTED FIBER REINFORCED BRG. PAD X 3/8", GLUE TO TEE STEM.
N52. SORBTEX BRG PAD X 1/2", GLUE TO BEAM, AT EACH END OF BEAM. PROVIDE HOLE IN PAD FOR BOLT AT REQUIRED LOCATIONS.
N53. SORBTEX BRG PAD X 1/2", GLUE TO COLUMN POCKET.
N60. TOP OF COLUMN AT TOP TIER.
N63. USE FORM WHERE BOTTOM OF TEE FLANGE RISES ABOVE TOP OF BEAM.
N64. 1/2" DIA VINYL COVERED STRANDS THRU PVC SLEEVES IN COLUMN. SLOPE SLEEVES IN COLUMN TO MATCH BEAM SLOPES.
N65. 1/2" DIA VINYL COVERED STRANDS THRU GALV EYEBOLTS W/ 1" ID EYE DRILLED INTO COLUMN.
N66. 1/2" DIA VINYL COVERED STRANDS THRU GALV EYEBOLTS W/ 1" ID
VINYL COVERED CHAIN LINK GUARD ATTACHED TO STRANDS
N67. TOP WELD PLATE TO PRECAST EMBED PLATES.
N68. BOTTOM WELD STRAP TO TEE EMBED AND P/C BEAM WITH VERTICALLY SLOTTED INSERT.



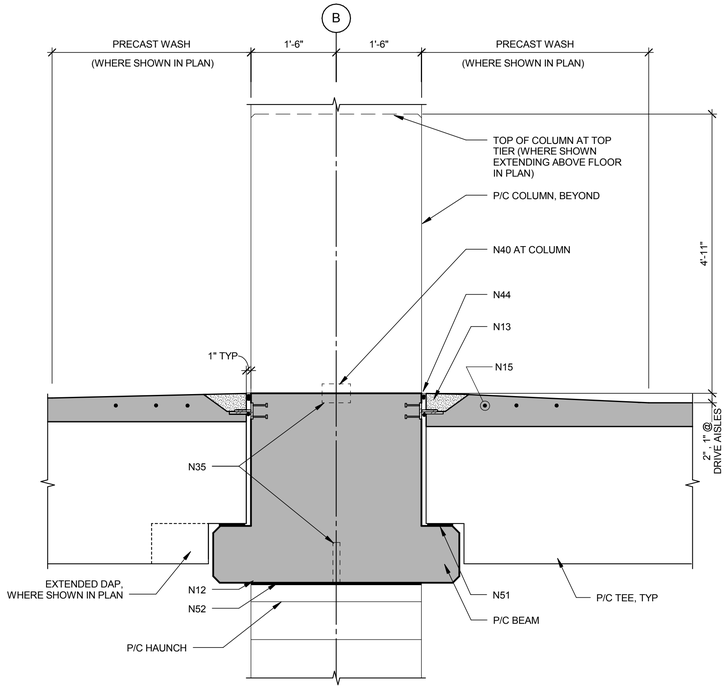
6 TEE/SHEAR WALL DETAIL

3/4" = 1'-0"



3 TEE / BEAM DETAIL

3/4" = 1'-0"



TEE / BEAM / COLUMN DETAIL AT PRETOPPED TEES & FIELD TOPPED BEAM

1 3/4" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

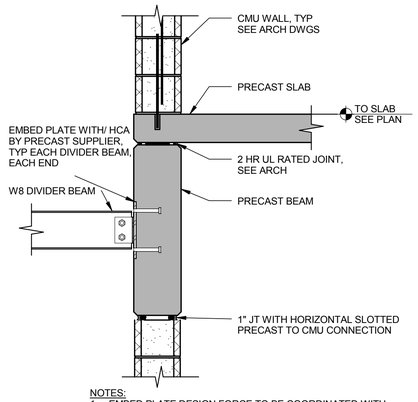
MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

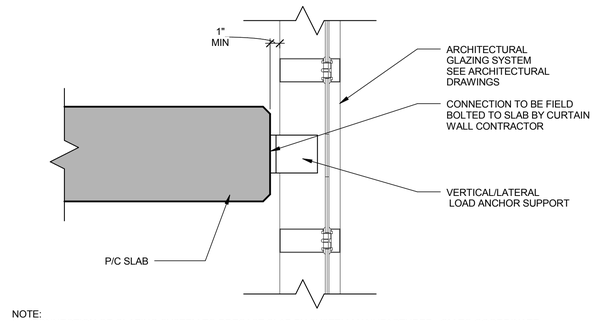
SHEET TITLE:
STRUCTURAL DETAILS

S-510



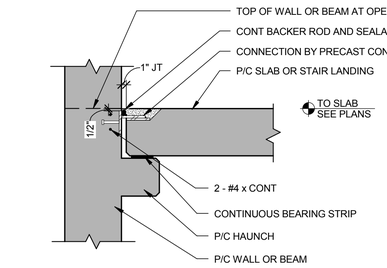
NOTES:
1. EMBED PLATE DESIGN FORCE TO BE COORDINATED WITH ELEVATOR MANUFACTURED FOR DESIGN PURPOSES ASSUME 1.6K HORIZ SHEAR AND 0.8K AXIAL (SERVICE, LIVE LOADS).
2. VERTICAL JOINTS BETWEEN PRECAST AND CMU SHALL BE 1" WIDE EXPANSION JOINTS WITH 2HR UL FIRE RATING, SEE ARCH

7 PRECAST BEAM/SLAB DETAIL
3/4" = 1'-0"

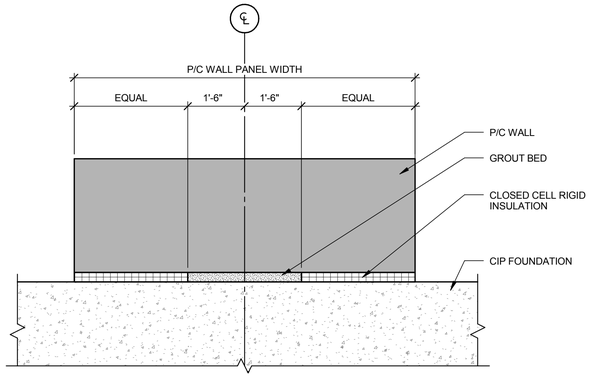


NOTE:
1. CONNECTION OF GLAZING SYSTEM TO PRECAST SLAB BY SYSTEM MANUFACTURER. CM TO COORDINATE DESIGN LOADS BETWEEN GLAZING SYSTEM MANUFACTURER AND PRECAST CONTRACTOR.
2. PRECAST CONTRACTOR SHALL ASSUME THAT CONNECTIONS TRANSMIT LATERAL LOADS INTO PRECAST SLAB AT EACH LEVEL.
3. PRECAST CONTRACTOR SHALL ASSUME THAT CONNECTIONS TRANSMIT VERTICAL LOADS INTO PRECAST SLAB AT EVERY LEVEL.

5 SLAB/CURTAIN WALL DETAIL
1 1/2" = 1'-0"

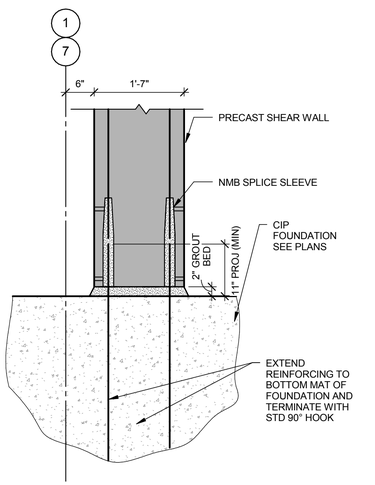


4 PRECAST SLAB TO WALL CONNECTION
3/4" = 1'-0"

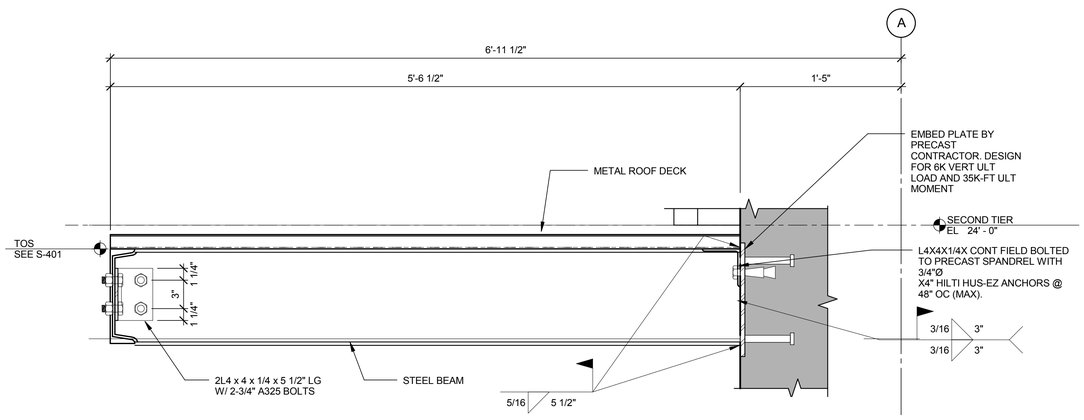


NOTE:
1. PROVIDE AND INSTALL TEMPORARY ERECTION CONNECTIONS AT ENDS OF WALL TO FOUNDATION AS REQUIRED FOR STABILITY DURING PRECAST ERECTION. ALL TEMPORARY CONNECTIONS SHALL BE REMOVED PRIOR TO BACKFILLING WALL.

2 P/C WALL BASE DETAIL
3/4" = 1'-0"



3 SHEAR WALL/BASE CONNECTION
3/4" = 1'-0"



NOTES:
1. METAL DECK SHALL BE GALVANIZED, SEE SPECIFICATIONS 053100.

6 STEEL DETAIL
1 1/2" = 1'-0"

1 P/C TEE / LIGHTWALL DETAIL
3/4" = 1'-0"

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FOUNDRY PLACE
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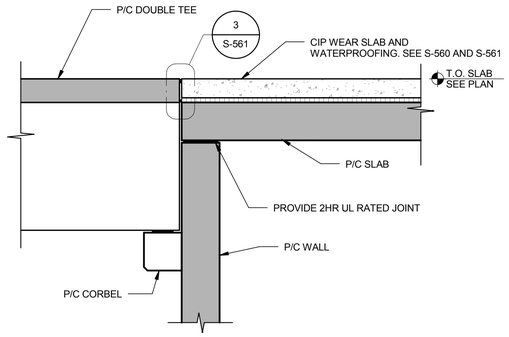
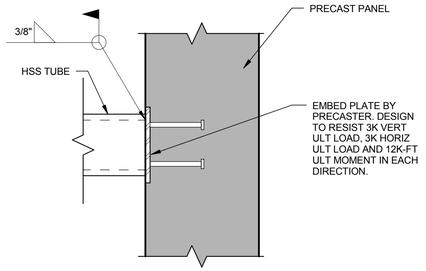


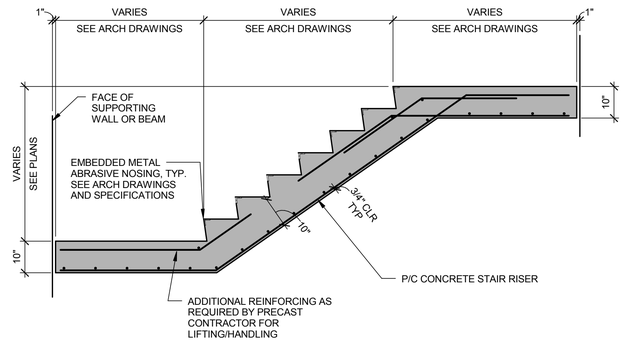
7 PRECAST WALL/SLAB DETAIL

3/4" = 1'-0"



6 STEEL BEAM / PRECAST DETAIL

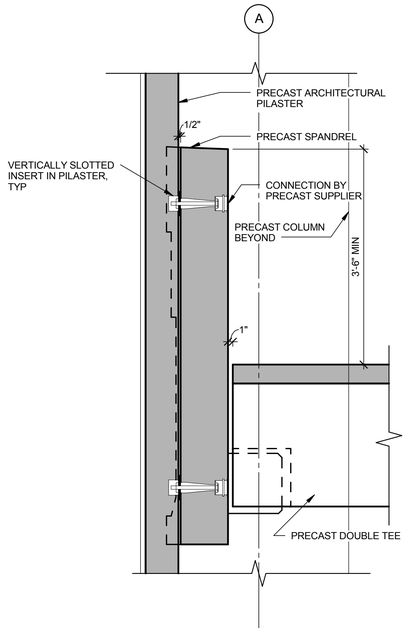
1 1/2" = 1'-0"



NOTE: PREFABRICATED WWF ACCEPTABLE

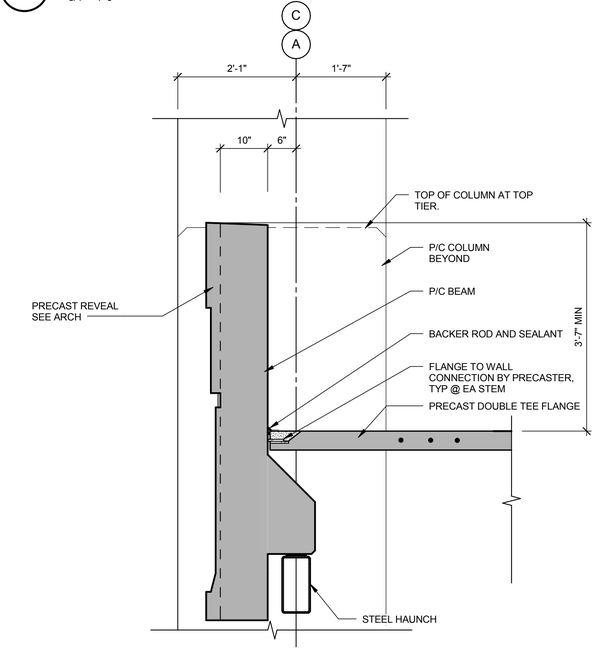
5 TYPICAL PRECAST STAIR SECTION

1/2" = 1'-0" NTS



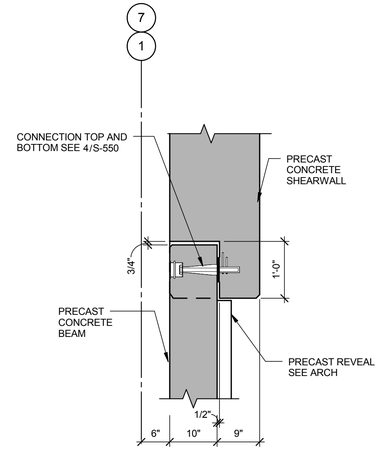
4 SPANDREL/PILASTER SECTION DETAIL

3/4" = 1'-0"



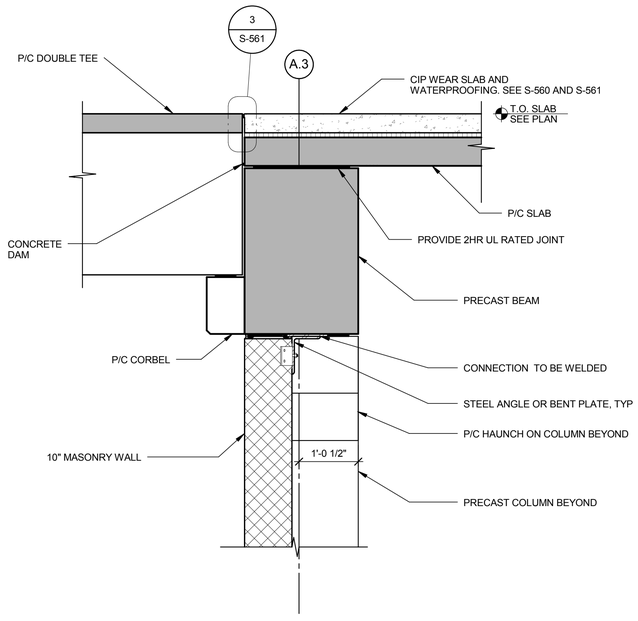
3 TEE / BEAM DETAIL

3/4" = 1'-0"



2 PRECAST WALL/SPANDREL PLAN DETAIL

3/4" = 1'-0"



1 BEAM DETAIL

3/4" = 1'-0"

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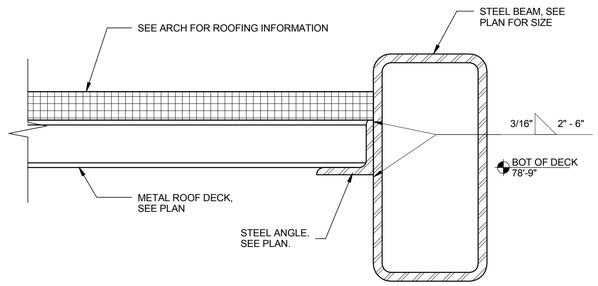
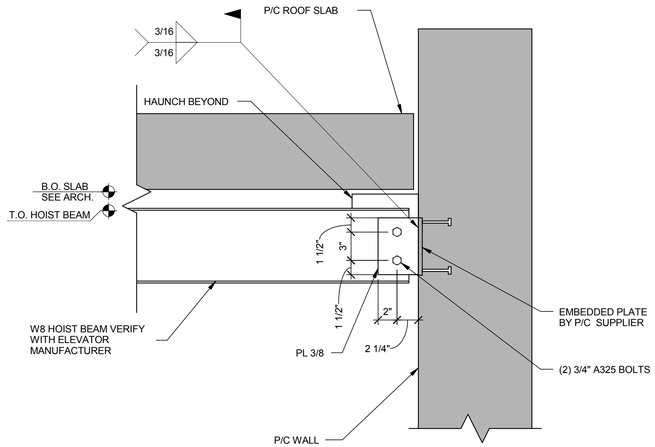
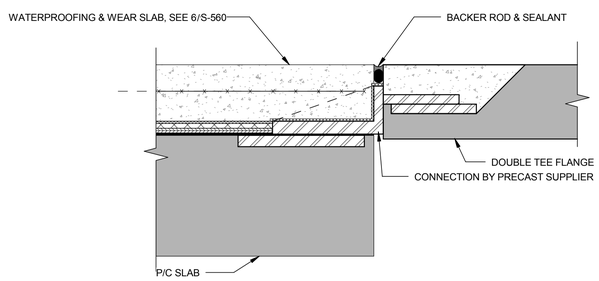


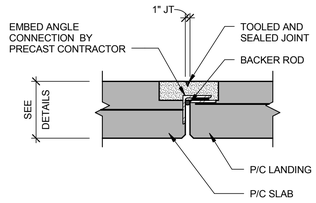
9 ROOF FRAMING
3" = 1'-0"



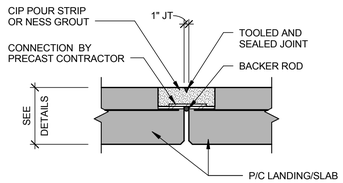
8 HOIST BEAM DETAIL
1 1/2" = 1'-0"



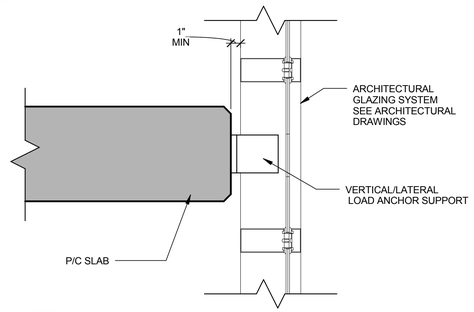
7 DOUBLE TEE TO PC SLAB
3" = 1'-0"



6 LANDING/SLAB DETAIL
3/4" = 1'-0"



5 SLAB/SLAB CONNECTION DETAIL
3/4" = 1'-0"



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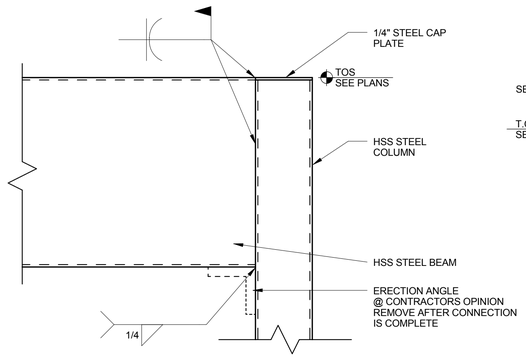
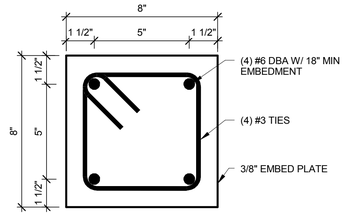
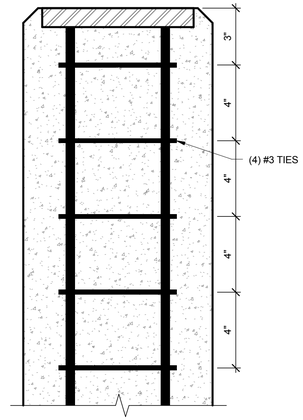
4 SLAB/CURTAIN WALL DETAIL
1 1/2" = 1'-0"

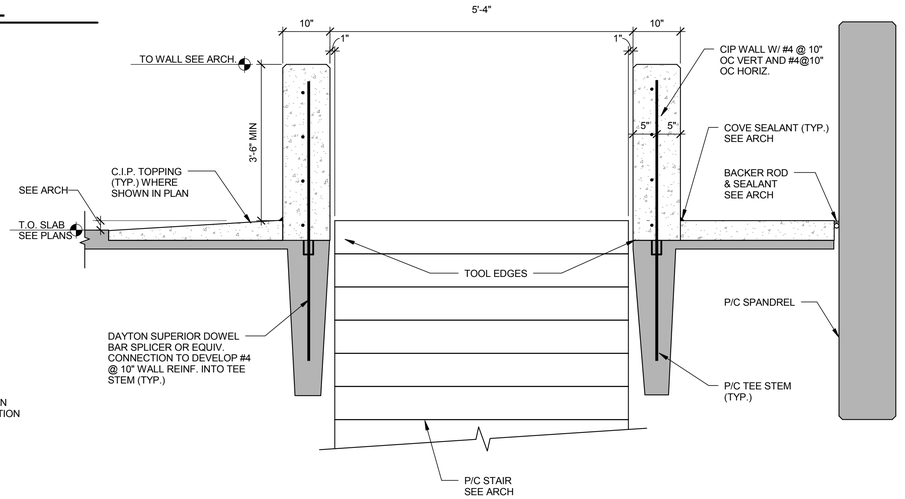


3 STEEL MOMENT CONNECTION
1 1/2" = 1'-0"





2 COLUMN BASE PLATE DETAIL
3" = 1'-0"



1 PUNCH THRU STAIR SECTION
3/4" = 1'-0"

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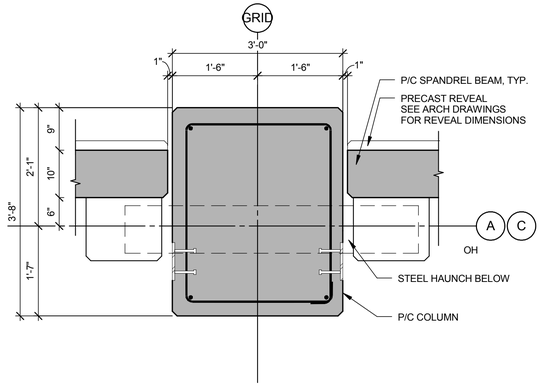
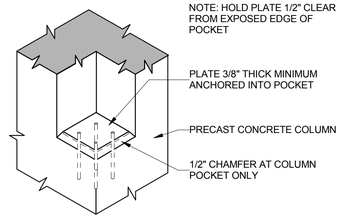


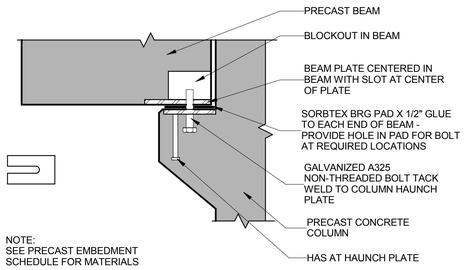
9 PRECAST COLUMN PLAN DETAIL

3/4" = 1'-0"



6 PRECAST COLUMN POCKET

3/4" = 1'-0"



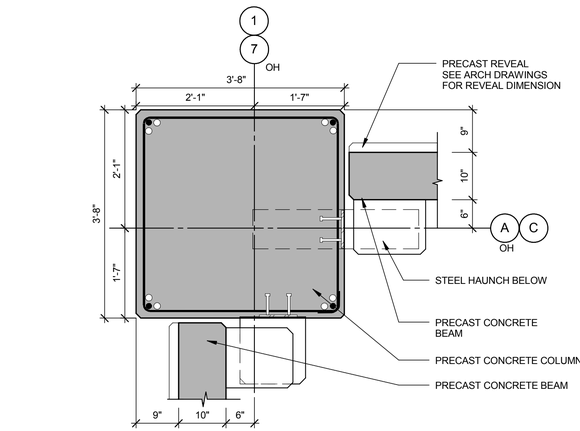
3 PRECAST CONNECTION DETAIL

3/4" = 1'-0"

SHEET NOTES

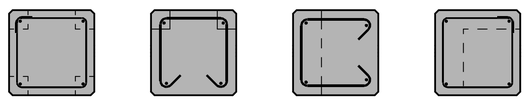
PRECAST COLUMN NOTES:

1. FOR GENERAL NOTES SEE SHEET S-002
2. COLUMN DESIGN IS PERFORMANCE DESIGN AND SHALL INCLUDE TYPE, NUMBER AND LOCATION OF VERTICAL REINFORCEMENT AND TIES. DESIGN SHALL ALSO INCLUDE BASE, POCKET, AND HAUNCH REINFORCEMENT. SEE SPECIFICATION SECTION 034100 FOR PRECAST CONCRETE.
3. PERFORMANCE DESIGN SHALL INCLUDE EFFECTS DUE TO VOLUME CHANGE OF THE STRUCTURE. COLUMNS SHALL BE DESIGNED ASSUMING PINNED BASE CONDITIONS.
4. FOR COLUMN SIZES SEE PLANS DETAILS ON SHEET S-521
5. PROVIDE #5 MIN VERTICAL AT EACH CORNER BETWEEN POCKETS TYP, SEE
6. MINIMUM COLUMN TIES SHALL BE #4 GRADE 60 CLOSED TIER AS FOLLOWS:
   a. AT 16" OC (MAX SPACING) TYP AND FOR ADDED TIES AT REINFORCEMENT BELOW AND BETWEEN POCKETS.
   b. ADD (4) TIES @ 3" OC BELOW EACH POCKET
   c. ADD (2) TIES @ 3" OC ABOVE EACH POCKET
   d. ADD (4) TIES @ 3" OC @ TOP & BOTTOM OF COLUMN
   e. ADD (3) TIES @ 3" OC ABOVE & BELOW HAUNCHES
   f. ADD (1) TIE ABOVE & BELOW COIL ROD INSERTS.
8. FOR EMBED PLATES TO RECEIVE WELDS AS PART OF WELDED CONNECTIONS SEE 7/S-550



8 PRECAST COLUMN PLAN DETAIL

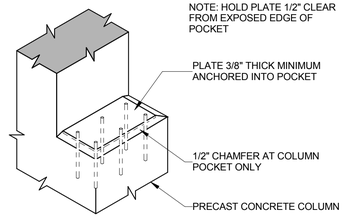
3/4" = 1'-0"



NOTE:
MAIN REINFORCING NOT SHOWN FOR CLARITY

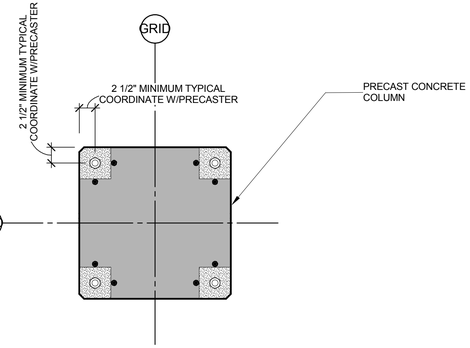
7 DIAGRAM FOR ADDED TIES BETWEEN POCKETS

3/4" = 1'-0"



5 PRECAST COLUMN POCKET

3/4" = 1'-0"

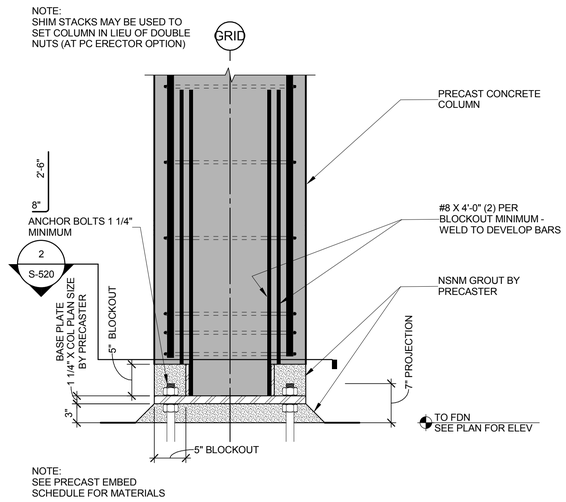


2 PRECAST COLUMN PLAN DETAIL

1" = 1'-0"

4 PRECAST HAUNCH DETAIL

3/4" = 1'-0"



1 PRECAST COLUMN BASE DETAIL

1" = 1'-0"

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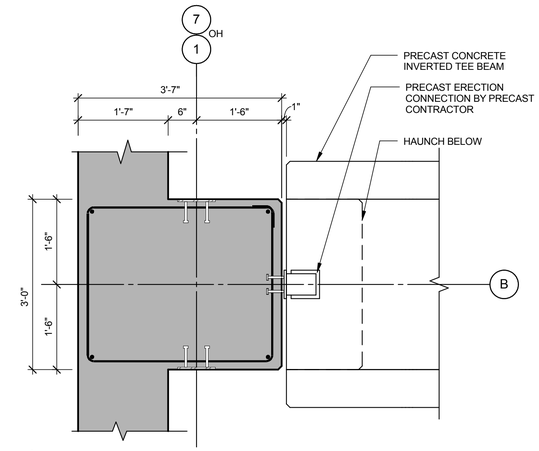
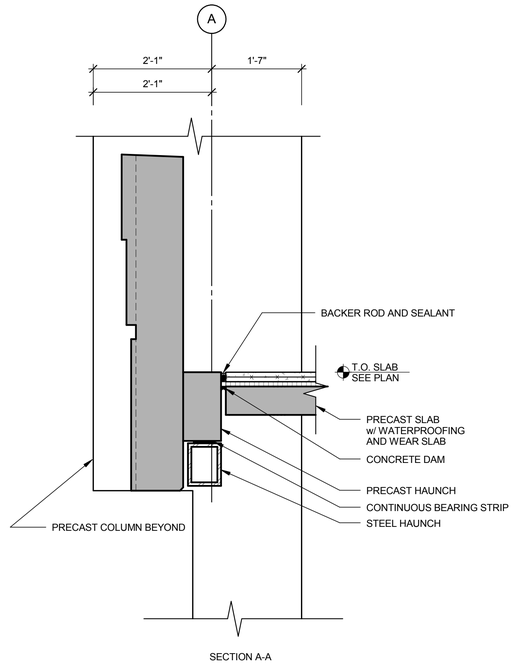
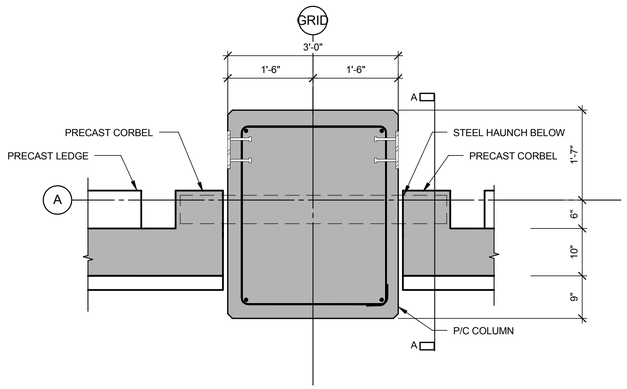


2 EXTERIOR SHEAR WALL PLAN DETAIL

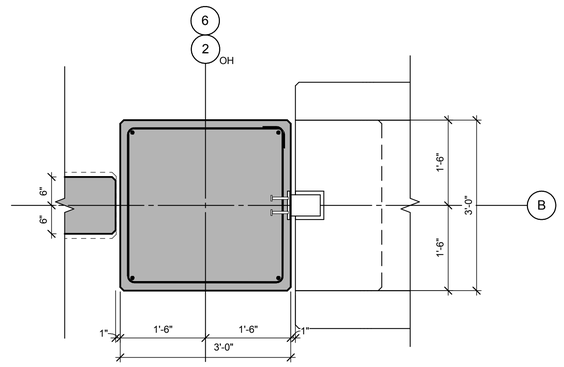
3/4" = 1'-0"





3 PRECAST COLUMN PLAN DETAIL

3/4" = 1'-0"



1 PRECAST COLUMN PLAN DETAIL

3/4" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
PRECAST COLUMN DETAILS

S-521

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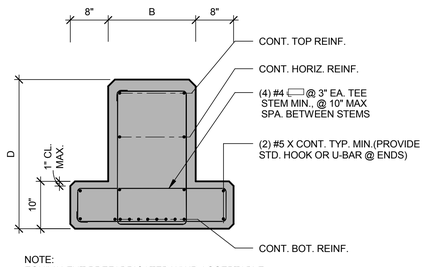
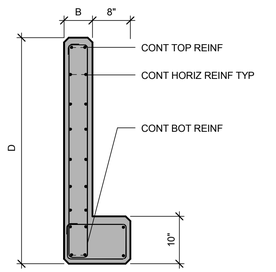


NOTE:
EQUIVALENT PREFABRICATED WWR ACCEPTABLE

TYPES: IT-1

7 BEAM DETAIL

3/4" = 1'-0"

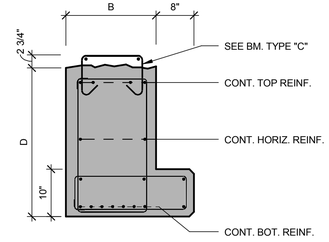


NOTE:
EQUIVALENT PREFABRICATED WWR ACCEPTABLE

TYPES: LBS-1, LBS-2,LBS-3

6 BEAM DETAIL

3/4" = 1'-0"

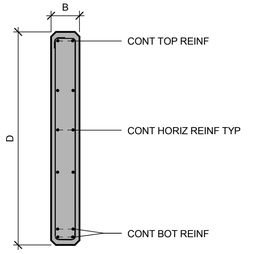


NOTE:
EQUIVALENT PREFABRICATED WWR ACCEPTABLE

TYPES: LB-1

8 BEAM DETAIL

3/4" = 1'-0"

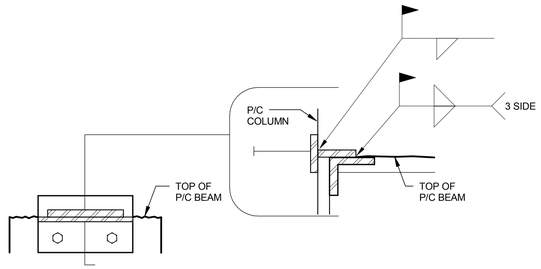


NOTE:
EQUIVALENT PREFABRICATED WWR ACCEPTABLE

TYPES: NLBS-1, RB-1,
RB-2, RB-3, RB-4, RB-5,
RB-6, RB-7

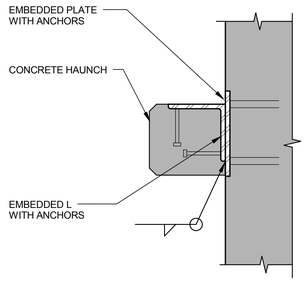
5 BEAM DETAIL

3/4" = 1'-0"



4 CONNECTION DETAIL PERFORMANCE DESIGN

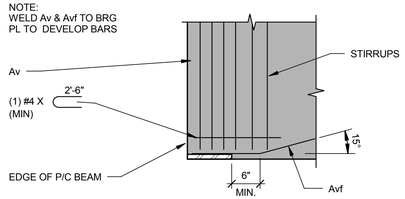
3/4" = 1'-0"



NOTE:
SEE PRECAST EMBED SCHEDULE FOR MATERIALS

3 HAUNCH DETAIL

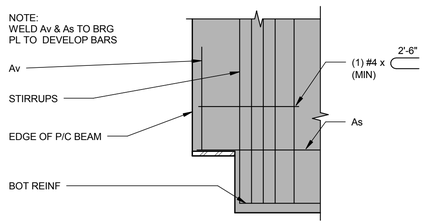
1 1/2" = 1'-0"



NOTES:
1. SEE PRECAST EMBEDMENT SCHEDULE FOR MATERIALS
2. EQUIVALENT PREFABRICATED WWR ACCEPTABLE

2 END OF BEAM REINF DETAIL

3/4" = 1'-0"



NOTES:
1. SEE PRECAST EMBEDMENT SCHEDULE FOR MATERIALS
2. EQUIVALENT PREFABRICATED WWR ACCEPTABLE

1 END OF BEAM REINF DETAIL

3/4" = 1'-0"

SHEET NOTES

BEAM SCHEDULE NOTES

1. THIS SCHEDULE INDICATES GENERAL BEAM/PANEL SIZES FOR THE PURPOSE OF INDICATING STRUCTURAL FRAME INTENT. SEE ARCHITECTURAL DRAWINGS FOR ACTUAL PROFILE OF THE BEAMS AND PANELS.
2. SEE ARCHITECTURAL DRAWINGS FOR ATTACHMENT DETAILS AND MISC. ITEMS.
3. SEE STRUCTURAL PLANS FOR BEAM MARK DESIGNATIONS.
4. SEE DETAILS ON SHEET S-510 FOR SPANDREL BEARING CONDITIONS.

P/C BEAM NOTES

1. P/C BEAMS ARE PERFORMANCE DESIGN. SEE S-001 FOR LOAD INFORMATION.
2. F'c = 3500 PSI (MIN) AT TRANSFER.
3. USE 1/2" DIA. LOW RELAXATION STRAND STRESSED TO 0.70 fpu.
4. PROTECT EXPOSED STRAND AT END OF BEAMS WITH MASTIC WATERPROOFING (SEE SPECS.)

PRECAST EMBEDMENT SCHEDULE

PROD.	CONNECTION HARDWARE		EXCEPTIONS
TEE	BEARING PLATE	HDG	
	EMBED AT TOP CONNECTION	HDG	
	FLANGE WELDER EMBED	SS	
	EMBED AT EXPANSION JOINT	HDG	
BEAM	BEARING PLATE	HDG	
	EMBED TO TOP CONNECTION	HDG	
INT. SPA.	BEARING PLATE	HDG	
	EMBED AT CONNECTION w/COL.	HDG	
	EMBED AT CONNECTION w/WALL	HDG	
	EMBED AT CONNECTION w/TEE	HDG	
EXT. SPA.	BEARING PLATE	HDG	
	EMBED AT CONNECTION w/COL.	HDG	
	EMBED AT CONNECTION w/WALL	HDG	
	EMBED AT CONNECTION w/TEE	HDG	
COL.	BASE PLATE	PS	
	TOP PLATE/HAUNCH	HDG	
	HAUNCH ASSEMBLY	HDG	
	EMBED AT CONNECTION w/TEE	HDG	
	EMBED AT CONNECTION w/EXT. SPA.	HDG	
	EMBED AT CONNECTION w/INT. SPA.	HDG	
	EMBED AT CONNECTION w/WALL	HDG	
	EMBED AT CONNECTION w/BM.	HDG	
STRUC. WALL	EMBED AT CONNECTION w/TEE	HDG	
	EMBED AT CONNECTION w/BEAM	HDG	
	EMBED AT CONNECTION w/WALL	HDG	
	EMBED AT CONNECTION w/COL.	HDG	
	EMBED AT CONNECTION w/FOUNDATION	HDG	
ARCH. WALL	EMBED AT CONNECTION w/TEE	HDG	
	EMBED AT CONNECTION w/BEAM	HDG	
	EMBED AT CONNECTION w/WALL	HDG	
	EMBED AT CONNECTION w/COL.	HDG	
	EMBED AT CONNECTION w/FOUNDATION	HDG	
FLAT SLABS	EMBED AT CONNECTION w/BEAM	HDG	
(RISER)	EMBED AT CONNECTION w/COL.	HDG	
	EMBED AT CONNECTION w/SLAB	HDG	
	BEARING PLATES	HDG	
LOOSE MTL.	TEE TO TEE WELDER	SS	
	TEE TO BEAM	HDG	
	TEE TO SPANDREL	HDG	
	TEE TO COLUMN	HDG	
	TEE TO WALL	HDG	
	BEAM TOP	HDG	
	BEAM BOTTOM (CUBE)	HDG	
	SPANDREL TOP	HDG	
	SPANDREL BOTTOM	HDG	
	ANCHOR BOLTS	PS	
	OTHER FOUNDATION EMBEDS	HDG	
SPL. INFO.			

ABBREVIATIONS :	PS. = PLAIN STEEL	SS = STAINLESS STEEL
	HDG. = HOT DIP GALVANIZED	ZRC. = ZINC RICH COATING

PRECAST BEAM SCHEDULE

MARK	WIDTH (W)	DEPTH (D)	REMARKS
IT-1	3' - 0"	3' - 0"	
LBS-1	1' - 0"	7' - 0"	
LBS-2	1' - 0"	7' - 0"	BEAM HEIGHT VARIES, SEE ARCH ELEVATIONS
LBS-3	1' - 0"	7' - 6"	
NLBS-1	1' - 0"	7' - 0"	
RB-1	1' - 6"	2' - 8"	
RB-2	10"	3' - 0"	
RB-3	10"	3' - 0"	
RB-4	1' - 0"	2' - 8"	
RB-5	1' - 8"	2' - 8"	
RB-6	2' - 0"	2' - 8"	
RB-7	8"	5' - 4"	

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
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SHEET TITLE:
PRECAST BEAM DETAILS, SCHEDULE & NOTES

S-525

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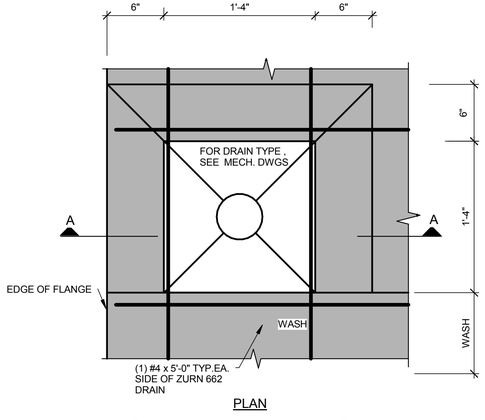
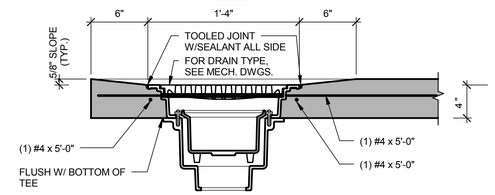


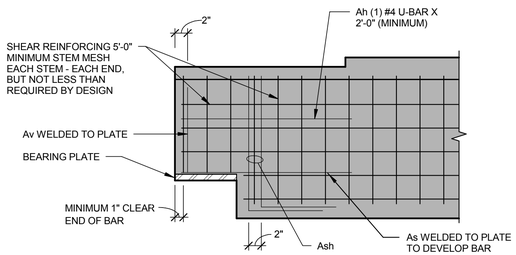
PLAN



SECTION A-A

8 PRECAST FLOOR DRAIN DETAIL

1 1/2" = 1'-0"

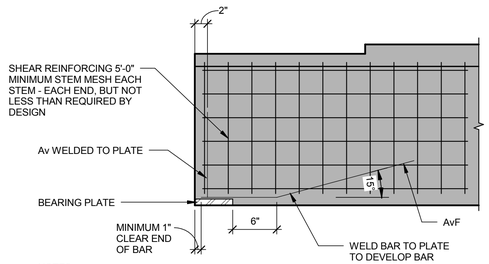


NOTES:

1. EQUIVALENT PREFABRICATED WWR ACCEPTABLE.
2. SEE PRECAST EMBEDMENT SCHEDULE FOR MATERIALS

7 END OF TEE REINFORCEMENT (DAPPED TEE)

3/4" = 1'-0"

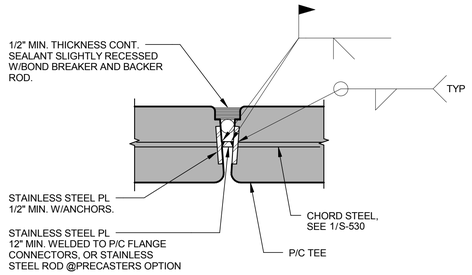


NOTES:

1. EQUIVALENT PREFABRICATED WWR ACCEPTABLE
2. SEE PRECAST EMBEDMENT SCHEDULE FOR MATERIALS

6 END OF TEE REINFORCEMENT (UNDAPPED TEE)

3/4" = 1'-0"

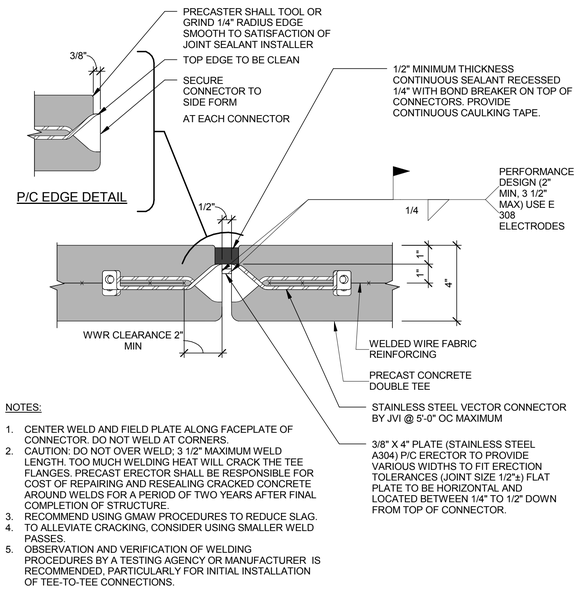


NOTES:

1. PRECASTER TO DESIGN DIAPHRAGM CONNECTION TO DEVELOP 150% CAPACITY OF DIAPHRAGM REINFORCEMENT.
2. DIAPHRAGM REINFORCEMENT TO BE LOCATED WITH IN 1'-6" OF END OF TEE.

5 DIAPHRAGM REINFORCING DETAIL

3/4" = 1'-0"

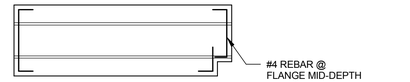


NOTES:

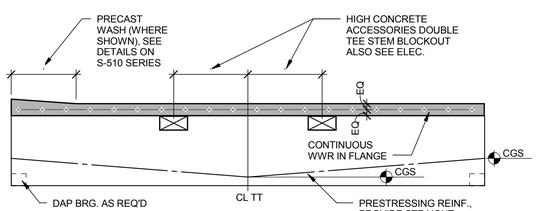
1. CENTER WELD AND FIELD PLATE ALONG FACEPLATE OF CONNECTOR. DO NOT WELD AT CORNERS.
2. CAUTION: DO NOT OVER WELD; 3 1/2" MAXIMUM WELD LENGTH. TOO MUCH WELDING HEAT WILL CRACK THE TEE FLANGES. PRECAST ERECTOR SHALL BE RESPONSIBLE FOR COST OF REPAIRING AND RESEALING CRACKED CONCRETE AROUND WELDS FOR A PERIOD OF TWO YEARS AFTER FINAL COMPLETION OF STRUCTURE.
3. RECOMMEND USING GMAW PROCEDURES TO REDUCE SLAG.
4. TO ALLEVIATE CRACKING, CONSIDER USING SMALLER WELD PASSES.
5. OBSERVATION AND VERIFICATION OF WELDING PROCEDURES BY A TESTING AGENCY OR MANUFACTURER IS RECOMMENDED, PARTICULARLY FOR INITIAL INSTALLATION OF TEE-TO-TEE CONNECTIONS.

4 TEE/TEE JOINT DETAIL AT PRETOPPED TEES

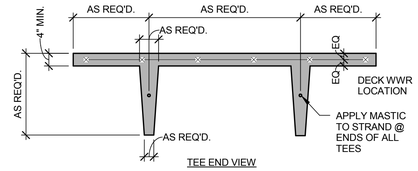
3" = 1'-0"



PLAN VIEW @ BLOCKOUT



TEE ELEVATION

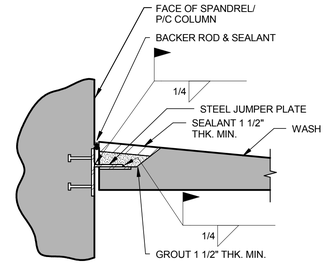


TEE END VIEW

NOTE: FOR FINISH SEE SPECS.

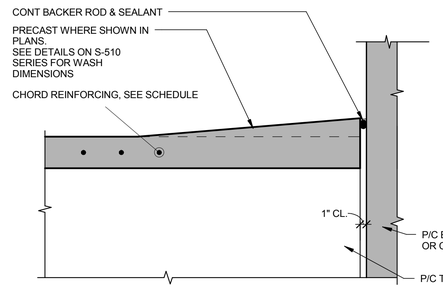
3 TYPICAL P/C DETAIL (PRETOPPED TEES & WASHES)

3/4" = 1'-0"



2 POCKETED CONNECTION DETAIL

3/4" = 1'-0"



NOTE: SEE 5/S-530 FOR DIAPHRAGM CONNECTION DETAIL BETWEEN P/C TEES.

1 DIAPHRAGM REINFORCING DETAIL

1" = 1'-0"

CHORD REINFORCEMENT		
Level	Longitudinal	Transverse
SIXTH TIER	(4) #6	(2)#6
FIFTH TIER	(4) #6	(2)#6
FOURTH TIER	(4) #6	(2)#6
THIRD TIER	(3) #6	(2)#6
SECOND TIER	(3) #6	(2)#6

SHEET NOTES

PRECAST TEE NOTES:

1. REFER TO SHEET S-001 FOR GENERAL NOTES.
2. TEE DESIGN IS PERFORMANCE DESIGN AND SHALL INCLUDE TYPE, NUMBER AND LOCATION OF STRANDS, AS WELL AS SHEAR, FLANGE AND END OF TEE REINFORCEMENT. SEE SPECIFICATION SECTION 034100 FOR PRECAST CONCRETE.
3. MINIMUM PRECAST TEE FLANGE AND TOPPING REINFORCING SHALL BE AS FOLLOWS:
   A) PRETOPPED TEE FLANGE: WWR 12x4 - W4xW4
   B) TOPPED TEE FLANGE: WWR 12x6 - W2.9xW2.9
   C) 2" CIP TOPPING WWR 12x4 - W4xW4
      a) PLACE REINFORCEMENT AT MID-DEPTH OF FLANGE OR TOPPING.
      b) LARGER QUANTITY OF REINFORCEMENT SHALL BE ORIENTED IN TRANSVERSE DIRECTION.
      c) PROVIDE TOPPING WWR IN SHEETS, NOT ROLLS.
      d) SUPPORT TOPPING WWR WITH CONTINUOUS BAR SUPPORTS SPACED AT 2'-0" OC MAX.
4. FOR TEE/TEE JOINT, SEE DETAILS ON THIS SHEET.
5. FOR EMBEDDED PLATES TO RECEIVE WELDS AS PART OF WELDED CONNECTIONS SEE DETAIL ON SHEET S-525.

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE PARKING GARAGE

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PRECAST TEE DETAILS

S-530

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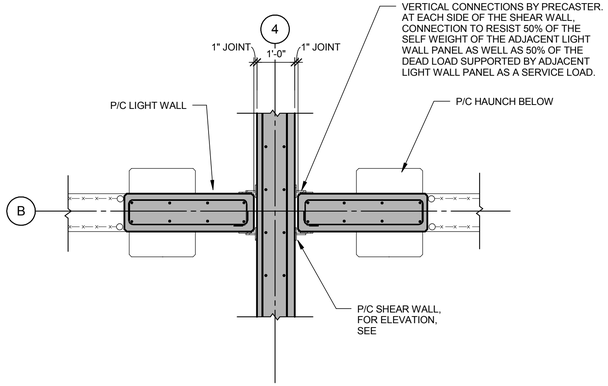
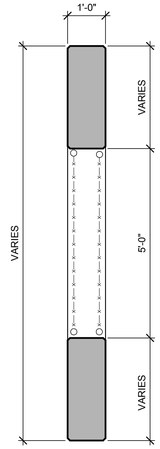


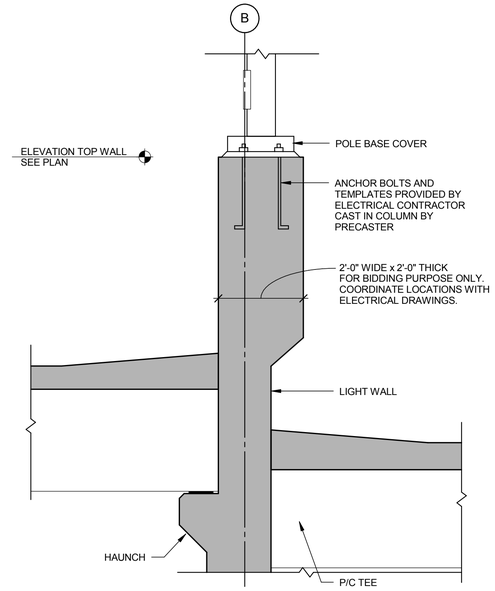
7 LIGHT WALL/SHEAR WALL REINFORCING DETAIL

1/2" = 1'-0"



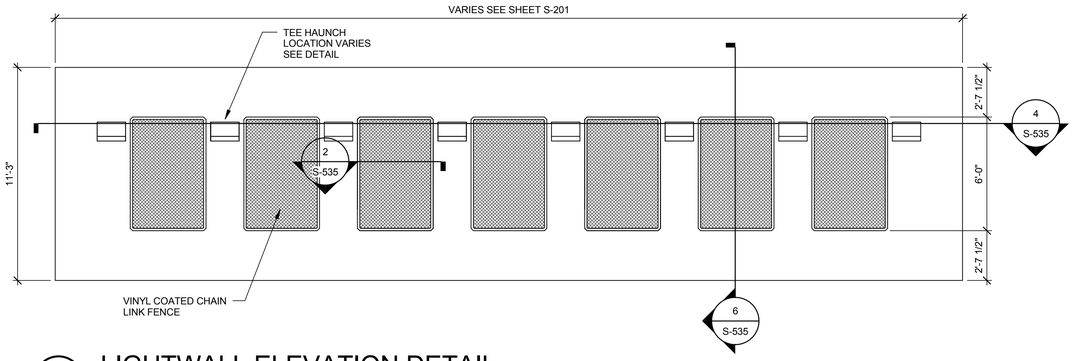
6 LIGHT WALL REINFORCING DETAIL

1/2" = 1'-0"



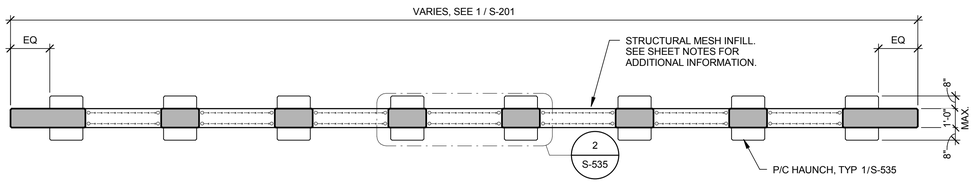
3 LIGHT WALL/POLE BASE CONNECTION DETAILS

3/4" = 1'-0"



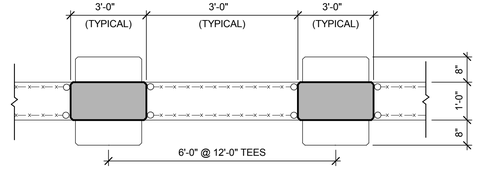
5 LIGHTWALL ELEVATION DETAIL

1/4" = 1'-0"



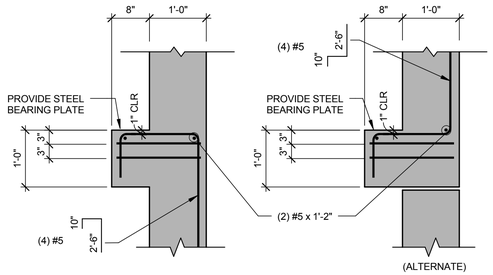
4 PLAN VIEW

1/4" = 1'-0"



2 LIGHT WALL REINFORCING DETAIL

1/2" = 1'-0"



HAUNCH NOTES:
1. THE WIDTH OF HAUNCH IS 1'-6" TYPICAL UNLESS NOTED.
2. LOCATE THE HAUNCH AND MODIFY THE TEE DAP AS REQUIRED TO AVOID THE HORIZONTAL JOINT LOCATION.

1 LIGHT WALL HAUNCH DETAIL

3/4" = 1'-0"

SHEET NOTES

1. REFER TO SHEET S-001 FOR GENERAL NOTES.
2. LIGHT WALL DESIGN IS PERFORMANCE DESIGN AND SHALL INCLUDE SIZE, NUMBER AND LOCATION OF VERTICAL AND HORIZONTAL REINFORCING, INCLUDING TIES & STIRRUPS. DESIGN SHALL ALSO INCLUDE BASE CONNECTIONS, HAUNCH OR LEDGE REINFORCEMENT AND SIZE, NUMBER, AND SPACING OF INSERT/COIL ROD (OR OTHER SHEAR TRANSFER) CONNECTION INTO POUR STRIPS FOR SHEAR TRANSFER OR LATERAL LOADS. SEE SPECIFICATIONS 034100 FOR PRECAST CONCRETE.
3. FOR LIGHT WALL SIZES, SEE DETAILS ON THIS SHEET.
4. FOR LIGHT WALL BASE DETAIL, SEE DETAIL X/X-XX
5. PROVIDE THICKENED SECTION AT TOP OF LIGHT WALLS, AS REQUIRED, FOR LIGHT POLE SUPPORT. COORDINATE LOCATION AND REQUIREMENTS WITH ELECTRICAL DRAWINGS AND LIGHT POLE SUPPLIER. SEE DETAIL X/X-XXX
6. FOR EMBED PLATES TO RECEIVE WELDS AS PART OF CONNECTIONS, SEE DETAIL X/X-XXX
7. GOVERNING LATERAL LOADS ARE SEISMIC. SEISMIC LATERAL LOADS ARE ULTIMATE LOADS. LOADS ARE REVERSIBLE. SEE SHEET S-536 FOR DESIGN LOADS.
8. SEE S-571 FOR TYPICAL WALL TO WALL CONNECTION DETAILS.
9. SEE S-100 FOR TOP OF CIP WALL ELEVATIONS. IF THE PRECAST CONTRACTOR WISHES TO REVISE THE TOP OF CIP WALL BASED ON THEIR WALL DESIGN, THE GENERAL CONTRACTOR SHALL COORDINATE BETWEEN THE PRECAST CONTRACTOR AND CIP CONTRACTOR. THIS SHALL BE AT NO ADDITIONAL COST TO THE OWNER. SUBMIT PROPOSED CHANGES TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING.

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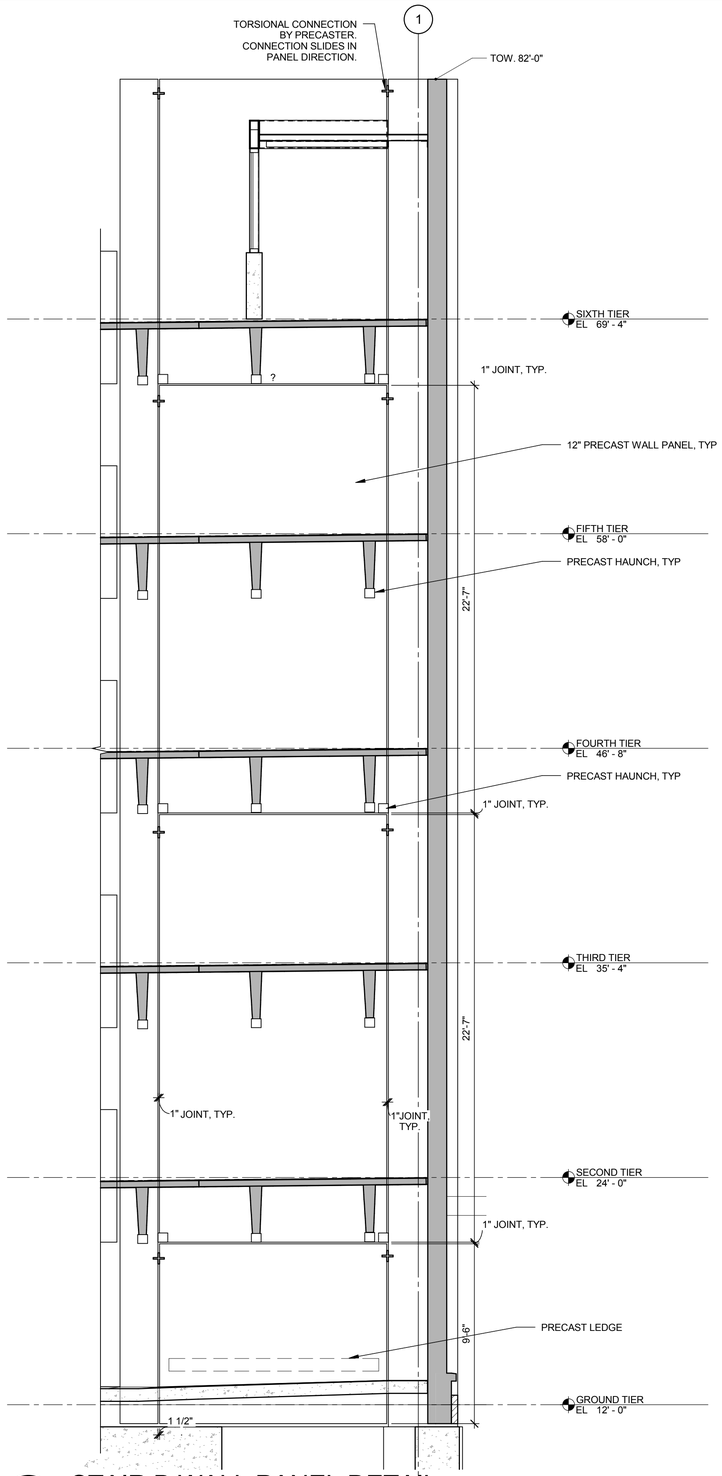
SHEET TITLE:
PRECAST STRUCTURAL WALL DETAILS

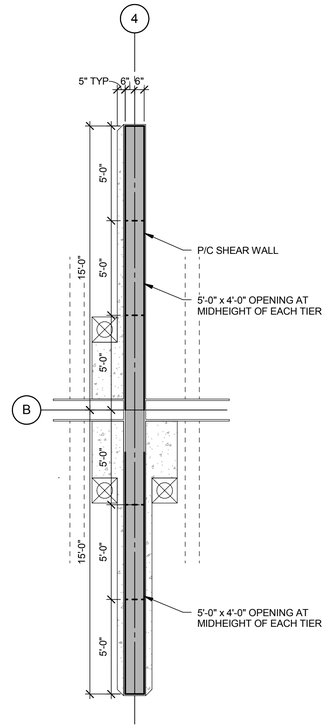
S-535

LIGHT WALL/SHEAR WALL LATERAL LOADS							
	WALL LOCATION						
	SHEAR WALL			LIGHT WALL			
TIER	B1	B4	B7	B2-B3	B3-B4	B4-B5	B5-B6
SIXTH TIER	225 kip	284 kip	190 kip	156 kip	156 kip	156 kip	156 kip
FIFTH TIER	171 kip	244 kip	186 kip	134 kip	134 kip	134 kip	134 kip
FOURTH TIER	126 kip	181 kip	137 kip	98.6 kip	98.6 kip	98.6 kip	98.6 kip
THIRD TIER	87.5 kip	126 kip	96 kip	68.6 kip	68.6 kip	68.6 kip	68.6 kip
SECOND TIER	56.6 kip	81 kip	61 kip	44.4 kip	44.4 kip	44.4 kip	44.4 kip
GROUND TIER							

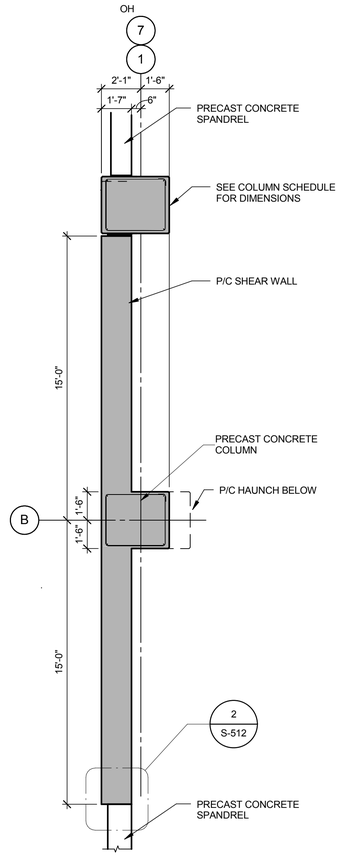
NOTE: LOADS ABOVE ARE ULTIMATE SEISMIC LOADS



3 STAIR B WALL PANEL DETAIL
1/4" = 1'-0"



2 INTERIOR SHEAR WALL PLAN DETAIL
1/4" = 1'-0"



1 EXTERIOR SHEAR WALL PLAN DETAIL
1/4" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
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SHEET TITLE:
PRECAST STRUCTURAL WALL DETAILS

S-536

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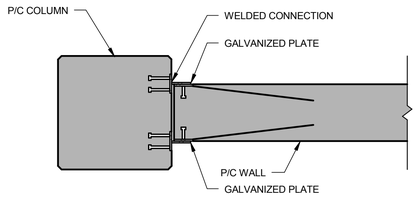
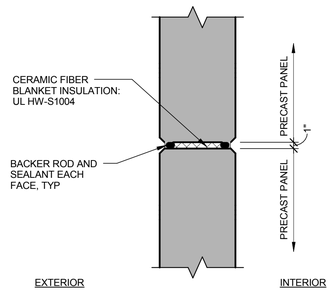


NOTE: LIGHT WALLS ARE DESIGNED AS INDEPENDENT FROM EACH OTHER. CONNECTION IS NOTE REQUIRED BETWEEN WALL PANELS.

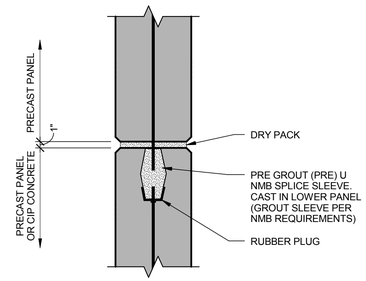
9 VERTICAL COLUMN TO PANEL CONNECTION DETAIL

3/4" = 1'-0"



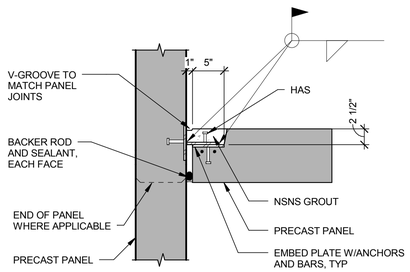
6 PANEL/PANEL DETAIL FIRE RATED JOINT

1" = 1'-0"



3 CONNECTION DETAIL

1" = 1'-0"



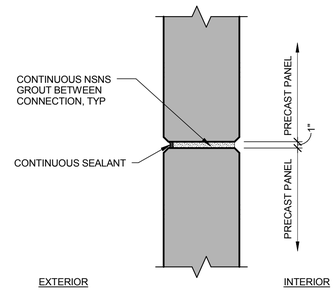
NOTES:
1. (2) CONNECTIONS PER PANEL
2. SEE PRECAST EMBEDMENT SCHEDULE FOR MATERIALS.

8 VERTICAL PANEL/PANEL CONNECTION

1" = 1'-0"

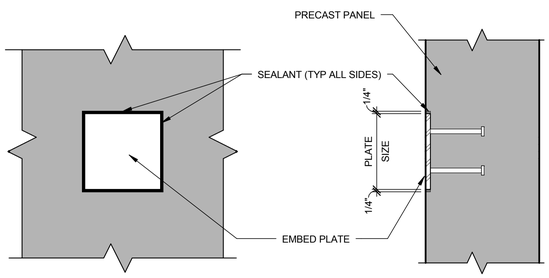
5 CONNECTION DETAIL

1" = 1'-0"



2 HORIZONTAL PANEL/PANEL DETAIL

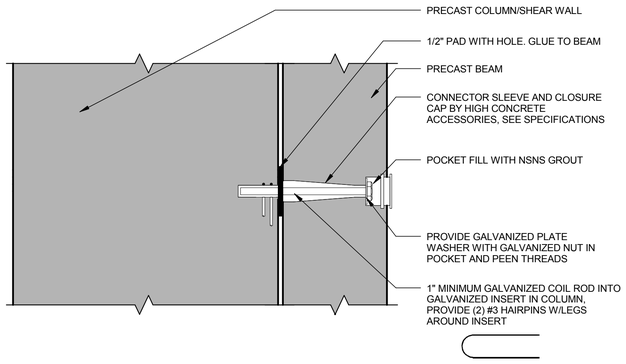
1" = 1'-0"



NOTE:
TAKE ALL FEASIBLE MEASURES TO CONTROL EXCESSIVE HEATING OF THE EMBEDDED PLATE(S) BY LIMITING WELD LENGTHS-SKIP WELDS WILL HELP. USE LAYERED SMALLER WELDS INSTEAD OF A SINGLE LARGE WELD.

7 EMBED PLATE DETAIL

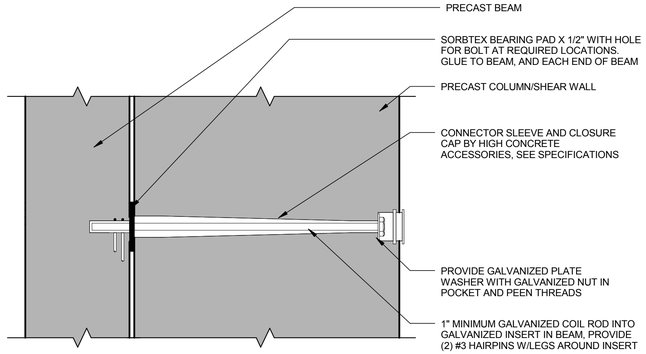
1 1/2" = 1'-0"



NOTE:
1. COMPLETE CONNECTION BEFORE TEE ERECTION.
2. CAUTION, THIS DETAIL REQUIRES CAREFUL ATTENTION TO ERECTION TOLERANCE. CONSIDER USING SLOTTED INSERT AS REQUIRED.

4 CONNECTION DETAIL

1 1/2" = 1'-0"



NOTE: COMPLETE CONNECTION BEFORE TEE ERECTION.

1 CONNECTION DETAIL

1 1/2" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO: 16-2683.01
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PRECAST CONNECTION DETAILS

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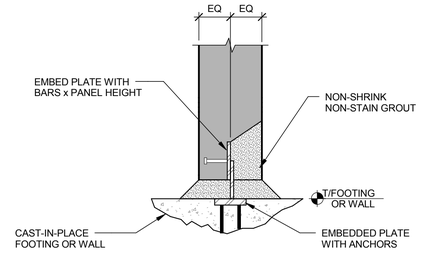
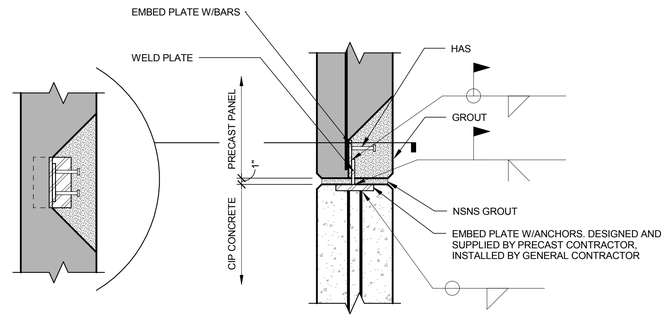


3 PRECAST WALL BASE DETAIL

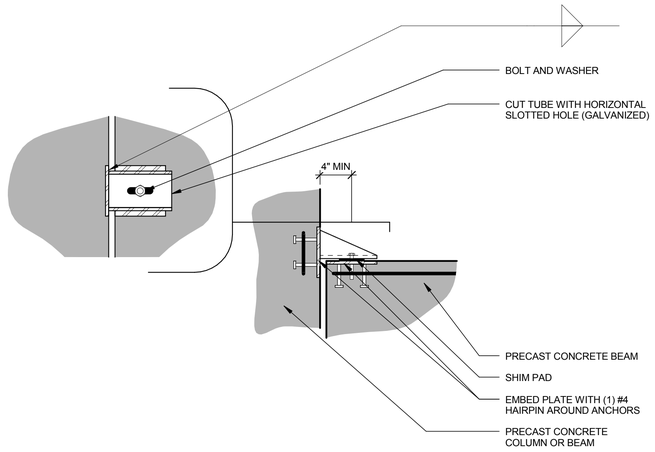
1" = 1'-0"



NOTE: PRECAST CONTRACTOR'S OPTION TO USE NMB SPLICES

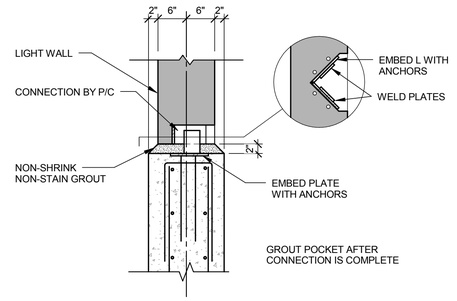
2 CONNECTION DETAIL

1" = 1'-0"



4 BEAM/COLUMN CONNECTION DETAIL PERFORMANCE DESIGN

1" = 1'-0"



1 LIGHTWALL/BASE CONNECTION DETAIL

3/4" = 1'-0"

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PRECAST CONNECTION DETAILS

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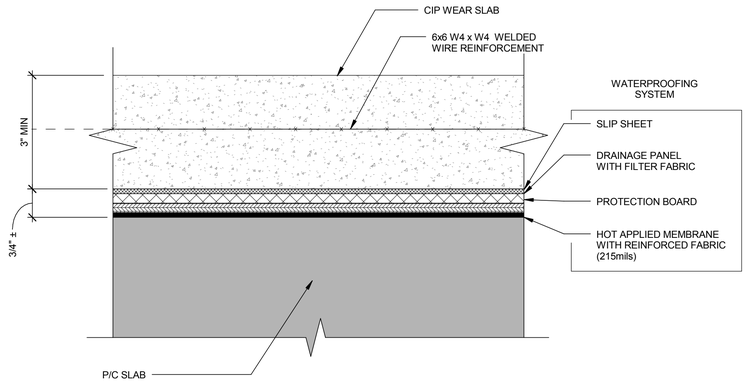
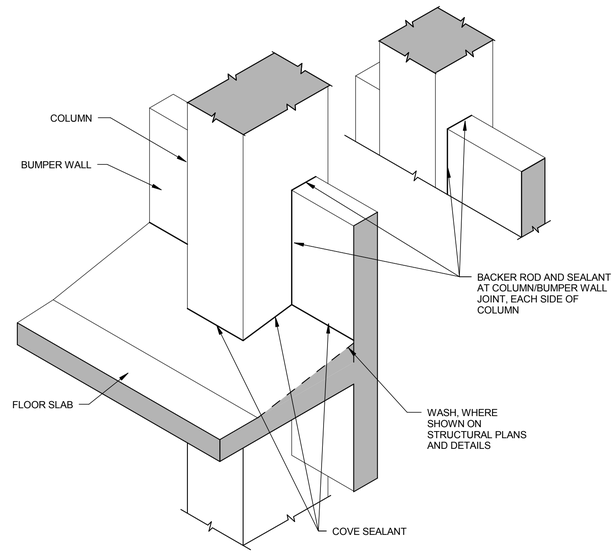


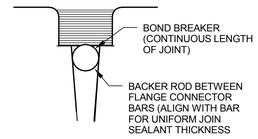
6 WATERPROOFING SYSTEM AND WEAR SURFACE

6" = 1'-0"



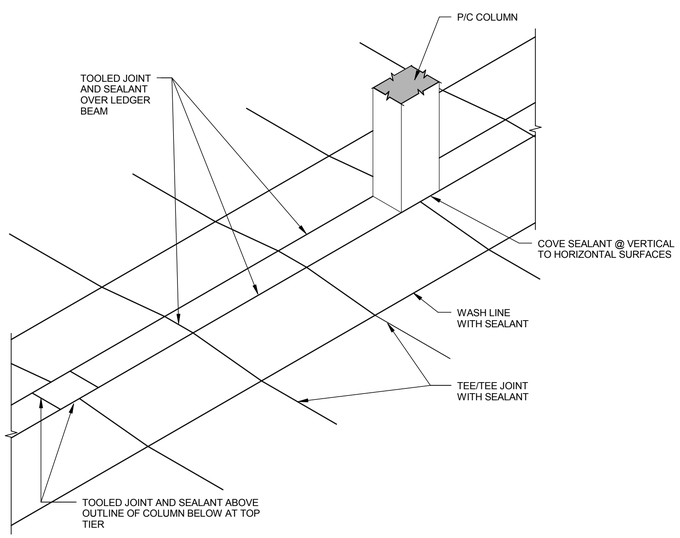
4 INSIDE FACE OF WALL/CURB/COLUMN SEALANT AT LOWER LEVELS

3/4" = 1'-0"



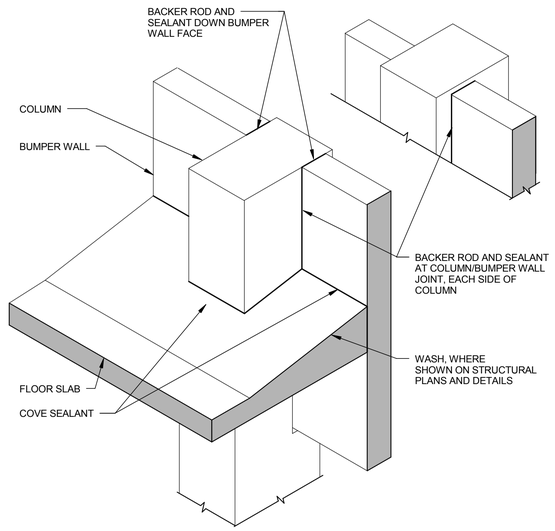
2 TEE/TEE JOINT DETAIL AT PRETOPPED TEES

1 1/2" = 1'-0"



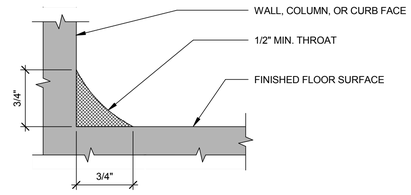
5 SEALANT ISOMETRIC AT DRIVE-THRU (PRETOPPED SYSTEM)

1/4" = 1'-0"



3 INSIDE FACE OF WALL/CURB/COLUMN SEALANT TOP TIER ONLY

3/4" = 1'-0"



NOTES:
1. PREPARE & ALLOW FOR PRIMER TO CURE PROPERLY PRIOR TO INSTALLING SEALANT.
2. SEE SPECIFICATIONS FOR APPROVED MATERIALS.
3. DETAIL NOT TO SCALE.

1 COVE SEALANT

12" = 1'-0"

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ISSUE:

PROJECT NO: 16-2683.01

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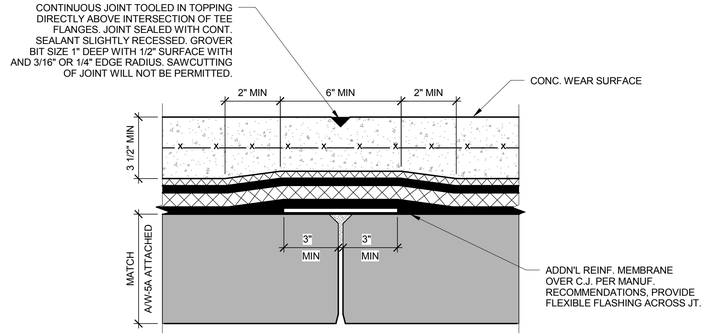
SHEET TITLE:
WATERPROOFING DETAILS

S-560

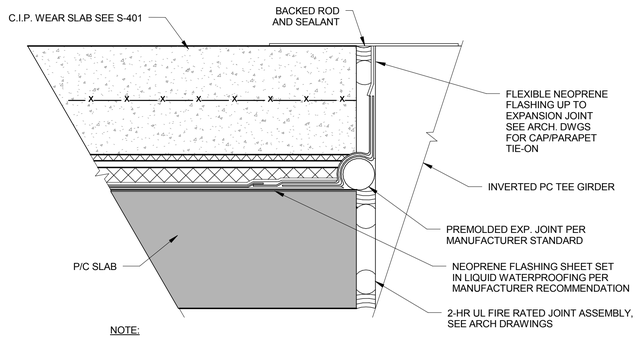


NOTE:

1. SEE TYPICAL WATERPROOFING WEAR SLAB LAYOUT ON DRAWING S2.1 AND S2.2 FOR SPACING.

2 WATERPROOFING SYSTEM AT CONTROL JOINTS

3" = 1'-0"

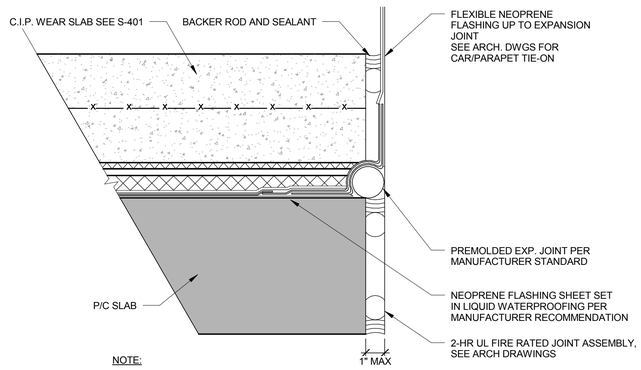


NOTE:

1. ALL EDGE TERMINATIONS AND DETAILS TO BE APPROVED BY WATERPROOFING INSTALLER.

3 SLAB EDGE WATERPROOFING DETAIL @ INVERTED TEE GIRDER

3" = 1'-0"



NOTE:

1. ALL EDGE TERMINATIONS AND DETAILS TO BE APPROVED BY WATERPROOFING INSTALLER.

1 SLAB EDGE WATERPROOFING DETAIL

3" = 1'-0"

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SHEET TITLE:
WATERPROOFING DETAILS

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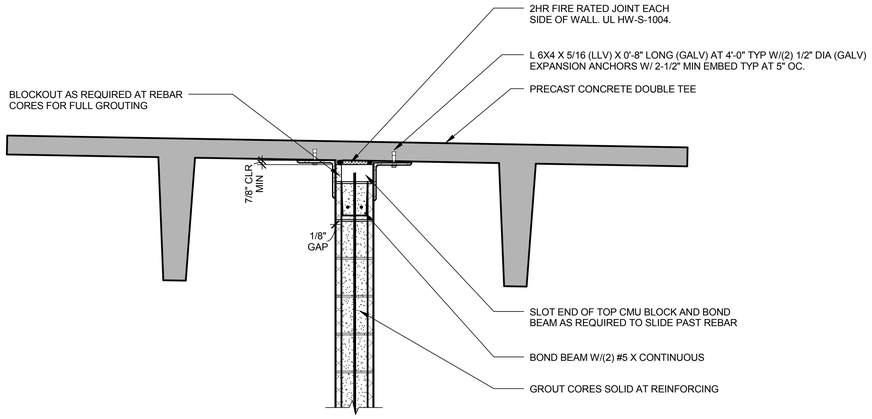
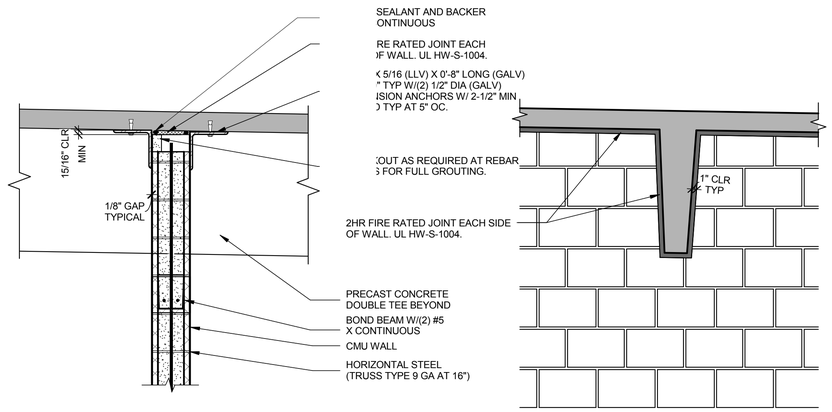


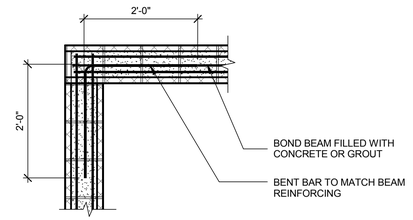
6 MASONRY WALL DETAIL

3/4" = 1'-0"



5 MASONRY WALL DETAIL

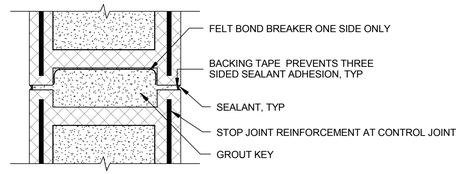
3/4" = 1'-0"



NOTES:
1. BOND BEAMS AT TOP OF WALL SHALL BE CONTINUOUS THROUGH MASONRY CONTROL JOINTS. INTERMEDIATE BOND BEAMS SHALL BE DISCONTINUOUS AT MASONRY CONTROL JOINTS.
2. MINIMUM BOND BEAM REINFORCING SHALL BE 2-#5 IN ALL BOND BEAMS.

4 CORNER REINFORCEMENT

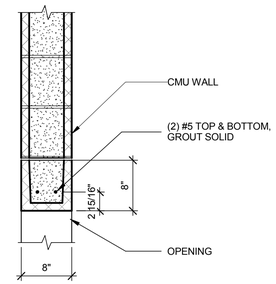
3/4" = 1'-0"



NOTES:
1. CONTROL JOINTS ARE REQUIRED IN MASONRY WALL AT 20'-0" MAX.
2. LOCATE NEAR CENTER OF WALL.

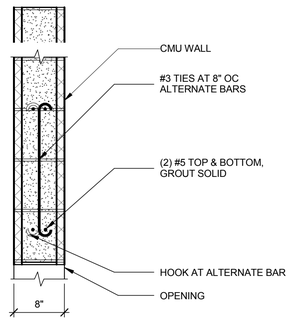
3 MASONRY CONTROL JOINT DETAIL

3" = 1'-0"



2 MASONRY LINTEL DETAIL

1" = 1'-0"



NOTE:
ENGINEER MUST VERIFY LOADS AND SPANS FOR THIS DETAIL

1 MASONRY LINTEL DETAIL

1" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

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MARK	DATE	ISSUE: DESCRIPTION
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DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
MASONRY DETAILS

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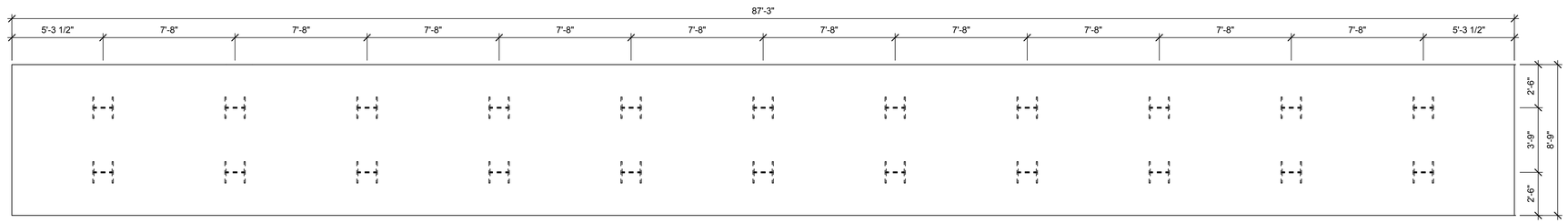
PILE CAP SCHEDULE

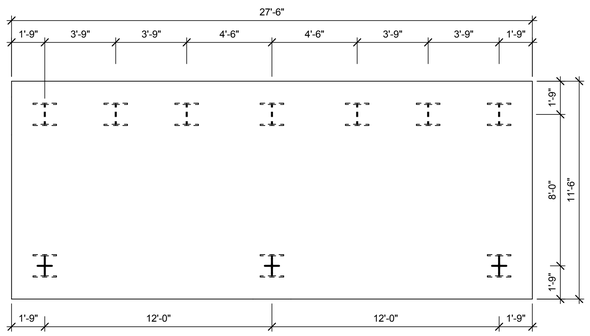
MARK	SIZE			REINFORCING				DETAIL	REMARKS
				TOP		BOTTOM			
	LENGTH	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE		
PC-1	4' - 6"	4' - 6"	3' - 10"			(4) #10H	(4) #10H		
PC-2	5' - 0"	8' - 9"	4' - 0"			(5) #11H	(7) #11H		
PC-4	8' - 9"	8' - 9"	6' - 0"			(10) #11H	(10) #11H		FIXED HEAD PILES REQUIRED. SEE 3/S-611
PC-6A	8' - 9"	12' - 6"	6' - 0"			(13)#11H	(13)#11H		
PC-6B	11' - 5"	15' - 2"	6' - 0"	(13) #5	(13) #5	(13)#11H	(13)#11H		
PC-6C	9' - 8"	14' - 4"	6' - 0"			(13)#11H	(14)#11H		FIXED HEAD PILES REQUIRED. SEE 3/S-611
PC-7	8' - 9"	20' - 0"	6' - 0"	(13)#5H	(13)#5H	(13)#11H	(13)#11H		
PC-10	11' - 6"	27' - 6"	6' - 0"	(18)#5H	(18)#5H	(18)#11H	(18)#11H		
PC-22	8' - 9"	87' - 3"	3' - 0"			(8)#9	#9H @ 10" O.C.		FIXED HEAD PILES REQUIRED. SEE 3/S-611. PROVIDE (4) #9 BARS EACH SIDE AS SIDE REINFORCEMENT

PILE CAP NOTES:

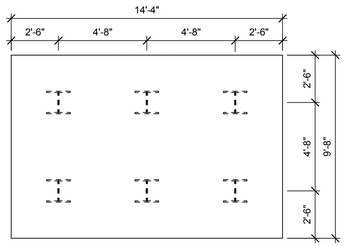
1. ALL REINFORCEMENT SHALL BE PLACED AT EVEN SPACING. UNO.
2. H # - INDICATES HOOK AT BOTH ENDS OF BARS, SEE DETAILS ON SF-501.
3. CONTRACTOR TO LOCATE UTILITIES PRIOR TO INSTALLATION OF PILES. NOTIFY ENGINEER IMMEDIATELY IF ANY UTILITY IS WITHIN 1'-0" OF PROPOSED PILE LOCATION.
4. PLACE LONGITUDINAL REINFORCEMENT OUTSIDE OF TRANSVERSE REINFORCEMENT, UNO.



