CONSTRUCTION PACKAGE

DRAWING INDEX

DRAWING INDEX

Sheet Number	Sheet Name	EXTERIOR SKIN PACKAGE	FOUNDATION PACKAGE	DD PACKAGE	P.C. SUBMITTAL 1	P.C. RESUBMITTAL	ISSUED FOR CONSTRUCTION
GENERAL							
G-001	COVER SHEET & DRAWING INDEX	■	■	■	■	■	■
G-002	PROJECT DATA, GENERAL NOTES	■	■	■	■	■	■
CIVIL							
C1.0	CIVIL TITLE SHEET				■	■	■
C2.0	DEMOLITION PLAN				■	■	■
C3.0	GRADING AND UTILITY PLAN				■	■	■
C4.0	EROSION CONTROL PLAN				■	■	■
C5.0	POST CONSTRUCTION BMP PLAN				■	■	■
LANDSCAPE							
L1.1	HARDSCAPE PLAN					■	■
L1.2	PLANTING & HARDSCAPE DETAILS					■	■
L1.3	NOTES & TABLES					■	■
L2.1	IRRIGATION PLAN					■	■
L2.2	IRRIGATION LEGEND & NOTES					■	■
L2.3	IRRIGATION DETAILS					■	■
L3.1	PLANTING PLAN					■	■
ARCHITECTURE							
A-001	EXISTING SITE PLAN	■	■	■	■	■	■
A-002	SITE PLAN		■	■	■	■	■
A-003	SITE DETAILS	■		■	■	■	■
A-004	CODE COMPLIANCE PLANS		■	■	■	■	■
A-101	FIRST LEVEL OVERALL FLOOR PLAN	■	■	■	■	■	■
A-102	SECOND LEVEL OVERALL FLOOR PLAN	■	■	■	■	■	■
A-103	ROOF LEVEL OVERALL FLOOR PLAN	■	■	■	■	■	■
A-104	REFLECTED CEILING PLAN			■	■	■	■
A-101S	1ST LEVEL SLAB PLAN			■	■	■	■
A-102S	2ND LEVEL SLAB PLAN			■	■	■	■
A-103S	ROOF LEVEL SLAB PLAN			■	■	■	■
A-201	EXTERIOR ELEVATIONS	■	■	■	■	■	■
A-202	EXTERIOR ELEVATIONS	■	■	■	■	■	■
A-301	BUILDING SECTIONS	■	■	■	■	■	■
A-311	WALL SECTIONS	■	■	■	■	■	■
A-312	WALL SECTIONS	■	■	■	■	■	■
A-401	ENLARGED PLANS & SECTIONS			■	■	■	■
A-402	ENLARGED PLANS & SECTIONS			■	■	■	■
A-501	EXTERIOR DETAILS	■		■	■	■	■
A-502	EXTERIOR DETAILS	■		■	■	■	■
A-503	EXTERIOR DETAILS	■		■	■	■	■
A-504	EXTERIOR DETAILS	■		■	■	■	■
A-505	EXTERIOR DETAILS			■	■	■	■
A-508	ROOF DETAILS			■	■	■	■
A-509	PENETRATION DETAILS			■	■	■	■

DRAWING INDEX

Sheet Number	Sheet Name	EXTERIOR SKIN PACKAGE	FOUNDATION PACKAGE	DD PACKAGE	P.C. SUBMITTAL 1	P.C. RESUBMITTAL	ISSUED FOR CONSTRUCTION
A-510	INTERIOR FRAMING DETAILS			■	■	■	■
A-511	INTERIOR DETAILS (STAIRS)			■	■	■	■
A-512	INTERIOR DETAILS			■	■	■	■
A-520	RATED WALL DETAILS			■	■	■	■
A-521	INTERIOR DETAILS & SIGNAGE			■	■	■	■
A-601	DOOR SCHEDULE	■		■	■	■	■
A-602	WALL TYPE SCHEDULE			■	■	■	■
STRUCTURAL							
S-001	STRUCTURAL NOTES		■	■	■	■	■
S-002	STRUCTURAL NOTES & SPECIAL INSPECTION PROGRAM		■	■	■	■	■
S-003	TYPICAL DETAILS		■	■	■	■	■
S-004	TYPICAL DETAILS		■	■	■	■	■
S-005	TYPICAL DETAILS		■	■	■	■	■
S-006	TYPICAL DETAILS		■	■	■	■	■
S-007	COLUMN SCHEDULE AND DETAILS		■	■	■	■	■
S-101	FOUNDATION PLAN		■	■	■	■	■
S-102	SECOND LEVEL FRAMING PLAN		■	■	■	■	■
S-103	ROOF FRAMING PLAN		■	■	■	■	■
S-104	ROOF SCREEN FRAMING PLAN		■	■	■	■	■
S-301	MOMENT FRAME NOTES AND DETAILS		■	■	■	■	■
S-302	MOMENT FRAME ELEVATIONS		■	■	■	■	■
S-401	SECTIONS AND DETAILS		■	■	■	■	■
S-402	SECTIONS AND DETAILS		■	■	■	■	■
S-501	SECTIONS AND DETAILS		■	■	■	■	■
S-502	SECTIONS AND DETAILS			■	■	■	■
PLUMBING							
P0.1	PLUMBING LEGEND AND NOTES				■	■	■
P2.0	PLUMBING SITE PLAN				■	■	■
P2.1	PLUMBING FIRST FLOOR PLAN				■	■	■
P2.2	PLUMBING SECOND FLOOR PLAN				■	■	■
P2.3	PLUMBING ROOF PLAN				■	■	■
MECHANICAL							
M0.1	ENVELOPE TITLE 24 COMPLIANCE FORMS				■	■	■
ELECTRICAL							
E-001	NOTE SHEET/SINGLE LINE/PANEL SHCEDULE/FIXTURE SCHEDULE				■	■	■
E-002	TITLE 24 CALCULATIONS				■	■	■
E-101	EXISTING OVERALL SITE PLAN				■	■	■
E-102	NEW OVERALL SITE PLAN				■	■	■
E-201	FIRST FLOOR LIGHTING & POWER PLAN				■	■	■
E-202	SECOND FLOOR LIGHTING & POWER PLAN				■	■	■
E-301	ENLARGED PLANS				■	■	■

SCALE

TITLE

COVER SHEET & DRAWING INDEX

G-001

2/19/2013 9:04:04 AM

ABBREVIATIONS

&	AND	JAN.	JANITOR
∠	ANGLE	J.B.	JUNCTION BOX
@	AT	J.T.	JOINT TRENCH
℄	CENTER LINE		
⊏	CHANNEL	KIT.	KITCHEN
°	DEGREES	K.O.	KNOCKOUT
⌀	DIAMETER	K.P.	KICKPLATE
±	PLUS / MINUS	LAB.	LABORATORY
#	POUND, NUMBER	LAM.	LAMINATE
℄	PROPERTY LINE	LAVS.	LAVATORIES
		LB.	POUND
A.B.	ANCHOR BOLT	L.P.	LOW POINT
A.C.	ASPHALTIC CONCRETE	L.S.D.	LIQUID SOAP DISPENSER
A/C	AIR CONDITIONING		
AC. TILE	ACOUSTICAL TILE	MAT.	MATERIAL
A.D.	AREA DRAIN	MAX.	MAXIMUM
ADJ.	ADJUSTABLE	M.B.	MACHINE BOLT
ADDL.	ADDITIONAL	M.B.R.	MODIFIED BITUMEN ROOF
A.F.F.	ABOVE FINISH FLOOR	MECH.	MECHANICAL
A.F.S.	AUTOMATIC FIRE SPRINKLER	MET.	METAL
AGGR.	AGGREGATE	MFR.	MANUFACTURER
ALUM.	ALUMINUM	M.H.	MANHOLE
ANOD.	ANODIZED	MIN.	MINIMUM
ASPH.	ASPHALT	M.O.	MASONRY OPENING
A.T.	ASH TRAY	M.S.	MACHINE SCREW
		MULL.	MULLION
B/	BACK OF OR BOTTOM OF		
BD/	BOARD	N.I.C.	NOT IN CONTRACT
BITUM.	BITUMINOUS	N.S.F.	NET SQUARE FEET
BLDG.	BUILDING	N.T.S.	NOT TO SCALE
BLKG.	BLOCKING	(N)	NEW
BM.	BEAM		
B.O.J.	BOTTOM OF JOISTS	OBS.	OBSCURE
BOTT.	BOTTOM	O.C.	ON CENTER
B.U.R.	BUILT-UP ROOF	O.H.	OVERHEAD, OPPOSITE HAND
		OPNG.	OPENING
CABT.	CABINET	OPP.	OPPOSITE
C.B.	CATCH BASKET OR CHALKBOARD	O.D.	OVERFLOW DRAIN
CAD. PL.	CADMIUM PLATED		or OUTSIDE DIAMETER
C.D.	CUP DISPENSER		
CEM.	CEMENT	P.A.	PUBLIC ADDRESS
CER.	CERAMIC	P.B.	PANIC BAR
C.I.	CAST IRON	P.C.C.	PORTLAND CEMENT CONCRETE
C.J.	CONSTRUCTION JOINT	P.D.F.	POWDER DRIVEN FASTENER
C.L.	CHAIN LINK	P.H.	PHILLIPS HEAD
CLR.	CLEAR	PL.	PLATE
CLG.	CEILING	PLAS.	PLASTER
C.M.U.	CONCRETE MASONRY UNIT	PLAS. LAM.	PLASTIC LAMINATE
C.O.	CLEANOUT	PLY.	PLYWOOD
COL.	COLUMN	PNL.	PANEL
COMP.	COMPOSITION	POL.	POLISHED
CONC.	CONCRETE	PORC.ENAM.	PORCELAIN ENAMEL
CONN.	CONNECTION	PRCST.	PRECAST
CONT.	CONTINUOUS	P.S.D.	POWDER SOAP DISPENSER
CONTR.	CONTRACTOR	PT.	POINT
C.O.T.G.	CLEAN OUT TO GRADE	P.T.D.	PAPER TOWEL DISPENSER
CSK.	COUNTERSUNK	P.V.C.	POLYVINYL CHLORIDE
C.W.	COLD WATER		
		Q.T.	QUARRY TILE
DET.	DETAIL		
D.F.	DOUGLAS FIR	R.	RISER
D.F.	DRINKING FOUNTAIN	R.A.	RETURN AIR
DIA.	DIAMETER	RAD.	RADIUS
DIM.	DIMENSION	R.C.P.	REINFORCED CONCRETE PIPE
DN.	DOWN	RD.	ROUND
DO.	DITTO	R.D.	ROOF DRAIN
D.S.	DOWNSPOUT	REC.	RECESSED
DWG.	DRAWING	REINF.	REINFORCED(ING)
D.S.P.	DRY STANDPIPE	RES.	RESILIENT
		R.H.	ROUND HEAD
EA.	EACH	RM.	ROOM
EIFS.	EXTERIOR INSULATING FINISH SYS.	RO.	ROUGH
E.J.	EXPANSION JOINT	R.O.	ROUGH OPENING
ELEC.	ELECTRICAL	R./ W	RIGHT OF WAY
ELEV.	ELEVATION, ELEVATOR	RWD.	REDWOOD
ENCL.	ENCLOSURE	R.W.L.	RAIN WATER LEADER
E.P.B.	ELECTRIC PANEL BOARD		
EQ.	EQUAL	S.	SEWER
E.S.	EXPANSION SHIELD	S.C.D.	SEAT COVER DISPENSER
E.W.C.	ELECTRIC WATER COOLER	S.D.	STORM DRAIN
E.W.H.	ELECTRIC WATER HEATER	SECT.	SECTION
EXH.	EXHAUST	S.F.	SQUARE FOOT / FEET
EXIST., (E)	EXISTING	SHT.	SHEET
EXT.	EXTERIOR	SHTHG.	SHEATHING
EXPO.	EXPOSED	SHVS.	SHELVES
EXP.	EXPANSION	SIM.	SIMILAR
		SK.	SINK OR SKETCH
F.A.	FIRE ALARM	S.M.	SHEET METAL
F.B.	FLAT BAR	S.M.S.	SHEET METAL SCREW
FBRGL.	FIBERGLASS	S.N.D.	SANITARY NAPKIN DISPOSER
F.D.	FLOOR DRAIN	S.N.V.	SANITARY NAPKIN VENDOR
FDN.	FOUNDATION	S.O.V.	SHUT OFF VALVE
F.E.	FIRE EXTINGUISHER	SPECS.	SPECIFICATIONS
F.E.C.	FIRE EXTINGUISHER CABINET	SQ.	SQUARE
F.H.	FIRE HYDRANT OR FLAT HEAD	S.S.	SANITARY SEWER
F.H.C.	FIRE HOSE CABINET	STD.	STANDARD
F.F.	FINISH FLOOR	STL.	STEEL
F.O.	FINISHED OPENING	STOR.	STORAGE
F.O.C.	FACE OF CONCRETE	STRUCT.	STRUCTURAL
F.O.(EIFS.	FACE OF EIFS	ST.STL.	STAINLESS STEEL
F.O.F.	FACE OF FINISH	SUSP.	SUSPENDED
F.O.M.	FACE OF MASONRY		
F.O.S.	FACE OF STUD	T.C.	TOP OF CURB
F.S.	FLOOR SINK	T.D.	TOWEL DISPENSER
FTG.	FOOTING	T.D.D.	TOWEL DISPENSER & DISPOSAL
FRP.	FIBERGLASS REINFORCED PLASTIC	TEL.	TELEPHONE
FPRF.	FIREPROOF	T & G.	TONGUE AND GROOVE
		T.O.S.	TOP OF SLAB
GA.	GAUGE	T.P.	TOP OF PAVEMENT
GALV.	GALVANIZE(D)	TR.	TREAD
G.I.	GALVANIZED IRON	TYP.	TYPICAL
G.F.R.C.	GLASS FIBER REINFORCED CONCRETE	T.W.	TOP OF WALL
GRD.	GROUND OR GRADE		
G.S.F.	GROSS SQUARE FEET	UNF.	UNFINISHED
G.V.	GATE VALVE	U.O.N.	UNLESS OTHERWISE NOTED
G.V.C.B.	GATE VALVE IN CONCRETE BOX	UR.	URINAL
GYP.	GYPSUM		
		V.C.P.	VITREOUS CLAY PIPE
HDR.	HEADER	VERT.	VERTICAL
HDWD.	HARDWOOD	VEST.	VESTIBULE
HDWR.	HARDWARE	V.G.D.F.	VERTICAL GRAIN DOUGLAS FIR
H.M.	HOLLOW METAL		
HORIZ.	HORIZONTAL	W	WATER
H.P.	HIGH POINT	W/	WITH
HR.	HOUR	WAINS.	WAINSCOT
H.R.C.	HOSE REEL CABINET	WD.	WOOD
H.S.B.	HIGH STRENGTH BOLT	W.P.	WORK POINT or WATERPROOF
HT.	HEIGHT	W.R.	WATER RESISTANT
H.T.D.	HANDICAP TOWEL DISPENSER		or WASTE RECEPTACLE
HTG.	HEATING	W.S.	WEATHER STRIPPING
H.W.	HOT WATER		or WOOD SCREW
H.W.D.	HOT WATER DISPENSER	WT.	WEIGHT
		W.W.	WINDOW WALL
I.D.	INSIDE DIAMETER	W.W.F.	WELDED WIRE FABRIC
INSUL	INSULATION		
INV.	INVERT		
INT.	INTERIOR		

GENERAL NOTES

1. **SITE VISIT:**
THE CONTRACTOR SHALL VISIT THE SITE, VERIFY ALL EXISTING CONDITIONS AS SHOWN ON DRAWINGS, AND REPORT ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THE DRAWINGS TO THE ARCHITECT.

2. **CODE COMPLIANCE:**
ALL WORK SHALL CONFORM WITH THE CURRENT EDITIONS OF THE CODE. SEE APPLICABLE CODES AT PROJECT DATA. THE RULES AND REGULATIONS OF THE SAFETY ORDERS ISSUED BY THE DIVISION OF INDUSTRIAL SAFETY, AND THE NATIONAL BOARD OF UNDERWRITERS. THE CONTRACTOR SHALL COMPLY WITH THESE AND ALL OTHER NATIONAL, STATE, AND LOCAL CODES.

   WHERE UL, GA, OR CBC SECTION 703 CONSTRUCTION ASSEMBLIES ARE DESIGNATED, THE COMPONENTS AND INSTALLATION DETAILS SHALL CONFORM IN EVERY PARTICULAR WITH THE DESIGN NUMBER SPECIFIED.

3. **CONSTRUCTION SCHEDULE:**
ALL WORK SHALL BE PERFORMED DURING WORKING HOURS EXCEPT WHERE NOTED ON DRAWINGS, CONTRACTS, AND SPECIFICATIONS. ANY OVERTIME SHALL COMMENCE ONLY WITH PRIOR APPROVAL BY OWNER.

4. **OVERTIME WORK:**
THE CONTRACTOR SHALL SCHEDULE ANY WORK WHICH INTERFERES WITH OWNER OPERATIONS (INCLUDING BUILDING UTILITY SHUT-DOWN, EXCESSIVE NOISE, ETC.) WITH PRIOR APPROVAL BY OWNER.

5. **SCHEDULE OF WORK:**
COORDINATE THE CONSTRUCTION SCHEDULE AND OPERATIONS SCHEDULE WITH THE CONSTRUCTION COORDINATOR. COORDINATE ALL SERVICE SHUT-DOWNS WITH THE CONSTRUCTION COORDINATOR.

6. **"AS-BUILT" CONSTRUCTION SET:**
THE CONTRACTOR SHALL POSSESS AND MAINTAIN, AT THE JOB SITE, A CURRENT "AS-BUILT" DRAWING SET. THIS SET SHALL REFLECT ALL APPROVED DESIGN DRAWING CHANGES. THIS SET IS TO BE KEPT IN GOOD CONDITION AND SHALL BE DELIVERED TO OWNER WITHIN TWO WEEKS AFTER THE COMPLETION OF THE PROJECT.

7. **SEISMIC BRACING:**
ALL NEW CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH CBC SECTION 1614.1.3 EARTHQUAKE RESISTANT DESIGN, CONSTRUCTION STANDARDS, AND SPECIFICATIONS FOR SEISMIC BRACING AND SUPPORT OF ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL, PIPING, AND ELECTRICAL WORK. PROVIDE SEISMIC ANCHORS AT ALL TOOLS, BENCHES, AND SHELVES AS REQUIRED.

8. **MATERIALS AND METHODS:**
ALL MATERIALS FOR THIS CONSTRUCTION SHALL BE NEW. OWNER RESERVES THE RIGHT TO APPROVE ALL MATERIALS WHICH SHALL BE IN STRICT ACCORDANCE WITH OWNER'S SPECIFICATIONS OR AS NOTED ON THE CONSTRUCTION DOCUMENTS. IF ANY PORTION OF THE WORK (EITHER THE MATERIALS OR THE METHODS OF INSTALLATION) IS DETERMINED TO BE DEFECTIVE THE CONTRACTOR SHALL REPLACE THAT PORTION, WITH NO ADDITIONAL COST TO OWNER, AS PART OF THE ORIGINAL CONTRACT.

9. **APPLICABLE FEES AND PERMITS:**
OWNER WILL PAY FOR THE BUILDING PERMIT AND THE PROJECT COORDINATOR WILL OBTAIN IT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND PAY FOR ALL TRADE PERMITS, MISCELLANEOUS FEES, INSPECTIONS, AND TAXES.

10. **EXISTING CONDITIONS:**
THE VARIOUS PLANS ARE NOT INTENDED AS SURVEYS OF ALL EXISTING CONDITIONS AND ONLY INDICATE IN GENERAL CERTAIN CONDITIONS RELATED TO THE WORK TO BE DONE. INFORMATION REGARDING EXISTING CONDITIONS HAS BEEN DETERMINED AS REASONABLY AS POSSIBLE, BUT MAY NOT BE SHOWN EXACTLY. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS AND REPORT ALL DISCREPANCIES TO THE ARCHITECT PRIOR TO THE START OF WORK.

11. **UTILITIES:**
THE LOCATION SHOWN FOR EXISTING UTILITY MAINS ARE APPROXIMATE ONLY. THE ACCURACY OR COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED. VERIFY LOCATION OF ALL UTILITY LINES, CONDUITS, SURFACE OR SUBSURFACE STRUCTURES, ETC., OF ANY NATURE THAT MAY BE AFFECTED BY THE WORK. VERIFY ACTUAL LOCATION AND DEPTH, AND REPORT POTENTIAL CONFLICTS TO THE ENGINEER PRIOR TO EXCAVATING FOR NEW FACILITIES.