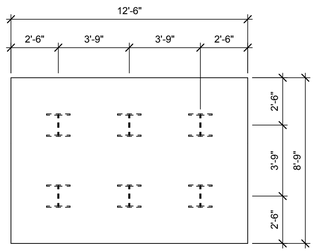
10 PC-22
1/4" = 1'-0"



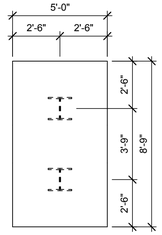
9 PC-10
1/4" = 1'-0"



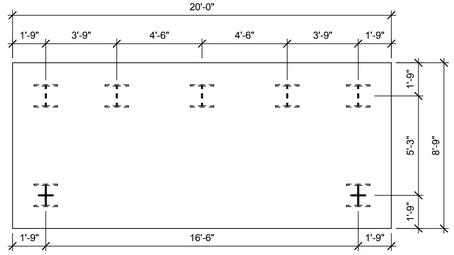
6 PC-6C
1/4" = 1'-0"



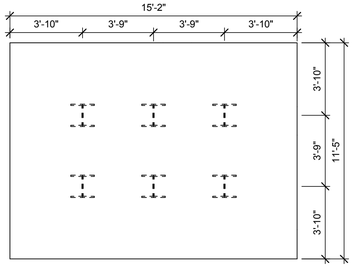
4 PC-6A
1/4" = 1'-0"



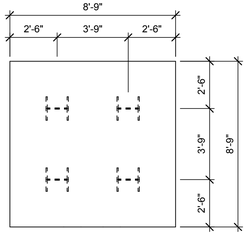
2 PC-2
1/4" = 1'-0"



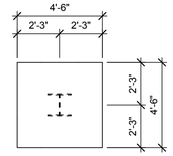
7 PC-7
1/4" = 1'-0"



5 PC-6B
1/4" = 1'-0"



3 PC-4
1/4" = 1'-0"



1 PC-1
1/4" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
PILE CAP SCHEDULE & DETAILS

S-610

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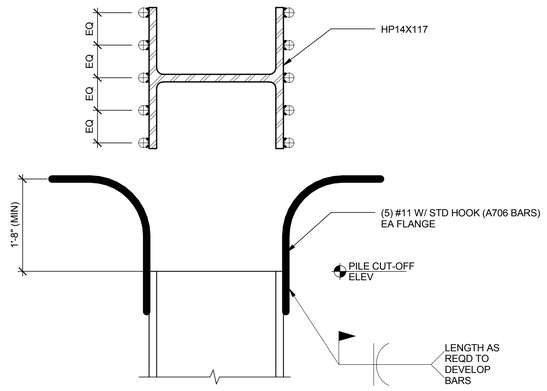
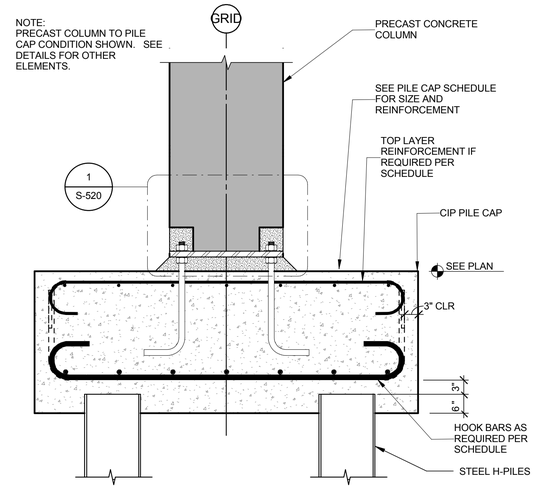


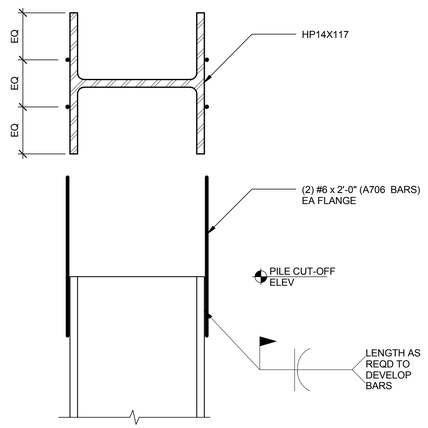
4 FIXED HEAD LATERAL PILE DETAIL

1 1/2" = 1'-0"



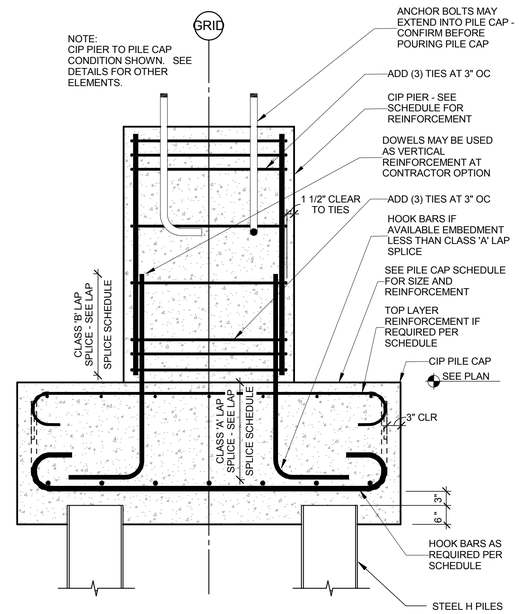
2 PILE CAP / PRECAST COLUMN DETAIL

3/4" = 1'-0"



3 TENSION PILE DETAIL

1 1/2" = 1'-0"



1 PILE CAP / CIP PIER DETAIL

3/4" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	ISSUE: DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
PILE CAP DETAILS

S-611

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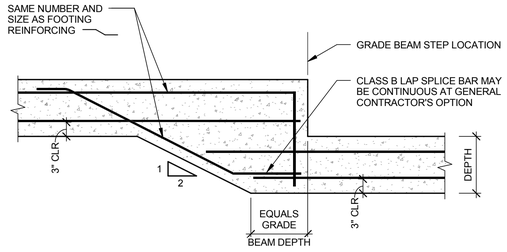
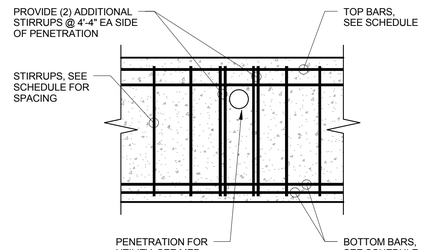
GRADE BEAM SCHEDULE

MARK	SIZE (INCHES) W	D	LONGITUDINAL REINFORCEMENT TOP TOP LAYER	2ND LAYER	CUTOFF	BOTTOM BOTTOM LAYER	2ND LAYER	CUTOFF	SIDE REINFORCEMENT	STIRRUPS - #4 U.N., SPACING EA. END	REMARKS
GB-1	24"	42"	(6) #8	-	L/3	(6) #10		L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	
GB-2	18"	42"	(4) #8	-	L/3	(4) #8		L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	
GB-3	24"	48"	(5) #10	(5)#10	L/3	(5) #10	(5)#10	L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	
GB-4	18"	54"	(4) #10	-	L/3	(4) #10	(4) #10	L/3	(4) #5 EA SIDE	3 @ 2", 12 @ 6", REMAINDER @ 12"	
GB-5	18"	48"	(4) #10	(4) #10	L/3	(4) #10	-	L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	SPACE ALL STIRRUPS AT 3" OR CLOSER OC SOUTH OF LINE A
GB-6	18"	42"	(4) #9		L/3	(4) #9		L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	
GB-7	28"	48"	(5) #10	-	L/3	(5) #10	-	L/3	(3) #5 EA SIDE	3 @ 2", 4" @ 4", 6 @ 6", REMAINDER @ 12"	
GB-8	23"	54"	(4) #10	-	L/3	(4) #10	(4) #10	L/3	(4) #5 EA SIDE	3 @ 2", 12 @ 6", REMAINDER @ 12"	
GB-10	36"	66"	(5) #10	(5)#10	L/3	(5) #10	(2)#10	L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	
GB-11	96"	66"	(12) #7	(12)#7	L/3	(12) #11	(5)#7	L/3	(3) #5 EA SIDE	3 @ 2", REMAINDER @ 6"	STIRRUP SPACING ASSUMES 8 OR MORE STIRRUP LEGS
GB-12	18"	36"	(2) #8	(2) #8	L/3	(2) #8	-	L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	SPACE ALL STIRRUPS AT 3" OR CLOSER OC SOUTH OF LINE A
GB-13	28"	42"	(6) #8	-	L/3	(6) #10		L/3	(3) #5 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	
GB-14	24"	48"	(5) #10		L/3	(5) #10		L/3	(3) #7 EA SIDE	3 @ 2", 3 @ 6", REMAINDER @ 12"	

GRADE BEAM NOTES:
1. FOR CONSTRUCTION JOINTS AND FOUNDATION SUPPORTS, PROVIDE CLASS B LAP SPLICES, SEE S-601 FOR REQUIRED LENGTH. PROVIDE 2" x 6" HORIZONTAL KEYWAY AT JOINT. TOP OF GRADE BEAM TO MATCH TOP OF FOUNDATION U.N.O.
2. ALL STIRRUPS SHALL BE CLOSED. PROVIDE 135 DEGREE BENDS MIN. ON THE ENDS OD STIRRUPS.
3. AT PILE CAPS WHERE GRADE BEAM FRAMES INTO ONE SIDE OF THE CAP AND DOSE NOT CONTINUE ON THE OPPOSITE SIDE OF THE CAP, DEVELOP THE BOTTOM GRADE BEAM REINFORCEMENT THROUGH THE CAP AND TERMINATE WITH A STANDARD HOOK.



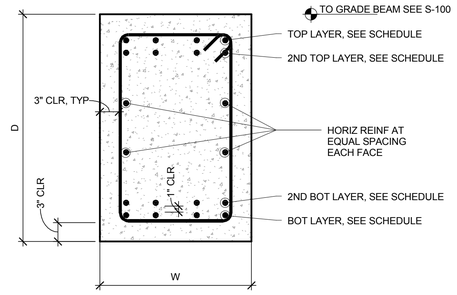
NOTE:
1. GRADE BEAM SHALL STEP A MAX OF 2'-0" VERT IN 4'-0" HORIZ.
2. SEE GRADE BEAM SCHEDULE ON S-620 FOR DEPTH DIMENSION.



NOTES:
1. LOCATE SLEEVES IN CENTER 1/3 OF BEAM.
2. IF PIPE SLEEVES ARE REQUIRED OUTSIDE THE MIDDLE 1/3 OR FOR PENETRATION >6" , NOTIFY ENGINEER IN WRITING FOR VERIFICATION AND COORDINATION WITH GB REINF.
3. ALL PENETRATIONS TO BE 2" LARGER IN DIAMETER THAN UTILITY LINE. PLACE UTILITY AT TOP OF PENETRATION AND FILL SPACE BELOW UTILITY WITH SAND.

4 PIPE PENETRATION DETAIL (FOR PENETRATIONS ≤ 6" Ø)

3/4" = 1'-0"

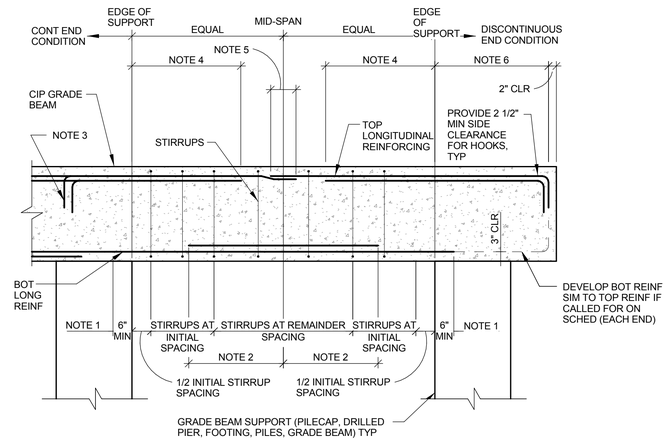


3 TYPICAL GRADE BEAM SECTION

1" = 1'-0"

2 GRADE BEAM STEP DETAIL

3/4" = 1'-0"



NOTES:
1. 25% OF BOTTOM REINFORCEMENT SHALL BE CONTINUOUS.
2. DIMENSION INDICATES BOTTOM LONGITUDINAL REINFORCING CUTOFF LENGTH. SEE SCHEDULE FOR DIMENSIONS AND NUMBER OF BARS DISCONTINUED AT LOCATION.
3. PROVIDE CONTINUOUS TOP REINFORCEMENT OVER SUPPORT WHERE POSSIBLE, OTHERWISE SEE NOTE 6.
4. DIMENSION INDICATES TOP LONGITUDINAL REINFORCING CUTOFF LENGTH. SEE SCHEDULE FOR DIMENSIONS AND NUMBER OF BARS DISCONTINUED AT LOCATION.
5. PROVIDE CONTINUOUS TOP REINFORCING OR PROVIDE LAP SPLICE AT MID-SPAN.
6. DEVELOP TOP REINFORCEMENT INTO SUPPORT PROVIDE 90° HOOK AS NEEDED.
7. BEAM END DOWEL, ⌐ DEV. INTO EACH INTERSECTING GRADE BEAM OR PILE CAP.

1 GRADE BEAM DETAIL

1/2" = 1'-0"

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	ISSUE: DESCRIPTION
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	05/05/2017	DESIGN DEVELOPMENT

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: MRS

SHEET TITLE:
GRADE BEAM DETAILS AND SCHEDULE

S-620

TABLE 1 - TENSION DEVELOPMENT AND LAP SPLICE LENGTHS FOR UNCOATED BARS IN BEAMS AND COLUMNS

BAR SIZE	LAP CLASS	LENGTHS (in) PER CONCRETE STRENGTH (psi)																	
		4000 psi						5000 psi						6000 psi					
		TOP BARS			OTHER BARS			TOP BARS			OTHER BARS			TOP BARS			OTHER BARS		
		CASE 1	CASE 2	CASE 3	CASE 1	CASE 2	CASE 3	CASE 1	CASE 2	CASE 3	CASE 1	CASE 2	CASE 3	CASE 1	CASE 2	CASE 3	CASE 1	CASE 2	CASE 3
#3	A	12	19	28	12	15	22	12	17	25	12	13	19	12	15	23	12	12	18
(#10)	B	16	24	36	16	19	28	16	22	33	16	17	25	16	20	30	16	16	23
#4	A	15	25	37	12	19	29	14	22	33	12	17	26	12	20	31	12	16	24
(#13)	B	20	32	48	16	25	37	18	29	43	16	22	33	16	26	40	16	20	31
#5	A	19	31	47	15	24	36	17	28	42	13	22	32	15	25	38	12	20	29
(#16)	B	24	40	60	19	31	47	22	36	54	17	28	42	20	33	49	16	25	38
#6	A	23	37	56	17	29	43	20	33	50	16	26	38	18	31	46	14	24	35
(#19)	B	29	48	72	23	37	56	26	43	65	20	33	50	24	40	59	18	31	46
#7	A	33	54	81	25	42	63	29	49	73	23	37	56	27	44	66	21	34	51
(#22)	B	43	70	106	33	54	81	38	63	94	29	49	73	35	58	86	27	44	66
#8	A	37	62	93	29	48	71	33	55	83	26	43	64	30	51	76	24	39	58
(#25)	B	49	80	121	37	62	93	43	72	108	33	55	83	40	66	98	31	51	76
#9	A	42	70	105	33	54	81	38	63	94	29	48	72	34	57	86	27	44	66
(#29)	B	55	91	136	42	70	105	49	81	122	38	63	94	45	74	111	34	57	86
#10	A	47	79	118	37	61	91	42	70	105	33	54	81	39	64	96	30	49	74
(#32)	B	62	102	153	47	79	118	55	91	137	42	70	105	50	83	125	39	64	96
#11	A	53	87	131	41	67	101	47	78	117	36	60	90	43	71	107	33	55	82
(#36)	B	68	113	170	53	87	131	61	101	152	47	78	117	56	93	139	43	71	107
#14 (#43) [5]	N/A	63	105	157	49	81	121	56	94	140	43	72	108	51	86	128	40	66	99
#18 (#57) [5]	N/A	84	139	209	65	107	161	75	125	187	58	96	144	68	114	171	53	88	131

BASE ON ACI 318-05, SECTION 12.2 & 12.15

TABLE 2 - TENSION DEVELOPMENT AND LAP SPLICE LENGTHS FOR BARS IN WALLS AND SLABS

BAR SIZE	LAP CLASS	f'c = 4000 psi															
		CONCRETE COVER = 0.75"				CONCRETE COVER = 1.00"				CONCRETE COVER = 1.50"				CONCRETE COVER = 2.00"			
		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	A	12	12	15	13	12	12	15	13	12	12	14	12	12	12	14	12
(#10)	B	16	16	19	17	16	16	19	17	16	16	18	16	16	16	18	16
#4	A	19	15	24	22	15	12	20	17	15	12	18	14	15	12	18	14
(#13)	B	24	19	32	28	20	16	25	22	20	16	23	18	20	16	23	18
#5	A	28	21	36	32	22	17	29	26	19	15	24	22	19	15	22	17
(#16)	B	36	28	47	41	29	22	38	33	24	19	32	28	24	19	29	22
#6	A	37	29	49	43	31	24	40	35	22	17	29	26	22	17	29	26
(#19)	B	48	37	63	56	40	31	52	46	29	22	38	34	29	22	38	34
#7	A	60	46	-	-	50	38	-	-	37	28	-	-	33	25	-	-
(#22)	B	78	60	-	-	64	50	-	-	48	37	-	-	42	33	-	-
#8	A	74	57	-	-	62	48	-	-	47	36	-	-	37	29	-	-
(#25)	B	96	74	-	-	80	62	-	-	60	47	-	-	48	37	-	-
#9	A	90	69	-	-	76	58	-	-	57	44	-	-	46	36	-	-
(#29)	B	117	90	-	-	98	76	-	-	74	57	-	-	60	46	-	-
#10	A	108	83	-	-	92	70	-	-	70	54	-	-	57	44	-	-
(#32)	B	140	108	-	-	119	92	-	-	91	70	-	-	74	57	-	-
#11	A	127	98	-	-	108	83	-	-	84	64	-	-	68	53	-	-
(#36)	B	165	127	-	-	141	108	-	-	109	84	-	-	89	68	-	-

BASE ON ACI 318-05, SECTION 12.2 & 12.15

TABLE 3 - TENSION DEVELOPMENT AND LAP SPLICE LENGTHS FOR BARS IN WALLS AND SLABS

BAR SIZE	LAP CLASS	f'c = 5000 psi															
		CONCRETE COVER = 0.75"				CONCRETE COVER = 1.00"				CONCRETE COVER = 1.50"				CONCRETE COVER = 2.00"			
		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	A	12	12	13	12	12	12	13	12	12	12	12	12	12	12	12	12
(#10)	B	16	16	17	16	16	16	17	16	16	16	16	16	16	16	16	16
#4	A	17	13	22	20	14	12	18	16	14	12	16	13	14	12	16	13
(#13)	B	22	17	29	25	18	16	23	20	18	16	21	16	18	16	21	16
#5	A	25	19	32	28	20	16	26	23	17	13	22	19	17	13	20	16
(#16)	B	32	25	42	37	26	20	34	30	22	17	29	25	22	17	26	20
#6	A	33	26	44	39	27	21	36	32	20	16	26	23	20	16	26	23
(#19)	B	43	33	57	50	36	27	46	41	26	20	34	30	26	20	34	30
#7	A	54	41	-	-	44	34	-	-	33	26	-	-	29	23	-	-
(#22)	B	70	54	-	-	58	44	-	-	43	33	-	-	38	29	-	-
#8	A	67	51	-	-	56	43	-	-	42	32	-	-	33	26	-	-
(#25)	B	86	67	-	-	72	56	-	-	54	42	-	-	43	33	-	-
#9	A	81	62	-	-	68	52	-	-	51	40	-	-	41	32	-	-
(#29)	B	105	81	-	-	88	68	-	-	67	51	-	-	54	41	-	-
#10	A	97	75	-	-	82	63	-	-	63	48	-	-	51	39	-	-
(#32)	B	126	97	-	-	106	82	-	-	82	63	-	-	66	51	-	-
#11	A	113	87	-	-	97	75	-	-	75	58	-	-	61	47	-	-
(#36)	B	147	113	-	-	126	97	-	-	97	75	-	-	79	61	-	-

BASE ON ACI 318-05, SECTION 12.2 & 12.15

TABLE 4 - TENSION DEVELOPMENT AND LAP SPLICE LENGTHS FOR BARS IN WALLS AND SLABS

BAR SIZE	LAP CLASS	f'c = 6000 psi															
		CONCRETE COVER = 0.75"				CONCRETE COVER = 1.00"				CONCRETE COVER = 1.50"				CONCRETE COVER = 2.00"			
		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]		UNCOATED		EPOXY-COATED [10]	
		TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#3	A	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
(#10)	B	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
#4	A	16	12	20	18	12	12	16	14	12	12	15	12	12	12	15	12
(#13)	B	20	16	26	23	16	16	21	18	16	16	19	16	16	16	19	16
#5	A	23	17	29	26	18	14	24	21	16	12	20	18	16	12	18	14
(#16)	B	29	23	38	34	24	18	31	27	20	16	26	23	20	16	24	28
#6	A	31	24	40	35	25	19	33	29	18	14	24	21	18	14	24	21
(#19)	B	40	31	52	46	33	25	42	37	24	18	31	28	24	18	31	28
#7	A	49	38	-	-	41	31	-	-	30	23	-	-	27	21	-	-
(#22)	B	64	49	-	-	53	41	-	-	39	30	-	-	35	27	-	-
#8	A	61	47	-	-	51	39	-	-	38	29	-	-	31	24	-	-
(#25)	B	79	61	-	-	66	51	-	-	49	38	-	-	40	31	-	-
#9	A	74	57	-	-	62	48	-	-	47	36	-	-	38	29	-	-
(#29)	B	95	74	-	-	80	62	-	-	61	47	-	-	49	38	-	-
#10	A	88	68	-	-	75	58	-	-	57	44	-	-	47	36	-	-
(#32)	B	115	88	-	-	97	75	-	-	75	57	-	-	60	47	-	-
#11	A	104	80	-	-	88	68	-	-	68	53	-	-	56	43	-	-
(#36)	B	135	104	-	-	115	88	-	-	89	68	-	-	73	56	-	-

BASE ON ACI 318-05, SECTION 12.2 & 12.15

SHEET NOTES

1. REINFORCING BARS CONFORMING TO ASTM A615 OR A706 AND NORMAL WEIGHT CONCRETE.
2. TABULATED VALUES FOR BEAMS AND COLUMNS ARE BASED ON TRANSVERSE REINFORCEMENT MEETING MINIMUM CODE REQUIREMENTS.
3. CASES 1, 2, AND 3 ARE DEFINED AS FOLLOWS:
   A. CASE 1: COVER AT LEAST 2.0d/b AND C-C SPACING AT LEAST 5.0d/b
   B. CASE 2: COVER AT LEAST 1.0d/b AND C-C SPACING AT LEAST 3.0d/b
   C. CASE 3: COVER LESS THAN 1.0d/b AND/OR C-C SPACING LESS THAN 3.0d/b BUT 2.0d/b MIN
4. LAP SPLICE LENGTHS ARE MULTIPLES OF TENSION DEVELOPMENT LENGTHS; CLASS A = 1.0 l/d AND CLASS B = 1.3 l/d
5. LAP SPLICES OF #14 AND #18 BARS ARE NOT ALLOWED. TABULATED VALUES ARE TENSION DEVELOPMENT LENGTHS.
6. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW.
7. FOR LIGHTWEIGHT AGGREGATE CONCRETE MULTIPLY TABULATED VALUES BY 1.3.
8. WHEN LAPPING A SMALLER BAR WITH A LARGER DIAMETER BAR USE THE LAP LENGTH FOR THE SMALLER DIAMETER BAR OR TENSION DEVELOPMENT LENGTH OF LARGER BAR, WHICHEVER IS GREATER.
9. ( ) INDICATES METRIC BAR SIZE (mm).
10. EPOXY COATING OF BARS LARGER THAN #6 IS NOT ALLOWED.
11. TABULATED VALUES APPLY ONLY TO INDIVIDUAL BARS IN COLUMNS AND NOT TO BUNDLED BARS. BUNDLED BARS ARE GROUPS OF PARALLEL REINFORCING BARS, NO MORE THAN FOUR, BUNDLED IN CONTACT TO ACT AS A UNIT. LAP SPLICES ARE NOT ALLOWED FOR BUNDLED BARS AND MECHANICAL SPLICES MUST BE USED. SEE COLUMN SCHEDULE SHEET FOR ADDITIONAL REQUIREMENTS.
12. TABULATED VALUES DO NOT APPLY FOR USE IN HIGH SEISMIC SPECIAL MOMENT FRAMES AND SHEAR WALLS. SEE SPECIAL MOMENT FRAME AND / OR SHEAR WALL DETAILS FOR DEVELOPMENT LENGTH AND SPLICE REQUIREMENTS.

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PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE
PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

ISSUE: DESCRIPTION	DATE	MARK
CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: Author
CHECKED BY: Checker

SHEET TITLE:
LAP SPLICE SCHEDULE

S-690

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BUILDING CODE INFORMATION	
REFERENCES	EDITION
International Building Code w/ City of Portsmouth Amendments	2009
International Fire Code w/ City of Portsmouth Amendments	2009
International Plumbing Code w/ City of Portsmouth Amendments	2009
International Mechanical Code w/ City of Portsmouth Amendments	2009
International Energy Conservation Code (IECC)	2009
National Electric Code (NFPA 70)	2011
Life Safety Code (NFPA 101)	2009
Uniform Fire Code (NFPA 1)	2009
NFPA Standard for Parking Structures (NFPA 88A)	2007
Americans with Disabilities Act Accessibility Guidelines (ADAAG)	2010
NH State Building Code	
NH Architectural Barrier-free Design Code	
NH Energy Code	

APPLICABLE REGULATIONS	
OCCUPANCY CLASSIFICATION - Group S-2 Open Parking Garage With Mixed Use Space At Ground Tier	
Low-Hazard Storage Group S-2	Section 311.3
Open Parking Garage	Section 406.3
Business	Section 304
Mixed Group B or M With S-2 Open Parking Garage Section	Section 509.8

FLOOR AREA CALCULATIONS	
FLOOR LEVEL	GROSS Sq. Ft. (per level)
Ground Tier	32,065 sq. ft.
Second Tier through Fifth Tier	36,165 sq. ft.
Top Tier	27,352 sq. ft.
Total Gross Area	204,077 sq. ft.

CONSTRUCTION CLASSIFICATION	
CONSTRUCTION TYPE	Section 602 & TABLE 601
Type II B Non Combustible	

OPEN PARKING GARAGE - ALLOWABLE AREA AND HEIGHT (TABLE 406.3.5)		
Section	Maximum Allowable Floor Area per Tier	Maximum Allowable Height (tiers)
406.3.5 - Not Sprinklered	50,000 sq. ft.	8

OPEN PARKING GARAGE - ACTUAL AREA AND HEIGHT		
Construction Type	Actual Floor Area per Tier	Actual Height (w/o sprinklers)
II B	36,165 Sq. Ft. (max.)	6 Tiers

PER SECTION 508.2 OF THE NEW HAMPSHIRE BUILDING CODE : FOR ACCESSORY SPACE LESS THAN 10% OF FLOOR AREA, SPRINKLERS AND FIRE SEPARATION ARE NOT REQUIRED.

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS) [TABLE 601]	
BUILDING ELEMENT	REQUIRED (Hours)
Structural Frame (Columns, Girders, Trusses)	0*
Floor Construction and Associated Secondary Members	0*
Bearing Walls - Exterior	0*
Bearing Walls - Interior	0
Non-Bearing Walls - Exterior	Based on the separation distance (See Below)
Interior Exits Stairway Enclosure at enclosed garage connecting less than four stories. (Section 1023.3)	0
Shaft Enclosures connecting 4 stories or more (Section 708.4)	0
Structural members supporting shaft construction (Section 707.5.1) must provide rating equal to that of the shaft rating.	0
Roof Construction and Associated Secondary Members (Excluding top tier floor construction and Associated Secondary Members)	0

* WALLS, COLUMNS AND ROOF OF FLEX SPACE ADJACENT TO PARKING GARAGE ARE TWO HOUR FIRE RATED FOR SEPARATION

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (HOURS (TABLE 602)	
Fire Separation Distance (Feet)	Fire Resistance Rating (Hours)
< 5	1
> or = 5 < 10	1
> or = 10 < 30	0
> or = 30	0

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT (TABLE 1004.1.1)	
FUNCTION OF SPACE	FLOOR AREA (Sq. ft.) PER OCCUPANT
Parking Garage	200 Gross
Business	100 Gross

MAX FLOOR AREA ALLOWANCES		
TIER	AREA / OCCUPANT	MAX. OCCUPANTS
GROUND (PARKING)	26,555 / 200 sq. ft./Persons	133
GROUND (BUSINESS)	5,510 / 100 sq. ft./Persons	56
SECOND	36,165 / 200 sq. ft./Persons	181
THIRD	36,165 / 200 sq. ft./Persons	181
FOURTH	36,165 / 200 sq. ft./Persons	181
FIFTH	36,165 / 200 sq. ft./Persons	181
TOP	27,352 / 200 sq. ft./Persons	137

EGRESS WIDTH PER OCCUPANT SERVED (SECTION 1005.1)		
OCCUPANCY	STAIRWAYS Width Per Occupant (Inches)	DOORS Width Per Occupant (Inches)
(S-2) OPEN GARAGE w/o SPRINKLER SYSTEM	0.3	0.2

EGRESS STAIR/CORRIDOR OPENING WIDTH: 181 occupants x 0.3" (width per occupant) = 54.3" / 2 STAIRS = 28" PER STAIR
EGRESS DOOR WIDTH: 181 occupants x 0.2" (width per occupant) = 36.2" / 2 STAIRS = 18.1" PER DOOR.

MINIMUM REQUIRED CLEAR OPENING WIDTH = 32" SECTION 1008.1.1
MINIMUM REQUIRED STAIR WIDTH = 44" SECTION 1009.1
MINIMUM REQUIRED ACCESSIBLE STAIR WIDTH = 48" BTW. HANDRAILS SECTION 1007.3

AREA OF REFUGE
AREA OF REFUGE NOT REQUIRED. SECTION 1007.3

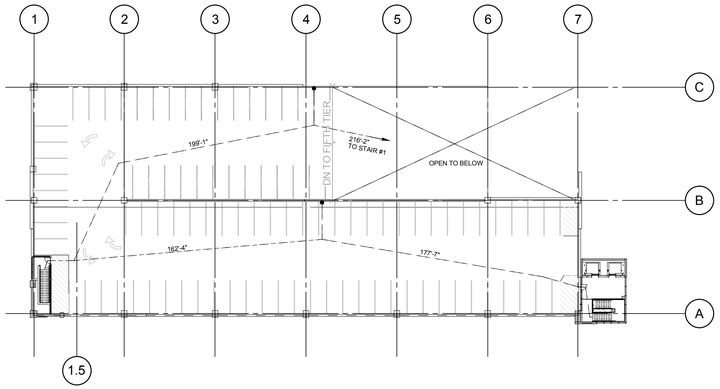
MAXIMUM EXIT ACCESS TRAVEL DISTANCE (TABLE 1016.1)	
OCCUPANCY	W/O SPRINKLER SYSTEM
Open Parking Structure	300'

MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD (TABLE 1021.1)	
OCCUPANT LOAD PER TIER	MIN. NUMBER OF EXITS (REQUIRED)
1-500	2

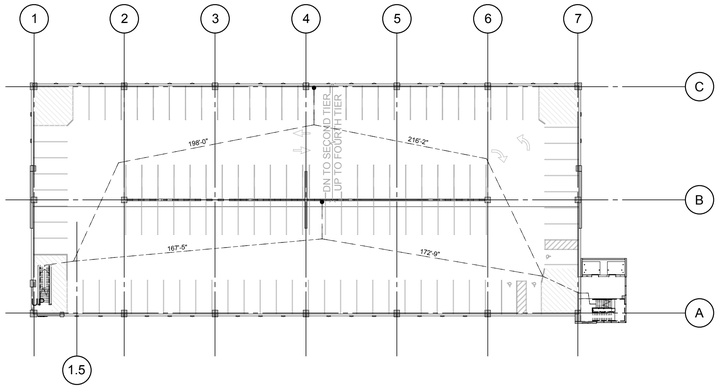
OPENNESS REQUIREMENTS SECTION 406.3.3.1

Exterior Wall Opening Requirements:
1. Provide uniformly distributed openings to the exterior walls on two sides or more.
2. The area openings in the exterior walls on each level shall be a minimum of 20 percent of the total perimeter wall area of each tier.
3. The aggregate length of the openings in the exterior wall shall be minimum of 40 percent of the total perimeter length each tier.

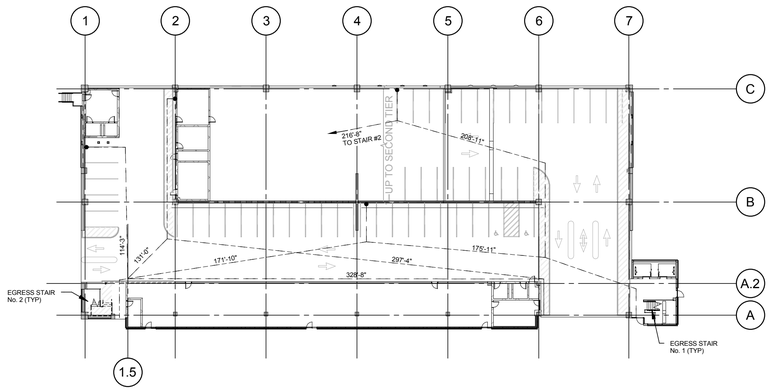
GARAGE OPENNESS SUMMARY	
Tier	Openness
GROUND	
Percent of Perimeter Length:	Perimeter Length = 825'-2"
	Open Perimeter = 349'-2"
	Percentage of Length Open = 42.3% > 40% OK
Percent of Perimeter Area:	Perimeter Area = 9,257 sq. ft.
	Openings = 1,999 sq. ft.
	Percent of openings = 21.5% > 20% O.K.
SECOND, THIRD, FOURTH	
Percent of Perimeter Length:	Perimeter Length = 825'-2"
	Open Perimeter = 560'-4"
	Percentage of Length Open = 67.9% > 40% O.K.
Percent of Perimeter Area:	Perimeter Area = 9,390 sq. ft.
	Openings = 2,458 sq. ft.
	Percent of Openings = 26.2% > 20% O.K.
FIFTH	
Percent of Perimeter Length:	Perimeter Length = 825'-2"
	Open Perimeter = 645'-7"
	Percent of Length Open = 78.2% > 40% O.K.
Percent of Perimeter Area:	Perimeter Area= 9,390 sq. ft.
	Openings = 3,776 sq. ft.
	Percent of Openings = 40.2% > 20% O.K.
TOP	
All Sides of Garage Open	100% OPEN PROVIDED



3 TOP TIER PLAN
1" = 40'-0"



2 TYPICAL TIER PLAN
1" = 40'-0"



1 GROUND TIER PLAN
1" = 40'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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	DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
CODE ANALYSIS AND LIFE SAFETY PLANS

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ARCHITECTURAL NOTES

I. CONCRETE

A. General
1. Provide 3/4 inch chamfer on all exposed corners of concrete unless indicated otherwise. Top edges of walls may be tooled.
2. Provide control/construction joints as shown on Structural Drawings.

B. Precast Concrete

1. Provide all openings, reveals, drips, blockouts, inserts, etc., cast into precast according to Architectural, Structural, Mechanical, Fire Protection and Electrical Drawings. Coordinate exact sizes and locations with respective Contractor.

2. At all horizontal and vertical joints between precast elements or cast in place walls and CMU wall construction; provide sealant and backer rod, both sides, as required. Provide approved fire safing assembly at all fire rated partitions as required.

3. At all grouted horizontal joints between precast elements, hold grout back 1/2" and cover with sealant.

II. PAVEMENT MARKING

A. Provide pavement marking as shown on drawings. Dimensional information is provided on striping details.

B. Pavement Marking Contractor to provide quantity and location of parking spaces indicated on drawings. Any discrepancy to be brought to attention of Architect, in writing, prior to installation of pavement marking.

C. Pavement Marking installation to be a 2 coat system if paint products are used - no exceptions.

D. All parking spaces at First tier thru Sixth/Top tier are to receive a unique number painted on the floors to coordinate with the pay-by-space access and revenue control system.

III. GENERAL

A. Color of all sealants, storefront and curtain wall framing, tinted glass, metal roofing and flashing and paint products shall be selected by Architect from manufacturers full range of colors.

B. All guardrail and handrail systems are to be Primergalv and field painted.

C. All loose lintels and relieving angles, shall be Hot Dipped Galvanized.

D. Hatching shown on isometric does not indicate areas requiring traffic topping. See Architectural and Structural drawings for areas requiring traffic topping.

E. For Structural General Notes see Sheet S-001

F. For standpipe locations see Fire Protection drawings.

G. For cold water riser locations see Mechanical drawings.

H. For curb/roadway and grading information see Civil drawings.

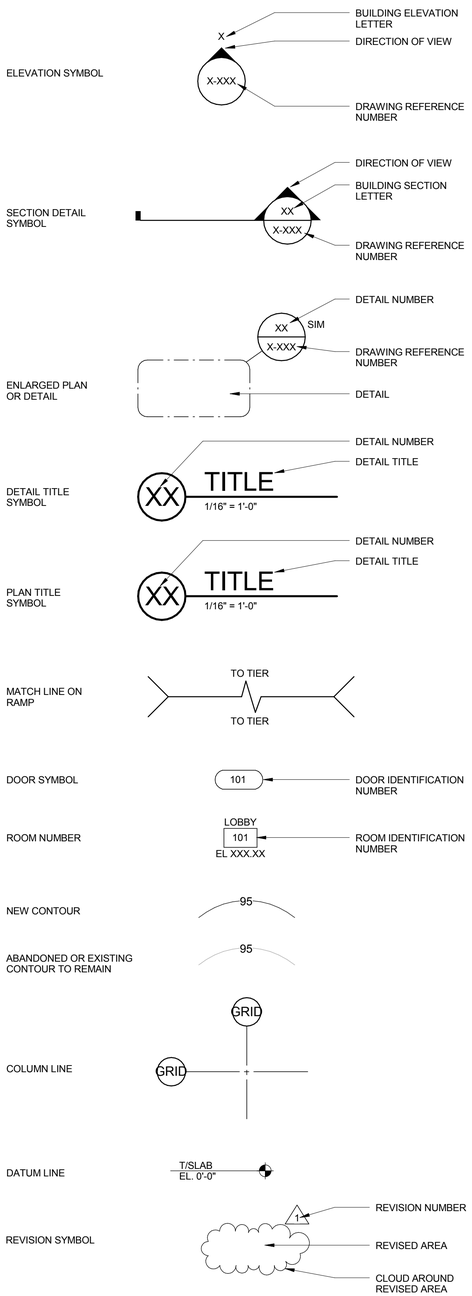
I. All penetrations through fire rated concrete and masonry wall construction shall be fire stopped in accordance with Underwriters Laboratories firestop systems W-*J and W-*K using U.L. identification system.

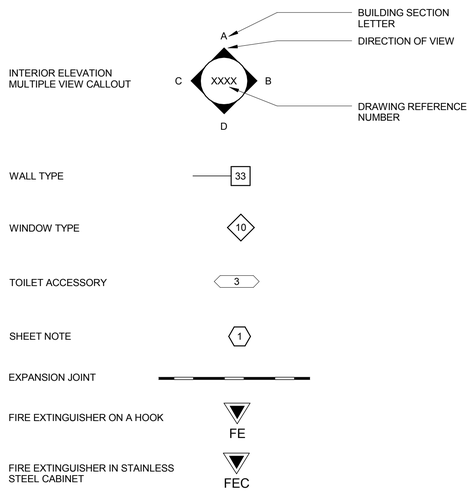
1. W-*J-1000 series-1999 (for walls 8" or less in thickness).
2. W-*K-1000 Series-1999 (for walls greater than 8" in thickness).

ARCHITECTURAL GENERAL NOTES

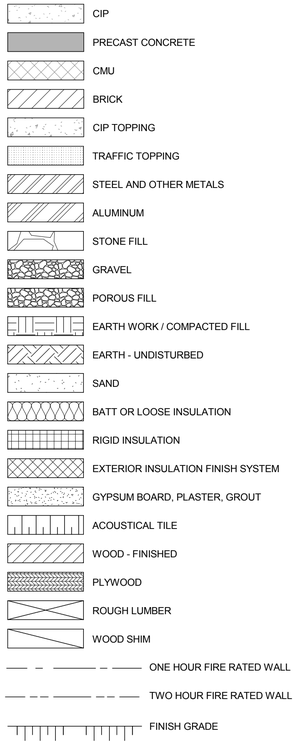
1. Do not scale dimensions from drawings. Contractor shall request in writing, from the Architect, necessary dimensions not shown on drawings.
2. General contractor shall field verify all conditions and dimensions prior to the work and shall notify the Architect/Engineer of any conflicts or discrepancies for resolution prior to causing cost or schedule impact.
3. Layout all work prior to construction.
4. The general contractor shall give the Architect/Engineer timely notice of any additional drawings, specifications, or instructions required to define the work in greater detail, or to permit the proper progresses of the work. The general contractor shall not proceed with any work not clearly and consistently defined in detail in the contract documents.
5. All dimensions are to finished face of partition, column center line, face of masonry; center line of steel; or column line unless noted otherwise.
6. Verify rough-in dimensions for all equipment provided by this contractor, or by others so noted to be installed by contractor under this contract.
7. Verify size and locations, and provide: required openings through floors and walls, access doors, furring, curbs, anchors and inserts. Provide all bases and blocking required for accessories, Mechanical, Electrical and other equipment.
8. These notes are not intended to replace specifications-refer to specifications for requirements in addition to general notes.
9. All indications or notes which apply to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes wherever they occur in the work, except where a contrary result is clearly indicated by the contract documents. The words typical and similar ("TYP" and "SIM" respectively) are sometimes, but not always, used in such circumstances.
10. Construction shall comply with all federal, state, and local code, ordinances, rules, and regulations pertaining to labor and materials.
11. The general contractor to notify appropriate state and local utilities prior to beginning any work, and the building owner.
12. Contractor shall be responsible for adequately bracing and protecting all work during construction against damage, breakage, collapse, distortions, and off alignment according to applicable codes, standards, and good practice.
13. The general contractor shall design and install adequate shoring and bracing for all Structural or removal tasks.
14. The contractor shall compare Structural sections with Architectural sections and report any discrepancy to Architect and Engineer prior to fabrication or installation of Structural members.
15. See Structural drawings for floor elevations, floor slopes, locations of depressed slab areas, and for areas of raised curb/sidewalk.
16. Refer to Structural, Electrical, Mechanical, Fire protection, Plumbing, Tel-data, Civil, and Landscape and other drawings for additional notes.

SYMBOLS & CALLOUTS





MATERIAL DESIGNATION



ABBREVIATION

ABBREVIATIONS - ARCHITECTURAL GRAPHICS

ABBRV	TERM
ACP	ACOUSTICAL CEILING PANEL
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
BLW	BELOW
CLG	CEILING
CLG HT	CEILING HEIGHT
CLL	CONTRACT LIMIT LINE
COL	COLUMN
CONC	CONCRETE
CONC FLR	CONCRETE FLOOR
CONC OPNG	CONCRETE OPENING
ECB	EMERGENCY CALL BOX
EE	EACH END
EF	EACH FACE
EF	EXTERIOR FINISH
EQ	EQUAL
EQL SP	EQUALLY SPACED
EXIST	EXISTING
EXT	EXTERIOR
F1S	FINISHED ONE SIDE
F2S	FINISH TWO SIDES
F/F	FACE TO FACE
FE	FIRE EXTINGUISHER
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FIN BS	FINISH BOTH SIDES
FOC	FACE OF CONCRETE
FOC	FACE OF CURB
HCP	HANDICAPPED
HORIZ	HORIZONTAL
HT	HEIGHT
IBC	INTERNATIONAL BUILDING CODE
INSTL	INSTALL
INT	INTERIOR
JAN CLO	JANITOR CLOSET
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
NA	NOT APPLICABLE
NTS	NOT TO SCALE
O/O	OUT TO OUT
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OD	OUTSIDE DIMENSION
OF	OUTSIDE FACE
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/OWNER INSTALLED
P	POLE
PAR	PARALLEL
PERP	PERPENDICULAR
PT	PAINT
REM	REMOVABLE
SIG	SIGNAL
SIM	SIMILAR
T&B	TOP AND BOTTOM
TB	THROUGH BOLT
TE	TOP ELEVATION
TEMP	TEMPORARY
THK	THICKNESS
THRU	THROUGH
TOL	TOLERANCE
UN	UNLESS NOTED
W/	WITH
W/O	WITHOUT
WH	WALL HUNG
WO	WHERE OCCURS
Z	MODULUS OF SECTION

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20 Park Plaza, Suite 1202
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617.350.5040 Ph
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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
GENERAL NOTES, SYMBOLS AND LEGENDS

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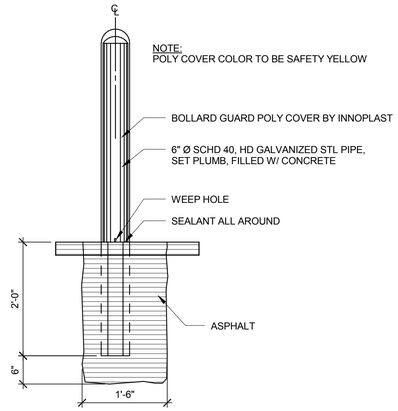


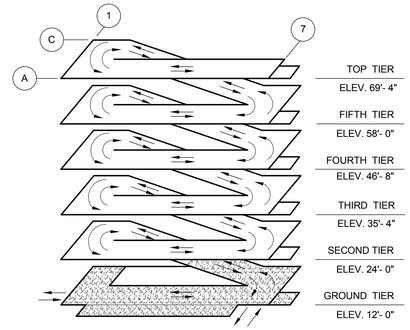
3 PIPE BOLLARD DETAIL

3/4" = 1'-0"

CAR COUNT

8'-6" 90° STANDARD SPACE

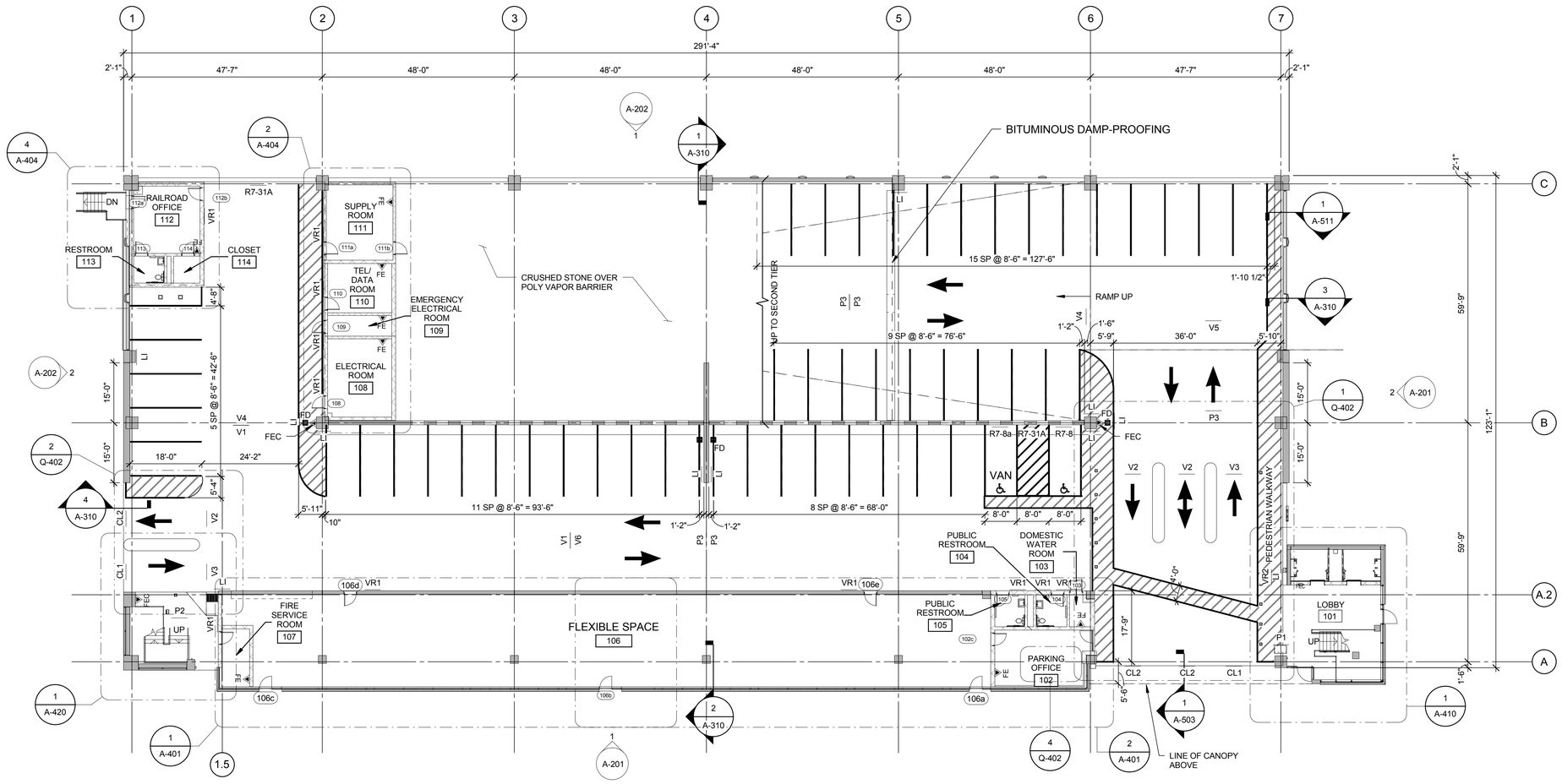
TIER	STANDARD	CAR ACCESSIBLE	VAN ACCESSIBLE	TOTAL
GROUND TIER	48	1	1	50
SECOND TIER	114	2	2	118
THIRD TIER	115	3	0	118
FOURTH TIER	117	2	0	119
FIFTH TIER	115	2	0	117
TOP TIER	94	0	0	94
GRAND TOTAL	603	10	3	616



ISOMETRIC

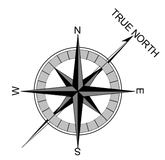
GENERAL SHEET NOTES

1. FOR TYPICAL STRIPING DETAILS AND FLOOR ARROWS SEE SHEET A-102 AND A-103.
2. ALL DIMENSIONS FOR STRIPING ARE FROM FACE OF COLUMN OR INSIDE FACE OF WALL UNO.
3. 4" WIDE YELLOW PAVEMENT MARKING STRIPE.
4. 4" WIDE YELLOW DIAGONAL PAVEMENT MARKING STRIPE.
5. FOR ENLARGED STAIR / ELEVATOR PLANS & ELEVATIONS SEE "S-400 & A-400" SERIES DRAWINGS.
6. FOR BUILDING ELEVATIONS SEE "A-200" SERIES DRAWINGS.
7. HATCHING AT ISOMETRIC DOES NOT INDICATE AREA REQUIRING TRAFFIC TOPPING.
8. SEE CIVIL DRAWINGS FOR SITE INFORMATION & BUILDING LOCATION.
9. FOR FLOOR ELEVATIONS SEE "S-100" SERIES DRAWINGS.
10. SEE MEP DRAWINGS FOR DRAINAGE LAYOUT, FIRE STANDPIPE SYSTEM & MECHANICAL SYSTEMS.
11. SEE GRAPHICS SHEETS FOR SIGN DETAILS AND SIGN MOUNTING DETAILS.
12. FOR WASH LOCATIONS SEE "S-100" SERIES DRAWINGS.



1 GROUND TIER PLAN

1/16" = 1'-0"



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PORTSMOUTH, NEW HAMPSHIRE

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	04/14/2017	SITE ENABLING BID SET

ISSUE:

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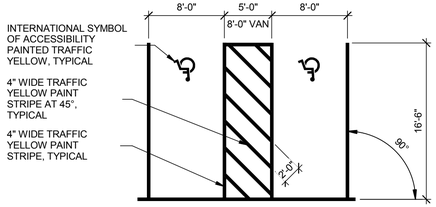
SHEET TITLE:

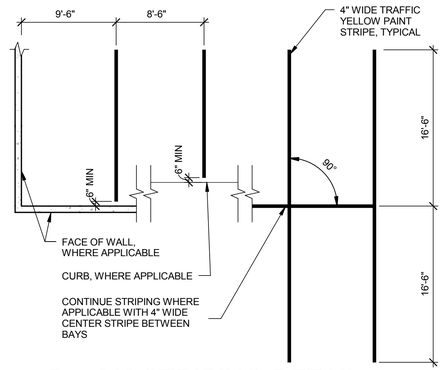
GROUND TIER PLAN

A-101



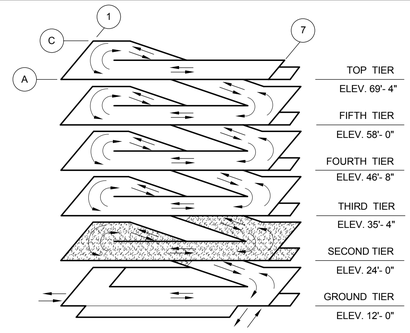
3 90° STRIPING DETAIL

1/8" = 1'-0"



2 90° STRIPING DETAIL

1/8" = 1'-0"



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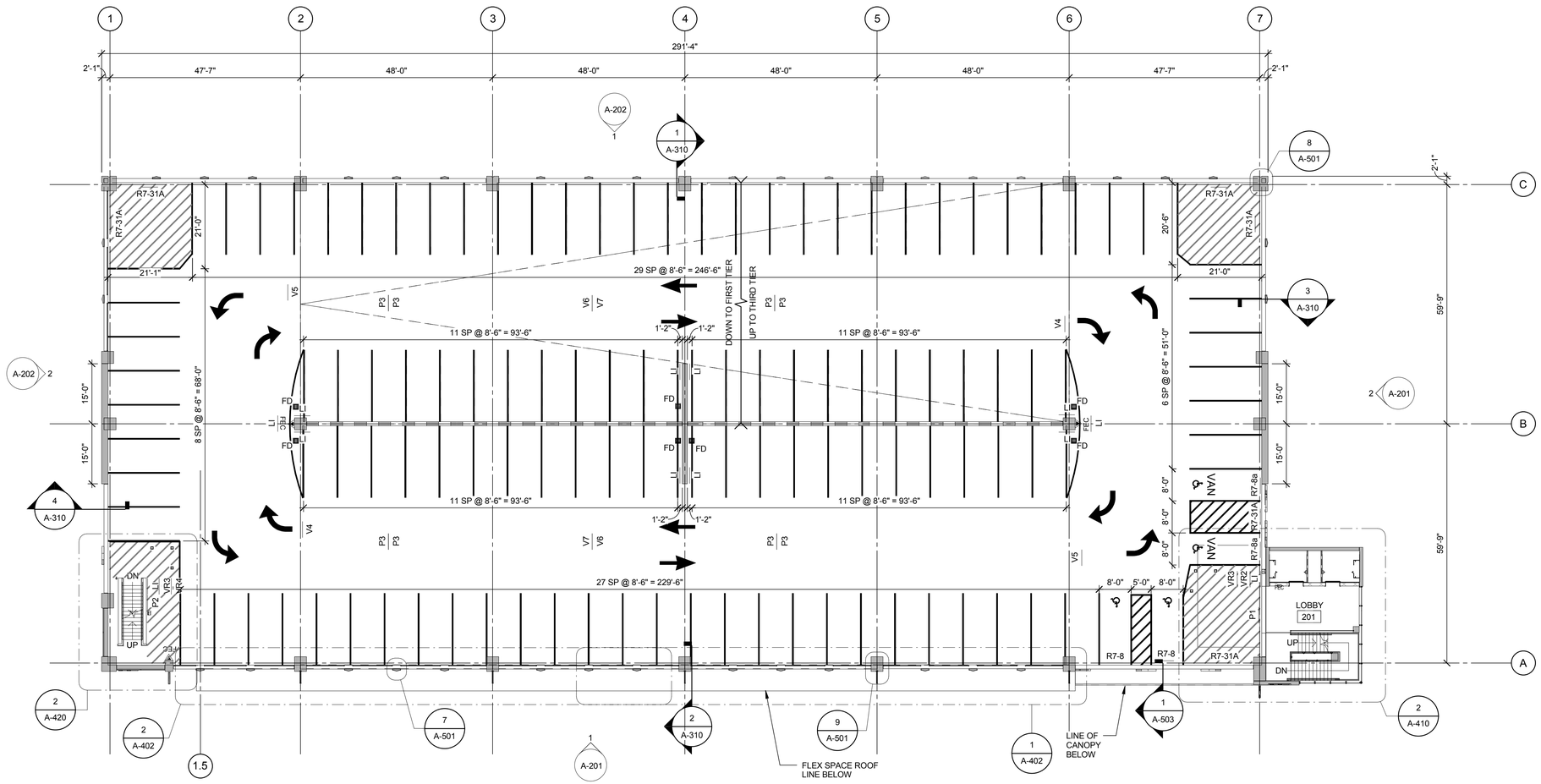
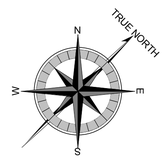


1 SECOND TIER PLAN

1/16" = 1'-0"



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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	05/05/2017	DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: SMM

SHEET TITLE:
SECOND TIER PLAN

A-102

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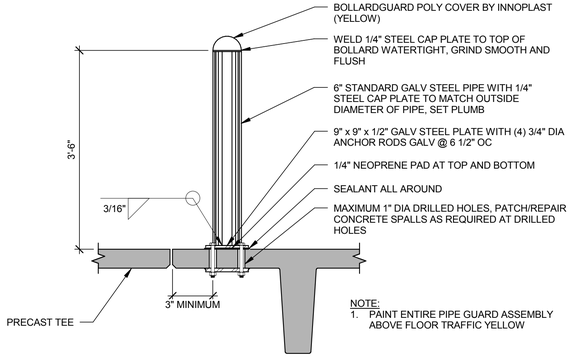
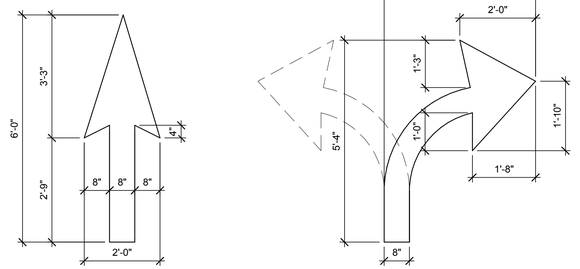


3 PIPE BOLLARD DETAIL

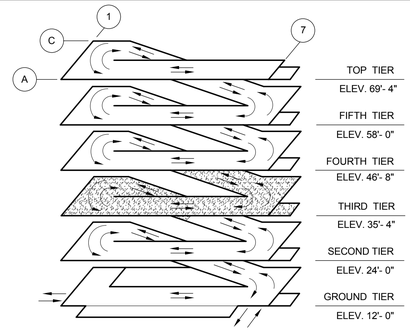
3/4" = 1'-0"



1. NOTE: PAINT ARROWS SOLID TRAFFIC YELLOW, UNLESS NOTED OTHERWISE.

2 TYPICAL ARROW DETAIL

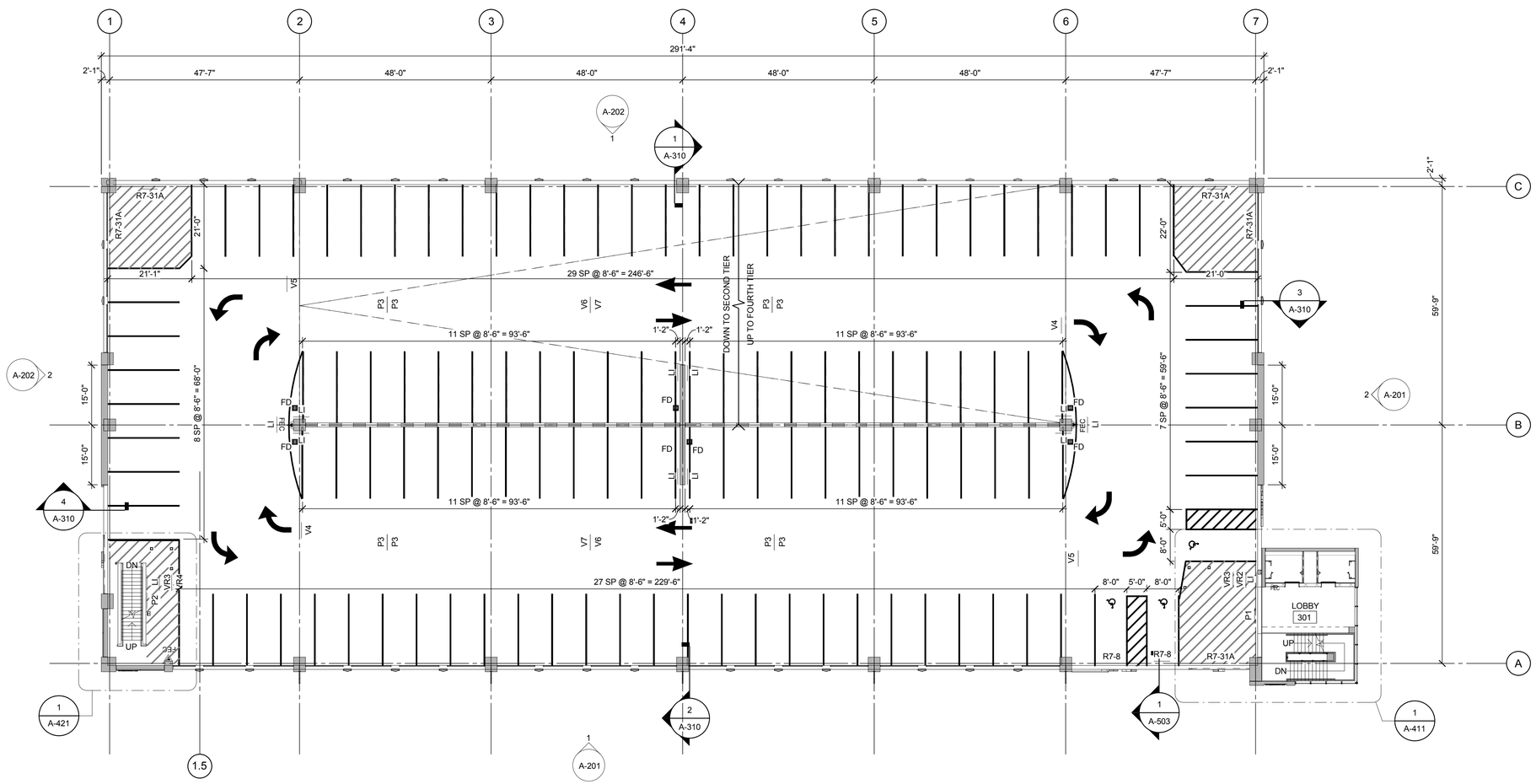
1/2" = 1'-0"



ISOMETRIC

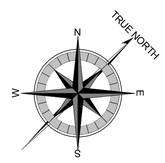
GENERAL SHEET NOTES

1. FOR TYPICAL STRIPING DETAILS AND FLOOR ARROWS SEE SHEET A-102 AND A-103.
2. ALL DIMENSIONS FOR STRIPING ARE FROM FACE OF COLUMN OR INSIDE FACE OF WALL UNO.
3. 4" WIDE YELLOW PAVEMENT MARKING STRIPE.
4. 4" WIDE YELLOW DIAGONAL PAVEMENT MARKING STRIPE.
5. FOR ENLARGED STAIR / ELEVATOR PLANS & ELEVATIONS SEE "S-400 & A-400" SERIES DRAWINGS.
6. FOR BUILDING ELEVATIONS SEE "A-200" SERIES DRAWINGS.
7. HATCHING AT ISOMETRIC DOES NOT INDICATE AREA REQUIRING TRAFFIC TOPPING.
8. SEE CIVIL DRAWINGS FOR SITE INFORMATION & BUILDING LOCATION.
9. FOR FLOOR ELEVATIONS SEE "S-100" SERIES DRAWINGS.
10. SEE MEP DRAWINGS FOR DRAINAGE LAYOUT, FIRE STANDPIPE SYSTEM & MECHANICAL SYSTEMS.
11. SEE GRAPHICS SHEETS FOR SIGN DETAILS AND SIGN MOUNTING DETAILS.
12. FOR WASH LOCATIONS SEE "S-100" SERIES DRAWINGS.



1 THIRD TIER PLAN

1/16" = 1'-0"



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FOUNDRY PLACE
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PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO: 16-2683.01

DRAWN BY: LEL

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SHEET TITLE:
THIRD TIER PLAN

A-103

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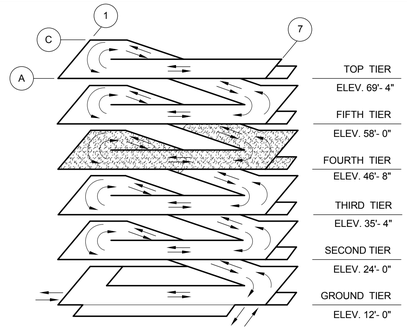
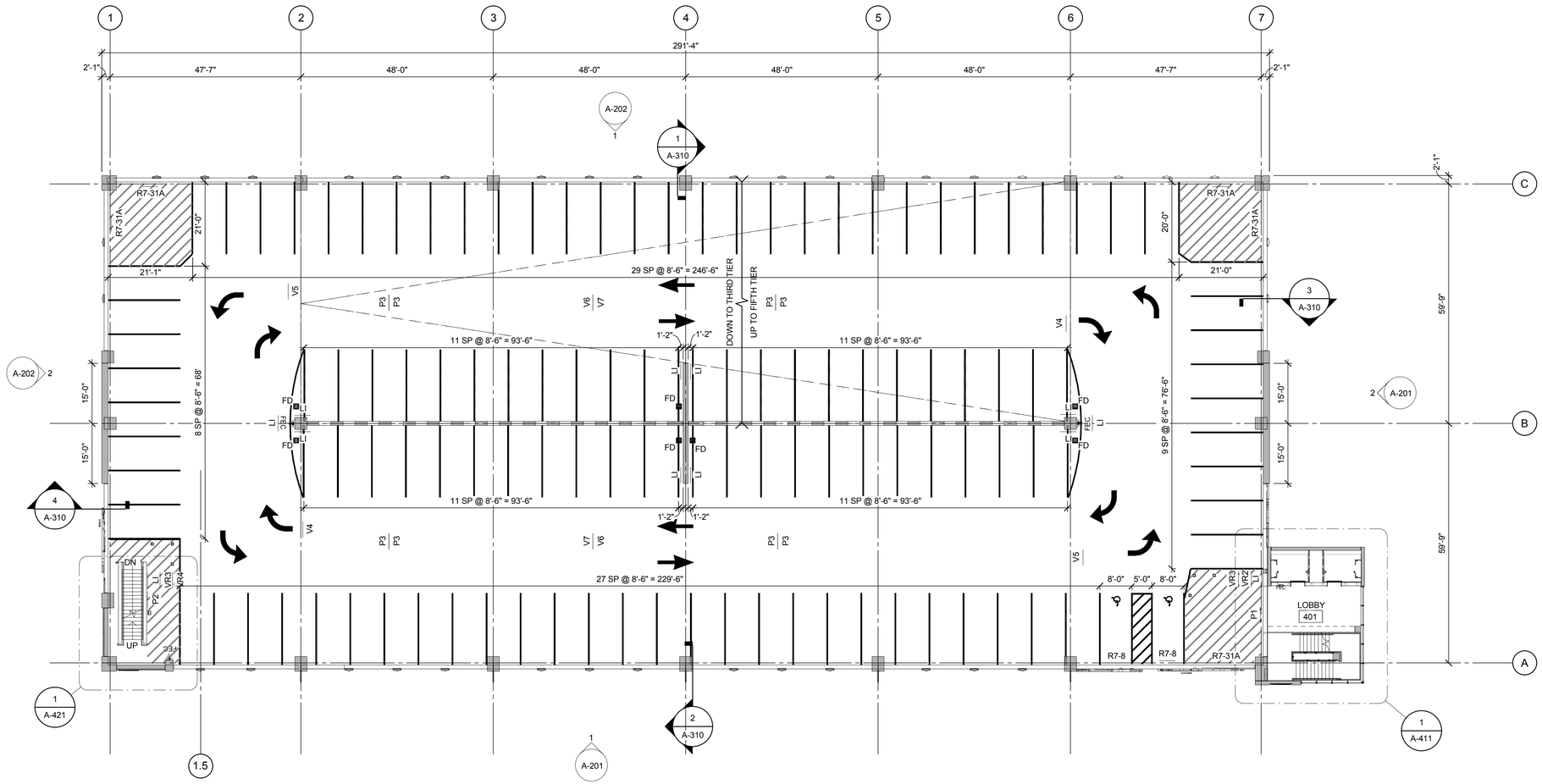


ISOMETRIC

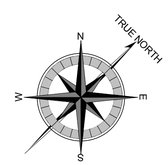
GENERAL SHEET NOTES

1. FOR TYPICAL STRIPING DETAILS AND FLOOR ARROWS SEE SHEET A-102 AND A-103.
2. ALL DIMENSIONS FOR STRIPING ARE FROM FACE OF COLUMN OR INSIDE FACE OF WALL UNO.
3. 4" WIDE YELLOW PAVEMENT MARKING STRIPE.
4. 4" WIDE YELLOW DIAGONAL PAVEMENT MARKING STRIPE.
5. FOR ENLARGED STAIR / ELEVATOR PLANS & ELEVATIONS SEE "S-400 & A-400" SERIES DRAWINGS.
6. FOR BUILDING ELEVATIONS SEE "A-200" SERIES DRAWINGS.
7. HATCHING AT ISOMETRIC DOES NOT INDICATE AREA REQUIRING TRAFFIC TOPPING.
8. SEE CIVIL DRAWINGS FOR SITE INFORMATION & BUILDING LOCATION.
9. FOR FLOOR ELEVATIONS SEE "S-100" SERIES DRAWINGS.
10. SEE MEP DRAWINGS FOR DRAINAGE LAYOUT, FIRE STANDPIPE SYSTEM & MECHANICAL SYSTEMS.
11. SEE GRAPHICS SHEETS FOR SIGN DETAILS AND SIGN MOUNTING DETAILS.
12. FOR WASH LOCATIONS SEE "S-100" SERIES DRAWINGS.



1 FOURTH TIER PLAN

1/16" = 1'-0"



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PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO: 16-2683.01

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SHEET TITLE:
FOURTH TIER PLAN

A-104

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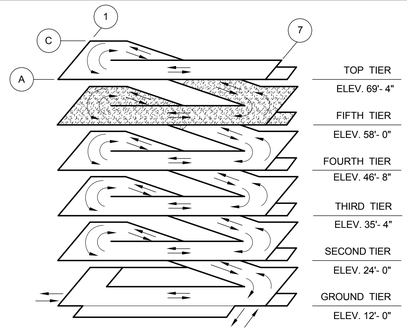

ISOMETRIC

GENERAL SHEET NOTES

1. FOR TYPICAL STRIPING DETAILS AND FLOOR ARROWS SEE SHEET A-102 AND A-103.
2. ALL DIMENSIONS FOR STRIPING ARE FROM FACE OF COLUMN OR INSIDE FACE OF WALL UNO.
3. 4" WIDE YELLOW PAVEMENT MARKING STRIPE.
4. 4" WIDE YELLOW DIAGONAL PAVEMENT MARKING STRIPE.
5. FOR ENLARGED STAIR / ELEVATOR PLANS & ELEVATIONS SEE "S-400 & A-400" SERIES DRAWINGS.
6. FOR BUILDING ELEVATIONS SEE "A-200" SERIES DRAWINGS.
7. HATCHING AT ISOMETRIC DOES NOT INDICATE AREA REQUIRING TRAFFIC TOPPING.
8. SEE CIVIL DRAWINGS FOR SITE INFORMATION & BUILDING LOCATION.
9. FOR FLOOR ELEVATIONS SEE "S-100" SERIES DRAWINGS.
10. SEE MEP DRAWINGS FOR DRAINAGE LAYOUT, FIRE STANDPIPE SYSTEM & MECHANICAL SYSTEMS.
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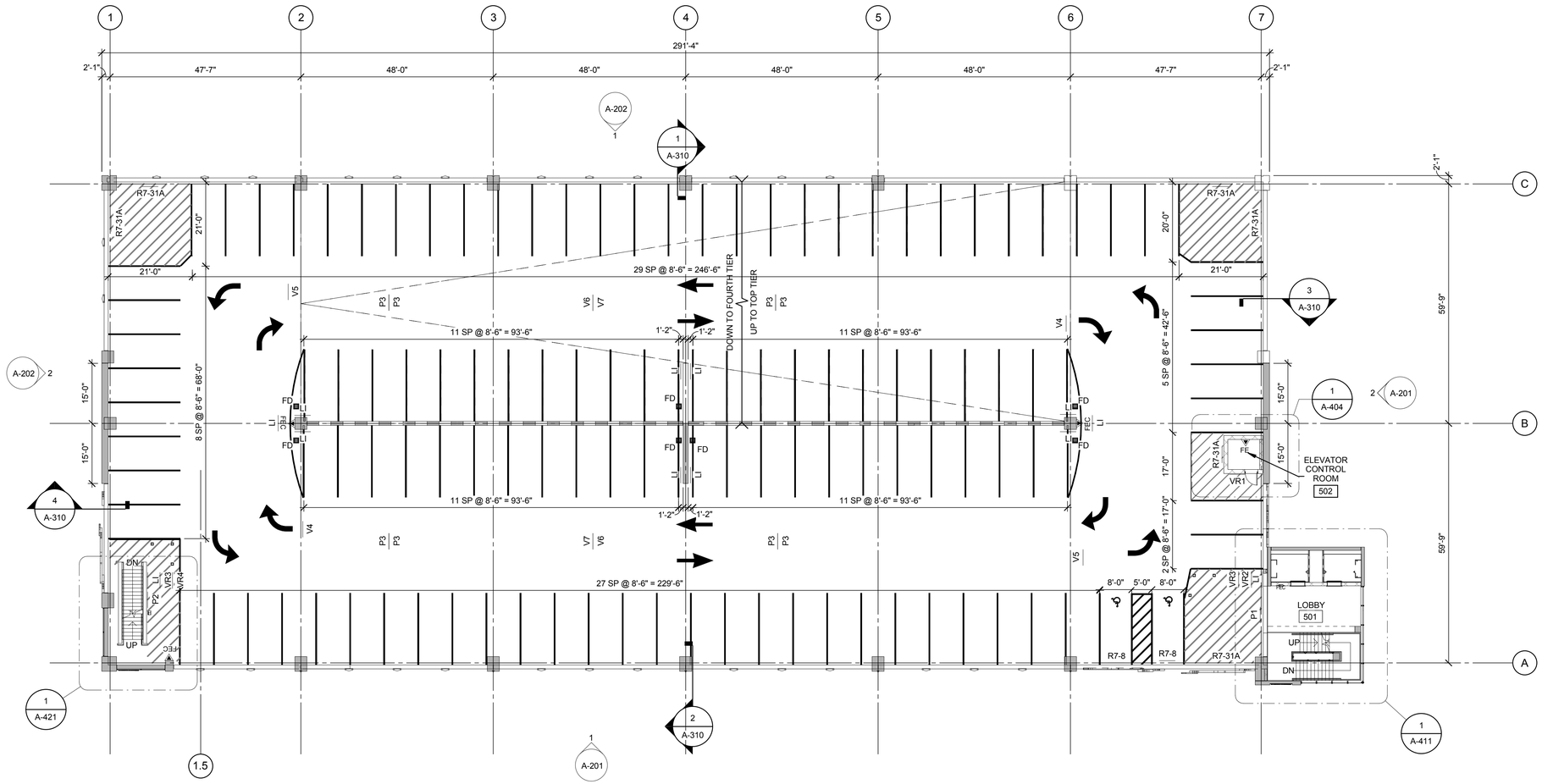
12. FOR WASH LOCATIONS SEE "S-100" SERIES DRAWINGS.



1 FIFTH TIER PLAN

1/16" = 1'-0"

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SHEET TITLE:
FIFTH TIER PLAN

A-105

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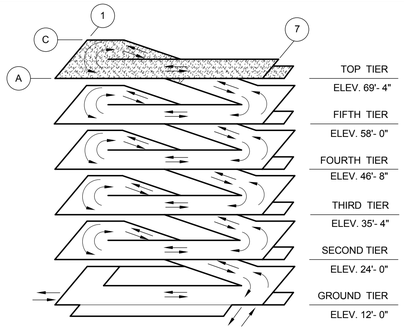

ISOMETRIC

GENERAL SHEET NOTES

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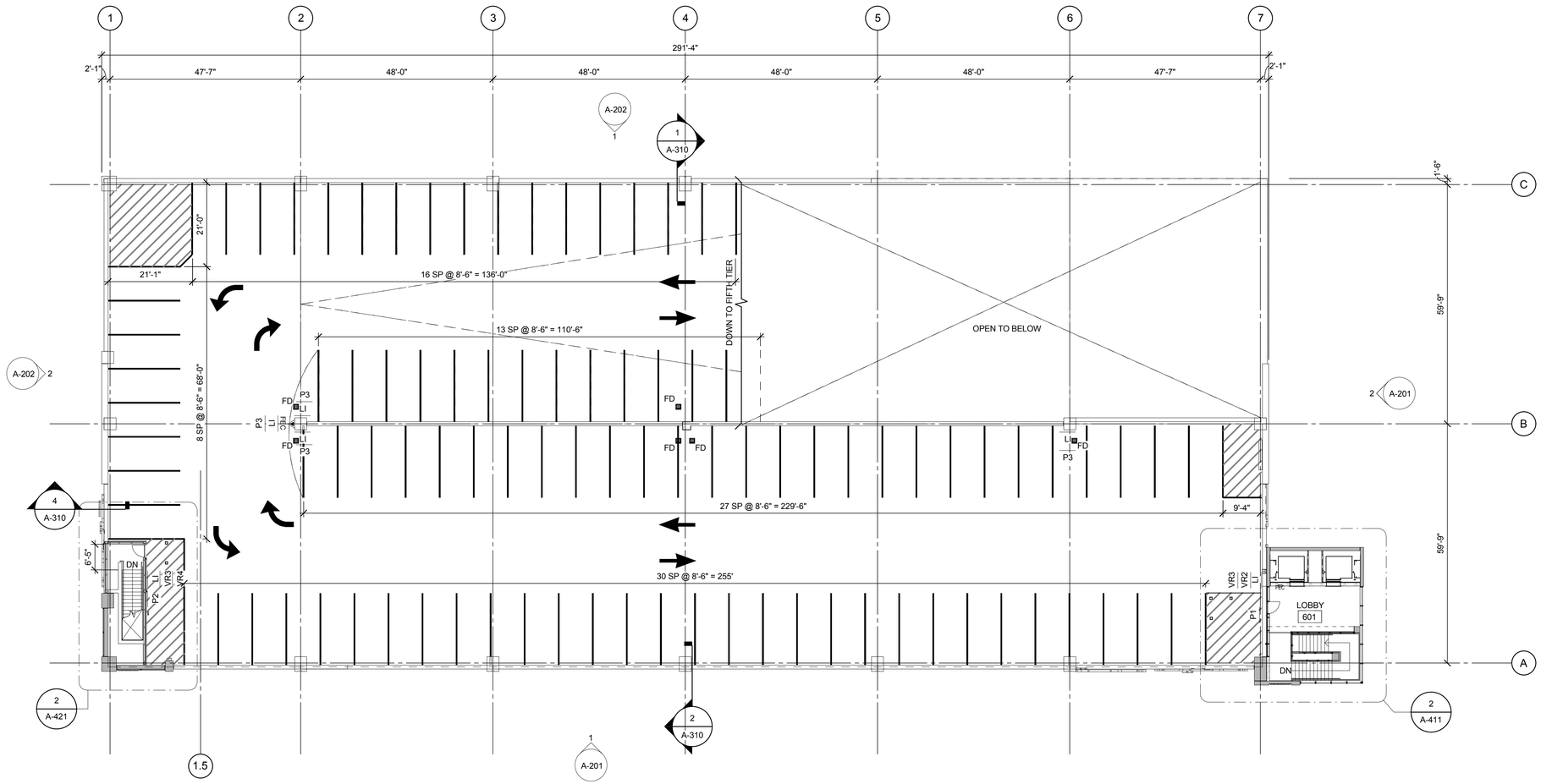
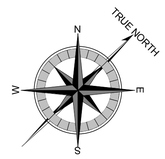
12. FOR WASH LOCATIONS SEE "S-100" SERIES DRAWINGS.



1 TOP TIER PLAN

1/16" = 1'-0"



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FOUNDRY PLACE
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PORTSMOUTH, NEW HAMPSHIRE

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ISSUE:

PROJECT NO: 16-2683.01

DRAWN BY: LEL

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SHEET TITLE:
TOP TIER PLAN

A-106

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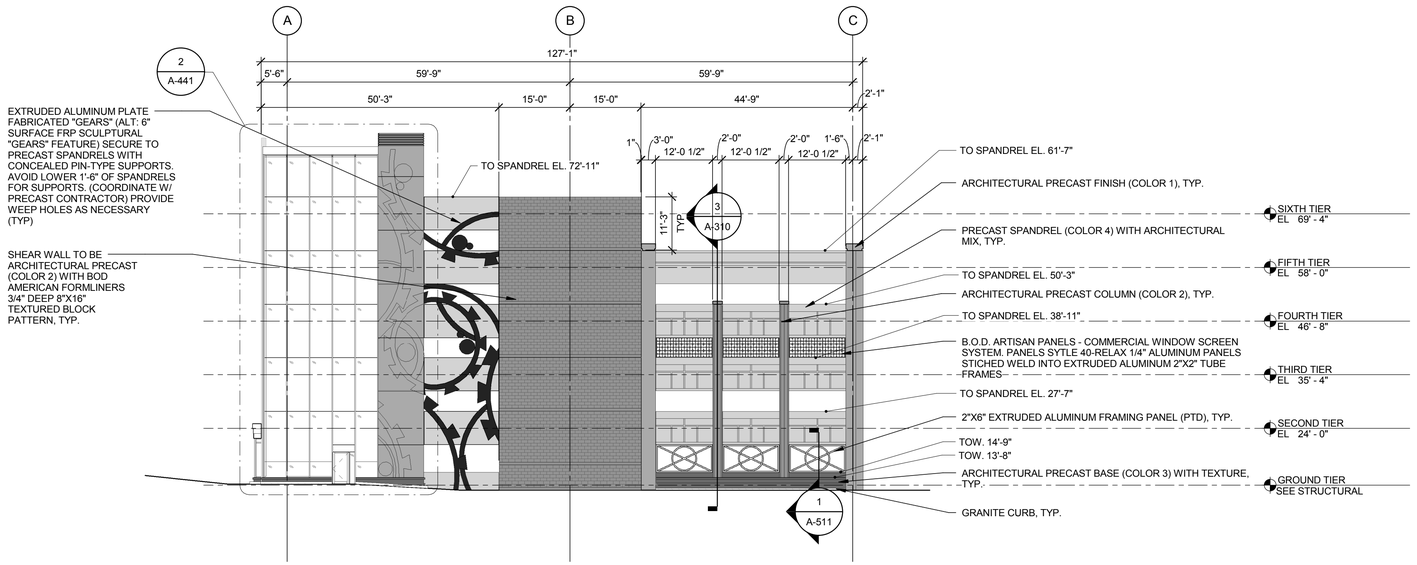
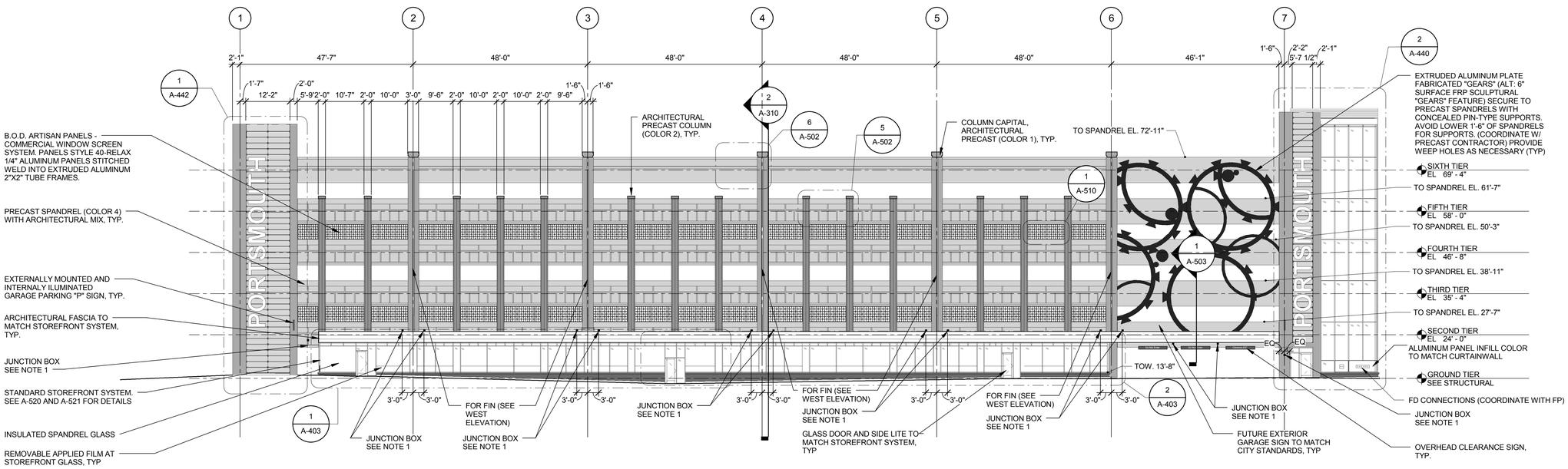


2 ELEVATION - EAST

1/16" = 1'-0"



1 SOUTH ELEVATION

1/16" = 1'-0"

GENERAL SHEET NOTES

1. ALL EXTERIOR COLUMNS, WALL PANELS, AND SPANDRELS (INCLUDING GRADE SPANDRELS) ARE TO HAVE AN ARCHITECTURAL CONCRETE MIX DESIGN. THE "ARCHITECTURAL PRECAST" MIX IS TO MATCH ARCHITECTS SAMPLE.
2. SEE SHEET A-501 AND 502 FOR FINISH OF EXTERIOR PRECAST ELEMENTS.
3. CURTAINWALL MULLIONS ALIGNED TO PRECAST REVEALS SHALL BE FIELD MEASURED FOR COORDINATION.
4. SEE CIVIL DRAWING FOR SITE GRADES AT PERIMETER OF STRUCTURE.
5. RECESSED JUNCTION BOXES IN FACE OF EXTERIOR PANELS TO BE CAST-IN AT PREFABRICATION PLANT. SEE ELEC. DRAWINGS
6. RECESSED JUNCTION BOX FOR DECORATIVE LIGHTING 3' FROM GRID LINE
7. CURTAIN WALL AND STOREFRONT GLAZING AT STAIR TOWERS TO BE 1/4" CLEAR TEMPERED GLASS.
8. STOREFRONT GLAZING AT FLEX SPACE TO BE 1" TEMPERED INSULATED GLASS.

LEGEND

- ARCH P/C COLOR 1 (MATCH SW 7037)
- ARCH P/C COLOR 2 (MATCH SW 7040)
- ARCH P/C COLOR 3 (MATCH SW 7039)
- ARCH P/C COLOR 4 (MATCH INDIANA LIMESTONE)

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FOUNDRY PLACE PARKING GARAGE

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SHEET TITLE:
BUILDING ELEVATIONS

A-201

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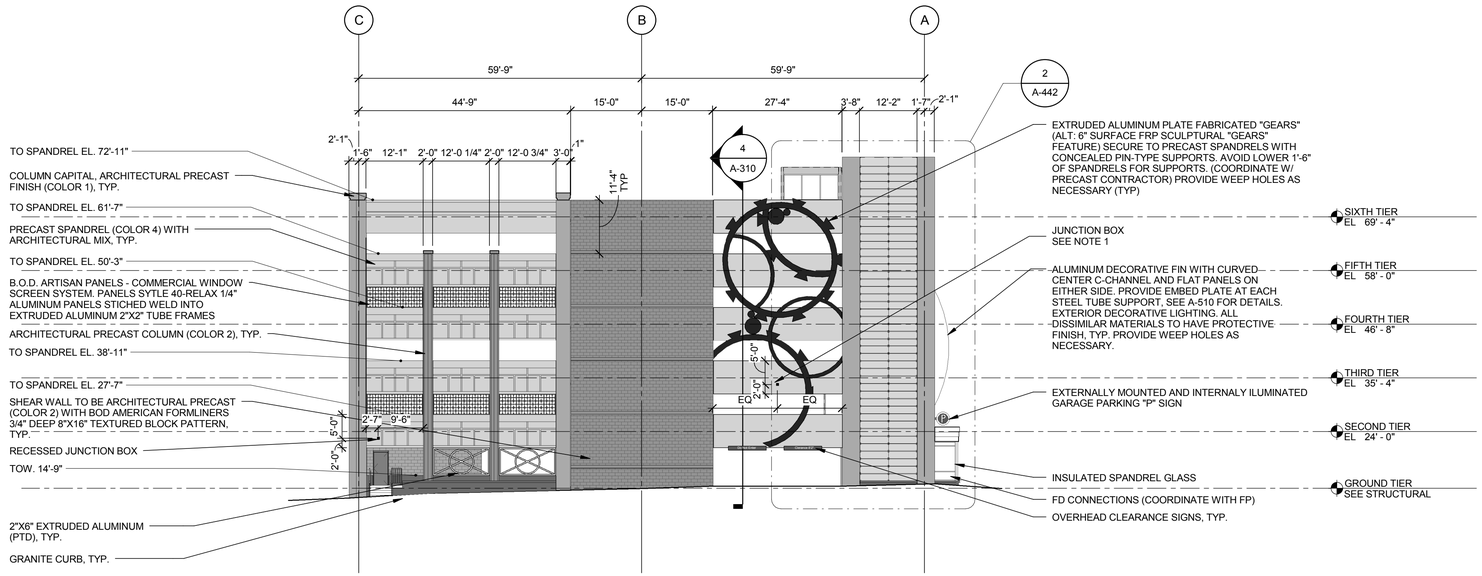
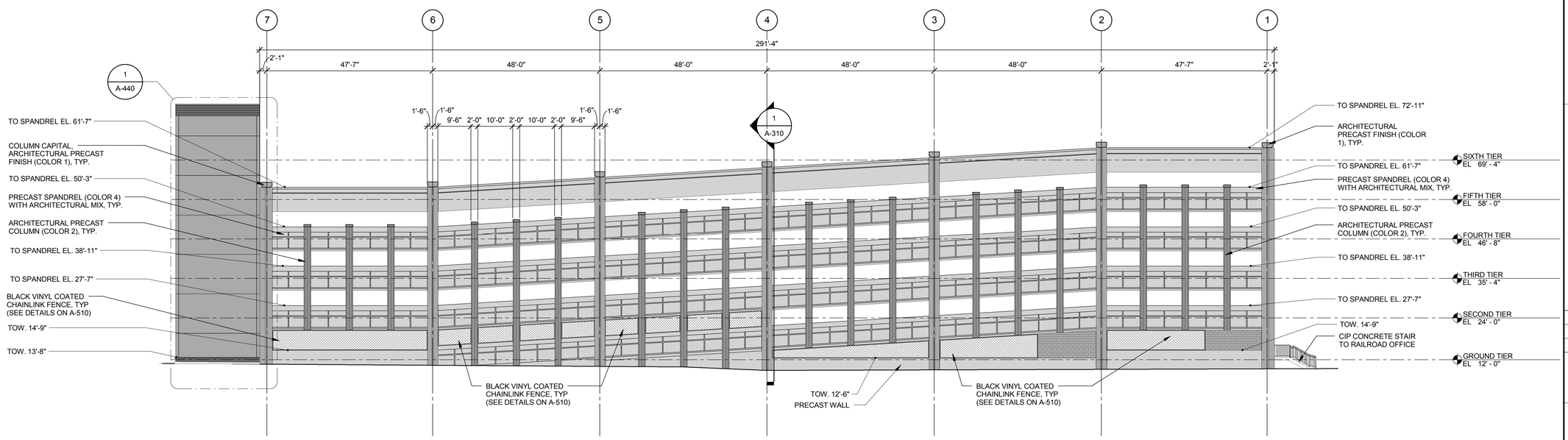


2 ELEVATION - WEST

1/16" = 1'-0"



1 NORTH ELEVATION

1/16" = 1'-0"

GENERAL SHEET NOTES

1. ALL EXTERIOR COLUMNS, WALL PANELS, AND SPANDRELS (INCLUDING GRADE SPANDRELS) ARE TO HAVE AN ARCHITECTURAL CONCRETE MIX DESIGN. THE "ARCHITECTURAL PRECAST" MIX IS TO MATCH ARCHITECTS SAMPLE.
2. SEE SHEET A-501 AND 502 FOR FINISH OF EXTERIOR PRECAST ELEMENTS.
3. CURTAINWALL MULLIONS ALIGNED TO PRECAST REVEALS SHALL BE FIELD MEASURED FOR COORDINATION.
4. SEE CIVIL DRAWING FOR SITE GRADES AT PERIMETER OF STRUCTURE.
5. RECESSED JUNCTION BOXES IN FACE OF EXTERIOR PANELS TO BE CAST-IN AT PREFABRICATION PLANT. SEE ELEC. DRAWINGS
6. RECESSED JUNCTION BOX FOR DECORATIVE LIGHTING 3' FROM GRID LINE
7. CURTAIN WALL AND STOREFRONT GLAZING AT STAIR TOWERS TO BE 1/4" CLEAR TEMPERED GLASS.
8. STOREFRONT GLAZING AT FLEX SPACE TO BE 1" TEMPERED INSULATED GLASS.