12. **DAMAGED UTILITIES / SYSTEMS:**
SHOULD ANY OF THE ABOVE ITEMS BE DISTURBED, DISCONNECTED, OR DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY PROPER AUTHORITIES AND THOSE PARTIES AFFECTED. CONTRACTOR SHALL BEAR ALL EXPENSES, OF WHATEVER NATURE, ARISING FROM SUCH DISTURBANCE, REPLACEMENT, OR REPAIR THEREOF, AND REPLACE OR REPAIR SUCH ITEMS AS REQUIRED.

13. **UNIDENTIFIED ITEMS:**
SHOULD ANY UNIDENTIFIED ITEM BE ENCOUNTERED DURING CONSTRUCTION, DO NOT PROCEED UNTIL THE OWNER HAS BEEN NOTIFIED AND DIRECTION HAS BEEN GIVEN.

14. **ACCESS DOORS:**
COORDINATE ACCESS DOOR LOCATIONS (FOR CONCEALED ITEMS) WITH APPROPRIATE CONTRACTOR

15. **TRENCHING:**
ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL O.S.H.A REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.

16. **DUST CONTROL:**
CONTRACTOR SHALL PROVIDE DUST CONTROL AT ALL TIMES.

17. **CONSTRUCTION DOCUMENTS:**
THE CONSTRUCTION DOCUMENTS CONSIST OF THESE DRAWINGS AND THE PROJECT MANUAL FOR THIS ISSUANCE. DRAWINGS REPRESENT THE QUANTITY AND LOCATION OF THE WORK. THE PROJECT MANUAL INDICATES THE QUALITY OF THE WORK. ALL TRADES SHALL BE REQUIRED TO MEET THE REQUIREMENTS OF THESE DOCUMENTS AND SUBSEQUENT INFORMATION PROVIDED FOR THIS PROJECT.

18. THE GENERAL CONTRACTOR SHALL NOTIFY THE FIRE SPRINKLER CONTRACTOR TO APPLY FOR A FIRE SPRINKLER PERMIT ACCORDING TO THE REQUIREMENTS OF CBC AND THE CITY OF SAN DIEGO.

19. THE GENERAL CONTRACTOR SHALL NOTIFY THE UNDERGROUND FIRE SERVICE CONTRACTOR TO APPLY FOR A FIRE SPRINKLER PERMIT ACCORDING TO THE REQUIREMENTS OF CBC AND THE CITY OF SAN DIEGO.

20. **ELEVATORS:**
ELEVATORS SHALL COMPLY WITH 2010 CBC CHAPTER 30, CAL OSHA REQUIREMENTS ANSI:ASME A17.1, NFPA 72; 3-8.14.6 AND ALL OTHER PERTINENT CODES.

21. RATED DOORS SHALL HAVE SMOKE SEAL TO COMPLY WITH POSITIVE PRESSURE AS REQUIRED PER CBC STANDARD 7-2. RATED WALL SHALL COMPLY WITH CBC SECTION 715.4.3.1.

22. ALL RATED DOOR ASSEMBLY SHALL HAVE "S" LABEL PER CODE SECTION 715.4.5.1 & 3.

23. HAZARDOUS MATERIALS WILL BE STORED AT THE H3/H4 DESIGNATED ENCLOSED ROOMS THAT ARE USED WITHIN THE BUILDING WHICH EXCEED THE QUANTITIES LISTED IN CBC TABLES 307.1 (1) AND 307.1 (2).

24. **DEFERRED SUBMITTAL:**
   A. FIRE SERVICE UNDERGROUND
   B. FIRE SPRINKLERS
   C. CURTAIN WALLS
   D. STAIRS

25. **SPECIAL INSPECTION:**
   A. SPRAY APPLIED FIRE PROOFING
   B. SOILS REPORT
   C. CONCRETE f'c>2500 PSI
   D. OFF SITE FABRICATION
   E. FIELD WELDING
   F. POET INSTALLED ANCHORS
   G. MASONRY f'M>1500 PSI

26. **SPECIAL INSPECTION NOTES:**
   A. The special inspector must be certified by the City of San Diego, Development Services, in the category of work required to have special inspection.

   B. The construction meterials testing laboratory must be approved by the City of San Diego, Development Services, for testing materials, systems, components and, equipments.

   C. Fabricator must be registered and approved by the City of San Diego, Development Services, for the fabrication of members and assemblies on the premises of the fabricator's shop.

   D. Special inspections and tests for sprayed fire-resistant materials shall be in accordance with Sections 1704.12.1 through 1704.12.6 and shall be performed after thr rough installation of electrical, automatic sprinkler, mechanical and plumbing systems and suspension systems for ceilings, where applicable. [Section 1704.12].

EXISTING USE:
OCCUPIED R&D BUILDING TO REMAIN

EXISTING DEVELOPMENT PERMITS:

PLANNED INDUSTRIAL DEVELOPMENT (P.I.D.)	86-0967
P.I.D.AMENDMENT	87-1049
PROCESS 2000 SUBSTANTIAL CONFORMANCE REVIEW	96000267 (add Mech.Yard)
PROCESS 2000 SUBSTANTIAL CONFORMANCE REVIEW	

EXISTING LAND USE INFORMATION AND OVERLAYS:

BASE ZONE	IP-1-1 INDUSTRIAL PARK ZONE
AIRPORT INFLUENCE AREA (AIA)	YES
COMMUNITY PLANNED IMPLEMENTATION OVERLAY ZONE(CPIOZ)	A
MIRAMAR COMPREHENSIVE LAND USE PLAN SAFETY ZONE	TRANSITION ZONE
AIRPORT ENVIRONS OVERLAY ZONE	60-65 CNEL
FIRE BRUSH ZONES 300FT BUFFER	YES
FIRE HAZARD SEVERITY ZONE	YES
FIRST PUBLIC ROADWAY	NO
PARKING IMPACT	YES
PRIME INDUSTRIAL LAND	YES
ENVIRONMENTAL SENSITIVE LAND	YES
STEEP HILLSIDES	YES
GEOLOGIC HAZARD CATEGORIES	51/54
FAA PART 77 NOTIFICATION AREA	YES
COMMUNITY PLAN NAME	UNIVERSITY

EXISTING SITE AREAS:

TOTAL GROSS SITE AREA: (approximate)	6.52 ACRES (284,011 SF)
PARCEL 1	2.72 ACRES
PARCEL 2	3.80 ACRES
MAXIMUM BUILDING COVERAGE:	1.83 ACRES = .25 (max. allowed)
MAXIMUM BUILDING COVERAGE %:	71,002.80 SF (71,002.80/284,011) = 25%
EXISTING BUILDING COVERAGE:	68,500 SF (68,500/284,011) = 24.1%

EXISTING GROSS FLOOR AREAS:

PARCEL 1 - 4757 NEXUS DRIVE	
(E) TOTAL GROSS SQUARE FOOTAGE	36,686 S.F.
(Note: TOTAL GROSS SQUARE FOOT REMOVED UNDER SEPARATE PERMIT PTS # 301084)	(35,941 S.F.)
PARCEL 2 - 4767 NEXUS DRIVE	
FIRST FLOOR LOT COVERAGE	32,000 S.F.
SECOND FLOOR SQUARE FOOTAGE	32,000 S.F.
TOTAL GROSS SQUARE FOOTAGE	64,000 S.F.
PARKING GARAGE BASEMENT	34,000 S.F.*
TOTAL BUILDING AREA	98,000 S.F.*
TOTAL ON SITE GROSS SQUARE FOOTAGE	100,686 SF
MAXIMUM GROSS SQUARE FOOTAGE AS ENTITLED	133,000 SF

* For Information Only - Not included in the Gross Floor Area

EXISTING ZONING:

THESE PARCELS WERE DEVELOPED UNDER RESOLUTION NO. 7493 PD GRANTING PLANNED INDUSTRIAL DEVELOPMENT PERMIT NO. 87-1049 AMENDMENT TO PID PERMIT NO. 86-0967, RECORDED JUNE 14, 1988 AS FILE NO.88-283002, OF OFFICIAL RECORDS, THE CONDITIONS FOR DEVELOP UNDER SAID RESOLUTION MAU OR MAY NOT AGREE WITH THE STANDARD ZONING REGULATIONS FOR ZONE IP-1-1, COASTAL OVERLAY ZONE, IN WHICH THESE PROPERTIES LIE.

STANDARD CONDITIONS UNDER ZONE IP-1-1 ARE AS FOLLOWS:
ACCORDING TO TABLE 131-06C OF THE CITY OF SAN DIEGO MUNICIPAL CODE CHAPTER 13 ARTICLE 1 DIVISION 6 SECTION 18:

MINIMUM FRONT SETBACK	20'
STANDARD FRONT SETBACK	25'
SIDE SETBACK	15'
MINIMUM STREET SETBACK	20'
STANDARD STREET SIDE SETBACK	20'
STANDARD REAR SETBACK	25'
HEIGHT	N/A
FLOOR AREA RATIO	2.0

EXISTING PARKING CALCULATIONS:

BASED ON SHARED PERKING AGREEMENT PTS # 264785

SITE	GROSS AREA (SF)	REQUIRED PARKING	PROVIDED PARKING
4755	45,000	112.5	102
4757	69,000	172.5	109
4767	64,000	160	234
		445	445

FIRE RESISTIVE RATING REQUIREMENTS:

BUILDING ELEMENT	Type III B
PRIMARY STRUCTURAL FRAME	0 hr
BEARING WALLS - Exterior	2 hr
BEARING WALLS - Interior	0 hr
NON-BEARING WALLS - Exterior	See Table 602*
NON-BEARING WALLS - Interior	0 hr
FLOOR CONSTRUCTION & SECONDARY MEMBERS	0 hr
ROOF CONSTRUCTION & SECONDARY MEMBERS	0 hr

**To comply with Table 602 the building shall keep 30' away from all property lines.*

GOVERNING CODES

BUILDING CODE:
PART 2: 2010 CALIFORNIA BUILDING CODE (CBC)
PART 3: 2010 CALIFORNIA ELECTRICAL CODE (CEC)
PART 4: 2010 CALIFORNIA MECHANICAL CODE (CMC)
PART 5: 2010 CALIFORNIA PLUMBING COCE (CPC)
PART 6: 2010 CALIFORNIA ENERGY CODE
PART 9: 2010 CALIFORNIA FIRE CODE (CFC)
PART 11: 2010 CALIFORNIA GREEN CONSTRUCTION CODE
PART 12: 2010 CALIFORNIA REFERENCED STANDARDS CODE
TITLE 8: 2010 CALIFORNIA ELEVATOR SAFETY CODE

OTHER REGULATIONS:
CITY OF SAN DIEGO ADOPTED CODES AND ORDINANCES

PROJECT DATA

PROJECT NAME:

PROJECT ADDRESS:

CONSTRUCTION TYPE: **IIIB**

OCCUPANCY: GROUP B

PROPOSED USE: LAB/OFFICE

GROSS FLOOR AREA:

MEASURED TO OUTSIDE FACE OF PERIMETER WALLS & OUTSIDE FACE OF GLAZING. STAIRS, ELEVATOR SHAFTS, SECOND FLOOR OPENINGS ARE INCLUDED.		(E) BUILDING• (E) WEST WING:	(N) BUILDING (N) EAST WING:
FIRST FLOOR:	34,818 SF	18,343 SF	16,475 SF
SECOND FLOOR:	34,818 SF	18,343 SF	16,475 SF
TOTAL AREA:	69,636 SF	36,686 SF	32,950 SF
Future Mech Rooms*	- 636 SF*		
TOTAL AREA:	69,000 SF	< or = 69,000 SF maximum allowable gross square footage	

* Future Mechanical Rooms are not included in the gross floor area as definedby the University Community Plan.

• Existing Building was built on August 1989 permitted as 1985 UBC.

CAL GREEN:

1. THE PROJECT MUST MEET ALL THE REQUIREMENTS OF CALIFORNIA GREEN BUILDING STANDARDS CODE DIVISIONS 5.1 THROUGH 5.5.
2. PROVIDE LONG-TERM BICYCLE PARKING. FOR BUILDINGS WITH OVER 10 TENANT-OCCUPANTS, PROVIDE SECURE BICYCLE PARKING FO.5% OF TENANT-OCCUPIED MOTORIZED VEHICLE PARKING CAPACITY, WITH A MINIMUM OF ONE SPACE. (CGBSC 5.106.4.2).
3. PROVIDE DESIGNATED PARKING FOR ANY COMBINATION OF LOW-EMITTING, FUEL-EFFICIENT, AND CARPOOL/VANPOOL VEHICLES AS SHOWN IN TABLE 5.106.6.2. SHOW LOCATION OF SPACE AND TYPE OF SIGNAGE THAT WILL BE PLACED (CGBSC 5.106.5.2).
4. PROVIDE A WEATHER-RESISTANT EXTERIOR WALL AND FOUNDATION ENVELOPE AS REQUIRED BY THE CALIFORNIA BUILDING CODE SECTION 1403.2 AND CALIFORNIA ENERGY CODE SECTION 150. MANUFACTURER'S INSTALLATION INSTRUCTIONS, OR LOCAL ORDINANCE, WHICHEVER IS MORE STRINGENT (CSGBC 5407.1).
5. EMPLOY MOISTURE CONTROL MEASURES BY TEH FOLLOWING METHODS; SECTION 5407.2 OF CALGREEN.
6. DESIGN EXTERIOR ENTRIES AND OPENINGS TO PREVENT WATER INTRUSION INTO BUILDINGS. (CGBSC 5407.2.2).
7. SMOKING PROHIBITED WITHIN 25 FEET OF BUILDING ENTRIES, OUTDOOR INTAKES AND OPERABLE WINDOWS, EXISTING PARKING LOT AREAS ARE DESIGNATE AS "SMOKING AREAS".
8. 100% OF TREES, STUMPS, ROCKS, AND ASSOCIATED VEGETATION AND SOILS RESULTING PRIMARILY FROM LAND CLEARING SHALL BE REUSED OR RECYCLED. A LETTER FROM THE CONTRACTOR WITH VERIFICATIONS NEEDS TO BE SUBMITTED TO THE INSPECTOR TO SHOW COMPLIANCE.
9. PREVENT IRRIGATION SPRAY ON THE STRUCTURES.
10. ADHESIVES, SEALANTS, CAULKS, ADHESIVES AND SEALANTS USED ON THE PROJECT SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS. (SECTION 5.504.4.1 OF CAL GREEN) ADHESIVES, ADHESIVE BONDING PRIMERS, SEALANTS, SEALANT PRIMERS, AND CAULKS SHALL COMPLY WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLICABLE, OR SCAQMD RULE 1168 VOC LIMITS, AS SHOWN IN TABLES 5.504.4.1 AND 5.5040402 OF CAL GREEN.
11. A LETTER FROM THE CONTRACTOR AND BUILDING OWNER CERTIFYING WHAT MATERIAL HAS BEEN USED AND ITS COMPLIANCE WITH THE CODE MUST BE SUBMITTED TO THE BUILDING INSPECTOR.
12. AEROSOL ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR CAULKING COMPOUNDS (IN UNITS OF PRODUCT, LESS PACKAGING, WHICH DO NOT WEIGH MORE THAN ONE POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH SATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94507.
13. ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH TABLE 5,504.4.2 UNLESS MORE STRINGENT LOCALS APPLY.
14. AREOSOL PAINTS AND COATINGS SHALL MEET THE PRODUCT-WEIGHTED MIR LIMITS FOR ROC IN SECTION 94522(a)(3) AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS AND OZONE DEPLETING SUBSTANCES (OCR TITLE 17, SECTION 94520 ET SEQ).
15. PROVIDE A LETTER FROM CONTRACTOR AND/OR THE BUILDING OWNER CERTIFYING WHAT PAINT HAS BEEN USED AND ITS COMPLIANCE WITH THE CODE MUST BE SUBMITTED TO THE BUILDING INSPECTOR.
16. ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE STANDARDS LISTED IN 5.504.4.4
17. ALL CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE GREEN LABEL PROGRAM. ALL CARPET ADHESIVE SHALL MEET THE REQUIREMENTS OF TABLE 804.4.1. A LETTER FROM THE INSTALLER CERTIFYING COMPLIANCE MUST BE SUBMITTED TO THE BUILDING INSPECTOR.
18. HARDWOOD PLYWOOD, PARTICLE BOARD, AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED IN THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN TABLE 5.504.4.
19. DOCUMENTATION SHALL BE PROVIDED VERIFYING THAT RESILIENT FLOORING MATERIALS MEET THE POLLUTANT EMISSION LIMITS.

ADDITIONAL NOTES:

1. It is understood that plans for the project have, at this time, been reviewed for compliance wit all applicable State and City regulations, and that the project as a whole has been approved by the City, with the exception of the deferred items.
2. I/We understand that I/we will not be authorized any inspection of the deferred items proposed prior to the submittal and approval of plans and/or calculations for those deferred items.
3. NOTICE TO THE APPLICANT/OWNER/OWNER'S AGENT/ARCHITECT OR ENGINEER OF RECORD:
   By using this permitted construction drawings for construction/installation of the work specified herein, you agree to comply with the requirements of City of San Diego for special inspections, structural observations, construction material testing and off-site fabrication of building components, contained in the statement of special inspections and, as required by the California construction codes.
4. NOTICE TO THE CONTRACTOR/BUILDER/INSTALLER/SUB-CONTRACTOR/OWNER-BUILDER:
   By using this permitted construction drawings for construction/installation of the work specified herein, you acknowledge and are aware of, the requirements contained in the statement of special inspections. You agree to comply with the requirements of City of San Diego for special inspections, structural observations, construction material testing and off-site fabrication of building components, contained in the statement of special inspections and, as required by the California construction codes.
5. Fire sprinkler systems shall be installed in accordance with CBC 903.3
6. All valves controlling the water supply for automatic sprinkler systems and waterflow switches on all sprinkler systems shall be electronically monitored where the number of sprinklers served is 20 or more.
7. One approved audible device must be connected to every automatic sprinkler system in an approved location on the exterior of the structure.

ALLOWABLE AREA CALCULATIONS

ALLOWABLE AREA PER STORY PER TABLE 503:
GROUP B = 19,000 SF
GROUP L = 17,500 SF

Aa= At + [At x If] + [At x Is]

Is = 2 PER CBC 506.3
(sprinkler system increase)
If = [F/P - 0.25] x (W/30)
F = 246.5'
P = 861'
W = 30'

B OCCUPANCY = 76,000 sf **If = 0.04**

At = 19,000 SF (tabular building area per story)
Aa = 19,000 + [19,000 x 0.04] + [19,000 x 2]
= 19,000 + 760 + 38,000
= 57,760 SF < 76,000(allowable building area per story)

W = 30

If = [F/P - 0.25] W/30
= [246.5/861-0.25] 30/30
= (0.04)(30/30)
= 0.04

TABLE 503 BASIC ALLOWABLE BLDG. AREA 19,000 SF
506.2 FRONTAGE INCREASE —
506.3 AUTOMATIC SPRINKLER INCREASE x 2 38,000
506.4 SINGLE OCC. W/ MULTIPLE FLOOR x 2 76,000

BLDG. HEIGHT 34.5' plus 8' (Roof Screen)= 42.5 < 55' allowable
STORIES ABOVE GRADE 2 < 3 allowable

SYMBOLS

GRID LINE NUMBER OR LETTER — GRID LINE

DETAIL NUMBER; SHEET WHERE DETAIL IS DRAWN, SAME DISCIPLINE — DETAIL

SECTION NUMBER; SHEET WHERE SECTION IS DRAWN, SAME DISCIPLINE — SECTION

F H 4 (STUD SIZE; WALL TYPE; WALL EXTENT) — WALL TYPE

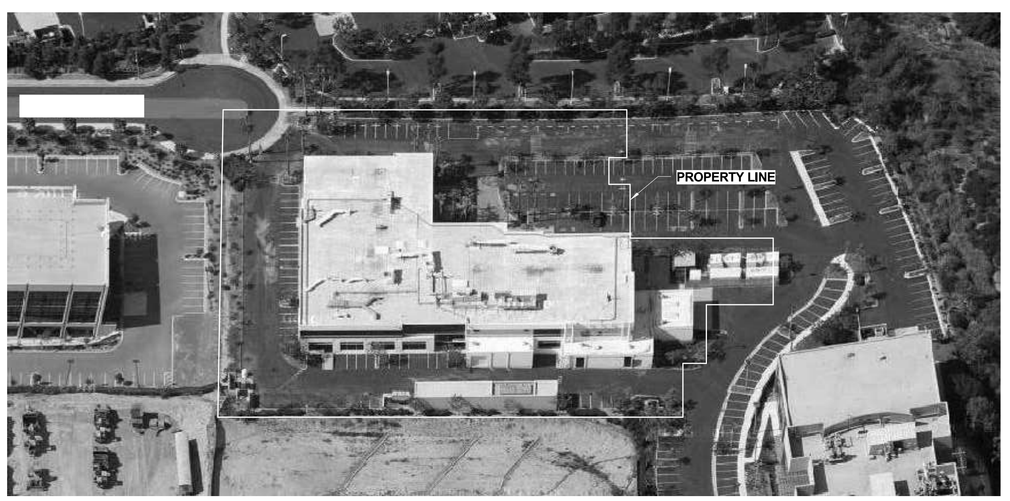
DELTA; SEE DESCRIPTION BLOCK ON SAME SHEET FOR DATE & DESCRIPTION — DRAWING REVISION

KEYED NOTES SEE DESCRIPTION; LIST ON SAME SHEET — KEYNOTE

PLAN NORTH; FILLED LINE INDICATES PLAN NORTH; DASHED ARROW INDICATES TRUE NORTH — NORTH ARROW

LOCATION PLAN

SITE MAP



NORTH

SCALE 1/4" = 1'-0"

TITLE **PROJECT DATA, GENERAL NOTES**

G-002

2/15/2013 7:48:56 AM

GRADING PLANS FOR:

GENERAL NOTES

1. THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CITY OF SAN DIEGO DOES NOT AUTHORIZE THE SUBDIVIDER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES, INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT OF 1973 AND AMENDMENTS THERETO (16 USC SECTION 1531 ET SEQ.)

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A LAND SURVEYOR SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE MONUMENTS, A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT, SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

3. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A ''PERMIT TO EXCAVATE'' WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-422-4133, TWO DAYS BEFORE YOU DIG.

4. CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD AND THE CITY OF SAN DIEGO MUNICIPAL CODE AND STORM WATER STANDARDS MANUAL.

5. ''PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE.'' IF REPAIR OR REPLACEMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN THE PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT- ISSUING AUTHORITY.

6. ALL EXISTING AND/OR PROPOSED PUBLIC UTILITY SYSTEM AND SERVICE FACILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH SECTION 144.0240 OF THE MUNICIPAL CODE.

7. DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.

8. NEITHER THE OWNER, NOR THE DESIGN ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.

9. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE DESIGN ENGINEER.

10. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL SLOPES, STREETS, UTILITIES, LANDSCAPING, IRRIGATION AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS, IF THERE IS ANY QUESTION REGARDING THESE PLANS, THE CONTRACTOR SHALL REQUEST ANY ADDITIONAL INFORMATION BEFORE DOING ANY WORK BY CALLING THE DESIGN ENGINEER AT (858)-614-5000.

11. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONSTRUCTION OPERATIONS BY APPROPRIATE MEANS (STRAW ROLLS, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY THE OWNER. CONTRACTOR SHALL COMPLY WITH STORM WATER POLLUTION PREVENTION PLAN PREPARED BY THE OWNER.

12. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE GENERATED FROM RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE EXPENSE OF THE CONTRACTOR.

13. CONTRACTOR SHALL COORDINATE WITH OWNER-PROVIDED TESTING COMPANY FOR ALL WORK REQUIRING MATERIALS TESTING, SUCH AS, BUT NOT LIMITED TO: PAVEMENT SUBGRADE, PAVEMENT BASE, ASPHALT CONCRETE, AND PORTLAND CEMENT CONCRETE.

14. ANY WORK PERFORMED WITHOUT INSPECTION OR MATERIALS TESTING IS SUBJECT TO REMOVAL OR CORRECTION AT CONTRACTOR'S EXPENSE.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS TO THE SATISFACTION OF THE OWNER.

16. THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON HAND FOR UNFORSEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER AND SEWER UTILITIES WHEREBY FLOWS MAY GENERATE EROSION AND SEDIMENT POLLUTION.

GRADING NOTES

1. GRADING AS SHOWN ON THESE PLANS SHALL BE IN CONFORMANCE WITH CURRENT STANDARD SPECIFICATIONS AND CHAPTER 14, ARTICLE 2, DIVISION 1, OF THE SAN DIEGO MUNICIPAL CODE.

2. GRADED, DISTURBED, OR ERODED AREAS THAT WILL NOT BE PERMANENTLY PAVED, COVERED BY STRUCTURE, OR PLANTED FOR A PERIOD OVER 90 DAYS SHALL BE TEMPORARILY RE-VEGETATED WITH A NON-IRRIGATED HYDROSEED MIX, GROUND COVER, OR EQUIVALENT MATERIAL.

GENERAL UTILITY NOTES

CONTRACTOR TO VERIFY LOCATION OF UTILITIES BEFORE STARTING WORK

A 3 INCH BASE IS REQUIRED TO PREVENT DAMAGE FROM ROCKS, SAGS OR POCKETS. IMPORTED MATERIAL CONSISTING OF NATURAL SAND OR MANUFACTURED SAND, EXISTING NATIVE MATERIAL, OR COMBINATIONS MAY BE USED FOR BASE AND SHADING MATERIAL PROVIDED IT COMPLIES WITH SDG&E STANDARDS AND THE COMPACTION REQUIREMENTS OF GOVERNMENTAL AGENCIES. SDG&E STANDARDS SPECIFY THAT THE SHADING MATERIAL MUST HAVE A MIXTURE OF PARTICLE SIZES ALL SMALLER THAN 1/2". A MINIMUM COVER OF 4 INCHES OF COMPACTED SHADING MATERIAL (4 INCHES AFTER COMPACTION) SHALL BE INSTALLED ABOVE GAS PIPE. A MINIMUM COVER OF 12 INCHES OF COMPACTED SHADING MATERIAL WILL BE REQUIRED IF IN THE OPINION OF THE INSPECTOR THERE IS AN EXCESSIVE AMOUNT OF ROCKS AND CLODS IN THE BACKFILL. THE SHADING MATERIAL MUST BE INSTALLED BEFORE THE TRENCH IS BACKFILLED TO PREVENT DAMAGE FROM ROCKS, ETC. THE BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF THE APPLICABLE CODES, ORDINANCES, AND SDG&E STANDARDS AND BE FREE OF DEBRIS AND ORGANIC MATTER. THE COARSE MATERIAL SHALL BE WELL DISTRIBUTED THROUGHOUT THE FINER MATERIAL. ALL BASE, SHADING, AND BACKFILL MUST BE APPROVED BY AN SDG&E INSPECTOR.

NO WET UTILITIES SUCH AS WATER, SEWER OR IRRIGATION PIPES ARE ALLOWED IN THE SERVICE TRENCH. A MINIMUM 12 INCH HORIZONTAL SEPARATION OF UNDISTURBED SOIL IS REQUIRED BETWEEN YOUR SERVICE TRENCH AND ANY WATER, SEWER OR DRAIN PIPE. A MINIMUM 6 INCH VERTICAL SEPARATION IS REQUIRED FOR CROSSINGS.

ALL TRENCH RESURFACING SHALL BE DONE ACCORDING TO GOVERNMENTAL AGENCY REQUIREMENTS.

WATER NOTES

1. ALL WATER LINES (DOMESTIC AND FIRE) SHALL BE CONSTRUCTED WITH A MINIMUM OF TWO AND A HALF (2.50) FEET OF COVER TO THE FINISH GRADE. WHERE THE ALIGNMENT OF THE WATER LINE CONFLICTS WITH ANOTHER UTILITY (EXISTING OR PROPOSED) THE WATER LINE SHALL BE DIPPED UNDER THE CONFLICTING UTILITY.

2. METALLIC LOCATOR TAPE SHALL BE INSTALLED ABOVE ALL WATER LINES.

3. PRIOR TO ACCEPTANCE OF THE WATER LINES BY THE OWNER, THE LINES SHALL BE CLEANED AND TESTED BY THE CONTRACTOR AS INDICATED IN THE SPECIFICATIONS. ALL DEBRIS SHALL BE PROPERLY REMOVED & DISPOSED OF.

GROUND WATER DISCHARGE NOTES

1. ALL GROUND WATER EXTRACTIONS AND SIMILAR WASTE DISCHARGES TO SURFACE WATERS NOT TRIBUTARY TO THE SAN DIEGO BAY ARE PROHIBITED UNTIL IT CAN BE DEMONSTRATED THAT THE OWNER HAS APPLIED AND OBTAINED AUTHORIZATION FROM THE STATE OF CALIFORNIA VIA AN OFFICIAL "ENROLLMENT LETTER" FROM THE REGIONAL WATER QUALITY CONTROL BOARD IN ACCORDANCE WITH THE TERMS, PROVISIONS AND CONDITIONS OF STATE ORDER NO 2001-95 NPDES CA6919002.

2. THE ESTIMATED MAXIMUM DISCHARGE RATES MUST NOT EXCEED THE LIMITS SET IN THE OFFICIAL "ENROLLMENT LETTER" FROM THE REGIONAL BOARD UNLESS PRIOR NOTIFICATION AND SUBSEQUENT AUTHORIZATION HAS BEEN OBTAINED, AND DISCHARGE OPERATIONS MODIFIED TO ACCOMMODATE THE INCREASED RATES.

3. ALL GROUND WATER EXTRACTIONS AND SIMILAR WASTE DISCHARGES TO SURFACE WATERS TRIBUTARY TO THE SAN DIEGO BAY ARE PROHIBITED UNTIL IT CAN BE DEMONSTRATED THAT THE OWNER HAS APPLIED AND OBTAINED AUTHORIZATION FROM THE STATE OF CALIFORNIA VIA AN OFFICIAL "ENROLLMENT LETTER" FROM THE REGIONAL WATER QUALITY CONTROL BOARD IN ACCORDANCE WITH THE TERMS, PROVISIONS AND CONDITIONS OF STATE ORDER NO 2000-90. NPDES NO. CA6915001.

GEOTECHNICAL NOTES

1. ALL GRADING SHALL BE DONE UNDER THE OBSERVATION OF A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND, IF REQUIRED, BOTH A CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND AN ENGINEERING GEOLOGIST. ALL GRADING MUST BE PERFORMED IN ACCORDANCE WITH PLANS AND THE RECOMMENDATIONS OF SPECIFICATIONS SET FORTH IN THE SOILS REPORT

2. ALL FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MOST RECENT VERSION OF A.S.T.M. D-1557 OR AN APPROVED ALTERNATIVE STANDARD.

3. IF THE GEOTECHNICAL CONSULTANT OF RECORD IS CHANGED FOR THE PROJECT, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT HAS AGREED IN WRITING TO ACCEPT THE RESPONSIBILITY WITHIN THE AREA OF THEIR TECHNICAL COMPETENCE FOR APPROVAL UPON COMPLETION OF THE WORK. IT SHALL BE THE DUTY OF THE PERMITTEE TO NOTIFY THE CITY ENGINEER AND THE GEOLOGY SECTION OF THE DEVELOPMENT SERVICES DEPARTMENT IN WRITING OF SUCH CHANGE PRIOR TO THE RECOMMENCEMENT OF GRADING.

OWNER

ARE-NEW CENTRE II LLC
4660 LA JOLLA VILLAGE DRIVE, SUITE 725
SAN DIEGO, CA 92122
(858) 643-9100 FAX (858) 643-0062

REFERENCE DRAWINGS

28655-D

SITE ADDRESS

BENCHMARK

THE SOUTHWEST BRASS PLUG AT GENESSEE AVENUE AND AND EXECUTIVE DRIVE
ELEV = 360.346 CITY DATUM: NGVD29

TOPOGRAPHY SOURCE

TOPOGRAPHY WAS COMPILED FROM A FIELD SURVEY PERFORMED BY RBF CONSULTING ON DECEMBER 8, 2010 AND UPDATED.

ASSESOR PARCEL NUMBER

345-012-14

LEGAL DESCRIPTION

PARCEL 1 OF PARCEL MAP 17892, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON AUGUST 6, 1997.

SHEET INDEX

NO.	DESCRIPTION
C1.0	CIVIL TITLE SHEET
C2.0	DEMOLITION PLAN
C3.0	GRADING PLAN
C4.0	EROSION CONTROL PLAN
C5.0	POST CONSTRUCTION BMP MAP

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND THE SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF SAN DIEGO.

STANDARD SPECIFICATIONS:

DOCUMENT NO.	DESCRIPTION
PITS070112-01	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2012 EDITION
PITS070112-02	CITY OF SAN DIEGO STANDARD SPECIFICATIONS FOR PUBLICWORKS CONSTRUCTION (WHITEBOOK), 2012 EDITION
PITS070112-04	CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2010 EDITION
PITS070112-06	CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S CUSTOMARY STANDARD SPECIFICATIONS, 2012 EDITION

STANDARD DRAWINGS:

DOCUMENT NO.	DESCRIPTION
PITS070112-03	CITY OF SAN DIEGO STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION
PITS070112-05	CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S CUSTOMARY STANDARD PLANS, 2010 EDITION

LEGEND

	STANDARD DRAWING	SYMBOL
PROPOSED IMPROVEMENTS		
PROPERTY LINE		
DAYLIGHT LINE		
EXISTING ELEVATION		(302.7)
FINISH CONTOUR		365
TOP OF CURB ELEVATION		TC 310.50
6" CONCRETE CURB (PVT)	G-1, SDG-100	
SAWCUT LINE		
DIRECTION OF FLOW		
AC PAVING	3" AC ON 9" CLASS II BASE	
CONCRETE SIDEWALK		

ITEM	SYMBOL
EXISTING IMPROVEMENTS	
EXISTING CONTOUR	360
EXISTING WATER	W
EXISTING SEWER	S
EXISTING GAS	G
EXISTING ELECTRIC	E
EXISTING STORM DRAIN	SD
EXISTING CATCH BASIN	
EXISTING FIRE HYDRANT	
EXISTING LIGHT	
EXISTING RETAINING WALL	
EXISTING SEWER MANHOLE	

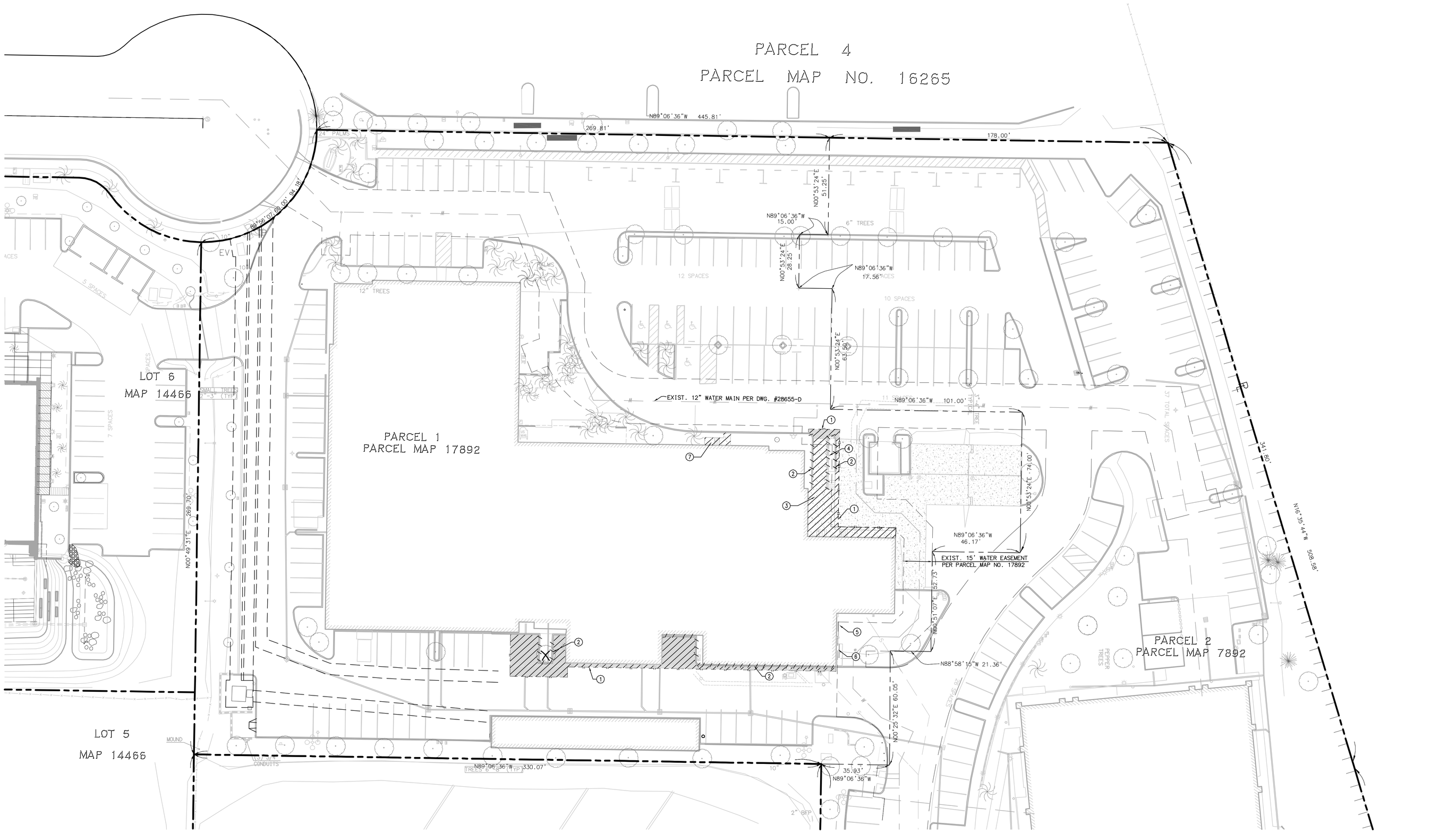
SCALE

TITLE

CIVIL TITLE SHEET

C1.0

H:\PDATA\132821\CADD\LAND\DLV\C1_0-TS.DWG RBARTE 1/15/13 8:21 am



DEMOLITION NOTES:

1. SAWCUT LINE
2. REMOVE EXISTING CONCRETE CURB
3. REMOVE EXISTING CONCRETE LOADING DOCK, RAMP AND STAIRS
4. REMOVE EXISTING WALL
5. REMOVE AND RELOCATE EXIST. DOMESTIC WATER AND BACKFLOW PREVENTER
6. REMOVE AND RELOCATE EXIST. FIRE BACKFLOW PREVENTER
7. REMOVE EXISTING CONCRETE WALK AND STAIRS

LEGEND:

AC PAVING TO BE REMOVED

CONCRETE PAVING TO BE REMOVED

SAWCUT LINE

ITEM TO BE REMOVED

EXISTING TREE TO BE REMOVED

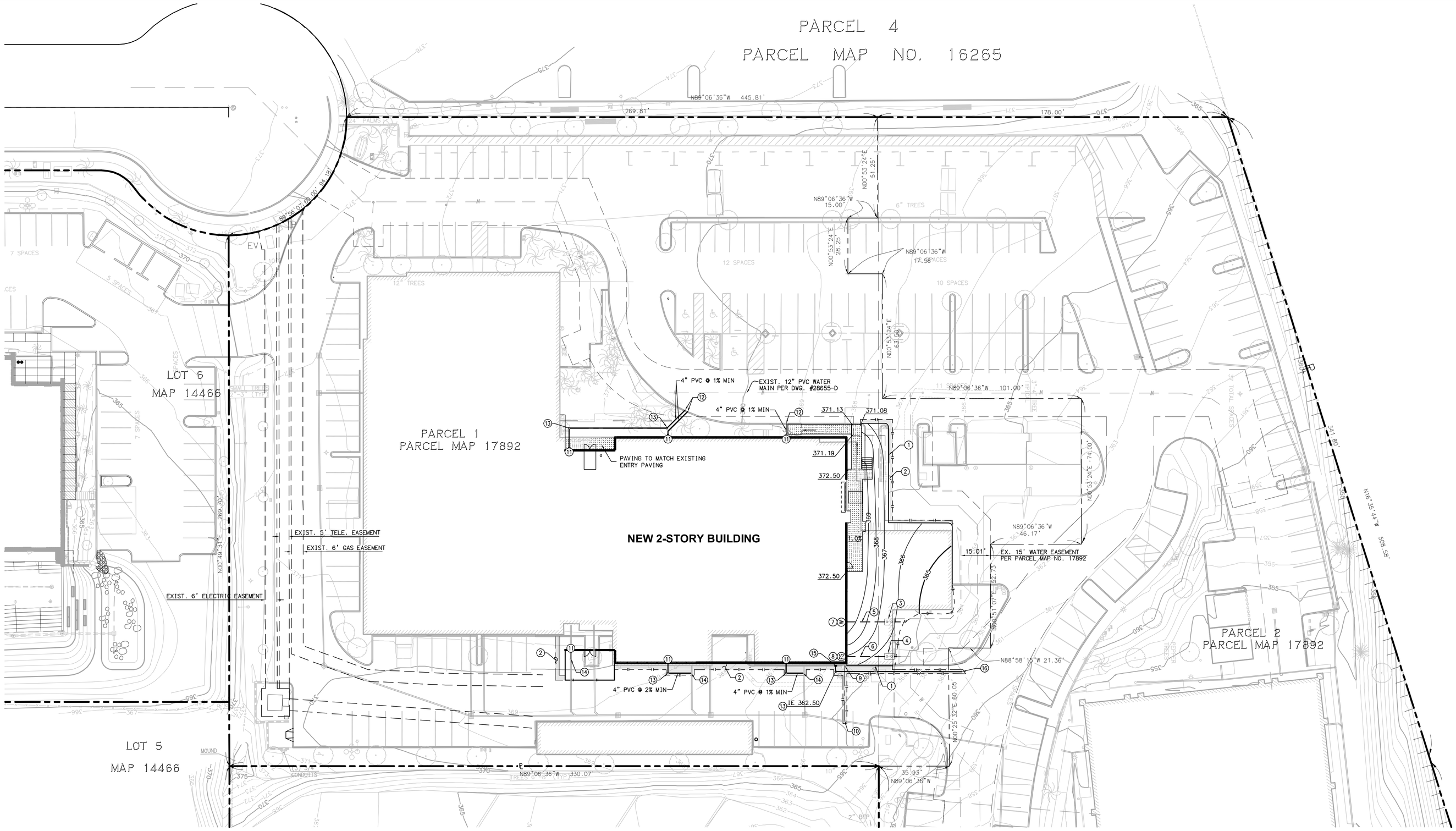
SCALE: 1"=20'

SCALE

TITLE

DEMOLITION PLAN

C2.0



City of San Diego
Development Services
1222 First Ave., MS-302
San Diego, CA 92101
(619) 446-5000

FORM DS-560
Storm Water Requirements Applicability Checklist
JANUARY 2011

Project Address: | Project Number (for City Use Only):

SECTION 1. Permanent Storm Water BMP Requirements:
Additional information for determining the requirements is found in the Storm Water Standards Manual.