LEGEND

- ARCH P/C COLOR 1 (MATCH SW 7037)
- ARCH P/C COLOR 2 (MATCH SW 7040)
- ARCH P/C COLOR 3 (MATCH SW 7039)
- ARCH P/C COLOR 4 (MATCH INDIANA LIMESTONE)

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FOUNDRY PLACE
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SHEET TITLE:
BUILDING ELEVATIONS

A-202

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SHEET NOTES

1. ALL EXTERIOR COLUMNS, WALL PANELS, AND SPANDRELS (INCLUDING GRADE SPANDRELS) ARE TO HAVE AN ARCHITECTURAL CONCRETE MIX DESIGN. THE "ARCHITECTURAL PRECAST" MIX IS TO MATCH ARCHITECTS SAMPLE.
2. SEE SHEET A-501 AND 502 FOR FINISH OF EXTERIOR PRECAST ELEMENTS.
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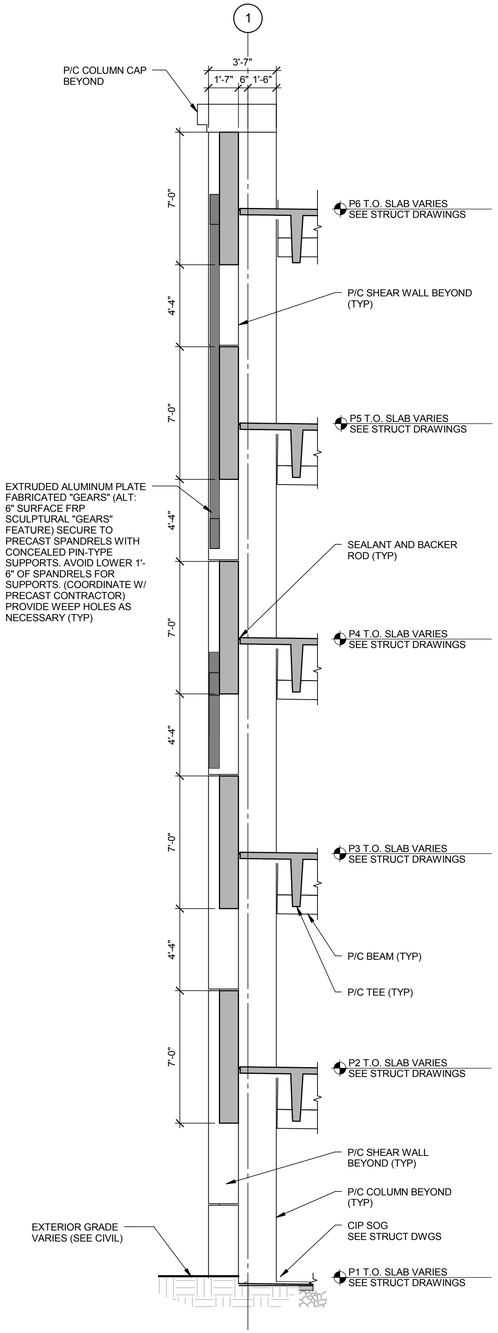
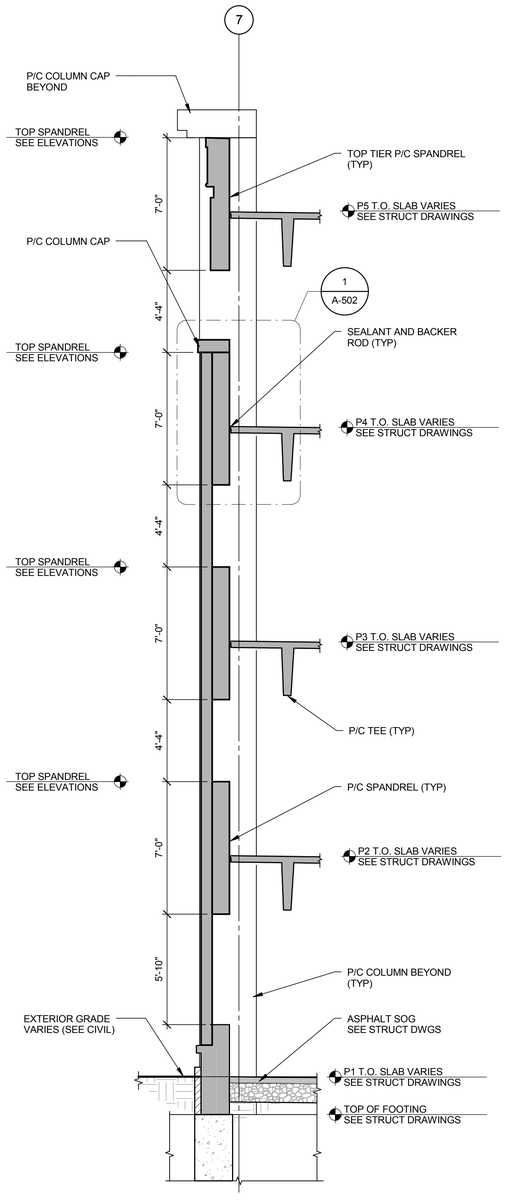
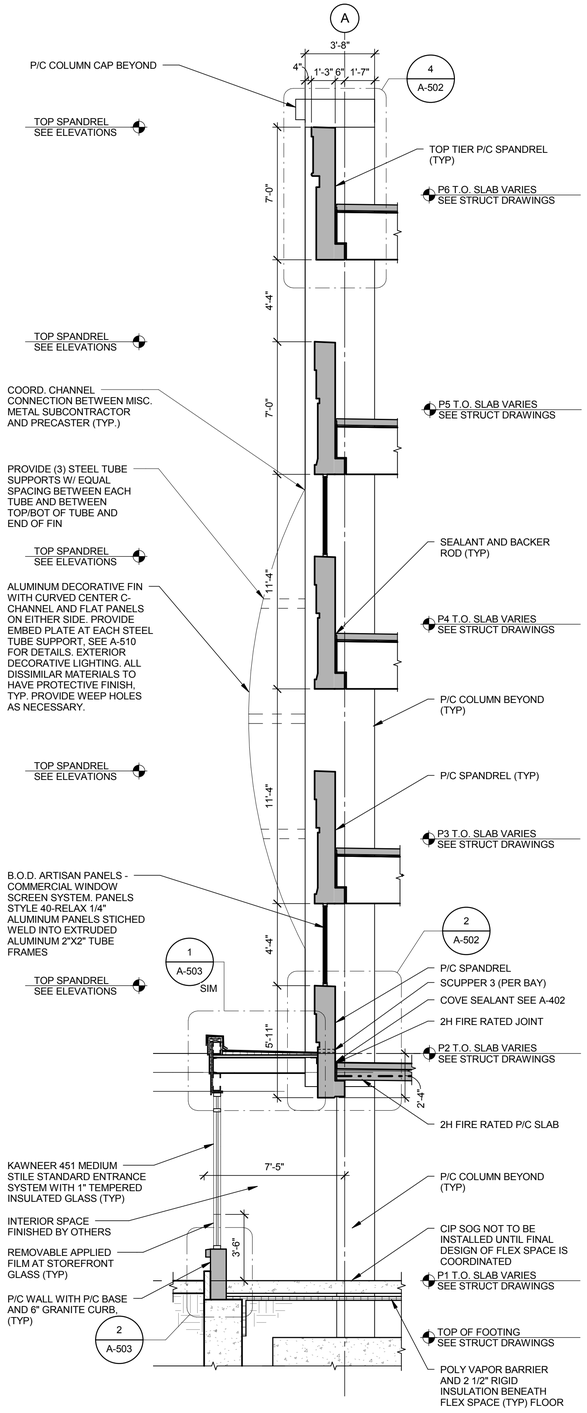


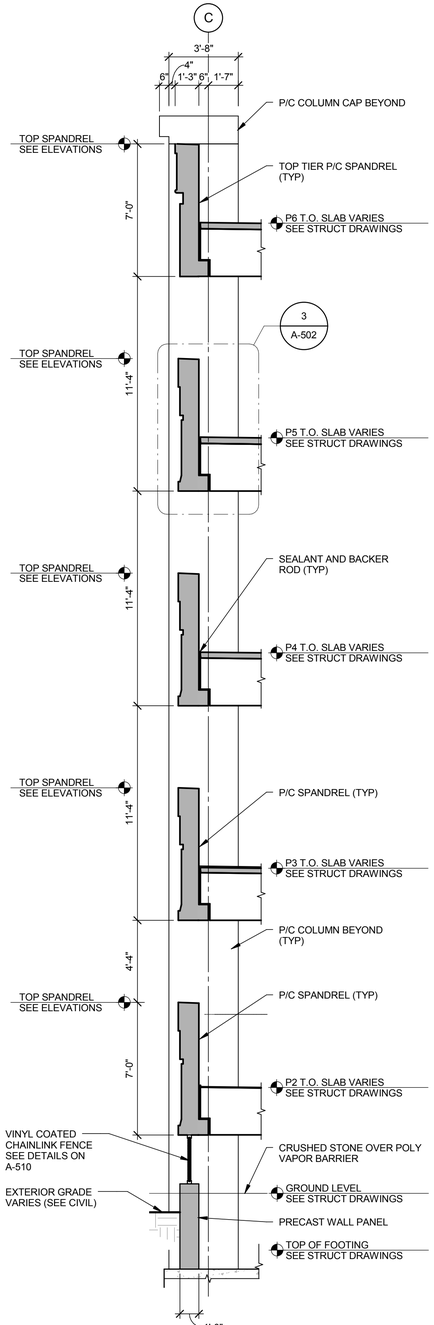
4 WALL SECTION
1/4" = 1'-0"



3 WALL SECTION
1/4" = 1'-0"



2 WALL SECTION
1/4" = 1'-0"



1 WALL SECTION
1/4" = 1'-0"

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PROJECT NO:	16-2683.01
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CHECKED BY:	SMM

SHEET TITLE:
EXTERIOR WALL SECTIONS

A-310

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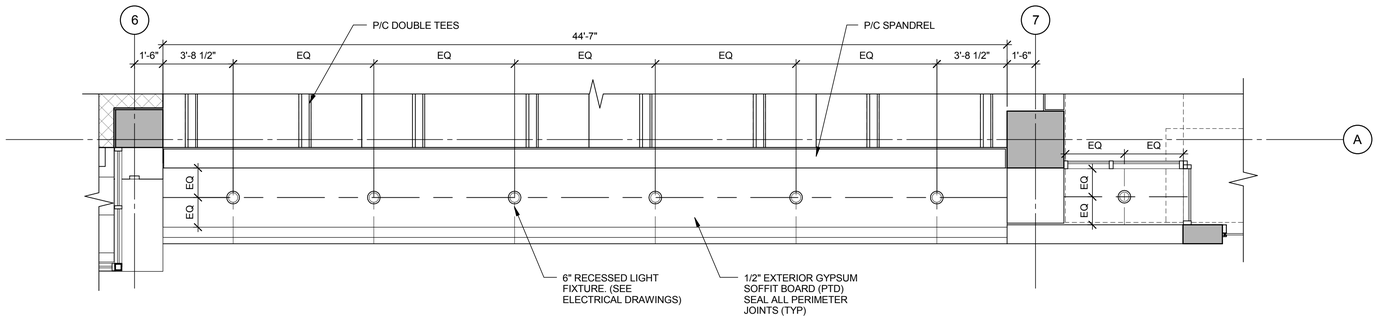
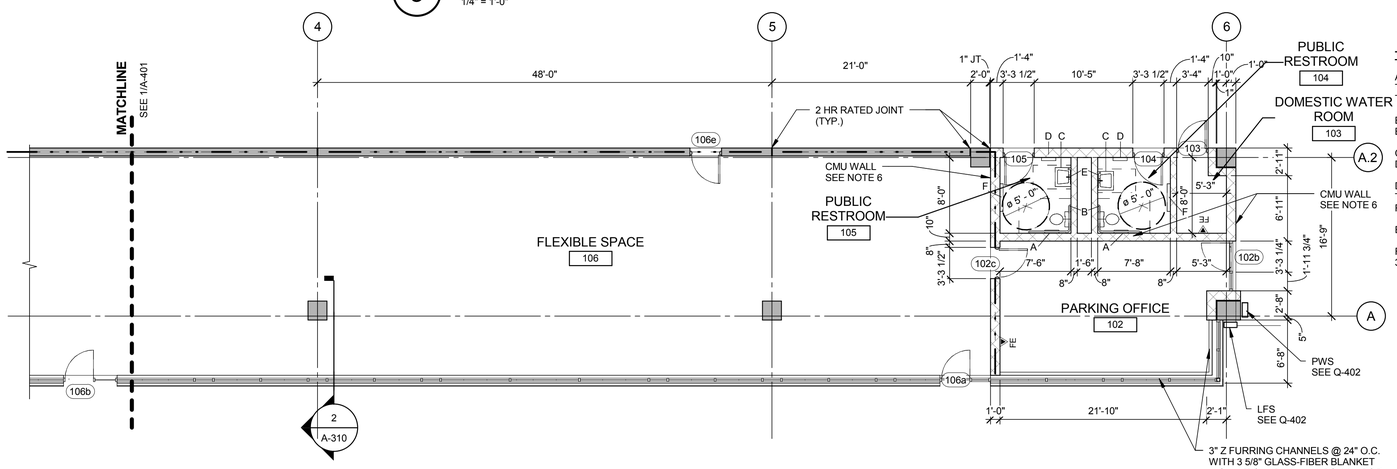


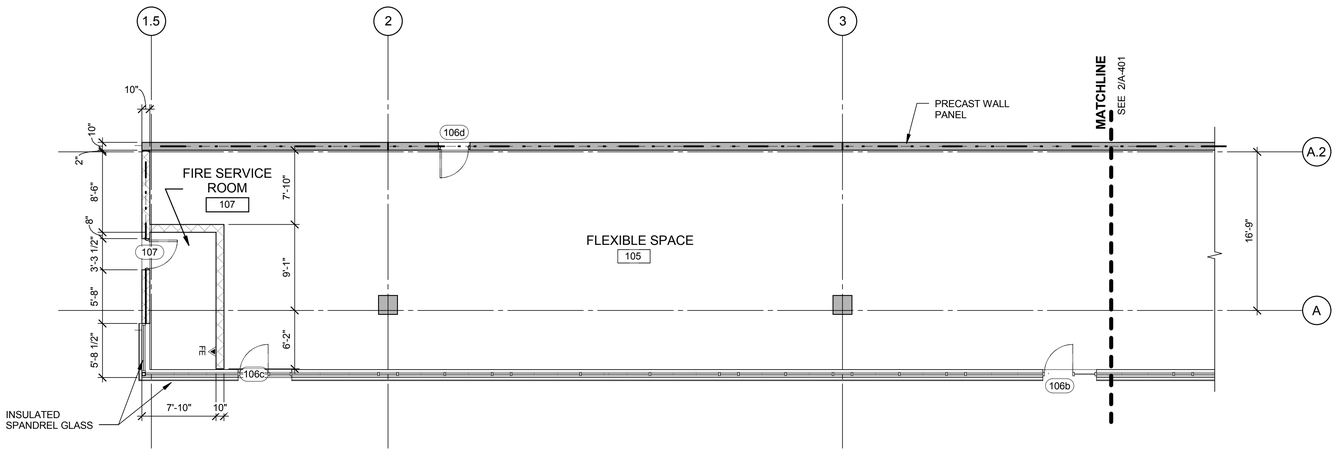
3 VEHICLE ENTRY/EXIT REFLECTED CEILING

1/4" = 1'-0"



2 FLEX SPACE ENLARGED PLAN

1/8" = 1'-0"



1 FLEX SPACE ENLARGED PLAN

1/8" = 1'-0"

TOILET ACCESORY LEGEND:

A - SANITARY NAPKIN DISPOSAL, TOILET TISSUE DISPENSER WITH THEFT-RESISTANT SPINDLE.

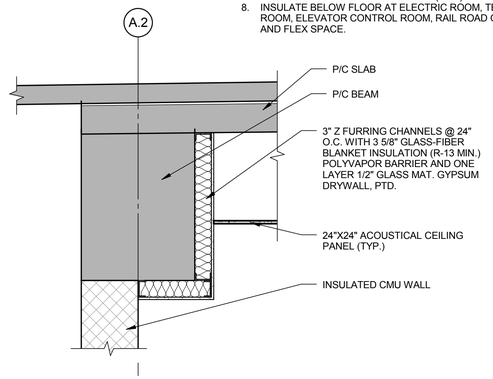
B - HORIZONTAL TWO-WAY GRAB BAR, 36" x 54"

C - WALL-MOUNTED SOAP DISPENSER.

D - SURFACE-MOUNTED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE

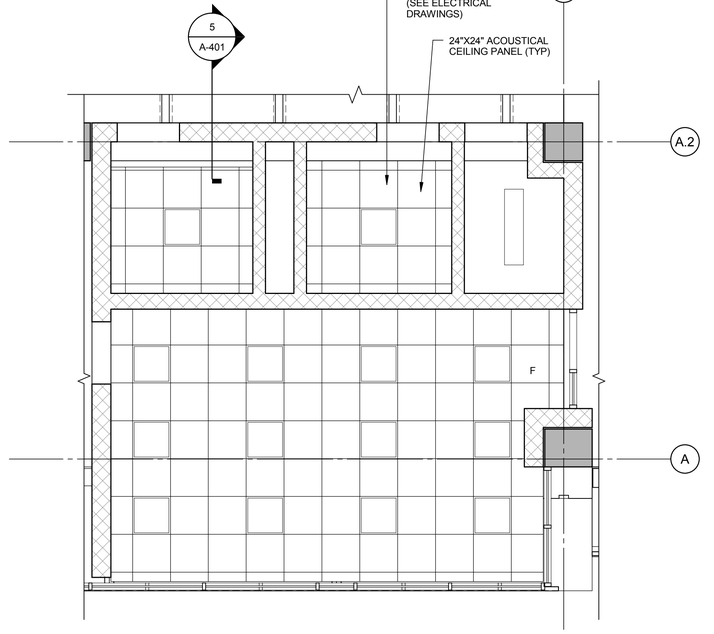
E - MIRROR, 18" W x 36" H

F- BABY CHANGING STATION, 35" x 20" x 4"



5 PUBLIC RESTROOM CEILING DETAIL

3/4" = 1'-0"



4 PARKING OFFICE AND PUBLIC RESTROOMS REFLECTED CEILING

1/4" = 1'-0"

GENERAL SHEET NOTES

1. FOR SLAB : PROVIDE 2" RIGID INSULATION (R-7 MIN.) WITH POLYVAPOR BARRIER BELOW FLOOR SLAB.
2. FOR CEILING . PROVIDE 7" FOIL-FACED MINERAL-WOOL INSULATION BOARD ON STICK CLIPS (R-29.4) AT UNDERSIDE OF ROOF STRUCTURE ABOVE TAPE AND SEAL ALL JOINTS.
3. PROVIDE BACKER ROD AND SEALANT @ ALL JOINTS BETWEEN CIP CORNER, FLOOR SLAB AND PERIMETER WALL OF ROOMS.
4. SEAL ALL VERTICAL JOINTS BETWEEN CMU, P/C AND CIP CONC. WALLS WITH BACKER ROD AND SEALANT.
5. SEE STRUCTURAL GENERAL NOTES ON DRAWING S-001 FOR PRECAST CONCRETE, CMU AND CAST-IN-PLACE CONCRETE REQUIREMENTS.
6. INSULATED CMU WALLS WITH INSULATION INSERTS (R-13 MIN.) TO BELOW FLOOR, TYP.
7. INSULATE UNDERSIDE OF TEES OR PRECAST SLAB ABOVE ELECTRIC ROOM, TEL/DATA ROOM, ELEVATOR CONTROL ROOM, RAIL ROAD OFFICE, PUBLIC RESTROOMS AND PARKING OFFICE. (R-38)
8. INSULATE BELOW FLOOR AT ELECTRIC ROOM, TEL/DATA ROOM, ELEVATOR CONTROL ROOM, RAIL ROAD OFFICE AND FLEX SPACE.

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	DESIGN DEVELOPMENT	05/05/2017	

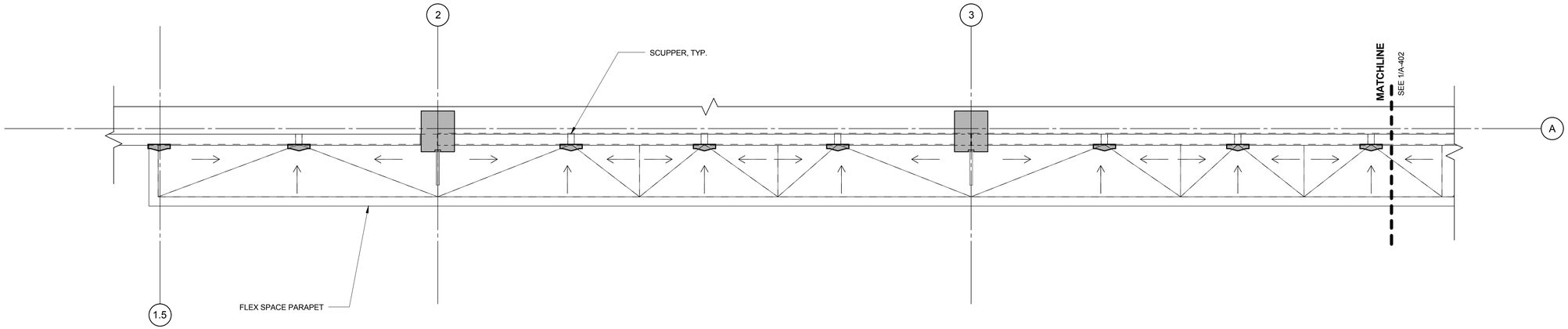
PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: SMM

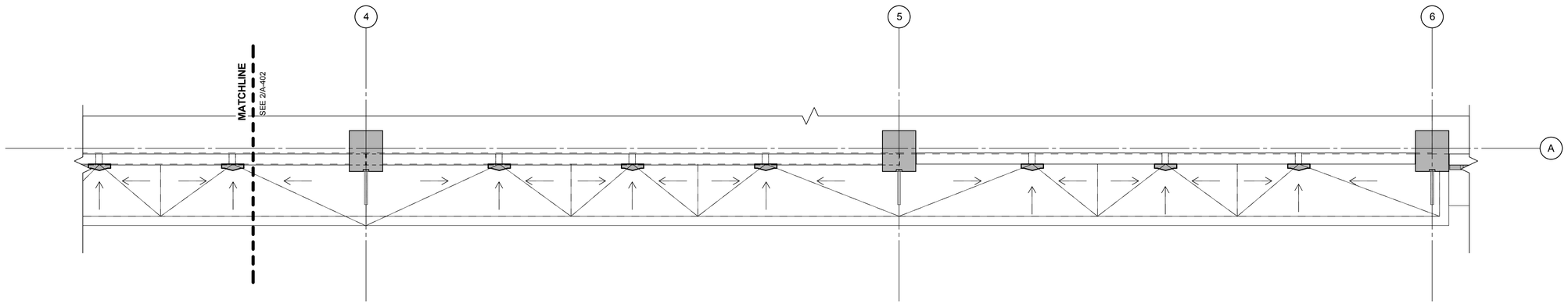
SHEET TITLE:
FLEX SPACE ENLARGED PLANS

A-401



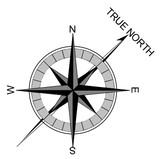
2 FLEX SPACE ROOF ENLARGED PLAN

3/16" = 1'-0"



1 FLEX SPACE ROOF ENLARGED PLAN

3/16" = 1'-0"



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PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	

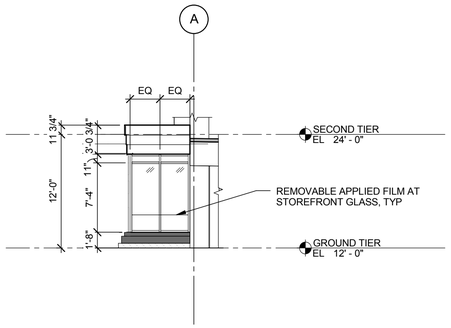
PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: SMM

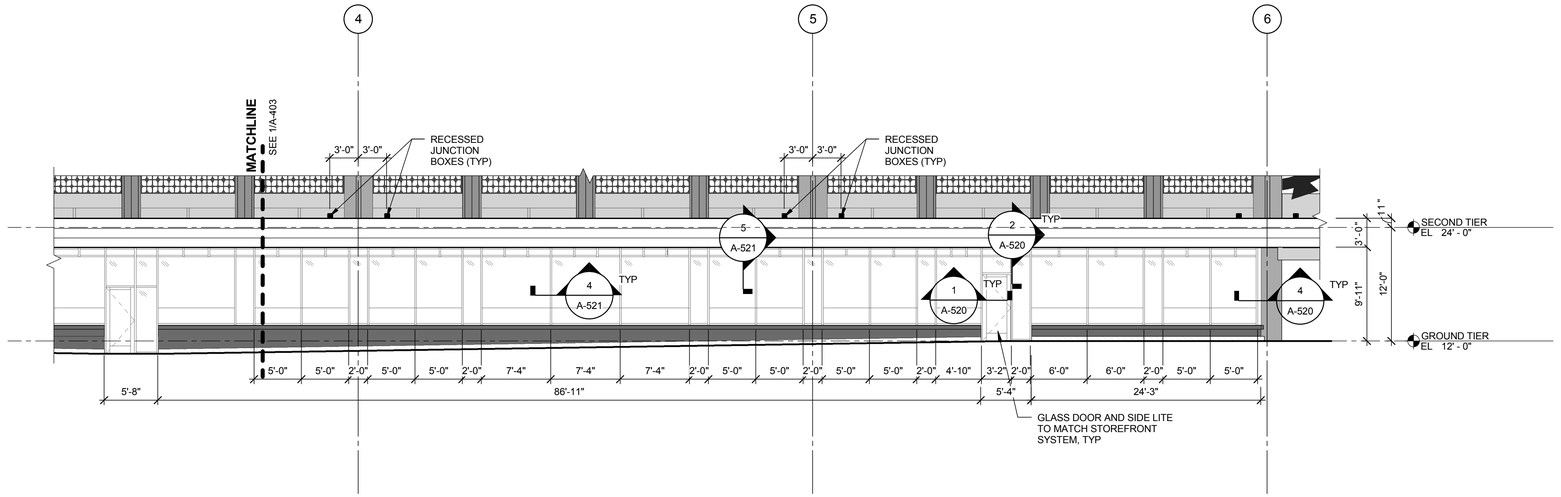
SHEET TITLE:
FLEX SPACE ROOF ENLARGED PLANS

A-402



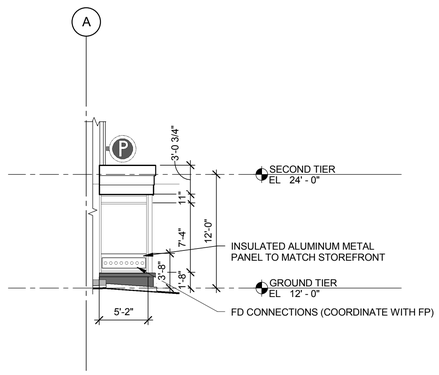
FLEX SPACE ENLARGED EAST ELEVATION

4 — 1/8" = 1'-0"



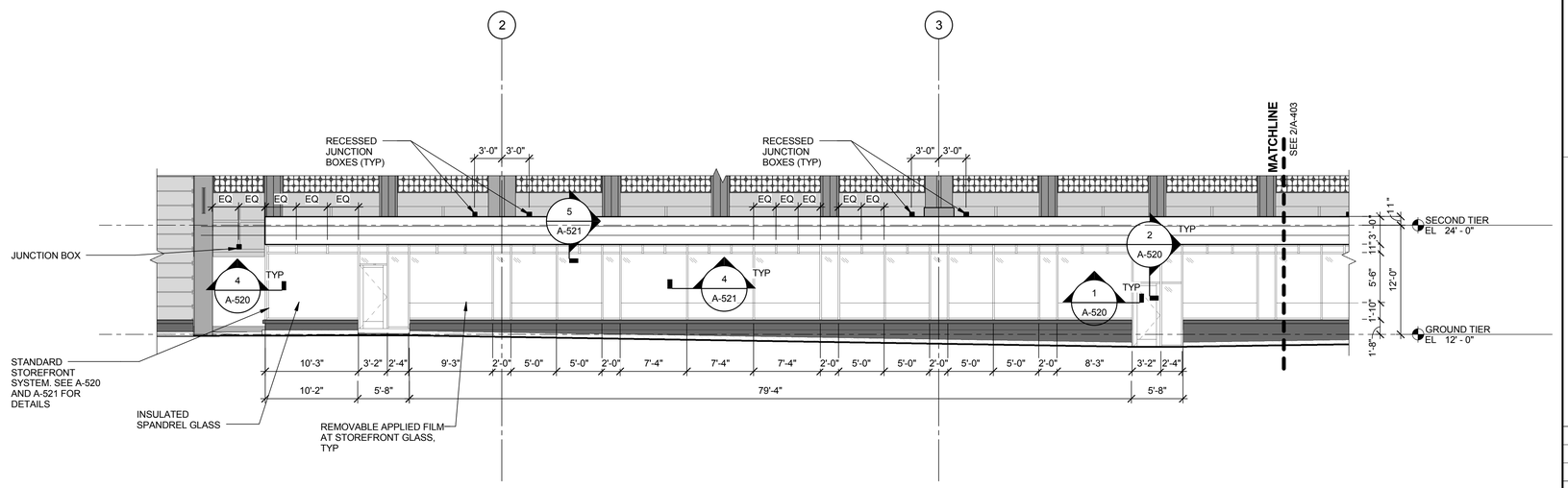
FLEX SPACE ENLARGED SOUTH ELEVATION

2 — 1/8" = 1'-0"



FLEX SPACE ENLARGED WEST ELEVATION

3 — 1/8" = 1'-0"



FLEX SPACE ENLARGED SOUTH ELEVATION

1 — 1/8" = 1'-0"

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PORTSMOUTH, NEW HAMPSHIRE

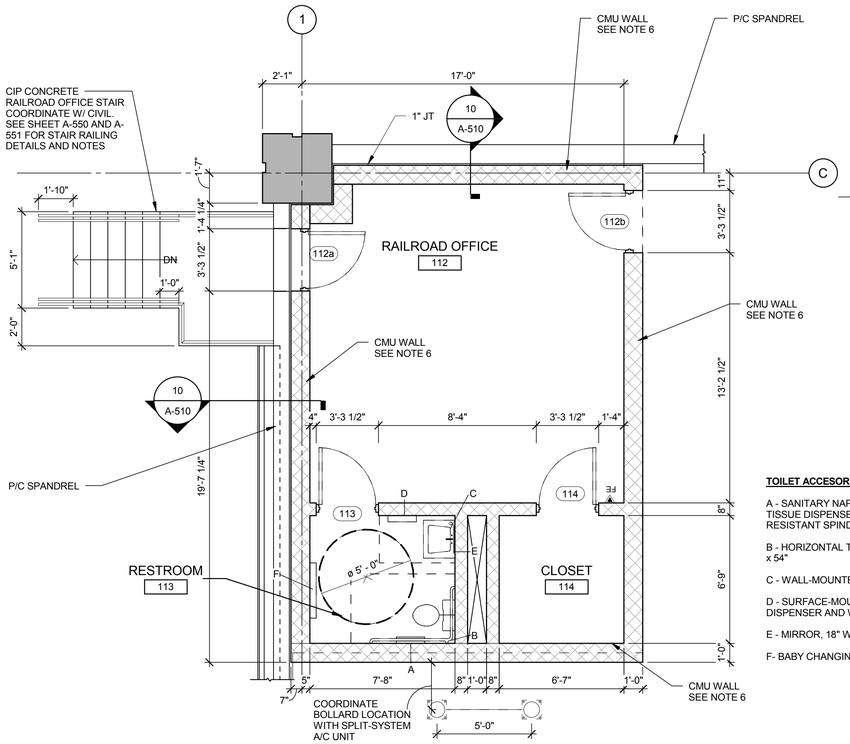
MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
FLEX SPACE
ELEVATIONS
ENLARGED PLANS

A-403



TOILET ACCESORY LEGEND:

A - SANITARY NAPKIN DISPOSAL, TOILET TISSUE DISPENSER WITH THEFT-RESISTANT SPINDLE.

B - HORIZONTAL TWO-WAY GRAB BAR, 36" x 54"

C - WALL-MOUNTED SOAP DISPENSER.

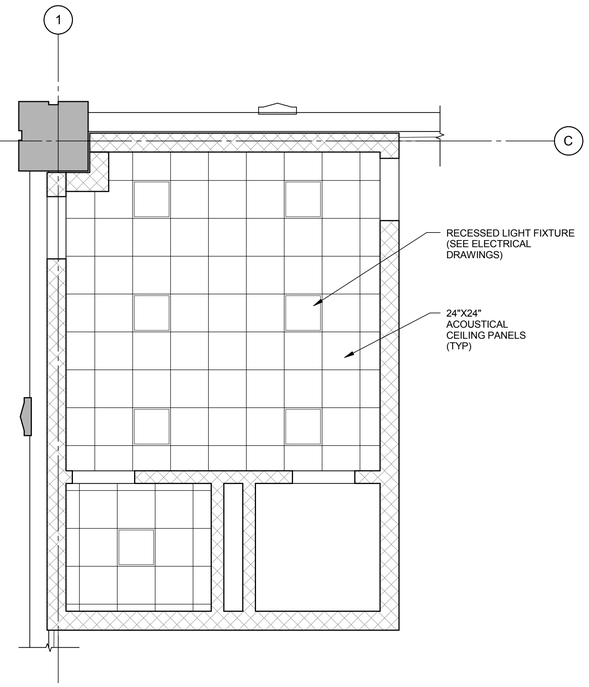
D - SURFACE-MOUNTED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE

E - MIRROR, 18" W x 36" H

F- BABY CHANGING STATION, 35" x 20" x 4"

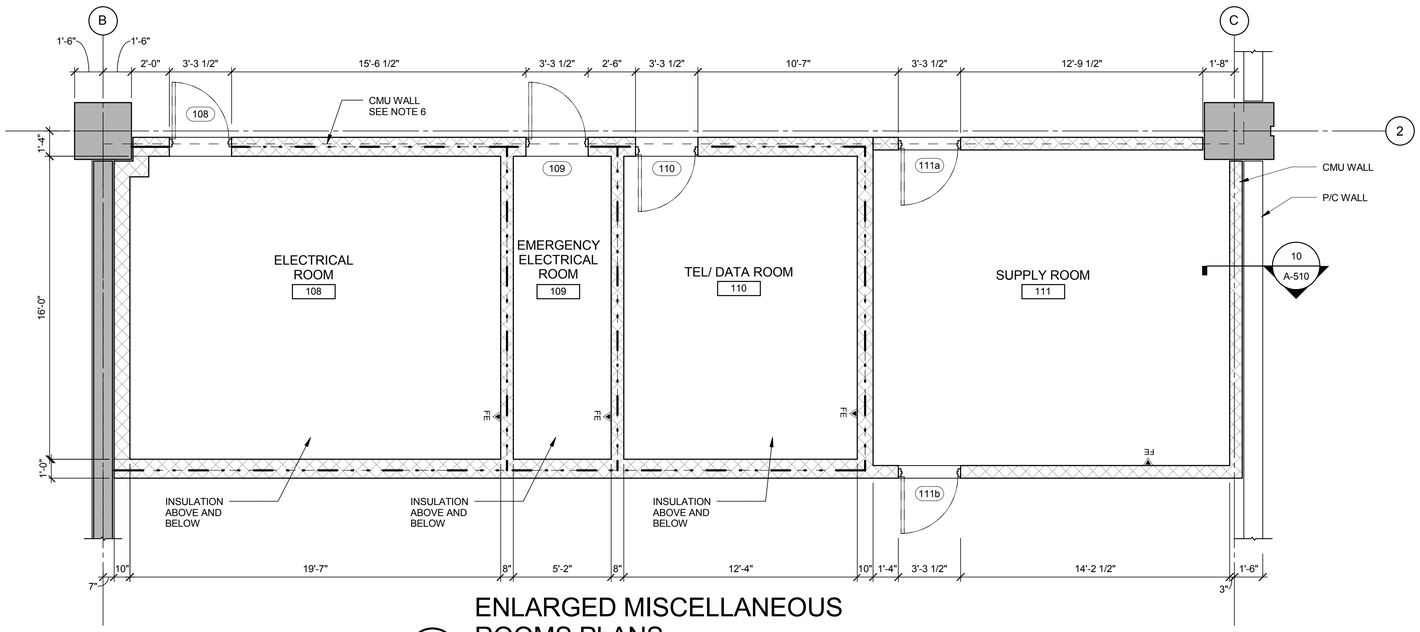
RAILROAD OFFICE ENLARGED PLAN

4 — 1/4" = 1'-0"



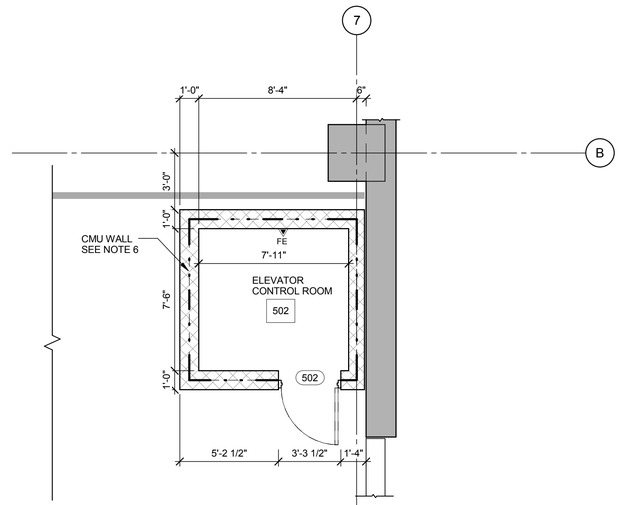
RAILROAD OFFICE REFLECTED CEILING

3 — 1/4" = 1'-0"



ENLARGED MISCELLANEOUS ROOMS PLANS

2 — 1/4" = 1'-0"



NOTES:
1. PROVIDE W.P. MEMBRANE / TRAFFIC COATING @ SURFACE OF DOUBLE-TEE BEAMS ABOVE.

ELEVATOR CONTROL ROOM

1 — 1/4" = 1'-0"

GENERAL SHEET NOTES

1. FOR SLAB : PROVIDE 2" RIGID INSULATION (R-7 MIN.) WITH POLYVAPOR BARRIER BELOW FLOOR SLAB.
2. FOR CEILING : PROVIDE 7" FOIL-FACED MINERAL-WOOL INSULATION BOARD ON STICK CLIPS (R-29.4) AT UNDERSIDE OF ROOF STRUCTURE ABOVE TAPE AND SEAL ALL JOINTS.
3. PROVIDE BACKER ROD AND SEALANT @ ALL JOINTS BETWEEN CIP CORNER, FLOOR SLAB AND PERIMETER WALL OF ROOMS.
4. SEAL ALL VERTICAL JOINTS BETWEEN CMU, P/C AND CIP CONC. WALLS WITH BACKER ROD AND SEALANT.
5. SEE STRUCTURAL GENERAL NOTES ON DRAWING S-001 FOR PRECAST CONCRETE, CMU AND CAST-IN-PLACE CONCRETE REQUIREMENTS.
6. INSULATED CMU WALLS WITH INSULATION INSERTS (R-13 MIN.) TO BELOW FLOOR, TYP.
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8. INSULATE BELOW FLOOR AT ELECTRIC ROOM, TEL/DATA ROOM, ELEVATOR CONTROL ROOM, RAIL ROAD OFFICE AND FLEX SPACE.

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO: 16-2683.01

DRAWN BY: LEL

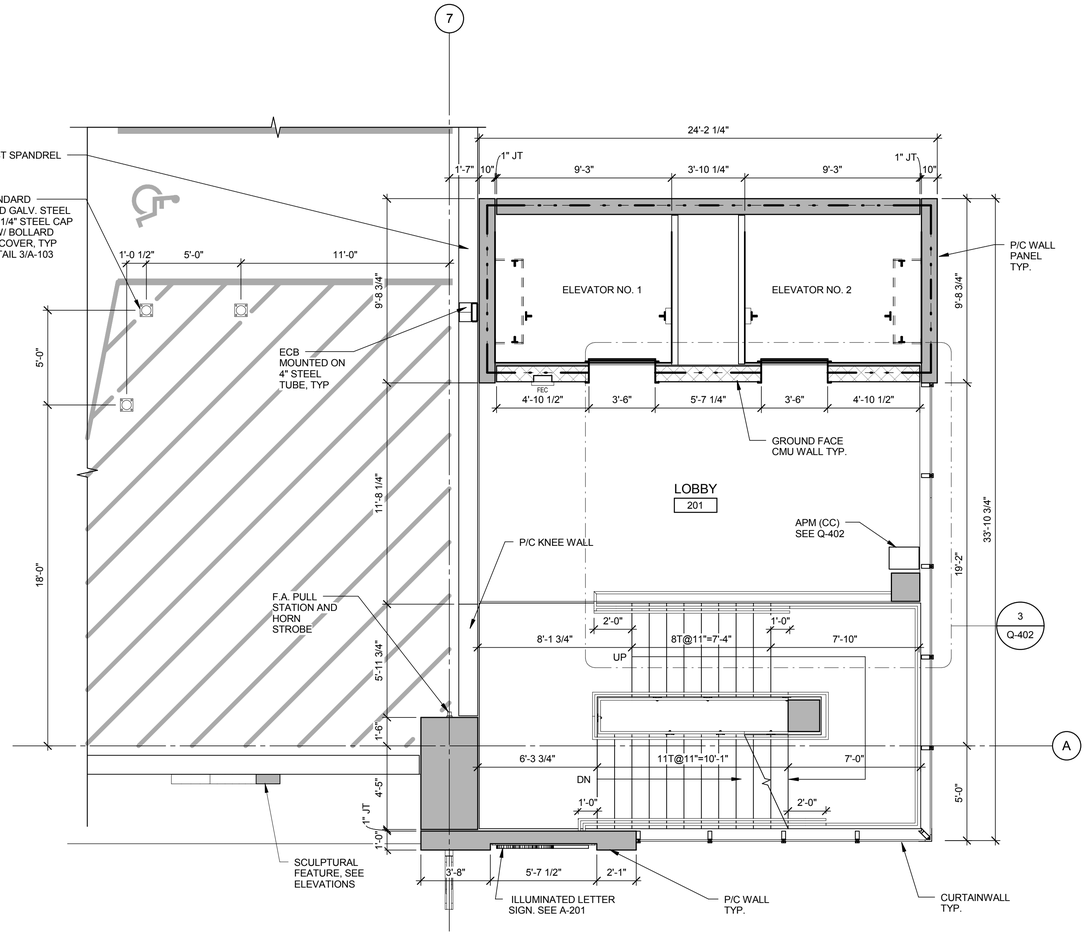
CHECKED BY: SMM

SHEET TITLE:
ENLARGED ROOM PLANS

A-404

SHEET NOTES

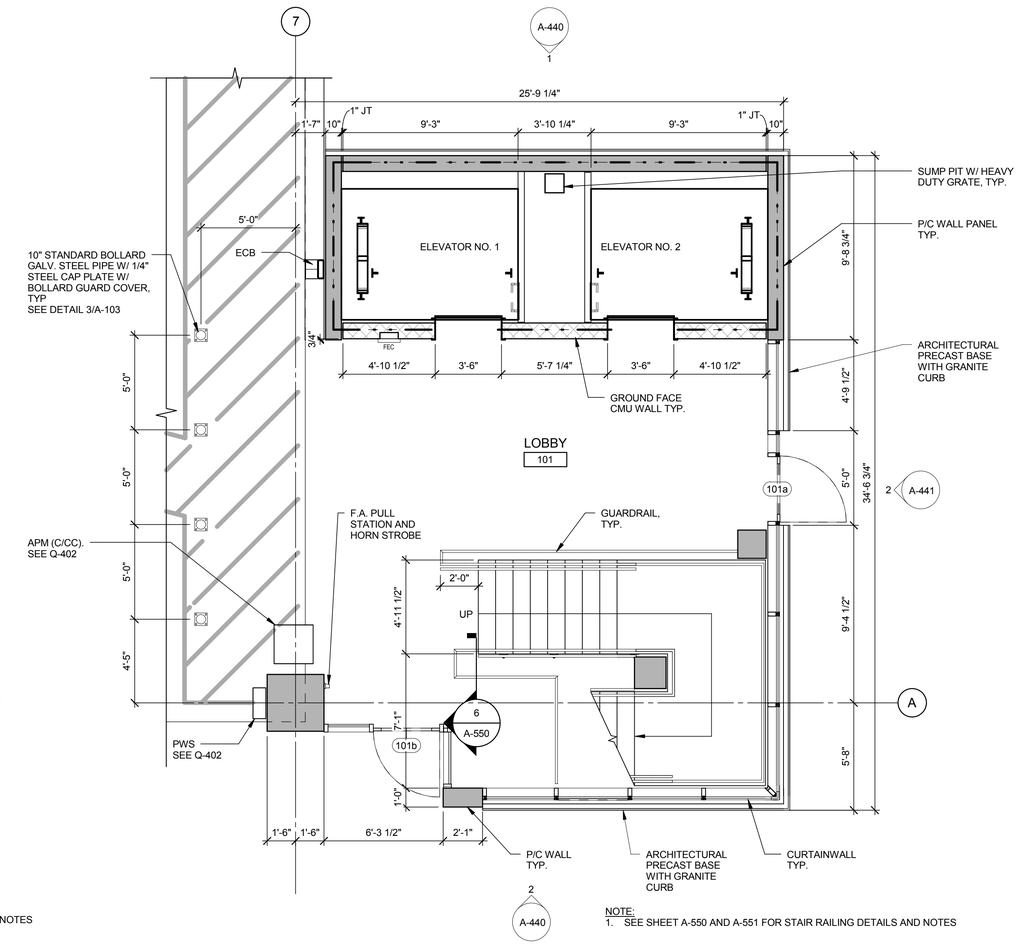
1. CAULK ALL PANEL JOINTS AT STAIR TOWER (INTERIOR & EXTERIOR).
2. COORDINATE SIZE AND LOCATIONS OF ELEVATOR DOOR OPENINGS WITH ELEVATOR SUPPLIER.
3. DIMENSIONS BETWEEN HANDRAILS SHALL BE 4'-0" MINIMUM.
4. SEE STRUCTURAL DRAWINGS FOR PRECAST SIZES AND DIMENSIONS.
5. COORDINATE SPACING OF VERTICAL GUARDRAIL BALUSTERS W/ LOCATION OF SUPPORT POST.
6. PROVIDE PAINTED FINISH AT MAIN STAIR / ELEVATOR TOWER, COLOR TO BE SELECTED BY ARCHITECT.



NOTE:
1. SEE SHEET A-550 AND A-551 FOR STAIR RAILING DETAILS AND NOTES

2 SECOND TIER PLAN

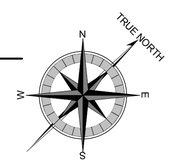
1/4" = 1'-0"



NOTE:
1. SEE SHEET A-550 AND A-551 FOR STAIR RAILING DETAILS AND NOTES

1 GROUND TIER PLAN

1/4" = 1'-0"



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FOUNDRY PLACE
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PORTSMOUTH, NEW HAMPSHIRE

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ISSUE:

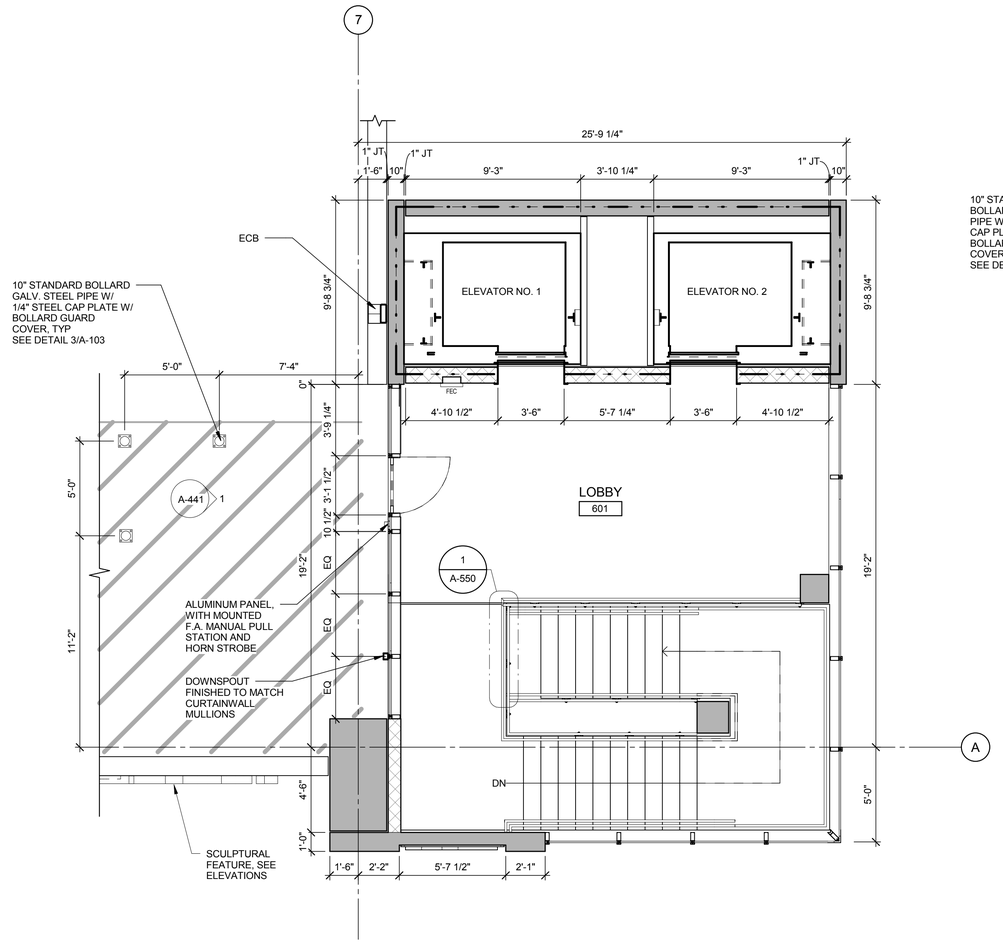
PROJECT NO:	16-2683.01
DRAWN BY:	LEL
CHECKED BY:	SMM

SHEET TITLE:
STAIR / ELEVATOR A - ENLARGED PLANS

A-410

SHEET NOTES

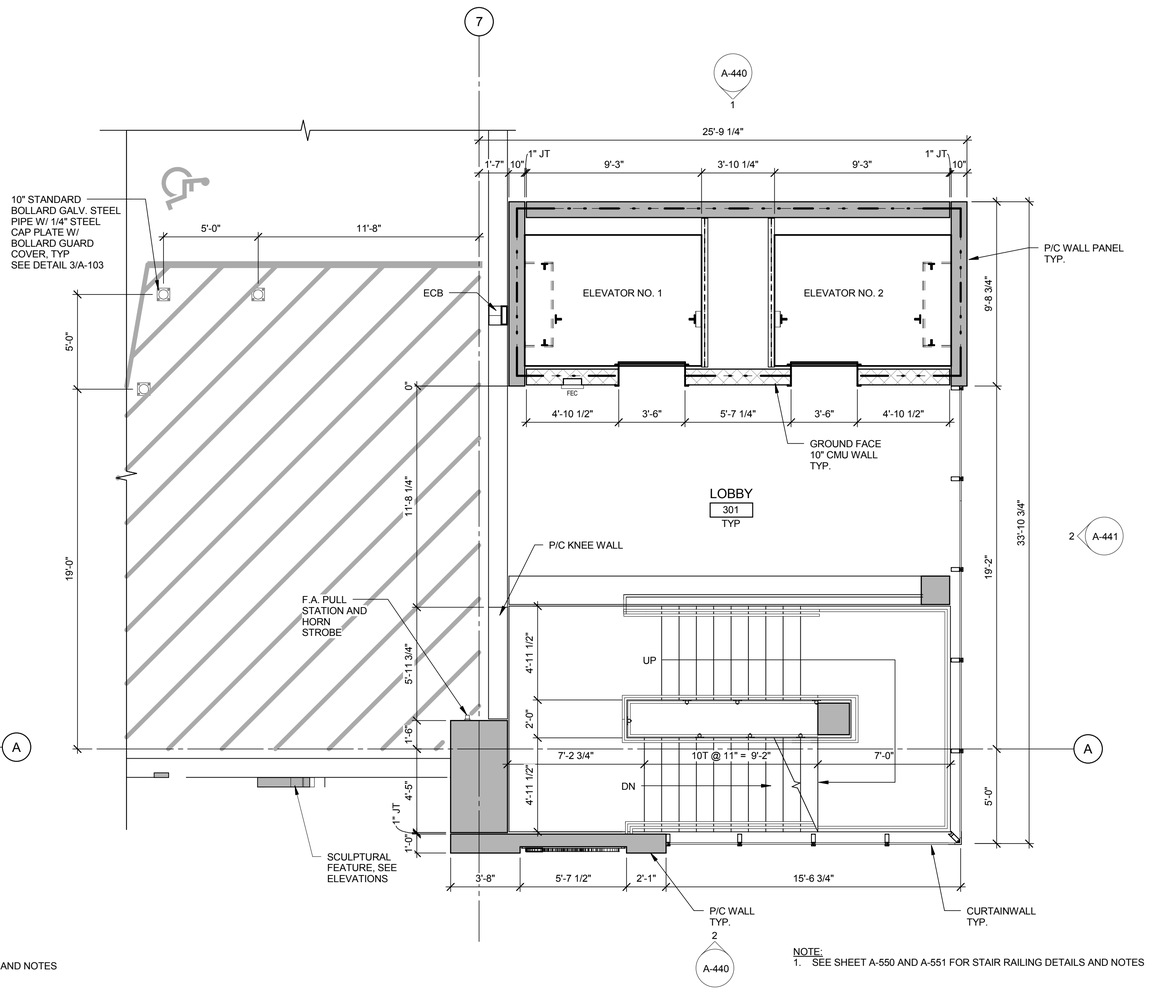
1. CAULK ALL PANEL JOINTS AT STAIR TOWER (INTERIOR & EXTERIOR).
2. COORDINATE SIZE AND LOCATIONS OF ELEVATOR DOOR OPENINGS WITH ELEVATOR SUPPLIER.
3. DIMENSIONS BETWEEN HANDRAILS SHALL BE 4'-0" MINIMUM.
4. SEE STRUCTURAL DRAWINGS FOR PRECAST SIZES AND DIMENSIONS.
5. COORDINATE SPACING OF VERTICAL GUARDRAIL BALUSTERS W/ LOCATION OF SUPPORT POST.
6. PROVIDE PAINTED FINISH AT MAIN STAIR / ELEVATOR TOWER, COLOR TO BE SELECTED BY ARCHITECT.



NOTE:
1. SEE SHEET A-550 AND A-551 FOR STAIR RAILING DETAILS AND NOTES

2 TOP TIER PLAN

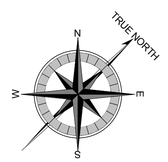
1/4" = 1'-0"



NOTE:
1. SEE SHEET A-550 AND A-551 FOR STAIR RAILING DETAILS AND NOTES

1 TYPICAL TIER PLAN

1/4" = 1'-0"



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PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
STAIR / ELEVATOR A - ENLARGED PLANS

A-411

7/28/2017 3:34:01 PM
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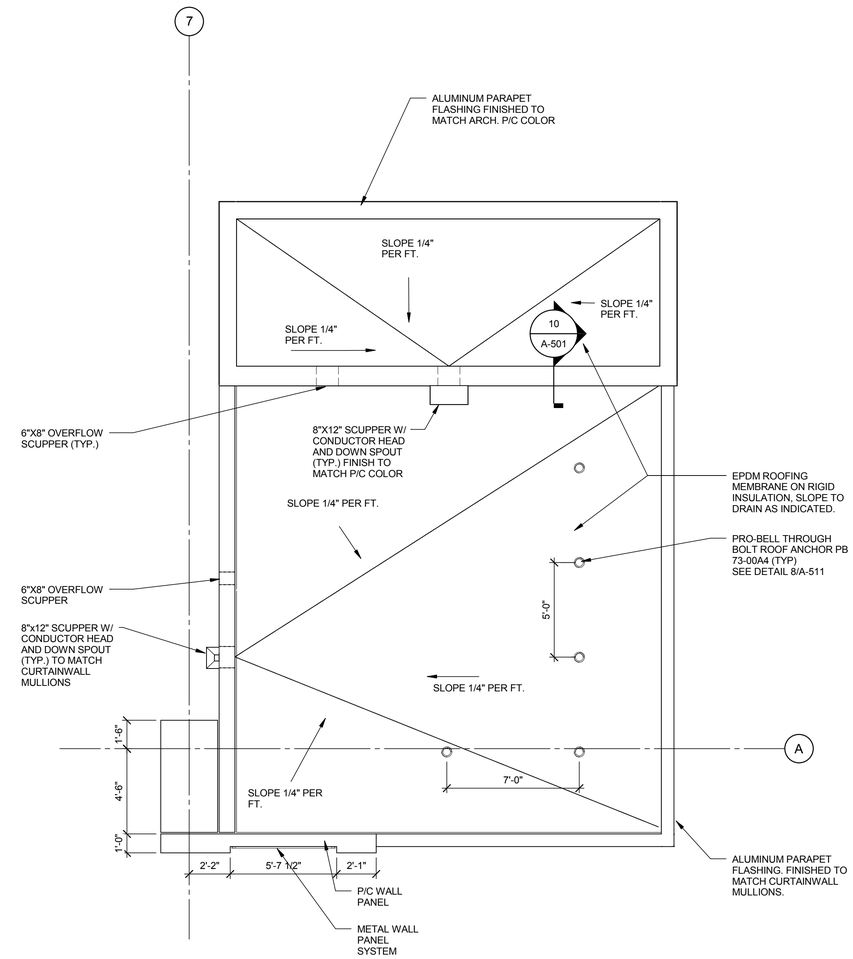
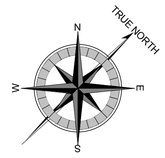
SHEET NOTES

1. CAULK ALL PANEL JOINTS AT STAIR TOWER (INTERIOR & EXTERIOR).
2. COORDINATE SIZE AND LOCATIONS OF ELEVATOR DOOR OPENINGS WITH ELEVATOR SUPPLIER.
3. DIMENSIONS BETWEEN HANDRAILS SHALL BE 4'-0" MINIMUM.
4. SEE STRUCTURAL DRAWINGS FOR PRECAST SIZES AND DIMENSIONS.
5. COORDINATE SPACING OF VERTICAL GUARDRAIL BALUSTERS W/ LOCATION OF SUPPORT POST.
6. PROVIDE PAINTED FINISH AT MAIN STAIR / ELEVATOR TOWER, COLOR TO BE SELECTED BY ARCHITECT.



1 ROOF PLAN
1/4" = 1'-0"



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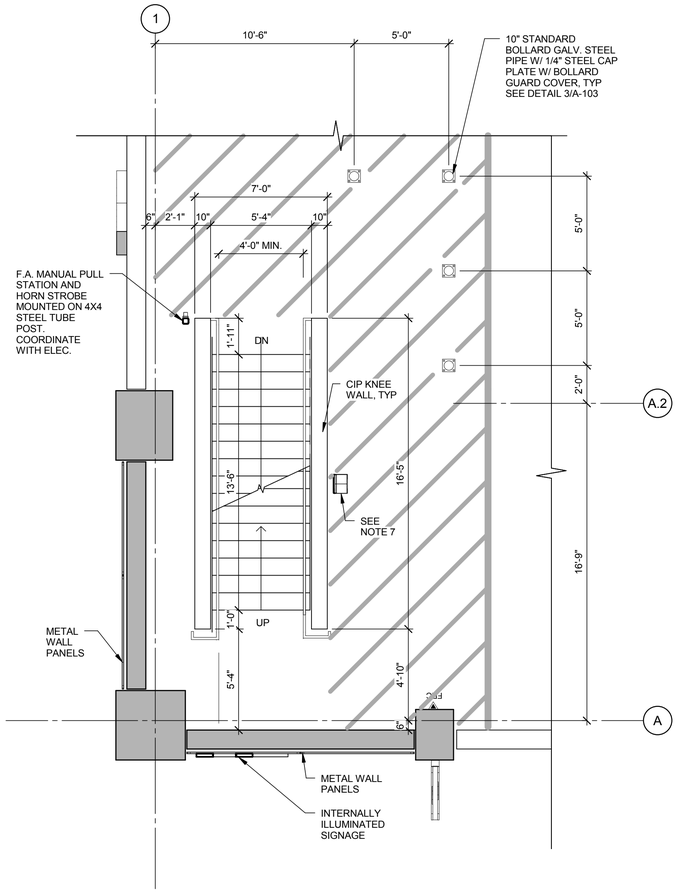
PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
STAIR / ELEVATOR A - ENLARGED PLANS

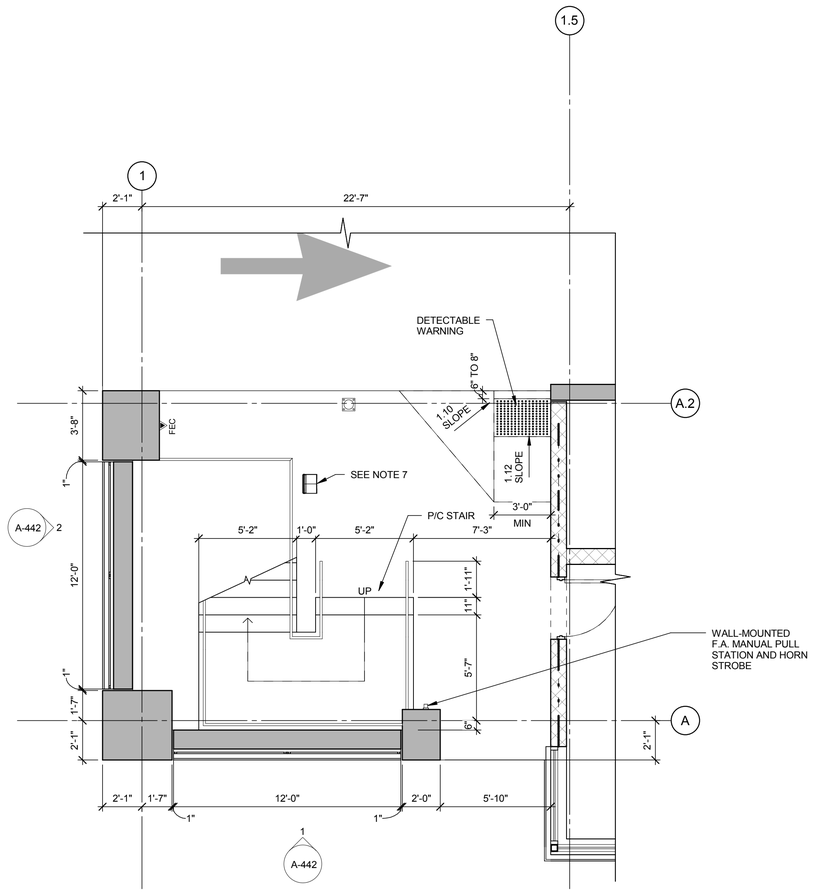
A-412

SHEET NOTES

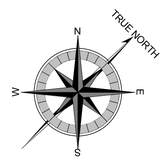
1. CAULK ALL PANEL JOINTS AT STAIR TOWER (INTERIOR & EXTERIOR).
2. COORDINATE SIZE AND LOCATIONS OF ELEVATOR DOOR OPENINGS WITH ELEVATOR SUPPLIER.
3. DIMENSIONS BETWEEN HANDRAILS SHALL BE 4'-0" MINIMUM.
4. SEE STRUCTURAL DRAWINGS FOR PRECAST SIZES AND DIMENSIONS.
5. COORDINATE SPACING OF VERTICAL GUARDRAIL BALUSTERS W/ LOCATION OF SUPPORT POST.
6. FOR ROOF PARAPET, SCUPPER AND LOUVER DETAILS REFER TO SHEET A-520.
7. GALV. HSS 12x2 FROM FLOOR TO CEILING FOR MOUNTING OF EMERGENCY CALL BOX.



2 SECOND TIER PLAN
1/4" = 1'-0"



1 GROUND TIER PLAN
1/4" = 1'-0"



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ISSUE:

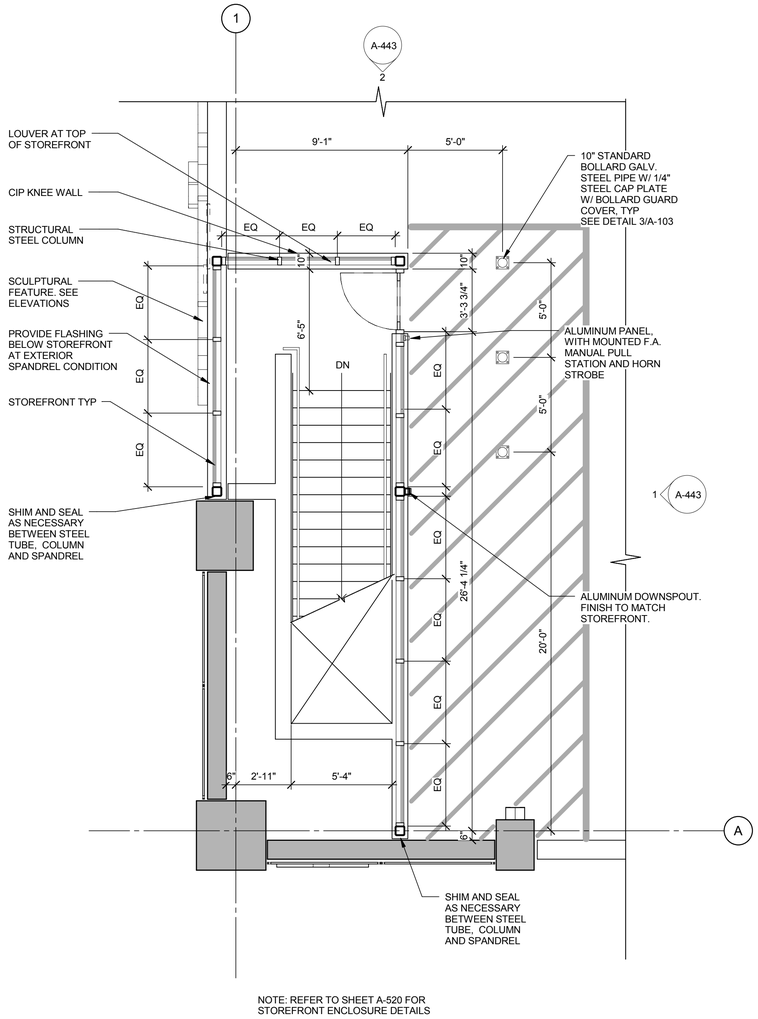
PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
STAIR / ELEVATOR B - ENLARGED PLANS

A-420

SHEET NOTES

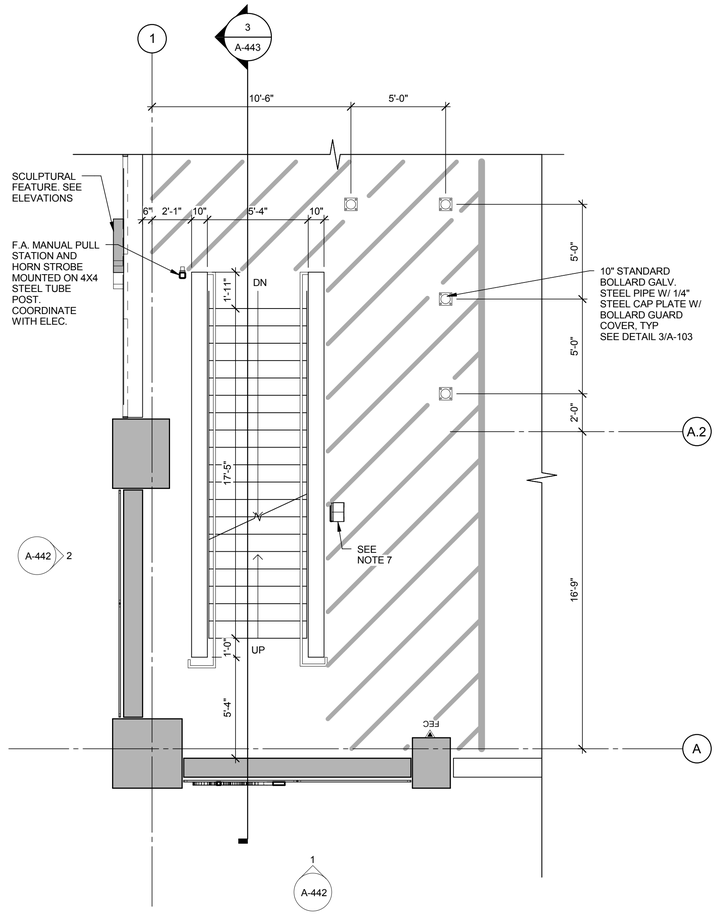
1. CAULK ALL PANEL JOINTS AT STAIR TOWER (INTERIOR & EXTERIOR).
2. COORDINATE SIZE AND LOCATIONS OF ELEVATOR DOOR OPENINGS WITH ELEVATOR SUPPLIER.
3. DIMENSIONS BETWEEN HANDRAILS SHALL BE 4'-0" MINIMUM.
4. SEE STRUCTURAL DRAWINGS FOR PRECAST SIZES AND DIMENSIONS.
5. COORDINATE SPACING OF VERTICAL GUARDRAIL BALUSTERS W/ LOCATION OF SUPPORT POST.
6. FOR ROOF PARAPET, SCUPPER AND LOUVER DETAILS REFER TO SHEET A-520.
7. GALV. HSS 12x2 FROM FLOOR TO CEILING FOR MOUNTING OF EMERGENCY CALL BOX.



NOTE: REFER TO SHEET A-520 FOR STOREFRONT ENCLOSURE DETAILS

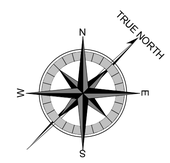
2 SIXTH TIER PLAN

1/4" = 1'-0"



1 TYPICAL TIER PLAN

1/4" = 1'-0"



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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: SMM

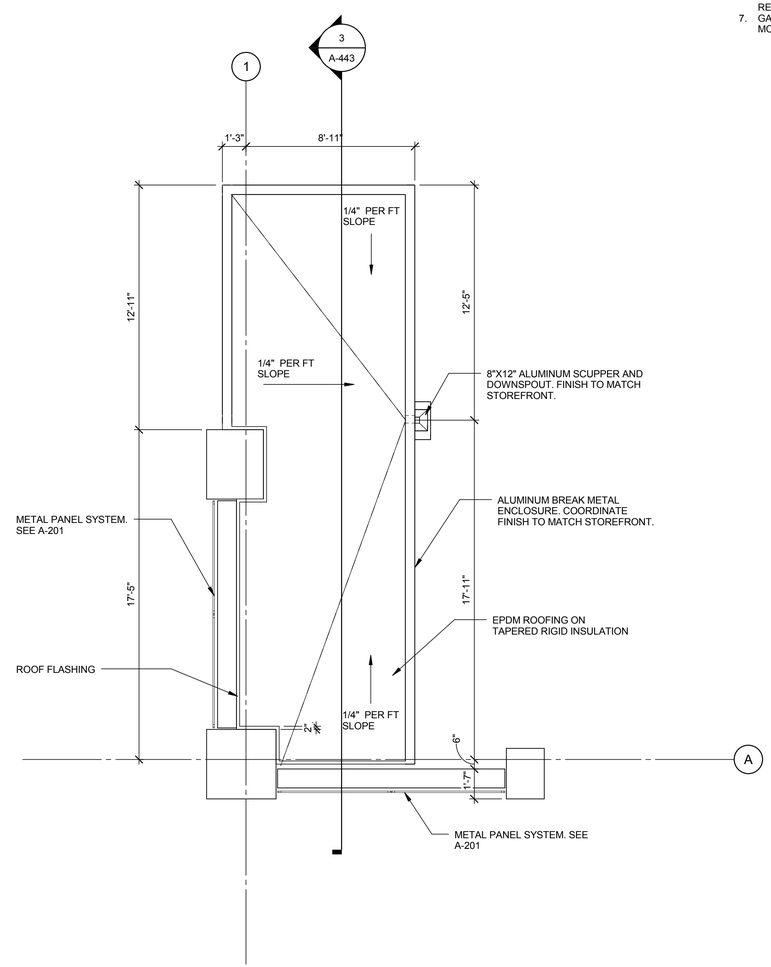
SHEET TITLE:

STAIR / ELEVATOR B - ENLARGED PLANS

A-421

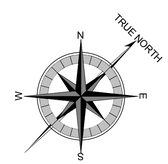
SHEET NOTES

1. CAULK ALL PANEL JOINTS AT STAIR TOWER (INTERIOR & EXTERIOR).
2. COORDINATE SIZE AND LOCATIONS OF ELEVATOR DOOR OPENINGS WITH ELEVATOR SUPPLIER.
3. DIMENSIONS BETWEEN HANDRAILS SHALL BE 4'-0" MINIMUM.
4. SEE STRUCTURAL DRAWINGS FOR PRECAST SIZES AND DIMENSIONS.
5. COORDINATE SPACING OF VERTICAL GUARDRAIL BALUSTERS W/ LOCATION OF SUPPORT POST.
6. FOR ROOF PARAPET, SCUPPER AND LOUVER DETAILS REFER TO SHEET A-520.
7. GALV. HSS 12x2 FROM FLOOR TO CEILING FOR MOUNTING OF EMERGENCY CALL BOX.



1 ROOF PLAN

1/4" = 1'-0"



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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	DESIGN DEVELOPMENT	05/05/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
STAIR / ELEVATOR B - ENLARGED PLANS

A-422

7/28/2017 3:34:11 PM
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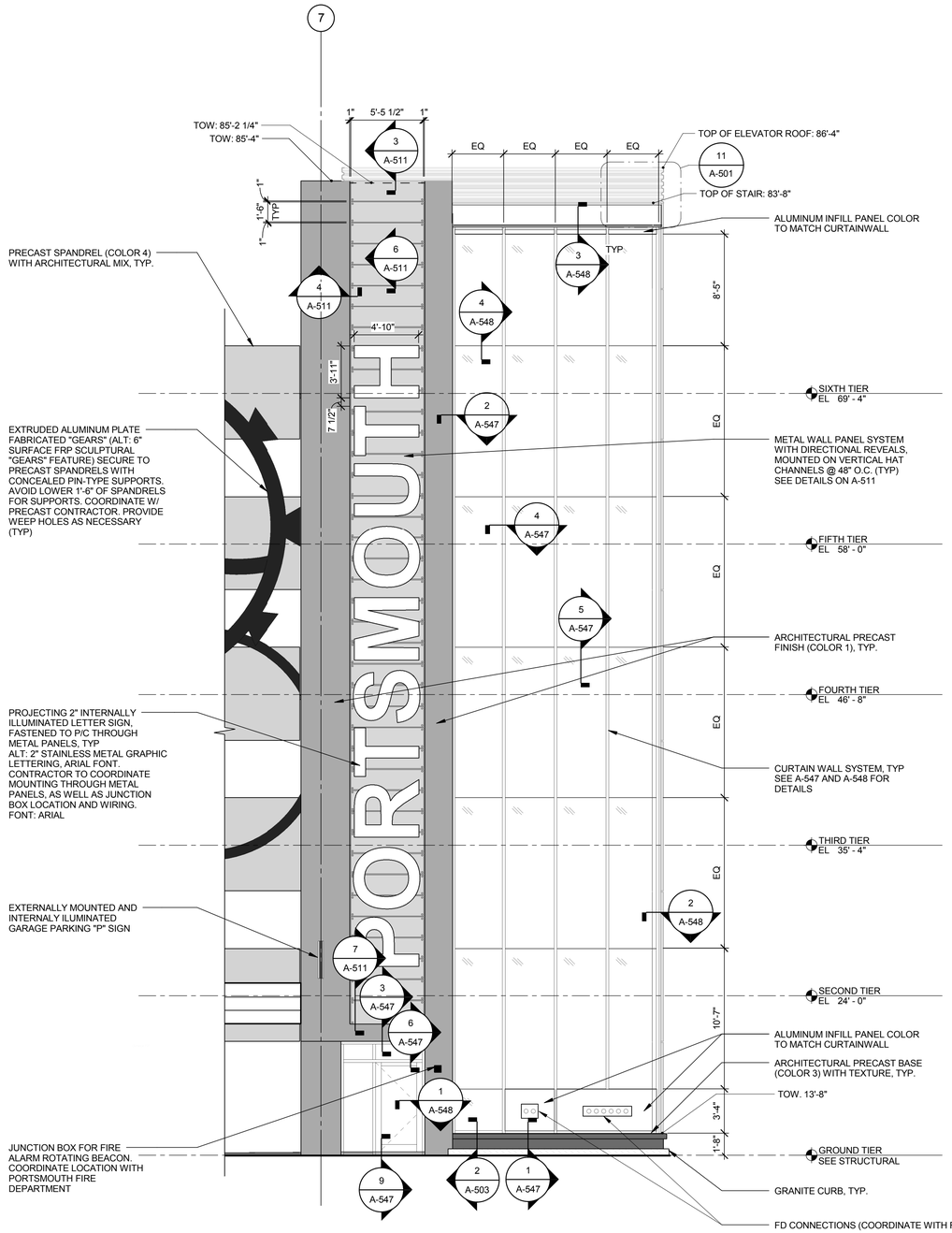
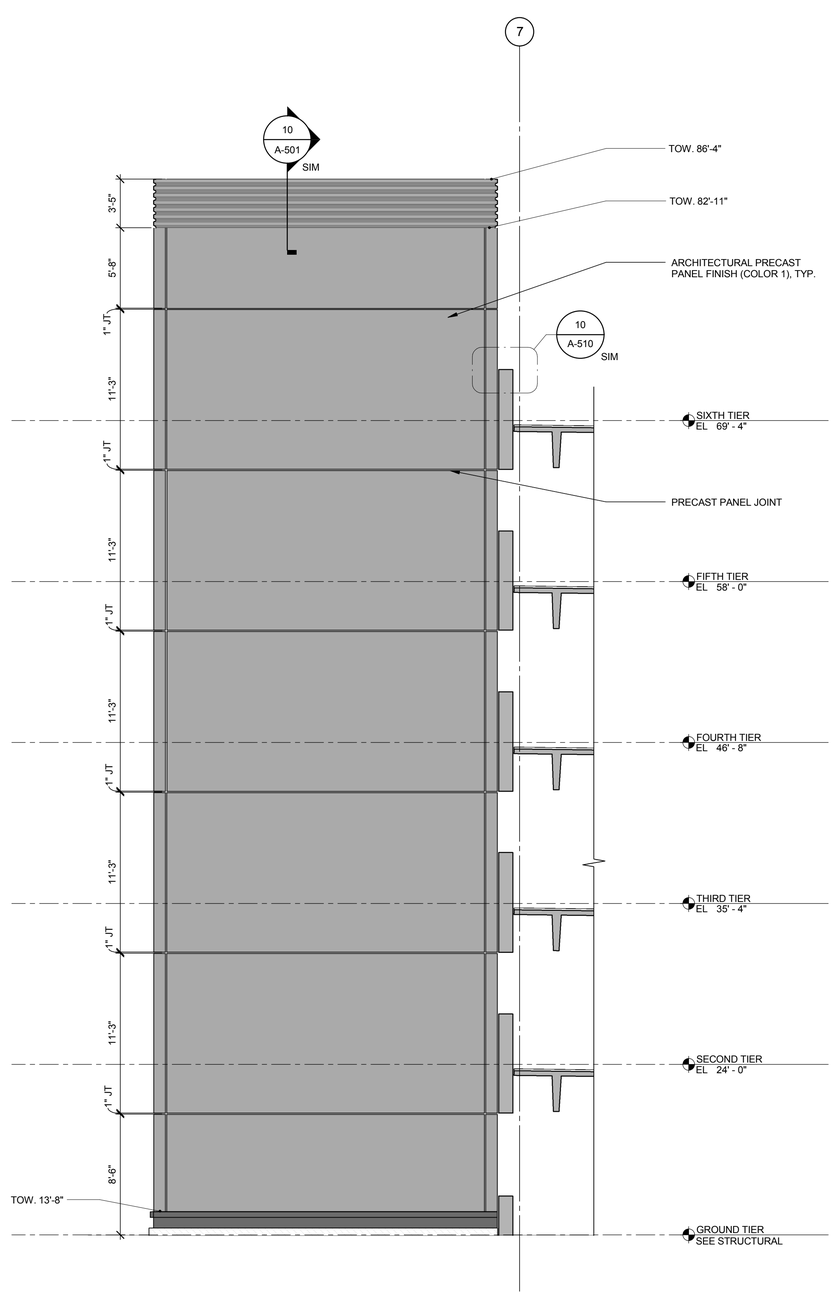


STAIR/ELEVATOR A - SOUTH ELEVATION

2 — 3/16" = 1'-0"



STAIR/ELEVATOR A - NORTH ELEVATION

1 — 3/16" = 1'-0"

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PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
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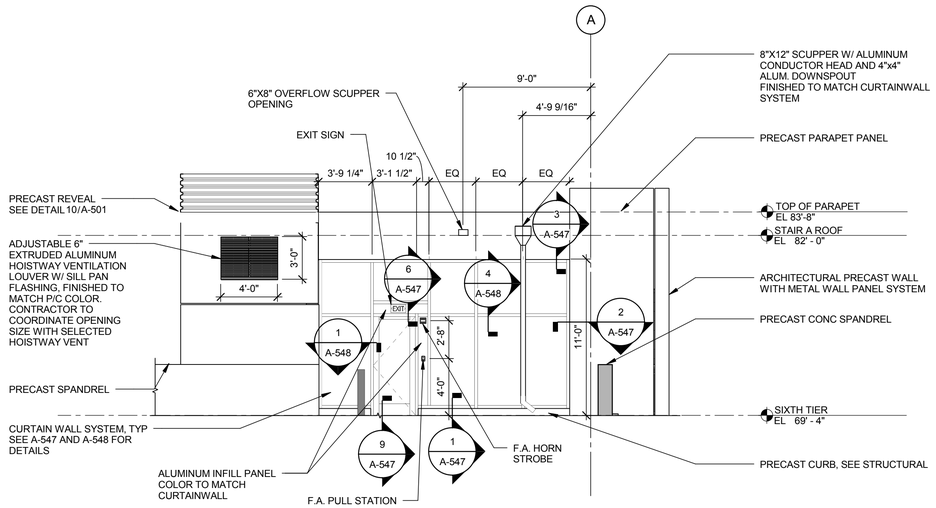
PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

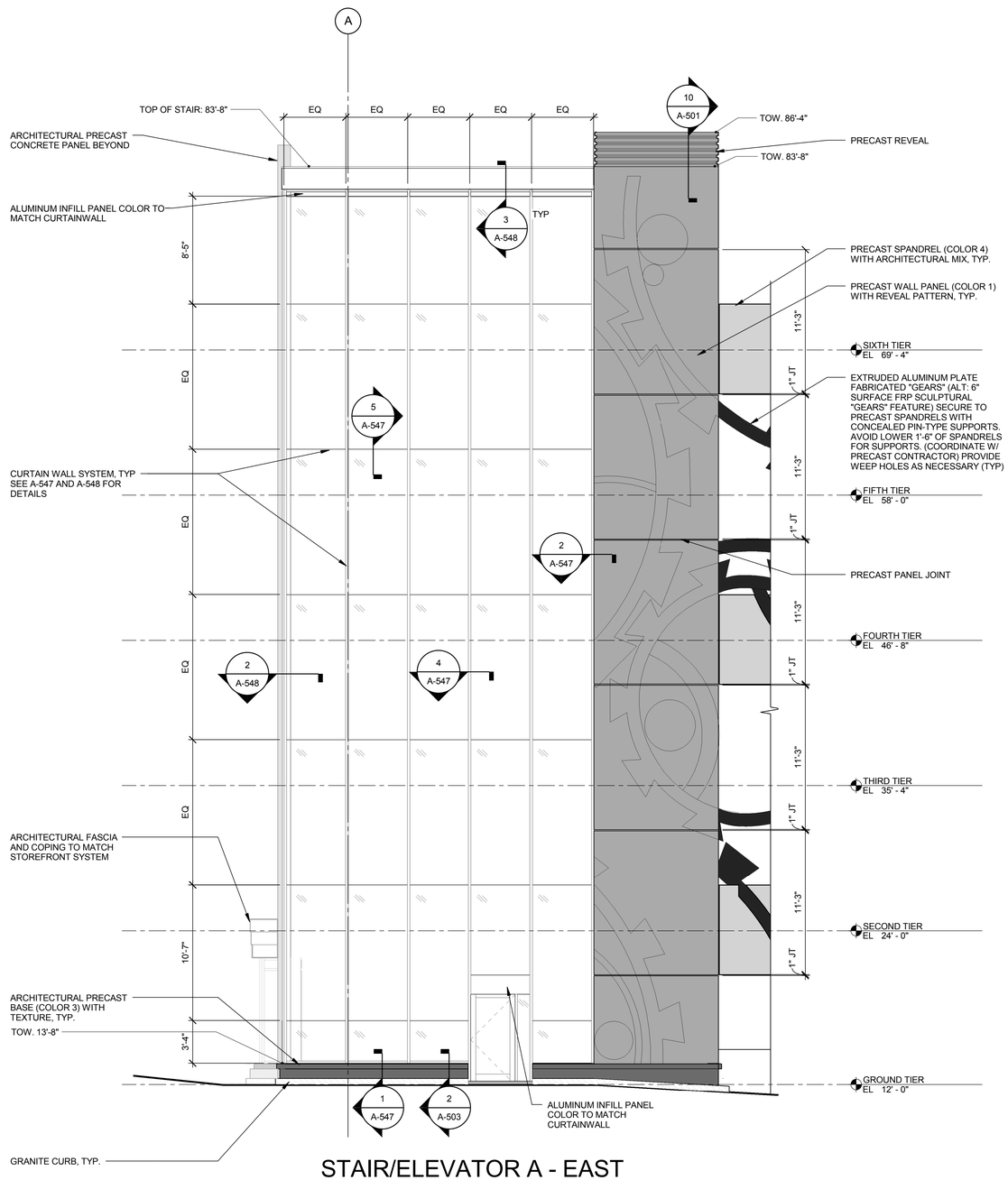
SHEET TITLE:
STAIR / ELEVATOR A - ELEVATIONS

A-440



STAIR/ELEVATOR A - WEST ELEVATION

1 — 3/16" = 1'-0"



STAIR/ELEVATOR A - EAST ELEVATION

2 — 3/16" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: SMM

SHEET TITLE:
STAIR / ELEVATOR A - ELEVATIONS

A-441

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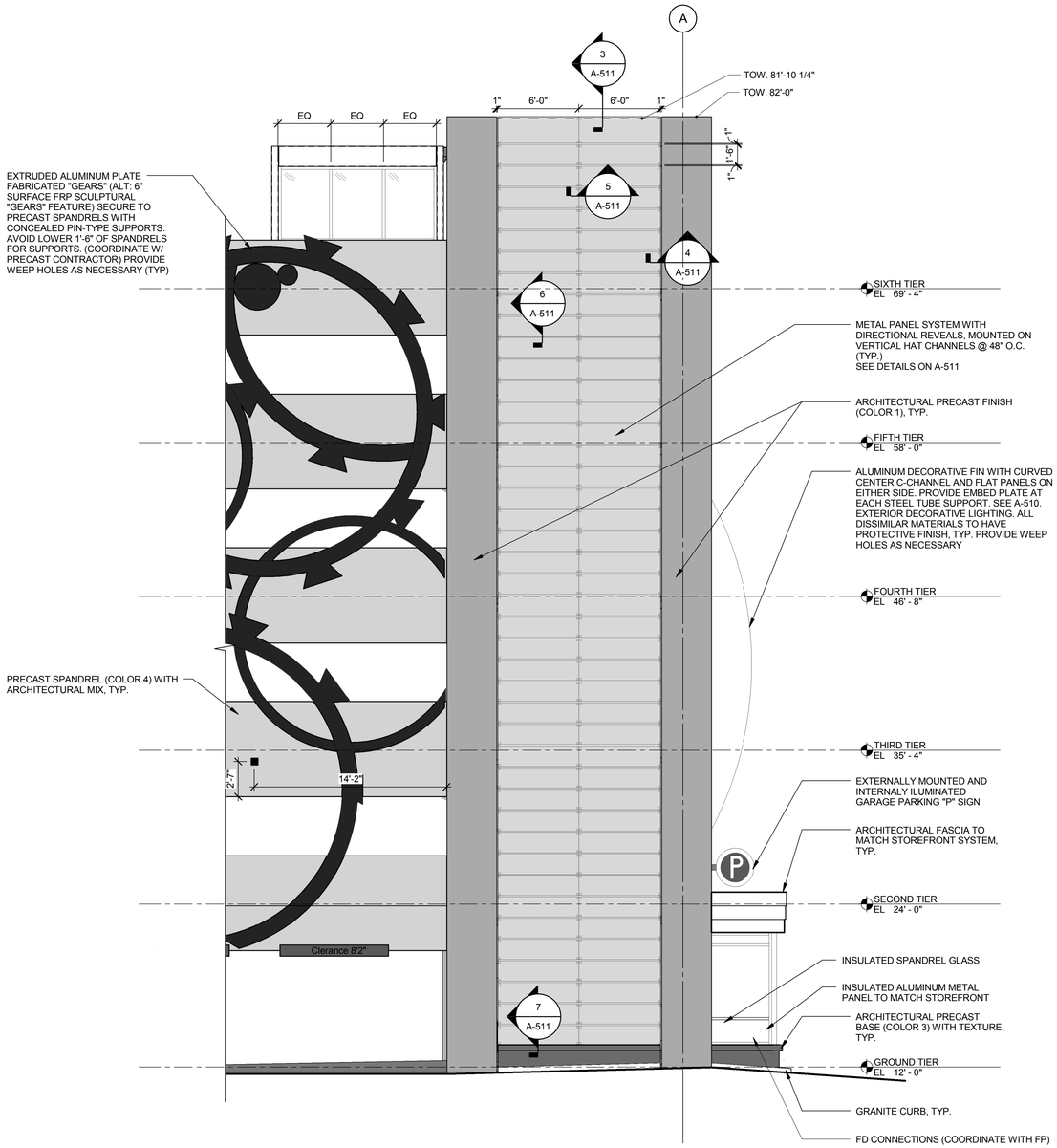
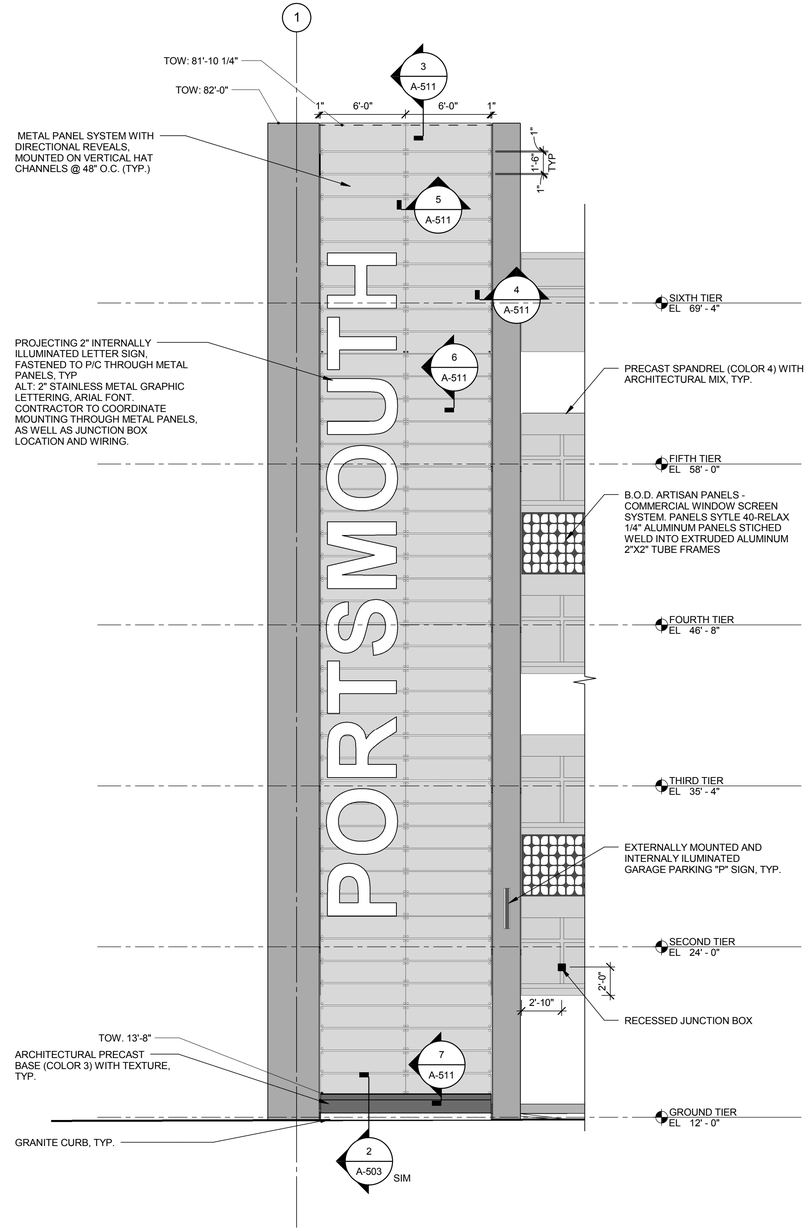


2 STAIR/ELEVATOR B - WEST ELEVATION

3/16" = 1'-0"



1 STAIR B - SOUTH ELEVATION

3/16" = 1'-0"

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PORTSMOUTH, NEW HAMPSHIRE

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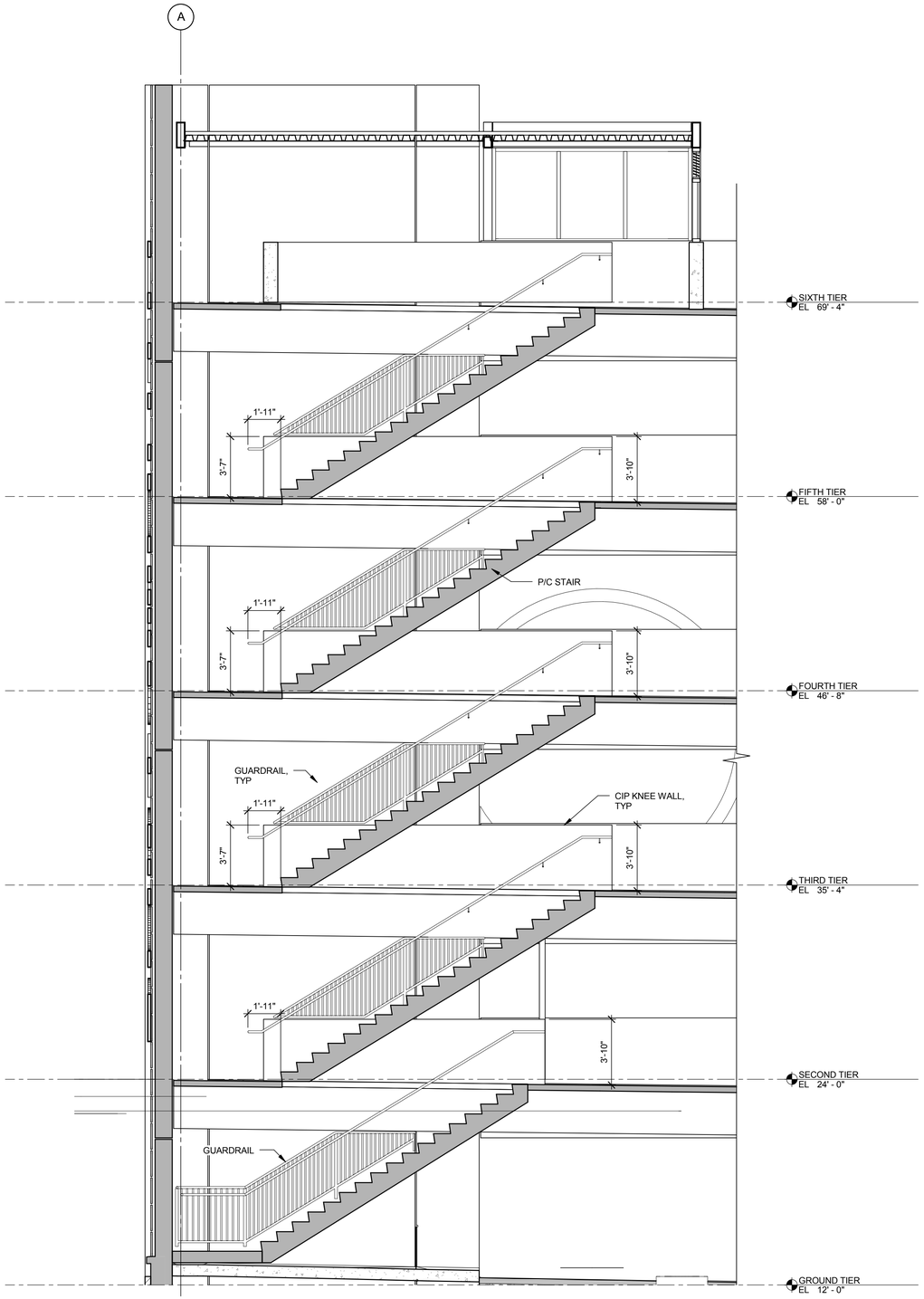
PROJECT NO:	16-2683.01
DRAWN BY:	LEL
CHECKED BY:	SMM

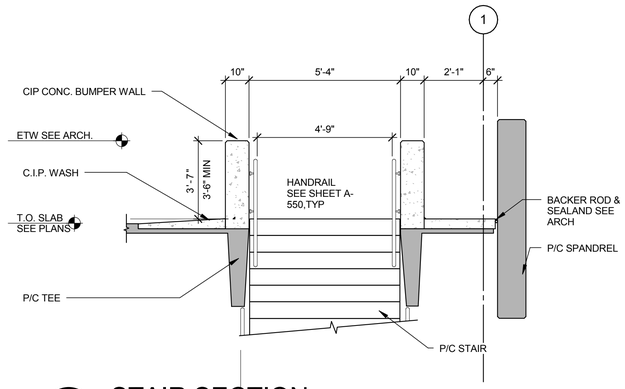
SHEET TITLE:
STAIR / ELEVATOR B - ELEVATIONS

A-442



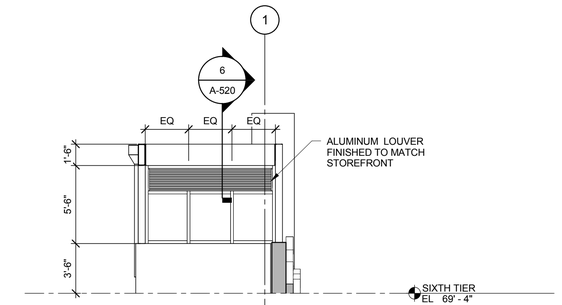
3 STAIR B - SECTION

1/4" = 1'-0"