Part A: Determine if Exempt from Permanent Storm Water BMP Requirements.
Projects that are considered maintenance, or are otherwise not categorized as "development projects" or "redevelopment projects" according to the Storm Water Standards manual are not required to install permanent storm water BMPs. **If "Yes" is checked for any line in Part A, proceed to Part C and check the box labeled "Exempt Project." If "No" is checked for all of the lines, continue to Part B.**

1.	The project is not a Development Project as defined in the Storm Water Standards Manual, for example habitat restoration projects, and construction inside an existing building.	☐ Yes ☒ No
2.	The project is only the construction of underground or overhead linear utilities.	☐ Yes ☒ No
3.	The project qualifies as routine maintenance (replaces or renews existing surface materials because of failed or deteriorating condition). This includes roof replacement, pavement spot repairs and resurfacing treatments such as asphalt overlay or slurry seal, and replacement of damaged pavement.	☐ Yes ☒ No
4.	The project only installs sidewalk bike lanes, or pedestrian ramps on an existing road, and does not change sheet flow condition to a concentrated flow condition.	☐ Yes ☒ No

Part B: Determine if Subject to Priority Development Project Requirements.
Projects that match one of the definitions below are subject to additional requirements including preparation of a Water Quality Technical Report.
If "Yes" is checked for any line in Part B, proceed to Part C and check the box labeled "Priority Development Project." If "No" is checked for all of the lines, continue to Part C and check the box labeled "Standard Development Project."

1.	**Residential development of 10 or more units.**	☐ Yes ☒ No
2.	**Commercial development and similar non-residential development greater than one acre.** Hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; and other light industrial facilities.	☐ Yes ☒ No
3.	**Heavy industrial development greater than one acre.** Manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas.	☐ Yes ☒ No
4.	**Automotive repair shop.** Facilities categorized in any one of Standard Industrial Classification (SIC) codes 5013, 5014, 5541, 7532-7534, or 7536-7539.	☐ Yes ☒ No
5.	**Restaurant.** Facilities that sells prepared foods and drinks for consumption, including stationary booth canteens and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), and where the land area for development is greater than 5,000 square feet.	☐ Yes ☒ No
6.	**Hillside development greater than 5,000 square feet.** Development that creates 5,000 square feet of impervious surface and is located in an area with known erosive soil conditions and where the development will grade on any natural slope that is twenty-five percent or greater.	☐ Yes ☒ No
7.	**Water Quality-Sensitive Area.** Development located within, directly adjacent to, or discharging directly to a Water Quality Sensitive Area (as depicted in Appendix C) in which the project either creates 5,000 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Discharging directly to" is defined as being situated within 200 feet of the Water Quality-Sensitive Area. "Discharging directly to" is defined as outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.	☐ Yes ☒ No
8.	Parking lot with a minimum area of 5,000 square feet or a minimum of 15 parking spaces and potential exposure to urban runoff (answer 'I needs the evaluation for potential pollutant contamination on line 11).	☐ Yes ☒ No

Printed or recycled paper. Visit our web site at: www.sandiego.gov/development-services.
Upon request, this information is available in alternative formats for persons with disabilities.
DS-560 (01-11)

Page 2 of 2 City of San Diego - Development Services Department - Storm Water Requirements Applicability Checklist

9.	**Street, road, highway, or freeway.** New paved surface in excess of 5,000 square feet used for the transportation of automobiles, trucks, motorcycles, and other vehicles (unless it meets the exclusion for road reconfiguration on line 11).	☐ Yes ☒ No
10.	**Retail Gasoline Outlet (RGO)** that is: (a) 5,000 square feet or more or (b) has a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.	☐ Yes ☒ No
11.	**Significant Redevelopment.** project installs and/or replaces 5,000 square feet or more of impervious surface and the existing site meets at least one of the categories above. The project is not considered Significant Redevelopment if reconfiguring an existing road or parking lot without a change to the footprint of an existing developed road or parking lot. The existing footprint is defined as the outside curb or the outside edge of pavement where there is no curb.	☐ Yes ☒ No
12.	**Other Pollutant Generating Project.** Any other project not covered in the categories above, that disturbs one acre or more and is not excluded by the criteria below. *Projects creating less than 5,000 sq ft of impervious surface and where related landscaping does not require regular use of pesticides and fertilizers, such as slope stabilization using native plants. Calculation of the square footage of impervious surface need not include bicycle pathways that are for infrequent vehicular use, such as emergency maintenance access or bicycle pedestrian use, if they are built with pervious surfaces or if they drain flow to surrounding pervious surfaces.*	☐ Yes ☒ No

Part C: Select the appropriate category based on the outcome of Part A & B.

1.	If "Yes" is checked for any line in Part A, then check this box. Continue to Section 2.	☐ Exempt Project
2.	If "No" is checked for all lines in Part A, and Part B, then check this box. Continue to Section 2.	☒ Standard Development Project
3.	If "No" is checked for all lines in Part A, and "Yes" is checked for at least one of the lines in Part B, then check this box. Continue to Section 2. See the Storm Water Standards Manual for guidance in determining if Hydromodification Management Plan requirements apply.	☐ Priority Development Project

SECTION 2. Construction Storm Water BMP Requirements
For all projects, complete Part D. If "Yes" is checked for any line in Part D, then continue to Part E.

Part D: Determine Construction Phase Storm Water Requirements.

1.	Is the project subject to California's statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities? (See State Water Resources Control Board Order No. 2009-0009-DWQ for rules to enrollment)	☐ Yes ☒ No
2.	Does the project propose grading or soil disturbance?	☒ Yes ☐ No
3.	Would storm water or urban runoff have the potential to contact any portion of the construction area, including washing and staging areas?	☒ Yes ☐ No
4.	Would the project use any construction materials that could negatively affect water quality if discharged from the site (such as, paints, solvents, concrete, and stucco)?	☒ Yes ☐ No
5.	Check this box if "Yes" is checked for line 1. Continue to Part E.	☐ SWPPP Required
6.	Check this box if "No" is checked for line 1, and "Yes" is checked for any line 2-4. Continue to Part E.	☒ WPCP Required
7.	Check this box if "No" is checked for all lines 1-4. Part E does not apply.	☐ No Document Required

Part E: Determine Construction Site Priority
This prioritization must be completed with this form, noted on the plans, and included in the SWPPP or WPCP. The City reserves the right to adjust the priority of the projects both before and during construction. (Note: The construction priority does NOT change construction BMP requirements that apply, as projects evolve, it determines the frequency of inspections that will be conducted by City staff.)

☐ 1. **High Priority**
a) Projects where the site is 50 acres or more and grading will occur during the wet season
b) Projects 1 acre or more and tributary to an impaired water body for sediment (e.g., Pollutograph watershed)
c) Projects 1 acre or more within or directly adjacent to or discharging directly to a coastal lagoon or other receiving water within a Water Quality Sensitive Area.
d) Projects subject to phased grading or advanced treatment requirements.

☐ 2 **Medium Priority**. Projects 1 acre or more but not subject to a high priority designation.

☒ 3 **Low Priority**. Projects requiring a Water Pollution Control Plan but not subject to a medium or high priority designation.

Name of Owner or Agent (Please Print): Brian Oliver Title: Vice Pres. Land Dev.
Signature: Brian Oliver Date: 12/11/12

CONSTRUCTION NOTES:

1. 6" CONCRETE CURB
2. AC PAVING OVER BASE PER SOILS REPORT
3. RELOCATED DOMESTIC WATER BACKFLOW PREVENTER INSTALLED PER STD. DWG.
4. RELOCATED FIRE BACKFLOW PREVENTER INSTALLED PER STD. DWG.
5. 2" DOMESTIC WATER SERVICE EXTENSION
6. 6" FIRE SERVICE EXTENSION
7. DOMESTIC WATER P.O.C. SEE PLUMBING PLANS FOR CONTINUATION.
8. FIRE SERVICE P.O.C. SEE PLUMBING PLANS FOR CONTINUATION.
9. 4" FOOTING DRAIN P.O.C.
10. CONNECT 4" PVC FOOTING DRAIN TO EXIST. STORM DRAIN AND PATCH PAVING PER REGIONAL STANDARD DRAWING SDG-107.
11. 4" ROOF DRAIN P.O.C. SEE PLUMBING PLANS FOR CONTINUATION.
12. 4" ROOF DRAIN THROUGH CURB.
13. SEWER TYPE CLEANOUT PER REGIONAL STANDARD DRAWING SDS-102.
14. CONNECT TO EXIST. ROOF DRAIN LEADER WITH WYE CONNECTION.
15. 4" SEWER P.O.C. SEE PLUMBING PLANS FOR CONTINUATION.
16. CONNECT 4" SEWER TO EXIST. 6" PVT SEWER.

NOTE:

SEE ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT NO._____ FOR PRIVATE SEWER, CURB, PAVING, HARDSCAPE AND LANDSCAPING WITHIN WATER EASEMENT.

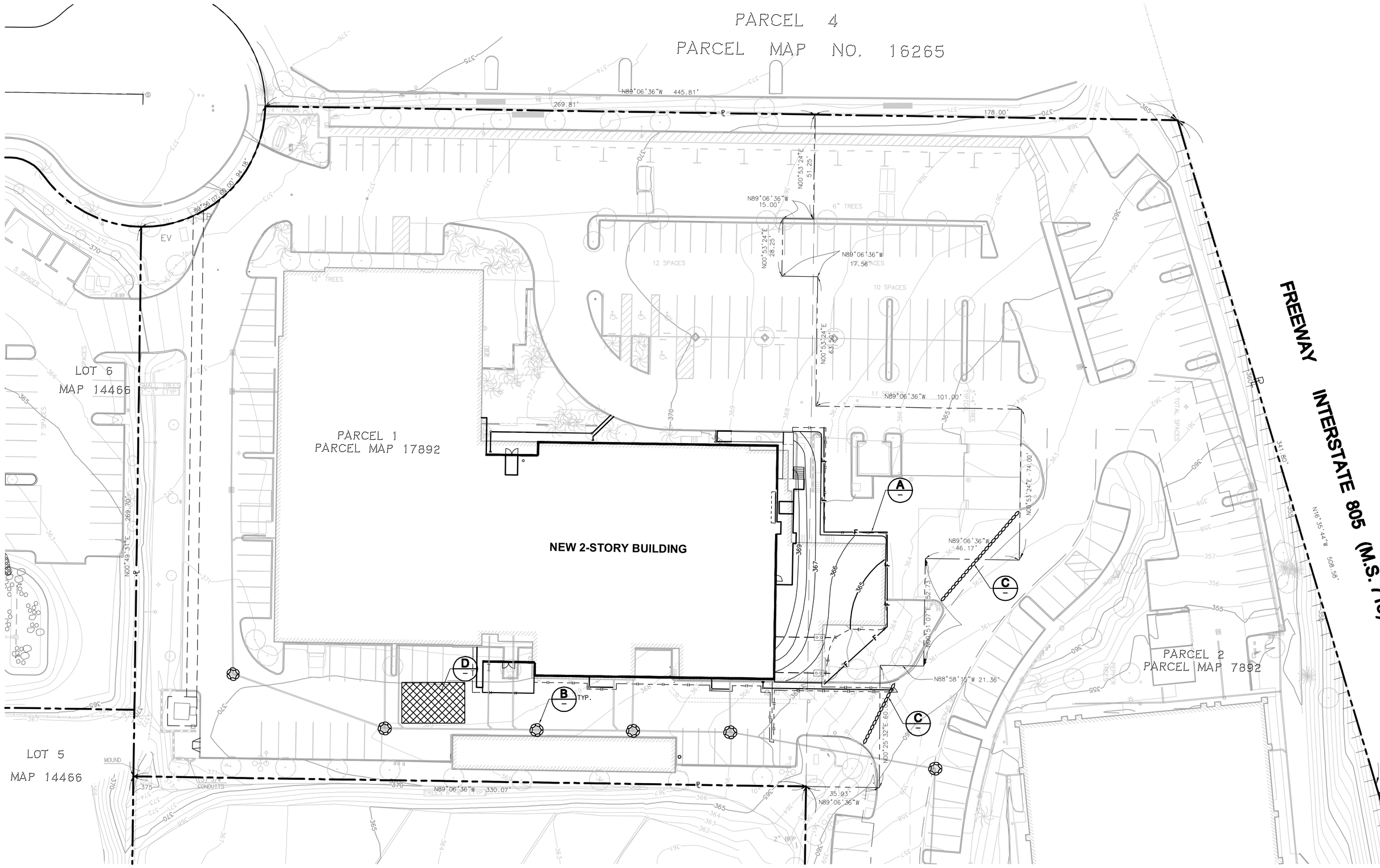
SCALE: 1"=20'

SCALE

TITLE

GRADING AND UTILITY PLAN

C3.0



TIME OF INSTALLATION:

IT IS THE INTENT THAT THE HYDROSEED MIX BE APPLIED NO SOONER THAN JUST BEFORE THE FIRST RAIN, IN NOVEMBER, AND NO LATER THAN JUST AFTER THE SECOND RAIN AFTER THE FIRST RAIN IN NOVEMBER.

EROSION CONTROL:

PROVIDE ONE ROW OF GRAVEL BAGS OR STRAW ROLL AT THE BASE OF ALL HYDRO-SEEDED SLOPES AND DOWN SLOPE LIMITS OF GRADING.

EROSION CONTROL NOTES

1. THE EROSION CONTROL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSPECTION AND MODIFICATION OF THE EROSION CONTROL DEVICES, AS NECESSARY, DURING THE RAINY SEASON. THE CONTRACTOR, PERMITTEE, OR OWNER SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF THE EROSION CONTROL DEVICES DURING THE RAINY SEASON.
2. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED AS THE WORK PROGRESSES AS RECOMMENDED BY THE ENGINEER OF WORK AND AS APPROVED BY THE OWNER'S REPRESENTATIVE.
3. ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY AFTER AS DIRECTED BY THE INSPECTOR.
4. STAND-BY CREWS SHALL BE ALERTED BY THE CONTRACTOR, OWNER'S REPRESENTATIVE FOR EMERGENCY WORK DURING RAINSTORMS.
5. ALL UTILITY TRENCHES SHALL BE BACKFILLED WITHIN 24 HOURS AND MUST BE BACKFILLED BEFORE THE END OF THE WORK DAY IF A 40% CHANCE OF RAIN IS PREDICTED.
6. PROVIDE VELOCITY CHECK DAMS IN ALL STREET AREAS PAVED OR UNPAVED AT THE INTERVALS INDICATED BELOW. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL BAGS, TIMBER, OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE OWNER'S REPRESENTATIVE, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTER LINE. EARTH MAY NOT BE USED AS VELOCITY CHECK DAMS.

GRADE OF STREET	INTERVAL	NUMBER OF
LESS THAN 2.0%	AS REQUIRED	BAGS HIGH
2% - 4%	100 FEET	1
4% - 6%	75 FEET	1
6% - 10%	50 FEET	2
OVER 10%	25 FEET	2

7. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS AT THE INTERVALS INDICATED BELOW UNLESS CHANNELS ARE LINED WITH TEMPORARY MATERIALS SUCH AS PASTIC SHEETING.

GRADE OF CHANNEL	INTERVAL
LESS THAN 3%	100 FEET
3% - 6%	50 FEET
OVER 6%	25 FEET

8. A GRAVEL BAG SILT BASIN OR TRAP SHALL BE PROVIDED AT EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM.
9. A GUARD SHALL BE POSTED ON SITE WHENEVER THE DEPTH OF WATER IN ANY UNFENCED FACILITY EXCEEDS TWO (2) FEET.
10. ALL REMOVABLE PROTECTION DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT, AFTER EACH RAINSTORM EXCEEDING 1/4 INCH IN A 12 HOUR PERIOD. SILT AND DEBRIS SHALL BE REMOVED FROM CHECK DAMS AND DESILTING BASINS, AND BASINS SHALL BE PUMPED DRY.
11. EFFECTIVE PLANTING SHALL BE INSTALLED, FULLY GERMINATED, AND SHALL EFFECTIVELY COVER THE REQUIRED SLOPES PRIOR TO FINAL APPROVAL. THE PLANTING MIX SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
12. GRAVEL BAGS AND NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR ANY DAMAGED EROSION CONTROL MEASURES WHEN RAIN IS EMINENT. A STANDBY CREW SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON.
13. CONTRACTOR MUST PROVIDE A 24-HOUR TELEPHONE NUMBER AND THE NAME(S) OF THE PERSON(S) RESPONSIBLE FOR EMERGENCY WORK. A TELEPHONE ANSWERING MACHINE OR ANSWERING SERVICE IS UNACCEPTABLE.
14. DEVICES SHOWN ON PLANS SHALL NOT BE REMOVED OR MODIFIED WITHOUT THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
15. THE CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE OR EACH RUN-OFF PRODUCING RAINFALL OR OTHER SOURCE OF WATER CAUSING EROSION TO THE SITE.
16. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE OWNER'S REPRESENTATIVE DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.
17. THE CONTRACTOR SHALL BE RESPONDSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
18. CONTRACTOR TO PROTECT ALL EXISTING HARDSCAPED AREAS AND REPLACE IN-KIND AND REMOVED OR DAMAGED AREAS PER THE LANDSCAPE ARCHITECT, ENGINEER OF WORK, OR THE OWNER'S REPRESENTATIVE.

STORMWATER AND EROSION CONTROL FIBER ROLLS

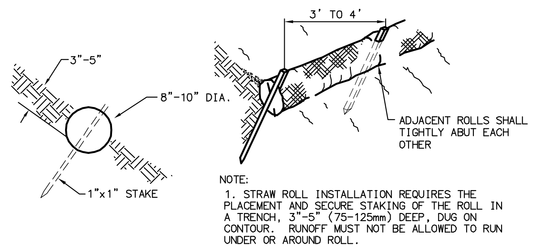
STORMWATER AND EROSION CONTROL FIBER ROLLS SHALL BE USED ON ALL SLOPE AREAS THAT ARE 4:1 GRADIENT AND STEEPER FOR SOIL STABILIZATION. SEE SPECIFICATIONS FOR INSTALLATION.