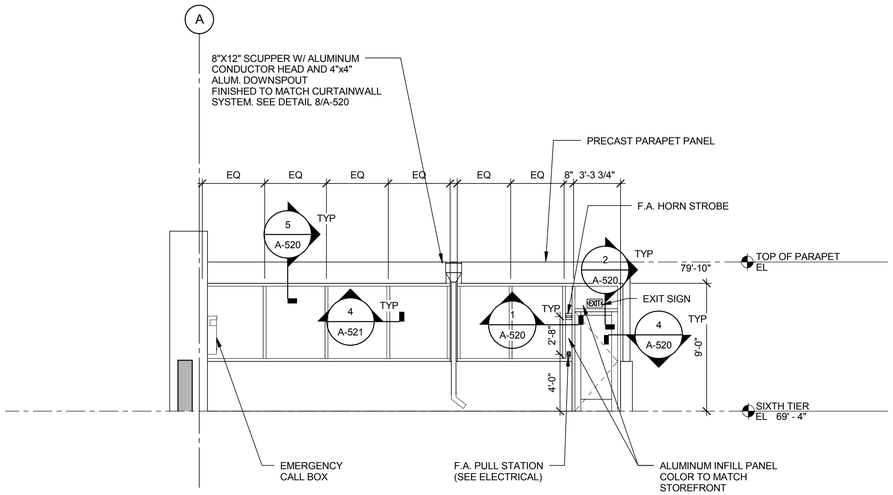
4 STAIR SECTION

3/8" = 1'-0"



2 STAIR B - NORTH ELEVATION

3/16" = 1'-0"



1 STAIR/ELEVATOR B - EAST ELEVATION

3/16" = 1'-0"

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PORTSMOUTH, NEW HAMPSHIRE

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SHEET TITLE:
STAIR / ELEVATOR B - ELEVATIONS

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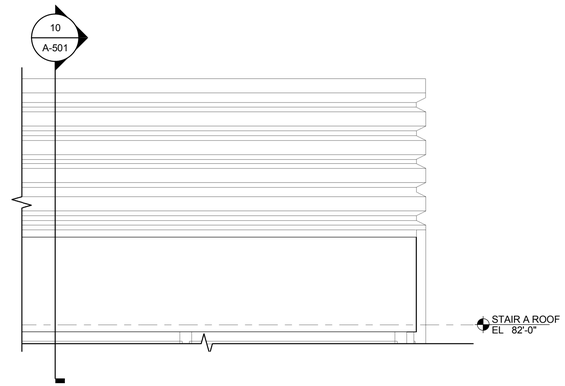
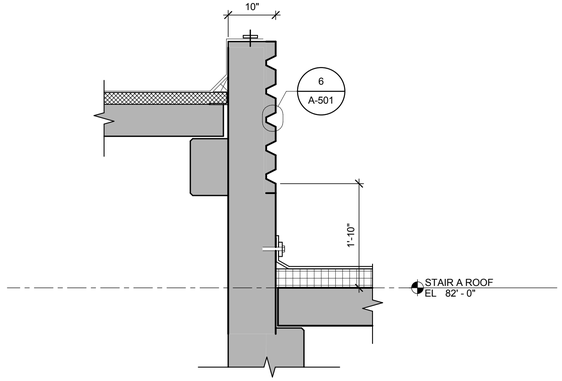
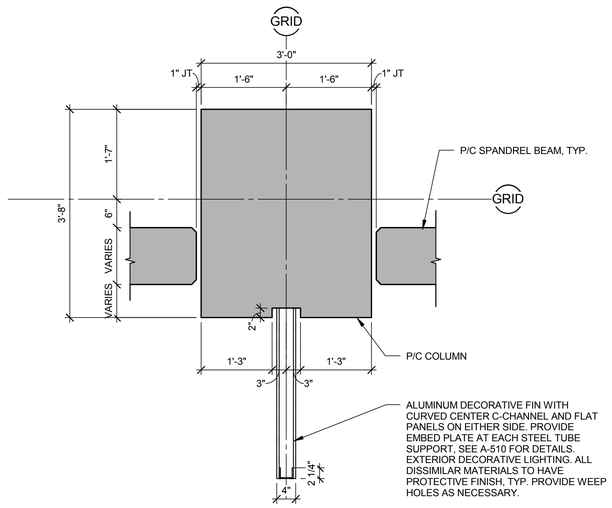


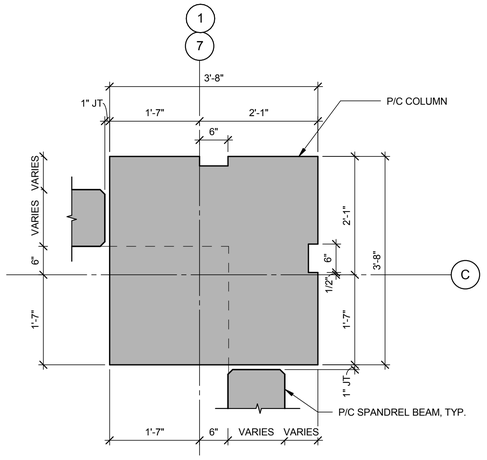
11 TOP OF ELEVATOR SHAFT DETAIL
3/4" = 1'-0"



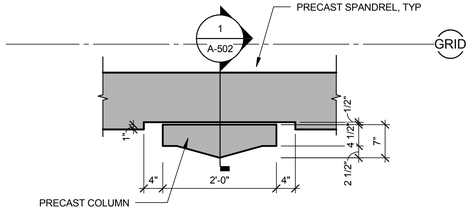
10 TOP OF ELEVATOR SHAFT DETAIL
3/4" = 1'-0"



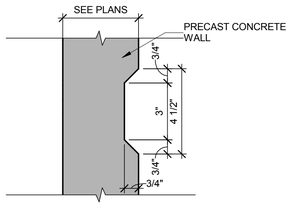
9 COLUMN DETAIL
3/4" = 1'-0"



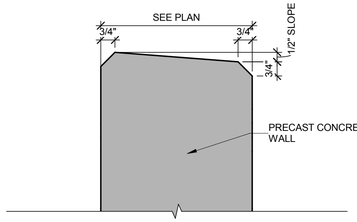
8 COLUMN DETAIL
3/4" = 1'-0"



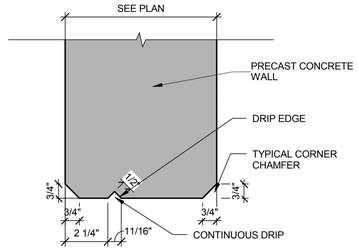
7 COLUMN DETAIL
3/4" = 1'-0"



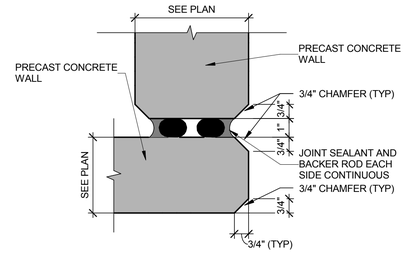
6 REVEAL - 4 1/2"
3" = 1'-0"



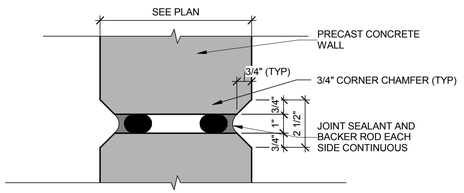
5 CONCRETE PANEL - DRAFT
3" = 1'-0"



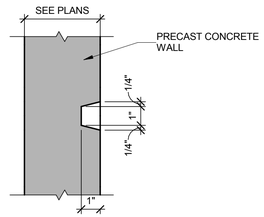
4 CONCRETE EDGE - CHAMFER
3" = 1'-0"



3 CORNER JOINT - 90 DEGREES
3" = 1'-0"



2 PANEL JOINT - CHAMFER
3" = 1'-0"



1 TYPICAL REVEAL
3" = 1'-0"

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FOUNDRY PLACE
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PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 16-2683.01
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SHEET TITLE:
PRECAST DETAILS

A-501

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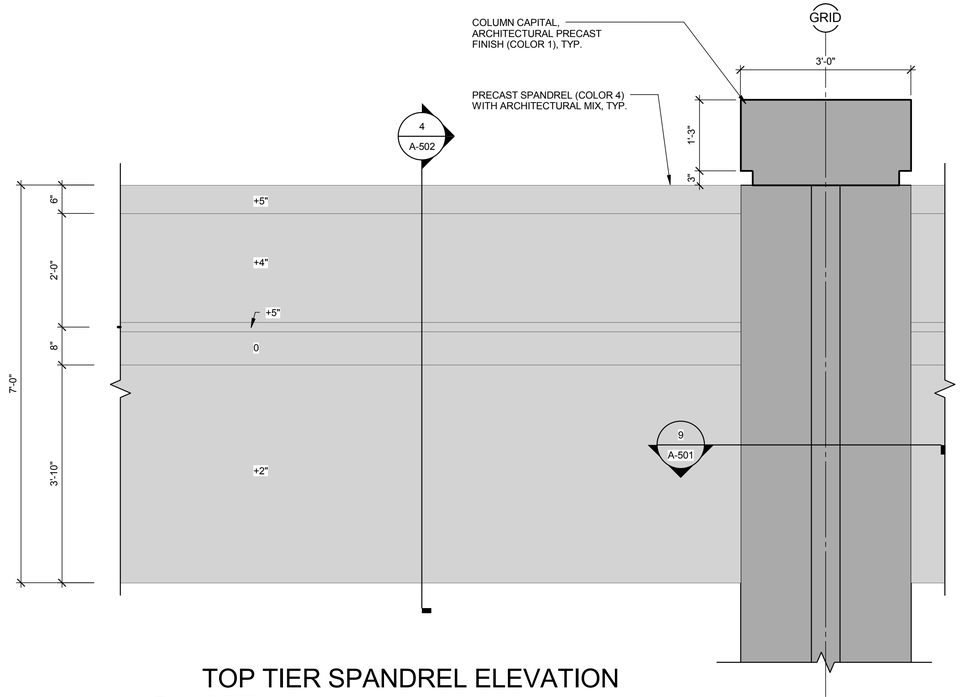
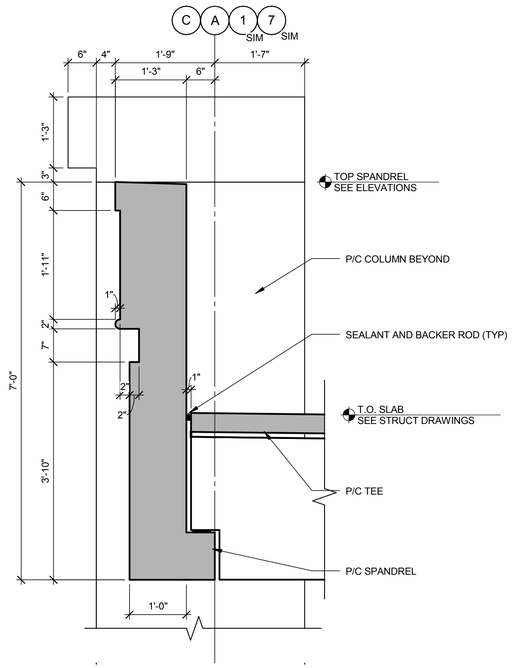


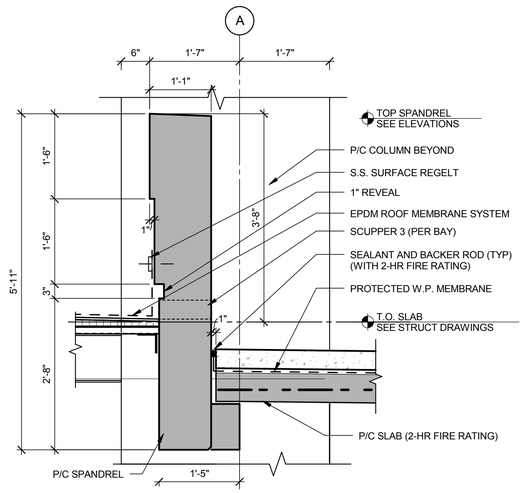
TOP TIER SPANDREL ELEVATION DETAIL

6 3/4" = 1'-0"



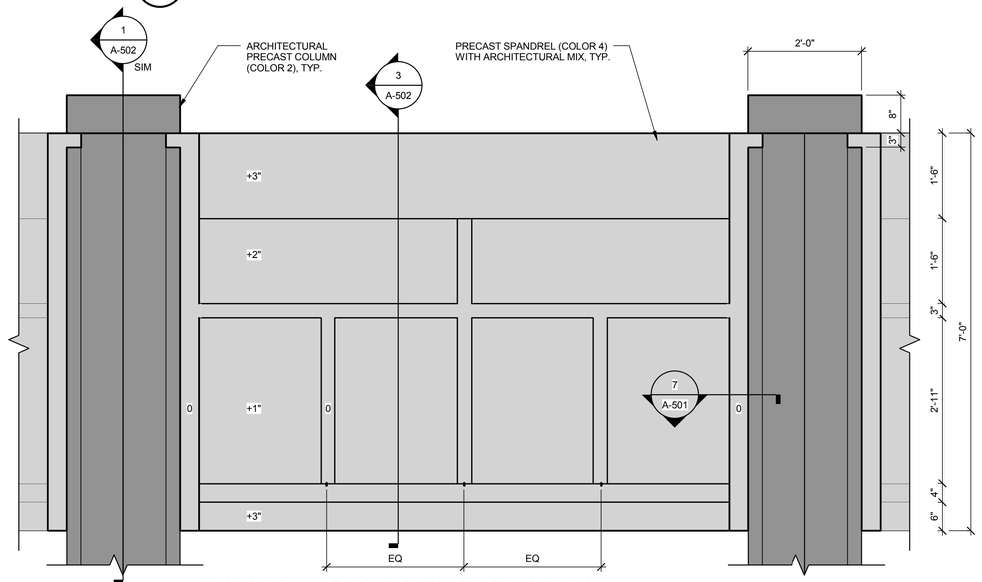
TOP TIER SPANDREL DETAIL

4 3/4" = 1'-0"



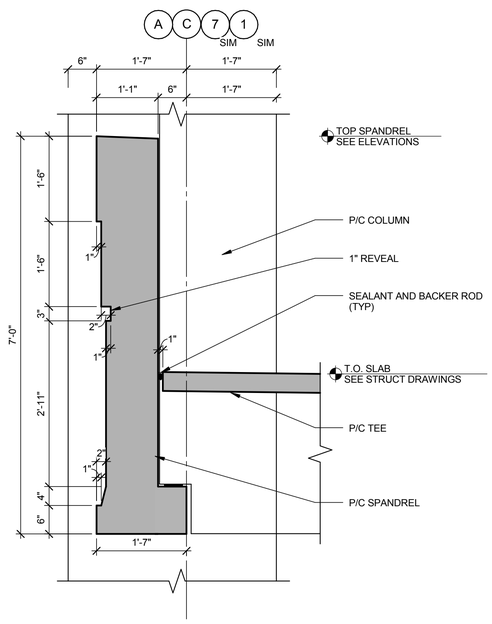
SPANDREL DETAIL AT FLEX SPACE

2 3/4" = 1'-0"



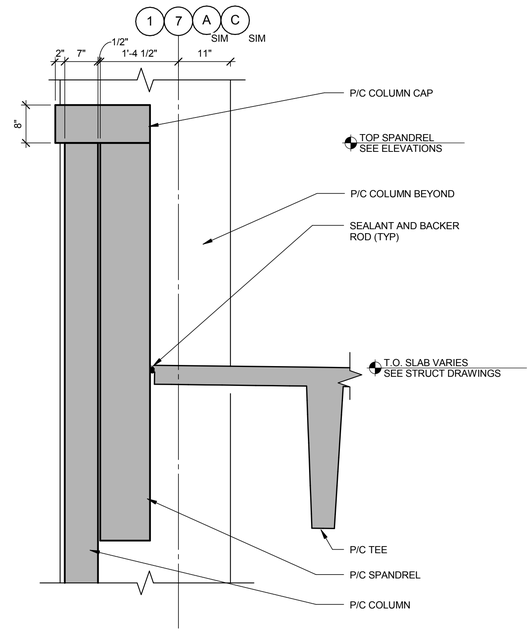
TYPICAL SPANDREL ELEVATION DETAIL

5 3/4" = 1'-0"



TYPICAL SPANDREL DETAIL

3 3/4" = 1'-0"



SPANDREL / PILASTER DETAIL

1 3/4" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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PROJECT NO: 16-2683.01
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SHEET TITLE:
PRECAST DETAILS

A-502

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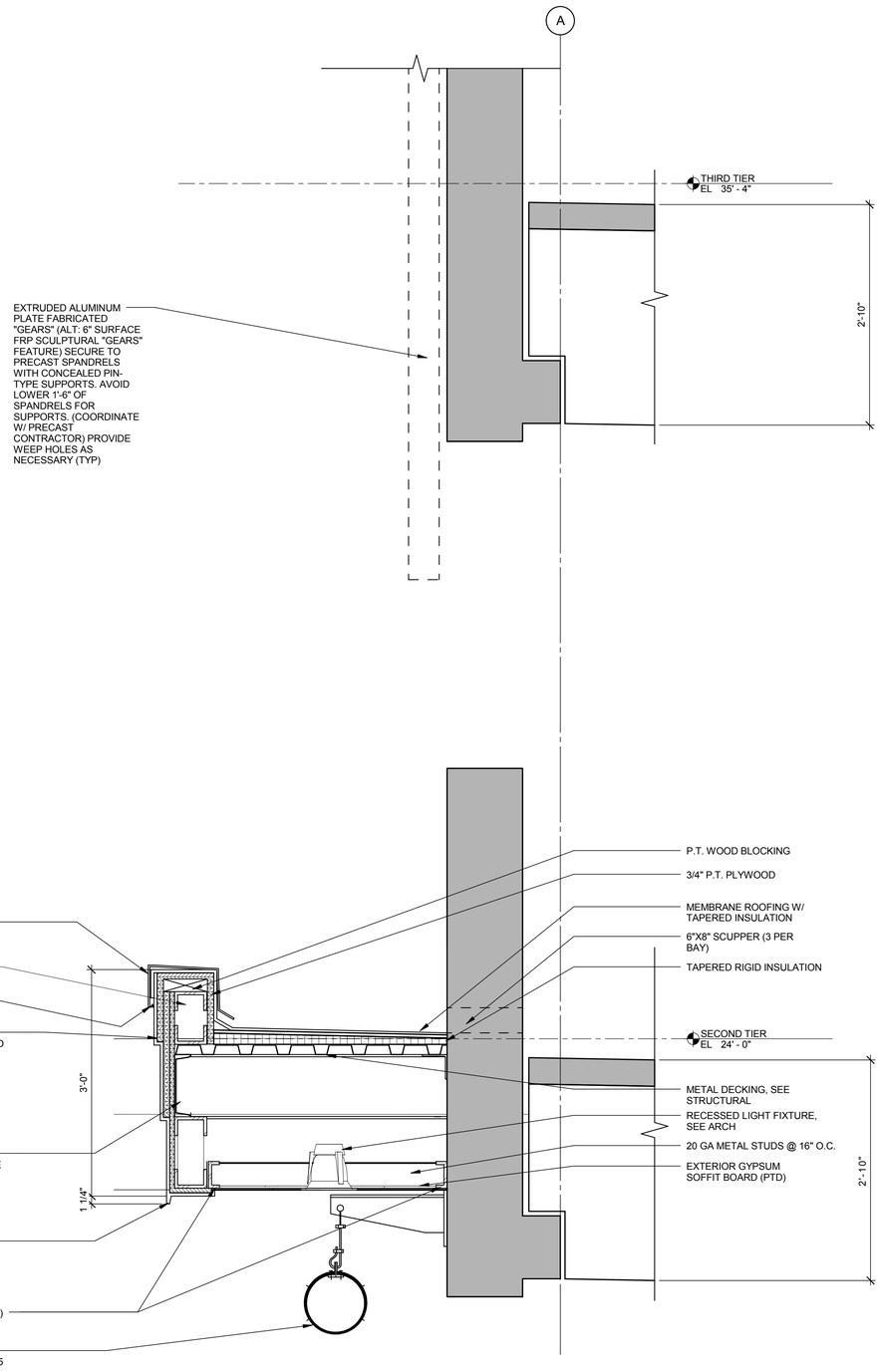
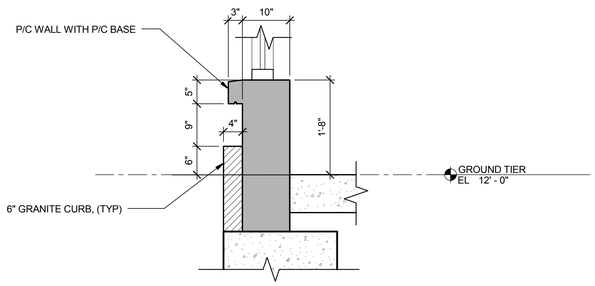


1 ENTRANCE CANOPY SECTION
1" = 1'-0"



2 KNEE WALL DETAIL
3/4" = 1'-0"

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FOUNDRY PLACE
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PORTSMOUTH, NEW HAMPSHIRE

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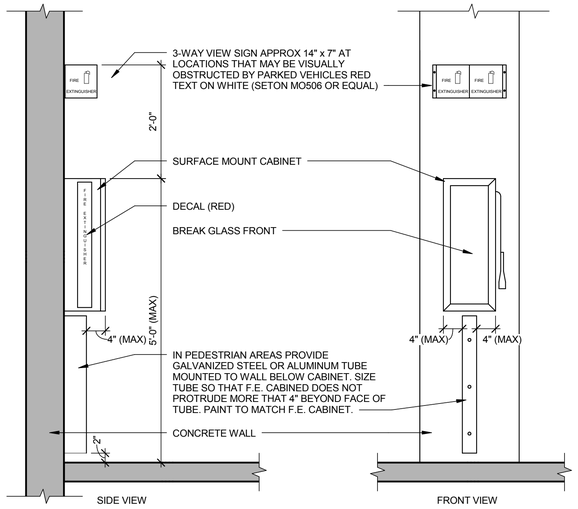
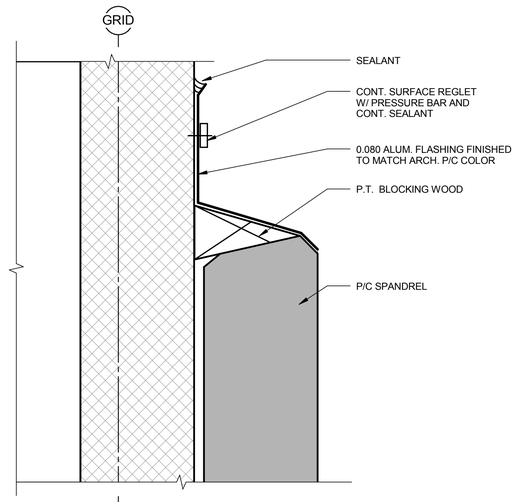


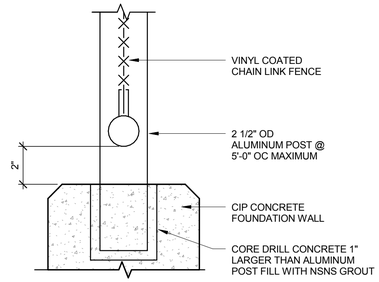
11 FIRE EXTINGUISHER CABINET

3/4" = 1'-0"



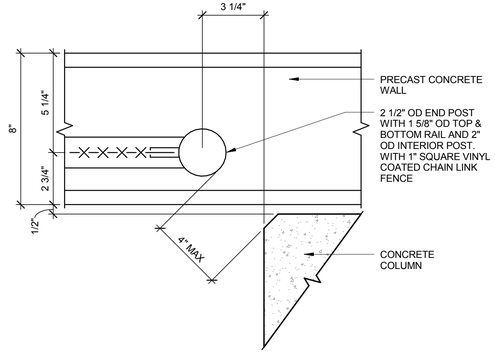
10 EXTERIOR FLASHING DETAIL

1 1/2" = 1'-0"



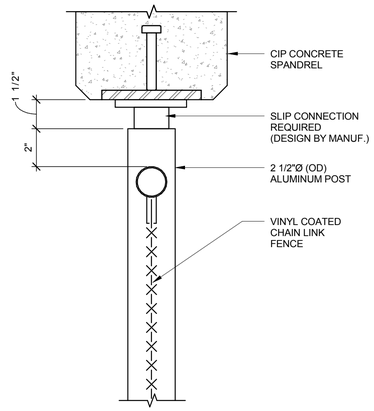
9 SECURITY FENCE SILL DETAIL

3" = 1'-0"



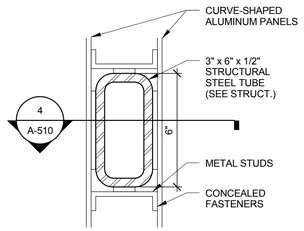
8 SECURITY FENCE PLAN DETAIL

3" = 1'-0"



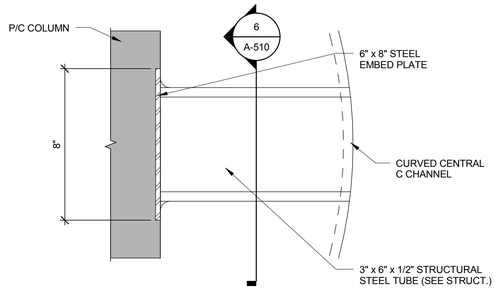
7 SECURITY FENCE HEAD DETAIL

3" = 1'-0"



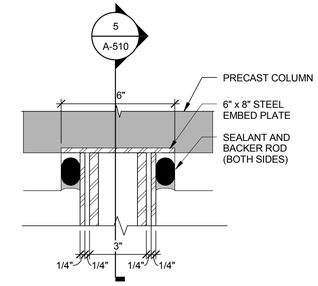
6 ARCHITECTURAL FIN DETAIL

3" = 1'-0"



5 ARCHITECTURAL FIN DETAIL

3" = 1'-0"



4 ARCHITECTURAL FIN DETAIL

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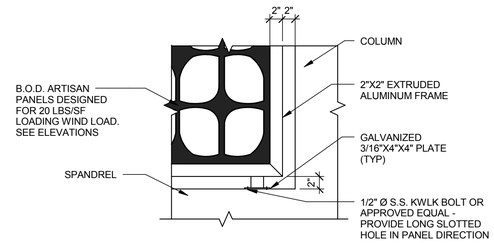
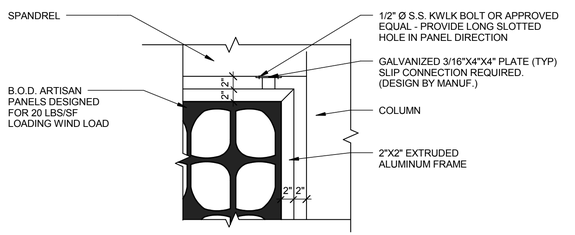


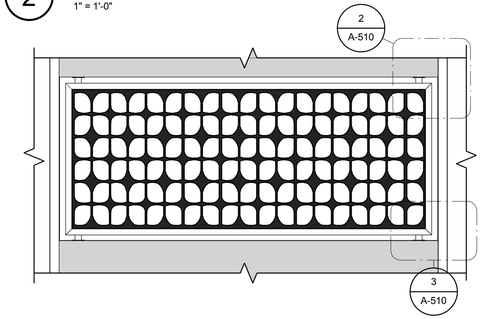
WINDOW SCREEN SYSTEM MOUNTING DETAIL

3 — 1" = 1'-0"



WINDOW SCREEN SYSTEM MOUNTING DETAIL

2 — 1" = 1'-0"



ENLARGED PANEL WINDOW SCREEN DETAIL

1 — 1/2" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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MISCELLANEOUS DETAILS

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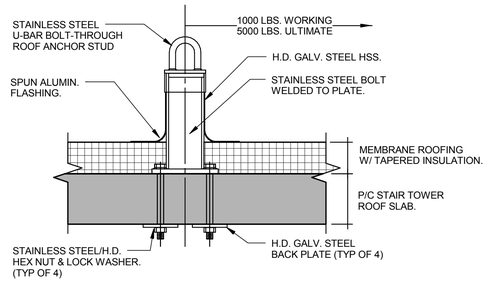
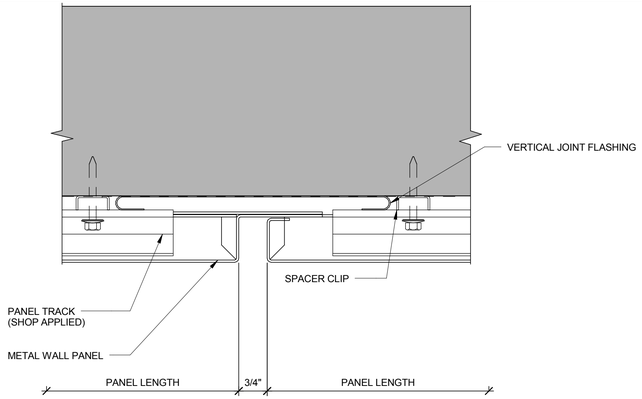


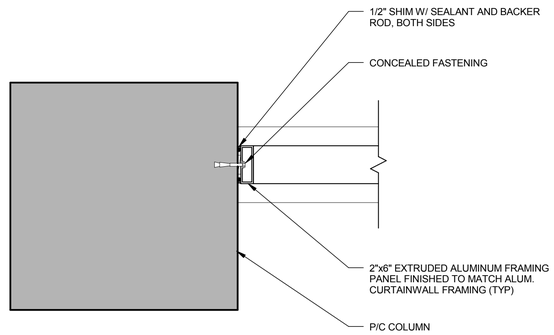
PRO-BEL MODEL #PB73-00A4 SAFETY TIE BACK ANCHOR. OR APPROVED EQUIVALENT.

NOTE:
1. SEE ARCHITECTURAL STAIR TOWER ROOF PLANS ("A" SERIES) FOR SAFETY TIE BACK LOCATIONS. (TYP.)

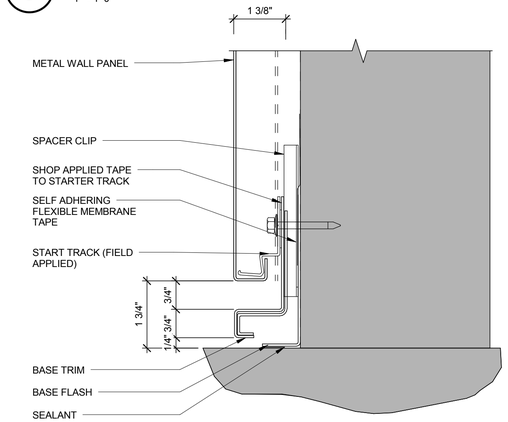
8 SAFETY TIE-BACK DETAIL
1" = 1'-0"



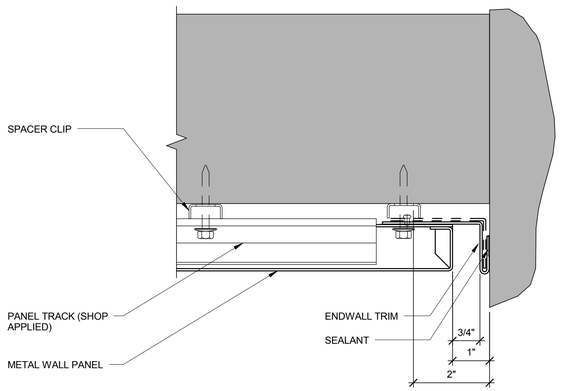
5 METAL PANEL VERTICAL PANEL JOINT
6" = 1'-0"



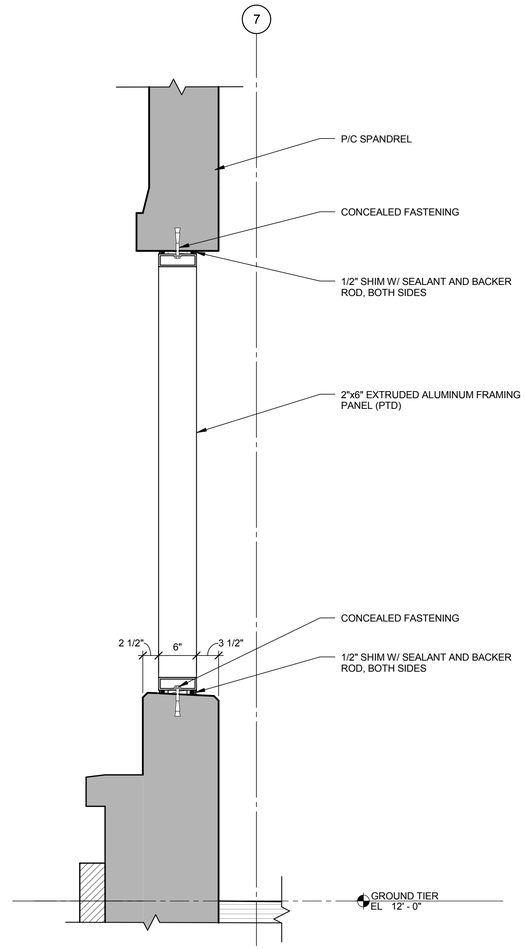
2 DECORATIVE FRAMING PANEL DETAIL
1" = 1'-0"



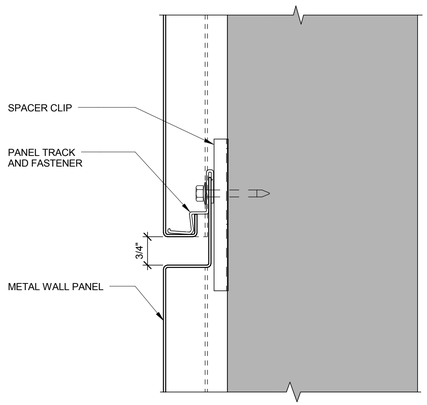
7 METAL PANEL BASE PLATE DETAIL
6" = 1'-0"



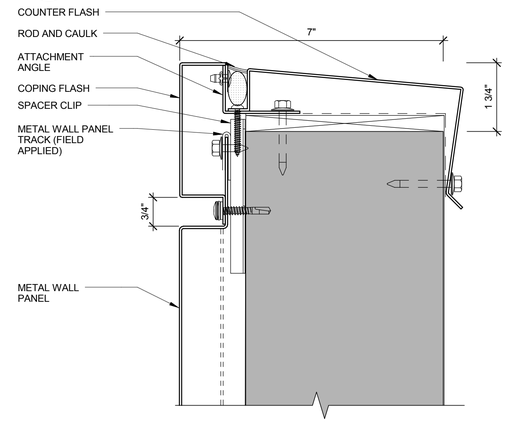
4 METAL PANEL END WALL DETAIL
6" = 1'-0"



1 DECORATIVE FRAMING PANEL DETAIL
1" = 1'-0"



6 METAL PANEL HORIZONTAL PANEL JOINT
6" = 1'-0"



3 METAL PANEL PARAPET CAP DETAIL
6" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE
PORTSMOUTH, NEW HAMPSHIRE

ISSUE: DESCRIPTION	DATE	MARK
CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
MISCELLANEOUS DETAILS

A-511

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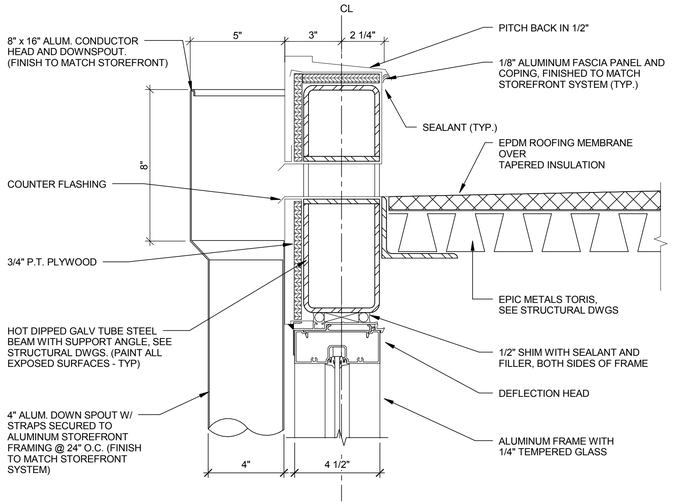
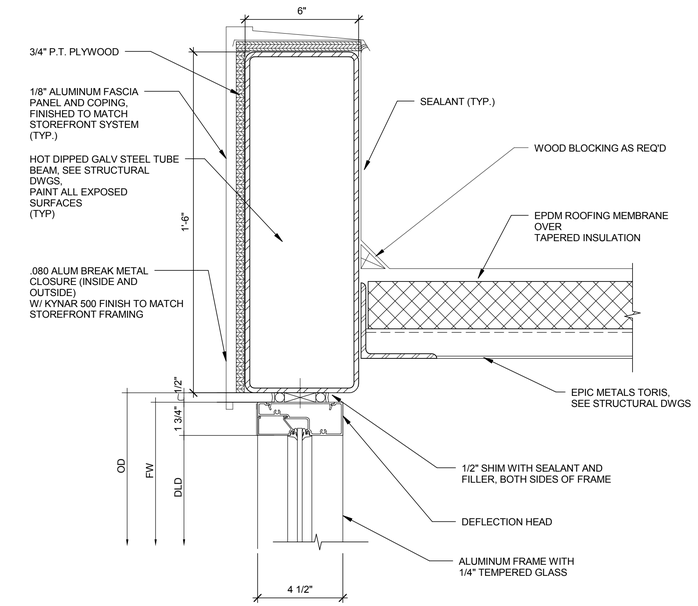


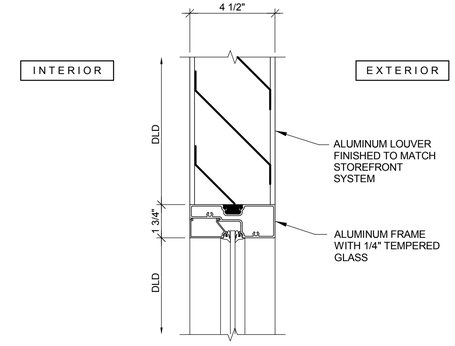
CONDUCTOR HEAD AND DOWNSPOUT DETAIL

7 — 3" = 1'-0"



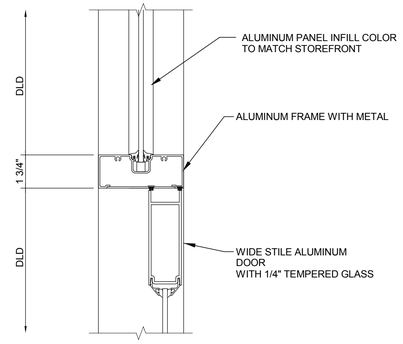
HEAD DETAIL

5 — 3" = 1'-0"



LOUVER SILL DETAIL

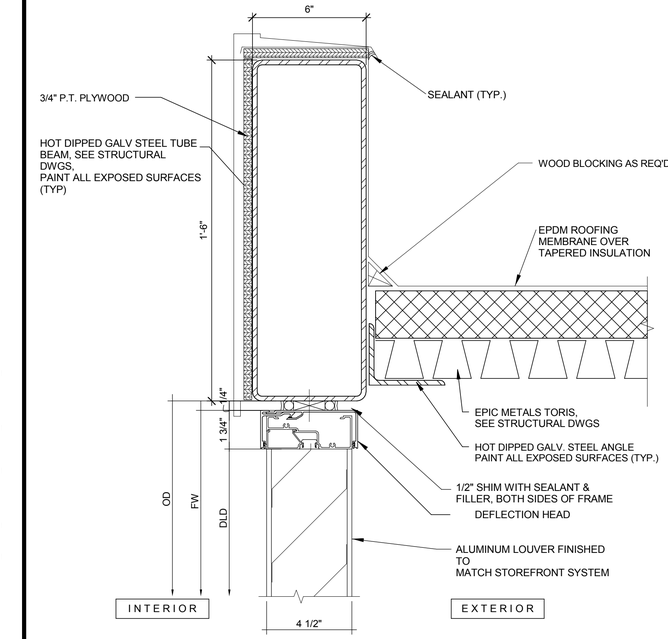
3 — 3" = 1'-0"



NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

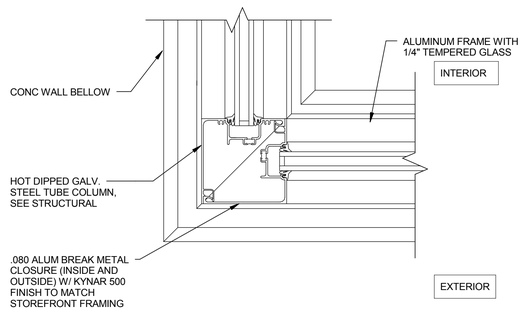
DOOR HEAD AT HORIZONTAL MULLION

2 — 3" = 1'-0"



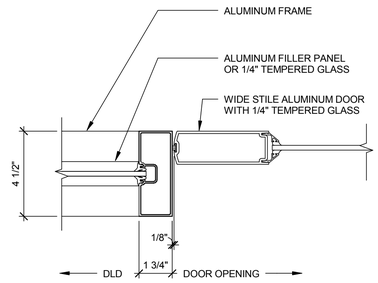
LOUVER HEAD DETAIL

6 — 3" = 1'-0"



JAMB DETAIL

4 — 3" = 1'-0"



NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

JAMB DETAIL

1 — 3" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	
	DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: SMM

SHEET TITLE:
STOREFRONT DETAILS

A-520

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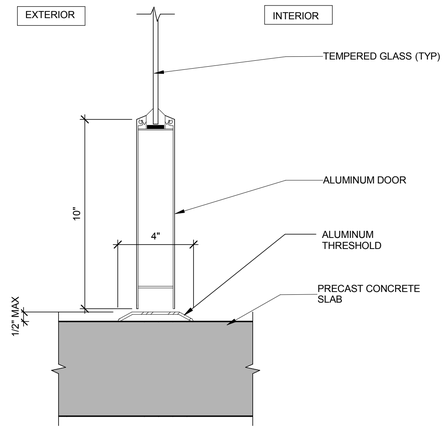
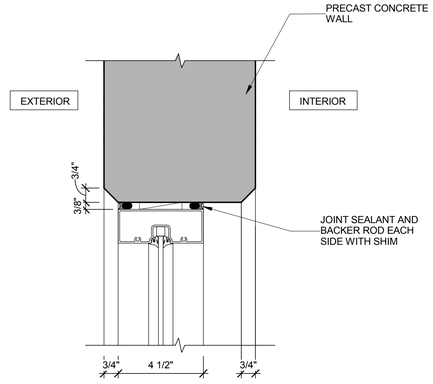


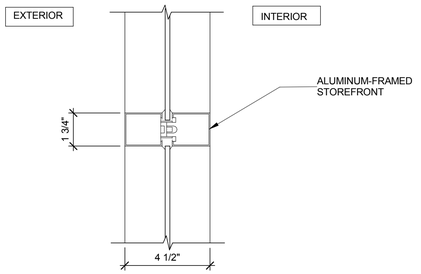
NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

6 DOOR SILL
3" = 1'-0"



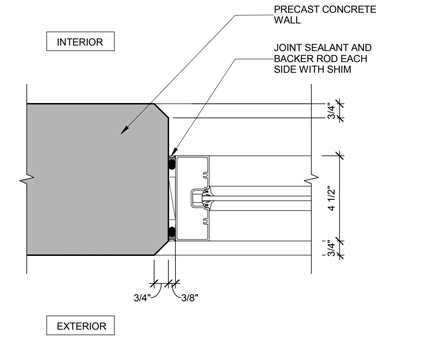
NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

3 HEAD AT WALL
3" = 1'-0"



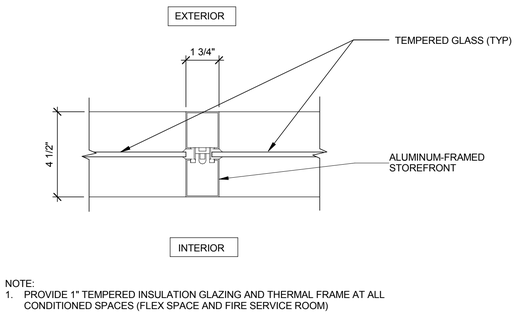
NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

5 INTERMEDIATE HORIZONTAL MULLION
3" = 1'-0"



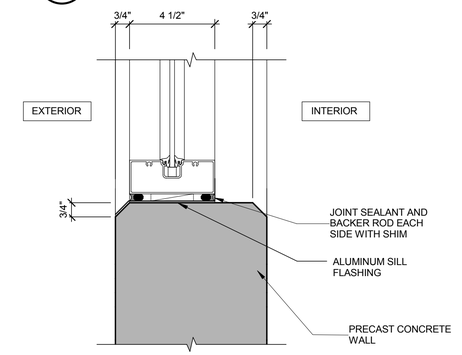
NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

2 JAMB AT WALL
3" = 1'-0"



NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

4 INTERMEDIATE VERTICAL MULLION
3" = 1'-0"



NOTE:
1. PROVIDE 1" TEMPERED INSULATION GLAZING AND THERMAL FRAME AT ALL CONDITIONED SPACES (FLEX SPACE AND FIRE SERVICE ROOM)

1 SILL AT WALL
3" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
STOREFRONT DETAILS

A-521

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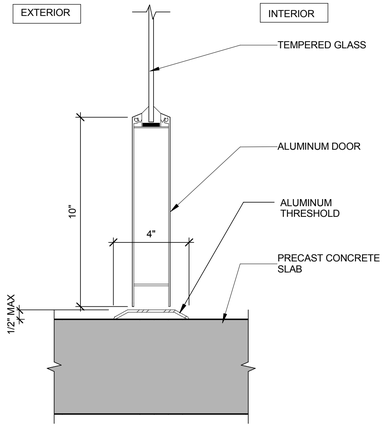
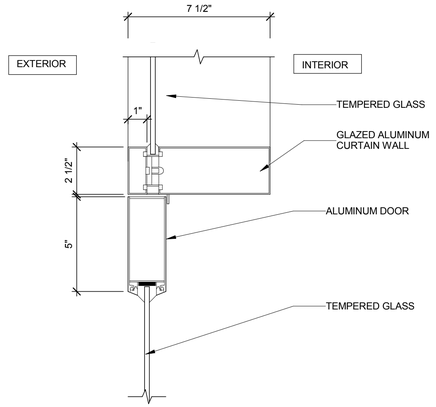
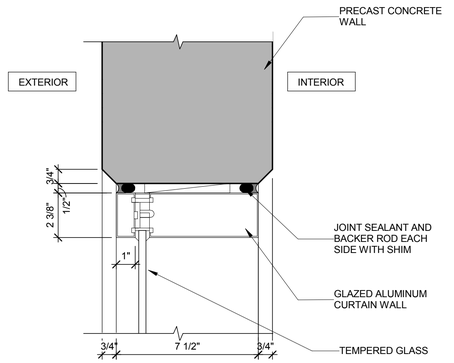


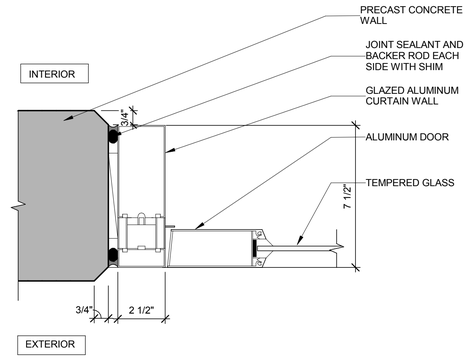
9 DOOR SILL
3" = 1'-0"



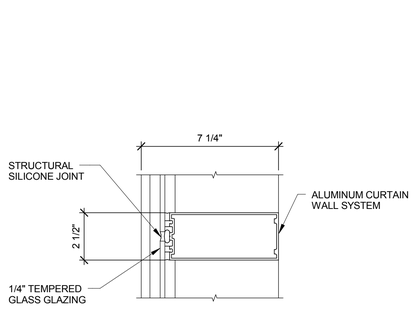
6 DOOR HEAD AT MULLION
3" = 1'-0"



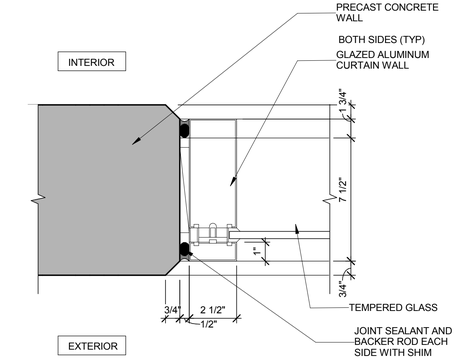
3 HEAD AT WALL
3" = 1'-0"



8 DOOR JAMB AT WALL
3" = 1'-0"

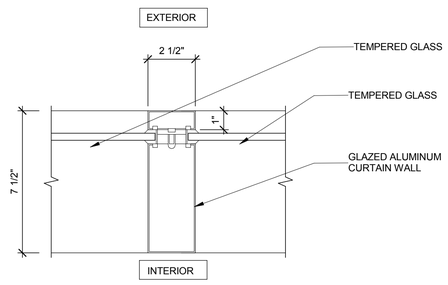


STRUCTURAL SILICONE MULLION DETAIL
5
3" = 1'-0"

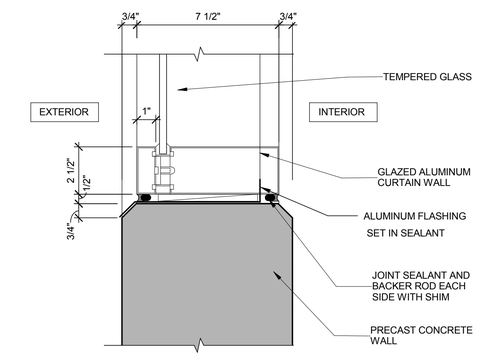


2 JAMB AT WALL
3" = 1'-0"

7 DOOR HEAD AT WALL
3" = 1'-0"



4 INTERMEDIATE VERTICAL MULLION
3" = 1'-0"



1 SILL AT WALL
3" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
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SHEET TITLE:
CURTAINWALL DETAILS

A-547

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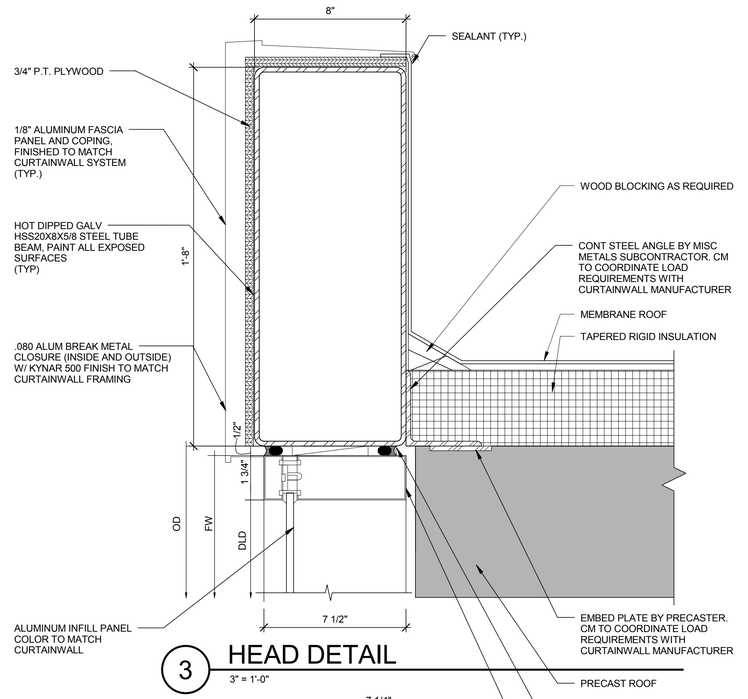
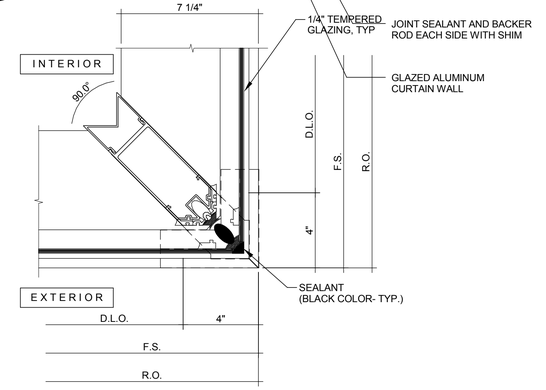


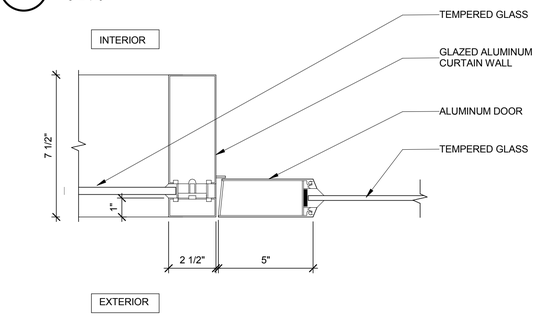
3 HEAD DETAIL

3" = 1'-0"



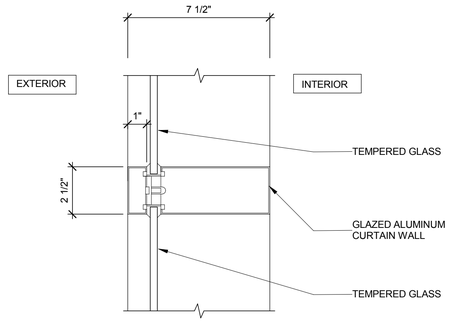
2 CORNER MULLION DETAIL

3" = 1'-0"



1 DOOR JAMB AT MULLION

3" = 1'-0"



4 INTERMEDIATE HORIZONTAL MULLION

3" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

PROJECT NO: 16-2683.01

DRAWN BY: LEL

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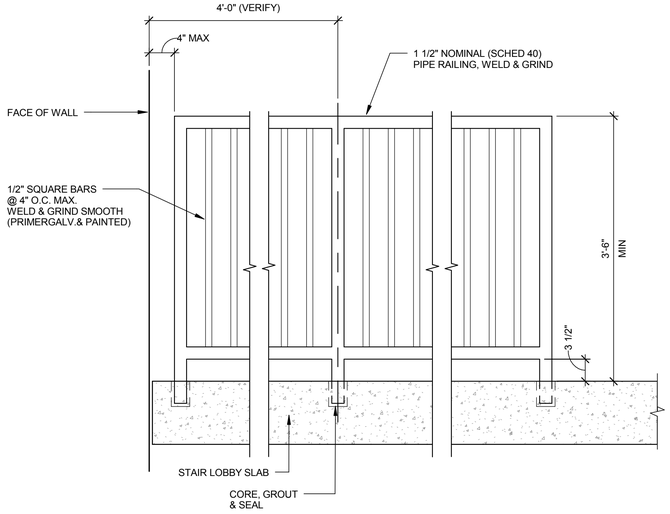
SHEET TITLE:

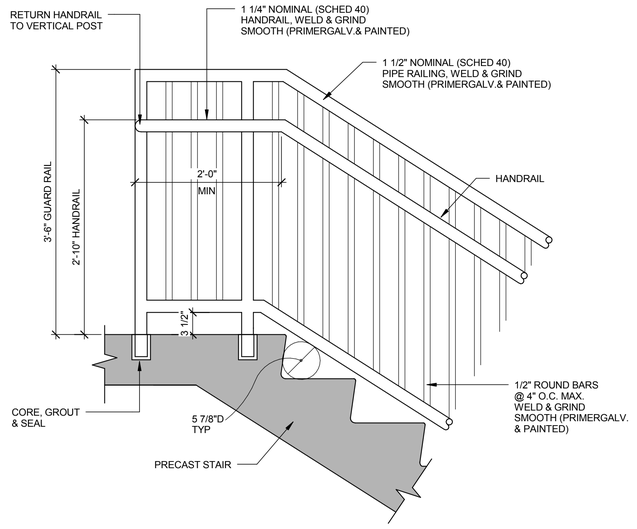
CURTAINWALL DETAILS

A-548



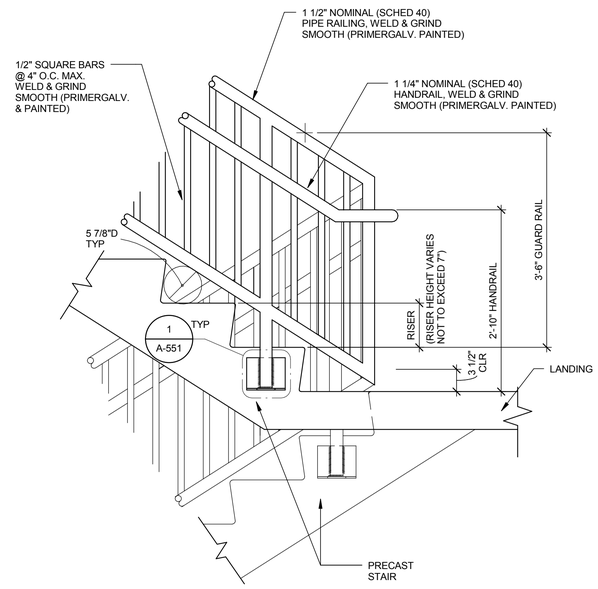
6 RAILING/STAIR DETAIL

1" = 1'-0"



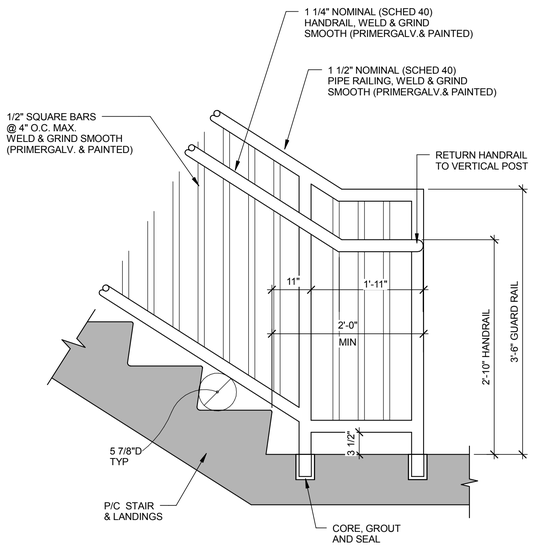
4 RAILING/STAIR DETAIL

1" = 1'-0"



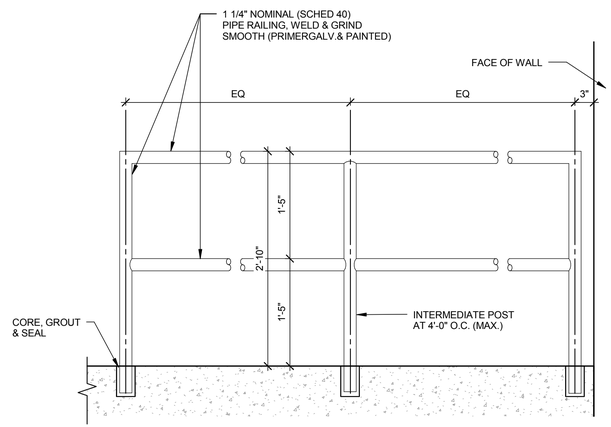
2 RAILING/STAIR DETAIL

1" = 1'-0"



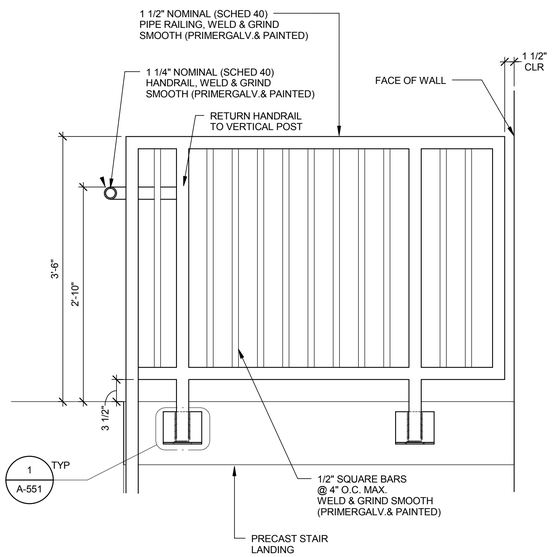
5 HANDRAIL DETAIL

1" = 1'-0"



3 RAILING/STAIR DETAIL @ SOG

1" = 1'-0"



1 RAILING/STAIR DETAIL

1" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

ISSUE:	DESCRIPTION	DATE	MARK
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 16-2683.01
DRAWN BY: LEL
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SHEET TITLE:
STAIR RAILING DETAILS

A-550

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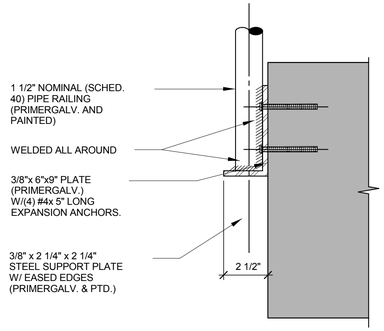
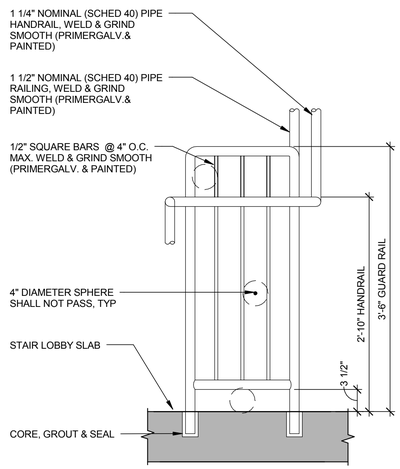


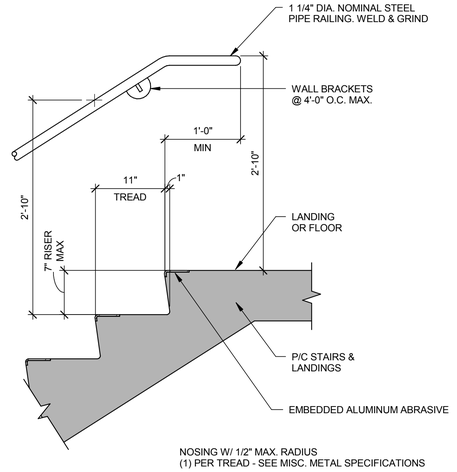
6 GUARDRAIL MOUNTING DETAIL

3/8" = 1'-0"



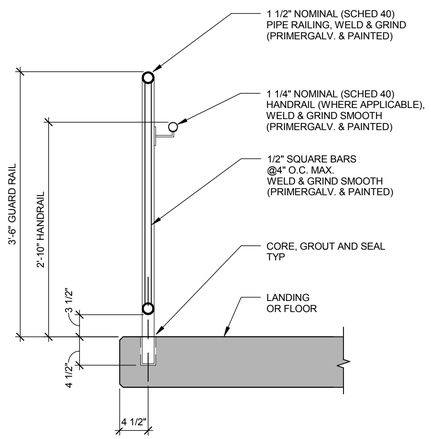
4 RAILING/STAIR DETAIL

1" = 1'-0"



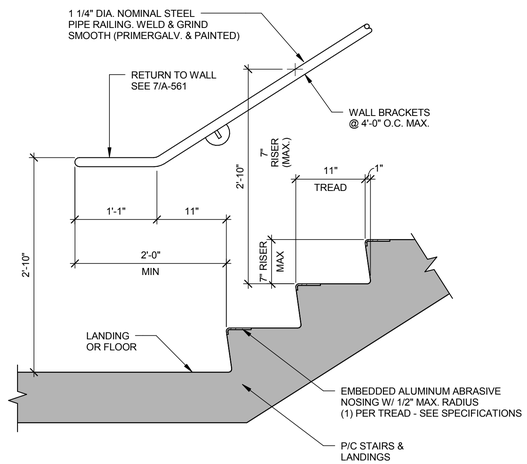
2 RAILING/STAIR DETAIL

1" = 1'-0"



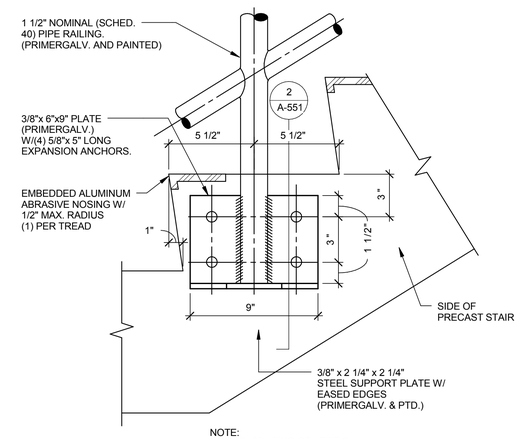
5 RAILING/STAIR DETAIL

1" = 1'-0"



3 RAILING/STAIR DETAIL

1" = 1'-0"



NOTE:
COORD. SPACING OF VERTICAL GUARDRAIL BALUSTERS WITH LOCATION OF SUPPORT POST.

1 GUARDRAIL MOUNTING DETAIL

3/8" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	ISSUE: DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
STAIR RAILING DETAILS

A-551

SCHEDULE ABBREVIATIONS	
AL-	ALUMINUM
HM-	HOLLOW METAL
STL-	STEEL
FRP-	FIBERGLASS REINFORCED PLASTIC
B -	1 1/2 PAIR BUTT HINGES
L -	LATCHSET
LK -	LOCKSET
P -	PANIC HARDWARE
C -	CLOSER
K -	KICKPLATE
WS -	WALL STOP
FS -	FLOOR STOP
T -	THRESHOLD
W -	WEATHERSEAL
EO -	ELECTRICAL OPERATOR
HF -	HARDWARE FUNCTION (SEE SPECIFICATIONS)

GENERAL DOOR NOTES:

1. ALL DOORS AND DOOR HARDWARE TO BE IN CONFORMANCE WITH CURRENT ACCESSIBILITY CODES

2. THE MAXIMUM FORCE TO OPEN ALL EXTERIOR DOORS SHALL NOT EXCEED 8.5 LBS

3. THE MAXIMUM FORCE TO OPEN ALL INTERIOR DOORS SHALL NOT EXCEED 5 LBS

4. DOOR FIRE RATINGS:
   A LABEL DOOR = 2 1/2 HR
   B LABEL DOOR = 1 1/2 HR
   C LABEL DOOR = 3/4 HR

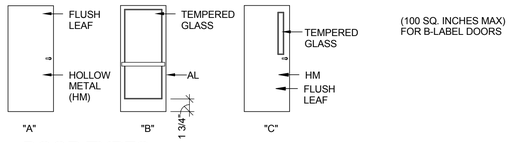
5. SEE SPECIFICATIONS FOR DETAILED DESCRIPTION OF ALL HARDWARE COMPONENTS AND FUNCTION

6. ALL HOLLOW METAL TO BE GALVANIZED PER SPECIFICATIONS

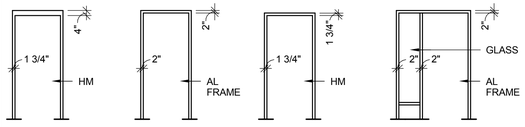
HARDWARE FUNCTION:

23 PASSAGE AND CLOSET LATCH (LATCH BOLT BY LEVER EITHER SIDE)

25 STOREROOM AND CLOSET LOCK (LATCHBOLT BY KNOB INSIDE AND BY KEY OUTSIDE)



DOOR TYPES



DOOR FRAME ELEVATIONS

5 DOOR AND FRAME SCHEDULE KEY

3" = 1'-0"

DOOR AND FRAME SCHEDULE

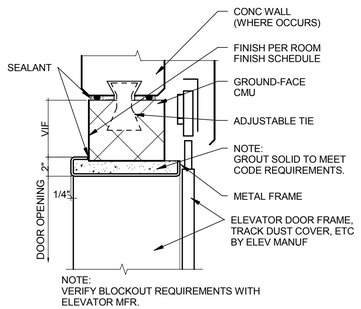
MARK	LOCATION	SIZE WIDTH	SIZE HEIGHT	DOOR TYPE	DOOR MATL	DOOR GALV	DOOR LABEL	FRAME TYPE	FRAME MATL	FRAME HEAD	FRAME JAMB	FRAME SILL	HARDWARE B	L	LK	P	C	K	WS	FS	T	W	EO	HF	COMMENTS
GROUND TIER																									
101a	STAIR A LOBBY TO EXTERIOR	3' - 6"	7' - 0 1/2"	B	Glass-AL		-	II	AL	6/A-547	2/A-548	9/A-547	●	●		●	●	●		●	●	●		23	OVERHEAD STOP, CONTINUOUS HINGE. SEE NOTE 1
101b	STAIR A LOBBY TO EXTERIOR	3' - 6"	7' - 0"	B	Glass-AL		-	II	AL	6/A-547	2/A-548	9/A-547	●	●		●	●	●		●	●	●		23	OVERHEAD STOP, CONTINUOUS HINGE
102b	PARKING OFFICE TO GARAGE	3' - 0"	7' - 0"	B	Glass-AL			IV	Metal - Aluminum																
102c	PARKING OFFICE TO FLEX SPACE	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●	●	●	●		●	●	●		25	
103	DOMESTIC WATER ROOM	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●						25	
104	PUBLIC RESTROOM	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●		●				25	COORD. W/ ELECTRICAL FOR ELECTRIFIED OCCUPANCY LIGHT
105	PUBLIC RESTROOM	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●	●	●				25	COORD. W/ ELECTRICAL FOR ELECTRIFIED OCCUPANCY LIGHT
107	FIRE SERVICE ROOM	3' - 0"	7' - 0"	A	HM	●	B	I	HM	H1	J1	T1	●		●		●	●	●		●	●		25	
108	ELECTRICAL ROOM	3' - 0"	7' - 0"	A	HM	●	B	I	HM	H1	J1	T1	●		●		●	●		●	●	●		25	
109	EMERGENCY ELECTRICAL ROOM	3' - 0"	7' - 0"	A	HM	●	B	I	HM	H1	J1	T1	●		●	●	●	●	●		●	●		25	
110	TEL/DATA ROOM	3' - 0"	7' - 0"	A	HM	●	B	I	HM	H1	J1	T1	●		●		●	●	●		●	●		25	
111a	SUPPLY ROOM	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●			●	●		25	
111b	SUPPY ROOM	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●			●	●		25	
112a	RAILROAD OFFICE TO EXTERIOR	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●			●	●		25	
112b	GARAGE TO RAILROAD OFFICE	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●	●		●	●		25	
113	RAILROAD OFFCE RESTROOM	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●		●		●	●		●				25	
114	RAILROAD OFFICE CLOSET	3' - 0"	7' - 0"	A	HM	●	-	I	HM	H1	J1	T1	●	●			●	●		●				25	
FLEX SPACE																									
106a	FLEX SPACE	3' - 0"	7' - 0"	B	Glass-AL		-	II	AL	3/A-520	2/A-520	6/A-521	●		●		●	●			●	●		25	OVERHEAD STOP, CONTINUOUS HINGE. 1" INSULATED GLASS
106b	FLEX SPACE	3' - 0"	7' - 0"	B	Glass-AL		-	II	AL	3/A-520	2/A-520	6/A-521	●		●		●	●			●	●		25	OVERHEAD STOP, CONTINUOUS HINGE. 1" INSULATED GLASS
106c	FLEX SPACE	3' - 0"	7' - 0"	B	Glass-AL		-	II	AL	3/A-520	2/A-520	6/A-521	●		●		●	●			●	●		25	OVERHEAD STOP, CONTINUOUS HINGE. 1" INSULATED GLASS
106d	GARAGE TO FLEX SPACE	3' - 0"	7' - 0"	C	HM	●	B	III	HM	H2	J2	T1	●		●		●	●		●	●	●		25	
106e	GARAGE TO FLEX SPACE	3' - 0"	7' - 0"	C	HM	●	B	III	HM	H2	J2	T1	●		●		●	●		●	●	●		25	
FIFTH TIER																									
502	ELEVATOR CONTROL ROOM	3' - 0"	7' - 0"	A	HM	●	B	I	HM	H1	J1	T1	●		●		●	●		●	●	●		25	
SIXTH TIER																									
601	STAIR A LOBBY	3' - 0"	7' - 0"	B	Glass-AL		-	II	AL	6/A-547	2/A-548	9/A-547	●	●			●	●			●	●		23	OVERHEAD STOP, CONTINUOUS HINGE
602	STAIR B LOBBY	3' - 0"	7' - 0"	B	Glass-AL		-	II	AL	3/A-520	2/A-520	6/A-521	●	●			●	●	●		●	●		23	CONTINUOUS HINGE

NOTES:
1. DOOR NOT TO BE OPERATIONAL UNTIL COMPLETION OF CIVIL SPACE

ROOM FINISH SCHEDULE

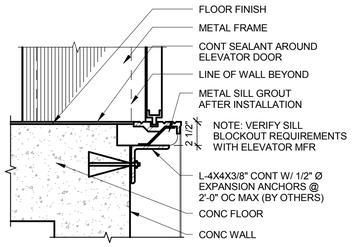
NO.	ROOM NAME	FLOOR CONC. FLOOR	FLOOR TILE	FLOOR SEALER	FLOOR VINYL COATED TILE	BASE NONE	BASE TILE	BASE EPOXY BASE	WALL CMU	WALL CONCRETE	WALL DRYWALL	WALL PAINT	CEILING CONCRETE	CEILING ACP	CEILING EXPOSED	CEILING DRYWALL	CEILING PAINT	REMARKS
101	LOBBY	●				●			●				●				●	SEE NOTE 1
102	LOBBY	●				●			●				●				●	SEE NOTE 1
102	PARKING OFFICE			●	●	●			●		●	●		●				
103	DOMESTIC WATER ROOM	●		●		●			●						●			
104	PUBLIC RESTROOM		●				●		●					●				
105	PUBLIC RESTROOM		●				●		●					●				
106	FLEXIBLE SPACE									●					●			
107	FIRE SERVICE ROOM	●		●				●	●						●			
108	ELECTRICAL ROOM	●		●		●			●						●			SEE NOTE 1
109	EMERGENCY ELECTRICAL ROOM	●		●		●			●						●			SEE NOTE 1
110	TEL/ DATA ROOM	●		●		●			●						●			SEE NOTE 1 ANTI-STATIC PAINT ON FLOOR
111	SUPPLY ROOM	●		●		●			●						●			SEE NOTE 1
112	RAILROAD OFFICE	●				●			●					●				SEE NOTE 1
113	RESTROOM		●				●		●					●				SEE NOTE 1
114	CLOSET	●				●			●					●				SEE NOTE 1
201	LOBBY	●				●			●				●				●	
301	LOBBY	●				●			●				●				●	
502	ELEVATOR CONTROL ROOM	●		●		●			●		●	●				●	●	
601	LOBBY	●				●			●				●				●	

NOTES:
1. CONCRETE FLOOR TO HAVE MACHINE TROWELLED FINISH AND 3 COATS OF SEALER WITH NON-SLIP FINISH



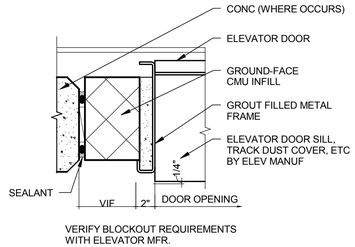
4 ELEVATOR HEAD DETAIL

1 1/2" = 1'-0"



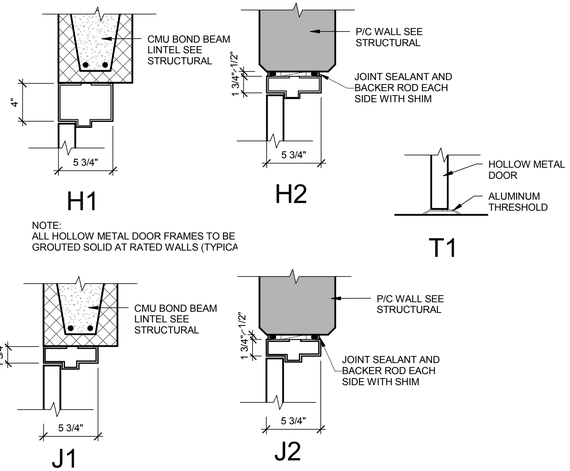
3 ELEVATOR SILL DETAIL

1 1/2" = 1'-0"



2 ELEVATOR JAMB DETAIL

1 1/2" = 1'-0"



1 TYPICAL METAL DOORS AND FRAMES

1 1/2" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	ISSUE: DESCRIPTION
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PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
DOOR, FRAME, ROOM FINISH SCHEDULES

A-601

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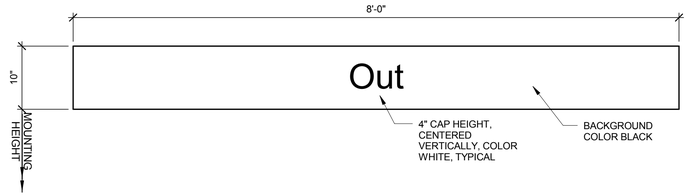
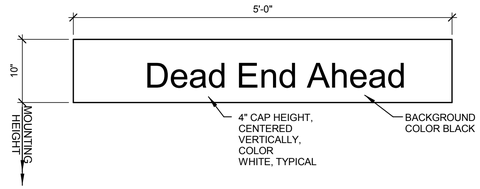
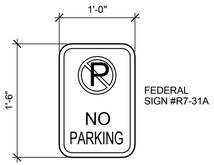


11 V2 DETAIL
1" = 1'-0"

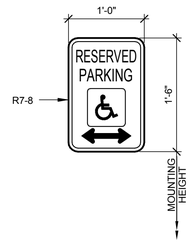


10 V1 DETAIL
1" = 1'-0"



9 R1-31A DETAIL
1" = 1'-0"

8 FEDERAL SIGN R7-8a DETAIL
1" = 1'-0"



7 FEDERAL SIGN R7-8 DETAIL
1" = 1'-0"

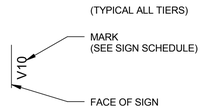
SIGNAGE GENERAL NOTES

1. SIGN MOUNTING HEIGHT TO BE 2" ABOVE BOTTOM OF BEAMS PER LEVEL UNLESS NOTED OTHERWISE.
2. SIGN CONTRACTOR SHALL REVIEW SIGN LOCATIONS PRIOR TO INSTALLATION WITH ENGINEER TO COORDINATE WITH LIGHTING SYSTEM.
3. SIGNS SHALL BE MOUNTED LEVEL AND PLUMB, UNLESS NOTED.
4. WHERE TWO (2) SIGNS ARE MOUNTED BACK TO BACK, SMALLEST L DIMENSION SHALL INCREASE TO MATCH LARGEST L DIMENSION.
5. MAXIMUM BOLT INSERT EMBEDMENT LENGTH 1-1/4", UNLESS NOTED.
6. DO NOT SCALE DRAWINGS.
7. BACKS AND EDGES OF ALL ALUMINUM SIGNS MOUNTED DIRECTLY TO STRUCTURE SHALL BE PAINTED (SIGN BACKGROUND COLOR) TO PREVENT CATHODIC REACTION.
8. SEE ARCHITECTURAL PLANS (100 SERIES) FOR SIGN LOCATIONS.
9. ILLUMINATED SIGNS TO BE UL LISTED OR APPROVED EQUIVALENT.
10. ALL FONTS FRUTIGER LT 55 ROMAN UNLESS NOTED OTHERWISE.
11. COLORS TO BE PER MUTCD STANDARDS.

SIGN TYPES LEGEND

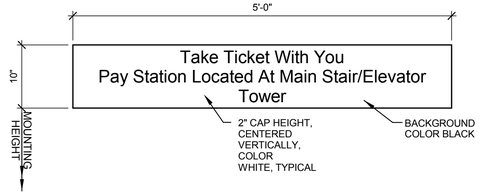
MARK	TYPE
V	VEHICULAR (RETROREFLECTIVE TEXT ONLY)
R	REGULATORY (RETROREFLECTIVE)
PP	PEDESTRIAN PANEL
PVC	PVC CLEARANCE
VR	VANDAL RESISTANT
A	ADA BRAILLED
CL	CAST LETTERS

SIGN KEY

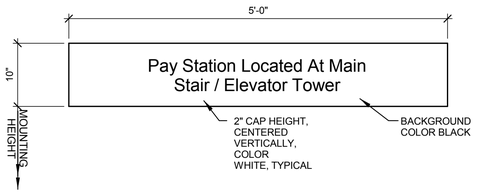


SIGN SCHEDULE

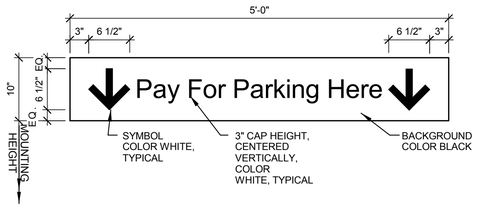
MARK	TEXT/MESSAGE	SIGN TYPE	MOUNTING DETAIL	MOUNTING HEIGHT	SIGN DETAIL	REMARKS
CL1	Clearance 8'-2"	PVC	5/AG-005	8'-1"	1/AG002	
CL2	⊖ Do Not Enter ⊖	PVC	5/AG-005	8'-1"	2/AG002	
LI	Level Indicator	VR	3/AG-005	8'-1"	3/AG002	
P1	↓ Pay For Parking Here ↓	PP	1/AG-005	8'-1"	4/AG002	
P2	Pay Station Located At Main Stair / Elevator Tower	PP	1/AG-005	8'-1"	5/AG002	
P3	Take Ticket With You Pay Station Located At Main Stair/Elevator Tower	PP	1/AG-005	8'-1"	6/AG002	
R7-8	Accessible	R	3 OR 4/AG-005	5'-0"	7/AG002	
R7-8a	Van Accessible	R	3/AG-005	5'-0"	8/AG002	
R7-31A	No Parking	R	3/AG-005	5'-0"	9/AG002	
V1	↑ Dead End Ahead ↑	V	1/AG-005	8'-1"	10/AG002	
V2	Out	V	1/AG-005	8'-1"	11/AG002	
V3	⊖ Do Not Enter ⊖	V	1/AG-005	8'-1"	1/AG003	
V4	Out →	V	1/AG-005	8'-1"	2/AG003	
V5	← Park	V	1/AG-005	8'-1"	3/AG003	
V6	↑ Out ↑	V	1/AG-005	8'-1"	4/AG003	
V7	↑ Park ↑	V	1/AG-005	8'-1"	5/AG003	
VR1	Room Name	VR	3/AG-005	5'-0"	6/AG003	
VR2	Main Stair / Elevator Tower	VR	3/AG-005	5'-0"	3/AG004	
VR3	Exit	A	3/AG-005	5'-0"	4/AG004	
VR4	Stairs	A	3/AG-005	5'-0"	5/AG004	



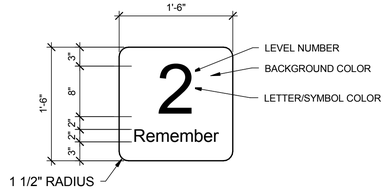
6 P3 DETAIL
1" = 1'-0"



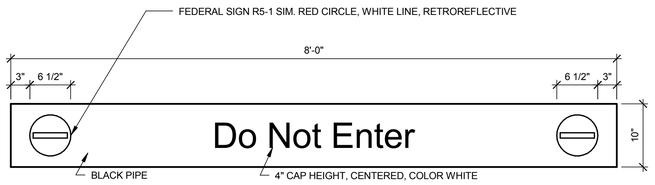
5 P2 DETAIL
1" = 1'-0"



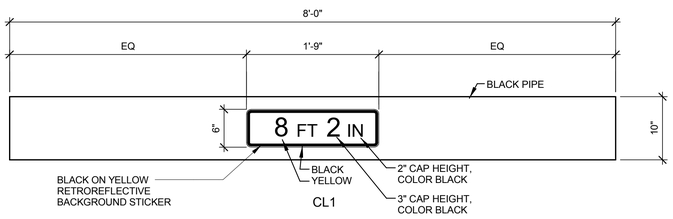
4 P1 DETAIL
1" = 1'-0"



3 LEVEL INDICATOR (LI) SIGN DETAIL
1" = 1'-0"



2 CL2 CLEARANCE BAR
1" = 1'-0"



1 CL1 CLEARANCE BARS
1" = 1'-0"

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20 Park Plaza, Suite 1202
Boston MA 02116
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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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	05/05/2017	DESIGN DEVELOPMENT

PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: SMM

SHEET TITLE:
SIGN SCHEDULE AND DETAILS

AG-002

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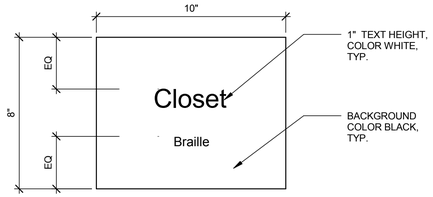
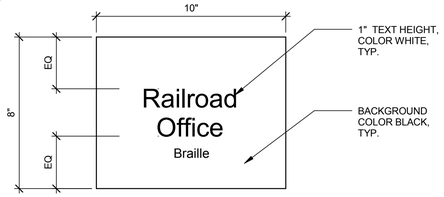
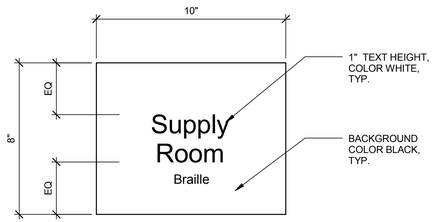


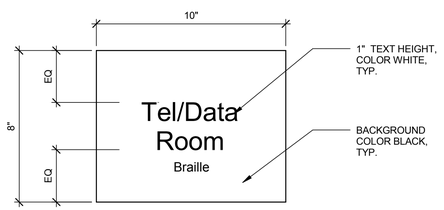
15 VR1-A DETAIL
3" = 1'-0"



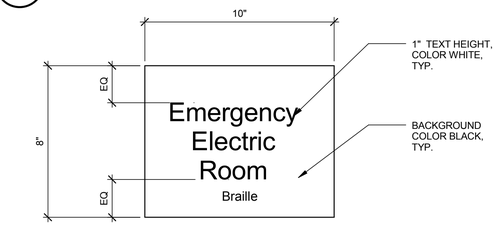
14 VR1-B DETAIL
3" = 1'-0"



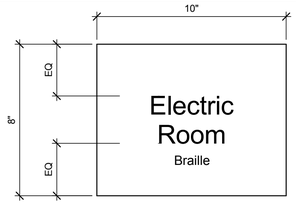
13 VR1-C DETAIL
3" = 1'-0"



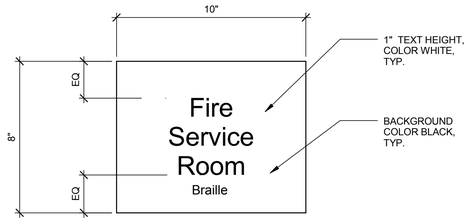
12 VR1-D DETAIL
3" = 1'-0"



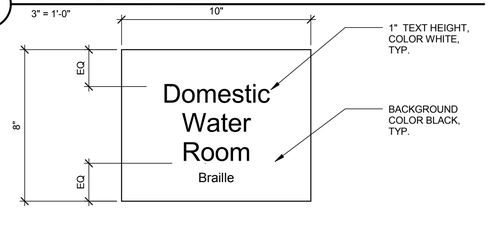
11 VR1-E DETAIL
3" = 1'-0"



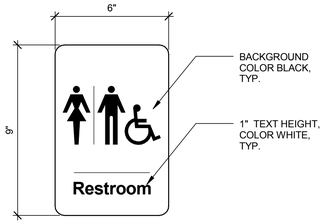
10 VR1-F DETAIL
3" = 1'-0"



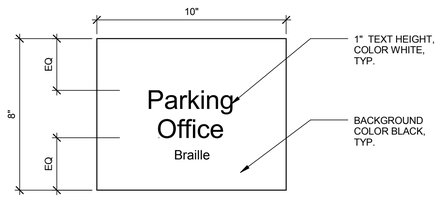
9 VR1-G DETAIL
3" = 1'-0"



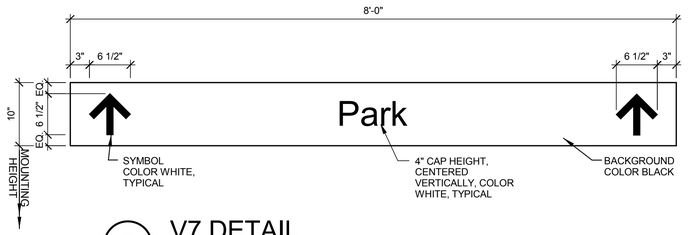
8 VR1-H DETAIL
3" = 1'-0"



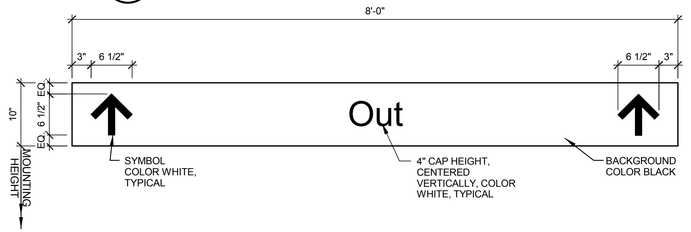
7 VR1-I DETAIL
3" = 1'-0"



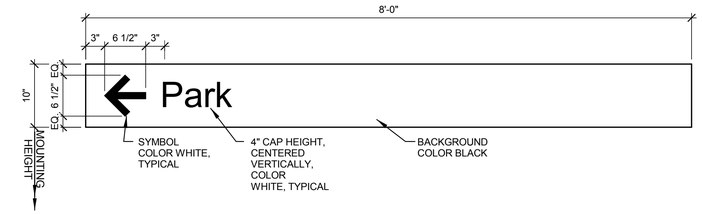
6 VR1-J DETAIL
3" = 1'-0"



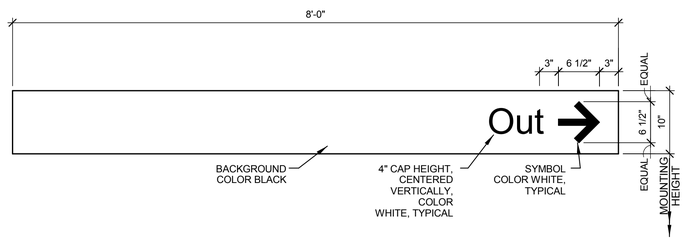
5 V7 DETAIL
1" = 1'-0"



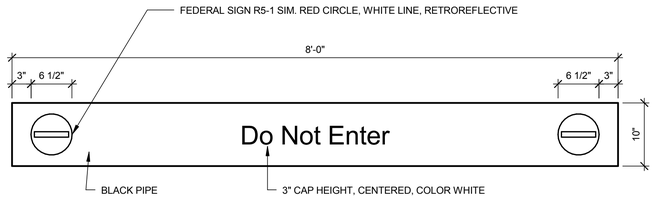
4 V6 DETAIL
1" = 1'-0"



3 V5 DETAIL
1" = 1'-0"



2 V4 DETAIL
1" = 1'-0"



1 V3 DETAILS
1" = 1'-0"

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FOUNDRY PLACE
PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

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SHEET TITLE:
SIGN DETAILS

AG-003

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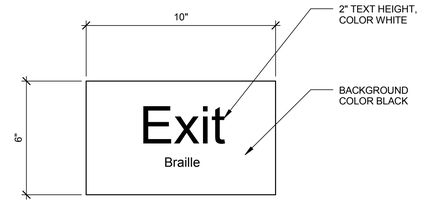
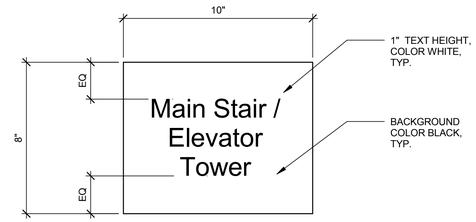
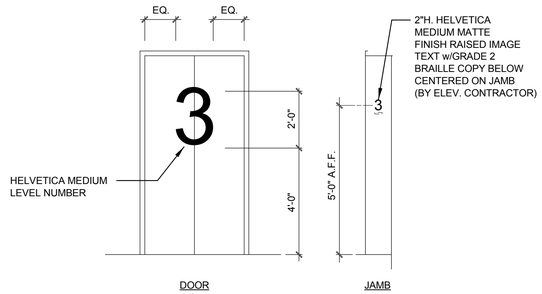


4 VR3 DETAIL

3" = 1'-0"





NOTES:

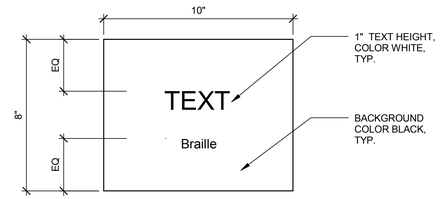
1. RAISED IMAGE TEXT w/BRAILLE COPY TO CONFORM TO REQUIREMENTS OF AMERICAN'S WITH DISABILITIES ACT.
2. PROVIDE SIGN AT EACH ELEVATOR DOOR & EACH ELEVATOR JAMB AT EACH TIER.

6 ELEVATOR LEVEL INDICATOR DETAIL

1" = 1'-0"

3 VR2 DETAIL

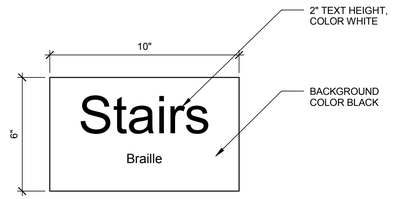
3" = 1'-0"



NOTE:
1. FLEX SPACE TEXT TO BE DETERMINATED BY OWNER

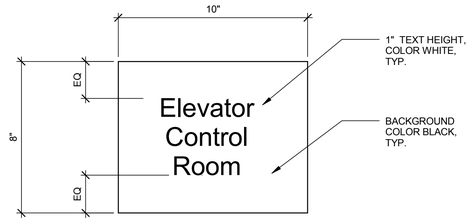
2 VR1-L DETAIL

3" = 1'-0"



5 VR4 DETAIL

3" = 1'-0"



1 VR1-K DETAIL

3" = 1'-0"

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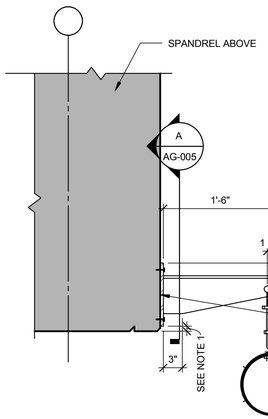
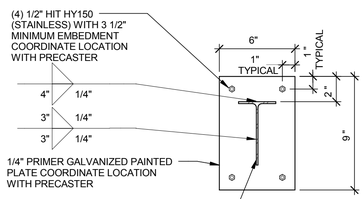
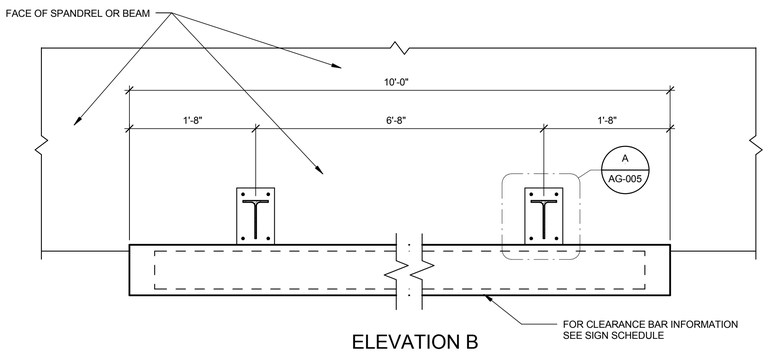
SHEET TITLE:
SIGN DETAILS

AG-004





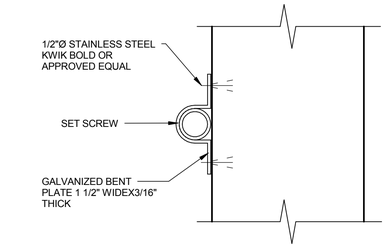
SECTION A

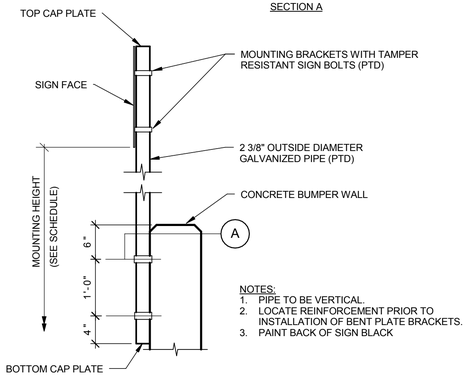


ELEVATION B

NOTE 1:
REVIEW BEAM/SPANDREL CORNER REINFORCEMENT TO DETERMINE PLATE OFFSET FROM BOTTOM OF BEAM/SPANDREL.