LEGEND

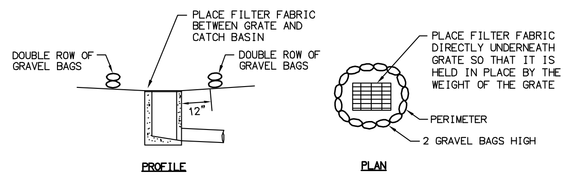
FIBER ROLL

GRAVEL BAGS (2 ROWS HIGH)

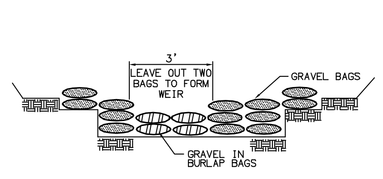
STEEL BUMP PLATE



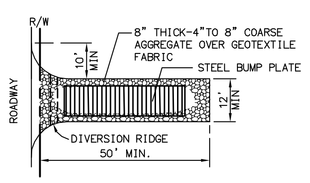
A FIBER ROLL DETAIL
N.T.S.



B TYPICAL AREA DRAIN DETAIL
N.T.S



C TYPICAL GRAVEL BAG SECTION
N.T.S.



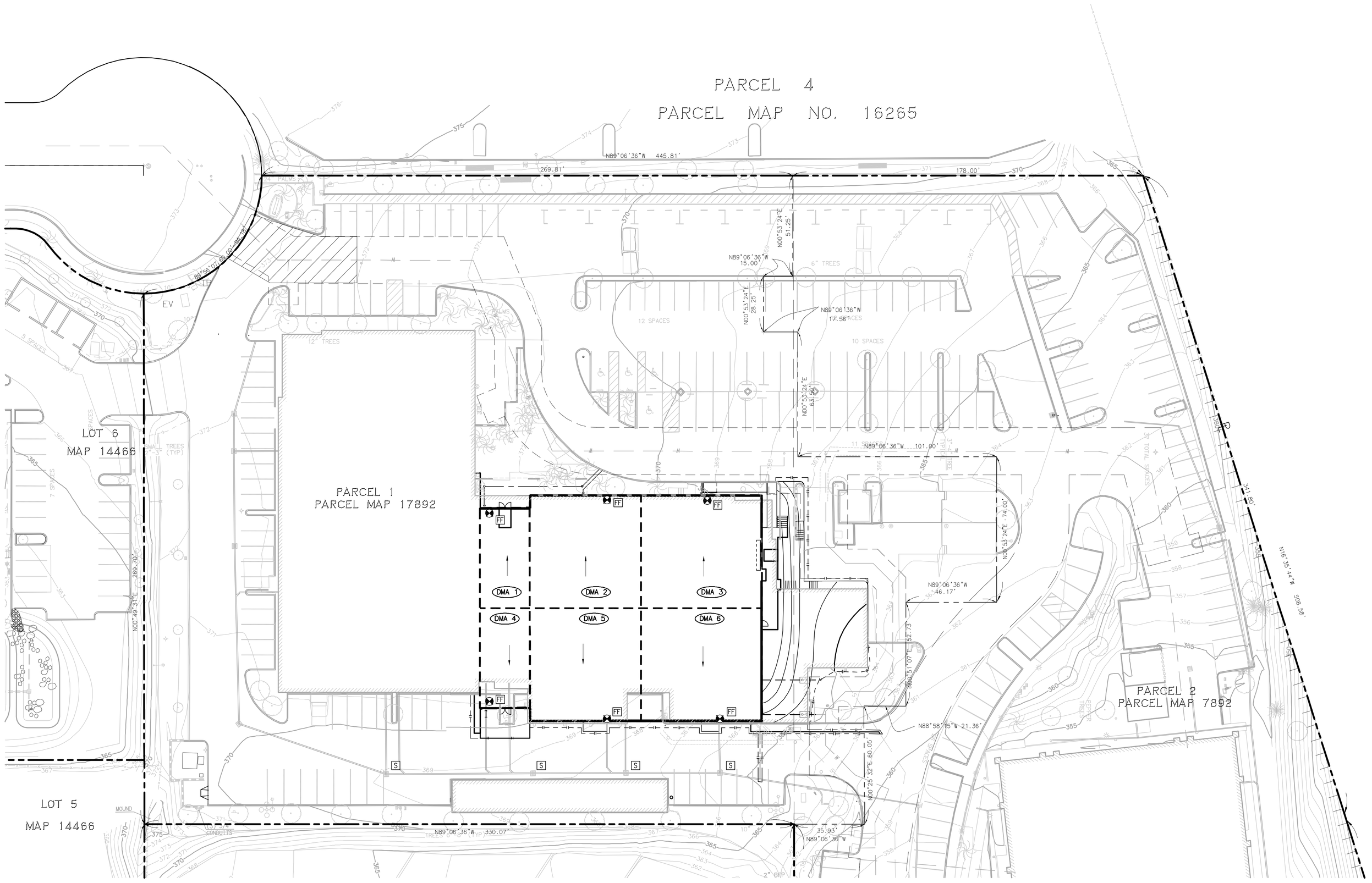
D STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

SCALE:

TITLE

EROSION CONTROL PLAN

C4.0



LEGEND

LIMITS OF OVERALL DRAINAGE BASIN	
FLOW DIRECTION	
BASIN	DMA 2
CONCENTRATION POINT	
FOSSIL FILTER	FF
STENCIL CATCH BASIN	S

20 10 0 20 40 60
SCALE: 1"=20'

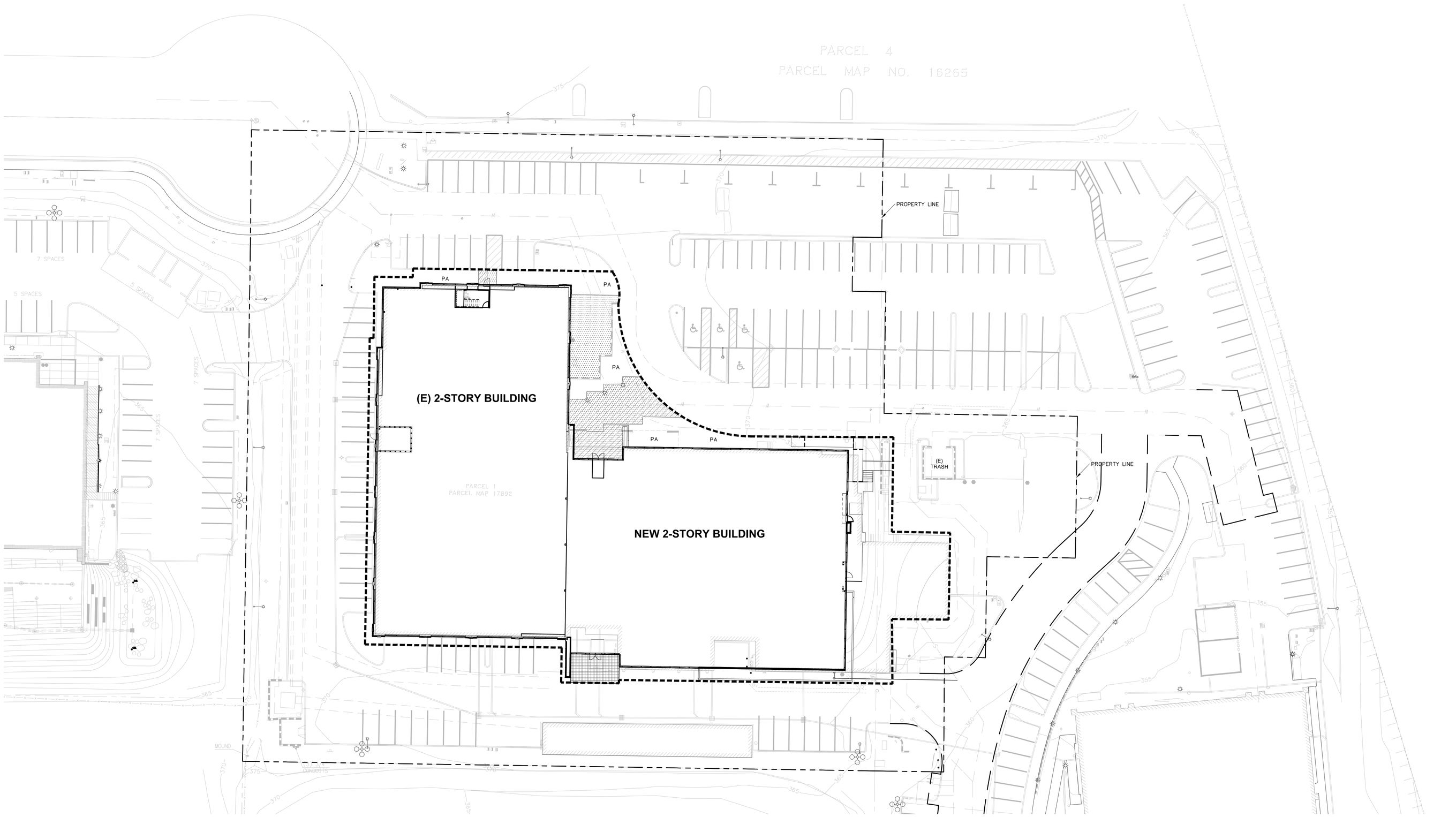
SCALE: 1"=60'

SCALE

TITLE

POST CONSTRUCTION BMP MAP

C5.0



HARDSCAPE LEGEND

SYMBOL	ITEM	DETAIL	DESCRIPTION	MANUFACTURER	MODEL	COMMENTS	SPECIFICATION
	EXISTING CONCRETE PAVERS TO REMAIN						
	CONCRETE PAVERS TO MATCH EXISTING	1 / L1.2	SALAVAGED AND RE-SET OR NEW TO MATCH EXISTING				
	PRE-CAST CONCRETE PAVER	1 / L1.2	4X16 PRECAST PAVER, MORTAR SET ON CONCRETE BASE	ACKERSTONE: 800-252-2353	FINISH: FACE MIX, RAW FINISH SIZE: 4X16 PAVER, 80 MM THICK NO CHAMFER COLOR: BUFF		
☼	EXISTING BOLLARD LIGHTS TO BE RELOCATED		TO BE RELOCATED				
	LIMIT OF WORK						
PA	PLANTING AREA						

0 10' 20' 40'
SCALE 1"=20'

N

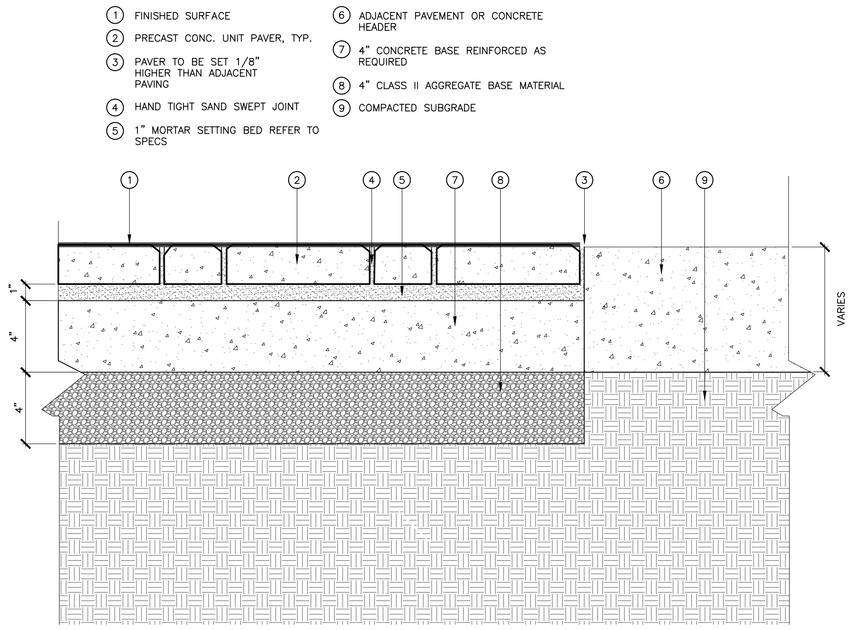
SCALE 1" = 20'-0"

TITLE

HARDSCAPE PLAN

L1.1

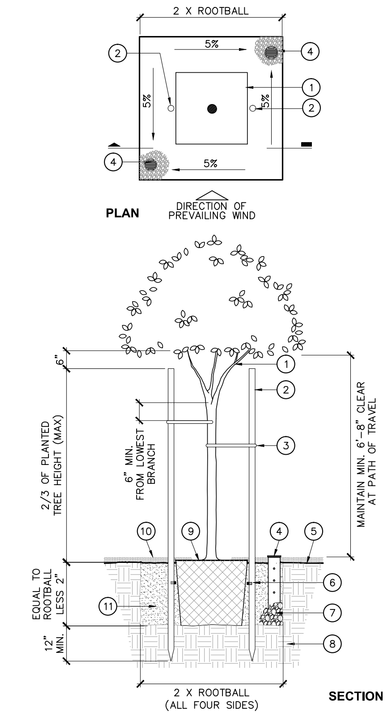
11/29/2012 8:58:22 AM



1. FINISHED SURFACE
2. PRECAST CONC. UNIT PAVER, TYP.
3. PAVER TO BE SET 1/8" HIGHER THAN ADJACENT PAVING
4. HAND TIGHT SAND SWEPT JOINT
5. 1" MORTAR SETTING BED REFER TO SPECS
6. ADJACENT PAVEMENT OR CONCRETE HEADER
7. 4" CONCRETE BASE REINFORCED AS REQUIRED
8. 4" CLASS II AGGREGATE BASE MATERIAL
9. COMPACTED SUBGRADE

1 UNIT PAVERS

SCALE: 3"=1'-0"



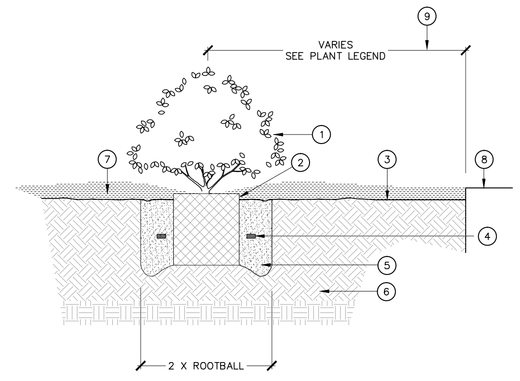
1. TREE AND ROOTBALL
2. TREE STAKES (2); LOCATE ON WINDWARD SIDE OF TREE
3. TREE TIES PER SPECIFICATIONS
4. 4" PERFORATED PIPE WITH 90° ELL FITTING AT BOTTOM AND FLAT GRATE AT TOP. WRAP PIPE IN FILTER FABRIC SOCK ("MANCOR"-NO KNOW EQ.UAL) LEAVE PIPE HOLLOW.
5. FINISHED GRADE
6. PLANT TABLETS PER SPECIFICATIONS 6" BELOW GRADE.
7. 1 CU. FT. CRUSHED AGGREGATE
8. SUBGRADE
9. SET ROOTBALL @ 2" ABOVE FINISH GRADE
10. MULCH PER SPECIFICATIONS
11. PLANTING BACKFILL MIX PER SPECIFICATIONS

NOTES:

1. REFER TO PLANTING SPECIFICATION FOR ADDITIONAL INFORMATION
2. DETAIL SHOWS A 24 GALLON TREE, MODIFY DETAIL IF LARGER TREE IS PROPOSED
3. KEEP MULCH 4"-6" AWAY FROM STEMS & TAPER @ ROOTBALL
4. MINIMUM BRANCHING HEIGHT 80" ABOVE ACCESSIBLE SURFACE

2 TREE PLANTING

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



1. SHRUB
2. SET ROOTBALL CROWN 1" ABOVE FINISH GRADE
3. FINISH GRADE
4. PLANT TABLETS PER SPECS.
5. PLANTING BACKFILL MIX PER SPECS.
6. RIPPED AND RECOMPACTED SUBGRADE PER SPECS
7. MULCH PER SPECS.
8. ADJACENT PAVING SURFACE
9. OFFSET FROM EDGE OF PAVING. SEE PLANT LEGEND FOR OFFSET DISTANCE.

NOTES:

1. REFER TO PLANTING SPECIFICATION FOR ADDITIONAL INFORMATION
2. DETAIL SHOWS A 5 GALLON ROOTBALL
3. KEEP MULCH 4"-6" AWAY FROM STEMS & TAPER @ ROOTBALL

3 SHRUB PLANTING

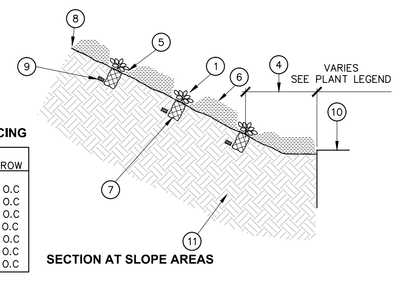
SCALE: 1"=1'-0"

1. GROUNDCOVER PLANT
2. TRIANGULAR SPACING (TYP.)
3. ON CENTER PLANT SPACING & PLANT ROW, REFER TO GROUND COVER SPACING CHART BELOW.
4. OFFSET FROM EDGE OF PAVING VARIES. SEE PLANT LEGEND FOR SPECIFIC OFFSET DISTANCES.
5. SET ROOTBALL CROWN ABOVE FINISH GRADE
6. MULCH PER SPECIFICATIONS
7. ROOTBALL
8. FINISH GRADE
9. PLANT TABLETS PER SPECIFICATIONS
10. ADJACENT PAVING
11. SOIL PER SPECS

NOTE: REFER TO PLANTING SPECIFICATION FOR ADDITIONAL INFORMATION.

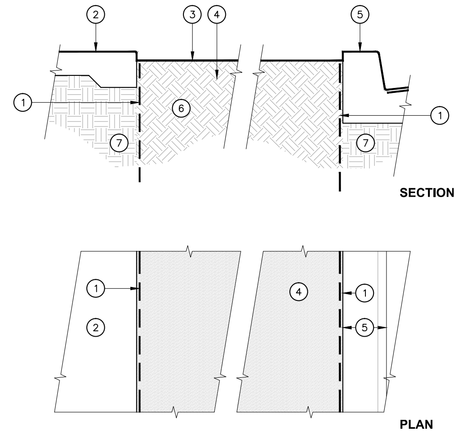
GROUND COVER SPACING

ON CENTER PLANT SPACING	PLANT ROW
8" O.C.	6.93" O.C
12" O.C.	10.4" O.C
18" O.C.	15.6" O.C
24" O.C.	20.8" O.C
36" O.C.	31.0" O.C
48" O.C.	36.33" O.C
60" O.C.	60.25" O.C



4 GROUNDCOVER PLANTING

SCALE: 1"=1'-0"



1. 24" HIGH ROOT BARRIER WHERE ABUTTING PAVING OR MOW EDGE 10' LENGTH TYPICAL
2. CONCRETE PAVING
3. FINISH GRADE
4. PLANTING AREA
5. CONCRETE CURB
6. AMENDED BACKFILL MIX PER SPECIFACATION (AT LAWN AREAS ONLY - 12" DEPTH) OR "CU" STRUCTURAL SOIL
7. SUBGRADE OR CU STRUCTURAL SOIL (REFER TO HARDSCAPE PLANS)

NOTES:

1. THIS ROOTBARRIER IS FOR USE IN ON-GRADE LANDSCAPE APPLICATIONS ONLY. REFER TO PLANTING SPECIFICATIONS FOR ROOT BARRIER PRODUCT AND SIZE.
2. REFER TO PLANS FOR SPECIFIC HARDSCAPE/BARRIER RELATIONSHIPS; DETAIL IS DIAGRAMMATIC.
3. TRIM TOP OF BARRIER TO BE 1/2" BELOW FINISHED GRADE.

5 ROOT BARRIER

SCALE: 1"=1'-0"

TITLE

PLANTING AND HARDSCAPE DETAILS

L1.2

11/29/2012 8:58:22 AM

PLANTING NOTES

GENERAL REQUIREMENTS

1 IF THE MOISTURE CONTENT OF THE SOIL SHOULD REACH SUCH A LEVEL THAT WORKING IT WOULD DESTROY SOIL STRUCTURE, SPREADING AND GRADING OPERATIONS SHALL BE SUSPENDED UNTIL, IN THE OPINION OF THE OWNERS REPRESENTATIVE, THE MOISTURE CONTENT IS INCREASED OR REDUCED TO ACCEPTABLE LEVELS AND THE DESIRED RESULTS ARE LIKELY TO BE OBTAINED.

2 ACTUAL PLANTING SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED HORTICULTURAL PRACTICE AS APPROVED BY THE OWNERS REPRESENTATIVE. CONTRACTOR SHALL ONLY INSTALL AS MANY PLANTS PER CAN BE PLANTED AND WATERED ON THAT SAME DAY.

3 ALL SCALED DIMENSIONS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND SHALL IMMEDIATELY INFORM THE OWNERS REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS.

4 PLANT MATERIAL QUANTITIES SHOWN ARE FOR CONVENIENCE ONLY. VERIFY COUNT AND PROVIDE NUMBER TO FULFILL INTENT OF DRAWINGS PRIOR TO ORDERING FROM NURSERIES.