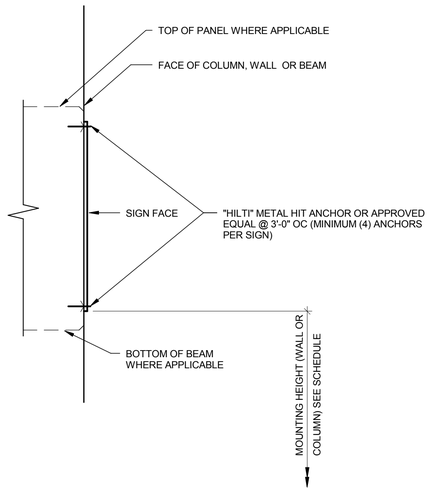
5 CLEARANCE BAR DETAIL
1" = 1'-0"





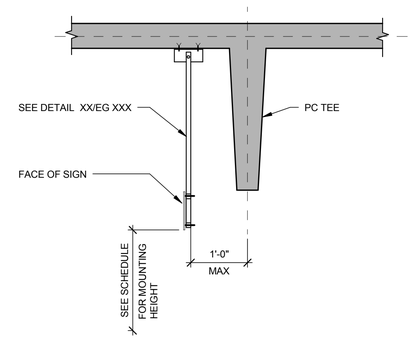
NOTES:
1. PIPE TO BE VERTICAL.
2. LOCATE REINFORCEMENT PRIOR TO INSTALLATION OF BENT PLATE BRACKETS.
3. PAINT BACK OF SIGN BLACK

4 SIGN MOUNTING DETAIL
1/4" = 1'-0"

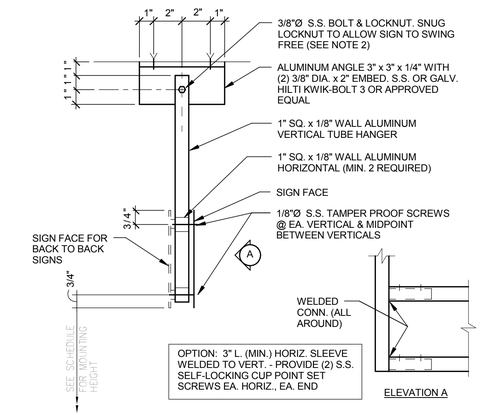


CONTRACTOR NOTE:
1. DO NOT OVERDRIVE ANCHORS. OVERDRIVEN ANCHORS WILL DAMAGE SIGNS.
2. WHERE TOP OF PANEL OR BOTTOM OF BEAM CONDITION OCCURS; MAINTAIN A CONSTANT 2" DIMENSION FROM TOP OF PANEL OR BOTTOM OF BEAM TO SIGN AS SHOWN.
3. SIGNS ON AG-105 MOUNTED WITH THIS DETAIL, USE A5/AG-501 FOR EXPANSION MOUNTING INFORMATION.

3 SIGN MOUNTING DETAIL
3/4" = 1'-0"



2 SIGN MOUNTING DETAIL (PARALLEL TO TEE STEM)
3/4" = 1'-0"



ELEVATION A

NOTES:
1. HANGER SPACING 3'-0" O.C. MAX. - MIN. (2) HANGERS PER SIGN.
2. OPTIONAL HANGER CONNECTION - 3/8"Ø STAINLESS STEEL CLEVIS PIN w/HAIRPIN COTTER.
3. MAX. SIGN CANTILEVER 1'-0".
4. ALUMINUM TUBING SHALL BE SQUARE CORNER EXTRUDED 6063-T52 OR 6061-T6. ALUMINUM.
5. ANGLE SHALL BE EXTRUDED 6061-T6. STAINLESS STEEL HARDWARE SHALL BE 300 SERIES MATERIAL.
6. USE NEOPRENE OR VINYL WASHERS BETWEEN DISSIMILAR METALS SURFACES IN AREAS SUBJECT TO CORROSION (WITHIN 2 MILES OF BODY OF SALT WATER).
7. SEE A3/AG501 FOR MOUNTING LOCATION PARALLEL TO A TEE STEM.
8. ENTIRE ASSEMBLY TO BE PAINTED.

1 SIGN MOUNTING DETAIL
3/4" = 1'-0"

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FOUNDRY PLACE PARKING GARAGE

PORTSMOUTH, NEW HAMPSHIRE

MARK	DATE	ISSUE: DESCRIPTION
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SHEET TITLE:
SIGN MOUNTING DETAILS

AG-005

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GENERAL NOTES:

1. DRAWINGS ARE SCHEMATIC DIAGRAMS. PARCS CONTRACTOR TO COORDINATE FINAL CONDUIT QUANTITIES, SIZES, LOCATION OF CONDUIT STUB UPS, PROTECTIVE BOLLARDS, AND EQUIPMENT MOUNTING LOCATIONS.
2. PARCS HEAD END (FMS, IMS, FC/CCS, FD) TO BE LOCATED IN PARKING OFFICE. EXACT LOCATION IN OFFCE TBD.

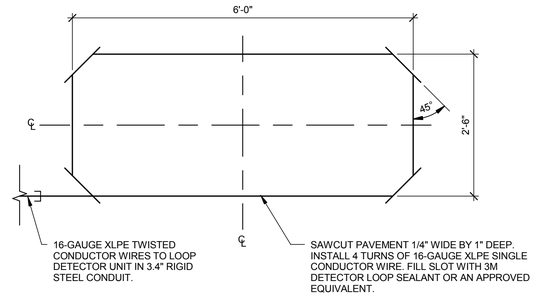
ELECTRONICAL NOTES:

1. ALL EXPOSED CONDUIT TO BE RIGID HOT DIPPED GALVANIZED.
2. SEE EQUIPMENT LEGEND FOR POWER REQUIREMENTS.
3. COORDINATE WITH CIVIL AND ELECTRICAL DRAWINGS FOR POWER SUPPLY AND DATA LINE INTERFACES. HOME RUNS FROM ISLANDS TO ELEC CLOSET & TELE DATA ROOM AND EMBEDDED CONDUITS IN ISLANDS BY GENERAL CONTRACTOR. FINAL LAYOUT OF EMBEDDED CONDUITS SUPPLIED BY PARCS VENDOR.
4. POWER AND COMMUNICATIONS SHALL BE ROUTED IN SEPARATE CONDUITS. VOLTAGE DROP SHALL BE LESS THAN 3%. CONDUITS AND CONDUCTORS SHALL BE SIZED PER THE NATIONAL ELECTRICAL CODE REQUIREMENTS. CONSULT ELECTRICAL ENGINEER FOR DETAILS.

CONDUIT LEGEND		
DESIGNATION	SIZE	DEFINITION
C1	1"	POWER FEEDER, ONE 120V CIRCUIT FROM POWER SOURCE
C1A	1"	POWER FEEDER, TWO 120V CIRCUIT FROM POWER SOURCE
C1B	1 1/2"	POWER FEEDER, FOUR 120V CIRCUIT FROM POWER SOURCE
C1C	2"	POWER FEEDER, EIGHT 120V CIRCUIT FROM POWER SOURCE
C2	1"	POWER CONDUIT
C3	1"	POWER FEEDER, ONE 208V CIRCUIT FROM POWER SOURCE
C4	3/4"	RIGID STEEL (UNDERGROUND CAN BE PVC)
C5	3/4"	RIGID STEEL LOOP LEAD
C6	1"	VOICE COMMUNICATION CONDUIT TO MAIN
C7	1 1/2"	VOICE COMMUNICATION TO MAIN COMMUNICATION INTERFACE
C8	1"	PARCS DATA
C9	1 1/2"	PARCS DATA FROM FACILITY MANAGEMENT SYSTEM

EQUIPMENT LEGEND

EQUIPMENT	DEFINITION
AG	AUTOMATIC GATE 1-30A, 120V, 2400W CIRCUIT
6'-0" / 2'-6"	TYPICAL LOOP, SEE DET 1/Q-401
	BOLLARD - 4" Ø SCHEDULE 40, PIPE GALVANIZED, SEE DET 3/A-101
ENS	ENTRANCE STATION W/ INTEGRATED INTERCOM & CARD READER 1-30A, 120V, 2400W CIRCUIT
EXS	EXIT STATION W/ INTEGRATED INTERCOM & CARD READER 1-30A, 120V, 2400W CIRCUIT
APM (C&CC)	AUTOMATED PAY MACHINE W/ INTERCOM CASH & CREDIT CARD 1-30A, 120V, 2400W CIRCUIT
APM (CC)	AUTOMATED PAY MACHINE W/ INTERCOM CREDIT CARD ONLY 1-30A, 120V, 2400W CIRCUIT
FC/ CCS	FEE COMPUTER/CENTRAL CASHIER STATION IN PARKING OFFICE
FMS	FACILITY MANAGEMENT SYSTEM (WORKSTATION LOCATION PARKING OFFICE, SERVER LOCATION IN PARKING OFFICE I.T. ROOM
IMS	INTERCOM MASTER STATION (SERVER LOCATION IN PARKING OFFICE, SERVER LOCATION IN PARKING OFFICE I.T. ROOM
J	JUNCTION BOX
HH	HAND HOLE 11"x 18" PG STYLE BY QUAZITE COVER : PG118BA12 OR ENGINEER APPROVED EQUAL
TC	TRAFFIC CONTROLLER POWER FROM AG. REFER TO SPECIFICATIONS FOR TYPE
PWS	PEDESTRIAN WARNING SYSTEM
LFS	LOT FULL SIGN
CR|	PROXIMITY CARD READER WITH INTERCOM



NOTES:
A. VERIFY SIZE OF LOOP, SIZE OF WIRE AND NUMBER OF TURNS AND NUMBER OF TWISTS PER FOOT IN LOOP LEADS WITH DETECTOR SUPPLIER BEFORE INSTALLATION.
B. LOOP LEAD RUNS SHALL HAVE (4) TWISTS PER FOOT AND ARE LIMITED TO 100 FEET.
C. LOOP AND LOOP LEADS SHALL BE LOCATED AT LEAST 18" FROM ANY ELECTRICAL POWER SERVICE OR RUNS, AND STEEL REINFORCING IF POSSIBLE.
D. LOOP LEADS SHALL BE IN SEPARATE RIGID STEEL CONDUIT BETWEEN LOOP AND DETECTOR. IT MUST NOT SHARE CONDUIT WITH OTHER WIRING OR LEADS FROM OTHER LOOPS.
E. LOOP AND LOOP LEAD WIRE SHALL BE 16-GAUGE XLPE CONDUCTOR STRANDED WIRE. ALL WIRE TO BE CONTINUOUS WITHOUT SPLICES.
F. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.

1 DETECTOR LOOP DETAIL
3/4" = 1'-0"

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PROJECT NO: 16-2683.01
DRAWN BY: LEL
CHECKED BY: CJG

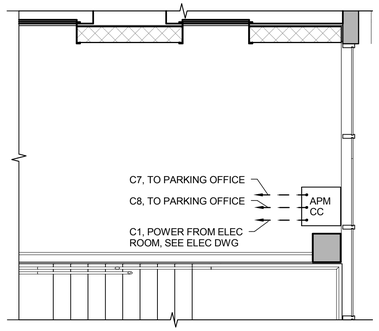
SHEET TITLE:
PARCS LEGEND AND DETAILS

Q-401

GENERAL DETAIL FOR IN PARKING OFFICES

FMS | IMS | FC/ CCS

LOCATION TBD

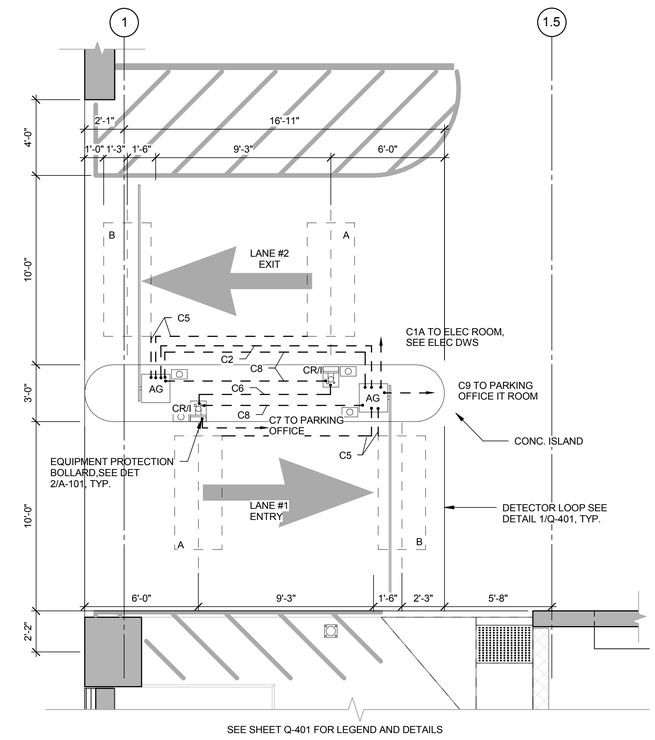


4 PARKING OFFICE EQUIPMENT ENLARGED PLAN

1/4" = 1'-0"

3 SECOND FLOOR- APM LOCATION ENLARGE PLAN

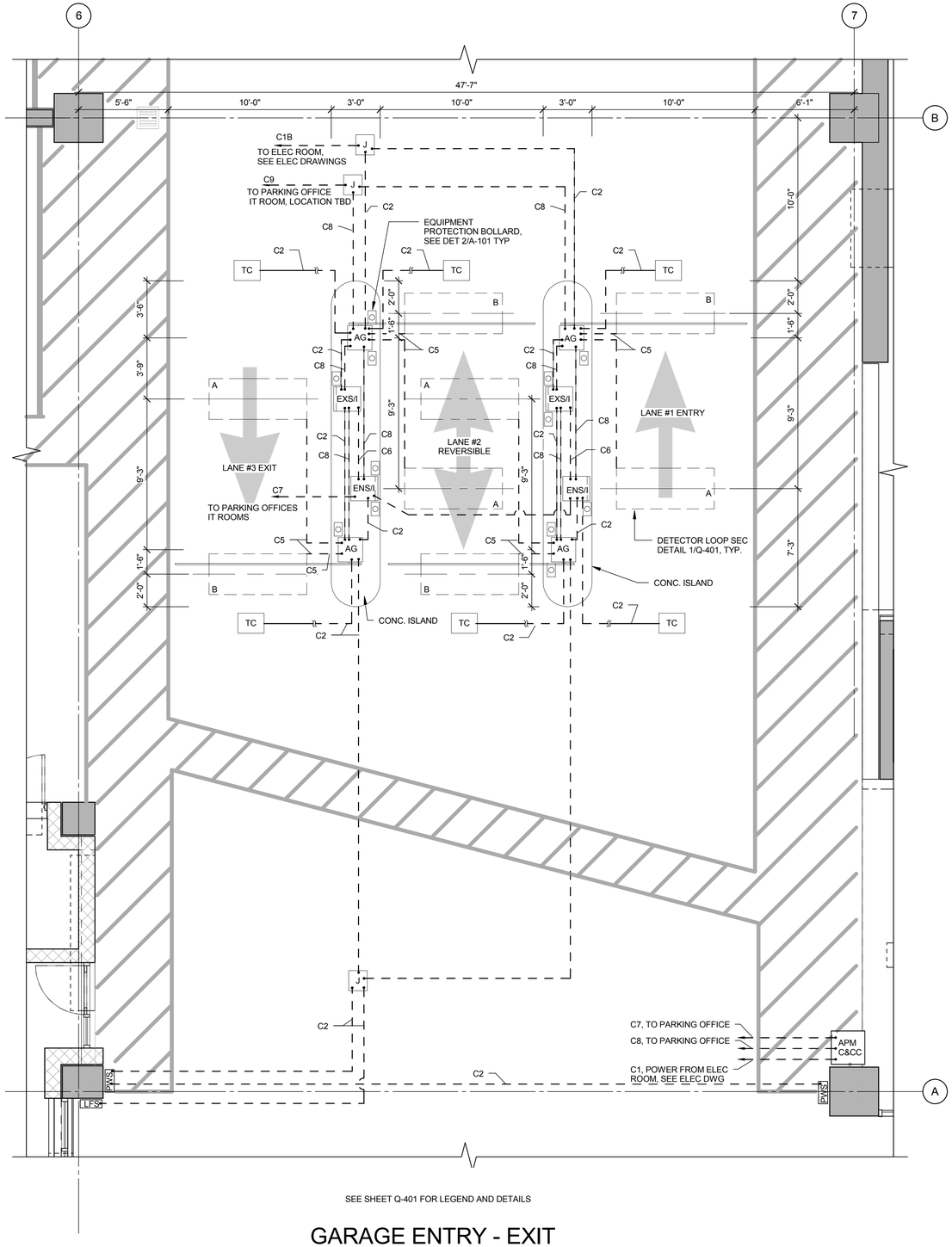
1/4" = 1'-0"



SEE SHEET Q-401 FOR LEGEND AND DETAILS

2 GARAGE ENTRY - EXIT ENLARGED PLAN

1/4" = 1'-0"



SEE SHEET Q-401 FOR LEGEND AND DETAILS

1 GARAGE ENTRY - EXIT ENLARGED PLAN

1/4" = 1'-0"

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PROJECT NO: 16-2683.01

DRAWN BY: LEL

CHECKED BY: CJG

SHEET TITLE:

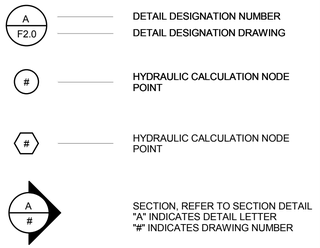
PARCS ENLARGED PLANS

Q-402

Drawing List - Fire Protection

Sheet Number	Sheet Name
FP-000	FIRE PROTECTION LEGEND
FP-200	FIRE PROTECTION UNDER SLAB FLOOR PLAN
FP-201	FIRE PROTECTION GROUND TIER PLAN
FP-202	FIRE PROTECTION 2ND TIER PLAN
FP-203	FIRE PROTECTION 3RD TIER PLAN
FP-204	FIRE PROTECTION 4TH TIER PLAN
FP-205	FIRE PROTECTION 5TH TIER PLAN
FP-206	FIRE PROTECTION TOP TIER PLAN
FP-600	FIRE PROTECTION DETAILS
Sheet Count: 9	

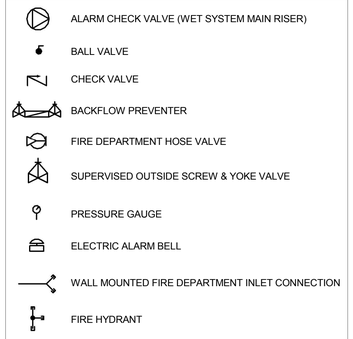
ANNOTATIONS



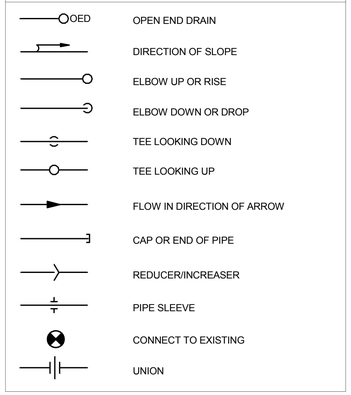
GENERAL NOTES

1. FIRE PROTECTION WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE BUILDING CODE, LOCAL AMENDMENTS AND THE REFERENCED NATIONAL FIRE PROTECTION ASSOCIATION CODES INCLUDING 13, 14, AND 24.
2. ALL FIRE PROTECTION SYSTEMS, EQUIPMENT, PIPING AND VALVES SHALL BE INSTALLED AND TESTED BY A SPRINKLER CONTRACTOR LICENSED BY THE STATE AND EXPERIENCED IN THE INSTALLATION OF SPRINKLER SYSTEMS.
3. OBTAIN ALL PERMITS AND PAY ALL FEES ASSOCIATED WITH THIS WORK PRIOR TO COMMENCEMENT.
4. PIPING AND EQUIPMENT IS SHOWN DIAGRAMMATICALLY THE ACTUAL ROUTING OF PIPING AND EXACT LOCATION OF EQUIPMENT SHALL BE DETERMINED IN THE FIELD.
5. THE DRAWINGS SUGGEST ROUTING OF PIPING, PIPE SIZES AND APPROXIMATE LOCATION OF HEADS. THE CONTRACTOR SHALL PRODUCE A COMPLETE SET OF WORKING PLANS IN ACCORDANCE WITH NFPA 14. THE SYSTEM SHALL BE HYDRAULICALLY CALCULATED PER THE DESIGN CRITERIA SPECIFIED. ALL PLANS AND CALCULATIONS SHALL BE STAMPED BY THE CONTRACTOR'S REGISTERED FIRE PROTECTION ENGINEER AND SHALL BE SUBMITTED TO THE LOCAL AUTHORITY AND OWNER'S UNDERWRITER FOR APPROVAL.
6. IN ADDITION TO REVIEWING AND COORDINATING WITH THE OTHER TRADES (CIVIL, STRUCTURAL, ARCHITECTURAL, HVAC AND ELECTRICAL) THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE DETAILS OF CONSTRUCTION.
7. FURNISH AND INSTALL ALL NECESSARY PIPING EQUIPMENT SUPPORTS AND ANY EQUIPMENT NOT SHOWN ON DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS BUT NECESSARY TO PROVIDE A COMPLETE AND WORKABLE SYSTEM.
8. PROVIDE ACCESS TO ALL EQUIPMENT REQUIRING PERIODIC SERVICE AND MAINTENANCE.
9. FURNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION UNDER THE RELATED TRADES.
10. PITCH ALL PIPING TO DRAIN, PROVIDE AN AUXILIARY DRAIN AT ALL LOW POINTS.
11. PROVIDE WATER TIGHT SLEEVES ON ALL PIPES PASSING THROUGH EXTERIOR WALLS AND BASEMENT FLOORS.
12. ALL VALVES CONTROLLING FIRE PROTECTION MAINS SHALL BE PROVIDED WITH TAMPER/SUPERVISORY SWITCHES WIRED TO THE FIRE ALARM CONTROL PANEL.
13. CONTRACTOR SHALL PROVIDE FIRE STOPPING FOR ALL PENETRATIONS THRU FIRE WALLS AND FIRE RATED SEPARATIONS, CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS OF ALL FIRE RATED SEPARATIONS AND BARRIERS, INSTALLATION OF FIRE STOPPING SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
14. ALL FIRE PROTECTION SYSTEMS SHALL BE SEISMICALLY BRACED ACCORDING TO THE APPLICABLE SECTIONS OF THE STATE BUILDING CODE AND THE REFERENCED EDITION OF NFPA-14.

EQUIPMENT & VALVES



PIPING SYMBOLS



WATER SUPPLY INFORMATION

TYPE:	MUNICIPAL SUPPLY
DATE:	JULY 28TH, 2014
SOURCE:	ATLANTIC DESIGN RESOURCES LTD
	RESULTS:
STATIC:	66 PSI
RESIDUAL:	64 PSI
FLOW:	1,489 GPM

ABBREVIATIONS

ACT	ACOUSTICAL TILE
AFF	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AP	ACCESS PANEL
BLDG	BUILDING
BFP	BACKFLOW PREVENTER
CLG	CEILING
CLDI	CEMENT LINED DUCTILE IRON
CTE	CONNECT TO EXISTING
CONT	CONTINUATION
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
EAB	ELECTRIC ALARM BELL
EL/ELEV	ELEVATION
F	FIRE SERVICE/MAIN/BUILDING WET PIPING
FDC	FIRE DEPARTMENT CONNECTION
FDV	FIRE DEPARTMENT VALVE
FFE	FINISH FLOOR ELEVATION
FLR	FLOOR
FP	FIRE PROTECTION
FS	FLOW SWITCH
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
INV	INVERT
LPS	LOW PRESSURE SWITCH
MECH	MECHANICAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
NIC	NOT IN CONTRACT
OED	OPEN END DRAIN
OS&Y	OUTSIDE SCREW & YOLK
PG	PRESSURE GAUGE
PSI	POUNDS PER SQUARE INCH
SPEC	SPECIFICATION
SPD	SPRINKLER DRAIN
SPR	WET PIPE SPRINKLER SYSTEM
STP	MANUAL DRY STANDPIPE SYSTEM
TS	TAMPER SWITCH
TYP	TYPICAL
VIV	VALVE IN VERTICAL
WACV	WET ALARM CHECK VALVE

PIPING LINETYPES

F	FIRE SERVICE/MAIN/BUILDING WET PIPING
SPR	WET PIPE SPRINKLER SYSTEM
FDC	FIRE DEPARTMENT CONNECTION PIPING
SPD	SPRINKLER DRAIN
STP	MANUAL DRY STANDPIPE SYSTEM

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FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

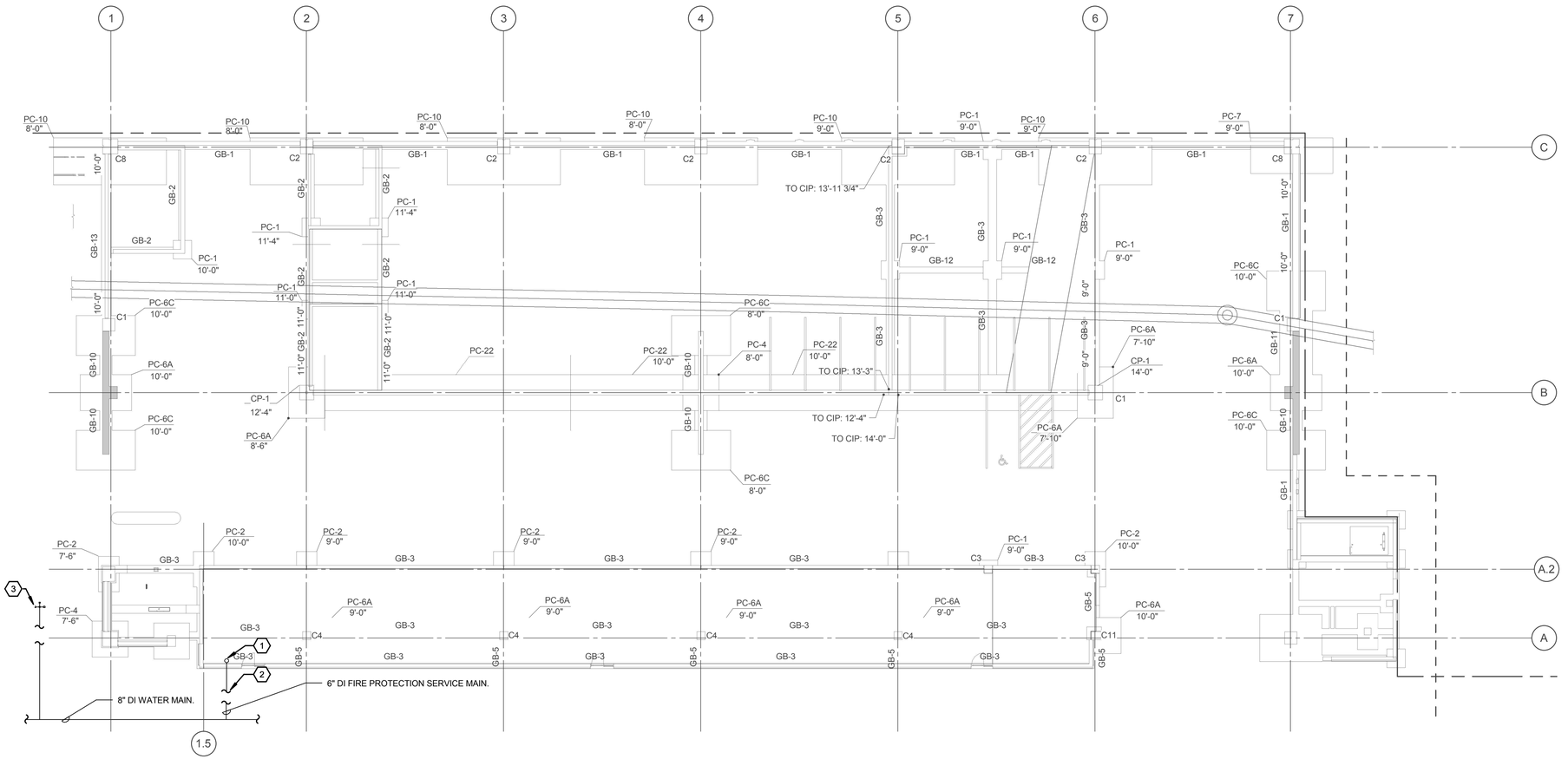
ISSUE:

PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: JTF

SHEET TITLE:
FIRE PROTECTION LEGEND

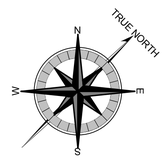
FP-000

KEYNOTES	
Keynote Number	**Keynote Description**
1	6" FIRE PROTECTION WATER SERVICE INTO WATER SERVICE ROOM.
2	6" FIRE PROTECTION WATER SERVICE CONTINUES TO CONNECTION AT THE STREET, REFER TO CIVIL PLANS FOR CONTINUATION.
3	TEST HYDRANT, REFER TO SITE CIVIL DRAWINGS FOR LOCATION.



2 FP-200 FIRE PROTECTION UNDER SLAB FLOOR PLAN

1/16" = 1'-0" 0 8' 16' 32'



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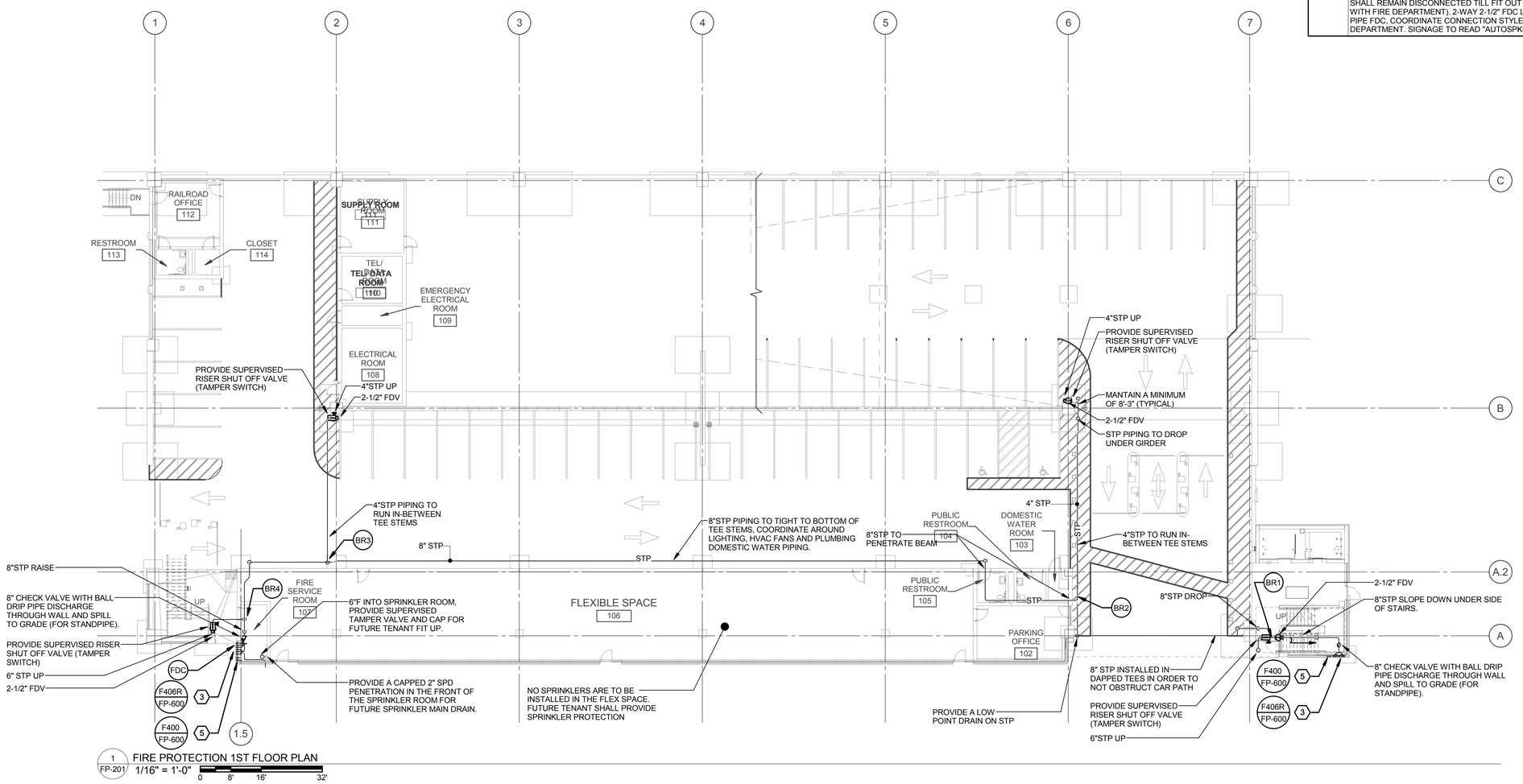
PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: JTF

SHEET TITLE:
FIRE PROTECTION UNDER SLAB FLOOR PLAN

FP-200

KEYNOTES

Keynote Number	Keynote Description
3	6-WAY 2-1/2" FDC LOCATED NEXT TO SPRINKLER FDC, COORDINATE CONNECTION STYLE/TYPE WITH LOCAL FIRE DEPARTMENT. SIGNAGE TO READ "MANUAL DRY STANDPIPE"
5	PROVIDE FDC FOR FUTURE TENANT FIT OUT OF FLEX SPACE. FDC SHALL REMAIN DISCONNECTED TILL FIT OUT IS UNDER WAY (CONFIRM WITH FIRE DEPARTMENT). 2-WAY 2-1/2" FDC LOCATED NEXT TO STAND PIPE FDC. COORDINATE CONNECTION STYLE/TYPE WITH LOCAL FIRE DEPARTMENT. SIGNAGE TO READ "AUTOSPKR".



1 FP-201 FIRE PROTECTION 1ST FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'

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617.350.5048 Fax
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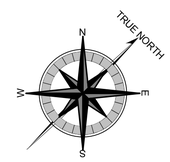
SHEET TITLE:
FIRE PROTECTION
GROUND TIER PLAN

FP-201

KEYNOTES	
Keynote Number	Keynote Description

1 FP-202 FIRE PROTECTION 2ND FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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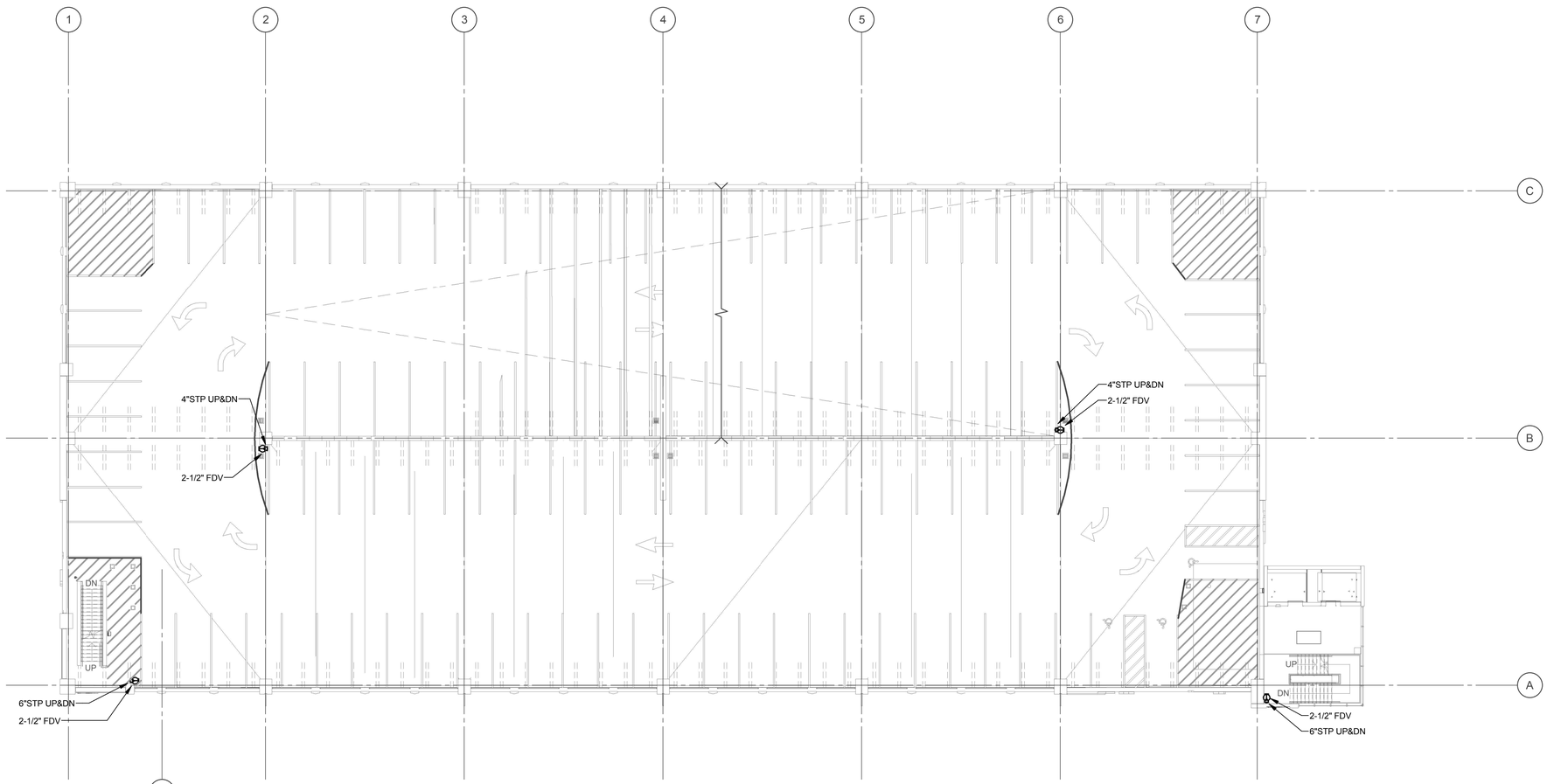
CHECKED BY: JTF

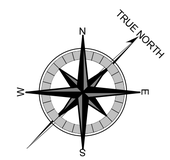
SHEET TITLE:
FIRE PROTECTION 2ND TIER PLAN

FP-202

KEYNOTES	
Keynote Number	Keynote Description



1 FP-203 FIRE PROTECTION 3RD FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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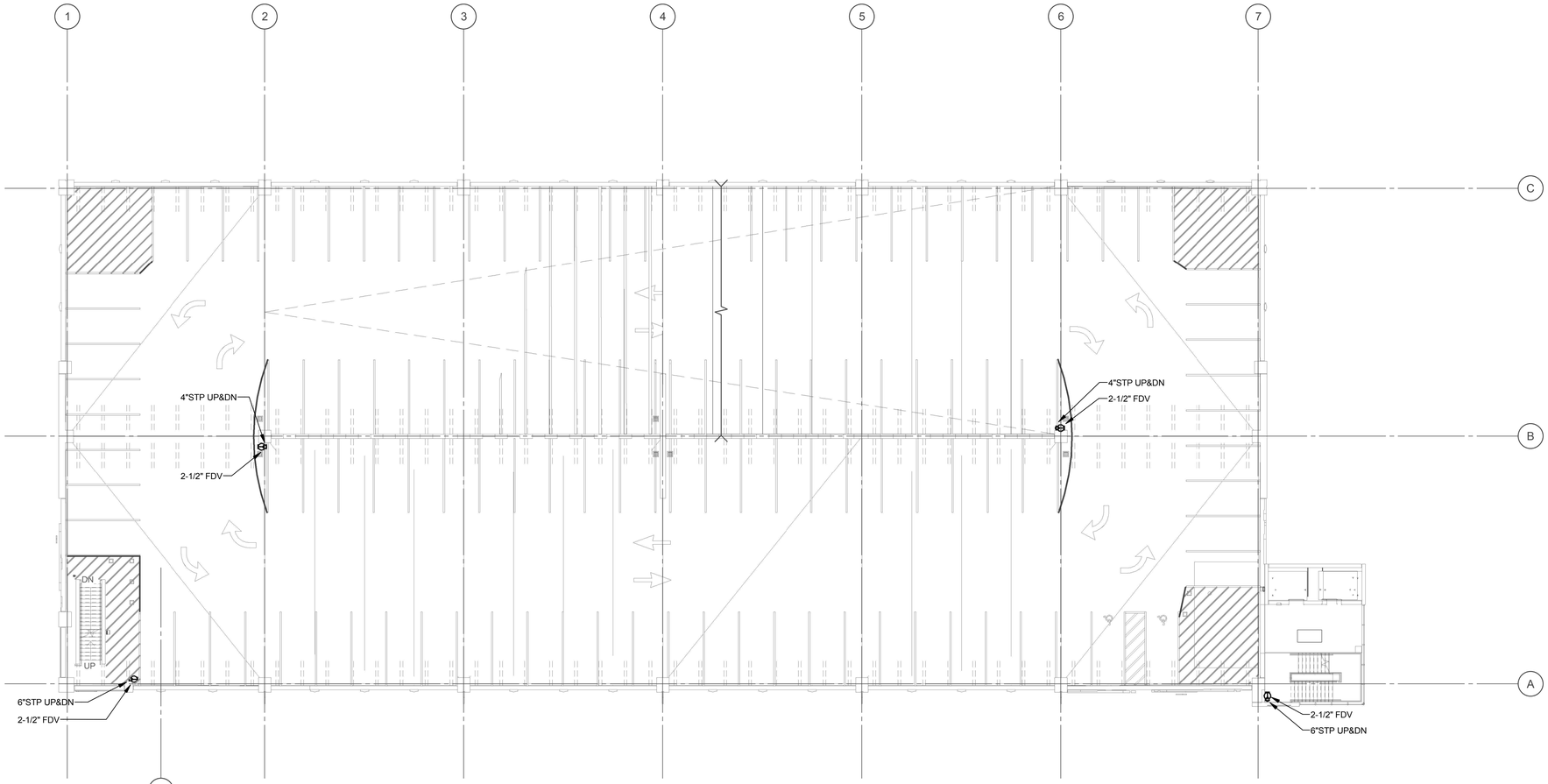
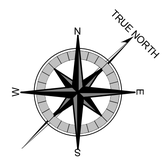
SHEET TITLE:
FIRE PROTECTION 3RD TIER PLAN

FP-203

KEYNOTES	
Keynote Number	Keynote Description



1 FP-204 FIRE PROTECTION 4TH FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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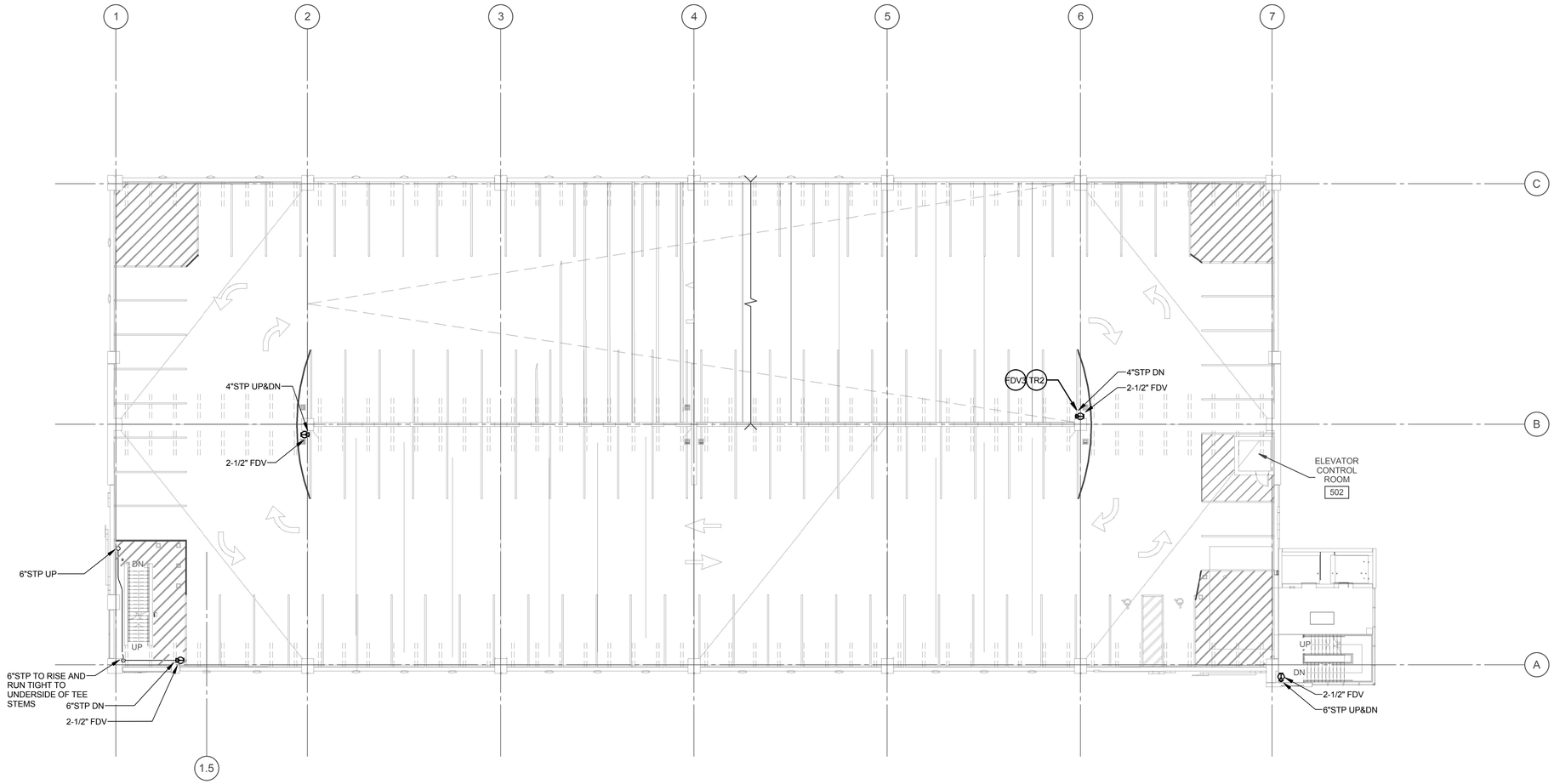
SHEET TITLE:
FIRE PROTECTION 4TH TIER PLAN

FP-204

KEYNOTES	
Keynote Number	Keynote Description



1 FP-205 FIRE PROTECTION 5TH FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'

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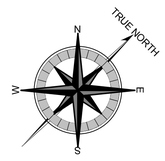
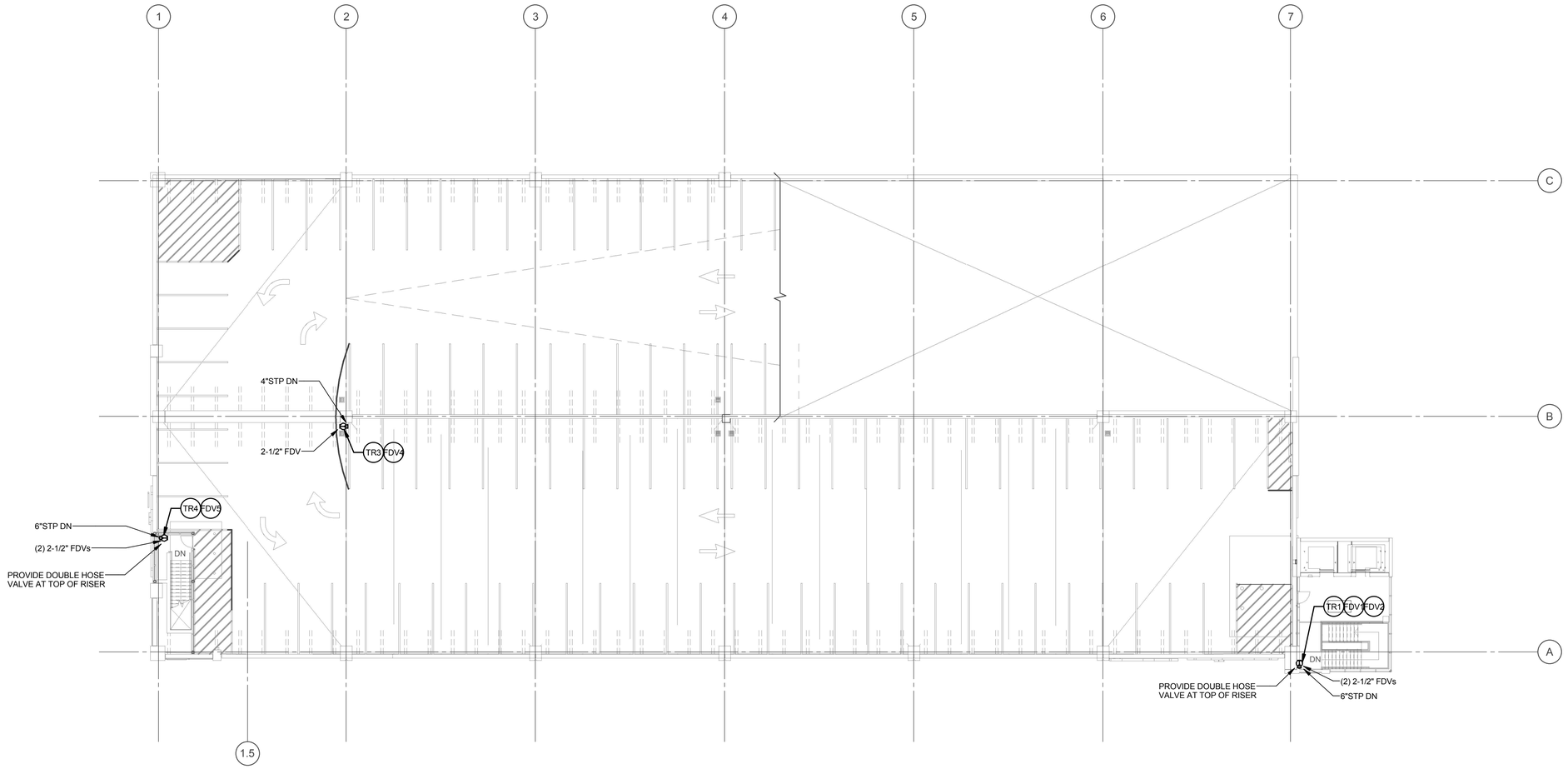
SHEET TITLE:
FIRE PROTECTION 5TH TIER PLAN

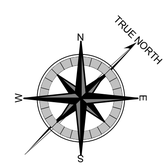
FP-205



KEYNOTES	
Keynote Number	Keynote Description



1 FP-206 FIRE PROTECTION 6TH FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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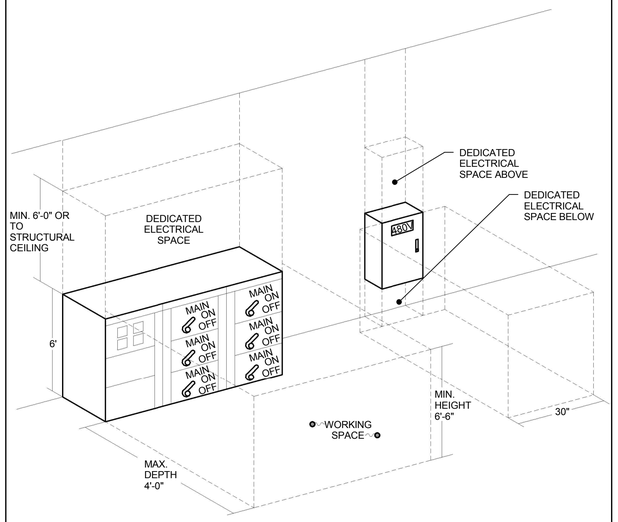
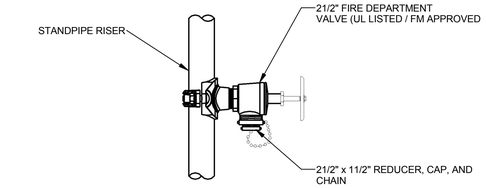
SHEET TITLE:
FIRE PROTECTION TOP TIER PLAN

FP-206



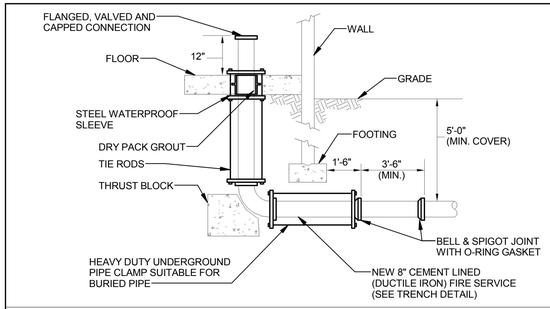
NOTES:
1. NO EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION (PIPING, DUCTS, ETC.) SHALL ENTER THE DEDICATED SPACE ABOVE OR BELOW ELECTRICAL POWER EQUIPMENT INCLUDING SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, & MOTOR CONTROL CENTERS.
2. NO EQUIPMENT SHALL PROTRUDE INTO WORKING SPACE.
3. PIPING SYSTEMS INSTALLED ABOVE THE DEDICATED ELECTRICAL SPACE SHALL BE ALLOWED WHERE DRIP PANS ARE INSTALLED TO CAPTURE LEAKS. RUPTURES OR CONDENSATION DRIPS. THE PIPING AND DRIP PANS SHALL BOTH BE OUTSIDE THE DEDICATED SPACE ENVELOPE.

RDK ENGINEERS — ELECTRICAL WORK AND DEDICATED SPACE — F1101

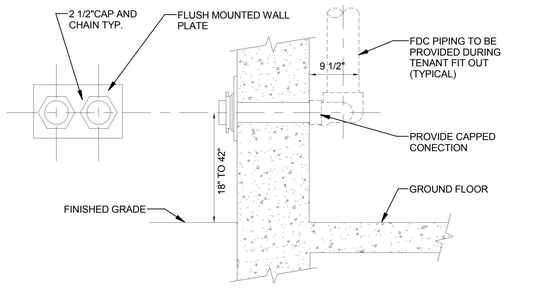


NOTES:
1. INSTALLATION HEIGHT SHALL BE IN ACCORDANCE WITH THE STATE BUILDING CODE AND THE LOCAL FIRE DEPARTMENT REGULATIONS.
2. PROVIDE A UL LISTED / FM APPROVED PRESSURE REDUCING FIRE DEPARTMENT VALVE WHEN SYSTEM PRESSURE AT THE VALVE EXCEEDS 175 PSI.

RDK ENGINEERS — FIRE DEPARTMENT VALVE — NO SCALE — F500



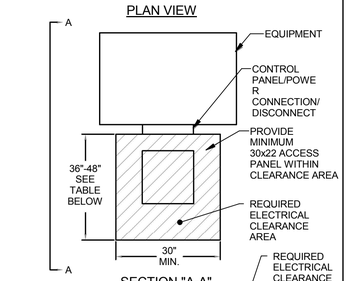
RDK ENGINEERS — FIRE SERVICE ENTRANCE DIAGRAM — F003



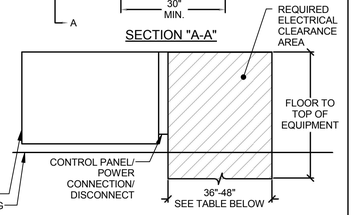
RDK ENGINEERS — 2-WAY FIRE DEPARTMENT CONNECTION DIAGRAM (SPRINKLER) — NO SCALE — F400R

NOTES:
1. DETAIL APPLIES TO ALL MECHANICAL EQUIPMENT LOCATED ABOVE A CEILING THAT REQUIRES POWER, INCLUDING CONTROL POWER. EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, FAN POWERED BOXES, VAV BOXES, FANS, FAN COIL UNITS, HEAT PUMPS, CRAC UNITS, DX SPLIT SYSTEMS, DUCT HEATERS, ETC.
2. ELECTRICAL CLEARANCE AREA (INCLUDING WITHIN CEILING) MUST BE FREE FROM LIGHTS, SPRINKLER HEADS, FIRE ALARM DEVICES, SPEAKERS, PIPING, DUCTWORK, BEAMS AND OTHER OBSTRUCTIONS.
3. THE HEIGHT OF THE ELECTRICAL CLEARANCE SHALL BE AS REQUIRED TO INSTALL AND PERFORM MAINTENANCE ON THE EQUIPMENT. MINIMUM HEIGHT SHALL BE FROM FLOOR TO TOP OF EQUIPMENT.
4. REFER TO SPECIFIC MANUFACTURER PRODUCT DATA FOR ADDITIONAL ACCESS AND CLEARANCE REQUIREMENTS FOR FANS, COMPRESSORS, VALVES, DAMPERS, FILTERS, ETC. PROVIDE ACCESS PANELS AS REQUIRED.
5. COORDINATE WITH ALL TRADES TO PROVIDE THESE MINIMUM REQUIRED CLEARANCES.

PLAN VIEW



SECTION "A-A"



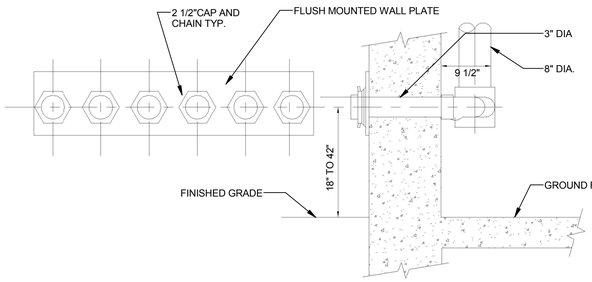
MINIMUM ELECTRICAL CLEARANCES (NEC 2017 COMPLIANCE)

VOLTAGE TO GROUND (SINGLE PHASE VOLTAGE)	CONDITION 1	CONDITION 2	CONDITION 3
0-150	36"	36"	36"
151-600	36"	42"	48"

CONDITION 1 - EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.
CONDITION 2 - EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE. CONCRETE, BRICK, OR TILE WALLS SHALL BE CONSIDERED AS GROUNDED CONDITION 3 - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE

NOTE: CLEARANCE WIDTH SHALL BE 30" OR THE WIDTH OF THE CONTROL PANEL/POWER CONNECTION, WHICHEVER IS GREATER

RDK ENGINEERS — ELECTRICAL CLEARANCE ATC CEILING — F1103



RDK ENGINEERS — 6-WAY FIRE DEPARTMENT CONNECTION DIAGRAM (STANDPIPE) — NO SCALE — F406R

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FOUNDRY PLACE PARKING GARAGE

MARK	DATE	DESCRIPTION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: JTF

SHEET TITLE:
FIRE PROTECTION DETAILS

FP-600

GENERAL NOTES

1. PLUMBING WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE PLUMBING AND GAS CODE INCLUDING ALL LOCAL AMENDMENTS.
2. OBTAIN ALL PERMITS AND PAY ALL FEES ASSOCIATED WITH THIS WORK PRIOR TO COMMENCEMENT.
3. PIPING AND EQUIPMENT IS SHOWN DIAGRAMMATICALLY. THE ACTUAL ROUTING OF PIPING AND EXACT LOCATION OF EQUIPMENT SHALL BE DETERMINED IN THE FIELD.
4. IN ADDITION TO REVIEWING AND COORDINATING WITH THE OTHER TRADES (CIVIL, STRUCTURAL, ARCHITECTURAL, FIRE PROTECTION, HVAC, AND ELECTRICAL) THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH DETAILS OF CONSTRUCTION.
5. FURNISH AND INSTALL ALL NECESSARY PIPING, EQUIPMENT SUPPORTS AND ANY EQUIPMENT NOT SHOWN ON DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS BUT NECESSARY TO PROVIDE A COMPLETE AND WORKABLE SYSTEM.
6. PROVIDE ACCESSIBLE SHUTOFF VALVES ON ALL BRANCH PIPING AND ON ALL SUPPLY PIPING TO INDIVIDUAL FIXTURES AND EQUIPMENT.
7. PROVIDE ACCESS TO ALL EQUIPMENT REQUIRING PERIODIC SERVICE AND MAINTENANCE.
8. FURNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION UNDER THE RELATED TRADES.
9. PITCH ALL WATER LINES TO DRAIN.
10. INSTALL HORIZONTAL RUNS OF WATER PIPING AS HIGH AS POSSIBLE AND PROVIDE DRAIN-OFFS AT ALL LOW POINTS.
11. HOT WATER TAKEOFFS SHALL HAVE NOT LESS THAN THREE ELBOW SWINGS.
12. PROVIDE DRAIN VALVE ON HOUSE SIDE OF WATER METER.
13. PIPING SHALL RUN CONCEALED IN ALL AREAS WITH THE EXCEPTION OF MECHANICAL ROOMS, AREAS WHERE NO CEILING EXISTS OR WHERE NOTED ON THE PLANS.
14. INSTALL DIELECTRIC COUPLINGS BETWEEN DISSIMILAR MATERIALS.
15. PROVIDE DANDY CLEANOUTS AT THE BASE OF ALL SANITARY AND RAINWATER STACKS.
16. REQUIRED FIRE RESISTANCE RATING OF FLOORS, WALLS AND CEILINGS SHALL BE MAINTAINED WHEN PIPE PENETRATIONS ARE MADE.
17. SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.

	BALL VALVE
NC	BALL VALVE (NORMALLY CLOSED)
	GATE VALVE
NC	GATE VALVE (NORMALLY CLOSED)
	CHECK VALVE
	TEMPERATURE AND PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	AQUASTAT
	THERMOMETER
	PRESSURE GAUGE

ABBREVIATIONS

ACT	ACOUSTICAL TILE
AFF	ABOVE FINISH FLOOR
AP	ACCESS PANEL
ARCH	ARCHITECT
BLDG	BUILDING
CI	CAST IRON
CIP	CAST IN PLACE
CLG	CEILING
CLDI	CEMENT LINED DUCTILE IRON
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTINUATION
CONTR	CONTRACTOR
CTE	CONNECT TO EXISTING
CW	COLD WATER
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
EL/ELEV	ELEVATION
EX	EXISTING
FCO	FLOOR CLEANOUT
FFE	FINISH FLOOR ELEVATION
FLR	FLOOR
FT	FOOT
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GSI	GAS/SAND INTERCEPTOR
GPF	GALLON PER FLUSH
GPM	GALLONS PER MINUTE
HC	HANDICAPPED
HW	HOT WATER
ID	INSIDE DIAMETER
INV	INVERT
IW	INDIRECT WASTE
L	LAVATORY-FIXTURE IDENTIFICATION
LPC	LIMIT OF PLUMBING CONTRACTOR
MECH	MECHANICAL
NTS	NOT TO SCALE
NIC	NOT IN CONTRACT
OD	OUTSIDE DIAMETER
OED	OPEN END DRAIN
PC	PLUMBING CONTRACTOR
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
SK	SINK-FIXTURE IDENTIFICATION
SPEC	SPECIFICATION
SS	SOIL STACK
TYP	TYPICAL
U	URINAL-FIXTURE IDENTIFICATION
V	VENT
VB	VACUUM BREAKER
VS	VENT STACK
VTR	VENT THRU ROOF
W	WASTE
WC	WATER CLOSET-FIXTURE IDENTIFICATION

DESIGNATION INDICATOR

A	DETAIL DESIGNATION NUMBER
P2.0	DETAIL DESIGNATION DRAWING

PIPING LEGEND

CW	CW	DOMESTIC COLD WATER
		DOMESTIC COLD WATER BELOW SLAB
HW	HW	DOMESTIC HOT WATER
W	W	WASTE ABOVE GROUND
W	W	WASTE BELOW SLAB
V	V	VENT ABOVE GROUND
V	V	VENT BELOW SLAB
GW	GW	GARAGE WASTE ABOVE GROUND
GW	GW	GARAGE WASTE BELOW SLAB
RL	RL	RAIN LEADER ABOVE GROUND
RL	RL	RAIN LEADER BELOW SLAB
PD	PD	PUMP DISCHARGE
G	G	NATURAL GAS PIPING
GV	GV	GARAGE VENT ABOVE GROUND
GV	GV	GARAGE VENT BELOW SLAB

GENERAL

	FLOOR DRAIN
	ROOF DRAIN
	CLEANOUT
	GRADE CLEANOUT
	P-TRAP
	ELBOW UP OR RISE
	ELBOW DOWN OR DROP
	CAP OR END OF PIPE
	HOSE BIBB
	WALL HYDRANT
	TEE LOOKING UP
	TEE LOOKING DOWN
	UNION
	BACKFLOW PREVENTER
	FLOW IN DIRECTION OF ARROWS
	DIRECTION OF SLOPE
	PIPE SLEEVE
M	WATER METER
	HANDICAP ACCESSIBLE
1	KEY NOTE DESIGNATION
TP	TRAP PRIMER

Drawing List - Plumbing

Sheet Number	Sheet Name
P-701	PLUMBING DETAILS
P-000	PLUMBING LEGEND
P-200	PLUMBING UNDER SLAB FLOOR PLAN
P-201	PLUMBING GROUND TIER PLAN
P-202	PLUMBING 2ND TIER PLAN
P-203	PLUMBING 3RD TIER PLAN
P-204	PLUMBING 4TH TIER PLAN
P-205	PLUMBING 5TH TIER PLAN
P-206	PLUMBING TOP TIER PLAN
P-400	PLUMBING ENLARGED PLANS
P-700	PLUMBING DETAILS
P-800	PLUMBING SCHEDULES
Sheet Count: 12	

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617.350.5048 Fax
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Andover, MA - Boston, MA - Amherst, MA
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FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

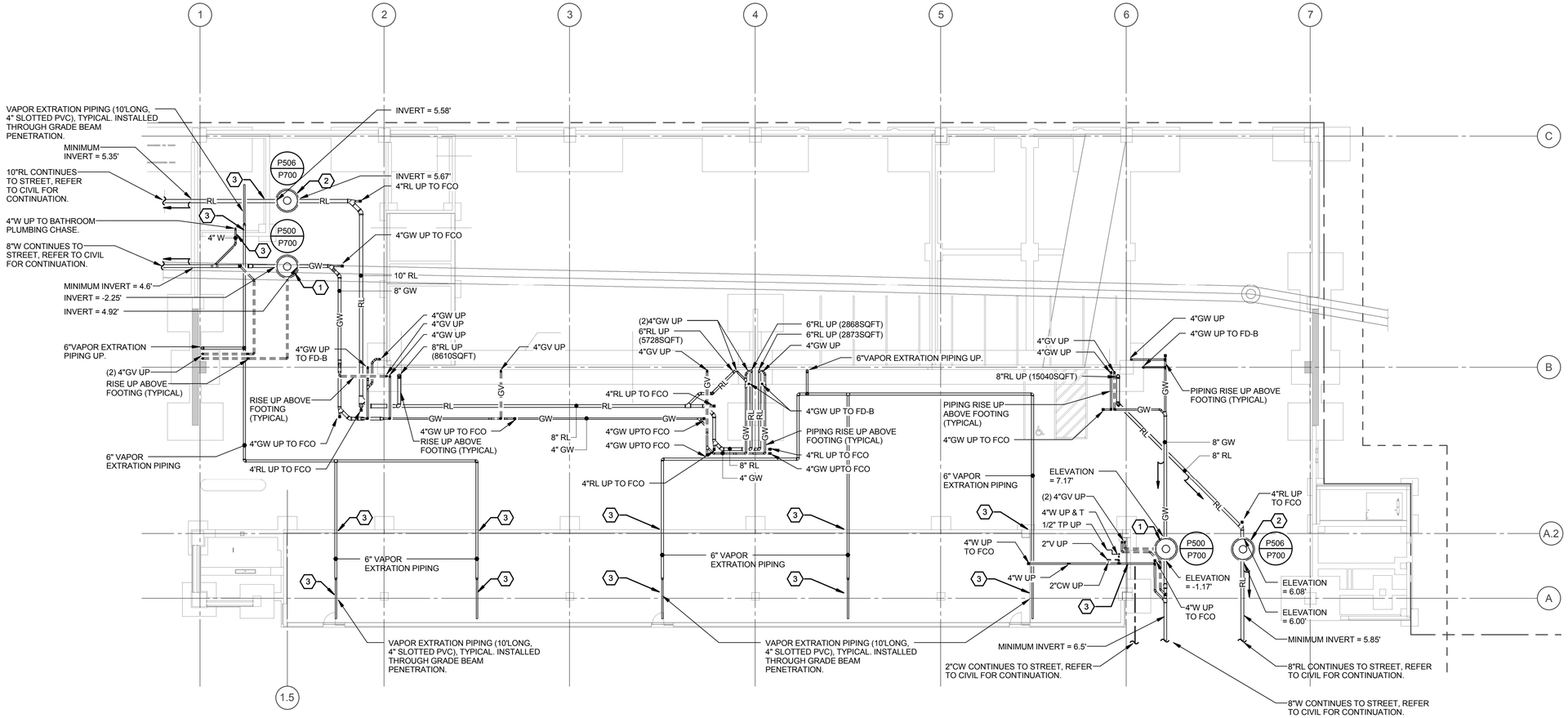
ISSUE:

PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: RDB

SHEET TITLE:
PLUMBING LEGEND

P-000

KEYNOTES	
Keynote Number	**Keynote Description**
1	GAS/SAND INTERCEPTOR
2	STORMCEPTOR
3	PENETRATION OF GRADE BEAM REQUIRED.



1 P-200 PLUMBING UNDER SLAB FLOOR PLAN
1/16" = 1'-0" 0 8' 16' 32'

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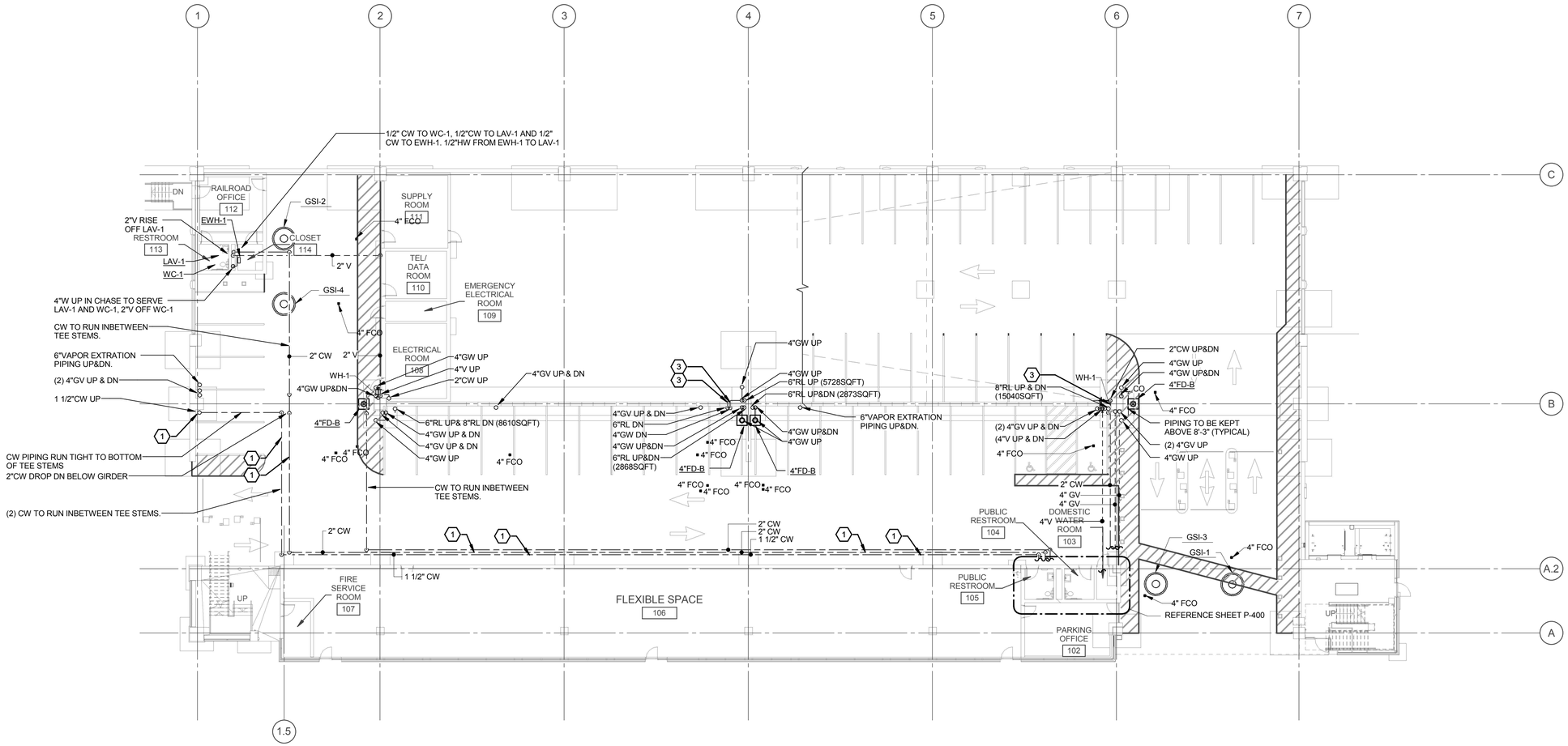
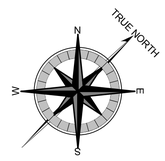
SHEET TITLE:
PLUMBING UNDER SLAB FLOOR PLAN

P-200

KEYNOTES	
Keynote Number	**Keynote Description**
1	INSULATE COLD WATER PIPING IN UNHEATED GARAGE SPACE. HEAT TRACE TO BE INSTALLED BY ELECTRICIAN
3	PENETRATION LIGHT WALL WITH PIPING



1 P-201 PLUMBING 1ST FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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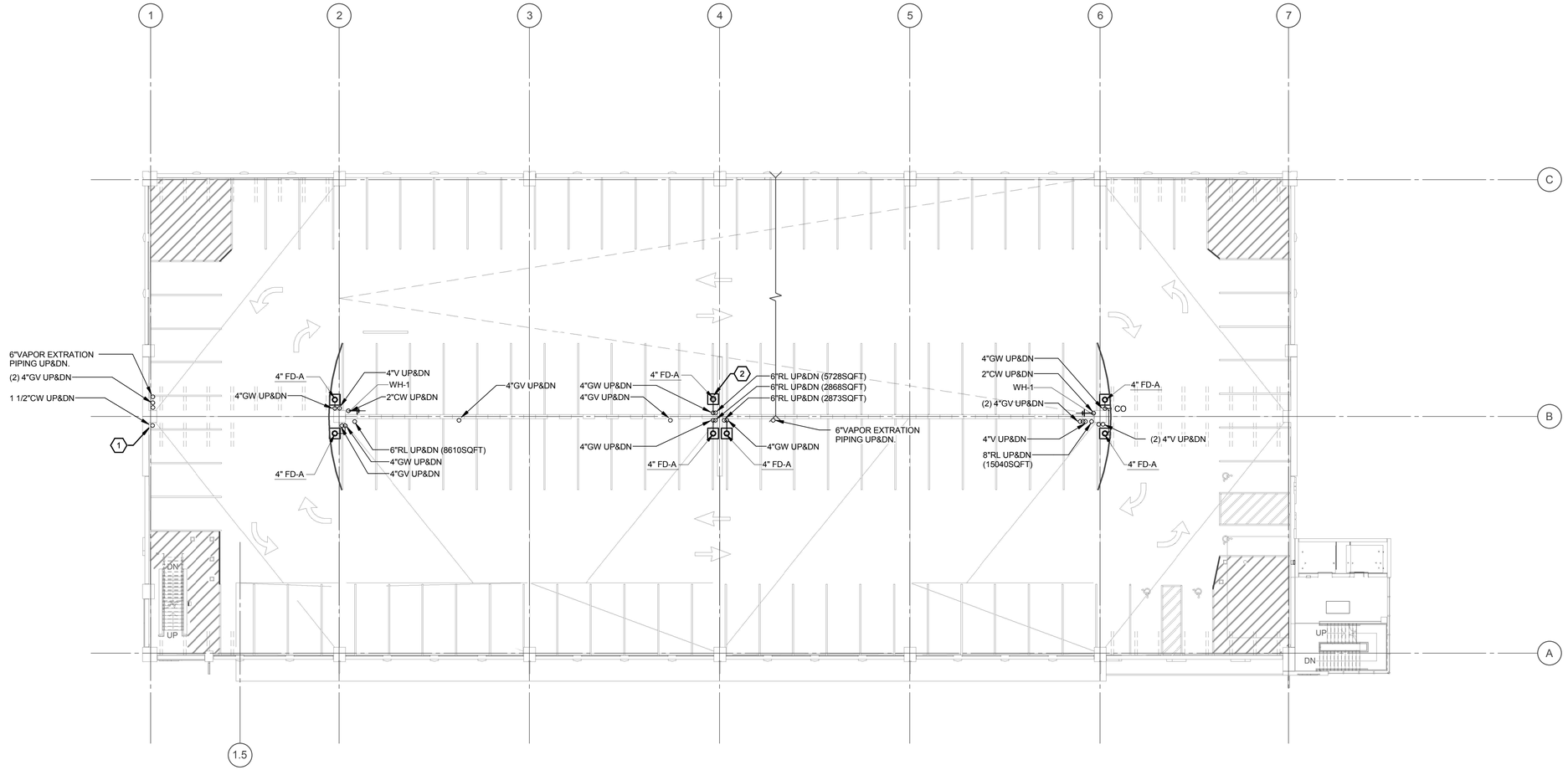
CHECKED BY: RDB

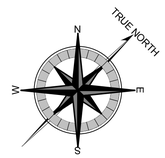
SHEET TITLE:
PLUMBING GROUND TIER PLAN

P-201

KEYNOTES	
Keynote Number	**Keynote Description**
1	INSULATE COLD WATER PIPING IN UNHEATED GARAGE SPACE. HEAT TRACE TO BE INSTALLED BY ELECTRICIAN
2	FLOOR DRAIN IS ON RAMP BETWEEN GROUND TIER AND 2ND TIER



1 P-202 PLUMBING 2ND FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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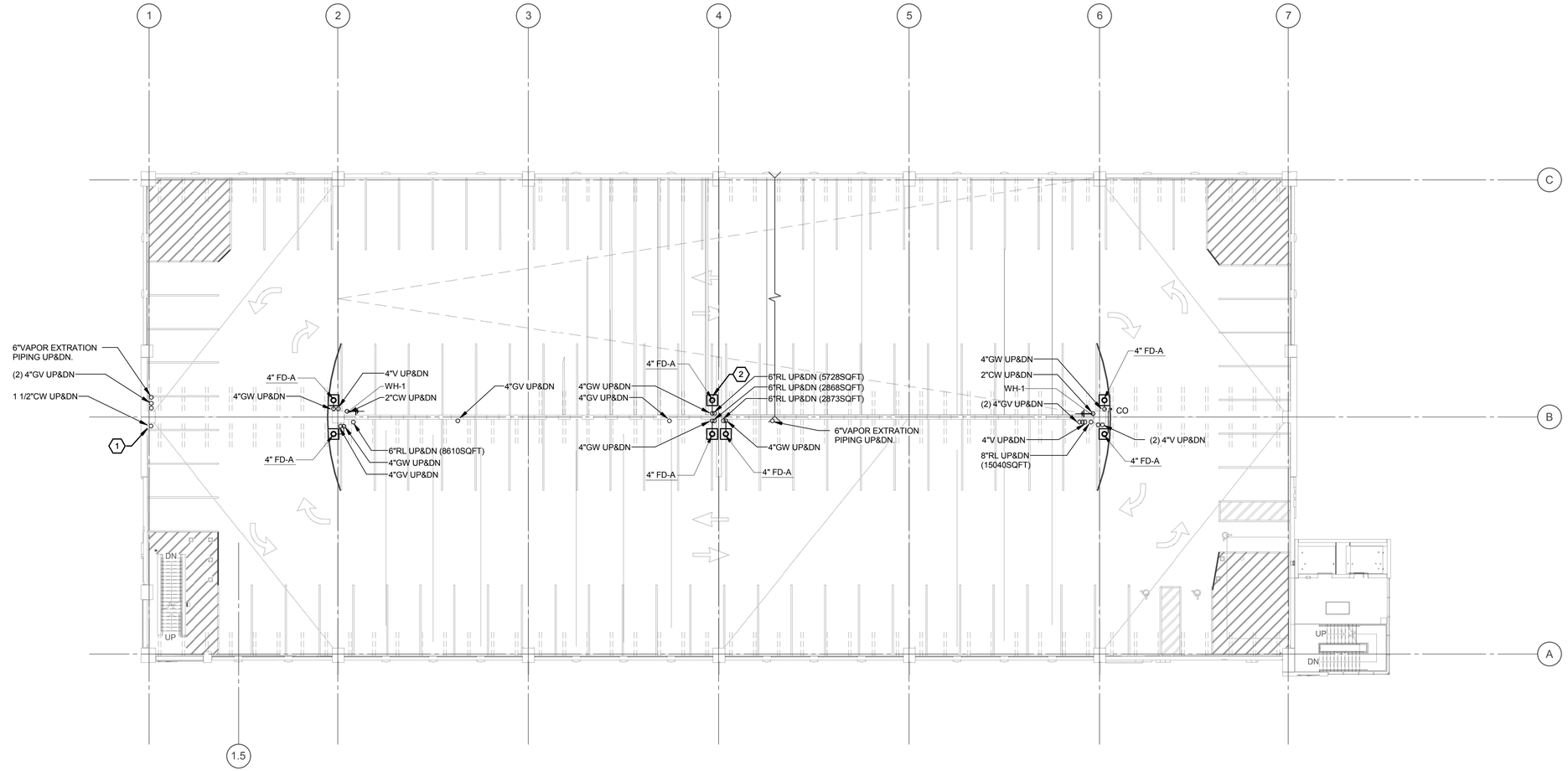
PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: RDB

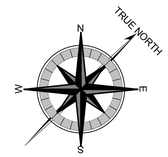
SHEET TITLE:
PLUMBING 2ND TIER PLAN

P-202

KEYNOTES	
Keynote Number	**Keynote Description**
1	INSULATE COLD WATER PIPING IN UNHEATED GARAGE SPACE. HEAT TRACE TO BE INSTALLED BY ELECTRICIAN
2	FLOOR DRAIN IS ON RAMP BETWEEN 2ND TIER AND 3RD TIER



1 / P-203 PLUMBING 3RD FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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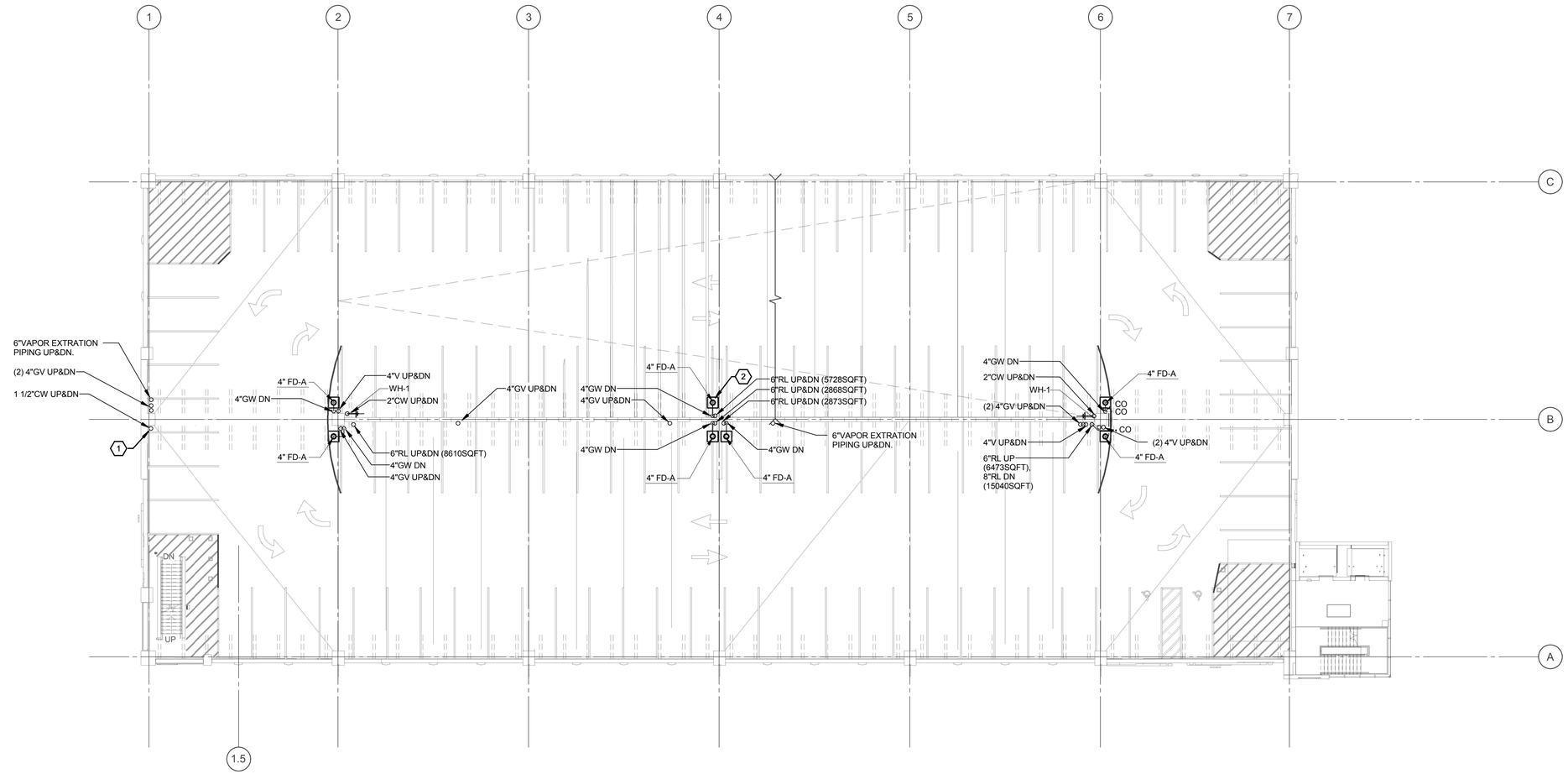
SHEET TITLE:
PLUMBING 3RD TIER PLAN

P-203

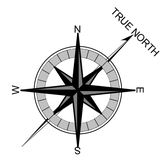
KEYNOTES	
Keynote Number	**Keynote Description**
1	INSULATE COLD WATER PIPING IN UNHEATED GARAGE SPACE. HEAT TRACE TO BE INSTALLED BY ELECTRICIAN
2	FLOOR DRAIN IS ON RAMP BETWEEN 3RD TIER AND 4TH TIER



1 P-204 PLUMBING 4TH FLOOR PLAN

1/16" = 1'-0"

0 8' 16' 32'



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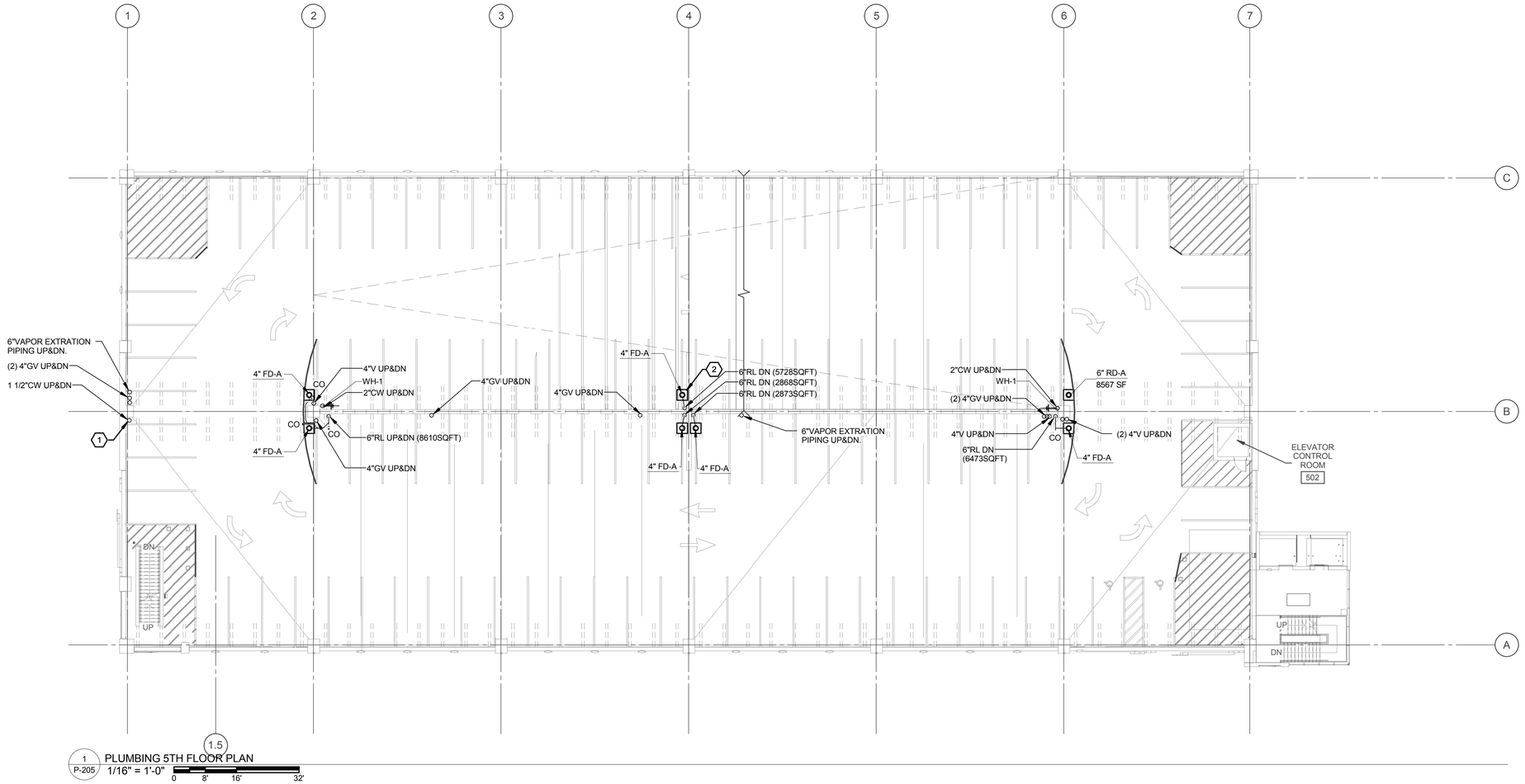
SHEET TITLE:

PLUMBING 4TH TIER PLAN

P-204

KEYNOTES	
Keynote Number	**Keynote Description**
1	INSULATE COLD WATER PIPING IN UNHEATED GARAGE SPACE. HEAT TRACE TO BE INSTALLED BY ELECTRICIAN
2	FLOOR DRAIN IS ON RAMP BETWEEN 4TH TIER AND 5TH TIER



1 P-205 PLUMBING 5TH FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'

1.5

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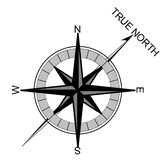
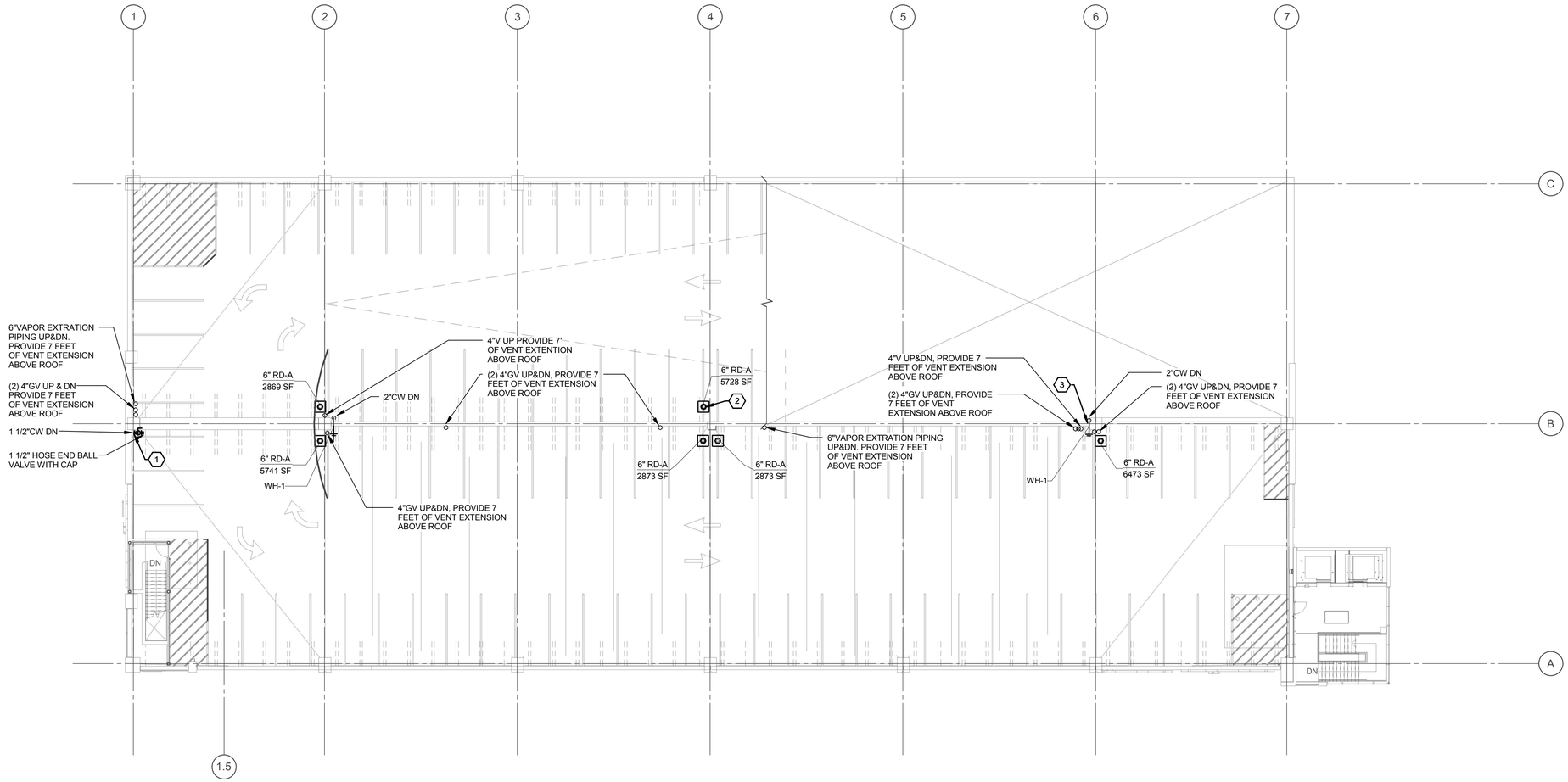
SHEET TITLE:
PLUMBING 5TH TIER PLAN

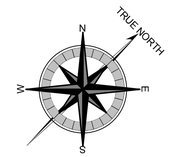
P-205



KEYNOTES	
Keynote Number	**Keynote Description**
1	INSULATE COLD WATER PIPING IN UNHEATED GARAGE SPACE. HEAT TRACE TO BE INSTALLED BY ELECTRICIAN
2	FLOOR DRAIN IS ON RAMP BETWEEN 5TH TIER AND TOP TIER
3	PENETRATION LIGHT WALL WITH PIPING



1 P-206 PLUMBING 6TH FLOOR PLAN
1/16" = 1'-0"
0 8' 16' 32'



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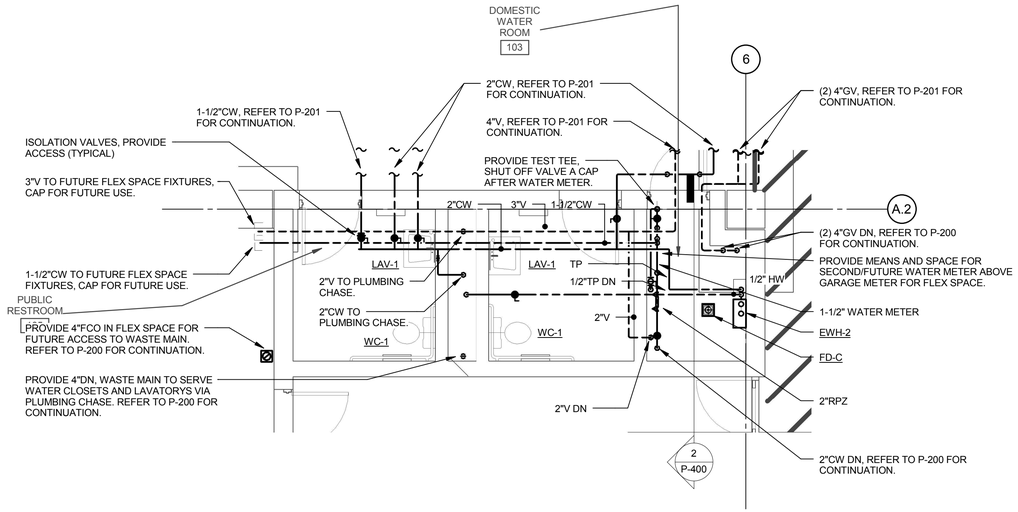
SHEET TITLE:
PLUMBING TOP TIER PLAN

P-206

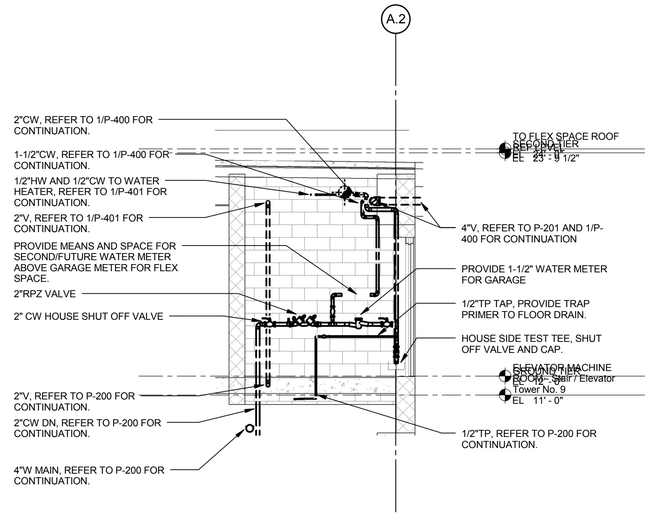
KEYNOTES	
Keynote Number	Keynote Description



1 P-400 PLUMBING PLAN WATER ROOM ENLARGED PLAN

1/4" = 1'-0"

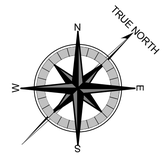
0 2' 4' 8'



2 P-400 PLUMBING WATER ROOM SECTION

1/4" = 1'-0"

0 2' 4' 8'



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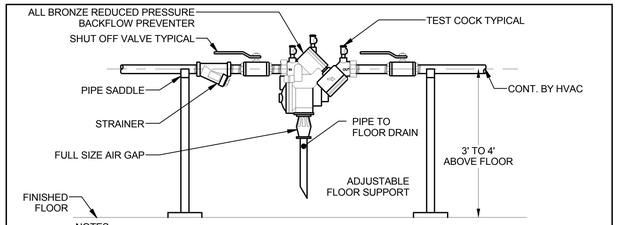
SHEET TITLE:

PLUMBING ENLARGED PLANS

P-400



NOTES:
1. FURNISH TO OWNER ONE TEST KIT AND SPARE PARTS KIT.
2. THIS CONTRACTOR SHALL ACT AS THE OWNERS AGENT IN SEEKING APPROVAL FROM ALL LOCAL AND STATE AUTHORITIES. THIS CONTRACTOR SHALL SUBMIT ALL PLANS, SPECS. AND APPLICATIONS REQUIRED FOR APPROVAL AND PAY ALL FEES.
3. SEE FLOOR PLANS FOR SIZES.
4. MAINTAIN 1'-0" CLEARANCE FROM WALL.
5. TEST AND CERTIFY EACH INSTALLATION.