5 PROTECTION OF EXISTING TREES, SHRUBS, AND GROUNDCOVER:

A THE OWNERS REPRESENTATIVE SHALL IDENTIFY EXISTING TREES AND SHRUBS OF WHICH ARE TO BE PRESERVED WITHIN THE PROJECT LIMITS. PRIOR TO THE START WORK, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH PLANT MATERIAL TO BE PRESERVED, RELOCATED, AND REMOVED.

B ALL PLANTING TO REMAIN SHALL BE PROTECTED AT ALL TIMES FROM DAMAGE BY STAFF AND EQUIPMENT. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES AND ROOTS. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. TUNNELING UNDER ROOTS 2 INCH AND LARGER SHALL BE DONE AND ONLY DONE AFTER RECEIPT OF WRITTEN APPROVAL OF THE OWNERS REPRESENTATIVE. CONTRACTOR SHALL PAINT CUT ROOTS WITHIN 24 HOURS; WHERE THIS IS NOT POSSIBLE, KEEP THE SIDE OF EXCAVATION ADJACENT TO TREE SHADED WITH MOIST BURLAP OR CANVAS. ALL MINOR DAMAGE BY CONTRACTOR TO EXISTING TREES AND SHRUBS SHALL BE REPAIRED AT HIS EXPENSE BY A LICENSED TREE SURGEON OR OTHER APPROVED PERSONNEL.

C DAMAGE TO A TREE OR SHRUB, WHICH RESULTS IN DEATH OR PERMANENT DISFIGURATION, SHALL RESULT IN THE CONTRACTORS COMPLETE REMOVAL OF SAID TREE OR SHRUB, INCLUDING ROOTS, FROM THE SITE. THE CONTRACTOR SHALL REPLACE THE TREE OR SHRUB AS ESTABLISHED BY THE OWNERS REPRESENTATIVE WITH ONE OF EQUAL VALUE AT HIS OWN EXPENSE, OR SHALL REIMBURSE TO THE OWNER THE COST OF SAID REPLACEMENT. THE OWNERS REPRESENTATIVE SHALL BE THE SOLE JUDGE OF THE CONDITION OF ANY TREE OR SHRUB.

D ALL PLANTS TO REMAIN ON-SITE WILL BE IRRIGATED AS NECESSARY DURING THE ENTIRE CONSTRUCTION CONTRACT.

DEEP WATER LEACHING

1 FILL IN ALL DEPRESSIONS, VOIDS, EROSION SCARS, OR SETTLED TRENCHES GENERATED BY THE DEEP LEACHING WITH CONDITIONED SOIL, LEAVING A FINAL FINISH GRADE SMOOTH AND EVEN.

FINAL GRADES

1 MINOR MODIFICATIONS TO GRADE MAY BE REQUIRED TO ESTABLISH THE FINAL GRADES.

2 CLEAN ALL PLANTING AREAS TO A DEPTH OF TWELVE (12) INCHES, REMOVING ALL WEEDS, DEBRIS, ROCKS, OR OTHER DELETERIOUS MATTER 1 INCH DIAMETER OR LARGER FROM THE SITE.

3 ALL UNDULATIONS AND IRREGULARITIES IN THE PLANTING SURFACES RESULTING FROM TILLAGE, ROTOTILLING, AND ALL OTHER OPERATIONS SHALL BE LEVELED AND FLOATED OUT BEFORE PLANTING.

4 THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT AND AVOID DAMAGE TO SPRINKLER HEADS, IRRIGATION LINES, AND OTHER UNDERGROUND UTILITIES DURING GRADING AND CONDITIONING OPERATIONS.

5 CONTRACTOR SHALL COORDINATE ALL DRAINAGE WORK WITH ALL OTHER TRADES. ESTABLISHED SITE DRAINAGE SHALL BE MAINTAINED BY CONTRACTOR DURING ALL PHASES OF LANDSCAPE CONSTRUCTION.

6 FINAL FINISH GRADES SHALL INSURE POSITIVE DRAINAGE OF THE SITE WITH ALL SURFACE DRAINAGE AWAY FROM BUILDINGS, WALLS AND TOWARD DRAINS AND CATCH BASINS.

7 FINAL GRADES SHALL BE APPROVED IN WRITING BY THE OWNERS REPRESENTATIVE BEFORE PLANTING OPERATIONS WILL BE ALLOWED TO BEGIN.

PERCOLATION TESTING AND DRAINAGE

1 SOILS PERCOLATION TESTS SHALL BE PERFORMED PER THE SPECIFICATIONS, BY FILLING PLANTING PITS WITH WATER, WAITING 12 HOURS AND THEN COMPLETELY REFILLING. IF ALL THE WATER IS NOT ABSORBED WITHIN 12 HOURS OF THE SECOND FILLING IT HAS FAILED THE TEST. UPON FAILURE, CONTACT OWNERS REPRESENTATIVE FOR REMEDIAL MEASURES.

2 BID PRICE SHALL BE BASED ON TREE PLANTING DETAILS SHOWN ON THE PLANS.

WEED CONTROL

1 PRIOR TO PLANTING, ERADICATE WEEDS WITHIN THE LIMITS OF WORK IN THE FOLLOWING ORDER:

A IRRIGATE TWICE EACH DAY FOR APPROXIMATELY 5 TO 10 MINUTES EACH WATERING TIME (AS APPROPRIATE TO SITE CONDITIONS) FOR A PERIOD OF 30 CALENDAR DAYS.

B APPLY POST EMERGENT HERBICIDE (SUCH AS ROUND-UP PRO) PER CALIFORNIA LICENSED PEST CONTROL ADVISOR AND ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. TAKE CARE TO PROTECT EXISTING PLANT MATERIAL WHICH IS TO REMAIN AS SHOWN ON THE PLANS.

C WAIT THE REQUIRED PERIOD FOR THE HERBICIDE TO TAKE EFFECT (APPROXIMATELY 7-14 DAYS).

D PHYSICALLY REMOVE WEEDS DEAD OR ALIVE WITHIN THE LIMITS.

2 EXISTING NATIVE VEGETATION SHALL NOT BE IRRIGATED AND IRRIGATION RUN-OFF SHALL NOT SPREAD TO AREAS WITH EXISTING NATIVE PLANTS.

SOIL CONDITIONING AND FERTILIZING

1 GRUB / CLEAN AND ROTOTILL ALL PLANTING AREAS TO A DEPTH OF TWELVE (12) INCHES, REMOVING ALL WEEDS, DEBRIS, ROCKS, OR OTHER DELETERIOUS MATTER 1 INCH DIAMETER OR LARGER FROM THE SITE (UNLESS SPECIFIED OTHERWISE). THEN BLEND IN CONDITIONERS PER THE SPECIFICATIONS.

GENERAL PLANTING

1 PRUNING SHALL NOT BE DONE EXCEPT BY APPROVAL OF OWNERS REPRESENTATIVE.

2 PLANT LOCATIONS SHALL BE CHECKED FOR POSSIBLE INTERFERENCE WITH EXISTING UNDERGROUND PIPING, PRIOR TO EXCAVATION OF HOLES. IF UNDERGROUND CONSTRUCTION OR UTILITY LINES ARE ENCOUNTERED IN THE EXCAVATION OF PLANTING AREAS, NOTIFY THE OWNER. EXPENSES FOR REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. MINIMUM TREE SEPARATION DISTANCES ARE AS FOLLOWS:

A TRAFFIC SIGNALS (STOP SIGNS) – 20 FEET
B UNDERGROUND UTILITY LINES – 5 FEET
C ABOVE GROUND UTILITY STRUCTURES – 10 FEET
D DRIVEWAY (ENTRIES) – 10 FEET
E INTERSECTIONS (INTERSECTING CURB LINES OF TWO STREETS) – 25 FEET

3 ALL EXCAVATED HOLES SHALL HAVE VERTICAL SIDES WITH ROUGHENED SURFACES AND SHALL BE OF THE MINIMUM SIZES INDICATED ON DRAWINGS. HOLES SHALL BE, IN ALL CASES, LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY OR BREAKAGE OF ROOT BALLS OR ROOTS.

PLANT AVAILABILITY

1 THE ACT OF PROVIDING A BID FOR THIS PROJECT ESTABLISHES THE CONTRACTORS UNDERSTANDING THAT THE PLANTS SPECIFIED HEREIN MAY BE UNUSUAL AND MORE DIFFICULT TO LOCATE THAN THE INDUSTRY STANDARD AND THAT THE CONTRACTOR AGREES TO THE FOLLOWING:

A THE CONTRACTOR SHALL SEARCH FOR EACH PLANT SPECIFIED. PROVIDED IN THESE DRAWINGS ARE A LIST OF PLANT NURSERY SOURCES TO BE CONTACTED DURING CONTRACTORS SEARCH. IF ANY OF THE LISTED NURSERIES, OR ANY NURSERIES IN CALIFORNIA OR ARIZONA HAVE THE SPECIFIED PLANTS IN THE CONTAINER SIZES SPECIFIED, THE CONTRACTOR SHALL BE OBLIGATED TO PURCHASE AND OBTAIN DELIVERY OF SAID PLANTS.

B WITHIN TWENTY-ONE (21) DAYS AFTER AWARD OF CONTRACT, CONTRACTOR SHALL SUBMIT A PLANT LIST WITH NURSERY SOURCES, PLANT QUANTITIES AND PLANT SIZES; PLANT LIST SHALL INDICATE ALL UNAVAILABLE PLANTS AND WHICH NURSERIES WERE CONTACTED DURING CONTRACTORS SEARCH. (LANDSCAPE ARCHITECT SHALL SUGGEST PLANT SUBSTITUTION BASED UPON INFORMATION IN CONTRACTOR SUBMITTAL.)

C UPON ACCEPTANCE OF CONTRACTOR PLANT SUBMITTAL BY LANDSCAPE ARCHITECT, CONTRACTOR SHALL SECURE PLANTS WITHIN FIVE (5) DAYS AND ARRANGE FOR DELIVERY FROM NURSERIES.

TREES, SHRUBS, AND VINES

1 EACH TREE AND SHRUB SHALL BE PLACED IN THE CENTER OF THE HOLE AND SHALL BE SET PLUMB AND HELD RIGIDLY IN POSITION UNTIL THE PLANTING BACKFILL HAS BEEN TAMPED DOWN AROUND EACH ROOTBALL.

2 ALL PLANTS SHALL BE SET AT SUCH A LEVEL THAT AFTER SETTLING THEY BEAR THE SAME RELATIONSHIP TO THE SURROUNDING FINISH GRADE AS THEY BORE TO THE SOIL LINE GRADE IN THE CONTAINER, UNLESS OTHERWISE NOTED.

3 ALL PLANTS SHALL BE THOROUGHLY WATERED INTO THE FULL DEPTH OF EACH PLANTING HOLE IMMEDIATELY AFTER PLANTING.

4 ROOT BARRIERS: ROOT CONTROL BARRIERS SHALL BE INSTALLED WHERE TREE TRUNK IS WITHIN FIVE FEET OF HARDSCAPE (OR CLOSER). INSTALL ROOT BARRIERS ADJACENT, AND PARALLEL TO, EDGE OF HARDSCAPE (LINEAR APPLICATION) AND NOT ENCIRCLING ROOTBALL. BARRIERS SHALL BE 10 – FT. MIN. LENGTH; CENTER STRIP OF ROOT BARRIER ON THE TREE TRUNK.

PLANTING SOD TURF

1 SEE SPECIFICATIONS FOR LAWN AREA SOIL PREPARATION AND SOD INSTALLATION.

MAINTENANCE PERIOD

1 LANDSCAPE AREAS SHALL BE KEPT FREE OF WEEDS, NOXIOUS GRASS, AND ALL OTHER UNDESIRED VEGETATIVE GROWTH AND DEBRIS.

2 PLANT MATERIALS SHALL BE KEPT IN A HEALTHY, OPTIMUM GROWING CONDITION AND IN A VISUALLY PLEASING APPEARANCE BY WATERING, PRUNING, MOWING, FERTILIZING, RESTAKING, PEST AND DISEASE CONTROLLING, SPRAYING, WEEDING, CLEAN-UP AND ANY MAINTENANCE OPERATION NECESSARY TO INSURE A HEALTHY, VIGOROUS STAND OF PLANTS AT THE TIME OF FINAL INSPECTION.

3 SEE SPECIFICATIONS FOR APPLICATION OF THE POST PLANTING FERTILIZER AT THE RATE SPECIFIED.

4 CONTRACTOR IS RESPONSIBLE FOR THE LANDSCAPE MAINTENANCE FOR ALL PLANTED AND/OR IRRIGATED AREAS SHOWN ON THE PLANS FOR THE MAINTENANCE PERIOD INDICATED IN THE SPECIFICATIONS.

TREE PROTECTION

1 PRIOR TO ANY DISTURBANCE TO THE SITE, THE OWNER/PERMITTEE SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN DIEGO MITIGATION MONITORING COORDINATION SECTION (MMC), THE RESIDENT ENGINEER (RE) AND/OR BUILDING INSPECTOR, CERTIFIED CONSULTING ARBORIST, CONSTRUCTION MANAGER, AND LANDSCAPE PROFESSIONAL.

2 THE CONSTRUCTION MANAGER IS RESPONSIBLE FOR PREVENTING DAMAGE TO TREES.

A CONSTRUCTION AND MAINTENANCE STAFF SHALL AVOID UNNECESSARY ACTIVITIES WITHIN THE DRIPLINE OF TREES.

B FINES SHALL BE ASSESSED TO THOSE INDIVIDUALS FOUND TO BE RESPONSIBLE FOR THE ILLEGAL REMOVAL OR DAMAGE OF PROTECTED TREES.

3 ANY DAMAGE OR INJURY TO TREES SHALL BE REPORTED WITHIN 24 HOURS TO MMC BY THE CERTIFIED CONSULTING ARBORIST.

4 THE CERTIFIED CONSULTING ARBORIST SHALL BE RESPONSIBLE FOR ESTABLISHING, IMPLEMENTING, AND MAINTAINING THE TREE PROTECTION ZONE AS SHOWN ON THESE PLANS DURING THE ENTIRE CONSTRUCTION PERIOD:

A STAKE THE COMPLETE DRIP LINE.

B ROOTS SHALL BE CLEANLY CUT BACK APPROX. 6" FROM THE LIMIT OF DISTURBANCE, UNLESS OTHERWISE DIRECTED BY THE CERTIFIED CONSULTING ARBORIST.

C INSTALL A TEMPORARY 6-FT HIGH CHAIN LINK FENCE AROUND THE IDENTIFIED DRIPLINE, UNLESS OTHERWISE DIRECTED BY THE CERTIFIED CONSULTING ARBORIST.

D ATTACH AN ORANGE OR YELLOW PROTECTIVE FENCE (MIN. 3' HIGH) TO THE CHAIN LINK FENCE.

E WHEN AREAS UNDER THE TREE CANOPY CANNOT BE FENCED, ANOTHER METHOD SHALL BE REQUIRED, AS RECOMMENDED BY THE CERTIFIED CONSULTING ARBORIST AND APPROVED BY MMC.

F POST "KEEP OUT" SIGNS IN BOTH SPANISH AND ENGLISH TO THE CHAIN LINK FENCE.

G PLACE STORY POLES WHERE PROPOSED BUILDING(S) AND TREE BRANCHES INTERFACE.

H SUBMIT TO MMC A TREE MAINTENANCE SCHEDULE PREPARED BY THE CERTIFIED CONSULTING ARBORIST.

I IF A TREE IS ADJACENT TO OR IN THE IMMEDIATE PROXIMITY TO A GRADE SLOPE OF 8% (23 DEGREES) OR MORE, PROVIDE ADEQUATE EROSION CONTROL.

5 THE CERTIFIED CONSULTING ARBORIST SHALL VERIFY IN WRITING TO THE OWNER/PERMITTEE THAT THE TREE PROTECTION ZONE HAS BEEN ESTABLISHED.

6 THE OWNER/PERMITTEE SHALL SUBMIT THE CERTIFIED CONSULTING ARBORIST'S VERIFICATION LETTER TO MMC BEFORE SCHEDULING A SITE INSPECTION WITH MMC, THE RE AND/OR BUILDING INSPECTOR, CERTIFIED CONSULTING ARBORIST, AND LANDSCAPE PROFESSIONAL.

7 RESTRICTIONS WITHIN THE TREE PROTECTION ZONE TO BE MONITORED BY THE CERTIFIED CONSULTING ARBORIST AS FOLLOWS:

A TREE PRUNING OR ROOT PRUNING WILL ONLY OCCUR UNDER THE GUIDANCE OF THE CERTIFIED CONSULTING ARBORIST WITH WRITTEN APPROVAL FROM MMC.

B PRUNING FOR VERTICAL CLEARANCE OF BUILDINGS, TRAFFIC, AND CONSTRUCTION EQUIPMENT SHALL BE PERFORMED BY THE CERTIFIED CONSULTING ARBORIST ONLY.

C CONSTRUCTION EQUIPMENT AND MATERIALS SUCH AS STOCKPILING OF SOIL, VEHICLE USE, FOOT TRAFFIC, UTILITY CONTAINERS, AND STORAGE OF ANY KIND, ARE PROHIBITED.

D THE EXISTING GRADE SHALL NOT BE DISTURBED UNLESS OTHERWISE APPROVED BY MMC, THE RE, AND/OR BUILDING INSPECTOR.

E ROOT SYSTEMS SHALL BE PROTECTED FROM FLOODING, EROSION, CHEMICAL SPILLS, AND EXCESSIVE VARIATIONS IN SOIL MOISTURE BY CONSTRUCTION ACTIVITY.

8 ANY MODIFICATIONS AND/OR ADDITIONS TO THE APPROVED TREE PROTECTION ZONE SHALL BE SUBMITTED BY THE CERTIFIED CONSULTING ARBORIST WITH ADEQUATE INFORMATION TO MMC FOR APPROVAL.

9 THE OWNER/PERMITTEE SHALL BE RESPONSIBLE FOR A MINIMUM 3 YEAR MONITORING AND MAINTENANCE PERIOD, DESIGNED BY THE CERTIFIED CONSULTING ARBORIST AFTER CONSTRUCTION TO ENSURE THE SUCCESS OF PROTECTED AND/OR REPLACEMENT TREES.

10 THE CERTIFIED CONSULTING ARBORIST SHALL PROVIDE ANNUAL REPORTS TO AND REQUEST INSPECTIONS FROM MMC DURING THE MONITORING AND MAINTENANCE PERIOD.

NURSERY LIST

BUSINESS	PHONE
ABC NURSERY	(800) 654-8062
ALTMAN SPECIALTY PLANTS	(760) 744-8191
ARBOR NURSERY	(626) 357-4823
AUSTRALIAN NATIVE PLANTS	(805) 649-3362
B & B NURSERYTOWN	(951) 926-1134
BARON BROTHERS NURSERY, INC.	(805) 484-0085
BARRELS & BRANCHES	(760) 753-2852
BERYLWOOD TREE FARM	(805) 485-7601
BIG TREES NURSERY, INC.	(858) 487-5553
BOETHING TREELAND FARMS	(818) 883-1222
BOTANICAL PARTNERS	(760) 758-6181
BRIGGS TREE NURSERY	(760) 727-2727
BUENA CREEK GARDENS	(760) 744-2810
CALIFORNIA CACTUS CENTER	(626) 795-2788
CAL-TOKYO NURSERY	(562) 208-9534
CEDROS GARDENS	(858) 792-8640
CHIA NURSERY	(805) 684-3382
CHOICE NURSERY	(858) 481-4151
CLAUSON NURSERY	(760) 724-3143
COLOR CONNECTION	(951) 927-1331
CYCADS N PALMS	(760) 728-4874
DURLING NURSERY	(760) 728-9572
E&K GROUNDCOVER	(760) 789-0924
EL NATIVO GROWERS	(626) 969-8449
ELLIS FARMS	(760) 767-5234
ETERA-NORTHWEST HORTICULTURE	(800) 75ETERA
FOUR SEASONS WHOLESALE	(818) 700-0092
FOXTAIL FARMS OF CALIFORNIA	(619) 669-7242
GANTERS	(760) 758-8375
GOOD EARTH NURSERY	(760) 728-5177
GREELEE NURSERY	(909) 629-9045
GREEN MEADOW GROWERS	(760) 751-0793
GROSBY CACTUS	(760) 727-1323
GROWEST	(714) 528-0761
HINES FALLBROOK	(800) 258-6472
HORAKH NURSERY	(760) 749-2108
HUNTER'S NURSERY	(619) 463-9341
JUNGLE MUSIC	(619) 291-4605
KINOS RIVER NURSERY	(559) 787-3073
LAS PILITAS NURSERY	(760) 749-5930
MAGIC GROWERS	(800) 640-6244
MIRAMAR WHOLESALE	(858) 552-0658
MIRAMAR WHOLESALE	(949) 951-7999
MIRAMAR WHOLESALE NURSERY	(949) 951-7999
MITSUWA NURSERY	(800) 824-0564
MONROVIA NURSERY	(760) 489-9203
MOUNTAIN HERB GARDEN	(619) 445-8352
NATIVE SONS WHL. NURSERY	(805) 481-5996
NORMANS NURSERY	(626) 285-9795
ORANGE COUNTY NURSERY	(800) 569-0169
OTTO & SONS NURSERY	(805) 524-2123
PACIFIC WEST TREE CO.	(559) 805-5859
PARDEE TREE NURSERY	(760) 630-5400
PARKWAY NURSERY (PALMS)	(760) 639-4640
PERENNIAL ADVENTURE	(619) 660-9631
PERFORMANCE NURSERY	(805) 529-5446
PIERGROSSI LANDSCAPE	(760) 598-4882
PRICE'S NURSERY & GARDEN	(760) 777-7325
RANCHO SOLEDAD NURSERY	(858) 756-3717
ROADRUNNER TREE FARM	(760) 767-3310
ROSELAND NURSERY	(760) 728-8863
SAKIOKA WHOLESALE NURSERY	(714) 898-0345
SAN MARCOS GROWERS	(805) 683-1561
SANTA CATALINA NURSERY	(760) 751-4035
SERRA GARDENS	(310) 456-1572
SHERMAN NURSERY	(760) 471-9988
SILHOUETTES OF THE DESERT	(760) 727-2935
SOLANA SUCCULENTS	(858) 259-4568
SOUTH COAST PALMS	(760) 723-1354
SUILIN AND WHITNEY ROBINSON	(760) 758-3913
SUNCREST NURSERIES	(800) 949-5064
SUNNY SLOPE	(714) 632-5550
SWAN HILL NURSERY, LLC	(623) 935-0545
THEODORE PAYNE FOUNDATION	(818) 768-1802
TIMBERLINE TREES	(626) 447-5690
TOMLINSON SELECT NURSERIES	(760) 727-2203
TREE OF LIFE NURSERY	(949) 728-0685
TREE SOURCE, THE	(949) 347-1191
UPPER CHASE NURSERY	(951) 776-2868
VALLEY CREST TREE COMPANY	(805) 524-3939
VENTURA COUNTY NURSERY, INC.	(805) 644-7677
VILLAGE NURSERIES	(714) 279-3100
VILLAGE NURSERIES	(858) 495-3233
W D YOUNG & SONS	(760) 347-7906
WALKER-VICE NURSERY	(619) 749-1615
WALTER ANDERSON'S	(619) 224-8271
WALTER ANDERSON'S	(858) 513-4900
WEIDNER'S GARDENS	(760) 436-2194
WEST COAST NURSERIES	(760) 436-1252
WESTERN CACTUS	(760) 726-1710
YASUDA TREE NURSERY	(619) 262-0555

REQUIREMENTS PER CITY OF SAN DIEGO

REQUIRED TREE PROTECTION:

1. PRIOR TO ANY DISTURBANCE TO THE SITE, THE OWNER/PERMITTEE SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN DIEGO MITIGATION MONITORING COORDINATION SECTION (MMC), RESIDENT ENGINEER (RE)/BUILDING INSPECTOR (BI), CERTIFIED CONSULTING ARBORIST (CCA), CONSTRUCTION MANAGER (CM), AND LANDSCAPE PROFESSIONAL.
2. THE CM IS RESPONSIBLE FOR PREVENTING DAMAGE TO TREES
   - 2.1. THE CONSTRUCTION AND MAINTENANCE STAFF MUST AVOID UNNECESSARY ACTIVITIES WITHIN THE DRIPLINE OF TREES.
   - 2.2. FINES SHALL BE ASSESSED TO THOSE INDIVIDUALS FOUND TO BE RESPONSIBLE FOR THE ILLEGAL REMOVAL OR DAMAGE OF PROTECTED TREES
3. ANY DAMAGE OR INJURY TO TREES SHALL BE REPORTED WITHIN 24 HOURS TO MMC BY THE CCA
4. THE CCA SHALL BE RESPONSIBLE TO ESTABLISH, IMPLEMENT, AND MAINTAIN TREE PROTECTION ZONE AS SHOWN ON PLANS DURING THE ENTIRE CONSTRUCTION PERIOD:
   - 4.1. STAKE THE COMPLETE DRIP LINE
   - 4.2. ROOTS SHALL BE CLEANLY CUT BACK APPROX. 6" FROM THE LIMIT OF DISTURBANCE, UNLESS OTHERWISE DIRECTED BY THE CCA.
   - 4.3. INSTALL A TEMPORARY 6' HIGH CHAIN LINK FENCE AROUND THE IDENTIFIED DRIPLINE, UNLESS OTHERWISE DIRECTED BY THE CCA.
   - 4.4. WHEN AREAS UNDER THE TREE CANOPY CANNOT BE FENCED, ANOTHER METHOD IS REQUIRED, AS RECOMMENDED BY TEH CCA AND APPROVED BY MMC.
   - 4.5. ATTACH AN ORANGE OR YELLOW PROTECTIVE FENCE (MIN 3' HIGHT) TO THE CHAIN LINK FENCE.
   - 4.6. POST "KEEP OUT" SIGNS IN BOTH SPANISH AND ENGLISH TO THE CHAIN LINK FENCE
   - 4.7. PLACE STORY POLES WHERE BUILDING AND TREE BRANCHES INTERFACE
   - 4.8. SUBMIT TREE MAINTENANCE SCHEDULE.
   - 4.9. IF A TREE IS ADJACENT TO OR IN THE IMMEDIATE PROXIMITY TO A GRADE SLOPE OF 8% OR MORE, PROVIDE ADEQUATE EROSION CONTROL.
5. THE CCA SHALL VERIFY IN WRITING TO THE OWNER/PERMITTEE THAT THE TREE PROTECTION ZONE HAS BEEN ESTABLISHED.
6. THE OWNER/PERMITTEE SHALL SUBMIT CCA VERIFICATION LETTER AND SCHEDULE A SITE INSPECTION WITH THE RE/BI, MMC, THE CCA, AND LA.
7. RESTRICTIONS W/IN THE TREE PROTECTION ZONE TO BE MONITORED BY CCA:
   - 7.1. TREE PRUNING OR ROOT PRUNING WILL ONLY OCCUR UNDER THE GUIDANCE OF THE CCA, WITH THE WRITTEN APPROVAL OF MMC.
   - 7.2. PRUNING FOR VERTICAL CLEARANCE OF BUILDINGS, TRAFFIC, AND CONSTRUCTINO EQUIPMENT SHALL BE PERFORMED BY THE CCA ONLY.
   - 7.3. CONSTRUCTION EQUIPMENT AND MATERIALS SUCH AS STOCKPILING OF SOIL, VEHICLE USE, FOOT TRAFFIC, UTILITY CONTAINERS, STORAGE OF ANY KIND, ARE PROHIBITED.
   - 7.4. THE EXISTING GRADE SHALL NOT BE DISTURBED UNLESS OTHERWSE APPROVED BY CITY STAFF.
   - 7.5. ROOT SYSTEMS SHALL BE PROTECTED FROM FLOODING, EROSION, CHEMICAL SPILLS, AND EXCESSIVE VARIATIONS IN SOIL MOISTURE BY CONSTRUCTION ACTIVITY.
8. ANY MODIFICATIONS AND/OR ADDITIONS TO THE APPROVED TREE PROTECTION ZONE SHALL BE SUBMITTED BY THE CCA WITH ADEQUATE INFORMATION TO MMC FOR APPROVAL.
9. THE ONER/PERMITTEE SHALL BE RESPONSIBLE FOR A MINIMUM 3 YEAR MONITORING AND MAINTENANCE PERIOD, DESIGNED BY THE CCA AFTER CONSTRUCTINO TO ENSURE THE SUCCESS OF PROTECTED AND/OR REPLACEMENT TREES.
10. THE CCA SHALL PROVIDE ANNUAL REPORTS TO AND REQUEST INSPECTIONS FROM MMC.

PLANTING NOTES:

1. ALL LANDSCAPE AND IRRIGATION SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CITY OF SAN DIEGO'S LANDSCAPE REGULATIONS, THE LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS, AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS.

2. ALL REQUIRED LANDCAPE AREAS SHALL BE MAINTAINED BY THE OWNER. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION.

3. ALL TREES SHALL BE PROVIDED WITH 40 SF OF ROOT ZONE AND PLANTED IN AN AIR AND WATER PERMEABLE LANDSCAPE AREA. THE MINIMUM DIMENSION OF THIS AREA SHALL BE 5 FEET MEASURED FROM THE INSIDE FACE OF THE CURB.

4. THE FOLLOWING TREE SEPERATION DISTANCES ARE REQUIRED:
   - 20' FROM TRAFFIC SIGNALS AND STOP SIGNS
   - 5' FROM UNDERGROUND UTILTY LINES
   - 10' FROM UNDERGROUND SEWER LINES
   - 10' FROM ABOVE GROUND UTILITY STRUCTURES
   - 25' FROM ALL INTERSECTIONS

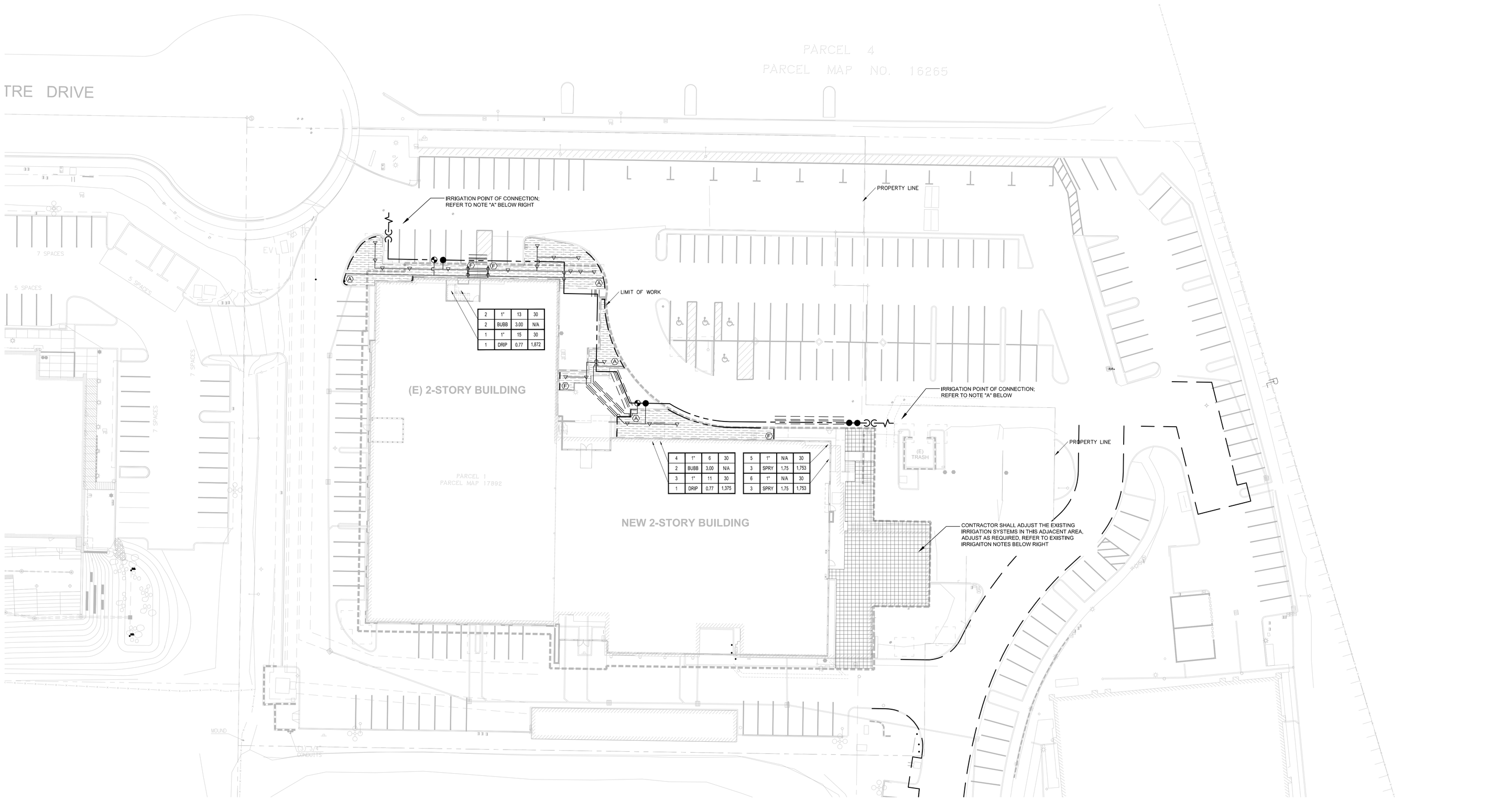
SCALE

TITLE

NOTES AND TABLES

LI.3

11/29/2012 8:58:22 AM



2	1"	13	30
2	BUBB	3.00	N/A
1	1"	15	30
1	DRIP	0.77	1,872

4	1"	6	30
2	BUBB	3.00	N/A
3	1"	11	30
1	DRIP	0.77	1,375

5	1"	N/A	30
3	SPRY	1.75	1,753
6	1"	N/A	30
3	SPRY	1.75	1,753

PROPOSED IRRIGATION NOTES

NOTE A:
POINT OF CONNECTION SHALL BE TO THE EXISTING IRRIGATION MAINLINE. VERIFY THE ACTUAL LOCATION, SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. IF ANY OF THE POC INFORMATION SHOWN ON THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

STATIC WATER PRESSURE	92 PSI
DESIGN WATER PRESSURE	54 PSI
MAXIMUM SYSTEM DEMAND	30 PSI
RESIDUAL WATER PRESSURE	38 PSI

NOTE B:
MAINLINE AND RELATED IRRIGATION EQUIPMENT SHOWN WITHIN PAVING FOR CLARITY ONLY. ACTUAL LOCATION OF MAINLINE AND RELATED IRRIGATION EQUIPMENT TO BE WITHIN PLANTER AND A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES TYP.

NOTE C:
CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, ETC. VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

NOTE D:
BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN PAVING FOR CLARITY ONLY. ACTUAL LOCATION TO BE WITHIN PLANTER. BUBBLERS SHALL BE ALIGNED WITH TREES AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

EXISTING IRRIGATION NOTES

NOTE E:
CONTRACTOR SHALL MAINTAIN ALL EXISTING IRRIGATION MAINLINES IN WORKING ORDER. COORDINATE ALL INTERRUPTIONS OF OPERATION OF THE EXISTING IRRIGATION TO A MINIMUM, COORDINATE ALL INTERRUPTIONS WITH THE OWNER'S REPRESENTATIVE.

NOTE F:
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING IRRIGATION EQUIPMENT DAMAGED DURING CONSTRUCTION AND IF DAMAGED, SHALL REPLACE WITH SAME MANUFACTURER AND MODEL.

NOTE G:
ANY EXISTING IRRIGATION CONTROL VALVES DESIGNATED TO REMAIN AND NEW CONTROL VALVES SHALL BE CONNECTED TO EXISTING CONTROLLER. CONFIRM PROPER CONTROLLER OPERATION AND INSTALLATION WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK AND UPON COMPLETION OF WORK.

NOTE H:
CONTRACTOR SHALL CONFIRM THE EXISTING CONTROLLER MAKE AND MODEL AND SHALL CONFIRM THAT SAID CONTROLLER HAS ADEQUATE OPEN STATIONS TO OPERATE ANY ADJUSTED AND ALL PROPOSED IRRIGATION SYSTEM MODIFICATIONS. NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE SHOULD ANY DISCREPANCIES BE NOTED.

NOTE I:
CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR/MODIFICATION/REROUTING OF ALL ADJACENT IRRIGATION SYSTEM EQUIPMENT THAT IS AFFECTED BY NEW CONSTRUCTION IMPROVEMENTS. CONTRACTOR SHALL REPAIR SAID SYSTEMS TO A LIKE NEW MANNER, PROVIDING NO LESS THAN 100% OF HEAD RADIUS COVERAGE IN ALL AREAS WITH SYSTEM LAYOUT AS APPROVED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONTRACTOR SHALL CONFIRM ALL AREAS REQUIRING MODIFICATION WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO BIDDING WORK AND PRIOR TO STARTING WORK.

NOTE J:
CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL AND DISPOSAL OF ALL EXISTING IRRIGATION EQUIPMENT AFFECTED BY THE NEW CONSTRUCTION IMPROVEMENTS, IF NECESSARY. CONTRACTOR SHALL VERIFY ALL EQUIPMENT TO BE REMOVED AND DISPOSED OF IN FIELD PRIOR TO BIDDING WORK AND PRIOR TO STARTING WORK.

NOTE K:
CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO BIDDING WORK AND AGAIN PRIOR TO STARTING WORK. VERIFICATION SHALL BE DOCUMENTED AND DELIVERED TO OWNER'S REPRESENTATIVE.

NOTE L:
CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT OF ALL SCH 40 PVC SLEEVING UNDER PAVING, WALLS AND CURBS AT NO LESS THAN 24" BELOW GRADE AND NO LESS THAN 2X DIAMETER OF IRRIGATION PIPE IN AREAS WHERE PIPE CROSSING WILL OCCUR. WHEN PIPE SIZE IS NOT AVAILABLE USE 6" SLEEVING MATERIAL. CONFIRM CROSSINGS WITH OWNER'S REPRESENTATIVE PRIOR TO PAVING AND HARDSCAPE CONSTRUCTION.

NOTE M:
EXISTING IRRIGATION IN ADJACENT AREAS SHALL BE PROTECTED IN PLACE FOR CONTINUED USE. CONTRACTOR SHALL VERIFY THE EXTENT OF THE EXISTING SYSTEMS AND MAKE ADJUSTMENTS TO CAP OFF OR MODIFY THE EXITING SYSTEM TO MEET THE NEW LANDSCAPE CONDITION IF NECESSARY.

NOTE N:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING WITHIN THE DRIPLINE OF EXISTING TREES. NO MECHANICAL TRENCHING WITHIN THE DRIPLINE OF THE EXISTING TREE WILL BE ALLOWED. AIR SPADE SHALL BE UTILIZED FOR ALL TRENCHING WITHIN THE DRIPLINE OF TREES. CONTRACTOR SHALL REFER TO ARBORIST REPORT FOR ADDITIONAL PRECAUTIONS REQUIRED FOR THE EXISTING TREES. VERIFY ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE.

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
36730 Sky Canyon Drive, Suite C
Murrieta, Ca 92563
e: info@sweeneyassoc.com t: (951) 461 6830
w: www.sweeneyassoc.com f: (951) 461-6850

SCALE 1" = 20'-0"

TITLE

IRRIGATION PLAN

L2.1

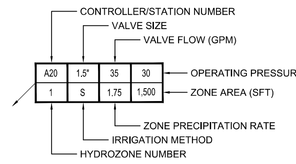
11/29/2012 8:58:22 AM

IRRIGATION NOTES

1. ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
3. THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
5. THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
6. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED, ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
7. INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
8. ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
9. CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE FROM CONTROLLER ALONG ENTIRETY OF MAIN LINE TO THE LAST RCV ON EACH AND EVERY LEG OF MAIN LINE, LABEL SPARE WIRES AT BOTH ENDS.
10. ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING TWICE THE DIAMETER OF THE PIPE CARRIED, SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
11. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE.
12. ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.
13. CONTRACTOR SHALL INSTALL ADDITIONAL CHECK VALVES TO HEADS AND LATERALS AS REQUIRED TO PREVENT LOW HEAD DRAINAGE.
14. THE CONTRACTOR SHALL USE PROPER GROUNDING TECHNIQUES FOR GROUNDING THE CONTROLLER AND RELATED EQUIPMENT PER MANUFACTURERS SPECIFICATIONS, SWEENEY AND ASSOCIATES RECOMMENDS MEASURING FOR PROPER GROUND AT LEAST ONCE ANNUALLY, AND NECESSARY ADJUSTMENTS MADE TO COMPLY WITH MANUFACTURER SPECIFICATIONS.