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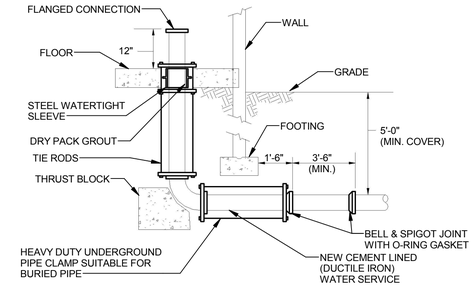
REDUCED PRESSURE BACKFLOW PREVENTER

NO SCALE | P100



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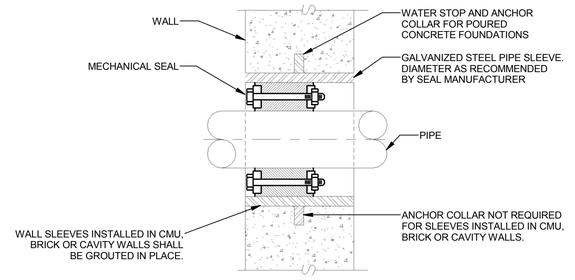
WATER SERVICE ENTRANCE DIAGRAM

NO SCALE | P000



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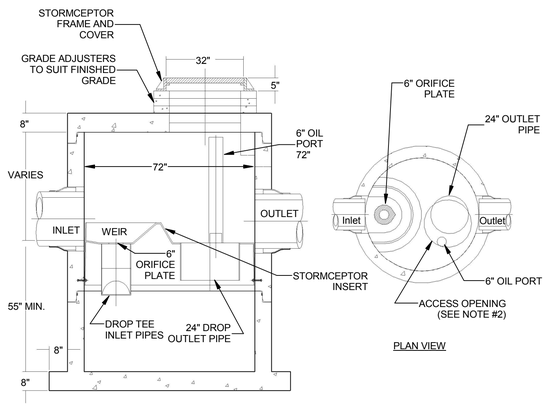
PIPE SLEEVE IN EXTERIOR WALL

NO SCALE | P605



SECTION THROUGH CHAMBER

PLAN VIEW

NOTES:
1. THE USE OF FLEXIBLE CONNECTION IS RECOMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. THE COVER SHOULD BE POSITIONED OVER THE OUTLET DROP PIPE AND THE OIL PORT.
3. REFER TO FLOOR PLANS FOR LOCATIONS, INVERT AND OUTLET ELEVATIONS.

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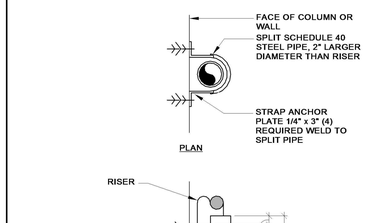
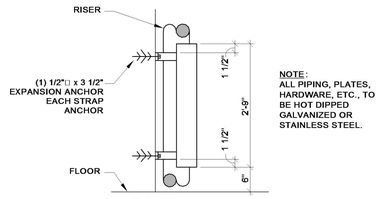
STORMCEPTOR

NO SCALE | P506



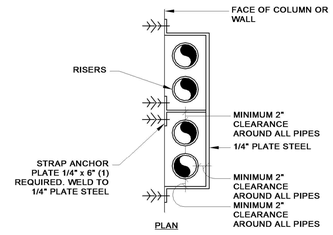
PLAN



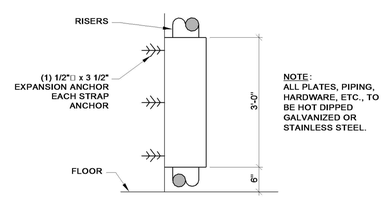
ELEVATION

NOTE: ALL PIPING, PLATES, HARDWARE, ETC., TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.

SINGLE RISER



PLAN



ELEVATION

NOTE: ALL PLATES, PIPING, HARDWARE, ETC., TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.

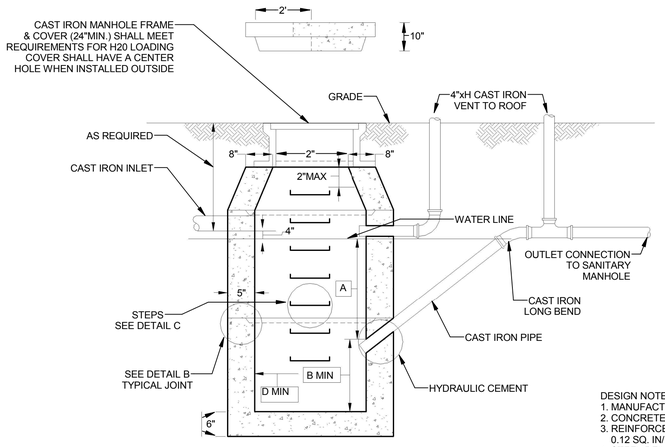
MULTIPLE RISERS

RDK ENGINEERS

PIPE GUARDS

NO SCALE | P810

INLET SIZE	D	A	B
4"	3'6"Ø	3'-0"	2'-6"
5"	3'6"Ø 3'-6"x3'-6" 4'-0"Ø 4'-0"x4'-0" 4'-6"Ø	5'-0" 4'-0" 3'-6" 3'-0" 3'-0"	4'-0" 3'-0" 3'-0" 2'-6" 2'-6"
6"	4'-0"Ø 4'-0"x4'-0" 4'-6"Ø 4'-6"x4'-6" 5'-0"Ø 5'-0"x5'-0"	5'-0" 4'-0" 4'-0" 3'-6" 3'-6" 3'-0"	4'-6" 3'-6" 3'-6" 3'-0" 3'-0" 2'-6"
8"	5'-0"Ø 5'-6"x5'-6" 6'-0"Ø 6'-0"x6'-0" 6'-6"Ø 6'-6"x6'-6"	6'-0" 4'-6" 4'-0" 3'-0" 3'-6" 3'-0"	5'-0" 4'-0" 3'-6" 2'-6" 3'-0" 2'-6"



DESIGN NOTES:
1. MANUFACTURED TO MEET OR EXCEED: ASTM C-478 & AASHTO M 199 SPECS.
2. CONCRETE = 4,000 PSI. MINIMUM CEMENT PER ASTM C-478 (6.1)
3. REINFORCED STEEL COMFORMS TO LATEST ASTM 185 SPECIFICATIONS. 0.12 SQ. IN/ LINEAL FT. AN 0.12 SQ. IN (BOTH WAYS) BASE BOTTOM
4. STEEL REINFORCEMENT TO MEET OR EXCEED AASHTO HS-20 LOADING
5. MANHOLE STEPS MEET LATEST OSHA REGULATION 29 CFR1910.27, SECTION 16 OF ASTM SPECIFICATION C478 AND SECTION 10 OF ASTM SPECIFICATION C497
6. BUTYL RUBBER JOINT SEALANT PER ASTM C-990 & ASHTO M-198
7. GASOLINE/OIL INTERCEPTOR INSTALLATION SHALL CONFORM WITH THE STATE PLUMBING CODE.
8. IN OPEN PARKING GARAGES OR OPEN PARKING AREAS THE INLET MAY EXTEND BELOW THE WATER LINE A MAXIMUM OF 6 INCHES.

RDK ENGINEERS

GASOLINE, OIL, AND SAND INTERCEPTOR

P500

A3
HYDRAULIC CEMENT JOINT

B
BUTYL RUBBER SECTION JOINT

C
POLYPROPYLENE MANHOLE STEPS

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
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RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T.978-296-6200
F.978-296-6201
W. www.rdkengineers.com

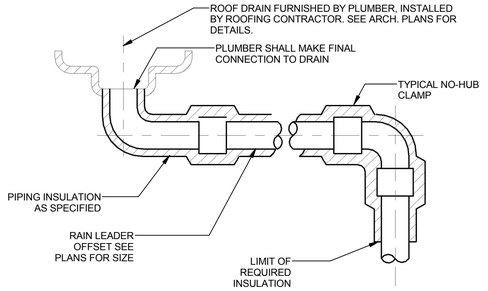
FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
ISSUE:	05/05/2017	GARAGE DESIGN DEVELOPMENT

PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: RDB

SHEET TITLE:
PLUMBING DETAILS

P-700

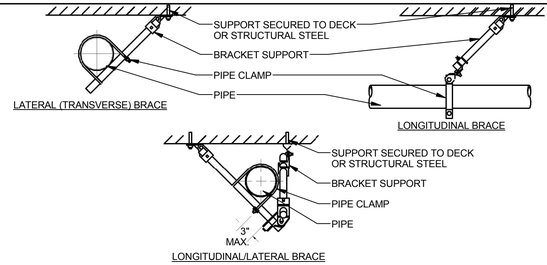


RDK ENGINEERS

RAIN LEADER INSULATION DETAIL

NO SCALE

P1203



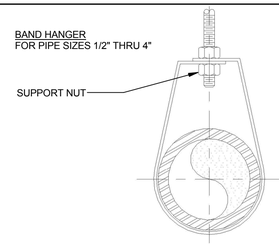
NOTES:
1. ALL APPLICABLE PLUMBING PIPING SYSTEMS SHALL BE SEISMICALLY BRACED AND INSTALLED PER APPLICABLE SECTIONS OF THE MASS. STATE BUILDING CODE LATEST EDITIONS.

RDK ENGINEERS

SEISMIC PIPE BRACING DIAGRAM

NO SCALE

P805



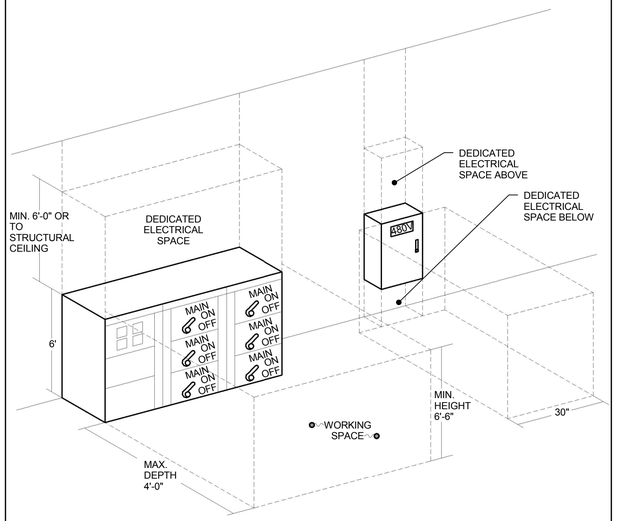
NOTES:
1. SEE SPECIFICATION FOR HANGER SIZES AND MATERIAL.
2. DISTANCE BETWEEN HANGERS SHALL BE IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODE.
3. HANGER ROD SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

RDK ENGINEERS

BAND HANGER

NO SCALE

P800

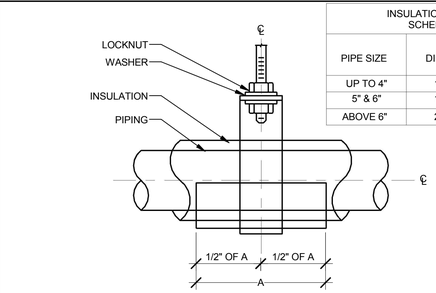


NOTES:
1. NO EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION (PIPING, DUCTS, ETC.) SHALL ENTER THE DEDICATED SPACE ABOVE OR BELOW ELECTRICAL POWER EQUIPMENT INCLUDING SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, & MOTOR CONTROL CENTERS.
2. NO EQUIPMENT SHALL PROTRUDE INTO WORKING SPACE.
3. PIPING SYSTEMS INSTALLED ABOVE THE DEDICATED ELECTRICAL SPACE SHALL BE ALLOWED WHERE DRIP PANS ARE INSTALLED TO CAPTURE LEAKS. RUPTURES OR CONDENSATION DRIPS. THE PIPING AND DRIP PANS SHALL BOTH BE OUTSIDE THE DEDICATED SPACE ENVELOPE.

RDK ENGINEERS

ELECTRICAL WORK AND DEDICATED SPACE

P1701



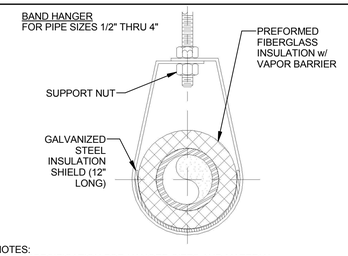
INSULATION SHIELD SCHEDULE		
PIPE SIZE	DIM. A	GA. OF STEEL
UP TO 4"	12"	18
5" & 6"	18"	18
ABOVE 6"	24"	14

RDK ENGINEERS

PIPE SHIELD DIAGRAM

NO SCALE

P809



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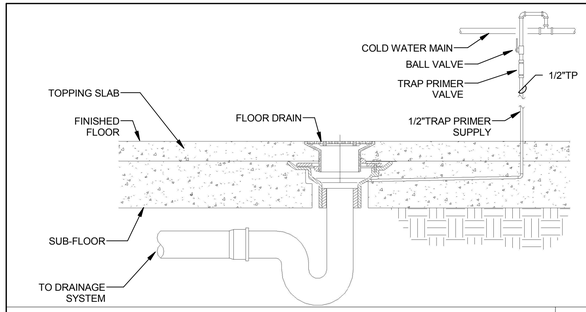
RDK ENGINEERS

BAND HANGER WITH INSULATED PIPE

NO SCALE

P801

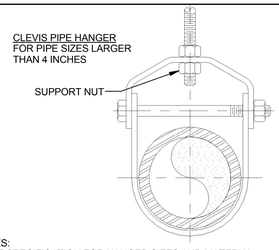


RDK ENGINEERS

TRAP PRIMER CONNECTION

NO SCALE

P601



NOTES:
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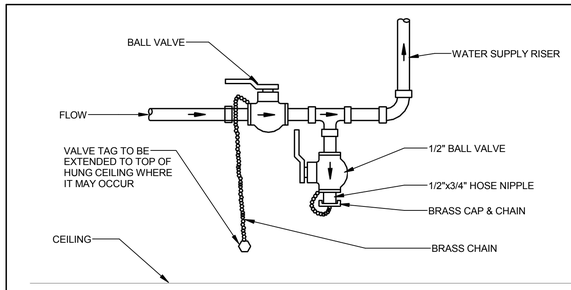
RDK ENGINEERS

CLEVIS PIPE HANGER SUPPORT

NO SCALE

P802

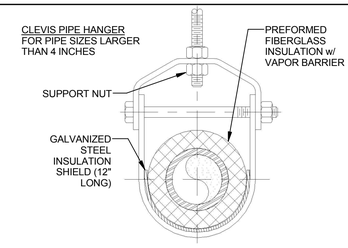


RDK ENGINEERS

TYPICAL CONNECTION AT BOTTOM OF RISER

NO SCALE

P619



NOTES:
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RDK ENGINEERS

CLEVIS PIPE HANGER SUPPORT WITH INSULATED PIPE

NO SCALE

P803

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-4201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

ISSUE:	DESCRIPTION	DATE	MARK

PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: RDB

SHEET TITLE:
PLUMBING DETAILS

P-701

PLUMBING FIXTURE SCHEDULE

TAG NO.	FIXTURE				FITTING				TRAP	REMARKS
	TYPE	MANUFACTURER	MODEL	SIZE	TYPE	MANUFACTURER	MODEL	SUPPLY		
WC-1	WATER CLOSET WALL HUNG, ELONGATED VITREOUS CHINA, SIPHON JET, TOP SPUD 1.6 GPF	AMERICAN STANDARD	AFWALL 2257.001	16-1/8"H X 14-3/4"W X X25"D (INSTALL TO ADA COMPLIANT HEIGHT)	MANUAL FLUSH VALVE	SLOAN	111	1½"CW	INTEGRAL	PROVIDE CARRIER SYSTEM EQUAL TO ZURN SERIES 1200. SPECIFIC MODEL AS REQUIRED FOR INSTALLATION ORIENTATION. PROVIDE OLSONITE MODEL 95 OPEN FRONT SEAT
L-1	LAVATORY WALL HUNG VITREOUS CHINA, CONCEALED ARM SUPPORT	AMERICAN STANDARD	LUCERNE 0355.012	20 1/4" X 18 1/4"	SINGLE HANDLE METERING / TEMPERATURE LIMIT AND ADJUSTABLE FLOW TIME, 4 INCH CENTERS LEAD FREE w/GRID STRAINER	CHICAGO FAUCET	3600-E2805AB	1/2" SWEAT X 3/8" COMP. LEAD FREE CHICAGO STC-51-11-PR-AB	1 1/4" X 1 1/2" 17 GA CAST BRASS CHROME PLATED P TRAP W/CO PLUG EQUAL TO MCGUIRE MCT150090B	WHEN REQUIRED PROVIDE CARRIER SYSTEM EQUAL TO ZURN MODEL NO. 1231

GAS/SAND INTERCEPTOR SCHEDULE

TAG NO.	TOTAL CAPACITY (GAL)	OIL/GREASE CAPACITY (GAL)	SEDIMENT CAPACITY (FT^3)	INSTALLATION/LOCATION	MANUFACTURER	MODEL NO.	REMARKS
GSI-1	450	86	46	GROUND FLOOR, SOUTH EAST CORNER	RINKER (OR APPROVED EQUAL)	STC-450i	FOR STORM WATER SYSTEM. REFER TO DETAIL P506 ON P-700
GSI-2	450	86	46	GROUND FLOOR, NORTH WEST CORNER	RINKER (OR APPROVED EQUAL)	STC-450i	FOR STORM WATER SYSTEM. REFER TO DETAIL P506 ON P-700
GSI-3	-	-	-	GROUND FLOOR, SOUTH EAST CORNER	ROTONDO (OR APPROVED EQUAL)	-	FOR GARAGE WASTE. REFER TO DETAIL P500 ON P-700
GSI-4	-	-	-	GROUND FLOOR, NORTH WEST CORNER	ROTONDO (OR APPROVED EQUAL)	-	FOR GARAGE WASTE. REFER TO DETAIL P500 ON P-700

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE

TAG NO.	RECOVERY		TOTAL KW	VOLTS	PHASE	HZ	MANUFACTURER	MODEL NO.	REMARKS
	RATE (GPM)	DEG. RISE (°F)							
EWH-1	0.68	80	8	208	1	60	HUBBELL	TX008	SHALL SERVE ONE LAVATORY, CONFIRM AERATOR IN LAVATORY HAS A MAXIMUM FLOW OF 0.5 GPM.
EWH-2	1.02	80	12	208	3	60	HUBBELL	TX012	SHALL SERVE TWO LAVATORY, CONFIRM AERATOR IN LAVATORIES HAS A MAXIMUM FLOW OF 0.5 GPM EACH.

DRAIN SCHEDULE

TAG NO.	TYPE	MANUFACTURER	MODEL NO.	STRAINER	REMARKS
FD-A	FLOOR DRAIN	ZURN	Z662-PK-G-VP	16"	GARAGE DRAIN - INSTALLED IN PRE-CAST FLOOR SLAB. PRECAST MFG TO P&I FRAME IN PRECAST FLOOR SLAB. PC TO P&I DRAIN BODY, STRAINER, ETC IN FIELD.
FD-B	FLOOR DRAIN	ZURN	Z662-PK-G-VP	16"	GARAGE DRAIN - INSTALLED IN CIP SLAB ON GRADE
FD-C	FLOOR DRAIN	WATTS	FD-340Y-SET	12" DI TOP WITH BUCKET	LOCATED IN WATER SERVICE/ MECHANICAL ROOM. PROVIDE TRAP PRIMER.
RD-A	ROOF DRAIN	ZURN	Z662-PK-G-VP	16"	GARAGE DRAIN (TOP TIER ONLY) - INSTALLED IN PRE-CAST FLOOR SLAB. PRECAST MFG TO P&I FRAME IN PRECAST FLOOR SLAB. PC TO P&I DRAIN BODY, STRAINER, ETC IN FIELD.

WATER HAMMER ARRESTER SCHEDULE

TYPE	FIXTURE UNIT RATING	MODEL
SA "A"	1-11	JAY R. SMITH 5005
SA "B"	12-32	JAY R. SMITH 5010
SA "C"	33-60	JAY R. SMITH 5020
SA "D"	61-113	JAY R. SMITH 5030
SA "E"	114-154	JAY R. SMITH 5040
SA "F"	155-330	JAY R. SMITH 5050

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FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 20160588
DRAWN BY: RAM
CHECKED BY: RDB

SHEET TITLE:
PLUMBING SCHEDULES

P-800

HVAC ABBREVIATIONS

GENERAL	
A	COMPRESSED AIR
AD	ACCESS DOOR
ADD'L	ADDITIONAL
AF	AIR FOIL
AFF	ABOVE FINISHED FLOOR
AFR	ABOVE FINISHED ROOF
ALT	ALTITUDE OR ALTERNATE
AMP	AMPERE
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECT
AS	AIR STREAM
ATC	AUTOMATIC TEMPERATURE CONTROL
ATM	ATMOSPHERE
AVE	AVERAGE
BHP	BRAKE HORSEPOWER
BI	BACKWARDS INCLINED
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
C TO C	CENTER TO CENTER
CENT	CENTRIFUGAL
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CL	CENTERLINE
CLG	CEILING OR COOLING
CO	CARBON MONOXIDE
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONTR	CONTRACTOR
D	DRAIN OR DEPTH
DB	DRY BULB TEMPERATURE
DEG	DEGREE
DDC	DIRECT DIGITAL CONTROL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DP	DIFFERENTIAL PRESSURE
EA	EACH OR EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EFF	EFFICIENCY
ELEC	ELECTRICAL
ELEV	ELEVATIONS
EMER	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
ENT	ENTER
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST.	EXISTING
EXT	EXTERNAL
EXP	EXPANSION
F	FAHRENHEIT
FA	FREE AREA
FC	FLEXIBLE CONNECTION
FLA	FULL LOADS AMPS
FLEX	FLEXIBLE
FLRDR	FLOOR DRAIN
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FLOW SWITCH
FT	FEET
G	GAS
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GFU	GLYCOL FEED UNIT
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRD	GRADE
GWB	GYPSUM WALL BOARD
HB	HOSE BIBB CONN.
HD	HEAD
HGT	HEIGHT
HP	HORSEPOWER OR HIGH POINT
HR	HOUR
HTG	HEATING
HZ	HERTZ (FREQUENCY, CYCLES PER SECOND)
ID	INSIDE DIAMETER
IN	INCHES
KW	KILOWATT
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LF	LINEAR FEET
LP	LOW POINT
LRA	LOCKED ROTOR AMPS
LUVR	LOUVER
LVDR	LOUVERED DOOR
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTUH
MCA	MINIMUM CIRCUIT AMPS
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MU	MAKE-UP WATER
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED OR NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
No.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OC	ON CENTER
OD	OUTSIDE DIAMETER
ODP	OPEN DRIP PROOF
OV	OUTLET VELOCITY
PCF	POUNDS PER CUBIC FOOT
PD	PRESSURE DROP
PH	PHASE
PBG	PLUMBING
POS	PROVIDED BY OTHER SECTION
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSID	POUNDS PER SQUARE INCH DIFFERENTIAL
PSIG	POUNDS PER SQUARE INCH GAUGE
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
R	RADIUS
RA	RETURN AIR
RET	RETURN
REQ'D	REQUIRED
RH	HORSEPOWER
RLA	RUNNING LOAD AMPS
RLF	RELIEF
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
SCH	SCHEDULE
SCR	SCREEN
SCT	SATURATED CONDESING TEMPERATURE
SDET	SMOKE DETECTOR
SEN	SENSIBLE
SHC	SENSIBLE HEAT CAPACITY
SP	STATIC PRESSURE
SPECS	SPECIFICATIONS
SQ	SQUARE
SF	SQUARE FEET
SS	STAINLESS STEEL
STL	STEEL
SUP	SUPPLY
T	TEMPERATURE
TA	THROWAWAY
TEMP	TEMPERATURE
TSTAT	THERMOSTAT
TON	12,000 BTUH COOLING CAPACITY
TOT	TOTAL
TYP	TYPICAL
UC	UNDERCUT DOOR
V	VOLTS (ELECTRICAL)
VEL	VELOCITY
W	WIDTH OR WATT
W/	WITH
WB	WET BULB TEMPERATURE
WC	WATER COLUMN
WG	WATER GAUGE
W/O	WITHOUT
WPD	WATER PRESSURE DROP
WTD	WATER TEMPERATURE DIFFERENCE
DUCT	
ACD	AUTOMATIC CONTROL DAMPER
AL	ACOUSTICAL DUCT LINER
BDD	BACKDRAFT DAMPER
BOD	BOTTOM OF DUCT
CD	CEILING DIFFUSER
DIFF	DIFFUSER
EA	EXHAUST AIR
EG	EXHAUST GRILLE
ER	EXHAUST REGISTER
FBD	FLAT BOTTOM DUCT
FD	FIRE DAMPER (W/ ACCESS DOOR)
LD	LINEAR DIFFUSER
MD	MOTOR OPERATED DAMPER
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OED	OPEN END DUCT
RA	RETURN AIR
RG	RETURN GRILLE
RR	RETURN REGISTER
SA	SUPPLY AIR
SD	SMOKE DAMPER
SE	SMOKE EXHAUST
SGD	SLIDE GATE DAMPER
SR	SUPPLY REGISTER
TA	THROW AWAY OR TRANSFER AIR
TG	TRANSFER GRILLE
TOD	TOP OF DUCT
TR	TRANSFER
TSP	TOTAL STATIC PRESSURE
TV	TURNING VALVES
VD	VOLUME DAMPER
WMS	WIRE MESH SCREEN
EQUIPMENT	
AC	AIR CONDITIONING OR AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
AF	AIR FILTER OR AIR FOIL
CC	COOLING COIL
CDP	CONDENSATE DRAIN PUMP
CUH	CABINET UNIT HEATER
DDC	DIRECT DIGITAL CONTROL
DDCFP	DIRECT DIGITAL CONTROL FIELD PANEL
DWDI	DOUBLE WIDTH DOUBLE INLET
DX	DIRECT EXPANSION
ECH	ELECTRIC CABINET HEATER
EF	EXHAUST FAN
EUH	ELECTRIC UNIT HEATER
F	FAN
FCU	FAN COIL UNIT
GRV	GRAVITY RELIEF VENT
H	HUMIDIFIER
HC	HEATING COIL
HP	HEAT PUMP
MCC	MOTOR CONTROL CENTER
P	PUMP
PRV	PRESSURE REDUCING VALVE
REG	REGISTER
RF	RETURN FAN
RTU	ROOF TOP UNIT
SA	SOUND ATTENUATOR
SF	SUPPLY FAN
SWSI	SINGLE WIDTH SINGLE INLET
TF	TRANSFER FAN
TD	TRANSFER DUCT
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
PIPING	
BOP	BOTTOM OF PIPE
CO	CLEAN-OUT
FOB	FLAT ON TOP REDUCER
FOT	FLAT ON BOTTON REDUCER
TOP	TOP OF PIPE
V	VENT
REFRIGERATION	
DX	DIRECT EXPANSION
HGB	REFRIGERANT HOT GAS BYPASS
RD	REFRIGERANT DISCHARGE (HOT GAS)
RG	REFRIGERANT GAS
RHGB	REFRIGERANT HOT GAS BYPASS
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION

DUCTWORK

SINGLE LINE	DOUBLE LINE	SINGLE LINE	DOUBLE LINE
RECTANGULAR SUPPLY DUCT W=WIDTH, D=DEPTH (INCHES UNLESS NOTED OTHERWISE) AS VIEWED		CEILING DUCT MOUNTED DIFFUSER/GRILLE	
		ACOUSTICALLY LINED DUCT	
ROUND SUPPLY DUCT (DIA=INSIDE DIAMETER)		FLEXIBLE DUCT	
ROUND SUPPLY DUCT UP		RECTANGULAR RETURN/EXHAUST DUCT W=WIDTH, D=DEPTH (INCHES UNLESS NOTED OTHERWISE) AS VIEWED	
ROUND SUPPLY DUCT DOWN			
SUPPLY DUCT UP		ROUND RETURN/EXHAUST DUCT (DIA=INSIDE DIAMETER)	
SUPPLY DUCT DOWN			
ROUND RETURN/EXHAUST DUCT UP		HORIZONTAL OFFSET SUPPLY/RETURN/EXHAUST	
ROUND RETURN/EXHAUST DUCT UP		CHANGE OF ELEVATION (R)RISE OR (D)DROP SUPPLY/RETURN/ EXHAUST	
RETURN/EXHAUST DUCT UP		45° TAP TAKE-OFF	
RETURN/EXHAUST DUCT DOWN			
STANDARD RADIUS ELBOW (R = W) SUPPLY /RETURN/EXHAUST		90° TAP TAKE-OFF	
FULL LENGTH SPLITTER VANES (R < W) SUPPLY/RETURN/ EXHAUST		CONVERGE RETURN/EXHAUST W/45° TAKE OFFS	
		OPEN END DUCT W/ 1/2"x1/2" WMS	
RECTANGULAR DUCT TO ROUND SUPPLY/RETURN/ EXHAUST			

VALVE LEGEND

- UNION
- BLIND FLANGE
- PIPE - CAPPED
- DIRECTION OF FLOW
- PIPE ANCHOR
- PIPE GUIDE
- PIPE CONNECTION - TOP
- PIPE CONNECTION - BOTTOM
- PIPE - DOWN
- PIPE - UP
- PITCH OF PIPE - (R) RISE OR (D) DROP
- REDUCER - CONCENTRIC
- REDUCER - ECCENTRIC
- QUICK CLOSING VALVE, FUSIBLE LINK (USED WITH FUELS)
- CLEANOUT FOR CONDENSATE DRAIN
- DIRT LEG
- RISE (DOUBLE LINE - PLAN VIEW)
- DROP (DOUBLE LINE - PLAN VIEW)
- PIPE BREAK (DOUBLE LINE)
- PIPE BREAK (SINGLE LINE)

- ACD — AUTOMATIC CONTROL DAMPER W/ ACCESS DOOR
- VD — MANUAL VOLUME DAMPER
- BDD — BACKDRAFT DAMPER
- UC 1/2" — UNDERCUT DOOR
- LVDR 1.5 SF — LOUVER DOOR (FREE AREA)
- RETURN OR EXHAUST AIR FLOW
- SUPPLY AIR FLOW

DIAGRAM EQUIPMENT SYMBOLS

- FILTER BANK
- HEATING COIL
- COOLING COIL
- CABINET HEATER
- UNIT HEATER
- CENTRIFUGAL FAN
- OPPOSED BLADE DAMPER W/ TWO POSITION ACTUATOR
- OPPOSED BLADE DAMPER W/ MODULATING ACTUATOR
- PARALLEL BLADE DAMPER W/ TWO POSITION ACTUATOR
- PARALLEL BLADE DAMPER W/ MODULATING ACTUATOR
- BACKDRAFT DAMPER
- CONDENSATE PUMP
- VARIABLE FREQUENCY DRIVE (VFD, VFDS, VFDSC)
- STARTER (STARTER, S/S, CT)

CALLOUT SYMBOLS

- A / H2.0 — SECTION DESIGNATION / SHEET NUMBER
- 1 — REVISION NUMBER
- T — TEMPERATURE SENSOR OR THERMOSTAT
- CO — CO SENSOR

AIR TERMINAL TAG
SEE SCHEDULE FOR PERFORMANCE REQUIREMENTS:

X(100) — X = SCHEDULED DIFFUSER. (100) = CFM BALANCED TO

EQUIPMENT TAG
SEE SCHEDULE FOR PERFORMANCE REQUIREMENTS:

AHU-1 — SCHEDULED EQUIPMENT UNIT NUMBER

CONTROL POINT DESCRIPTOR LEGEND

- TAG — ATC CONTRATOR PROVIDED DDC POINT AND HARDWARE
- TAG / ELEC PLBG — CONTROL DEVICE FURNISHED BY ELECTRICAL OR PLUMBING CONTRACTOR BUT INTERFACED TO DDC SYSTEM BY ATC CONTRACTOR
- TAG — ATC CONTRACTOR INTERFACE TO EQUIPMENT MANUFACTURER'S HARDWARE
- TAG — ATC CONTRACTOR PROVIDED LOCAL CONTROL POINT

CONTROL ABBREVIATIONS

ACD	AUTOMATIC CONTROL DAMPER
ACV	AUTOMATIC CONTROL VALVE
AFMS	AIR FLOW MEASURING STATION
ALM	ALARM
ATC	AUTOMATIC TEMPERATURE CONTROL
BDD	BACKDRAFT DAMPER (ADJUSTABLE COUNTERWEIGHT)
C	CARBON DIOXIDE SENSOR
CAP	CAPACITY CONTROL
CCLT	COOLING COIL LEAVING AIR TEMPERATURE SENSOR
CO	CARBON MONOXIDE SENSOR
CT	CURRENT TRANSFORMER (STATUS FEEDBACK)
DAT	DISCHARGE AIR TEMPERATURE SENSOR
DDC	DIRECT DIGITAL CONTROL
DDCFP	DIRECT DIGITAL CONTROL FIELD PANEL
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE SENSOR/TRANSMITTER
DPV	DIFFERENTIAL PRESSURE BYPASS VALVE
DSP	DISCHARGE STATIC PRESSURE SENSOR
DWDI	DOUBLE WIDTH DOUBLE INLET
EAD	EXHAUST AIR DAMPER
ES	END SWITCH
FA	FAULT ALARM
FID	FAN ISOLATION DAMPER
FMT	FLOW METER/TRANSMITTER
FS	FLOW SWITCH
HCLT	HEATING COIL LEAVING AIR TEMPERATURE SENSOR
HEGA	HIGH EFFICIENCY GAS ABSORBER FILTER
HEPA	HIGH EFFICIENCY PARTICULATE AIR FILTER
HGB	HOT GAS BYPASS
HS	HAND SWITCH
IFBD	INTEGRAL FACE & BYPASS DAMPER
IGV	INLET GUIDE VANES
LAT	LEAVING AIR TEMPERATURE SENSOR
LSPS	LOW STATIC PRESSURE SWITCH
LS	LEVEL SENSOR OR LIGHT SWITCH INTERFACE
LSHA	LEVEL SENSOR HIGH ALARM
LSHS	LEVEL SENSOR HIGH SWITCH
LSLA	LEVEL SENSOR LOW ALARM
LSLS	LEVEL SENSOR LOW SWITCH
MUWV	MAKE-UP WATER VALVE
MD	MOTION DETECTOR
NC	NORMALLY CLOSED (ON LOSS OF POWER)
NO	NORMALLY OPEN (ON LOSS OF POWER)
OAD	OUTSIDE AIR DAMPER
OAH	OUTSIDE AIR HUMIDITY SENSOR (FOR WET BULB READING)
OAT	OUTSIDE AIR TEMPERATURE SENSOR (DRY BULB)
RAD	RETURN AIR DAMPER
RAH	RETURN AIR HUMIDITY SENSOR
RAT	RETURN AIR TEMPERATURE SENSOR
RH	RELATIVE HUMIDITY
RI	RUN INDICATOR
S	SWITCH
SAD	SUPPLY AIR DAMPER
SDET	SMOKE DETECTOR
SFD	SMOKE/FIRE DETECTOR
SP	STATIC PRESSURE SENSOR
SPD	SPEED CONTROL
S/S	START/STOP
S/SH	START/STOP HIGH SPEED/CAPACITY
S/SL	START/STOP LOW SPEED/CAPACITY
T	TEMPERATURE SENSOR/THERMOSTAT
TR	TEMPERATURE SENSOR/THERMOSTAT (ROOM)
VFDS	VARIABLE FREQUENCY DRIVE SPEED
VFDO	VARIABLE FREQUENCY DRIVE SPEED OUTPUT (FEEDBACK)
WC	WATER COLUMN

PIPING LEGEND

D	D	DRAIN
PC	PC	PUMPED CONDENSATE
RD	RD	REFRIGERANT DISCHARGE
RG	RG	REFRIGERANT GAS
RHGB	RHGB	REFRIGERANT HOT GAS BYPASS
RL	RL	REFRIGERANT LIQUID
RS	RS	REFRIGERANT SUCTION
V	V	VENT
-(NAME)-	(NAME)	REMOVE EXISTING PIPING

Drawing List - Mechanical

Sheet Number	Sheet Name
H-000	HVAC LEGEND
H-201	HVAC GROUND TIER PLAN
H-205	HVAC 5TH TIER PLAN
H-206	HVAC TOP TIER PLAN
H-800	HVAC DETAILS AND CONTROLS
H-900	HVAC SCHEDULES
Sheet Count: 6	

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

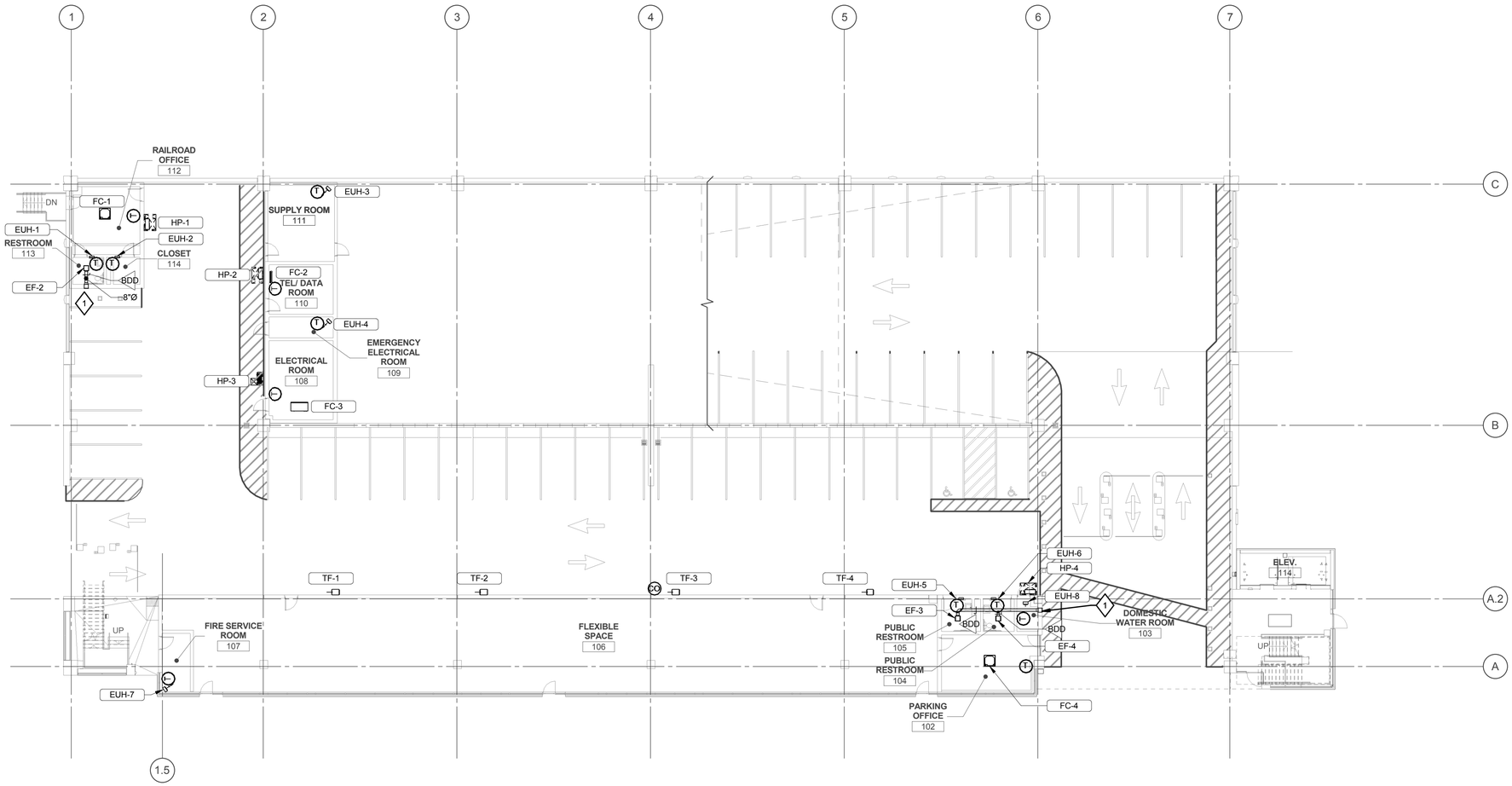
ISSUE: DESCRIPTION	DATE	MARK
GARAGE DESIGN DEVELOPMENT	05/05/2017	
90% SUBMISSION	07/19/2017	
100% SUBMISSION	07/27/2017	

PROJECT NO: 20160588
DRAWN BY: TC
CHECKED BY: CH

SHEET TITLE:
HVAC LEGEND

H-000

KEYNOTES	
Keynote Number	**Keynote Description**
1	12x12 LOUVER BY ARCHITECT



1 H-201 HVAC DUCT & HYDRONIC 1ST FLOOR PLAN

1/16" = 1'-0"

0 2' 4' 8'

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com

Walker Parking Consultants / Engineers, Inc.

RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC

RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

ISSUE:		
MARK	DATE	DESCRIPTION
	07/27/2017	100% SUBMISSION
	07/19/2017	90% SUBMISSION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

PROJECT NO: 20160588

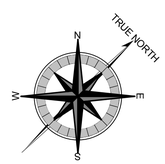
DRAWN BY: TC

CHECKED BY: CH

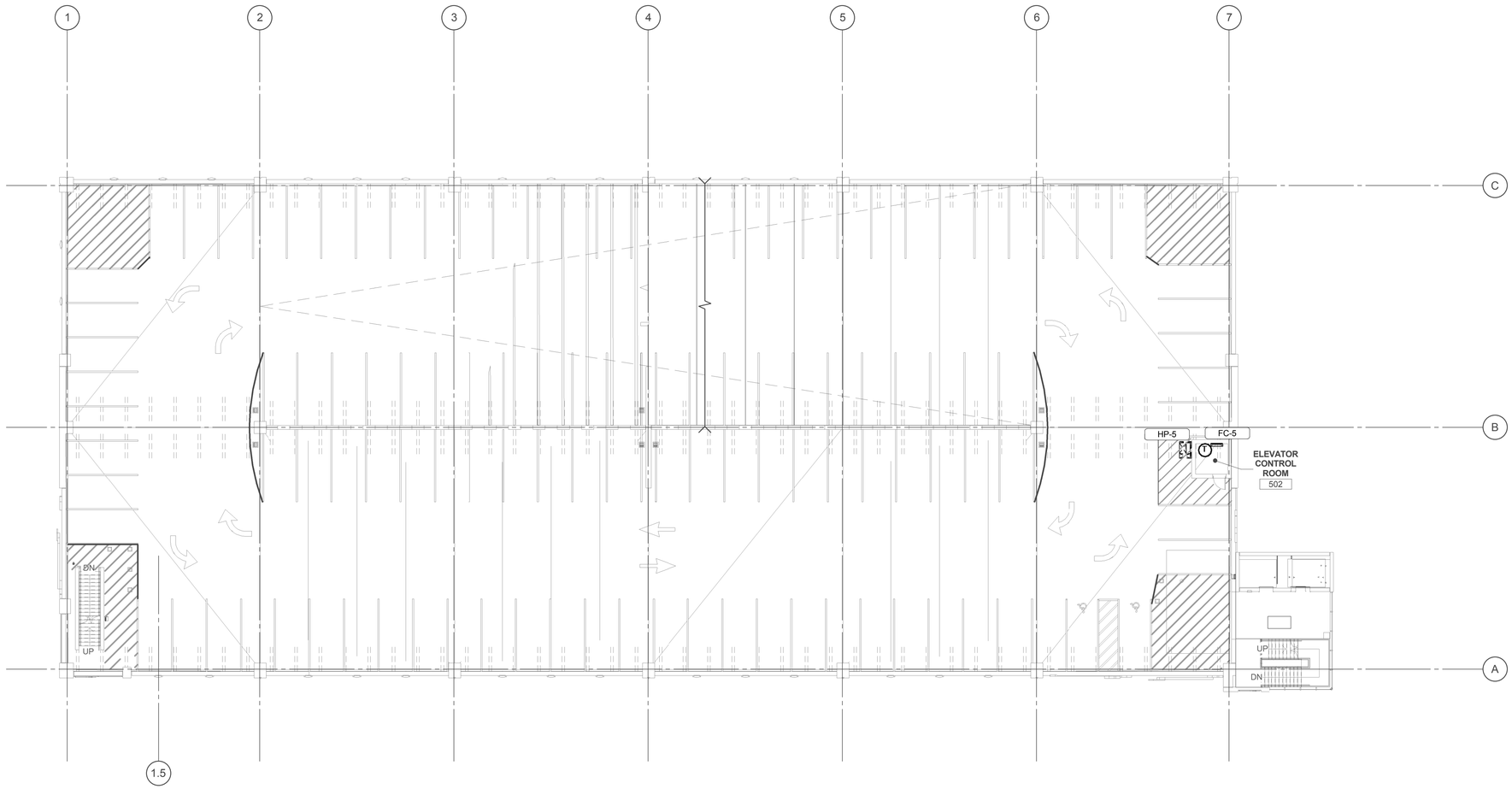
SHEET TITLE:

HVAC GROUND TIER PLAN

H-201



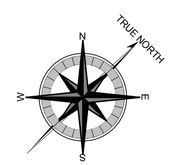
KEYNOTES	
Keynote Number	Keynote Description



1 / H-205 HVAC DUCT & HYDRONIC 5TH FLOOR PLAN

1/16" = 1'-0"

0 2' 4' 8'



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617.350.5048 Fax
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Durham, NC - Charlotte, NC

RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

ISSUE:		
DESCRIPTION	DATE	MARK
GARAGE DESIGN DEVELOPMENT	05/05/2017	
90% SUBMISSION	07/19/2017	
CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 20160588

DRAWN BY: TC

CHECKED BY: CH

SHEET TITLE:
HVAC 5TH TIER PLAN

H-205

7/27/2017 4:21:52 PM

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KEYNOTES	
Keynote Number	**Keynote Description**
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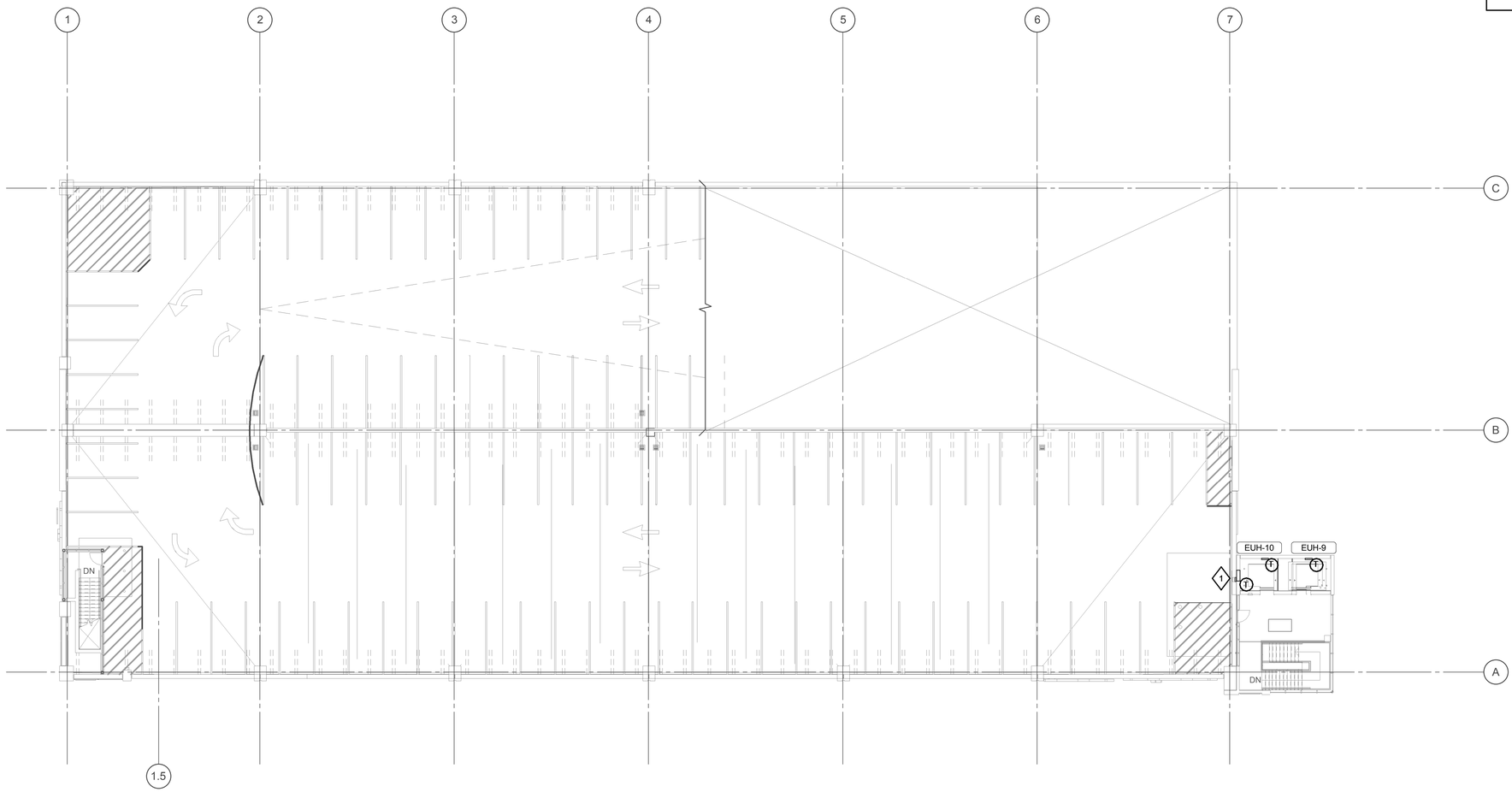
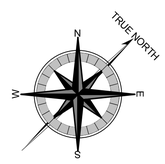


1 H-206 HVAC DUCT & HYDRONIC 6TH FLOOR PLAN
1/16" = 1'-0"
0 2' 4' 8'



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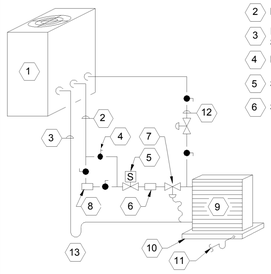
FOUNDRY PLACE
PARKING GARAGE

ISSUE:		
MARK	DATE	DESCRIPTION
	05/05/2017	GARAGE DESIGN DEVELOPMENT
	07/19/2017	90% SUBMISSION
	07/28/2017	CONSTRUCTION DOCUMENTS

PROJECT NO: 20160588
DRAWN BY: TC
CHECKED BY: CH

SHEET TITLE:
HVAC TOP TIER PLAN

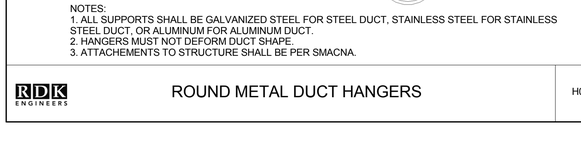
H-206



1. CONDENSING UNIT
2. LIQUID LINE
3. INSULATED SUCTION LINE
4. BALL SHUT-OFF VALVES
5. SOLENOID VALVE
6. SIGHT GLASS
7. THERMAL EXPANSION VALVE WITH EQUALIZER LINE
8. FILTER DRYER
9. COOLING COIL
10. DRAIN PAN
11. DRAIN LINE-TRAP & ROUTE TO NEAREST DRAIN
12. HOT GAS BYPASS LINE AND VALVE
13. TRAP

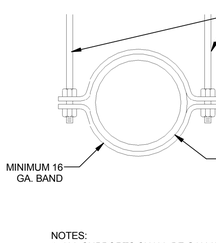
NOTES:
1. PIPING SHOWN IS FOR LEAD CIRCUIT. ADDITIONAL CIRCUITS ARE SIMILAR, EXCEPT NO HOT GAS BYPASS.
2. PIPE SIZING ON DRAWINGS ARE APPROXIMATE, CONFIRM ALL PIPE SIZES WITH UNIT MANUFACTURER BASED ON ACTUAL FIELD ROUTING.
3. PROVIDE BYPASS CIRCUIT, CONTROL EQUIPMENT, ANY REQUIRED DOUBLE SECTION RISERS TRAPS, AND APPURTENANCES AS RECOMMENDED SIZED AND DIAGRAMMED BY THE UNIT MANUFACTURER AND SUBMITTED, ALONG WITH CALCULATIONS AND SIZING CHARTS FOR ENGINEERS REVIEW.

RDK ENGINEERS — REFRIGERANT PIPING COMPONENT DIAGRAM — H1304

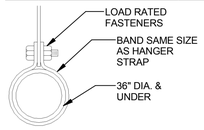


NOTES:
1. AT FIRE RATED PARTITIONS ADD ADDITIONAL LAYER OF FIRE SAFING INSULATION AROUND PENETRATIONS SO AS TO FILL CAVITY.
2. DUCT AND PIPE PENETRATIONS THROUGH CORRIDOR WALLS ABOVE THE CEILING ARE TO BE FIRE STOPPED AROUND THE PENETRATION.

RDK ENGINEERS — DUCT & PIPE PENETRATIONS — H901

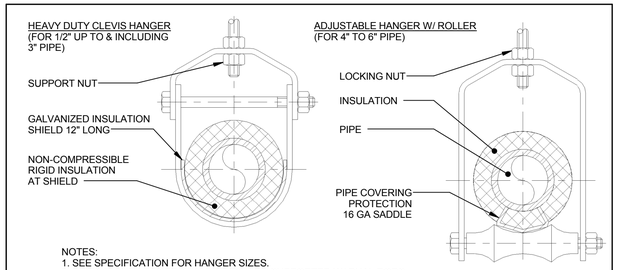


HANGER STRAPS OR RODS		
MAX. DUCT DIA.	HANGER	MAX. SPACING FEET
20"	ONE 1" x 22 GA. STRAP	10
36"	ONE 1" x 18 GA. STRAP	10
60"	TWO 3/8" DIA. RODS	10
84"	TWO 1/2" DIA. RODS	10



NOTES:
1. ALL SUPPORTS SHALL BE GALVANIZED STEEL FOR STEEL DUCT, STAINLESS STEEL FOR STAINLESS STEEL DUCT, OR ALUMINUM FOR ALUMINUM DUCT.
2. HANGERS MUST NOT DEFORM DUCT SHAPE.
3. ATTACHEMENTS TO STRUCTURE SHALL BE PER SMACNA.

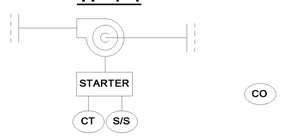
RDK ENGINEERS — ROUND METAL DUCT HANGERS — H008



NOTES:
1. SEE SPECIFICATION FOR HANGER SIZES.
2. PIPES 8" AND LARGER SHALL BE ROLLER SUPPORTED W/ DUAL RODS.
3. FOR CHW SERVICE OVER 3", REPLACE SADDLE W/ 12" LONG, 14 GAUGE SHIELD W/ RIGID INSULATION BETWEEN THE PIPE AND SHIELD. PROTECT WITH CONTINUOUS VAPOR BARRIER.

RDK ENGINEERS — PIPE HANGER SUPPORT — H001

TF-1-4



GARAGE FAN SYSTEM

GENERAL

1. FAN SHALL BE STARTED AND STOPPED VIA DDC CONTROLLER. COORDINATE OCCUPIED AND UNOCCUPIED SCHEDULES WITH OWNER. ALL SETPOINTS SHALL BE ADJUSTABLE. ALL ACTUATORS SHALL BE ELECTRONIC.
2. LOCAL HAND-OFF-AUTOMATIC SWITCH (H-O-A) FOR FANS SHALL OVERRIDE DDC START/STOP (S/S) COMMANDS. ALL HARDWIRED SAFETIES SHALL BE ACTIVE IN BOTH "H" AND "A" POSITIONS.
3. ALL TEMPERATURES LISTED ARE FAHRENHEIT.
4. MOTORS SHALL BE VFD. VFD SHALL BE USED FOR BALANCING. PROVIDE TWO-SPEED BALANCING FOR SF & EF.
5. FAN SHALL BE CONTROLLED BY OCCUPANCY SCHEDULE WITH OCCUPANCY ORIGINALLY SET FOR 24/7.

FAN CONTROL

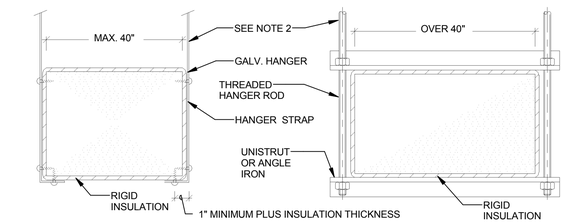
1. WHILE IN UNOCCUPIED MODE (OR OFF ON SAFETY OR MANUAL DISCONNECT) THE TRANSFER FAN (TF) SHALL BE OFF.
2. WHEN STARTED IN OCCUPIED MODE TF SHALL ENERGIZE.
3. IF EITHER OF THE FOLLOWING OCCURS, THE TF SHALL RAMP UP TO HIGH SPEED:
   a. IF ANY CARBON MONOXIDE (CO) (ON THE SAME FLOOR PLAN) RISES ABOVE THE LIMIT OF 25 PPM FOR 5 MINUTES. TF SHALL RAMP DOWN TO LOW SPEED IF ANY CO (ON THE SAME FLOOR PLAN) DROP BELOW 10 PPM FOR 5 MINUTES
4. WHEN FAN IS COMMANDED ON, FANS SHALL REMAIN ON FOR MIN. 10 MINUTES (ADJ).

SAFETIES
1. THE FOLLOWING SAFETIES EACH WITH ITS OWN MANUAL RESET BUTTON, SHALL SHUT DOWN THE SYSTEM VIA HARDWARE BEFORE H-O-A.
   a. WHEN ANY FIRE ALARM SMOKE DETECTOR (SDET) IS ACTIVATED THE UNIT SHALL SHUT DOWN.

ALARMS
1. IF THE TF FAILS OR IF ANY FAN SAFETY IS TRIPPED, THE DDC CONTROLLER SHALL GIVE A DETAILED ALARM SIGNAL TO THE FRONT END.
2. IF ANY CO RISES ABOVE THE LIMIT OF 50 PPM FOR 5 MINUTES GIVE A DETAILED ALARM SIGNAL TO THE FRONT END AND ACTIVATE ALARM LIGHT AND BELL.
   a. ALARM LIGHT AND BELL SHALL DEACTIVATE IF ALL CO SENSORS DROP TO BELOW 15 PPM.

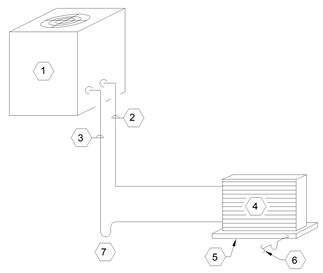
STAND-BY POWER
1. TF AND CONTROLS SHALL BE WIRED TO STAND-BY POWER. PROVIDE AUTOMATIC RE-START UPON POWER FAILURE AND UPON RETURN TO NORMAL POWER.

RDK — GARAGE FAN SEQUENCE OF OPERATION



NOTES:
1. CUTTING AND PATCHING SHALL BE LIMITED TO A MINIMUM AS REQUIRED FOR PROPER INSTALLATION.
2. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA.

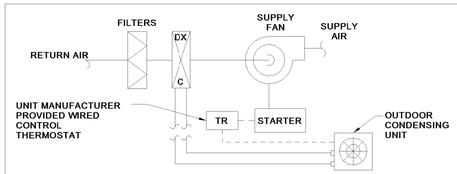
RDK ENGINEERS — DUCT HANGER SUPPORT — H1508



1. CONDENSING UNIT
2. LIQUID LINE
3. INSULATED SUCTION LINE
4. COOLING COIL
5. DRAIN PAN
6. DRAIN LINE-TRAP & ROUTE TO DRAIN OR CONDENSATE PUMP
7. TRAP

NOTE:
1. CONFIRM ALL PIPE SIZES WITH UNIT MANUFACTURER BASED ON ACTUAL FIELD PIPE ROUTING.
2. CONTROL EQUIPMENT, APPURTENANCES, AND TRAPS AS RECOMMENDED BY UNIT MANUFACTURER (SUBMIT IN SHOP DRAWING).

RDK ENGINEERS — REFRIGERANT PIPING COMPONENT SCHEMATIC — H1306



DUCTLESS SPLIT SYSTEM AIR CONDITIONING CONTROLS:

GENERAL:

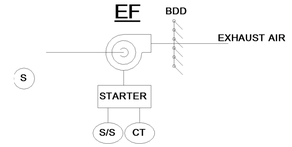
1. UNIT SHALL BE CONTROLLED VIA THE MANUFACTURER'S PACKAGED CONTROL SYSTEM.
2. WIRE AND TEST UNIT MANUFACTURER'S CONTROLS.

COOLING CONTROL:

3. UPON A RISE IN ROOM TEMPERATURE ABOVE THE ROOM COOLING SETPOINT OF 85°F (ADJ), THE DUCTLESS SPLIT AIR CONDITIONING UNIT SHALL BE ENERGIZED TO MAINTAIN COOLING SET POINT.

RDK — DUCTLESS SPLIT SYSTEM AIR CONDITIONER CONTROL SEQUENCE — HC402

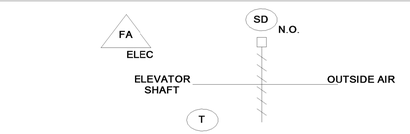
EF



BATHROOM/JANITOR CLOSET VENTILATION - SEQUENCE OF OPERATION

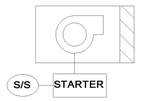
1. FAN SHALL BE ACTIVATED VIA WALL SWITCH.

RDK — BATHROOM/JANITOR CLOSET VENTILATION FAN SEQUENCE OF OPERATION



1. DAMPER SHALL BE CLASS 1A ULTRA LOW LEAKAGE RATED (LESS THAN 3 CFM/SF AT 1" WG).
2. ELEVATOR SHAFT VENT DAMPER (SD), LOCATED AT TOP OF ELEVATOR SHAFT, SHALL BE CLOSED DURING NORMAL OPERATION. ANY OF THE FOLLOWING ACTIONS SHALL OPEN THE DAMPER.
3. IN THE EVENT OF BUILDING GENERAL FIRE ALARM VIA DRY CONTACT (FA) ON FIRE CONTROL PANEL, SD SHALL OPEN. HARD WIRE CONTACT TO DAMPER.
4. IN THE EVENT THE TEMPERATURE WITHIN 2 FEET OF THE TOP OF THE SHAFT (T) RISES ABOVE 87°F, SD SHALL OPEN. SD SHALL CLOSE WHEN TEMPERATURE FALLS BELOW 83°F FOR 15 MINUTES. PROVIDE HIGH (ABOVE 104°F) AND LOW (BELOW 50°F) ALARMS TO THE DDC SYSTEM.
5. IN THE EVENT OF POWER FAILURE, SD SHALL OPEN.

RDK — ELEVATOR SHAFT VENT DAMPER SEQUENCE OF OPERATION — HC301



GENERAL:

1. THE HEATER SHALL BE CONTROLLED BY A SPACE TEMPERATURE SENSOR (WHERE INDICATED ON PLANS) OR INTEGRAL TEMPERATURE SENSOR.
2. WHERE APPLICABLE THE HEATER SPACE TEMPERATURE SENSOR CAN ALSO CONTROL VENTILATION.

SEQUENCE:

1. ON A CALL FOR HEATING FROM SPACE TEMPERATURE SENSOR (60°F), THE TEMPERATURE SENSOR SHALL ACTIVATE HEATING ELEMENT AND TURN ON FAN TO MAINTAIN SPACE TEMPERATURE SETTING WITH AN ADJUSTABLE 3°F DIFFERENTIAL.
2. THE REVERSE SHALL OCCUR UPON A RISE IN TEMPERATURE

RDK — HEATER (CUH / UH) SEQUENCE OF OPERATION — HC801

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
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RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
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RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T.978-296-6200
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FOUNDRY PLACE
PARKING GARAGE

ISSUE: DESCRIPTION	DATE	MARK
CONSTRUCTION DOCUMENTS	07/28/2017	
90% SUBMISSION	07/19/2017	
GARAGE DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 20160588
DRAWN BY: TC
CHECKED BY: CH

SHEET TITLE:
HVAC DETAILS AND CONTROLS

H-800

VARIABLE REFRIGERANT FLOW CONDENSING UNIT SCHEDULE

NOTES:1) REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
2) PROVIDE WIND BAFFLE, MOUTING BRACKETS AND CONTROLLERS.

		LOCATION					COMPRESSOR							REFRIGERANT CONNECTORS			ELECTRICAL		INTERLOCK	
	UNIT NO.	ROOM	MANUFACTURER	MODEL NO.	TOTAL CLG. CAP.	HEATING CAP.	TYPE	REFRIGERANT TYPE	SUMMER OUTDOOR AIR TEMP.	WINTER OUTDOOR AIR TEMP.	LOW AMBIENT KIT	COOLING EFFICIENCY(EER)	HEATING EFFICIENCY (HSPF)	LIQUID PIPE DIAMETER	SUCTION PIPE DIAMETER	UNIT WEIGHT	VOLTAGE	PHASE	UNIT NO.	REMARKS
	HP-1	GARAGE	Mitsubishi Electric	PUZ-A18NHA3	18000 Btu/h	13000 Btu/h	DC Inverter-driven Twin Rotary	R410A	95.0 °F	0.0 °F	Yes	8	2.28	1/4"	1/2"	91 lb	208 V	1	FC-1	
	HP-2	GARAGE	Mitsubishi Electric	PUZ-A18NHA3	18000 Btu/h	13000 Btu/h	DC Inverter-driven Twin Rotary	R410A	95.0 °F	0.0 °F	Yes	8	2.28	1/4"	1/2"	91 lb	208 V	1	FC-2	
	HP-3	GARAGE	Mitsubishi Electric	PUZ-A24NHA3	24000 Btu/h	18000 Btu/h	DC Inverter-driven Twin Rotary	R410A	95.0 °F	0.0 °F	Yes	10.6	2.4	3/8"	5/8"	46 lb	208 V	1	FC-3	
	HP-4	GARAGE	Mitsubishi Electric	PUZ-A18NHA3	18000 Btu/h	13000 Btu/h	DC Inverter-driven Twin Rotary	R410A	95.0 °F	0.0 °F	Yes	8	2.28	1/4"	1/2"	91 lb	208 V	1	FC-4	
	HP-5	GARAGE	Mitsubishi Electric	PUZ-A18NHA3	18000 Btu/h	13000 Btu/h	DC Inverter-driven Twin Rotary	R410A	95.0 °F	0.0 °F	Yes	8	2.28	1/4"	1/2"	91 lb	208 V	1	FC-5	
Grand total: 5																				

VARIABLE REFRIGERANT FLOW FAN COIL UNIT SCHEDULE

NOTES:1 REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
2 PROVIDE WITH INTEGRAL CONCEALED DISCONNECT PREWIRED TO THE UNIT. DISCONNECTING MEANS SHALL BE NEMA RATED AND SUITABLE FOR LOCKING IN THE OFF POSITION.
3 PROVIDE WIRED WALL MOUNTED THERMOSTAT.
4 PROVIDE INTEGRAL CONDENSATE PUMP.

		LOCATION					SUPPLY FAN		COOLING COIL	HEATING COIL			ELECTRICAL		INTERLOCK	
								MOTOR	AIRSIDE	AIRSIDE		UNIT				
	UNIT NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	TYPE	AIRFLOW	POWER	TOTAL CLG. CAP.	HEATING CAP.	AIRFLOW	WEIGHT	VOLTAGE	PHASE	UNIT NO.	REMARKS
	FC-1	RAILROAD OFFICE	112	Mitsubishi Electric	PLA-A18BA	CASSETTE	640 CFM	50 W	18000 Btu/h	13000 Btu/h	640 CFM	49 lb	208 V	1	HP-1	
	FC-2	TEL/ DATA ROOM	110	Mitsubishi Electric	PKA-A18HA	WALL	425 CFM	30 W	18000 Btu/h	13000 Btu/h	425 CFM	29 lb	208 V	1	HP-2	
	FC-3	ELECTRICAL ROOM	108	Mitsubishi Electric	PCA-A24KA	CEILING	670 CFM	95 W	24000 Btu/h	18000 Btu/h	670 CFM	71 lb	208 V	1	HP-3	
	FC-4	PARKING OFFICE	102	Mitsubishi Electric	PLA-A18BA	CASSETTE	640 CFM	50 W	18000 Btu/h	13000 Btu/h	640 CFM	49 lb	208 V	1	HP-4	
	FC-5	ELEVATOR CONTROL ROOM	502	Mitsubishi Electric	PKA-A18HA	WALL	425 CFM	30 W	18000 Btu/h	13000 Btu/h	425 CFM	29 lb	208 V	1	HP-5	
Grand total: 5																

ELECTRIC UNIT HEATER SCHEDULE

NOTES:1 NOTES 2 THRU 4 APPLY TO ALL.2 REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
3 PROVIDE ALL FRACTIONAL HP MOTORS WITH INTEGRAL DISCONNECT PREWIRED TO THE UNIT. DISCONNECTING MEANS SHALL BE NEMA RATED AND SUITABLE FOR LOCKING IN THE OFF POSITION.
4 PROVIDE ALL FRACTIONAL HP MOTORS WITH INTEGRAL RESETTABLE THERMAL OVERLOAD.
5 EQUIPMENT SHALL BE ON GENERATOR STANDBY POWER.
6 PROVIDE INTEGRAL THERMOSTAT

		LOCATION					SUPPLY FAN		ELECTRIC HEATING COIL	ELECTRICAL		
								MOTOR	ELEMENT			
	UNIT NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	TYPE	AIRFLOW	POWER	HEATING CAP.	VOLTAGE	PHASE	REMARKS
	EUH-1	RESTROOM	113	QMARK	LFK404F	RECESSED	100 CFM	0.01 hp	3.0 kW	208 V	1	
	EUH-2	CLOSET	114	QMARK	LFK404F	RECESSED	100 CFM	0.01 hp	3.0 kW	208 V	1	
	EUH-3	SUPPLY ROOM	111	QMARK	MUH05-81	SURFACE	350 CFM	0.01 hp	5.0 kW	208 V	1	
	EUH-4	EMERGENCY ELECTRICAL ROOM	109	QMARK	MUH05-81	SURFACE	350 CFM	0.01 hp	5.0 kW	208 V	1	
	EUH-5	PUBLIC RESTROOM	105	QMARK	LFK404F	RECESSED	100 CFM	0.01 hp	3.0 kW	208 V	1	
	EUH-6	PUBLIC RESTROOM	104	QMARK	LFK404F	RECESSED	100 CFM	0.01 hp	3.0 kW	208 V	1	
	EUH-7	FIRE SERVICE ROOM	107	QMARK	MUH05-81	SURFACE	350 CFM	0.01 hp	5.0 kW	208 V	1	
	EUH-8	DOMESTIC WATER ROOM	103	QMARK	MUH05-81	SURFACE	350 CFM	0.01 hp	5.0 kW	208 V	1	
	EUH-9	ELEV.	114	QMARK	WHT500	SURFACE	0 CFM	0.00 hp	0.5 kW	120 V	1	
	EUH-10	ELEV.	114	QMARK	WHT500	SURFACE	0 CFM	0.00 hp	0.5 kW	120 V	1	
Grand total: 10												

FAN SCHEDULE

NOTES:1 NOTES 2 THRU 4 APPLY TO ALL
2 REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.3 PROVIDE ALL FRACTIONAL HP MOTORS WITH INTEGRAL DISCONNECT PREWIRED TO THE UNIT. DISCONNECTING MEANS SHALL BE NEMA RATED AND SUITABLE FOR LOCKING IN THE OFF POSITION
4 PROVIDE ALL FRACTIONAL HP MOTORS WITH INTEGRAL RESETTABLE THERMAL OVERLOAD.
5 MOTOR SHALL BE INVERTER DUTY RATED FOR CONNECTION TO A VFD. PROVIDE BEARING SHAFT RING FOR SHAFT GROUNDING.
6 MOTOR SHALL BE ECM TYPE WITH INTEGRAL SPEED CONTROL. CONTRACTOR SHALL COORDINATE REQUIRED SIGNALS WITH ATC.
7 EQUIPMENT SHALL BE ON GENERATOR STANDBY POWER.

		LOCATION				EXHAUST FAN					ELECTRICAL		
	UNIT NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	AIRFLOW	TYPE	OUTLET VELOCITY	TOTAL STATIC PRESS.	UNIT WEIGHT	VOLTAGE	PHASE	REMARKS
	EF-2	RESTROOM	113	Greenheck	SP-B110	100 CFM	CEILING	528 FPM	0.20 in-wg	11 lb	115 V	1	
	EF-3	PUBLIC RESTROOM	105	Greenheck	SP-B110	100 CFM	CEILING	528 FPM	0.20 in-wg	11 lb	115 V	1	
	EF-4	PUBLIC RESTROOM	104	Greenheck	SP-B110	100 CFM	CEILING	528 FPM	0.20 in-wg	11 lb	115 V	1	
	TF-1	GARAGE		Greenheck	SQ-100-VG	1000 CFM	INLINE	763 FPM	0.20 in-wg	52 lb	115 V	1	
	TF-2	GARAGE		Greenheck	SQ-100-VG	1000 CFM	INLINE	763 FPM	0.20 in-wg	52 lb	115 V	1	
	TF-3	GARAGE		Greenheck	SQ-100-VG	1000 CFM	INLINE	763 FPM	0.20 in-wg	52 lb	115 V	1	
	TF-4	GARAGE		Greenheck	SQ-100-VG	1000 CFM	INLINE	763 FPM	0.20 in-wg	52 lb	115 V	1	
Grand total: 7													

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20 Park Plaza, Suite 1202
Boston MA 02116
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F 978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
	07/27/2017	100% SUBMISSION
	07/19/2017	90% SUBMISSION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 20160588
DRAWN BY: TC
CHECKED BY: CH

SHEET TITLE:
HVAC SCHEDULES

H-900

LIGHTING FIXTURES

FR1 2,a / FR2 2,NL — LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE)
"FR2" - INDICATES LIGHTING FIXTURE TYPE
"2" - INDICATES CIRCUIT NUMBER
"a" - INDICATES SWITCH CONTROL
"NL" - INDICATES NIGHT LIGHT (UNSWITCHED) CIRCUIT

AR1 2,a — RECESSED LIGHTING FIXTURE

HW — LIGHTING FIXTURE WALL MOUNTED

EXIT SIGN LIGHTING FIXTURE, CEILING, PENDANT MOUNTED, ARROWS, AND EXIT FACE (SHADED) AS INDICATED

EXIT SIGN LIGHTING FIXTURE, WALL MOUNTED, ARROWS AND EXIT FACE AS (SHADED) AS INDICATED

FR # — LIGHTING FIXTURE SHADING INDICATES FIXTURE EMERGENCY (LIFE SAFETY) POWER SOURCE
AR1

FR # — LIGHTING FIXTURE SHADING INDICATES FIXTURE CRITICAL POWER SOURCE
AR1

HG1 / HG4 — POLE MOUNTED LIGHTING FIXTURE

SWITCHES

Sa — SINGLE POLE SWITCH, RATED 20A, 120/277V
"a" LOWER CASE LETTER INDICATES FIXTURE SWITCH CONTROL

Sa 01 — OCCUPANCY SENSOR, RECESS WALL MOUNTED
"01"-INDICATES SINGLE CIRCUIT OUTPUT.
"02"-INDICATES DUAL CIRCUIT OUTPUT.

01 a,b — OCCUPANCY SENSOR, CEILING MOUNTED
"01"-INDICATES TYPE AS DEFINED IN NOTES/SCHEDULES.

PC — PHOTOCELL

ONE LINE SYMBOLS LEGEND

DISCONNECT SWITCH, UNFUSED

XXAS / XXAT — DISCONNECT SWITCH, FUSED
"XXAF" INDICATES FUSE RATING "XXAS" INDICATES SWITCH SIZE

XXAF / XXAT — CIRCUIT BREAKER, FIXED
"XXAF" INDICATES FRAME SIZE "XXAT" INDICATES TRIP

TRANSFORMER

3 PHASE, 3 WIRE DELTA CONNECTION

3 PHASE, 4 WIRE WYE SOLIDLY GROUNDED

N E — AUTOMATIC TRANSFER SWITCH

R21A — PANELBOARD

SITE LEGEND

TM — TELEPHONE MANHOLE

EH — ELECTRIC HAND HOLE

TH — TELEPHONE HAND HOLE

UE — UNDERGROUND ELECTRIC

A / # — UNDERGROUND SECTION. REFER TO SECTION DETAIL
"A" INDICATES DETAIL LETTER
"#" INDICATES DRAWING NUMBER

FIRE ALARM

FACP — FIRE ALARM CONTROL PANEL

FAA — FIRE ALARM ANNUNCIATOR PANEL

FATC — FIRE ALARM TERMINAL CABINET

F — FIRE ALARM RED ROTATING BEACON

F 15cd WP — FIRE ALARM COMBINED STROBE AND HORN DEVICE,
NUMERAL INDICATES CANDELA VALUE
"WP" INDICATES WEATHERPROOF

F WP — FIRE ALARM MANUAL PULL STATION
"WP" INDICATES WEATHERPROOF

TS — SPRINKLER TAMPER FLOW SWITCH

FS — SPRINKLER WATER FLOW SWITCH

PS — SPRINKLER LOW PRESSURE SWITCH

RAI — REMOTE ALARM INDICATOR
"WP" INDICATES WEATHERPROOF

ACM — INDIVIDUAL ADDRESSABLE CONTROL MODULE

ZMM — ZONE MONITORING MODULE

S — FIRE ALARM SMOKE DETECTOR, PHOTO ELECTRIC UNLESS NOTED OTHERWISE

H ER — FIRE ALARM HEAT DETECTOR, 135° FIXED TEMPERATURE UNLESS NOTED OTHERWISE
"ER" INDICATES ELEVATOR RECALL
"WP" INDICATES WEATHERPROOF

MOTOR & CONTROLS

ATS — AUTOMATIC TRANSFER SWITCH

— MOTOR WITH DISCONNECT

DISCONNECT SWITCH RATED 30AMP, 3-POLE, IN NEMA TYPE 1 ENCLOSURE, UNLESS OTHERWISE NOTED
"3R" - INDICATES NEMA TYPE 3R ENCLOSURE
"2P" - INDICATES 2 POLE SINGLE PHASE DISCONNECT
"60AS" - INDICATES 60A SWITCH

FUSED DISCONNECT SWITCH, 3-POLE, IN NEMA TYPE 1 ENCLOSURE, UNLESS OTHERWISE NOTED.
"3R" - INDICATES NEMA TYPE 3R ENCLOSURE
"60AS" - INDICATES 60AMP SWITCH
"50AF" - INDICATES 50AMP FUSES

TYPE — MECHANICAL EQUIPMENT TAG , ALPHANUMERIC CORRESPONDS TO EQUIPMENT ID

CP — EQUIPMENT CONTROL PANEL

VFD — VARIABLE SPEED DRIVE

2 — MOTOR, NUMERAL INDICATES HORSEPOWER
"2" - INDICATES HORSEPOWER RATING

BRANCH CIRCUIT AND FEEDER

BRANCH CIRCUIT OR FEEDER CONCEALED IN FINISHED AREAS

BRANCH CIRCUIT OR FEEDER, CONCEALED IN OR UNDER FLOOR SLAB

BRANCH CIRCUIT OR FEEDER TURNING UP TOWARDS OBSERVER

BRANCH CIRCUIT OR FEEDER TURNING DOWN AWAY FROM OBSERVER

CONDUIT STUBBED ABOVE CEILING

R22A-1,3,5 — BRANCH CIRCUIT HOME RUN TICKS INDICATE QUANTITY OF CONDUCTORS, GROUND CONDUCTORS ARE NOT INDICATED. NO TICKS INDICATES 2#12 & 1#12G IN 3/4"C MINIMUM. R22A-1,3,5 INDICATES PANEL AND CIRCUIT DESIGNATION FROM WHICH HOMERUN SHALL ORIGINATE. EACH CIRCUIT SHALL BE 20A-1P (20AMP SINGLE POLE) UNLESS NOTED OTHERWISE.

H42B-1 100A-3P / 6 — FEEDER HOMERUN. REFER TO LEGEND OF FEEDER SIZES FOR CONDUCTOR AND RACEWAY REQUIREMENTS DESIGNATED INSIDE TAG. H42B-1 INDICATES PANEL AND CIRCUIT NUMBER DESIGNATION FROM WHICH HOME RUN SHALL ORIGINATE, 100A-3P INDICATES 100 AMPERE, 3 POLE CIRCUIT BREAKER.

FLEXIBLE CONNECTION TO EQUIPMENT. RACEWAY AND CONDUCTOR RATING TO MATCH ASSOCIATED BRANCH CIRCUIT OR FEEDER

WIRING DEVICES

GFI 5 — DUPLEX RECEPTACLE, GROUNDING TYPE, RATED 20A, 125V
"5"- INDICATES CIRCUIT NUMBER
"GFI"- INDICATES INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER
"WP" - INDICATES WEATHERPROOF

J — JUNCTION BOX

POWER DISTRIBUTION

208Y/120 VOLT PANELBOARD, SURFACE MOUNTED
REFER TO SCHEDULE OF PANELBOARDS

208Y/120 VOLT PANELBOARD, RECESSED MOUNTED
REFER TO SCHEDULE OF PANELBOARDS

480Y/277 VOLT PANELBOARD, SURFACE MOUNTED
REFER TO SCHEDULE OF PANELBOARDS

480Y/277 VOLT PANELBOARD, RECESSED MOUNTED
REFER TO SCHEDULE OF PANELBOARDS

GROUND BAR

T5 — DRY TYPE TRANSFORMER
"T5" - INDICATES KVA RATING OF TRANSFORMER
REFER TO DRY TYPE K-RATED TRANSFORMER SCHEDULE

KT5 — DRY TYPE TRANSFORMER
"KT5" - INDICATES KVA RATING OF TRANSFORMER
REFER TO DRY TYPE K-RATED TRANSFORMER SCHEDULE

M — CUSTOMER METER

ABBREVIATIONS

A/AMP	AMPERE	KWH	KILOWATT HOURS
AC	ALTERNATION CURRENT	LTG	LIGHTING
ADA	AMERICAN WITH DISABILITIES ACT	MCB	MAIN CIRCUIT BREAKER
AF	AMPERE FRAME	MEC	MASSACHUSETTS ELECTRICAL CODE
AFF	ABOVE FINISHED FLOOR	M/G	MOTOR/GENERATOR SET
AFG	ABOVE FINISHED GRADE	MH	MANHOLE
AIC	AMPERE INTERRUPTING CAPACITY	MLO	MAIN LUGS ONLY
AL	ALUMINUM	MTD	MOUNTED
AT	AMPERE INTERRUPTING CAPACITY	MTG	MOUNTING
ATS	AUTOMATIC TRANSFER SWITCH	NC	NORMALLY CLOSED CONTACT
AWG	AMERICAN WIRE GAUGE	NEC	NATIONAL ELECTRICAL CODE
B	BURIED	NO	NORMALLY OPEN CONTACT
C	CONDUIT	NTS	NOT TO SCALE
CA	CABLE	#	NUMBER
CATV	CABLE TELEVISION	OPD	OVER CURRENT PROTECTION DEVICE
CCTV	CLOSED CIRCUIT TELEVISION SYSTEM	POS	PROVIDED UNDER OTHER SECTIONS
CB	CIRCUIT BREAKER	PVC	POLYVINYL CHLORIDE
CKT	CIRCUITS	PWR	POWER
CPU	CENTRAL PROCESSING UNIT	RGS	RIGID GALVANIZED STEEL
\C	CENTERLINE	RMS	ROOT MEAN SQUARE VALUE
dB	DECIBEL	RPM	REVOLUTIONS PER MINUTE
DC	DIRECT CURRENT	SN	SOLID NEUTRAL
DWG	DRAWING	SWBD	SWITCHBOARD
EC	ELECTRICAL CONTRACTOR	TB	TERMINAL BLOCK
EMT	ELECTRIC METALLIC TUBING	TEL	TELEPHONE
FDR	FEEDER	TERMN	TERMINAL
FLMT	FLEXIBLE LIQUID TIGHT METALLIC TUBING	TSP	TWISTED SHIELDED-PAIR
FREQ	FREQUENCY	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
GEC	GROUNDING ELECTRODE CONDUCTOR	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTING	UG	UNDERGROUND
GND	GROUND	UNO	UNLESS OTHERWISE NOTED
HH	HANDHOLE	UPS	UNINTERRUPTIBLE POWER SUPPLY
HP	HORSEPOWER	UTP	UNSHIELDED TWISTED-PAIR
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING	V	VOLTS
		VA	VOLT-AMPERE
HZ	HERTZ	VSD	VARIABLE SPEED DRIVE
IG	ISOLATED GROUND	W	WATTS
JB	JUNCTION BOX	WP	WEATHERPROOF
KVA	KILOVOLT-AMPERE		
KW	KILOWATT		

Drawing List - Electrical

Sheet Number	Sheet Name
E-000	ELECTRICAL LEGEND
E-100	ELECTRICAL SITE PLAN
E-101	ELECTRICAL SITE DETAILS
E-102	ELECTRICAL SITE DETAILS
E-201	ELECTRICAL LIGHTING GROUND TIER PLAN
E-202	ELECTRICAL LIGHTING 2ND TIER PLAN
E-203	ELECTRICAL LIGHTING 3RD TIER PLAN
E-204	ELECTRICAL LIGHTING 4TH TIER PLAN
E-205	ELECTRICAL LIGHTING 5TH TIER PLAN
E-206	ELECTRICAL LIGHTING TOP TIER PLAN
E-301	ELECTRICAL POWER GROUND TIER PLAN
E-302	ELECTRICAL POWER 2ND TIER PLAN
E-303	ELECTRICAL POWER 3RD TIER PLAN
E-304	ELECTRICAL POWER 4TH TIER PLAN
E-305	ELECTRICAL POWER 5TH TIER PLAN
E-306	ELECTRICAL POWER TOP TIER PLAN
E-401	ELECTRICAL FIRE ALARM GROUND TIER PLAN
E-402	ELECTRICAL FIRE ALARM 2ND TIER PLAN
E-403	ELECTRICAL FIRE ALARM 3RD TIER PLAN
E-404	ELECTRICAL FIRE ALARM 4TH TIER PLAN
E-405	ELECTRICAL FIRE ALARM 5TH TIER PLAN
E-406	ELECTRICAL FIRE ALARM TOP TIER PLAN
E-600	ELECTRICAL ENLARGED PLANS
E-601	ELECTRICAL ENLARGED PLANS
E-700	ELECTRICAL DETAILS
E-701	ELECTRICAL DETAILS
E-800	ELECTRICAL ONE LINE DIAGRAM
E-801	ELECTRICAL FIRE ALARM RISER DIAGRAM
E-900	ELECTRICAL SCHEDULES
E-901	ELECTRICAL SCHEDULES

Sheet Count: 30

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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T.978-296-6200
F.978-296-4201
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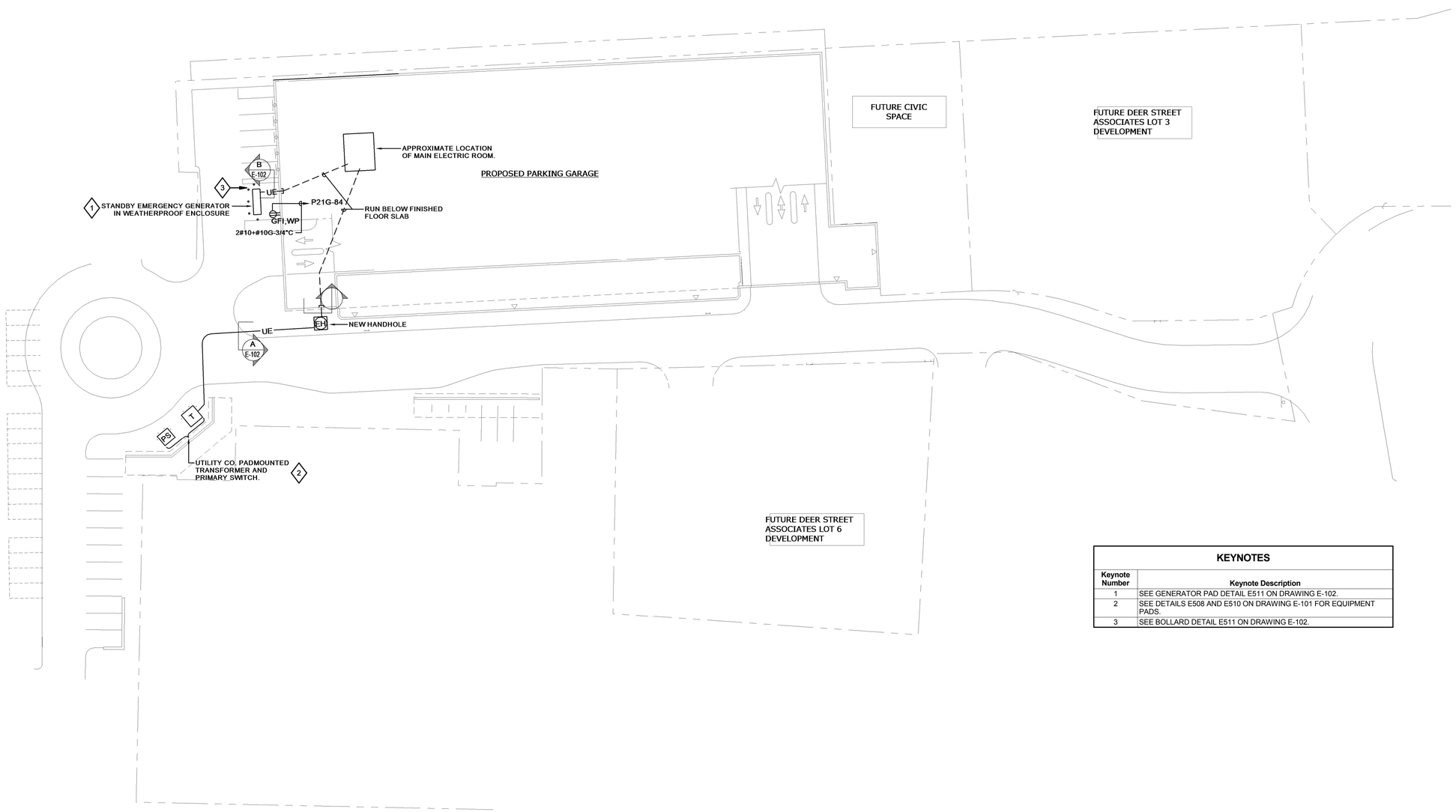
FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
ISSUE:		
	07/28/2017	CONSTRUCTION DOCUMENTS
	07/19/2017	90% SUBMISSION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL LEGEND

E-000

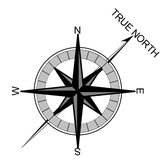


KEYNOTES	
Keynote Number	**Keynote Description**
1	SEE GENERATOR PAD DETAIL E511 ON DRAWING E-102.
2	SEE DETAILS E508 AND E510 ON DRAWING E-101 FOR EQUIPMENT PADS.
3	SEE BOLLARD DETAIL E511 ON DRAWING E-102.

1 / E-100 E-100 ELECTRICAL SITE PLAN

1" = 30'-0"

0 4' 8' 16'



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200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

ISSUE:		
DESCRIPTION	DATE	MARK
GARAGE DESIGN DEVELOPMENT	05/05/2017	
90% SUBMISSION	07/19/2017	
CONSTRUCTION DOCUMENTS	07/28/2017	

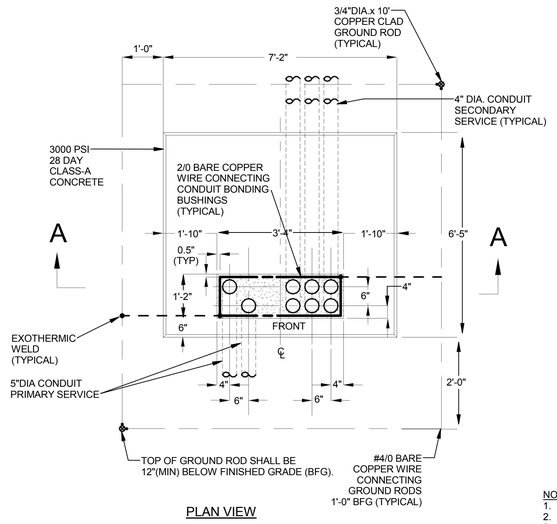
PROJECT NO: 20160588

DRAWN BY: DF

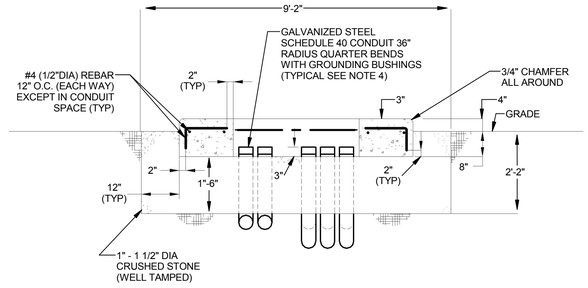
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL SITE PLAN

E-100



PLAN VIEW



SECTION "A-A"

NOTES:
1. REFER TO EXACT UTILITY COMPANY REQUIREMENTS FOR MODIFICATIONS THAT MAY BE REQUIRED TO THIS PAD LAYOUT.
2. ALL GROUND GRID CONNECTIONS SHALL BE EXOTHERMIC WELD.
3. DO NOT ALLOW PRIMARY AND SECONDARY CONDUITS TO CROSS EACH OTHER INSIDE OR OUTSIDE THE PAD. LOCATE SECONDARY CONDUITS AS FAR TO THE RIGHT AS POSSIBLE IN THE PAD OPENING.
4. ALL QUARTER BENDS (PRIMARY AND SECONDARY) SHALL BE GALVANIZED STEEL SCHEDULE 40 WITH GROUNDING BUSHINGS. CAP ALL CONDUIT ENDS TO PREVENT MOISTURE AND DEBRIS FROM ENTERING CONDUITS PRIOR TO TRANSFORMER INSTALLATION.

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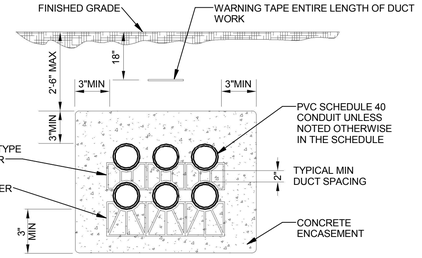
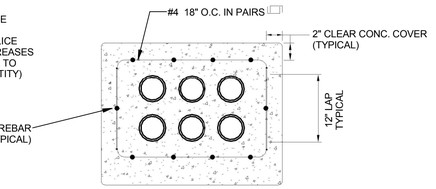
TRANSFORMER PAD DETAIL
THREE PHASE 112.5 THRU 750 KVA

E508



TYPICAL DUCT SECTION

REBAR NOTE:
(4) #6 TOP
(1) #6 EACH FACE
(4) #6 BOTTOM
LAP 2"-1" AT SPLICE
(QUANTITY INCREASES PROPORTIONAL TO CONDUIT QUANTITY)



REBAR DETAIL

NOTES:
1. THIS DETAIL IS INTENDED TO ILLUSTRATE CONSTRUCTION OF TYPICAL DUCT BANK. REFER TO REFERENCED SECTION FOR QUANTITY AND SIZE OF CONDUIT REQUIRED. DUCT CONSTRUCTION SHALL BE MODIFIED TO ACCOMMODATE REQUIREMENTS ILLUSTRATED IN THE ACTUAL SECTION, UTILIZING THE CRITERIA ESTABLISHED IN THIS DETAIL AND AS WRITTEN IN THE SPECIFICATIONS.
2. REBAR SHALL BE USED FOR ALL DUCT BANKS INSTALLED UNDER TRAVELED WAYS, ROADWAYS, AND TRANSITIONS INTO MANHOLES/HANDHOLES AND FOUNDATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.
3. WARNING TAPE SHALL BE DETECTABLE TYPE FOIL BACKED 4 MIL POLYETHYLENE WITH FADE RESISTANT "BURIED ELECTRIC LINE BELOW" A MINIMUM OF 12 INCHES ABOVE THE BURIED SERVICE. TAPE SHALL BE EQUAL TO T & B NAF-0705

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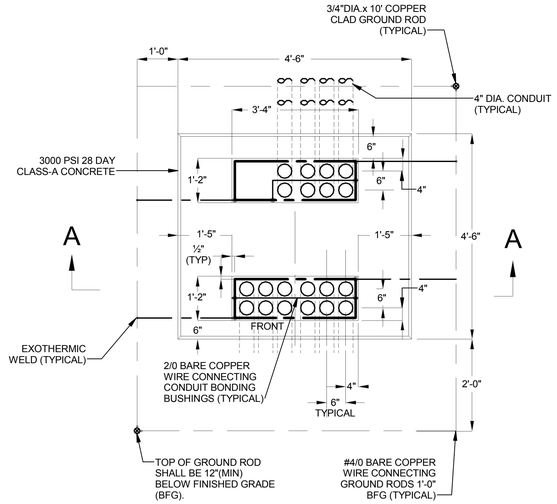
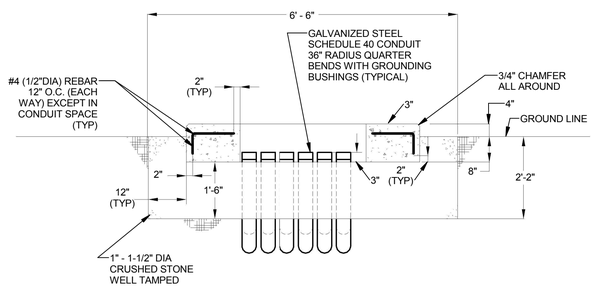
TYPICAL ELECTRICAL DUCT DETAIL

E502



PLAN VIEW



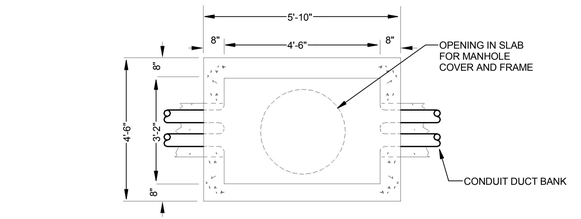
SECTION "A-A"

NOTES:
1. REFER TO EXACT INSTALLATION REQUIREMENTS OF THE CABINET MANUFACTURER FOR MODIFICATIONS THAT MAY BE REQUIRED TO THIS PAD LAYOUT. ACCOMMODATE ALL NECESSARY HARDWARE FOR FASTENING CABINET TO PAD.
2. ALL GROUND GRID CONNECTIONS SHALL BE EXOTHERMIC WELD.
3. CAP ALL CONDUIT ENDS TO PREVENT MOISTURE AND DEBRIS FROM ENTERING CONDUITS PRIOR TO CABINET INSTALLATION

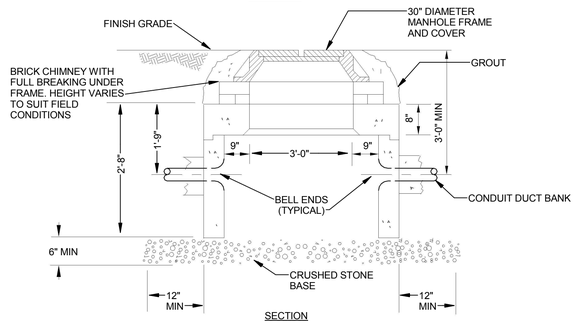
RDK ENGINEERS

EQUIPMENT PAD DETAIL

E510



PLAN VIEW



SECTION

NOTES:
1. FRAME AND COVER SHALL BE CAST IRON BY BOSTON FOUNDRY OR EQUAL BY LEBARON OR NEENAH. COVER SHALL BE CAST WITH 1 1/2" HIGH LETTERS IDENTIFYING THE SERVICE (PRIMARY, SECONDARY ELECTRIC OR TELEPHONE).
2. DESIGN LOAD SHALL ACCOMMODATE UP TO AASHTO HS20-44.
3. CONCRETE ENCASED DUCT SHALL BE TIED INTO THE HANDHOLE WALL TO MINIMIZE DIFFERENTIAL SETTLEMENT. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.

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TYPICAL PREFABRICATED HANDHOLE DETAIL

E506

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
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F 978-296-6201
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FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
ISSUE:	07/28/2017	CONSTRUCTION DOCUMENTS

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL SITE DETAILS

E-101

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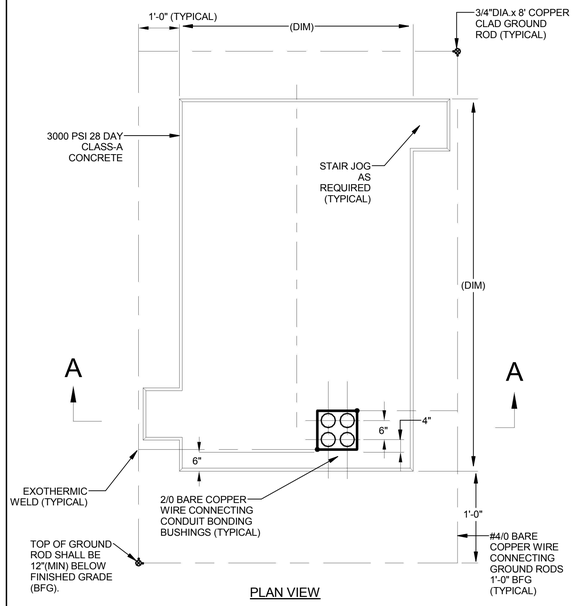
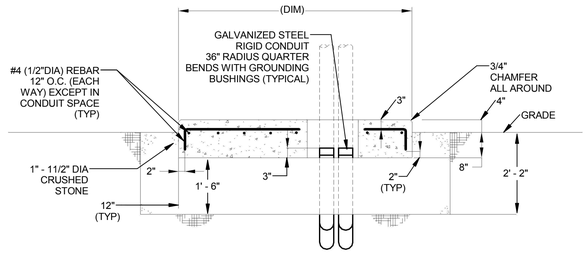


PLAN VIEW



SECTION "A-A"

NOTES:
1. REFER TO EXACT INSTALLATION REQUIREMENTS OF THE GENERATOR AND ASSOCIATED ENCLOSURE MANUFACTURER FOR MODIFICATIONS THAT MAY BE REQUIRED TO THIS PAD LAYOUT. THIS DETAIL IS INTENDED TO ILLUSTRATE GENERAL REQUIREMENTS. PAD SHALL EXTEND 1'-0" BEYOND ENCLOSURE ON ALL SIDES. PAD SHALL JOG OUT TO ACCOMMODATE STAIR LANDINGS.
2. ALL GROUND GRID CONNECTIONS SHALL BE EXOTHERMIC WELD.
3. CAP ALL CONDUIT ENDS TO PREVENT MOISTURE AND DEBRIS FROM ENTERING CONDUITS PRIOR TO GENERATOR INSTALLATION.
4. CRUSHED STONE SHALL EXTEND TO COVER GROUND AT SPECIFIED 18" DEPTH UNDER ALL AIR INTAKE LOUVER LOCATIONS.
5. EXTEND ALL RACEWAYS WITH LFMC TO GENERATOR ENCLOSURE CABINET TO PROVIDE A COMPLETE RACEWAY SYSTEM.

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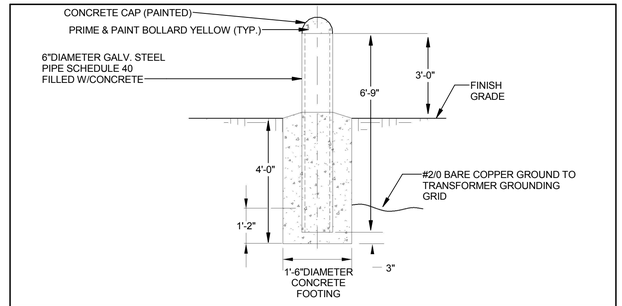
GENERATOR PAD DETAIL

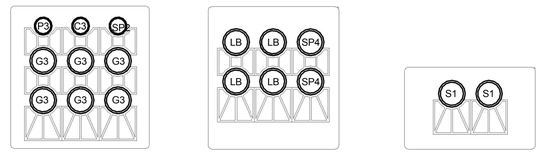
E511



RDK ENGINEERS

PROTECTION BOLLARD DETAIL

E512



SECTION "B-B"

N.T.S.

SECTION "C-C"

N.T.S.

SECTION "D-D"

N.T.S.

NOTES:
1. REFER TO TYPICAL ELECTRICAL DUCT DETAIL THIS SHEET FOR GENERAL CONSTRUCTION REQUIREMENTS.
2. REFER TO THE DUCT BANK CONDUIT SCHEDULE THIS SHEET FOR CONDUIT AND CONDUCTOR REQUIREMENTS ASSOCIATED WITH CONDUIT TAG.

USER NOTE: MODIFY SECTIONS TO SUIT NEEDS

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ELECTRICAL DUCT SECTIONS

E504

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

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Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-6201
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FOUNDRY PLACE
PARKING GARAGE

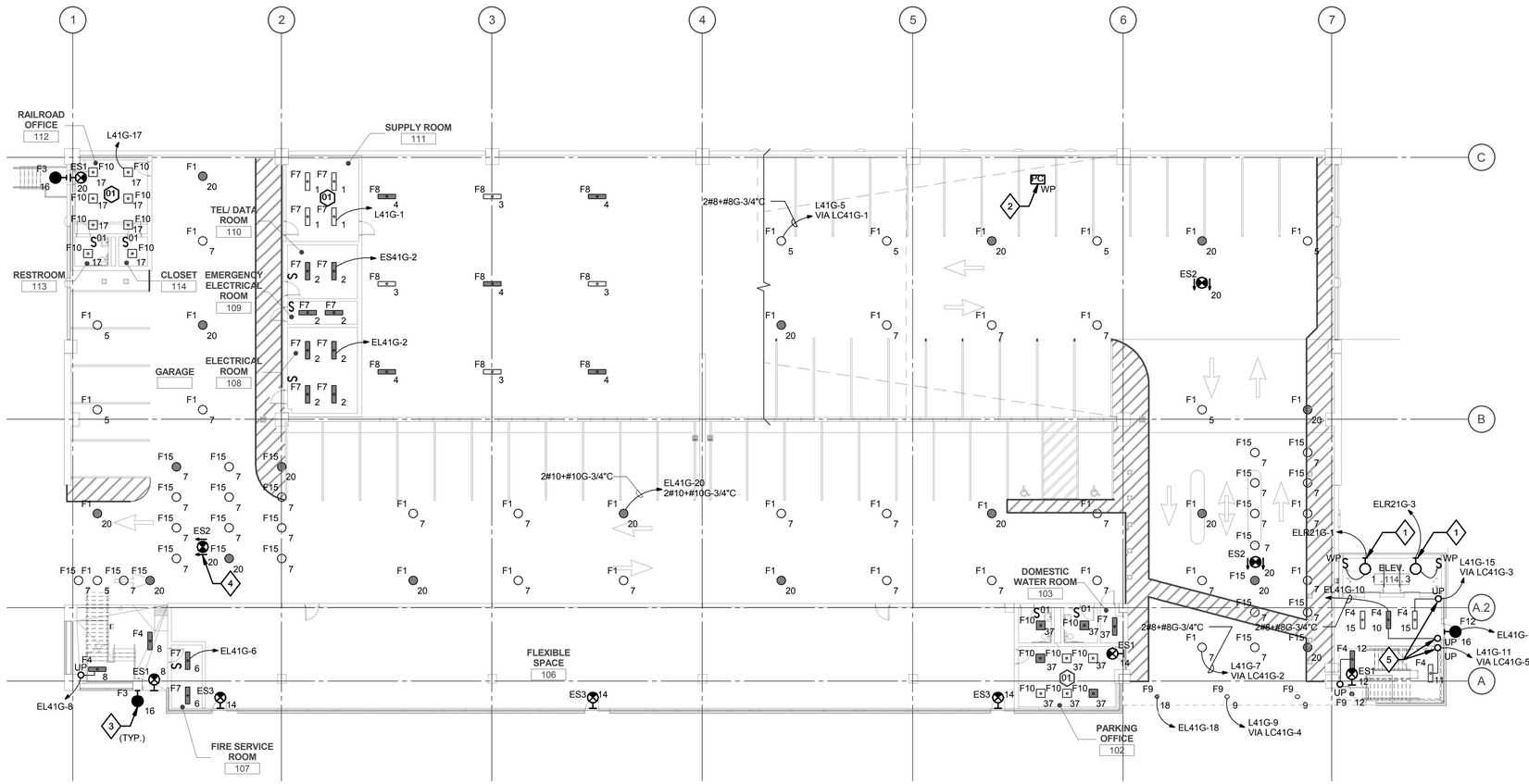
MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL SITE DETAILS

E-102



1 E-201 ELECTRICAL LIGHTING GROUND TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

LIGHTING NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO, REFLECTED CEILING PLANS AND ELEVATIONS FOR ASSOCIATED NOTES, MOUNTING DETAILS AND EXACT LOCATIONS OF ALL LIGHTING FIXTURES.

3. PROVIDE COMMON FACE PLATE AND REQUIRED METAL INTERIOR BOX BARRIERS FOR ALL MULTIPLE GANG SWITCH LOCATIONS.

4. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBER AND SWITCH LEG NOMENCLATURE THAT ARE APPLIED TO EACH LIGHTING FIXTURE AND CONTROLLING DEVICE INFER INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

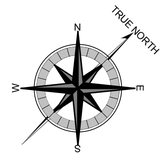
5. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUIT AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V AND 175' FOR 277V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX WITHIN 12" FROM FIXTURE TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. PROVIDE CONSTANTLY ENERGIZED (UNSWITCHED) BRANCH CIRCUIT TO ALL EXIT SIGNS AND EGRESS LIGHTS FROM THE DESIGNATED SOURCE.

7. LIGHTING BRANCH CIRCUITRY SHALL BE INSTALLED IN PVC SCHEDULE 80 CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

KEYNOTES

Keynote Number	Keynote Description
1	PROVIDE ELEVATOR PIT LIGHT AS MANUFACTURED BY APPLETON #OBVW10G ON SEH CAST BOX.
2	PHOTOCELL FOR PERIMETER LIGHTING CONTROL. EXACT LOCATION SHALL BE COORDINATED IN THE FIELD.
3	PROVIDE WEATHERPROOF JUNCTION BOX ON INTERIOR WALL AND ROUTE CONDUIT THROUGH PRECAST PANEL TO FIXTURE. EXPOSED CONDUIT ON EXTERIOR OF PRECAST IS NOT PERMITTED.
4	EXIT SIGNS SHALL BE MOUNTED AT 8'-3" AFF TO BOTTOM EDGE.
5	CONDUIT RISER SHALL BE RUN CONCEALED WITHIN CMU WALL.



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Boston MA 02116
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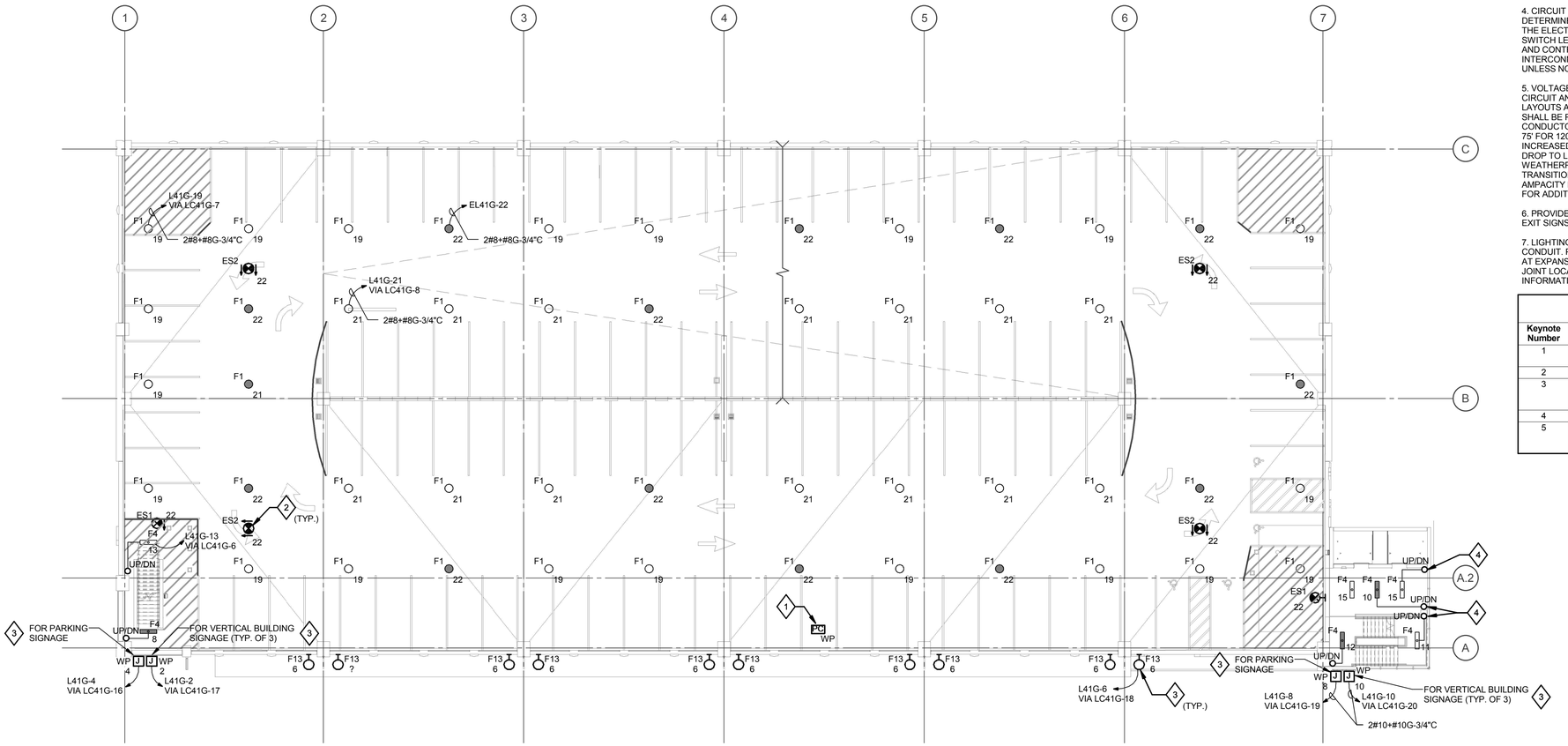
FOUNDRY PLACE
PARKING GARAGE

ISSUE:	DESCRIPTION	DATE	MARK
	GARAGE DESIGN DEVELOPMENT	05/05/2017	
	90% SUBMISSION	07/19/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO:	20160588
DRAWN BY:	DF
CHECKED BY:	MM

SHEET TITLE:
ELECTRICAL LIGHTING GROUND TIER PLAN

E-201



1 E-202 ELECTRICAL LIGHTING 2ND TIER PLAN
1/16" = 1'-0"
0 2' 4' 8'

LIGHTING NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO, REFLECTED CEILING PLANS AND ELEVATIONS FOR ASSOCIATED NOTES, MOUNTING DETAILS AND EXACT LOCATIONS OF ALL LIGHTING FIXTURES.

3. PROVIDE COMMON FACE PLATE AND REQUIRED METAL INTERIOR BOX BARRIERS FOR ALL MULTIPLE GANG SWITCH LOCATIONS.

4. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBER AND SWITCH LEG NOMENCLATURE THAT ARE APPLIED TO EACH LIGHTING FIXTURE AND CONTROLLING DEVICE INFER INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

5. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUIT AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V AND 175' FOR 277V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX WITHIN 12" FROM FIXTURE TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. PROVIDE CONSTANTLY ENERGIZED (UNSWITCHED) BRANCH CIRCUIT TO ALL EXIT SIGNS AND EGRESS LIGHTS FROM THE DESIGNATED SOURCE.

7. LIGHTING BRANCH CIRCUITRY SHALL BE INSTALLED IN PVC SCHEDULE 80 CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

KEYNOTES

Keynote Number	Keynote Description
1	PHOTOCELL FOR PERIMETER LIGHTING CONTROL. EXACT LOCATION SHALL BE COORDINATED IN THE FIELD.
2	EXIT SIGNS SHALL BE MOUNTED AT 8'-3" AFF TO BOTTOM EDGE.
3	PROVIDE RECESSED JUNCTION BOX. COORDINATE EXACT LOCATION WITH PRE-CAST FABRICATOR. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
4	CONDUIT RISER SHALL BE RUN CONCEALED WITHIN CMU WALL.
5	FIXTURE HANGERS SHALL BE INSTALLED PRIOR TO INSULATION. COORDINATE SEQUENCE WITH INSULATION INSTALLER/GENERAL CONTRACTOR.

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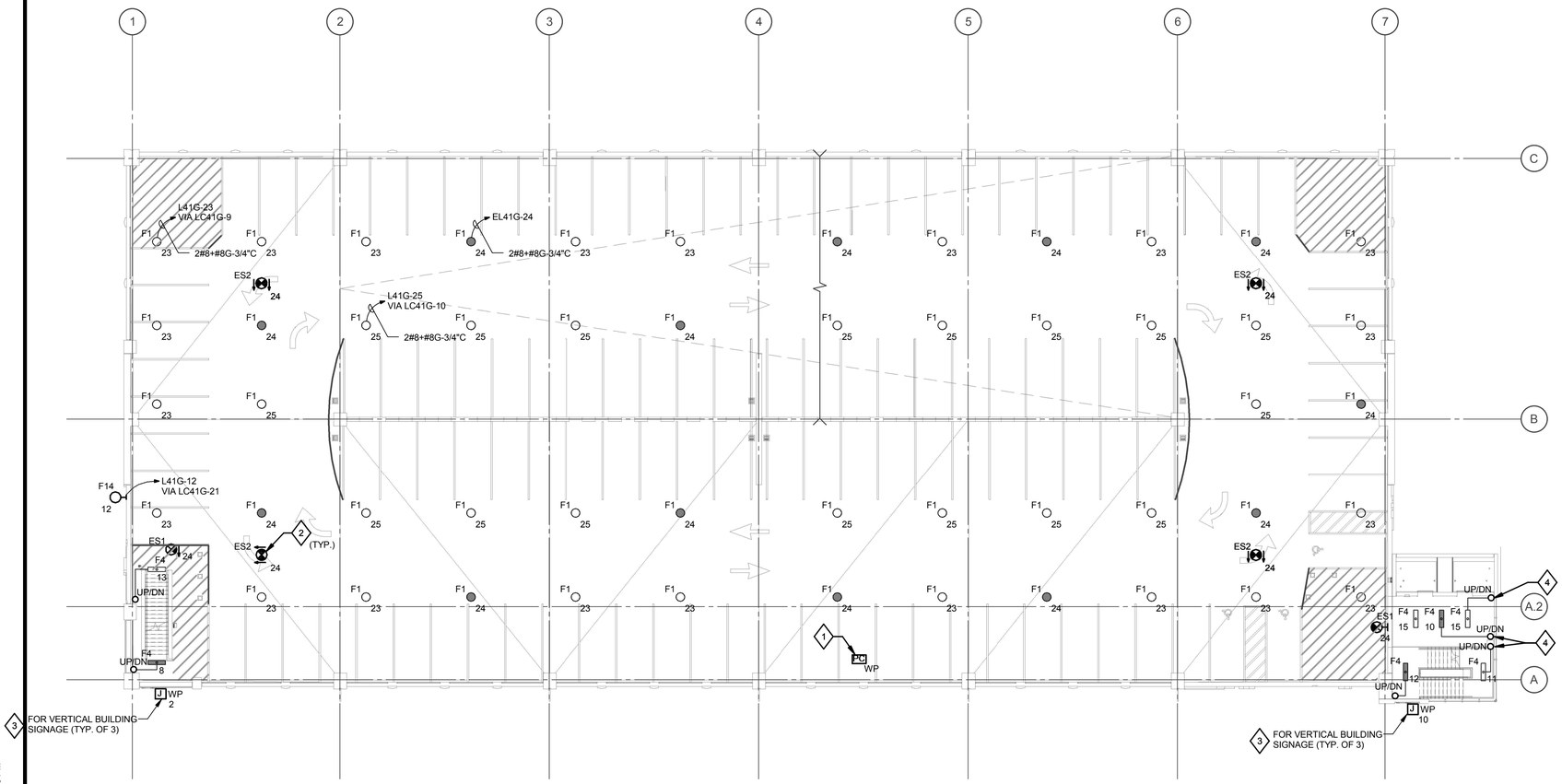
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL LIGHTING
2ND TIER PLAN

E-202



1 E-203 ELECTRICAL LIGHTING 3RD TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

LIGHTING NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO, REFLECTED CEILING PLANS AND ELEVATIONS FOR ASSOCIATED NOTES, MOUNTING DETAILS AND EXACT LOCATIONS OF ALL LIGHTING FIXTURES.

3. PROVIDE COMMON FACE PLATE AND REQUIRED METAL INTERIOR BOX BARRIERS FOR ALL MULTIPLE GANG SWITCH LOCATIONS.

4. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBER AND SWITCH LEG NOMENCLATURE THAT ARE APPLIED TO EACH LIGHTING FIXTURE AND CONTROLLING DEVICE INFER INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

5. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUIT AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V AND 175' FOR 277V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX WITHIN 12" FROM FIXTURE TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. PROVIDE CONSTANTLY ENERGIZED (UNSWITCHED) BRANCH CIRCUIT TO ALL EXIT SIGNS AND EGRESS LIGHTS FROM THE DESIGNATED SOURCE.

7. LIGHTING BRANCH CIRCUITRY SHALL BE INSTALLED IN PVC SCHEDULE 80 CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

KEYNOTES

Keynote Number	Keynote Description
1	PHOTOCELL FOR PERIMETER LIGHTING CONTROL. EXACT LOCATION SHALL BE COORDINATED IN THE FIELD.
2	EXIT SIGNS SHALL BE MOUNTED AT 8'-3" AFF TO BOTTOM EDGE.
3	PROVIDE RECESSED JUNCTION BOX. COORDINATE EXACT LOCATION WITH PRE-CAST FABRICATOR. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

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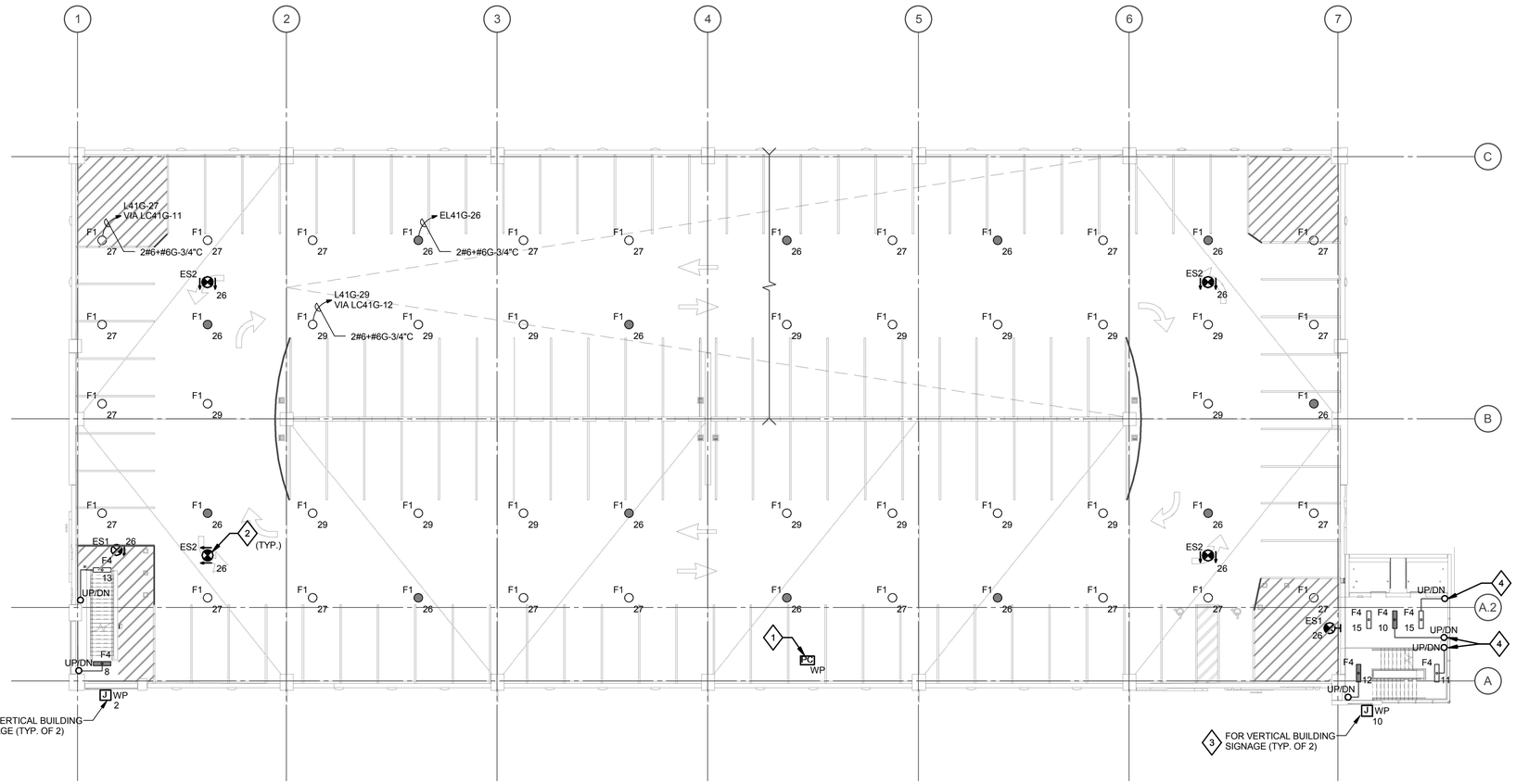
PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL LIGHTING
3RD TIER PLAN

E-203



1 E-204 ELECTRICAL LIGHTING 4TH TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

LIGHTING NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO, REFLECTED CEILING PLANS AND ELEVATIONS FOR ASSOCIATED NOTES, MOUNTING DETAILS AND EXACT LOCATIONS OF ALL LIGHTING FIXTURES.

3. PROVIDE COMMON FACE PLATE AND REQUIRED METAL INTERIOR BOX BARRIERS FOR ALL MULTIPLE GANG SWITCH LOCATIONS.

4. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBER AND SWITCH LEG NOMENCLATURE THAT ARE APPLIED TO EACH LIGHTING FIXTURE AND CONTROLLING DEVICE INFER INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

5. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUIT AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V AND 175' FOR 277V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX WITHIN 12" FROM FIXTURE TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. PROVIDE CONSTANTLY ENERGIZED (UNSWITCHED) BRANCH CIRCUIT TO ALL EXIT SIGNS AND EGRESS LIGHTS FROM THE DESIGNATED SOURCE.

7. LIGHTING BRANCH CIRCUITRY SHALL BE INSTALLED IN PVC SCHEDULE 80 CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

KEYNOTES

Keynote Number	Keynote Description
1	PHOTOCELL FOR PERIMETER LIGHTING CONTROL. EXACT LOCATION SHALL BE COORDINATED IN THE FIELD.
2	EXIT SIGNS SHALL BE MOUNTED AT 8'-3" AFF TO BOTTOM EDGE.
3	PROVIDE RECESSED JUNCTION BOX. COORDINATE EXACT LOCATION WITH PRE-CAST FABRICATOR. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
4	CONDUIT RISER SHALL BE RUN CONCEALED WITHIN CMU WALL.

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-6201
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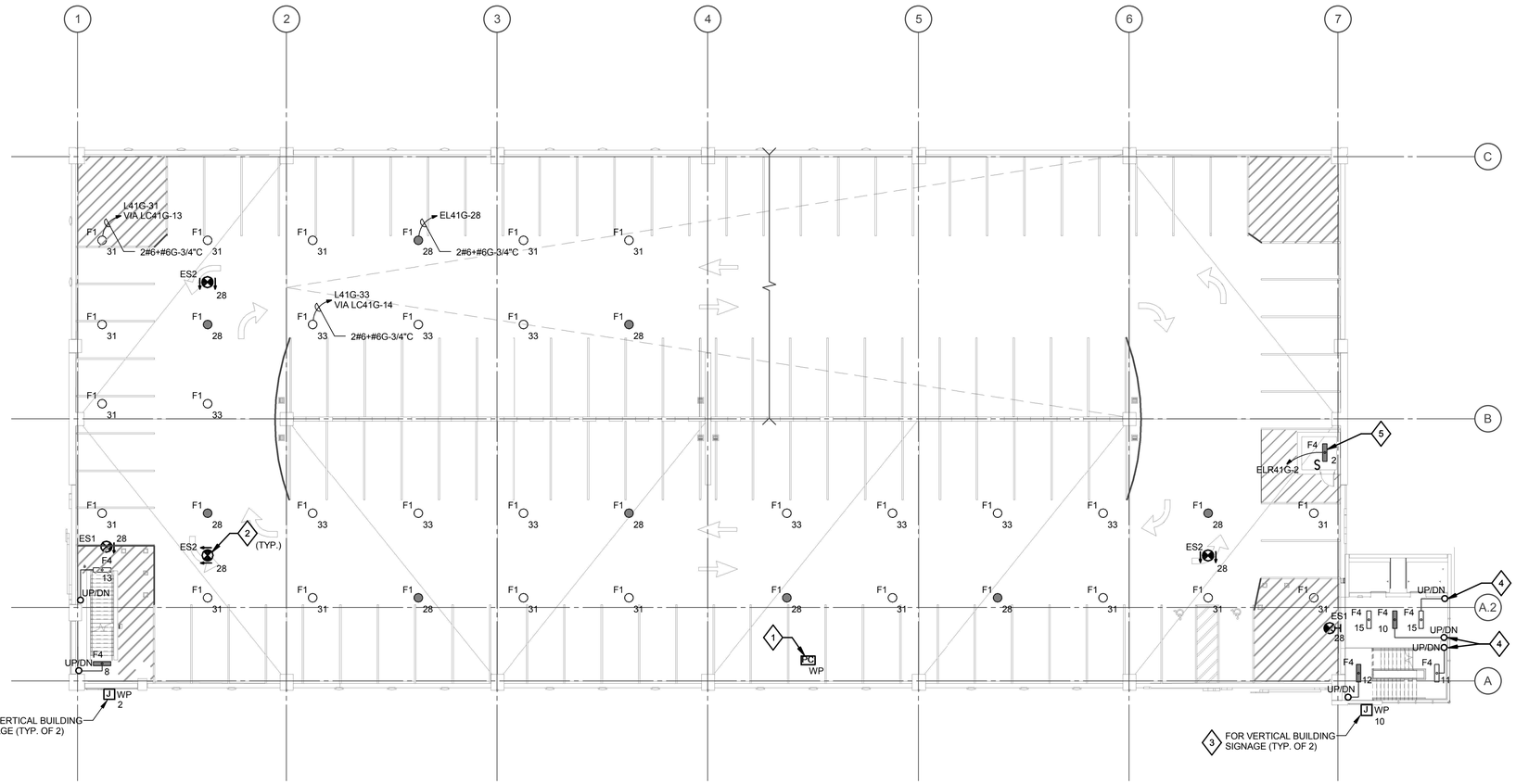
FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
ISSUE:		
	07/28/2017	CONSTRUCTION DOCUMENTS
	07/19/2017	90% SUBMISSION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL LIGHTING
4TH TIER PLAN

E-204



1 E-205 ELECTRICAL LIGHTING 5TH TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

LIGHTING NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO, REFLECTED CEILING PLANS AND ELEVATIONS FOR ASSOCIATED NOTES, MOUNTING DETAILS AND EXACT LOCATIONS OF ALL LIGHTING FIXTURES.

3. PROVIDE COMMON FACE PLATE AND REQUIRED METAL INTERIOR BOX BARRIERS FOR ALL MULTIPLE GANG SWITCH LOCATIONS.

4. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBER AND SWITCH LEG NOMENCLATURE THAT ARE APPLIED TO EACH LIGHTING FIXTURE AND CONTROLLING DEVICE INFER INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

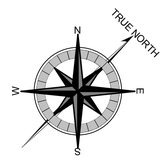
5. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUIT AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V AND 175' FOR 277V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX WITHIN 12" FROM FIXTURE TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. PROVIDE CONSTANTLY ENERGIZED (UNSWITCHED) BRANCH CIRCUIT TO ALL EXIT SIGNS AND EGRESS LIGHTS FROM THE DESIGNATED SOURCE.

7. LIGHTING BRANCH CIRCUITRY SHALL BE INSTALLED IN PVC SCHEDULE 80 CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

KEYNOTES

Keynote Number	Keynote Description
1	PHOTOCELL FOR PERIMETER LIGHTING CONTROL. EXACT LOCATION SHALL BE COORDINATED IN THE FIELD.
2	EXIT SIGNS SHALL BE MOUNTED AT 8'-3" AFF TO BOTTOM EDGE.
3	PROVIDE RECESSED JUNCTION BOX. COORDINATE EXACT LOCATION WITH PRE-CAST FABRICATOR. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



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Boston MA 02116
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Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
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Andover, MA 01810-1488
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FOUNDRY PLACE
PARKING GARAGE

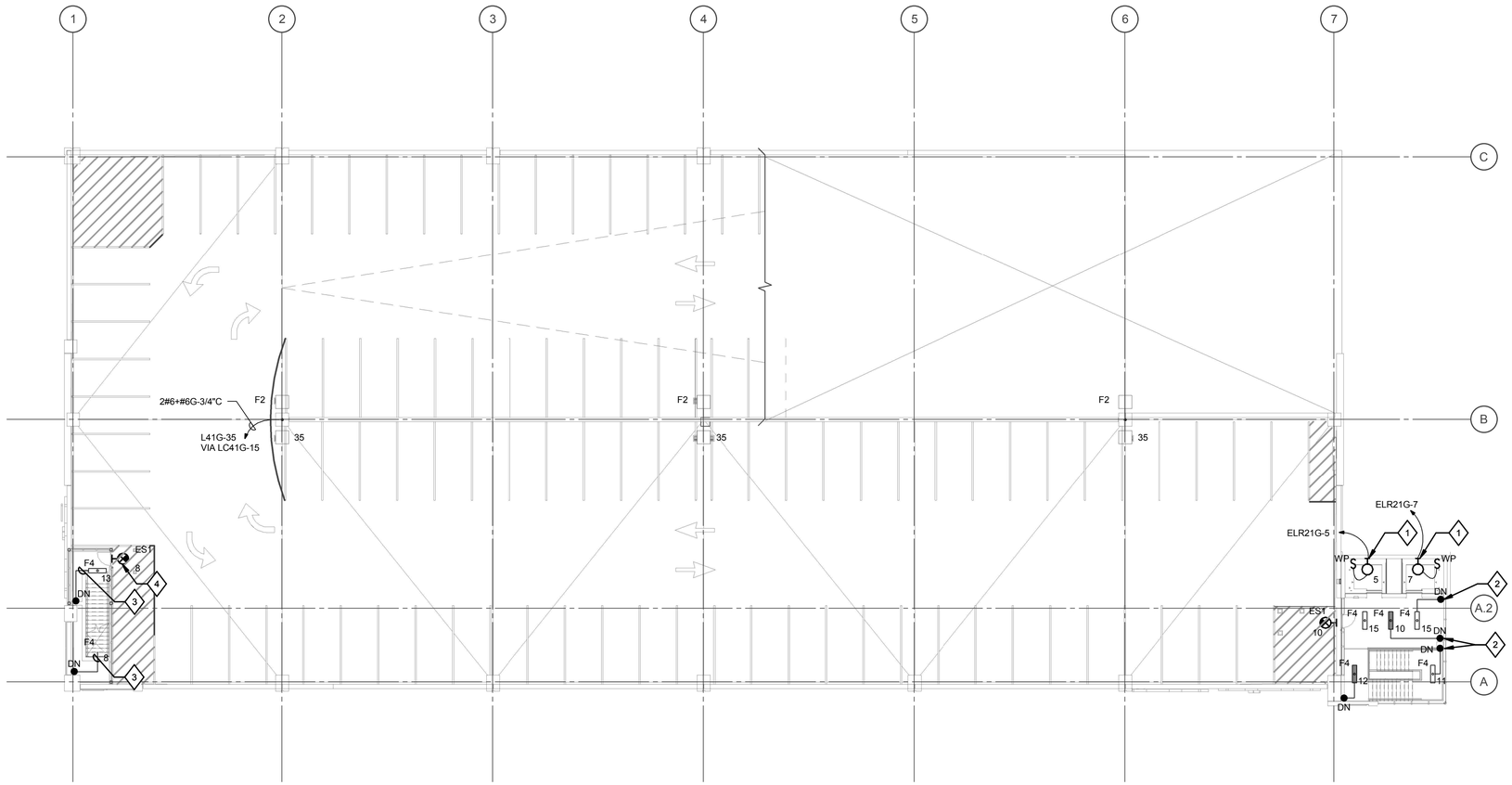
MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	07/19/2017	90% SUBMISSION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

ISSUE:

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL LIGHTING
5TH TIER PLAN

E-205



1 E-206 ELECTRICAL LIGHTING TOP TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

LIGHTING NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS, INCLUDING BUT NOT LIMITED TO, REFLECTED CEILING PLANS AND ELEVATIONS FOR ASSOCIATED NOTES, MOUNTING DETAILS AND EXACT LOCATIONS OF ALL LIGHTING FIXTURES.

3. PROVIDE COMMON FACE PLATE AND REQUIRED METAL INTERIOR BOX BARRIERS FOR ALL MULTIPLE GANG SWITCH LOCATIONS.

4. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBER AND SWITCH LEG NOMENCLATURE THAT ARE APPLIED TO EACH LIGHTING FIXTURE AND CONTROLLING DEVICE INFER INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

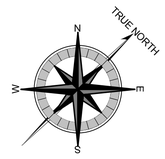
5. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUIT AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V AND 175' FOR 277V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX WITHIN 12" FROM FIXTURE TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. PROVIDE CONSTANTLY ENERGIZED (UNSWITCHED) BRANCH CIRCUIT TO ALL EXIT SIGNS AND EGRESS LIGHTS FROM THE DESIGNATED SOURCE.

7. LIGHTING BRANCH CIRCUITRY SHALL BE INSTALLED IN PVC SCHEDULE 80 CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

KEYNOTES

Keynote Number	Keynote Description
1	PROVIDE ELEVATOR HOISTWAY LIGHT AS MANUFACTURED BY APPLETON #OBVW10G ON SEH CAST BOX.
2	CONDUIT RISER SHALL BE RUN CONCEALED WITHIN CMU WALL.
3	CONDUIT SHALL BE RUN CONCEALED ABOVE METAL DECK/CEILING.
4	CONDUIT SHALL BE RUN WITHIN STAIR ENCLOSURE CONCEALED BEHIND METAL FACADE.



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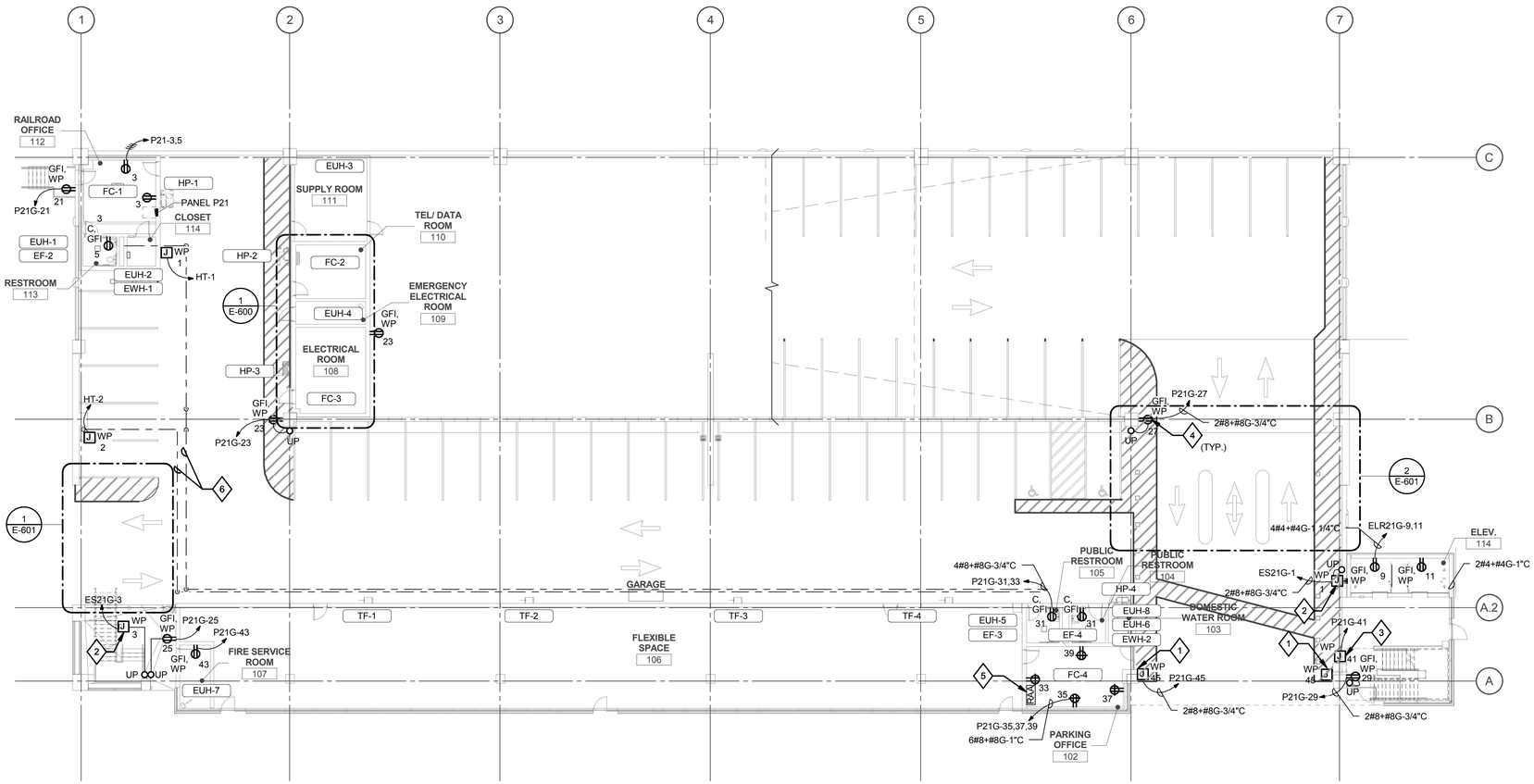
FOUNDRY PLACE
PARKING GARAGE

ISSUE:	DESCRIPTION	DATE	MARK
	GARAGE DESIGN DEVELOPMENT	05/05/2017	
	90% SUBMISSION	07/19/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL LIGHTING TOP TIER PLAN

E-206



1 E-301 ELECTRICAL POWER GROUND TIER PLAN

1/16" = 1'-0"

0 8' 16' 32'

POWER NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

4. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR GUIDELINES AND BE LIMITED TO 2% DROP. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS.

5. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. TYPICAL FOR ELEVATOR LOBBY/.STAIRWELL:
CONDUIT SHALL BE RUN CONCEALED IN GROUND FACE CMU WALL. EXPOSED CONDUIT SHALL NOT BE PERMITTED.

KEYNOTES

Keynote Number	Keynote Description
1	FOR PARCS SYSTEM SIGNAGE.
2	FOR EMERGENCY PHONE.
3	FOR PAY ON FOOT STATION.
4	PROVIDE CONDUIT RISER GUARD FOR AL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
5	GENERATOR REMOTE ANNUNCIATOR. EXACT LOCATION SHALL BE CONFIRMED IN THE FIELD BY ARCHITECT PRIOR TO ROUGH-IN.
6	PROVIDE 8W/LF, 277V SELF REGULATING HEAT TRACE CABLE INSTALLATION AS MANUFACTURED BY RAYCHEM XL+ TRACE OR APPROVED EQUAL. REFER TO DETAIL E311B ON DRAWING E-700 FOR ADDITIONAL INFORMATION. SEE PLUMBING DRAWINGS FOR PIPING INFORMATION AND EXACT ROUTING.

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20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
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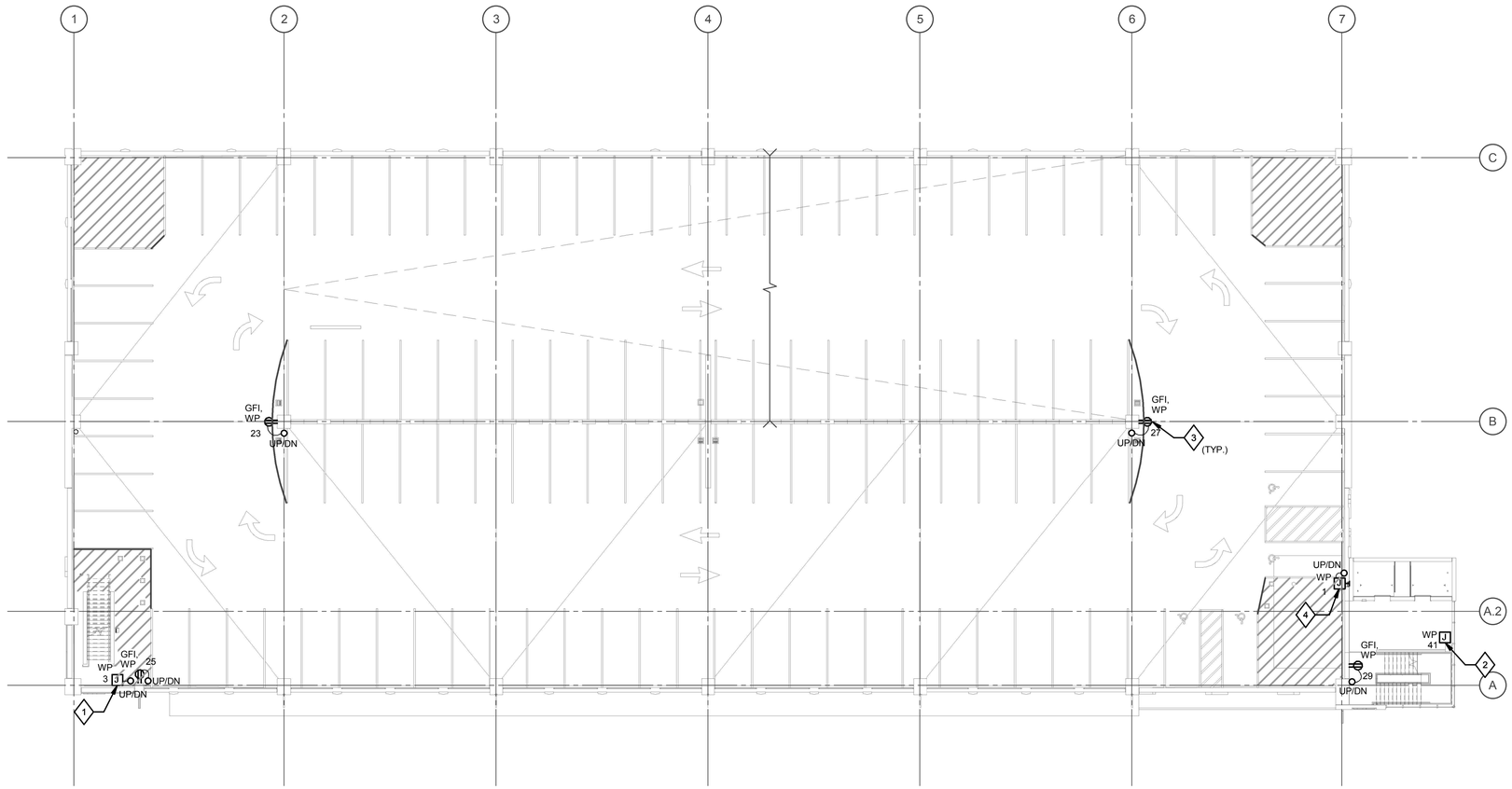
FOUNDRY PLACE
PARKING GARAGE

ISSUE:	DATE	MARK
DESCRIPTION		
07/28/2017 CONSTRUCTION DOCUMENTS	07/28/2017	
07/19/2017 90% SUBMISSION	07/19/2017	
05/05/2017 GARAGE DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL POWER GROUND TIER PLAN

E-301



1 E-302 ELECTRICAL POWER 2ND TIER PLAN
1/16" = 1'-0"
0 2' 4' 8'

POWER NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

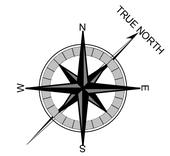
4. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR GUIDELINES AND BE LIMITED TO 2% DROP. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS.

5. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. TYPICAL FOR ELEVATOR LOBBY/.STAIRWELL:
CONDUIT SHALL BE RUN CONCEALED IN GROUND FACE CMU WALL. EXPOSED CONDUIT SHALL NOT BE PERMITTED.

KEYNOTES

Keynote Number	Keynote Description
1	FOR EMERGENCY PHONE.
2	FOR PAY ON FOOT STATION.
3	PROVIDE CONDUIT RISER GUARD FOR AL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
4	FOR EMERGENCY PHONE. PHONE SHALL BE MOUNTED ON STEEL CHANNEL. RELATED CONDUIT SHALL BE RUN ALONG OUTER EDGE OF CHANNEL. CONFIRM EXACT ROUTING WITH ARCHITECT IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



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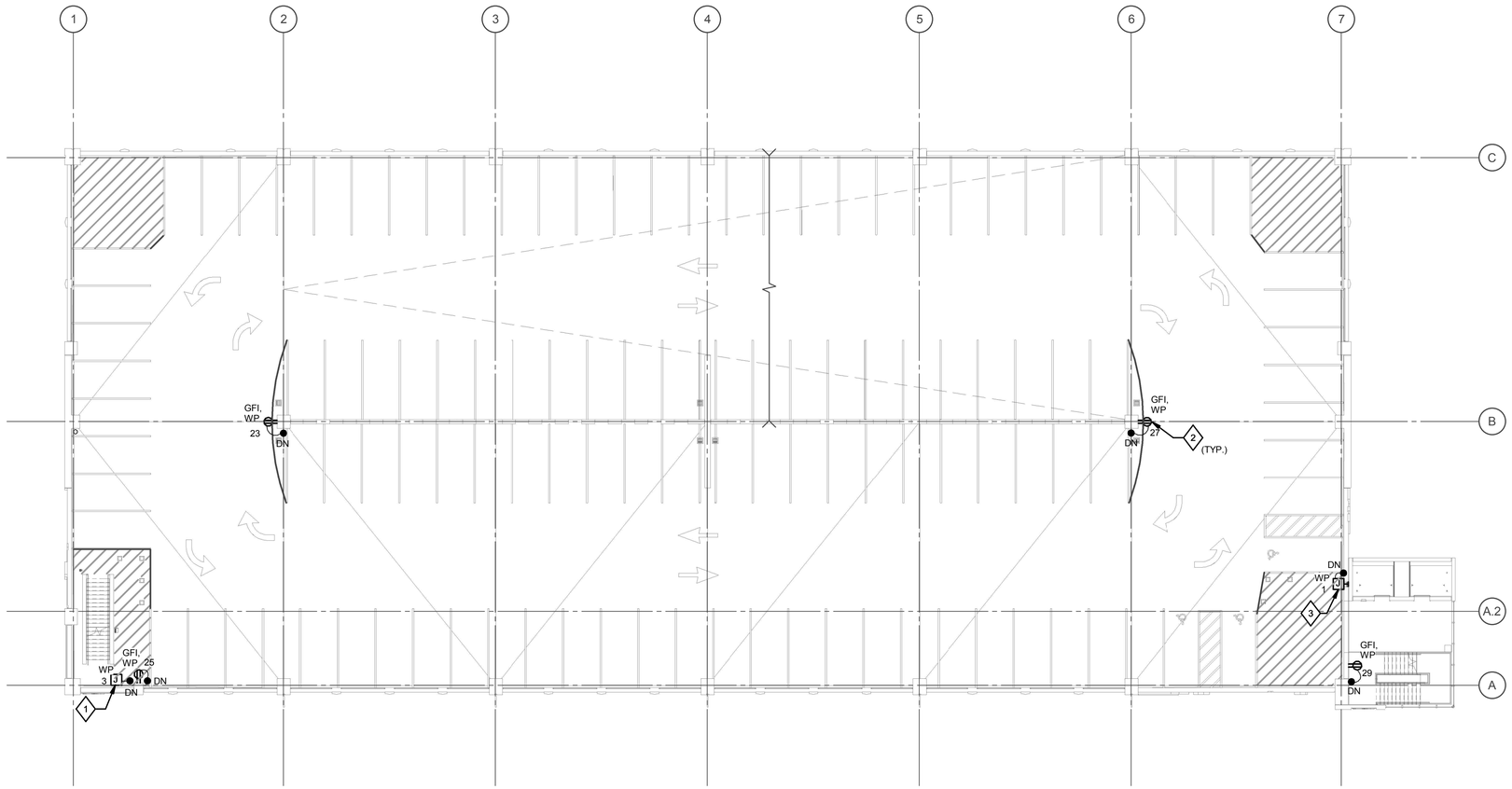
FOUNDRY PLACE
PARKING GARAGE

ISSUE:	DATE	MARK
07/28/2017 CONSTRUCTION DOCUMENTS		
07/19/2017 90% SUBMISSION		
05/05/2017 GARAGE DESIGN DEVELOPMENT		

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL POWER
2ND TIER PLAN

E-302



1 / E-303 ELECTRICAL POWER 3RD TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

POWER NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

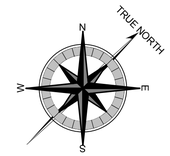
4. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR GUIDELINES AND BE LIMITED TO 2% DROP. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS.

5. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. TYPICAL FOR ELEVATOR LOBBY/.STAIRWELL:
CONDUIT SHALL BE RUN CONCEALED IN GROUND FACE CMU WALL. EXPOSED CONDUIT SHALL NOT BE PERMITTED.

KEYNOTES

Keynote Number	Keynote Description
1	FOR EMERGENCY PHONE.
2	PROVIDE CONDUIT RISER GUARD FOR AL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
3	FOR EMERGENCY PHONE. PHONE SHALL BE MOUNTED ON STEEL CHANNEL. RELATED CONDUIT SHALL BE RUN ALONG OUTER EDGE OF CHANNEL. CONFIRM EXACT ROUTING WITH ARCHITECT IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



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F 978-296-6201
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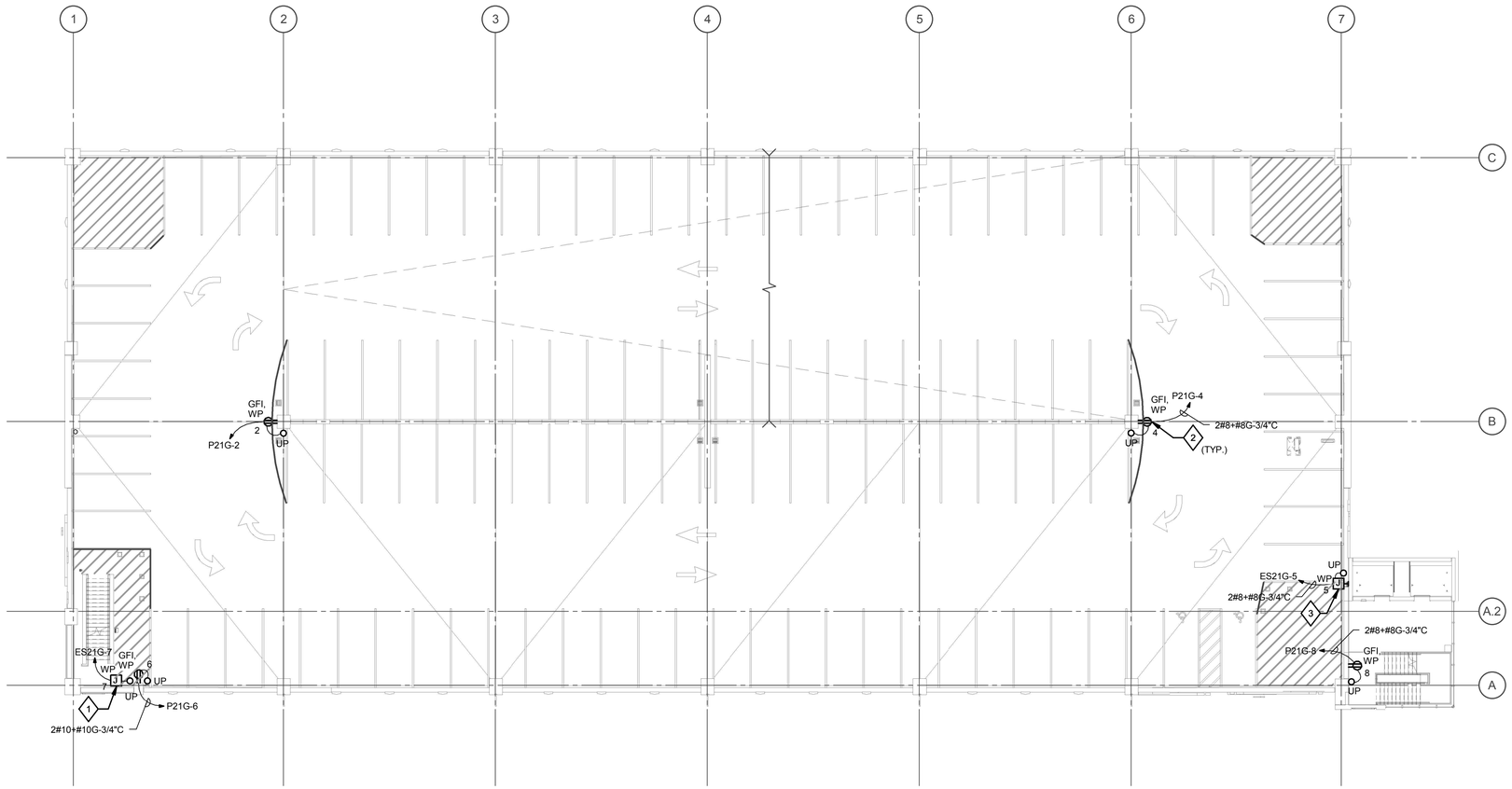
FOUNDRY PLACE
PARKING GARAGE

ISSUE: DESCRIPTION	DATE	MARK
GARAGE DESIGN DEVELOPMENT	05/05/2017	
90% SUBMISSION	07/19/2017	
CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL POWER
3RD TIER PLAN

E-303



1 E-304 ELECTRICAL POWER 4TH TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

POWER NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

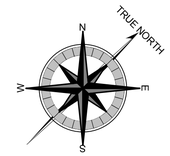
4. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR GUIDELINES AND BE LIMITED TO 2% DROP. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS.

5. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. TYPICAL FOR ELEVATOR LOBBY/.STAIRWELL:
CONDUIT SHALL BE RUN CONCEALED IN GROUND FACE CMU WALL. EXPOSED CONDUIT SHALL NOT BE PERMITTED.

KEYNOTES

Keynote Number	Keynote Description
1	FOR EMERGENCY PHONE.
2	PROVIDE CONDUIT RISER GUARD FOR AL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
3	FOR EMERGENCY PHONE. PHONE SHALL BE MOUNTED ON STEEL CHANNEL. RELATED CONDUIT SHALL BE RUN ALONG OUTER EDGE OF CHANNEL. CONFIRM EXACT ROUTING WITH ARCHITECT IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



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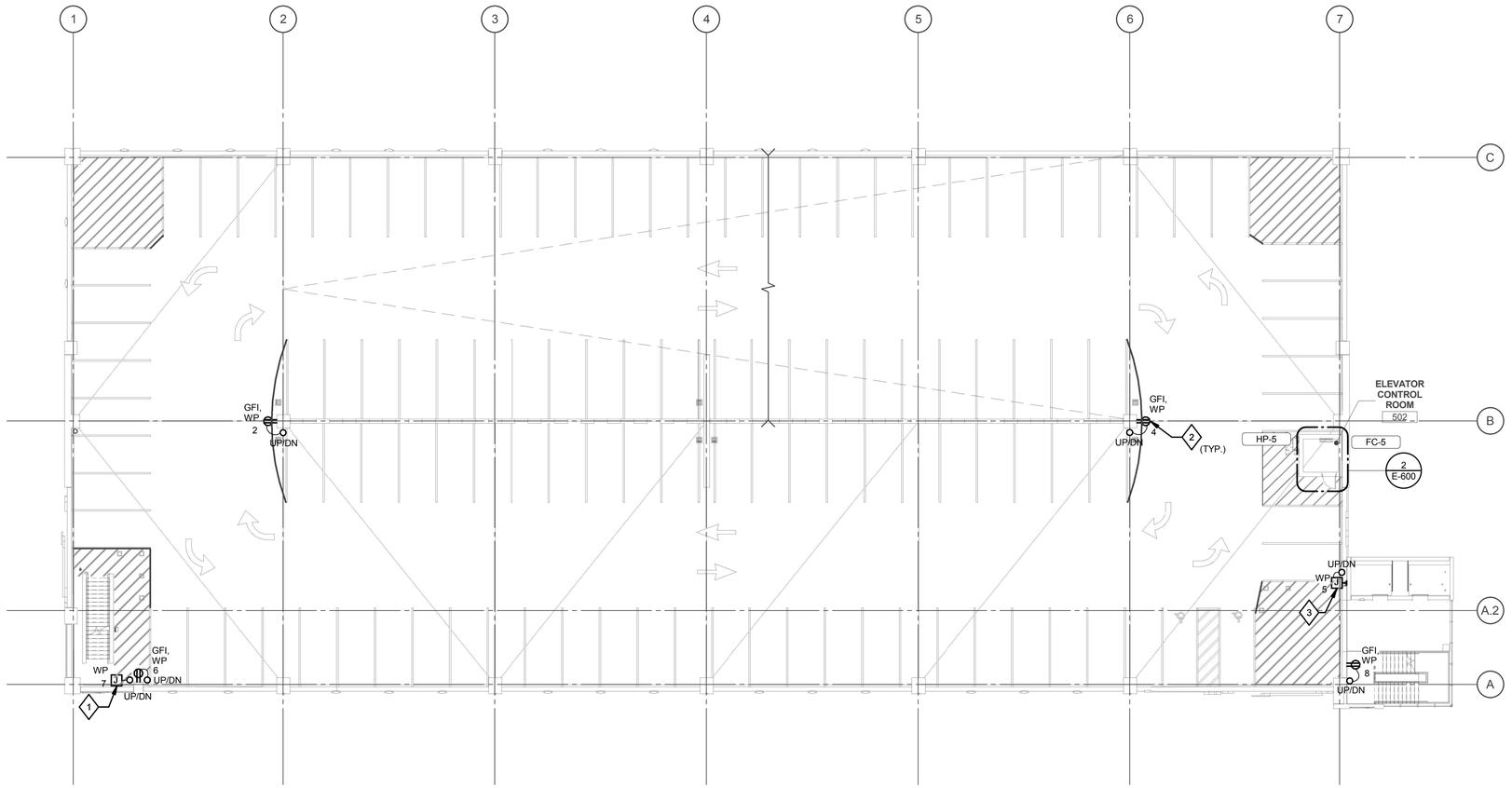
FOUNDRY PLACE
PARKING GARAGE

ISSUE:	DESCRIPTION	DATE	MARK
	GARAGE DESIGN DEVELOPMENT	05/05/2017	
	90% SUBMISSION	07/19/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL POWER
4TH TIER PLAN

E-304



1 E-305 ELECTRICAL POWER 5TH TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

POWER NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

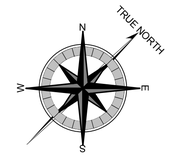
4. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR GUIDELINES AND BE LIMITED TO 2% DROP. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS.

5. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. TYPICAL FOR ELEVATOR LOBBY/.STAIRWELL:
CONDUIT SHALL BE RUN CONCEALED IN GROUND FACE CMU WALL. EXPOSED CONDUIT SHALL NOT BE PERMITTED.

KEYNOTES

Keynote Number	Keynote Description
1	FOR EMERGENCY PHONE.
2	PROVIDE CONDUIT RISER GUARD FOR AL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
3	FOR EMERGENCY PHONE. PHONE SHALL BE MOUNTED ON STEEL CHANNEL. RELATED CONDUIT SHALL BE RUN ALONG OUTER EDGE OF CHANNEL. CONFIRM EXACT ROUTING WITH ARCHITECT IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



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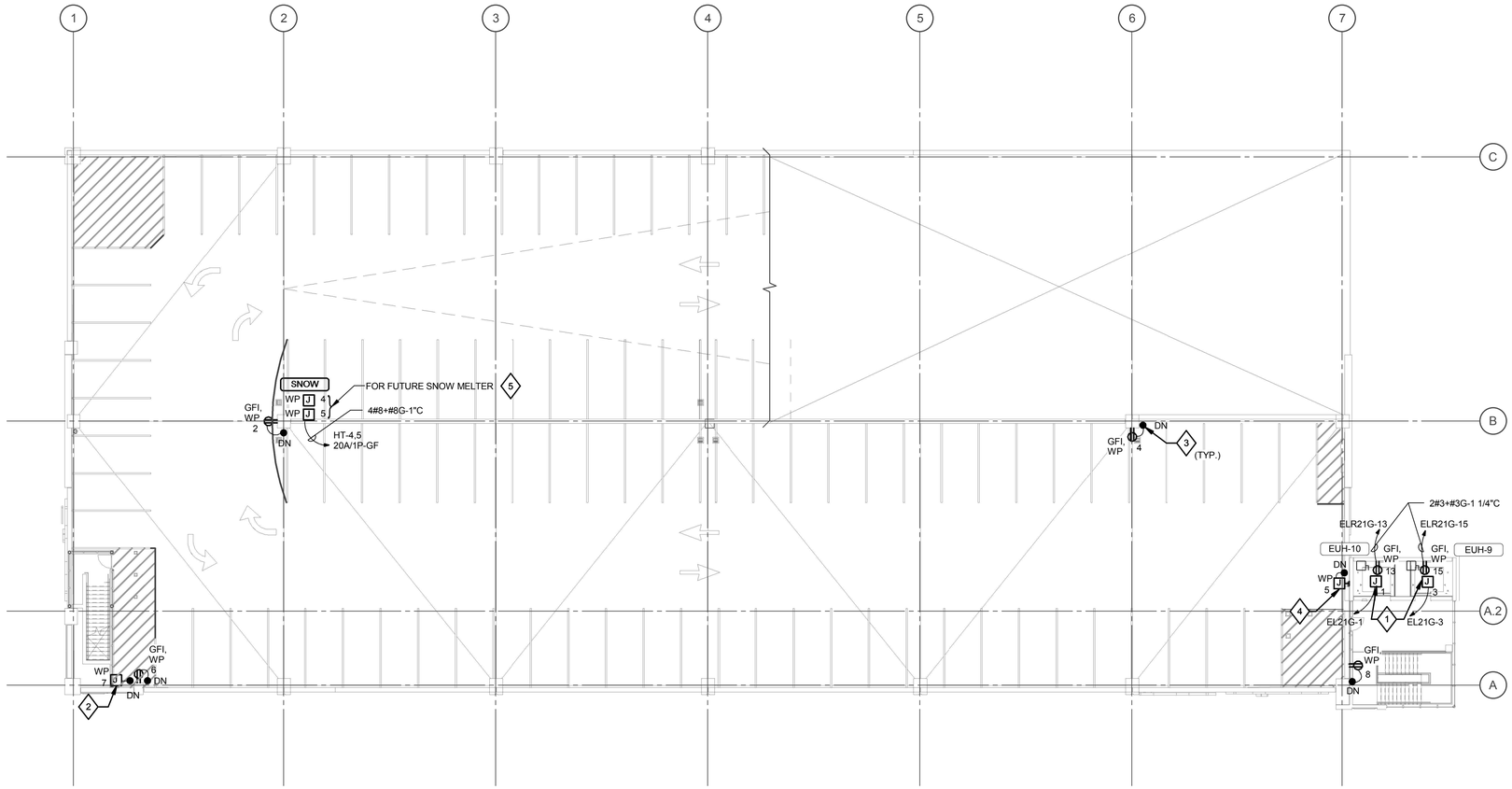
FOUNDRY PLACE
PARKING GARAGE

ISSUE:		
DESCRIPTION	DATE	MARK
CONSTRUCTION DOCUMENTS	07/28/2017	
90% SUBMISSION	07/19/2017	
GARAGE DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL POWER
5TH TIER PLAN

E-305



1 E-306 ELECTRICAL POWER TOP TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

POWER NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. CIRCUIT NUMBERS ARE DIAGRAMMATIC. EXACT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED ON AS-BUILT DOCUMENTATION BY THE ELECTRICAL CONTRACTOR. THE ASSOCIATED CIRCUIT NUMBERS THAT ARE APPLIED TO EACH DEVICE AND PIECE OF EQUIPMENT INFERS INTERCONNECTING BRANCH CIRCUITRY. INTERCONNECTING BRANCH WIRING SHALL BE SIZED EQUAL TO THE HOMERUN UNLESS NOTED OTHERWISE.

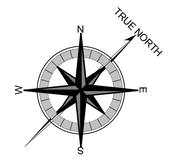
4. VOLTAGE DROP HAS BEEN CONSIDERED IN THE DESIGN OF ALL BRANCH CIRCUITRY AND FEEDER SIZES BASED UPON THE ILLUSTRATED EQUIPMENT LAYOUTS AND SHORTEST CONDUCTOR/RACEWAY ROUTING. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS TAKEN THAT WILL INCREASE CONDUCTOR/RACEWAY ROUTING LENGTHS. BRANCH CIRCUITS LONGER THAN 75' FOR 120V FROM PANEL TO LAST OUTLET SHALL BE INCREASED A MINIMUM OF ONE SIZE ABOVE THAT SPECIFIED TO LIMIT VOLTAGE DROP TO LESS THAN 3%. FEEDERS SHALL FOLLOW SIMILAR GUIDELINES AND BE LIMITED TO 2% DROP. PROVIDE POLARIS CONNECTORS MOUNTED IN WEATHERPROOF JUNCTION BOX TO ENABLE TRANSITION OF CONDUCTORS OVERSIZED FOR VOLTAGE DROP TO MINIMUM AMPACITY FOR TERMINATION ON DEVICE LUGS.

5. POWER BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT. PROVIDE EXPANSION JOINT FITTINGS FOR ALL CONDUIT CROSSINGS AT EXPANSION JOINTS. REFER TO STRUCTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS. SEE DETAIL ON DRAWING E701 FOR ADDITIONAL INFORMATION.

6. TYPICAL FOR ELEVATOR LOBBY/.STAIRWELL:
CONDUIT SHALL BE RUN CONCEALED IN GROUND FACE CMU WALL. EXPOSED CONDUIT SHALL NOT BE PERMITTED.

KEYNOTES

Keynote Number	Keynote Description
1	FOR SMOKE DAMPER.
2	FOR EMERGENCY PHONE.
3	PROVIDE CONDUIT RISER GUARD FOR AL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
4	FOR EMERGENCY PHONE. PHONE SHALL BE MOUNTED ON STEEL CHANNEL. RELATED CONDUIT SHALL BE RUN ALONG OUTER EDGE OF CHANNEL. CONFIRM EXACT ROUTING WITH ARCHITECT IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
5	PROVIDE 8W/LF, 277V SELF REGULATING HEAT TRACE CABLE INSTALLATION AS MANUFACTURED BY RAYCHEM XL+ TRACE OR APPROVED EQUAL. REFER TO DETAIL E311B ON DRAWING E-700 FOR ADDITIONAL INFORMATION. SEE PLUMBING DRAWINGS FOR PIPING INFORMATION AND EXACT ROUTING.



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F 978-296-6201
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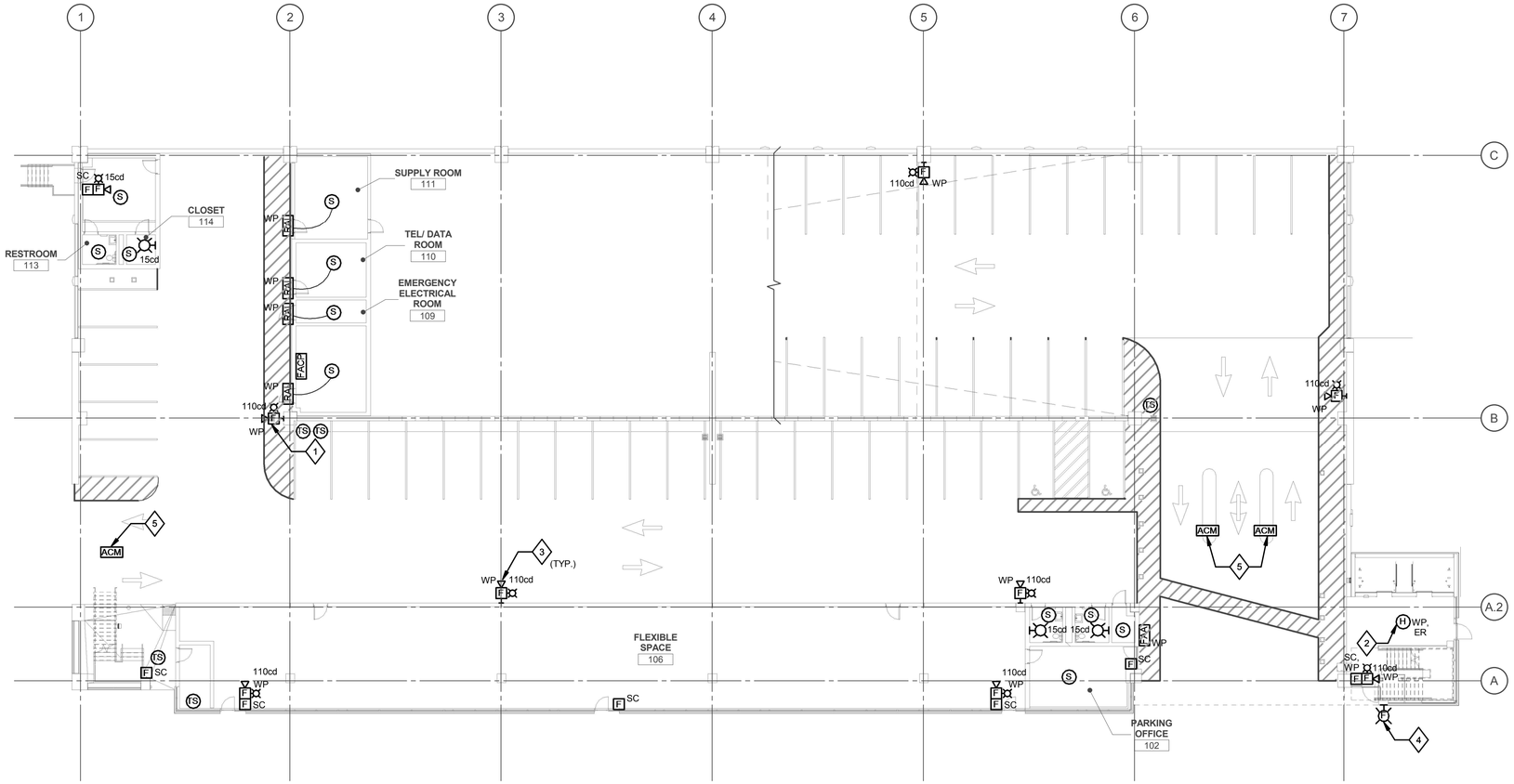
FOUNDRY PLACE
PARKING GARAGE

ISSUE: DESCRIPTION	DATE	MARK
CONSTRUCTION DOCUMENTS	07/28/2017	
90% SUBMISSION	07/19/2017	
GARAGE DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL POWER
TOP TIER PLAN

E-306



1 E-401 ELECTRICAL FIRE ALARM GROUND TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'

FIRE ALARM NOTES:

1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. FIRE ALARM BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT.

KEYNOTES

Keynote Number	Keynote Description
1	RELATED CONDUIT SHALL BE ROUTED TO AVOID CONFLICT WITH F.E.C. MOUNTED BELOW.
2	VERTICAL CONDUIT SHALL BE RUN CONCEALED IN CMU WALL.
3	PROVIDE CONDUIT RISER GUARD FOR ALL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
4	PROVIDE RECESSED JUNCTION BOX. COORDINATE MOUNTING LOCATION WITH PRE-CAST FABRICATOR.
5	PROVIDE INTERFACE WITH PARCS SYSTEM GATES TO OPEN UPON ALARM CONDITION. FIRE ALARM MODULE SHALL BE LOCATED IN MAIN ELECTRIC ROOM ADJACENT TO FIRE ALARM CONTROL PANEL.

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Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
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FOUNDRY PLACE
PARKING GARAGE

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	GARAGE DESIGN DEVELOPMENT	05/05/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL FIRE ALARM GROUND TIER PLAN

E-401

FIRE ALARM NOTES:

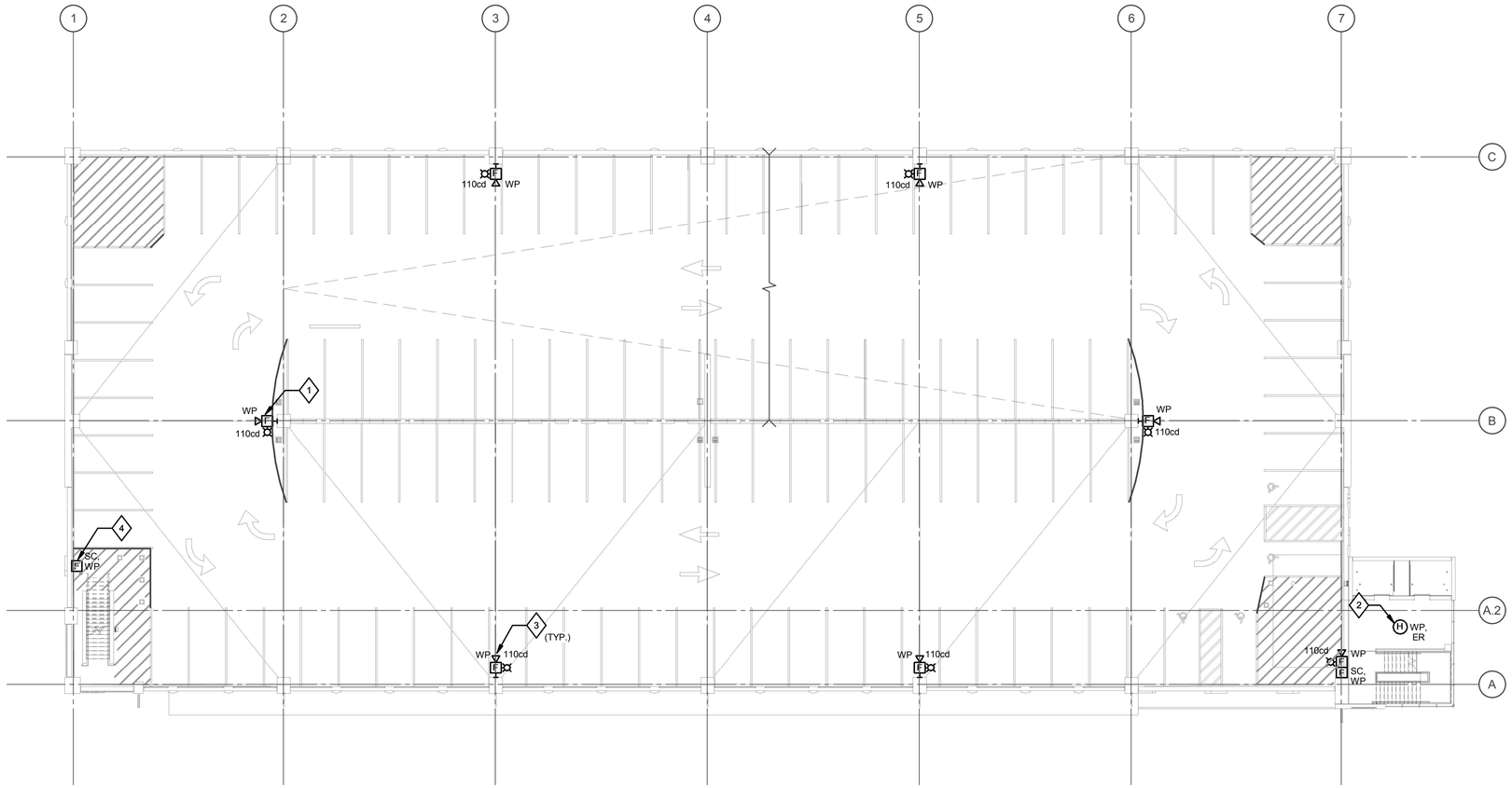
1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. FIRE ALARM BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT.

KEYNOTES

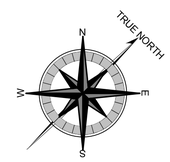
Keynote Number	Keynote Description
1	RELATED CONDUIT SHALL BE ROUTED TO AVOID CONFLICT WITH F.E.C. MOUNTED BELOW.
2	VERTICAL CONDUIT SHALL BE RUN CONCEALED IN CMU WALL.
3	
4	MOUNT ON STEEL TUBE POST NEXT TO STAIR.



1 / E-402 ELECTRICAL FIRE ALARM 2ND TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'



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FOUNDRY PLACE
PARKING GARAGE

ISSUE: DESCRIPTION	DATE	MARK
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90% SUBMISSION	07/19/2017	
CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 20160588

DRAWN BY: DF

CHECKED BY: MM

SHEET TITLE:
ELECTRICAL FIRE ALARM 2ND TIER PLAN

E-402

FIRE ALARM NOTES:

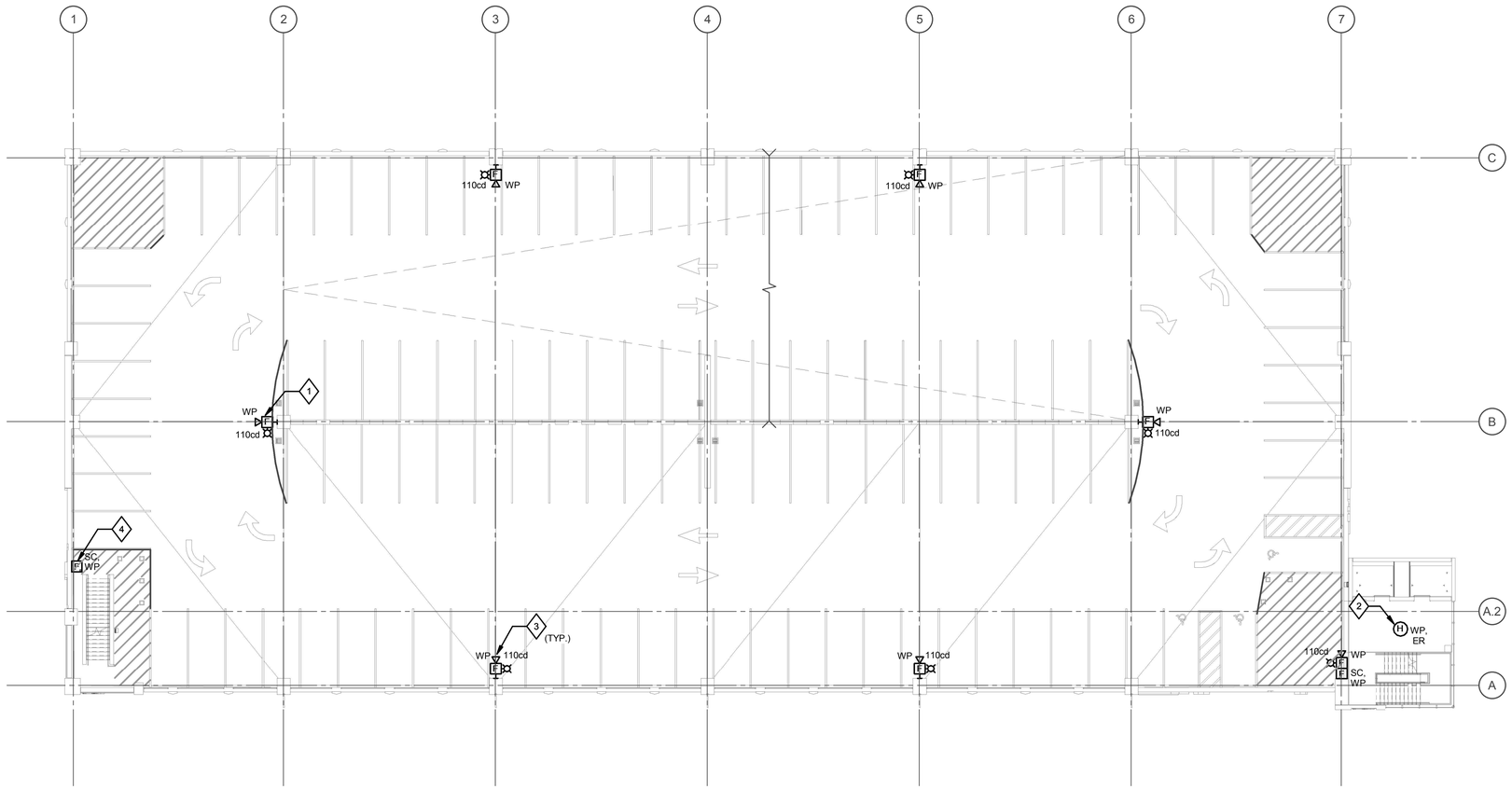
1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. FIRE ALARM BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT.

KEYNOTES

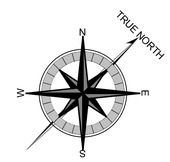
Keynote Number	Keynote Description
1	RELATED CONDUIT SHALL BE ROUTED TO AVOID CONFLICT WITH F.E.C. MOUNTED BELOW.
2	VERTICAL CONDUIT SHALL BE RUN CONCEALED IN CMU WALL.
3	PROVIDE CONDUIT RISER GUARD FOR ALL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
4	MOUNT ON STEEL TUBE POST NEXT TO STAIR.



1 / E-403 ELECTRICAL FIRE ALARM 3RD TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'



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617.350.5040 Ph
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FOUNDRY PLACE
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GARAGE DESIGN DEVELOPMENT	05/05/2017	
90% SUBMISSION	07/19/2017	
CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 20160588

DRAWN BY: DF

CHECKED BY: MM

SHEET TITLE:
ELECTRICAL FIRE ALARM 3RD TIER PLAN

E-403

FIRE ALARM NOTES:

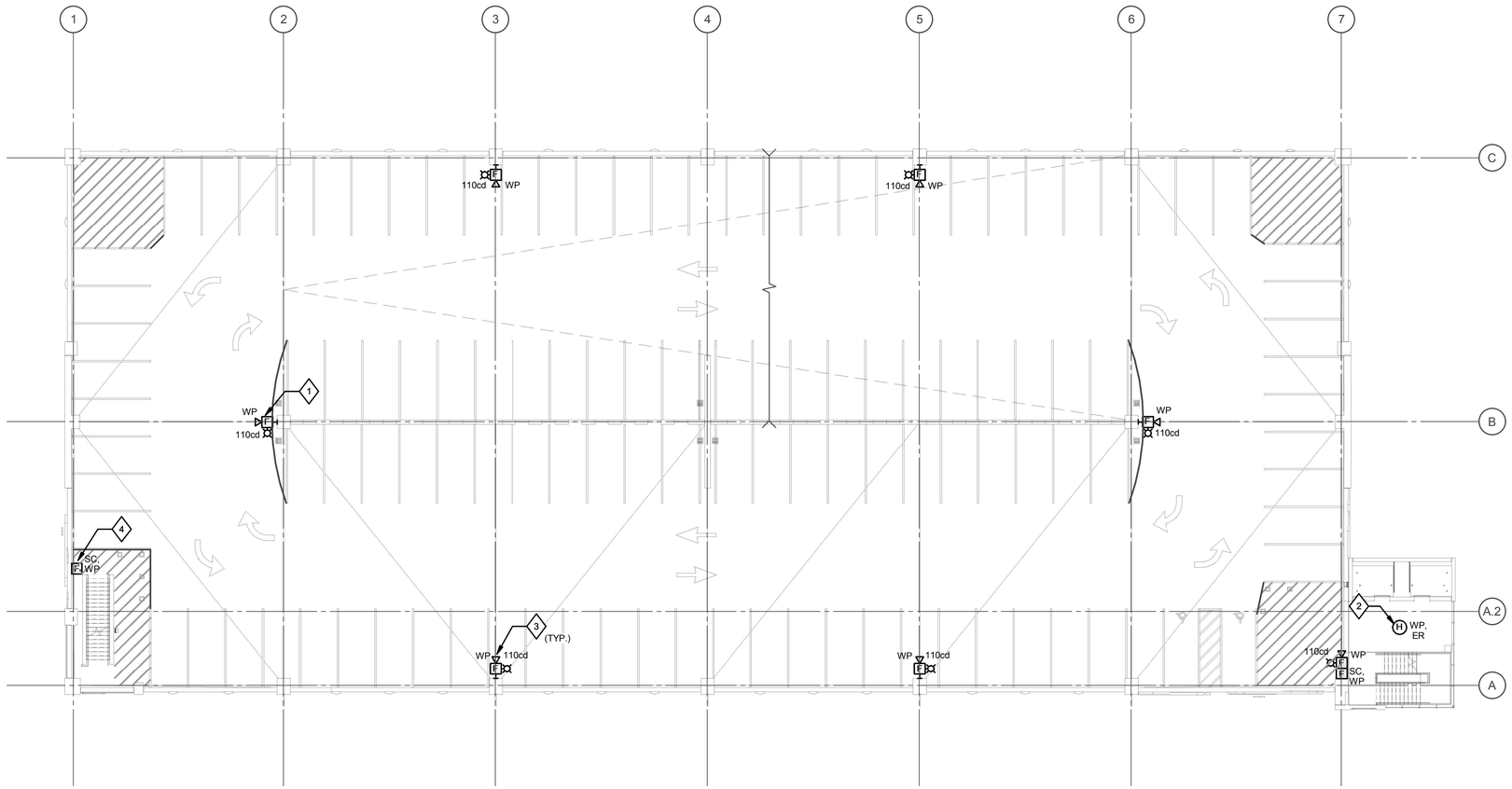
1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. FIRE ALARM BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT.

KEYNOTES

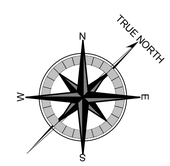
Keynote Number	Keynote Description
1	RELATED CONDUIT SHALL BE ROUTED TO AVOID CONFLICT WITH F.E.C. MOUNTED BELOW.
2	VERTICAL CONDUIT SHALL BE RUN CONCEALED IN CMU WALL.
3	PROVIDE CONDUIT RISER GUARD FOR ALL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
4	MOUNT ON STEEL TUBE POST NEXT TO STAIR.



1 / E-404 ELECTRICAL FIRE ALARM 4TH TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'



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PROJECT NO: 20160588

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CHECKED BY: MM

SHEET TITLE:
ELECTRICAL FIRE ALARM 4TH TIER PLAN

E-404

FIRE ALARM NOTES:

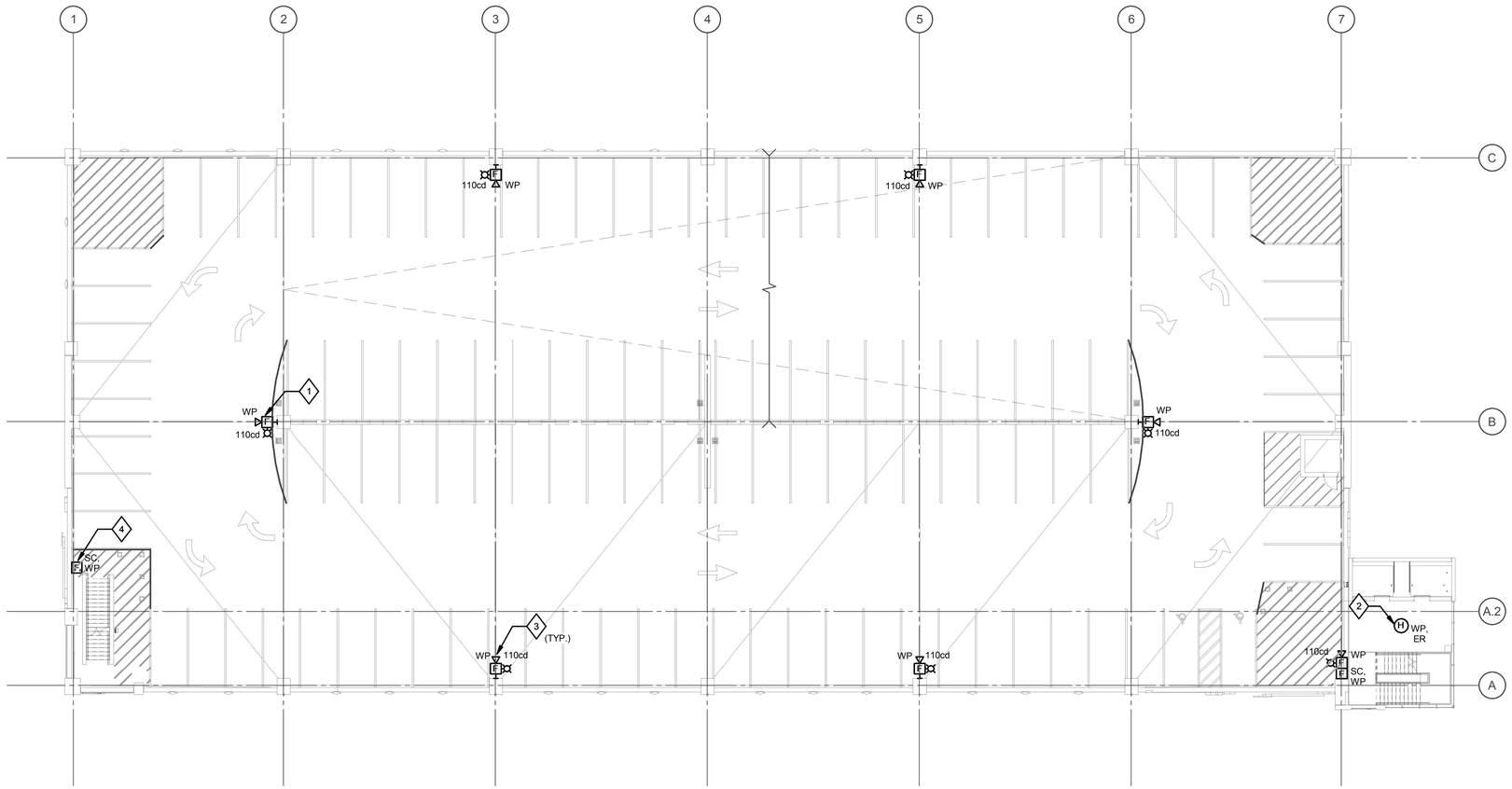
1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

3. FIRE ALARM BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT.

KEYNOTES

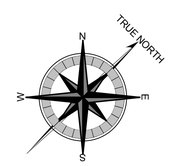
Keynote Number	Keynote Description
1	RELATED CONDUIT SHALL BE ROUTED TO AVOID CONFLICT WITH F.E.C. MOUNTED BELOW.
2	VERTICAL CONDUIT SHALL BE RUN CONCEALED IN CMU WALL.
3	PROVIDE CONDUIT RISER GUARD FOR ALL LOCATIONS WITHIN GARAGE PARKING/DRIVE AREAS OR WHERE SUBJECT TO PHYSICAL DAMAGE. SEE DETAIL ON DRAWING E-701 FOR ADDITIONAL INFORMATION.
4	MOUNT ON STEEL TUBE POST NEXT TO STAIR.



1 / E-405 ELECTRICAL FIRE ALARM 5TH TIER PLAN

1/16" = 1'-0"

0 2' 4' 8'



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PROJECT NO: 20160588

DRAWN BY: DF

CHECKED BY: MM

SHEET TITLE:
ELECTRICAL FIRE ALARM 5TH TIER PLAN

E-405

FIRE ALARM NOTES:

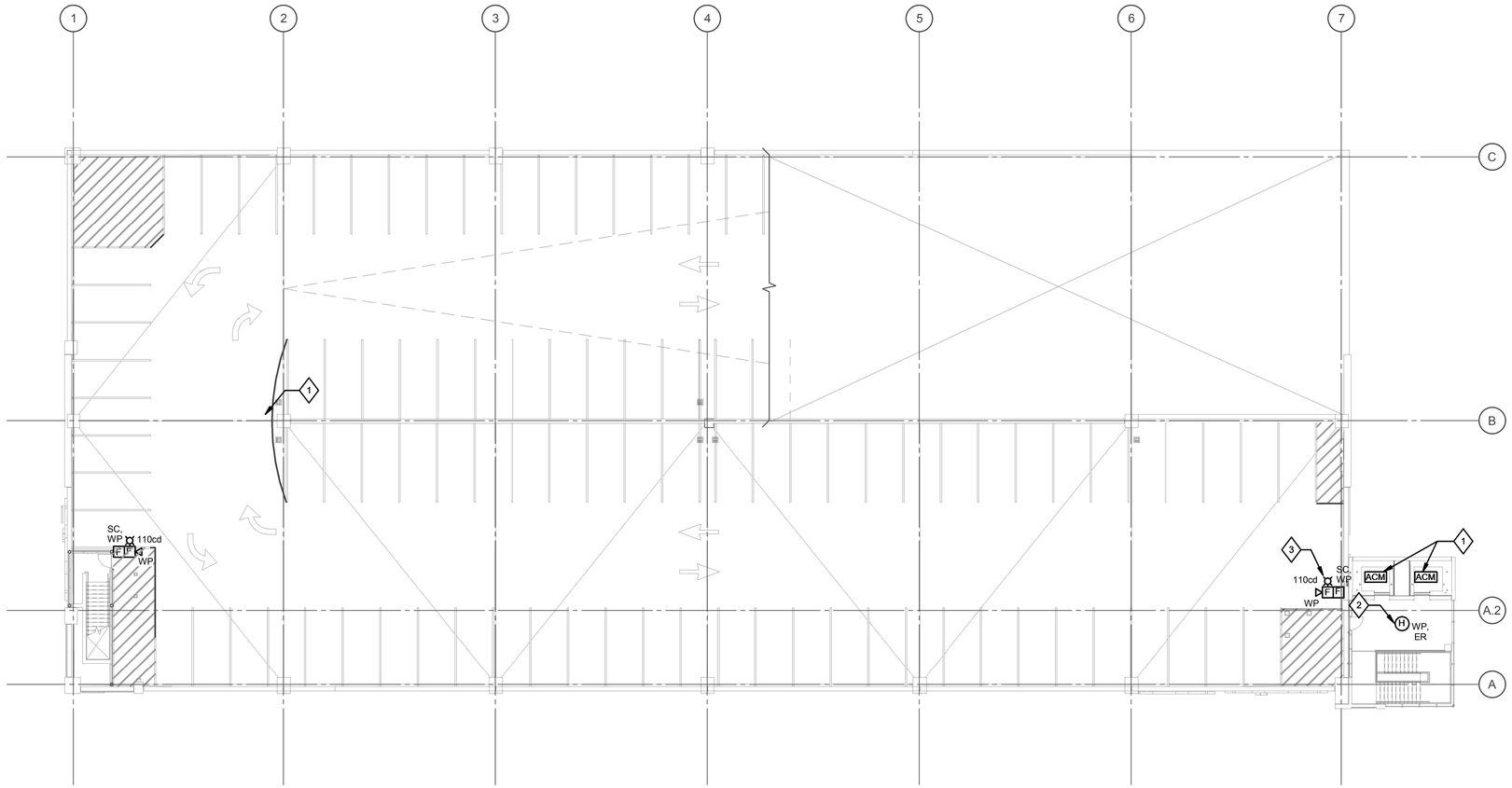
1. REFER TO DRAWING E-000 FOR LEGEND, SYMBOLS AND GENERAL NOTES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR ASSOCIATED NOTES, MOUNTING DETAILS, HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.

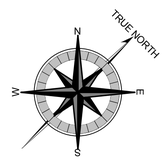
3. FIRE ALARM BRANCH CIRCUITRY SHALL BE INSTALLED IN SCHEDULE 80 PVC CONDUIT.

KEYNOTES

Keynote Number	Keynote Description
1	FOR SMOKE DAMPER.



1 E-406 ELECTRICAL FIRE ALARM TOP TIER PLAN
1/16" = 1'-0"
0 2' 4' 8'



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FOUNDRY PLACE
PARKING GARAGE

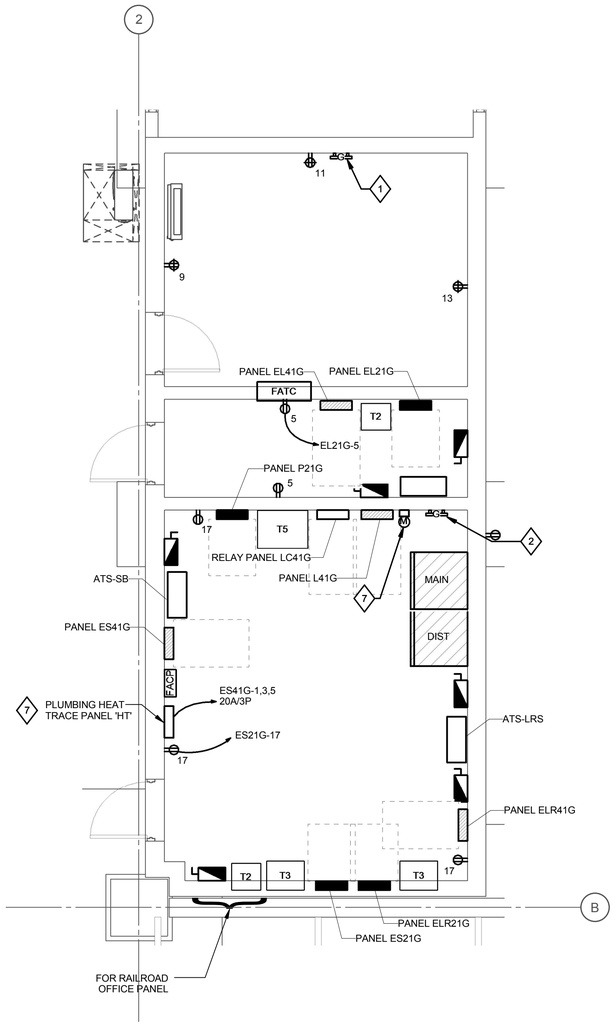
MARK	DATE	ISSUE: DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	07/19/2017	90% SUBMISSION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

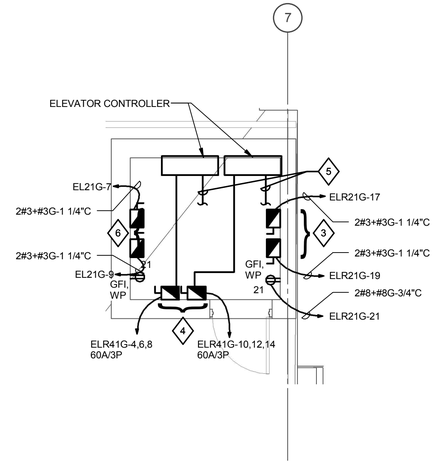
SHEET TITLE:
ELECTRICAL FIRE ALARM TOP TIER PLAN

E-406

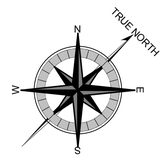
KEYNOTES	
Keynote Number	**Keynote Description**
1	SEE DETAIL E005 ON DRAWING E-700 FOR ADDITIONAL INFORMATION.
2	SEE DETAIL E001 ON DRAWING E-700 FOR ADDITIONAL INFORMATION.
3	PROVIDE 30AS/20AF LOCKABLE DISCONNECT SWITCH FOR REMOTE MONITORING.
4	PROVIDE LOCKABLE FUSED DISCONNECT SWITCH WITH FUSES SIZED PER ELEVATOR MANUFACTURER. SEE ONE LINE DIAGRAM ON DRAWING E-800 FOR ADDITIONAL INFORMATION.
5	BRANCH CIRCUIT WIRING TO HOISTWAY DISCONNECT SWITCH. SEE ONE LINE DIAGRAM ON DRAWING E-800 FOR ADDITIONAL INFORMATION.
6	PROVIDE 30AS LOCKABLE DISCONNECT SWITCH FOR ELEVATOR CAB LIGHTING.
7	



1 E-600 GROUND TIER ELECTRIC ROOM PART PLAN
1/4" = 1'-0"
0 2' 4' 8'



2 E-600 5TH TIER ELEVATOR CONTROL ROOM PART PLAN
1/4" = 1'-0"
0 4' 8' 16'



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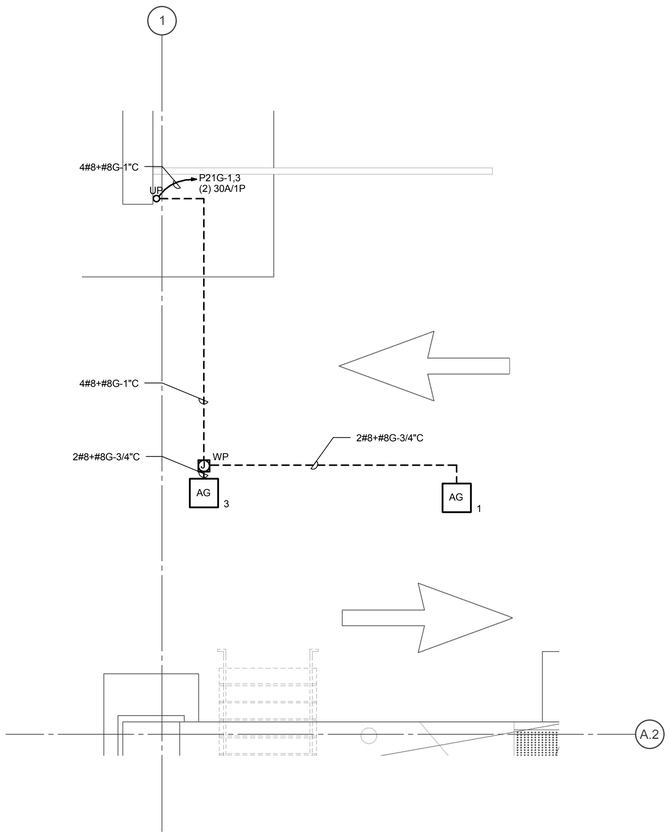
PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

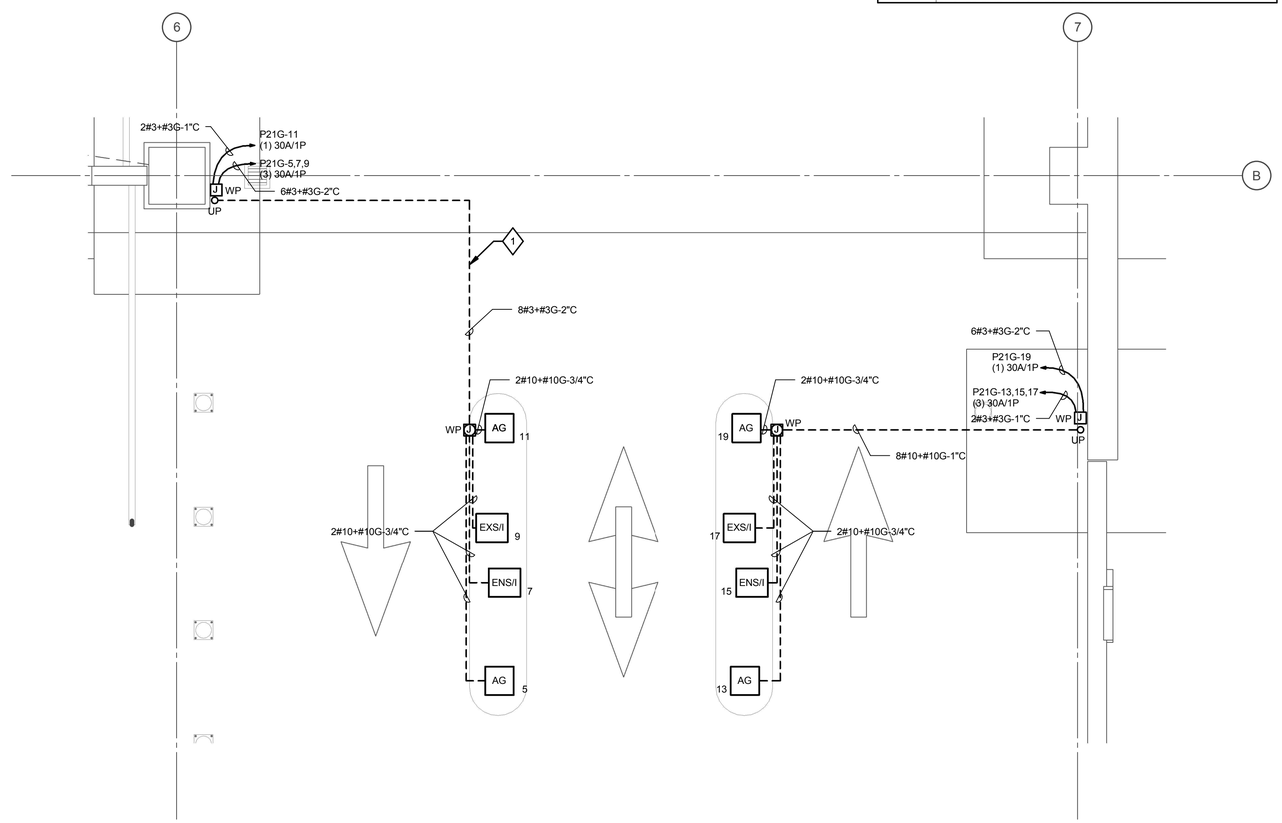
SHEET TITLE:
ELECTRICAL ENLARGED PLANS

E-600

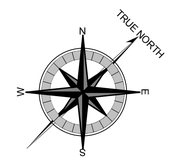
KEYNOTES	
Keynote Number	**Keynote Description**
1	DASHED LINE INDICATES CONDUIT RUN IN FLOOR SLAB.



1 E-601 ELECTRICAL POWER GARAGE ENTRY-EXIT ENLARGED PLAN
1/4" = 1'-0"
0 4' 8' 16'



2 E-601 ELECTRICAL POWER GARAGE ENTRY-EXIT ENLARGED PLAN
1/4" = 1'-0"
0 4' 8' 16'



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ISSUE:

PROJECT NO: 20160588
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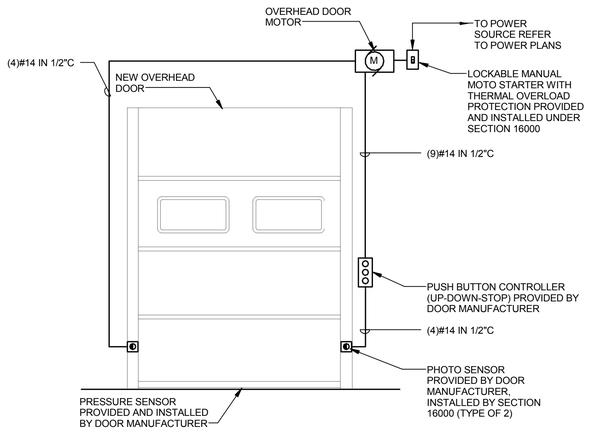
CHECKED BY: Checker

SHEET TITLE:
ELECTRICAL ENLARGED PLANS

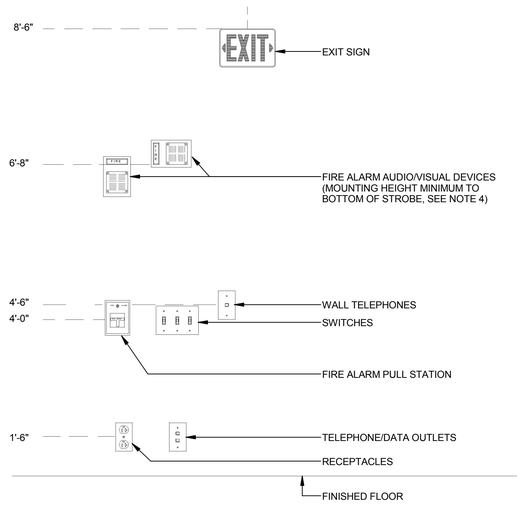
E-601



ELEVATION
SCALE: N.T.S.

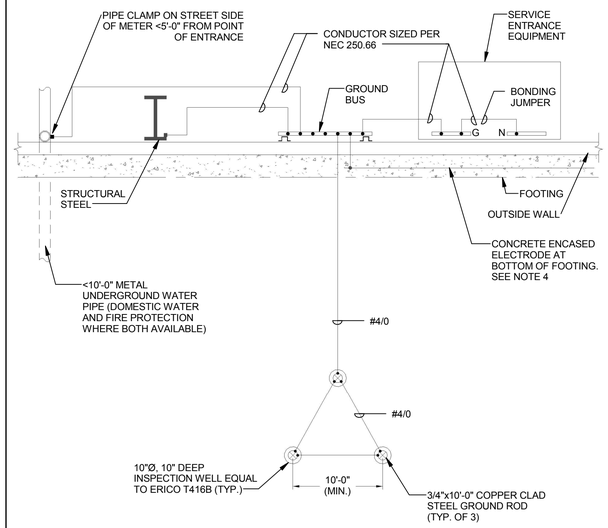
DETAIL NOTES:
1. ALL CONDUIT SHALL BE RIGID STEEL, RIGID LFMC WHERE VIBRATION ISOLATION REQUIRED, UNLESS OTHERWISE NOTED ON THE FLOOR PLANS.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL ELECTRICAL RACEWAY AND WIRING. COORDINATE EXACT WIRE REQUIREMENTS/TERMINATIONS WITH DOOR SUPPLIER.
3. EXACT LOCATIONS OF EQUIPMENT SHALL BE DETERMINED IN THE FIELD.

RDK ENGINEERS — OVERHEAD DOOR DETAIL — E214



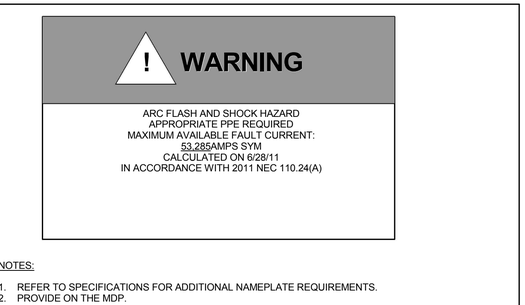
NOTES:
1. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT EXIT SIGNS, CLOCKS, EMERGENCY LIGHTING AND FIRE ALARM A/V DEVICES.
2. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
3. ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL UNLESS OTHERWISE NOTED.
4. STROBE HEIGHT ILLUSTRATED AT MINIMUM HEIGHT OF 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER. IN ACCORDANCE WITH NFPA 72 CRITERIA. THIS DOES NOT APPLY TO CEILING MOUNTED STROBES.

RDK ENGINEERS — TYPICAL DEVICE MOUNTING HEIGHTS DETAIL — E201



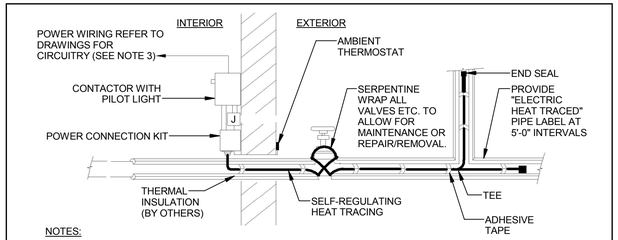
NOTES:
1. THIS DRAWING IS INTENDED TO ILLUSTRATE THE SERVICE GROUNDING REQUIREMENTS. REFER TO NEC ARTICLE 250 FOR ADDITIONAL DETAILS.
2. ALL CONNECTIONS SHALL BE EXOTHERMIC WELDS WITH THE EXCEPTION OF MECHANICAL LUGS IN THE SERVICE ENTRANCE EQUIPMENT.
3. WALL MOUNTED COPPER 4"x24"x1/4" GROUND BUS SHALL BE EQUAL TO ERICO EGB-A14424BB.
4. PROVIDE 20' #4 AWG BARE COPPER IN LIEU OF BONDING TO REBAR WHERE 20' OF BARE REBAR IS NOT INSTALLED.

RDK ENGINEERS — ELECTRIC SERVICE GROUNDING ELECTRODE DETAIL — E001



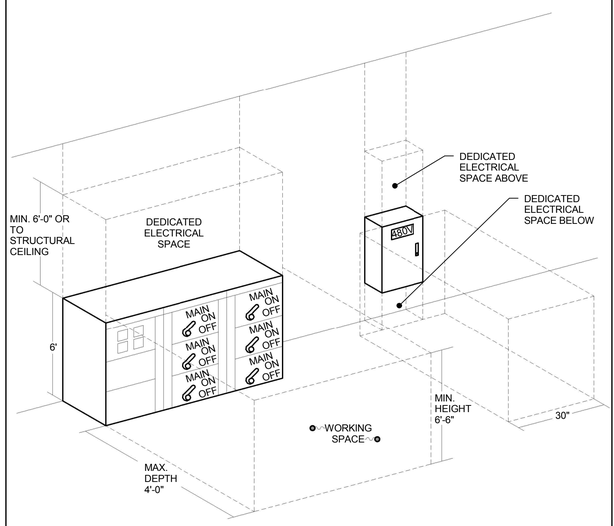
NOTES:
1. REFER TO SPECIFICATIONS FOR ADDITIONAL NAMEPLATE REQUIREMENTS.
2. PROVIDE ON THE MDP.

RDK ENGINEERS — FLASH PROTECTION WARNING LABEL WITH AVAILABLE FAULT VALUE — H001



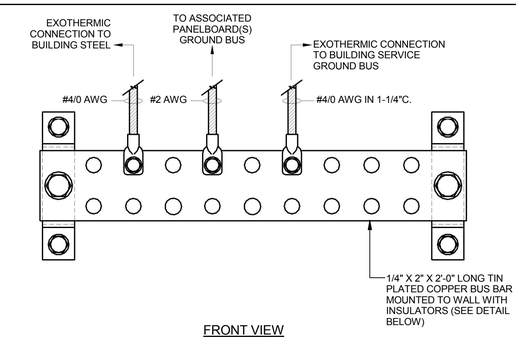
NOTES:
1. INSTALL ALL HEAT TRACE CABLE AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH CABLE MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. HEAT TRACE CABLE SHALL BE SELF REGULATING TYPE.
3. POWER SOURCE TO HEAT TRACE SHALL BE 30mA GROUND FAULT PROTECTED.

RDK ENGINEERS — FREEZE PROTECTION HEAT TRACE INSTALLATION DETAIL-AMBIENT TSTAT — E311B

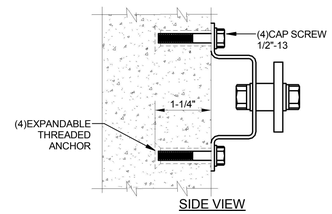


NOTES:
1. NO EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION (PIPING, DUCTS, ETC.) SHALL ENTER THE DEDICATED SPACE ABOVE OR BELOW ELECTRICAL POWER EQUIPMENT INCLUDING SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, & MOTOR CONTROL CENTERS.
2. NO EQUIPMENT SHALL PROTRUDE INTO WORKING SPACE.
3. PIPING SYSTEMS INSTALLED ABOVE THE DEDICATED ELECTRICAL SPACE SHALL BE ALLOWED WHERE DRIP PANS ARE INSTALLED TO CAPTURE LEAKS. RUPTURES OR CONDENSATION DRIPS. THE PIPING AND DRIP PANS SHALL BOTH BE OUTSIDE THE DEDICATED SPACE ENVELOPE.

RDK ENGINEERS — ELECTRICAL WORK AND DEDICATED SPACE — E213



FRONT VIEW



SIDE VIEW

NOTES:
1. BUS BAR ASSEMBLY SHALL BE EQUAL TO ERICO #TGB-A25L14P.
2. BOND PANELBOARD(S) WHICH SERVICES EQUIPMENT WITHIN ROOM GROUND BUS IS LOCATED.
3. CONDUCTORS ILLUSTRATED REPRESENT MINIMUM SIZES. CONDUCTORS SHALL BE INCREASED AS REQUIRED TO MATCH SOURCE PANELBOARD FEEDER GROUNDING CONDUCTOR SIZE.

RDK ENGINEERS — EQUIPMENT ROOM GROUND BUS BAR INSTALLATION DETAIL — E005

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617.350.5040 Ph
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	07/19/2017	90% SUBMISSION
	07/28/2017	CONSTRUCTION DOCUMENTS

PROJECT NO: 20160588
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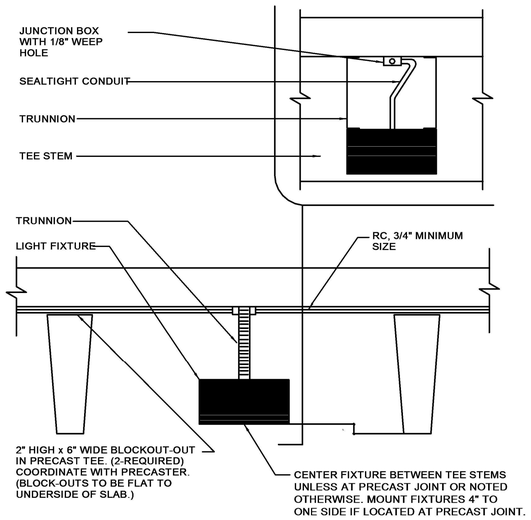
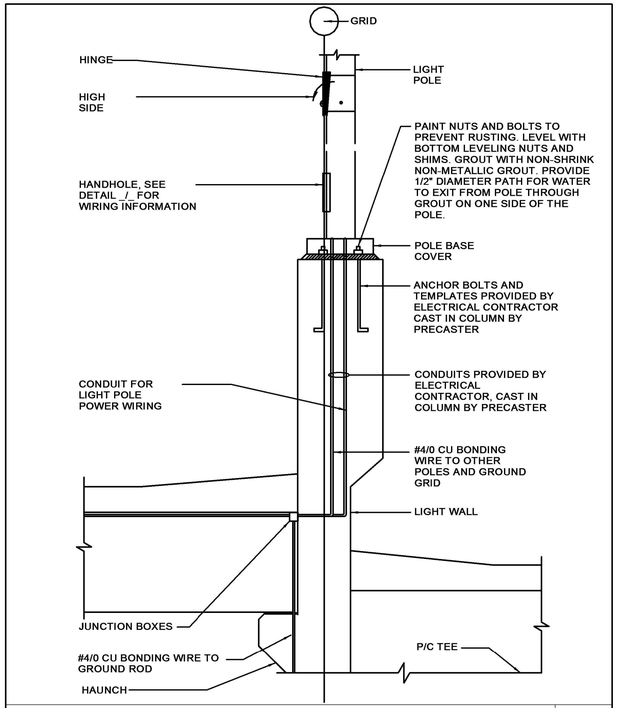
SHEET TITLE:
ELECTRICAL DETAILS

E-700

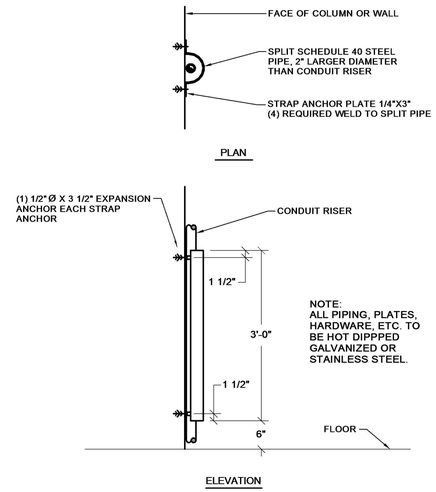


NOTES:
1. THE MAIN BEAM ARROW ON QL, INC. FIXTURES MUST BE POINTED TOWARDS THE BUMPER WALL.
2. ALL JUNCTION BOXES ATTACHED TO FIXTURES MUST BE CAST METAL.
3. ALL OPENINGS IN TOP OF FIXTURE MUST BE SEALED.

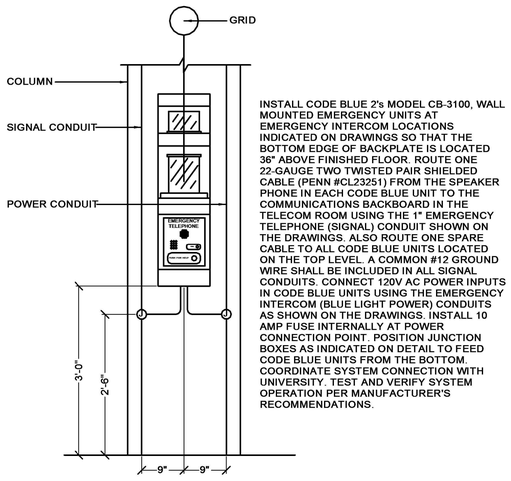
RDK FIXTURE TRUNNION MOUNTING DETAIL



RDK POLE MOUNTING DETAIL AT LIGHT WALL

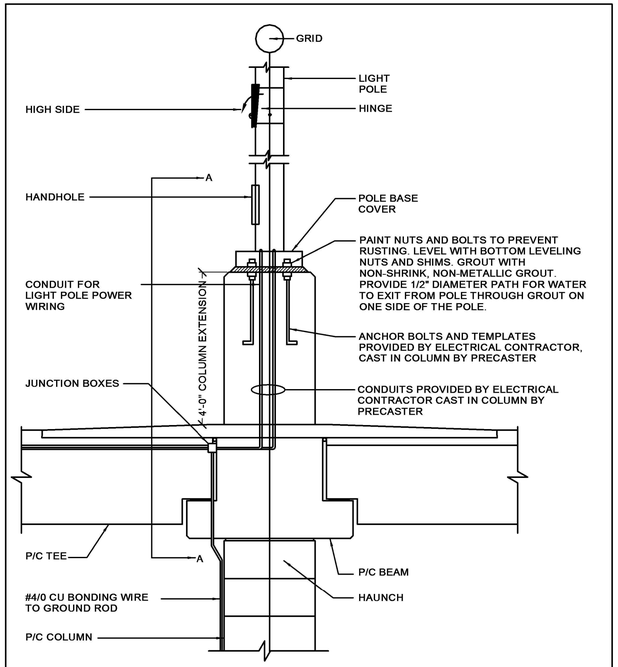


RDK CONDUIT RISER GUARD DETAIL

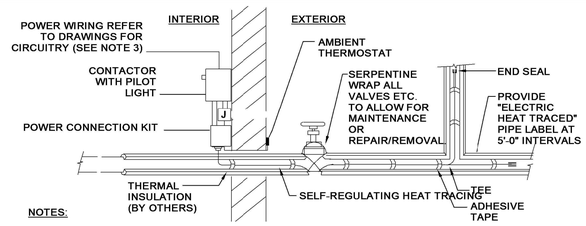


INSTALL CODE BLUE 2's MODEL CB-3100, WALL MOUNTED EMERGENCY UNITS AT EMERGENCY INTERCOM LOCATIONS INDICATED ON DRAWINGS SO THAT THE BOTTOM EDGE OF BACKPLATE IS LOCATED 36" ABOVE FINISHED FLOOR. ROUTE ONE 22-GAUGE TWO TWISTED PAIR SHIELDED CABLE (PENN #CL23251) FROM THE SPEAKER PHONE IN EACH CODE BLUE UNIT TO THE COMMUNICATIONS BACKBOARD IN THE TELECOM ROOM USING THE 1" EMERGENCY TELEPHONE (SIGNAL) CONDUIT SHOWN ON THE DRAWINGS. ALSO ROUTE ONE SPARE CABLE TO ALL CODE BLUE UNITS LOCATED ON THE TOP LEVEL. A COMMON #12 GROUND WIRE SHALL BE INCLUDED IN ALL SIGNAL CONDUITS. CONNECT 120V AC POWER INPUTS IN CODE BLUE UNITS USING THE EMERGENCY INTERCOM (BLUE LIGHT POWER) CONDUITS AS SHOWN ON THE DRAWINGS. INSTALL 10 AMP FUSE INTERNALLY AT POWER CONNECTION POINT. POSITION JUNCTION BOXES AS INDICATED ON DETAIL TO FEED CODE BLUE UNITS FROM THE BOTTOM. COORDINATE SYSTEM CONNECTION WITH UNIVERSITY. TEST AND VERIFY SYSTEM OPERATION PER MANUFACTURER'S RECOMMENDATIONS.

RDK CODE BLUE 2-S MOUNTING DETAIL

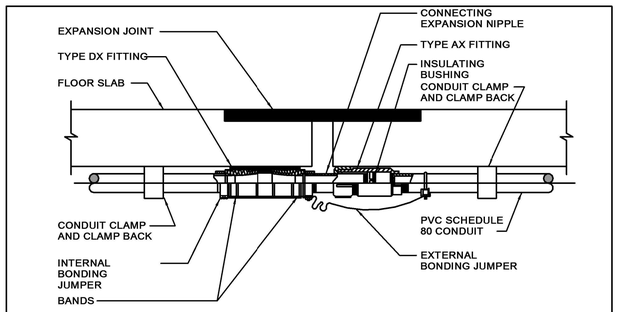


RDK POLE MOUNTING DETAIL AT COLUMN



NOTES:
1. INSTALL ALL HEAT TRACE CABLE AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH CABLE MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. HEAT TRACE CABLE SHALL BE SELF REGULATING TYPE.
3. POWER SOURCE TO HEAT TRACE SHALL BE 30mA GROUND FAULT PROTECTED.

RDK FREEZE PROTECTION HEAT TRACE INSTALLATION DETAIL-AMBIENT TSTAT E311B



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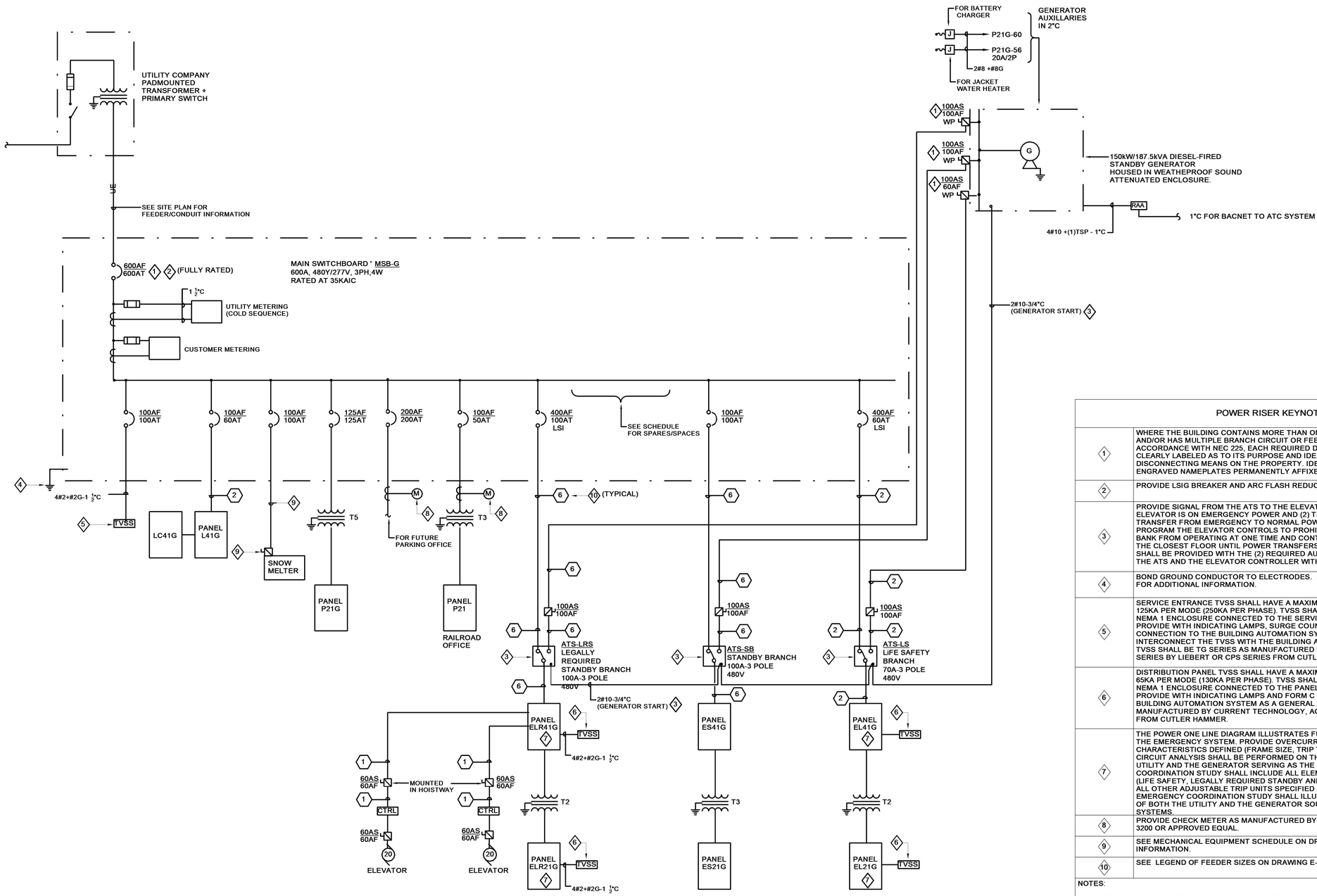
SHEET TITLE:
ELECTRICAL DETAILS

E-701



POWER RISER KEYNOTES

1	WHERE THE BUILDING CONTAINS MORE THAN ONE SERVICE DISCONNECTING MEANS AND/OR HAS MULTIPLE BRANCH CIRCUIT OR FEEDER DISCONNECTING MEANS IN ACCORDANCE WITH NEC 225, EACH REQUIRED DISCONNECTING MEANS SHALL BE CLEARLY LABELED AS TO ITS PURPOSE AND IDENTIFY THE LOCATION OF ALL OTHER DISCONNECTING MEANS ON THE PROPERTY. IDENTIFICATION SHALL BE ON YELLOW ENGRAVED NAMEPLATES PERMANENTLY AFFIXED TO EACH DISCONNECTING MEANS.
2	PROVIDE LSIG BREAKER AND ARC FLASH REDUCTION ON MAIN SWITCH.
3	PROVIDE SIGNAL FROM THE ATS TO THE ELEVATOR CONTROLLER THAT (1) THE ELEVATOR IS ON EMERGENCY POWER AND (2) THE ELEVATOR IS READY TO TRANSFER FROM EMERGENCY TO NORMAL POWER. ELEVATOR CONTRACTOR SHALL PROGRAM THE ELEVATOR CONTROLS TO PROHIBIT MORE THAN ONE ELEVATOR PER BANK FROM OPERATING AT ONE TIME AND CONTROLS TO STOP THE ELEVATOR AT THE CLOSEST FLOOR UNTIL POWER TRANSFERS TO THE NORMAL SOURCE. ATS SHALL BE PROVIDED WITH THE (2) REQUIRED AUXILIARY CONTACTS. INTERCONNECT THE ATS AND THE ELEVATOR CONTROLLER WITH 4#10-¾"C.
4	BOND GROUND CONDUCTOR TO ELECTRODES. SEE DETAIL E001 ON DRAWING E-700 FOR ADDITIONAL INFORMATION.
5	SERVICE ENTRANCE TVSS SHALL HAVE A MAXIMUM SURGE RATING CAPACITY OF 125KA PER MODE (250KA PER PHASE). TVSS SHALL BE INDIVIDUALLY MOUNTED IN A NEMA 1 ENCLOSURE CONNECTED TO THE SERVICE VIA A 100A-3P CIRCUIT BREAKER. PROVIDE WITH INDICATING LAMPS, SURGE COUNTER AND FORM C CONTACT FOR CONNECTION TO THE BUILDING AUTOMATION SYSTEM AS A GENERAL ALARM. INTERCONNECT THE TVSS WITH THE BUILDING AUTOMATION SYSTEM WITH 2#14-¾"C. TVSS SHALL BE TG SERIES AS MANUFACTURED BY CURRENT TECHNOLOGY, LM SERIES BY LIEBERT OR CPS SERIES FROM CUTLER HAMMER.
6	DISTRIBUTION PANEL TVSS SHALL HAVE A MAXIMUM SURGE RATING CAPACITY OF 65KA PER MODE (130KA PER PHASE). TVSS SHALL BE INDIVIDUALLY MOUNTED IN A NEMA 1 ENCLOSURE CONNECTED TO THE PANEL VIA A 30A-3P CIRCUIT BREAKER. PROVIDE WITH INDICATING LAMPS AND FORM C CONTACT FOR CONNECTION TO THE BUILDING AUTOMATION SYSTEM AS A GENERAL ALARM. TVSS SHALL BE TG SERIES AS MANUFACTURED BY CURRENT TECHNOLOGY, ACCUVAR BY LIEBERT OR CPS SERIES FROM CUTLER HAMMER.
7	THE POWER ONE LINE DIAGRAM ILLUSTRATES FULL SELECTIVE COORDINATION OF THE EMERGENCY SYSTEM. PROVIDE OVERCURRENT PROTECTION DEVICES WITH THE CHARACTERISTICS DEFINED (FRAME SIZE, TRIP TYPE, ETC.). THE SPECIFIED SHORT CIRCUIT ANALYSIS SHALL BE PERFORMED ON THE ENTIRE SYSTEM WITH BOTH THE UTILITY AND THE GENERATOR SERVING AS THE POWER SOURCE. THE SPECIFIED COORDINATION STUDY SHALL INCLUDE ALL ELEMENTS OF THE EMERGENCY SYSTEM (LIFE SAFETY, LEGALLY REQUIRED STANDBY AND STANDBY BRANCHES) AS WELL AS ALL OTHER ADJUSTABLE TRIP UNITS SPECIFIED AND ALL ELEVATORS. THE EMERGENCY COORDINATION STUDY SHALL ILLUSTRATE SELECTIVE COORDINATION OF BOTH THE UTILITY AND THE GENERATOR SOURCES TO THE EMERGENCY SYSTEMS.
8	PROVIDE CHECK METER AS MANUFACTURED BY EMON/DEMON SMART METER SERIES 3200 OR APPROVED EQUAL.
9	SEE MECHANICAL EQUIPMENT SCHEDULE ON DRAWING E-901 FOR ADDITIONAL INFORMATION.
10	SEE LEGEND OF FEEDER SIZES ON DRAWING E-900 FOR ADDITIONAL INFORMATION.

NOTES:

1 REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
2 X
3 X

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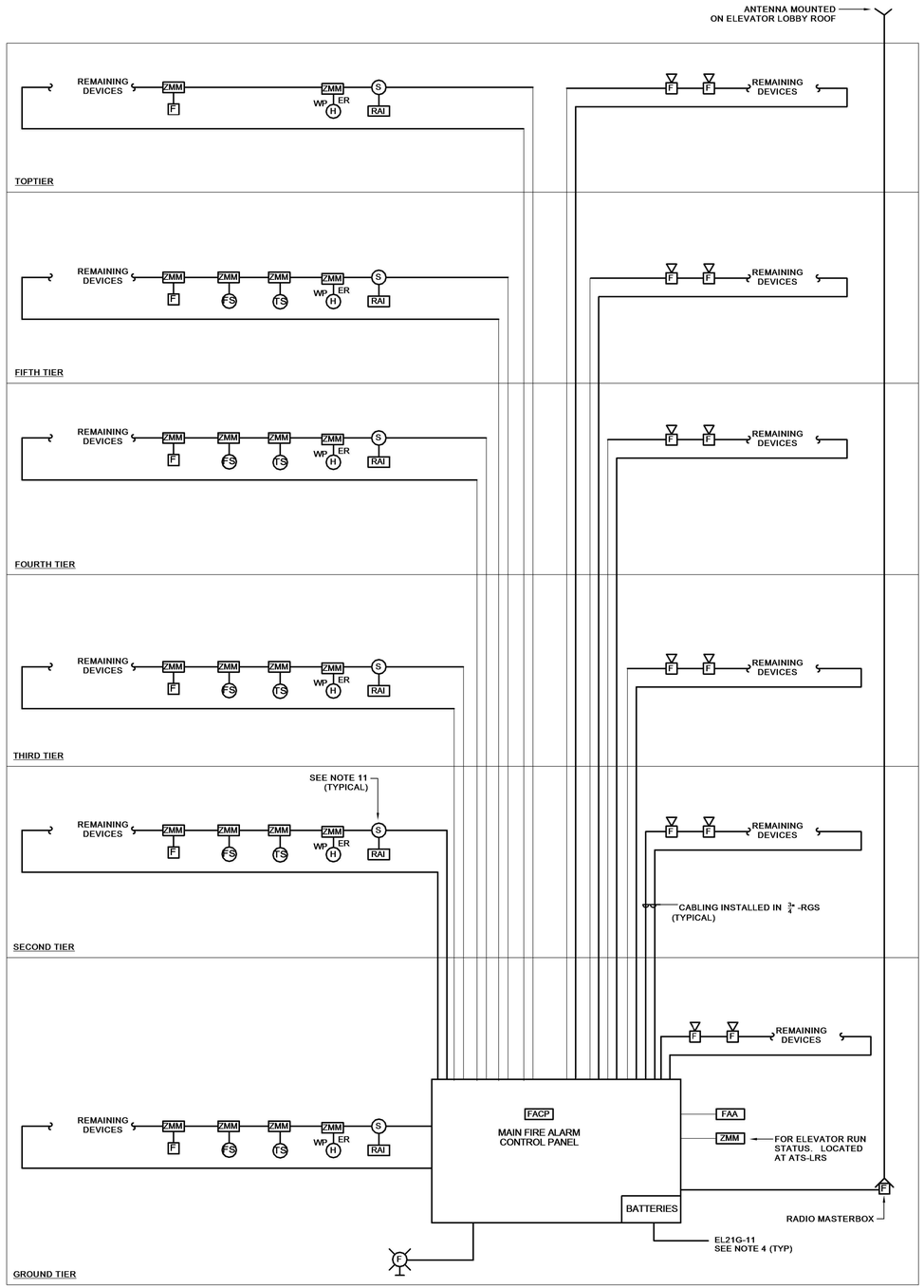
ELECTRICAL ONE LINE DIAGRAM

E-800



FIRE ALARM RISER DIAGRAM

N.T.S.

NOTES:

1. THIS DRAWING IS INTENDED TO ILLUSTRATE MAJOR EQUIPMENT AND THE INTENDED INTERCONNECTIONS. REFER TO THE FLOOR PLANS FOR EXACT LOCATIONS AND QUANTITIES OF DEVICES. REFER TO THE MANUFACTURER'S WIRING DIAGRAMS FOR INTERCONNECTION REQUIREMENTS. INTERCONNECTION DETAILS SHALL BE INCLUDED IN THE SHOP DRAWINGS WITH COMPONENT CUT SHEETS FOR REVIEW AND APPROVAL. THE SHOP DRAWING SUBMISSION SHALL INCLUDE DEVICE PLACEMENT LAYOUT DRAWINGS WITH ADDRESSES, RACEWAY AND WIRING INTERCONNECTION DETAILS ILLUSTRATED PHYSICALLY.

2. FIRE ALARM SYSTEM INSTALLATION SHALL BE IN CONFORMANCE WITH THE LATEST FIRE DEPARTMENT RULES, REGULATIONS, ALL APPLICABLE CODES, STANDARDS AND THE MANUFACTURES INSTALLATION INSTRUCTIONS.

3. PROVIDE AUDIO/VISUAL POWER SUPPLIES SIZED TO ACCOMMODATE NOTIFICATION APPLIANCE QUANTITIES ILLUSTRATED WITH 40% ADDITIONAL SPARE CAPACITY. DISTRIBUTED AMPLIFICATION SHALL NOT EXCEED THAT WHICH IS ILLUSTRATED ON THE ONE-LINE.

4. PROVIDE UL LISTED LOCKING DEVICE FOR POWER SOURCE CIRCUIT BREAKER AND LABEL AS "FIRE ALARM CONTROL CIRCUIT" IN THE PANELBOARD DIRECTORY.

5. VISUAL APPLIANCES WITHIN SAME ROOM OF FIELD OF VIEW SHALL BE SYNCHRONIZED.

6. PROVIDE A MINIMUM OF (2) NAC TO EACH EVACUATION ZONE. ALTERNATE CONNECTION OF CIRCUITS TO EVERY OTHER DEVICE SUCH THAT APPROXIMATELY 50% OF THE NOTIFICATION APPLIANCES IN EACH AREA ARE SERVICED VIA EACH CIRCUIT. WIRING SHALL ACCOMMODATE CONTINUED STROBE OPERATION WHEN AUDIBLE DEVICES SILENCED.

7. PROVIDE FAULT ISOLATION MODULES (IM) ON THE SLC TO PROTECT THE SYSTEM AGAINST LINE-TO-LINE FAULTS. PROVIDE (1) IM PER FLOOR OR (1) PER 20 DEVICES, WHICH EVER IS GREATER.

8. PROVIDE SIGNAL TO THE ELEVATOR SHAFT VENTILATION DAMPER AT THE TOP OF THE SHAFT TO OPEN UPON ALARM SIGNAL FROM THE FA SYSTEM. DAMPER IS SPRING OPENED, POWERED CLOSED. REFER TO DETAIL EF002 FOR THE REQUIRED INTERPOSING RELAY NECESSARY TO REMOVE 120V AC SOURCE FROM THE DAMPER.

9. PROVIDE (3) SIGNALS TO THE ELEVATOR CONTROLLER FOR ELEVATOR RECALL. PROVIDE CONTACTS FOR HEAT DETECTION AT THE DESIGNATED FLOOR, HEAT DETECTION IN ANY REMAINING ELEVATOR LOBBIES AND SMOKE DETECTION IN THE ELEVATOR MACHINE ROOM. COORDINATE WITH THE ELEVATOR CONTRACTOR.

10. PROVIDE SIGNAL TO LIGHTING CONTROL PANELS TO ENERGIZE ALL LIGHTING DURING FIRE ALARM CONDITION.

11. ALL DEVICES SHALL BE CONVENTIONAL AND HARDWIRED TO THE FIRE ALARM CONTROL PANEL/TERMINAL CABINETS. PROVIDE INDIVIDUAL ZONING AT MAIN FIRE ALARM CONTROL PANEL TO ACHIEVE AN ADDRESSABLE SYSTEM AS ILLUSTRATED ON THE RISER AND IN THE FIRE ALARM NARRATIVE.

FIRE ALARM LEGEND

FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL
FATC	FIRE ALARM TERMINAL CABINET
F	FIRE ALARM RED ROTATING BEACON, EXTERIOR MOUNTED, WEATHERPROOF
15cd L	FIRE ALARM VISUAL DEVICE
EOL	END OF LINE RESISTOR
K	KEY BOX
F	FIRE ALARM MANUAL PULL STATION "SC" INDICATES STOPPER II COVER
TS	SPRINKLER TAMPER FLOW SWITCH
FS	SPRINKLER WATER FLOW SWITCH
PS	SPRINKLER LOW PRESSURE SWITCH
RAI	REMOTE ALARM INDICATOR "WP" INDICATES WEATHERPROOF
RTS	REMOTE TEST STATION
ACM	INDIVIDUAL ADDRESSABLE CONTROL MODULE
ZMM	ZONE MONITORING MODULE
110cd F	WEATHERPROOF FIRE ALARM AUDIBLE AND VISUAL DEVICE, NUMERAL INDICATES CANDELA VALUE "WG" INDICATES WIRE GUARD
S	FIRE ALARM SMOKE DETECTOR, PHOTO ELECTRIC UNLESS NOTED OTHERWISE
H RR	FIRE ALARM HEAT DETECTOR, 135° FIXED TEMPERATURE UNLESS NOTED OTHERWISE "RR" INDICATES RATE OF RISE "R/F" INDICATES RATE OF RISE AND FIXED TEMPERATURE "200" INDICATES 200° TEMPERATURE "WG" INDICATES WIRE GUARD "WP" INDICATES WEATHERPROOF

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T.978-296-6200
F.978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS

ISSUE:

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL FIRE ALARM RISER DIAGRAM

E-801

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURERS	CATALOG NUMBER	DESCRIPTION	LAMPS QTY	LAMPS TYPE	LAMPS COLOR	LAMPS CRI	DRIVER LUMENS	DRIVER TYPE	INPUT WATTS	INPUT VOLTS	REMARKS
F1	KENALL	TD17-TK-5S-TA-49L-40K8-DV-FS	LED PARKING GARAGE FIXTURE UL LISTED WET LOCATION	1	LED	4000K	80	5920	LED	56	MVOLT	COLOR BY ARCHITECT TRUNION MOUNT
F2	COOPER	VTS-E08-LED-E1-5XQ-FUSING	LED POLE MOUNTED FIXTURE, WET LOCATION. 24' MOUNTING HEIGHT, 20'-0" HINGED POLE MOUNTED ON 4'-0" COLUMN EXTENSION. PROVIDE OWNER WITH ONE LOWERING WINCH. POLES SHALL BE INTERNALLY COATED. COLOR BY ARCH.	1	LED	4000K	70	25301	LED	195	MVOLT	POLE MOUTNED COLOR BY ARCHITECT
	PHILLIPS	P32-A1-2-4-330LA-NW-UNIV-XX-F										
F3	COOPER	XTOR9A	LED STAIR TOWER/ENTRANCE LIGHT FIXTURE, UL LISTED FOR WET LOCATION. SERIES D LEDS, FUSED.									COLOR BY ARCHITECT. WALL MOUNTED
F4	LITHONIA	STL4-48L-D50-LP850-FUSED	STAIR TOWER/ELEVATOR LOBBY LIGHT FIXTURE. 4' LED LINEAR LENSED. VANDAL RESISTANT,FUSED, UL LISTED WET LOCATION. PROVIDE (2) TAMPER-PROOF TOOLS.	1	LED	3500K	80	5184	LED	45	UNIV	CEILING SURFACE MOUNTED.
	FAILSAFE	HVSL4-4-LD4-2-STD-40-UNV-O-EDC1										
F7	LITHONIA	ZLIN-L48-7000LM-FST-277-40K-80CRI-WH	GENERAL PURPOSE 4' UTILITY LIGHT. UL LISTED	1	LED	4000K	80	7000	LED	52	UNV	
	COLUMBIA	LCL4-40K-HL-E-U										
F8	LITHONIA	VAP-4000LM-PCL-WD-MVOLT-GZ10-35K-80CRI-CMB	4' PENDANT MOUNTED ENCLOSED/GASKETED STRIP FIXTURE. UL LISTED WET LOCATION.	1	LED	3500K	80	4000	LED	42	UNIV	
F9	FAILSAFE	FFLD6A-20-D010TE-FERM6A-20-80-40-FV/S6LM0-LI-FVBT6-86	EXTERIOR CANOPY LIGHT	1	LED	4000K	80	2000	LED	33	UNIV	
F10	LITHONIA	2RTL2-33L-EDB-LP840	OFFICE/RESTROOMS LIGHT FIXTURE. RECESSED 2X2 LED DIRECT/INDIRECT. UL LISTED DAMP LOCATION. PROVIDE (2) TAMPER-PROOF TOOLS.	1	LED	4000K	82	3300	LED	35	MVOLT	
	METALUX	22SP3440										
F12	SIGNTEX	MUE-BB-20-A-W	STAIR TOWER/ELEVAROR LOBBY LIGHT, VANDAL RESISTANT, UL LISTED FOR WET LOCATIONS.									
F13	BK LIGHTING	SN-18-L-DE-LED-X66-FL-XX-9-11-C	METAL FINS LIGHT, UL LISTED FOR EWT LOCATIONS.									COLOR BY ARCHITECT. COORDNATE DRIVER OPTION WITH LIGHTING SUPPLIER
F14	COOPER	XTOR12BRL-W	EXTERIOR ENTRY LIGHT, UL LISTED WET LOCATION, SERIES D LEDS, FUSED.									COLOR BY ARCHITECT. WALL MOUNTED.
F15	KENALL	TD17-TK-5S-TA-104L-40K8-DV-FS	LED PARKING GARAGE FIXTURE - ENTRANCE UL LISTED WET LOCATION	1	LED	4000K	80	9,459	LED	104	MVOLT	
	COOPER											
ES1	LITHONIA	LVSW1R-120/277-UM	SINGLE FACED LED EXIT SIGN UL LISTED WET LOCATION	1					LED	0.7	MVOLT	NOTE 7
ES2	LITHONIA	LVSW2R-120/277-UM	DOUBLE FACED LED EXIT SIGN UL LISTED WET LOCATION	1					LED	0.7	MVOLT	NOTE 7
ES3	LITHONIA	LQC-W-1R-120/277	SINGLE FACED LED POLYCARB EXIT SIGN	1					LED	0.7	MVOLT	NOTE 7

NOTES:
1. NOTES 2-10 APPLY TO ALL APPLICABLE LIGHTING FIXTURES. THE REMARKS COLUMN SHALL NOTE ADDITIONAL REQUIREMENTS.
2. FIXTURES SPECIFIED WITH CATALOG NUMBERS ESTABLISH QUALITY LEVEL FOR EQUAL FIXTURES FROM MANUFACTURERS LISTED WITHOUT CATALOG NUMBERS. WHERE ONLY ONE MANUFACTURER LISTED, THERE SHALL BE NO SUBSTITUTION.
3. VERIFY EXACT MOUNTING CONDITIONS AND PROVIDE APPROPRIATE ACCESSORIES AND HARDWARE TO ACCOMMODATE REQUIREMENTS.
4. FIXTURE TYPE INDICATED ONCE ON A CONTINUOUS ROW SHALL BE TYPICAL OF ALL FIXTURES IN THE ROW UNLESS NOTED OTHERWISE.
5. CONTINUOUS ROWS OF FIXTURES SHALL BE PROVIDED WITH ALL NECESSARY HARDWARE AND FILLERS TO PROVIDE THE EXACT LENGTHS AS INDICATED ON THE PLANS. FIXTURES IN SOFFITS SHALL BE CONTINUOUS END TO END.
6. PROVIDE ALL FLUORESCENT FIXTURES WITH ELECTRONIC BALLASTS WITH MAXIMUM THD OF 10%, PF GREATER THAN 97% AND BF GREATER THAN 0.88. BALLASTS SHALL BE PROGRAMMED RAPID START WITH END-OF-LAMP-LIFE PROTECTION UNLESS NOTED OTHERWISE. BALLASTS SHALL BE UL LISTED AND MANUFACTURED BY ADVANCE ELECTRIC, GE, OSRAM SYLVANIA OR UNIVERSAL.
7. BALLAST EFFICIENCY SHALL BE GREATER THAN THAT REQUIRED TO ENSURE THAT THE VALUE LISTED FOR INPUT WATTS IS NOT EXCEEDED.
8. FLUORESCENT LAMPS SHALL HAVE A MINIMUM CRI OF 82. LAMP SHALL BE MANUFACTURED BY OSRAM SYLVANIA, GE OR PHILLIPS.
9. PROVIDE LINE SIDE PLUG TYPE DISCONNECTING MEANS WITHIN LIGHTING FIXTURE BALLAST COMPARTMENT FOR ALL LINEAR FLUORESCENT BALLASTS.
10. PROVIDE EXIT SIGNS WITH ARROWS AND MOUNTING ACCESSORIES AS INDICATED ON THE PLANS.
11. FLUORESCENT DIMMING BALLAST SHALL HAVE FULL RANGE ENERGY MANAGEMENT CAPABILITIES FROM 10% TO 100% EQUAL TO LUTRON ECO-10 SERIES. COORDINATE SPECIFIED DIMMER CONTROL TO MATCH REQUIREMENTS FOR OPTIMAL CONTROL OF THE SUPPLIED SYSTEM.
12. FLUORESCENT DIMMING BALLAST SHALL HAVE FULL RANGE ARCHITECTURAL CAPABILITIES FROM 1% TO 100% EQUAL TO LUTRON HILUME SERIES. COORDINATE SPECIFIED DIMMER CONTROL TO MATCH REQUIREMENTS FOR OPTIMAL CONTROL OF THE SUPPLIED SYSTEM
13. BATTERY BACKED FLUORESCENT BALLASTS SHALL PROVIDE 600-1325 LUMENS OF ILLUMINATION FROM (1) STDN OR HO T5/T8 LAMP FOR 90 MINUTES. BALLAST SHALL UL LISTED, COMPATIBLE TO THE SPECIFIED LAMPS AND BE EQUAL TO TYPE LP600 BY BODINE.

KEY:
- BF: BALLAST FACTOR
- COLOR: TEMPERATURE IN °K
- CRI: COLOR RENDERING INDEX
- CWA: CONSTANT WATTAGE AUTO TRANSFORMER
- DIM: DIMMABLE OVER THE SPECIFIED RANGE
- HPF: HIGH POWER FACTOR
- ECO: TCLP COMPLIANT LOW MERCURY CONTENT
- HX-HPF: HIGH REACTANCE AUTO TRANSFORMER HPF
- IS: INSTANT START
- MV: MULTI-VOLT
- PF: POWER FACTOR
- PRS: PROGRAM RAPID START
- PS: PULSE START
- THD: TOTAL HARMONIC DISTORTION

SWITCHBOARD SCHEDULE

TAG: MSB-G
BUS: 600 AMPS
VOLT: 480/277
MAIN: 600 AMPS
3 PHASE 4 WIRE
AIC: 35,000 AMPS SYM

CIRCUIT NO.	LOAD DESIGNATION	OVERCURRENT DEVICE FRAME	TRIP	POLE	CONNECTED LOAD KVA	HP	DEMAND LOAD DF	KVA	REMARKS
	MAIN BREAKER	600	600	3					NOTE 3, 6,7
	UTILTY...								NO...
	CUSTO...								NO...
1	TVSS	100	100	3					NOTE 8
2	PANEL L41G	100	60	3	16		1.00	16	
3	PANEL P21G	125	125	3	79.3		0.8	63.8	
4	PANEL P21	100	50	3	21		1.00	21	
5	SNOWMELTER	100	100	3	60		1.00	60	
6	ATS-LRS	100	100	3	60		1	60	LSI TRIP
7	ATS-SB	100	100	3	45		1	45	
8	ATS-LS	100	60	3	23		1	23	LSI TRIP
9	SPARE	100	100	3					
10	SPARE	100	100	3					
11	SPACE (FUTURE)	100		3					
12	SPACE (FUTURE)	100		3					
		TOTAL KVA =			304.3			288.8	

NOTES:
1. PROVIDE LUGS TO ACCOMMODATE FEEDER SIZES AS IDENTIFIED ON THE RISER DIAGRAM FOR SUPPLY AND ALL LOADS. (THIS NOTE APPLICABLE TO ALL TERMINATIONS.)
2. NOTES 3-8 ARE OPTIONS WHICH SHALL BE SPECIFICALLY NOTED IN REMARKS FOR INCLUSION.
3. PROVIDE GROUND FAULT PROTECTION ON THE MAIN OVERCURRENT PROTECTIVE DEVICE.
4. PROVIDE GROUND FAULT PROTECTION ON THE FEEDER DEVICE.
5. PROVIDE REVENUE METERING IN ACCORDANCE WITH UTILITY REQUIREMENTS.
6. PROVIDE CHECK METERING IN ACCORDANCE WITH THE SPECIFICATIONS.
7. PROVIDE LSIG TRIP AND ARC FLASH REDUCTION

LEGEND OF FEEDER SIZES - COPPER CONDUCTORS

FEEDER SYMBOL	CONDUCTORS (3 PHASE, 3 WIRE) WITH GROUND	RACEWAY SIZE	CONDUCTORS (3 PHASE, 4 WIRE) WITH GROUND	RACEWAY SIZE	NOMINAL AMPERE RATING
1	3#6 & 1#10G.	3/4"			60
2			4#6 & 1#10G.	1"	
3	3#4 & 1#8G.	1"			70
4			4#4 & 1#8G.	1 1/4"	
5	3#2 & 1#8G.	1 1/4 "			100
6			4#2 & 1#8G.	1 1/2"	
7	3#1 & 1#6G.	1 1/2"			125
8			4#1 & 1#6G.	1 1/2"	
9	3#1/0 & 1#6G.	1 1/2"			150
10			4#1/0 & 1#6G.	2"	
11	3#2/0 & 1#6G.	2"			175
12			4#2/0 & 1#6G.	2"	
13	3#3/0 & 1#6G.	2"			200
14			4#3/0 & 1#6G.	2"	
15	3#4/0 & 1#4G.	2"			225
16			4#4/0 & 1#4G.	2 1/2"	
17	3#250kcmil & 1#4G.	2 1/2"			250
18			4#250kcmil & 1#4G.	3"	
19	3#350kcmil & 1#4G.	3"			300
20			4#350kcmil & 1#4G.	3"	
21	3#500kcmil & 1#3G.	3"			350
22			4#500kcmil & 1#3G.	4"	
23	3#500kcmil & 1#3G.	3"			400
24			4#500kcmil & 1#3G.	4"	
25	2 Sets(3#250kcmil & 1#2G.)	(2) 2 1/2"			500
26			2 Sets(4#250kcmil & 1#2G.)	(2) 2 1/2"	
27	2 Sets(3#350kcmil & 1#1G.)	(2) 3"			600
28			2 Sets(4#350kcmil & 1#1G.)	(2) 3"	
29	2 Sets(3#600kcmil & 1#1/0G.)	(2) 3 1/2"			800
30			2 Sets(4#600kcmil & 1#1/0G.)	(2) 4"	
31	3 Sets(3#400kcmil & 1#2/0G.)	(3) 3"			1000
32			3 Sets(4#400kcmil & 1#2/0G.)	(3) 3"	
33	3 Sets(3#600kcmil & 1#3/0G.)	(3) 3 1/2"			1200
34			3 Sets(4#600kcmil & 1#3/0G.)	(3) 4"	
35	4 Sets(3#600kcmil & 1#4/0G.)	(4) 3 1/2"			1600
36			4 Sets(4#600kcmil & 1#4/0G.)	(4) 4"	

NOTES:
1. CONDUCTOR SIZES FOR THE ASSOCIATED NOMINAL AMPERE RATING ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE 310.15(B)(16) WITH NO GREATER THAN THREE CURRENT CARRYING CONDUCTORS PER RACEWAY IN AN AMBIENT NOT TO EXCEED 30 DEGREES C. FEEDER TAGS MAY BE OVERSIZED FOR THE ASSOCIATED OVERCURRENT PROTECTION TO ACCOUNT FOR DERATING FACTORS OR LIMIT VOLTAGE DROP.
2. RACEWAY SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE C1 FOR THHN/THWN CONDUCTORS IN EMT. RACEWAY SIZES SHALL BE INCREASED TO ACCOMMODATE DIFFERING INSULATION SYSTEMS AND RACEWAY TYPES TO LIMIT RACEWAY FILL TO LESS THAN 40%.
3. FEEDERS DESIGNATED IN MULTIPLE SETS SHALL HAVE THE REQUIRED SETS INSTALLED IN PARALLEL.

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T 978-296-6200
F 978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

MARK	DATE	ISSUE: DESCRIPTION
	07/28/2017	CONSTRUCTION DOCUMENTS
	07/19/2017	90% SUBMISSION
	05/05/2017	GARAGE DESIGN DEVELOPMENT

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL SCHEDULES

E-900

LIGHTING CONTROL CABINET

PANEL: LC41G RELAYS: 32

RELAY	ZONE	SERVICE	CIRCUIT	CONTROL
1	a	TIER 1 PERIMETER	L41G-5	NOTE 5
2	b	TIER 1 INTERIOR	L41G-7	NOTE 3
3	c	TIER 1 EAST LOBBY	L41G-17	NOTE 3
4	d	EXTERIOR CANOPY LTS	L41G-9	NOTE 5
5	e	EAST STAIR LIGHTING	L41G-13	NOTE 3
6	e	WEST STAIR LIGHTING	L41G-15	NOTE 3
7	a	TIER 2 PERIMETER	L41G-19	NOTE 5
8	b	TIER 2 INTERIOR	L41G-21	NOTE 3
9	a	TIER 3 PERIMETER	L41G-23	NOTE 5
10	b	TIER 3 INTERIOR	L41G-25	NOTE 3
11	a	TIER 4 PERIMETER	L41G-27	NOTE 5
12	b	TIER 4 INTERIOR	L41G-29	NOTE 3
13	a	TIER 5 PERIMETER	L41G-31	NOTE 5
14	b	TIER 5 INTERIOR	L41G-33	NOTE 3
15	f	ROOF	L41G-35	NOTE 5
16	g	PARKING SIGNAGE	L41G-2	NOTE 3
17	h	BUILDING VERTICAL SIGN	L41G-4	NOTE 3
18	i	EXTERIOR BUILDING FINS	L41G-6	NOTE 5
19	g	PARKING SIGNAGE	L41G-8	NOTE 3
20	h	BUILDING VERTICAL SIGN	L41G-10	NOTE 3
21	d	WEST ENTRY/EXIT	L41G-12	NOTE 5
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				

NOTES:
1 "ZONE" INDICATES SWITCH CONTROL ASSOCIATION
2 LIGHTING ENERGIZED CONTINUOUSLY.
3 LIGHTING ON/OFF VIA SWITCH INPUT, OFF VIA TIMED SWEEP.
4 LIGHTING ON/OFF VIA PHOTOCELL.
5 LIGHTING ON VIA PHOTOCELL, OFF VIA TIMED SWEEP

MECHANICAL EQUIPMENT SCHEDULE

LOAD TAG	STARTER LOCATION	LOAD					STARTER											POWER SOURCE		CONNECTION						BRANCH CIRCUIT	REMARKS
									OVERCURRENT					INDICATING LIGHTS			AUXILIARY						DISC				
		HP	FLA	KVA	VOLT	PH	NEMA SIZE	TYPE	CB	RK1 FUSE	MCP	PB	HOA	R	G	A	CPT	CONTACTS NO	CONTACTS NC	PANEL	C/B	FLEX	JB	REC	AS	AF	NEMA		
EF-2	AT UNIT	1/16	1.14	0.08	120	1	00	FVNR												P21-7	15A/1P	X	X					2#12+#12G-3/4"C	NOTE 12
EF-3	AT UNIT	1/16	1.14	0.08	120	1	00	FVNR													15A/1P	X	X					2#12+#12G-3/4"C	NOTE 12
EF-4	AT UNIT	1/16	1.14	0.1	120	1	00	FVNR													15A/1P	X	X					2#12+#12G-3/4"C	NOTE 12
EUH-1			14.4	3.0	208	1														P21-9	20A/2P	X			30		1	2#12+#12G-3/4"C	
EUH-2			14.4	3.0	208	1														P21-13	20A/2P	X			30		1	2#12+#12G-3/4"C	
EUH-3			24.0	5.0	208	1														P21G-10	30A/2P	X			30		1	2#10+#10G-3/4"C	
EUH-4			24.0	5.0	208	1														P21G-14	30A/2P	X			30		1	2#10+#10G-3/4"C	
EUH-5			14.4	3.0	208	1														P21G-18	30A/2P	X			30		1	2#4+#4G-1"C	
EUH-6			14.4	3.0	208	1														P21G-22	20A/2P	X			30		1	2#6+#6G-3/4"C	
EUH-7			24.0	5.0	208	1														P21G-26	30A/2P	X			30		1	2#4+#4G-1"C	
EUH-8			14.4	3.0	208	1														P21G-30	20A/2P	X			30		1	2#6+#6G-3/4"C	
EUH-9			24.0	5.0	208	1														P21G-34	30A/2P	X			30		1	2#4+#4G-1"C	
EUH-10			14.4	3.0	208	1														P21G-38	20A/2P	X			30		1	2#6+#6G-3/4"C	
EUH-11			4.1	0.5	120	1														ELR21G-6	15A/1P	X			30	15	3R	2#6+#6G-3/4"C	
EUH-12			4.1	0.5	120	1																X			30	15	3R	2#6+#6G-3/4"C	
EWH-1			22.0	8.0	208	3														P21-21	30A/3P	X			30		1	3#10+#10G-3/4"C	
EWH-2			33.0	12.0	208	3														P21G-50	50A/3P							3#3+#6G-1 1/2"C	
HP-1	NOTE 8		18.0	3.7	208	1														P21-17	30A/2P	X			30	30	3R	2#10+#10G-3/4"C	NOTE 13
FC-1	NOTE 8		1.0	0.02	208	1																X			30	15	1	2#10+#10G-3/4"C	NOTE 13
HP-2	NOTE 8		18.0	3.7	208	1														ES21G-19	30A/2P	X			30	30	3R	2#10+#10G-3/4"C	NOTE 13
FC-2	NOTE 8		1.0	0.02	208	1																			30	15	1	2#10+#10G-3/4"C	NOTE 13
HP-3	NOTE 8		18.0	3.7	208	1														ES21G-23	30A/2P	X			30	30	3R	2#10+#10G-3/4"C	NOTE 13
FC-3	NOTE 8		1.0	0.02	208	1																			30	15	1	2#10+#10G-3/4"C	NOTE 13
HP-4	NOTE 8		18.0	3.7	208	1																			30	30	3R	2#4+#4G-1"C	NOTE 13
FC-4	NOTE 8		1.0	0.02	208	1																			30	15	1	2#10+#10G-3/4"C	NOTE 13
HP-5	NOTE 8		18.0	3.7	208	1														ELR21G-2	30A/2P	X	`		30	30	3R	2#4+#4G-1"C	NOTE 13
FC-5	NOTE 8		1.0	0.02	208	1																X			30	15	1	2#10+#10G-3/4"C	NOTE 13
SNOW			80.0	60.0	480	3														MSB-G	100A/3P	X			100	100	3R	SEE ONE LINE DIAGRAM	
TF-1		1/4	5.8	0.7	120	1	00	FVNR										2	2	P21G-42	15A/1P	X			30		3R	2#10+#10G-3/4"C	
TF-2		1/4	5.8	0.7	120	1	00	FVNR										2	2	P21G-44	15A/1P	X			30		3R	2#10+#10G-3/4"C	
TF-3		1/4	5.8	0.7	120	1	00	FVNR										2	2	P21G-46	15A/1P	X			30		3R	2#10+#10G-3/4"C	
TF-4		1/4	5.8	0.7	120	1	00	FVNR										2	2	P21G-48	15A/1P	X			30		3R	2#10+#10G-3/4"C	

NOTES
1. NOTES 2-6 APPLY TO ALL APPLICABLE LOADS.
2. PROVIDE THERMAL OVERLOAD UNITS FOR ALL STARTERS SIZED TO MATCH LOAD NAMEPLATE AND NEC REQUIREMENTS .
3. BRANCH CIRCUIT WIRING METHODS SHALL BE AS NOTED ON THE DRAWINGS AND/OR SPECIFICATIONS FOR THE APPLICABLE LOCATION. THE FINAL THREE FEET (MAXIMUM) SHALL BE FLEXIBLE METAL OR LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
4. COPPER BRANCH CIRCUIT CONDUCTOR SIZING BASED UPON NEC TABLE 310.15(B)(16). MAKE ADJUSTMENTS TO CONDUCTORS FOR TEMPERATURE OR VOLTAGE DROP THAT EXCEED NEC AND SPECIFICATION CRITERIA.
5. RACEWAY SIZES ARE BASED UPON GRSC AND LFMC WITH THWN CONDUCTORS.
6. VFD SHALL BE CONTROLLED VIA REMOTE 4-20mA OR 0-5V SIGNAL PROVIDED BY THE HVAC ATC CONTRACTOR.
7. REQUIRED DISCONNECT IS PROVIDED INTEGRAL/PREWIRED TO MECHANICAL EQUIPMENT.
8. REQUIRED STARTER IS PROVIDED INTEGRAL/PREWIRED TO MECHANICAL EQUIPMENT.
9. DISCONNECT FOR 2S1W AND 2S2W MOTORS SHALL BE SIX POLE.
10. PROVIDE NEUTRAL FROM SOURCE TO STARTER ONLY FOR 120V CONTROL POWER OF 208V 3PH UNITS.
11. FUSES FOR DISCONNECT SWITCHES SHALL BE CLASS RK5
12 REQUIRED DISCONNECT IS PROVIDED BY MANUFACTURER, INSTALLED/WIRED BY EC.
13 OUTDOOR UNIT POWERS INDOOR UNIT

KEY:
FVNR FULL VOLTAGE NON-REVERSING
FVR FULL VOLTAGE REVERSING
2S1W TWO SPEED SINGLE WINDING
2S2W TWO SPEED TWO WINDING
RVAT REDUCED VOLTAGE AUTOTRANSFORMER
RVPW REDUCED VOLTAGE PART WINDING
RVYDOT REDUCED VOLTAGE WYE DELTA OPEN TRANSITION
RVYDCT REDUCED VOLTAGE WYE DELTA CLOSED TRANSITION
MMS MANUAL MOTOR STARTER
CB CIRCUIT BREAKER
MCP MOTOR CIRCUIT PROTECTOR
PB START AND STOP PUSH BUTTON
HOA HAND-OFF-AUTOMATIC SELECTOR SWITCH
CPT CONTROL POWER TRANSFORMER
VFD VARIABLE FREQUENCY DRIVE W/O BYPASS
VFD/B VARIABLE FREQUENCY DRIVE W/ BYPASS
CNTCR CONTACTOR - NO THERMAL OVERLOAD

DRY TYPE TRANSFORMER SCHEDULE

TAG	T1	T2	T3	T4
KVA	9	15	30	45
PRIMARY AMPS	11	18	36	54
480V OVERCURRENT DEVICE	20A-3P	30A-3P	50A-3P	80A-3P
480V FEEDER	3#12 & 1#12G IN 3/4"C	3#10 & 1#10G IN 3/4"C	3#6 & 1#10G IN 1"C	3#3 & 1#8G IN 1 1/4"C
SECONDARY AMPS	25	42	83	125
208/120V OVERCURRENT PROTECTION	30A-3P	50A-3P	100A-3P	150A-3P
208/120V FEEDER	4#10 & 1#8G IN 3/4"C	4#6 & 1#8G IN 1"C	4#1 & 1#8G IN 1 1/2"C	4#1/0 & 1#6G IN 2"C

NOTES:
1. CONDUCTOR SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE 310.15(B)(16) WITH NO GREATER THAN THREE CURRENT CARRYING CONDUCTORS PER RACEWAY IN AN AMBIENT NOT TO EXCEED 30 DEGREES C.
2. RACEWAY SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE C1 FOR THHN/THWN CONDUCTORS IN EMT, FLEXIBLE METAL CONDUIT OR LIQUIDTIGHT.
3. SECONDARY GROUNDING CONDUCTORS ARE SIZED IN ACCORDANCE WITH NEC TABLE 250.66 TO ACCOMMODATE REQUIREMENTS IN NEC 250.30 FOR SEPARATELY DERIVED SYSTEMS. BOND THE TRANSFORMER CASE AND THE GROUNDED CONDUCTOR (NEUTRAL) TO THE EQUIPMENT GROUNDING CONDUCTOR AND ALL REQUIRED GROUNDING ELECTRODES.
4. SECONDARY CONDUCTORS SHALL NOT EXCEED 25' FROM THE TRANSFORMER TERMINALS TO THE SECONDARY OVERCURRENT PROTECTION DEVICE IN ACCORDANCE WITH NEC 240.21(C)(6).

K-RATED DRY TYPE TRANSFORMER SCHEDULE

TAG	KT1	KT2	KT3	KT4
RATED KVA	9	15	30	45
PRIMARY AMPS	11	18	36	54
480V OVERCURRENT DEVICE	20A-3P	30A-3P	50A-3P	80A-3P
480V FEEDER	3#12 & 1#12G IN 3/4"C	3#10 & 1#10G IN 3/4"C	3#6 & 1#10G IN 3/4"C	3#3 & 1#8G IN 1 1/4"C
SECONDARY AMPS	25	42	83	125
208/120V OVERCURRENT PROTECTION	30A-3P	50A-3P	100A-3P	150A-3P
208/120V FEEDER	3#10, 1#6N & 1#8G IN 1"C	3#6, 1#2N & 1#8G IN 1 1/4"C	3#1, 1#4/0N & 1#8G IN 1 1/2"C	5#2/0 & 1#4G IN 2 1/2"C

NOTES:
1. CONDUCTOR SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE 310.15(B)(16) WITH NO GREATER THAN THREE CURRENT CARRYING CONDUCTORS PER RACEWAY IN AN AMBIENT NOT TO EXCEED 30 DEGREES C.
2. RACEWAY SIZES ARE THE MINIMUM ALLOWED BASED UPON NEC TABLE C1 FOR THHN/THWN CONDUCTORS IN EMT, FLEXIBLE METAL CONDUIT OR LIQUIDTIGHT.
3. SECONDARY GROUNDING CONDUCTORS ARE SIZED IN ACCORDANCE WITH NEC TABLE 250.66 TO ACCOMMODATE REQUIREMENTS IN NEC 250.30 FOR SEPARATELY DERIVED SYSTEMS. BOND THE TRANSFORMER CASE AND THE GROUNDED CONDUCTOR (NEUTRAL) TO THE EQUIPMENT GROUNDING CONDUCTOR AND ALL REQUIRED GROUNDING ELECTRODES.
4. SECONDARY CONDUCTORS SHALL NOT EXCEED 25' FROM THE TRANSFORMER TERMINALS TO THE SECONDARY OVERCURRENT PROTECTION DEVICE IN ACCORDANCE WITH NEC 240.21(C)(6).

WALKER PARKING CONSULTANTS
20 Park Plaza, Suite 1202
Boston MA 02116
617.350.5040 Ph
617.350.5048 Fax
www.walkerparking.com
Walker Parking Consultants / Engineers, Inc.

RDK ENGINEERS
Andover, MA - Boston, MA - Amherst, MA
Durham, NC - Charlotte, NC
RDK Engineers
200 Brickstone Square
Andover, MA 01810-1488
T.978-296-6200
F.978-296-6201
W: www.rdkengineers.com

FOUNDRY PLACE
PARKING GARAGE

ISSUE:	DESCRIPTION	DATE	MARK
	90% SUBMISSION	07/19/2017	
	CONSTRUCTION DOCUMENTS	07/28/2017	

PROJECT NO: 20160588
DRAWN BY: DF
CHECKED BY: MM

SHEET TITLE:
ELECTRICAL SCHEDULES

E-901