IRRIGATION MATERIAL LEGEND

SYMBOL Q T H F	MANUFACT.	MODEL NO. / DESCRIPTION	GPM	PSI	RADIUS	PR (TRI.)	DETAIL
	HUNTER	PROS-06-PRS30-CV POP-UP TURF HEAD W/ 5Q/5H NOZZLES	.12, .23	30	5 FT	2.05 IN./HR.	A
	HUNTER	PROS-06-PRS30-CV POP-UP TURF HEAD W/ 8Q/8T/8H/8F NOZZLES	.24, .32, .47, .97	30	8 FT	1.69 IN./HR.	A
	HUNTER	PROS-06-PRS30-CV POP-UP TURF HEAD W/ 10Q/10T/10H/10F NOZZLES	.42, .57, .88, 1.59	30	10 FT	1.77 IN./HR.	A
	HUNTER	PROS-06-PRS30-CV POP-UP TURF HEAD W/ 12Q/12T/12H/12F NOZZLES	.67, .89, 1.30, 2.70	30	12 FT	2.09 IN./HR.	A
	HUNTER	PROS-06-PRS30-CV POP-UP TURF HEAD W/ 15Q/15T/15H/15F NOZZLES	.97, 1.30, 1.86, 3.75	30	15 FT	1.85 IN./HR.	A
	HUNTER	PROS-06-PRS30-CV POP-UP TURF HEAD W/ LCS/RCS/SS530 NOZZLES	.65, .65, 1.30	30	4X15 FT 4X30 FT	2.41 IN./HR.	A
▽	HUNTER	PROS-06-PRS30-CV POP-UP BUBBLER HEAD W/ PCN-50 BUBBLE NOZZLE, EACH SYMBOL REPRESENTS TWO BUBBLERS PER TREE. PLACE BUBBLERS AT EDGE OF ROOTBALL ON OPPOSITE SIDES OF TREE TYPICAL.	.50 (1.0)	30	N/A	N/A	A
	HUNTER	PLD-06 DRIP TUBING W/ .6 GPH EMITTERS 12" ON CENTER. INSTALL TUBING ROWS A MAXIMUM OF 16" APART IN SHRUB AREAS. ALL TUBING SHALL BE INSTALLED 4" BELOW FINISHED SOIL GRADE W/ 9" WIRE STAKES FIVE (5) FEET ON CENTER; VERIFY THE LAYOUT AND SPACING IN THE FIELD PRIOR TO STARTING WORK					B,C,D
	HUNTER	PLD-FITTINGS WITH PVC TEE OR ELL FITTINGS FOR CONNECTION BETWEEN PVC LATERAL LINES AND DRIP TUBING					B,C,D
NO SYMBOL	HUNTER	ALL CONNECTIONS BETWEEN DRIP TUBING SHALL BE MADE USING HUNTER "PLD INSERT FITTINGS"					B,C,D
Ⓕ	LASCO	SCH. 40 PVC BALL VALVE, 1/2" SIZE WITH THREADED CONNECTIONS. INSTALL FLUSH VALVE INSIDE A 10" ROUND VALVE BOX.					D,E
Ⓐ	HUNTER	PLD-AVR AIR/VACUUM RELIEF VALVE INSTALLED WITH A PLD-075-TBTEE TEE AND A 3/4" X 1/2" REDUCER BUSHING, INSTALL AIR RELIEF ASSEMBLY INSIDE A 6" ROUND VALVE BOX AT THE HIGH POINT OF EACH PLANTER, MIN. 1 ARV PER 500' OF DRIPLINE. USING AIR RELIEF LATERAL, CONNECT AIR RELIEF VALVE TO ALL DRIPLINE LATERALS WITHIN THE ELEVATED AREA, MULTIPLE ARV'S SHALL BE REQUIRED PER RCV WITHIN UNDULATING AREAS, VERIFY QUANTITY PRIOR TO STARTING WORK. INSTALL VALVE BOX 18" FROM PAVING AND AT HIGH POINTS OF PLANTER AREA. INSTALL ALL AIR VACUUM RELIEF EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.					D,F
	LASCO	SLO-CLOSE SCH. 80 PVC TRUE-UNION BALL VALVE WITH SOLVENT WELD CONNECTIONS, LINE SIZE					G
	RAIN BIRD	33 DLRC QUICK COUPLER VALVE, INSTALL WITHIN 10" ROUND VALVE BOX					H
	HUNTER	ICV-XX1G-AS (1", 1 1/2") SERIES PRESSURE REGULATED, SIZE AS SHOWN, PLASTIC REMOTE CONTROL VALVE					I
	HUNTER/ TORO/ SENNINGER	ICV-1X1G-FS (1") SERIES DRIP REMOTE CONTROL VALVE ASSEMBLY, INSTALL TORO T-ALFD75150-L, 3/4" DISC FILTER AND SENNINGER PRESSURE REGULATOR PRR-HF-40 FOR DEMANDS LESS THAN 18 GPM, TORO T-ALFD10150-L 1" DISC FILTER AND SENNINGER PR-HF-40 PRESSURE REGULATOR FOR DEMANDS GREATER THAN 18 GPM. INSTALL BOTH ON THE DOWNSTREAM SIDE OF EACH DRIP RCV					J
———	AS APPROVED	PVC PIPE 3/4" - 1 1/2" SCH, 40 AS LATERAL LINES 12" BELOW GRADE					K
— — —	AS APPROVED	PVC PIPE 2 1/2" CL, 315 SOLVENT WELD AS MAINLINES 18" BELOW GRADE					K,L
— — — —	AS APPROVED	PVC PIPE SCH, 40 AS SLEEVING, 2 TIMES THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED PLACE BELOW ALL PAVING, HARDSCAPE ETC, AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE.					M
NO SYMBOL	AS APPROVED	IRRIGATION CONTROL WIRE #14UF AWG DIRECT BURIAL (U.L. APPROVED)					K,M,N
NO SYMBOL	3M	DBR/Y-6 DIRECT BURIAL WATER-PROOF WIRE CONNECTORS FOR USE ON ALL WIRE CONNECTIONS (U.L. APPROVED)					N
NO SYMBOL	K.B.I.	KSC-XXX-S SWING CHECK VALVE, LINE SIZE, 1 DOWNSTREAM OF EACH RCV WHEN RCV IS LOWER THAN THE SPRINKLERS INSTALL WITHIN SPRINKER/DRIP ZONES AS REQUIRED TO PREVENT LOW HEAD/EMITTER DRAINAGE.					N/A
NO SYMBOL	K.B.I.	KC-XXX-S SPRING CHECK VALVE, LINE SIZE, 1 DOWNSTREAM OF EACH RCV IMMEDIATELY ABOVE FIRST LATERAL LINE TEE WHEN RCV IS HIGHER THAN THE SPRINKLERS, INSTALL WITHIN SPRINKER/DRIP ZONES AS REQUIRED TO PREVENT LOW HEAD/EMITTER DRAINAGE.					N/A
NO SYMBOL	CARSON	VALVE BOXES, SIZE PER EQUIPMENT LEGEND, WITH T-COVER LIDS AND CAPTIVE BOLT AND LOC-KIT. FOR ROUND FLUSH VALES AND AIR RELIEF VALVES USE MODEL 708, 10" ROUND SHALL BE MODEL 910, 12" STANDARD RECT. SHALL BE MODEL 1419, 12" JUMBO RECT, SHALL BE MODEL 1220, SUPER JUMBO SHALL BE MODEL 1324, AND SUPER JUMBO XL SHALL BE MODEL 1730. VALVE BOXES SHALL HAVE GREEN HDPE BODY AND GREEN LIDS IN TURF, GREEN LIDS IN SHRUB BEDS, AND TAN LIDS IN ROCK MULCH. FOR USE IN NON-VEHICULAR TRAFFIC SITUATIONS ONLY. DO NOT INSTALL IN CONCRETE OR ASPHALT.					N/A



WATER PRESSURE LOSS CALCULATIONS

WATER METER NUMBER	1	WATER METER SIZE (Inches)	-
HYDRAULIC GRADE LINE (FT)		WATER METER ELEVATION (FT)	
ELEVATION DIFFERENCE (FT)	0	STATIC PRESSURE REQ. (PSI)	92.0
REMOTE CONTROL VALVE #	5	REMOTE CONTROL VALVE SIZE (In.)	1.50
R.C.V. DEMAND (GPM)	30	TOTAL DEMAND (GPM)	30
HIGHEST HEAD SERVED (FT)		STATIC PRESSURE AT HIGHEST HEAD	0.0

sweeney + associates IRRIGATION DESIGN AND CONSULTING

PRESSURE LOSS CALCULATION IS PROVIDED FOR THIS PROJECT BY SWEENEY & ASSOCIATES, INC. UNAUTHORIZED USE BY ANY OTHER PERSON, COMPANY OR PROJECT IS FORBIDDEN WITHOUT WRITTEN PERMISSION.

SIZE (Inches)	DESCRIPTION	FLOW	#	LOSS	
2.00	SERVICE LINE (50 FT OF TYPE K COPPER)	30	1	0.50	PSI
2.00	WATER METER (DISC TYPE)	30	2	0.80	PSI
1.50	BACKFLOW PREVENTER (R/P TYPE)	30	3	12.00	PSI
1.50	FILTRATION (WYE FILTER)	30	4	0.80	PSI
	PRESSURE REGULATOR	-	5	-	PSI
1.50	BFD ASSEMBLY PIPING (BRASS W/ 4 ELLS)	30	6	2.32	PSI
1.50	MASTER CONTROL VALVE	30	7	1.00	PSI
1.50	FLOW SENSOR	30	8	0.70	PSI
2.50	ISOLATION VALVES (BALL TYPE)	30	9	1.00	PSI
2.50	150 FEET OF MAINLINE: CL 315 PVC	30	10	0.44	PSI
-	FEET OF MAINLINE:	-	11	-	PSI
-	FEET OF MAINLINE:	-	12	-	PSI
2.50	3 - 90 DEGREE ELBOWS	30	13	0.15	PSI
1.50	REMOTE CONTROL VALVE ASSEMBLY	30	14	1.50	PSI
10%	LATERAL LINE LOSSES	30	15	3.00	PSI
20%	FITTING LOSS (IN ADDITION TO ELBOWS SHOWN)	N/A	16	0.09	PSI
0.00	ELEVATION CHANGE (F, O C, TO HIGHEST HEAD)	N/A	17	0.00	PSI
TOTAL SYSTEM PRESSURE LOSS (SUM OF #1 THRU #17)			18	24.3	PSI
PRESSURE REQUIRED AT HEAD (OPERATING PRESSURE)			19	30.0	PSI
TOTAL PRESSURE REQUIRED (SUM OF #18 AND #19)			20	54.3	PSI
STATIC WATER PRESSURE (FROM ABOVE)			21	92.0	PSI
RESIDUAL PRESSURE (SUBTRACT #20 FROM #21)			22	37.7	PSI
SET PRV OR MCV AT (#20 PLUS 10 PSI)			23	64.3	PSI
PRESSURE BOOST, IF REQUIRED (SET TO ACHIEVE 20 PSI RESIDUAL)			24	N/A	PSI

LANDSCAPE IRRIGATION WATER ANALYSIS

PROJECT: 4757 Nexus Esplanade
San Diego, CA

ETo: = 46.5

HA = 6,753
SLA = 0
LA = 6,753

MAXIMUM APPLIED WATER ALLOWANCE:
TOTAL MAWA=[(Eto)(0.62)((0.7 x LA) + (0.3 x SLA)] **136,282 Gal./Yr**

TOTAL ESTIMATED APPLIED WATER USED:
TOTAL EAWU=[Eto x 0.62 x [(HA x PF)/IE) + SLA)] **170,985 Gal./Yr**

ESTIMATED APPLIED WATER USED:
EAWU= (ETo)(0.62) x $\frac{[(HA \times PF)]}{IE}$

HYDROZONE #1: (Mixed Water Use Shrubs with Drip)
$\frac{46.5 \times 0.62 \times 3,247 \times 0.4}{0.9}$ = **41,605 Gal./Yr**

HYDROZONE #2: (Turf Area with Sprays)
$\frac{46.5 \times 0.62 \times 3,506 \times 0.8}{0.625}$ = **129,380 Gal./Yr**

MAXIMUM APPLIED WATER ALLOWANCE: **136,282 Gal./Yr**

TOTAL ESTIMATED APPLIED WATER USE: **170,985 Gal./Yr**

IRRIGATION CONTROLLER RUN TIMES

POC or Controller		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total / Avg.
A	ETo / Month (Inches):	2.10	2.40	3.40	4.60	5.10	5.30	5.70	5.60	4.30	3.60	2.40	2.00	**46.50**
	ETo / Day (Inches):	0.07	0.09	0.11	0.15	0.16	0.18	0.18	0.18	0.14	0.12	0.08	0.06	**0.13**
	Irrigation Days / Week:	2	2	2	2	2	2	2	2	2	2	2	2	

Plant / Irrig. Type	AKc	Pr Rate	IE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Shrubs	0.40	0.77	0.90	8.2	10.4	13.3	18.6	19.9	21.4	22.3	21.9	17.4	14.1	9.7	7.8	Min./Day/Zone
Dripline	Number of Zones:		2	**16.4**	**20.8**	**26.6**	**37.2**	**39.9**	**42.8**	**44.6**	**43.8**	**34.7**	**28.2**	**19.4**	**15.6**	**Total Min./Day**
Turf	0.80	1.74	0.65	10.1	12.7	16.3	22.8	24.4	26.2	27.3	26.8	21.3	17.2	11.9	9.6	Min./Day/Zone
Spray	Number of Zones:		2	**20.1**	**25.5**	**32.6**	**45.6**	**48.9**	**52.5**	**54.6**	**53.7**	**42.6**	**34.5**	**23.8**	**19.2**	**Total Min./Day**
Trees	0.80	3.00	0.90	4.2	5.3	6.8	9.5	10.2	11.0	11.4	11.2	8.9	7.2	5.0	4.0	Min./Day/Zone
Bubblers	Number of Zones:		2	**8.4**	**10.7**	**13.6**	**19.1**	**20.5**	**22.0**	**22.9**	**22.5**	**17.8**	**14.5**	**10.0**	**8.0**	**Total Min./Day**
	Total Number of Zones:		**6**	45	57	73	102	109	117	122	120	95	77	53	43	Total Min./Day
	Total Controller Run Time in Hours:			**0.75**	**0.95**	**1.21**	**1.70**	**1.82**	**1.95**	**2.03**	**2.00**	**1.59**	**1.29**	**0.89**	**0.71**	**Total Hrs./Day**
				JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**	

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
16750 Via Canyon Drive, Suite C
Ramona, CA 92065
e: info@sweeneyassoc.com t: (760) 461-9893
w: www.sweeneyassoc.com f: (760) 461-9892

SCALE 1" = 20'-0"

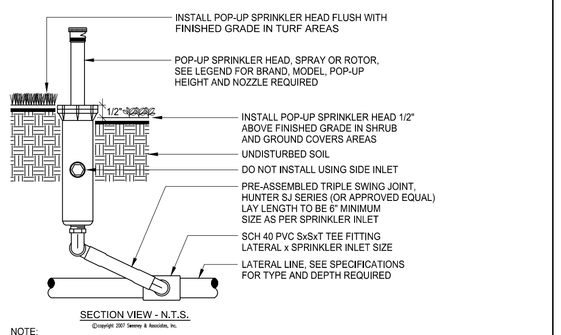
TITLE

IRRIGATION LEGEND AND NOTES

L2.2

11/29/2012 8:58:22 AM

A POP-UP SPRINKLER



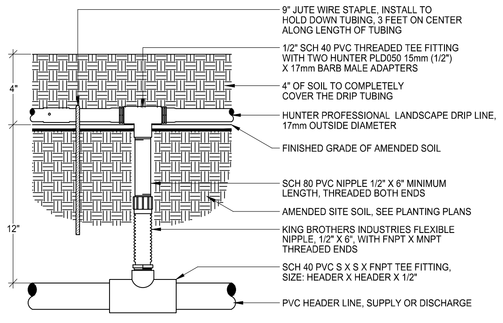
SECTION VIEW - N.T.S.

©copyright 2007 Sweeney & Associates, Inc.

NOTE:
INSTALL SPRINKLER HEADS 6" FROM PAVING EDGE IN SHRUB AND GROUND COVER AREAS. INSTALL SPRINKLER HEADS 12" FROM THE FACE OF BUILDING WALLS OR WINDOWS. INSTALL SPRINKLER HEADS 4" FROM PAVING EDGE IN TURF AREAS.

INSTALL SPRINKLER HEADS PLUMB. ADJUST SPRAYS OR NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS.

B DRIPLINE TUBING



SECTION VIEW - N.T.S.

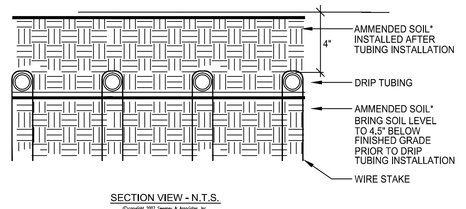
©copyright 2007 Sweeney & Associates, Inc.

NOTE:
TUBING INSTALLED IN PARALLEL ROWS, SPACING AS INDICATED ON THE LEGEND.

IF PLANTING PLANS INDICATE A GROUND COVER OF MULCH, THE TUBING SHALL BE INSTALLED, AND STAKED, ONTO THE FINISHED GRADE OF THE AMENDED SOIL.

IF THE PLANTING PLANS DO NOT INDICATE SUCH A GROUND COVER, THE TUBING SHALL BE INSTALLED, AND STAKED, 2" BELOW THE FINISHED GRADE OF THE AMENDED SOIL.

C DRIPLINE CONNECTION



SECTION VIEW - N.T.S.

©copyright 2007 Sweeney & Associates, Inc.

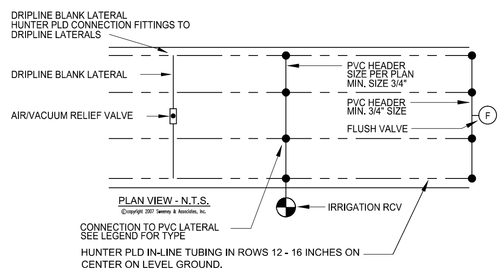
RECOMMENDED INSTALLATION: * AS PER LANDSCAPE DRAWINGS

TO INSURE EVEN PARALLEL AND LEVEL TUBING ROWS IT IS RECOMMENDED THAT THE SOIL LEVEL IN THE PLANTER AREAS BE BROUGHT TO 1 1/2" BELOW FINISHED GRADE AND PROPERLY COMPACTED AS PER THE LANDSCAPED DRAWINGS PRIOR TO THE INSTALLATION OF THE TUBING.

INSTALL TUBING AS INDICATED ON THESE DRAWINGS AND SECURE TO GRADE USING WIRE HOOP STAKES AT 5 FEET ON CENTER SPACING.

BACKFILL FINAL 4" OF SOIL OVER THE TUBING AFTER INSTALLATION OF THE TUBING

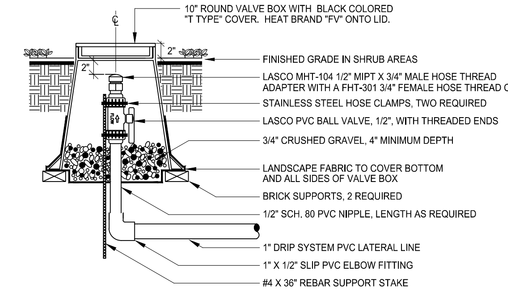
D DRIPLINE LAYOUT



INSTALL DRIP FLUSH VALVE PER DETAIL AT THE END OF EACH TUBING SECTION PER PLAN

INSTALL AIR RELIEF VALVES PER DETAIL, AT HIGH POINTS OF EACH TUBING SECTION PER PLAN. RUN AIR/VACUUM RELIEF BLANK TUBING LATERAL ALONG HIGH POINT OF MOUND OR BERM, ATTACH ALL IN-LINE DRIP TUBING TO BLANK LATERAL. MORE THAN TWO RELIEF VALVES MAY NEED TO BE INSTALLED PER SECTION

E DRIP FLUSH VALVE



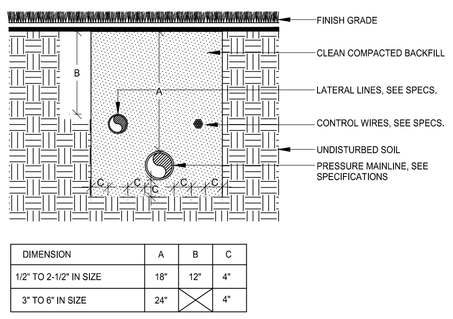
SECTION VIEW - N.T.S.

©copyright 2007 Sweeney & Associates, Inc.

NOTE:
USE STANDARD OPENINGS PROVIDED IN VALVE BOX FOR PIPE, DO NOT CUT BOX.

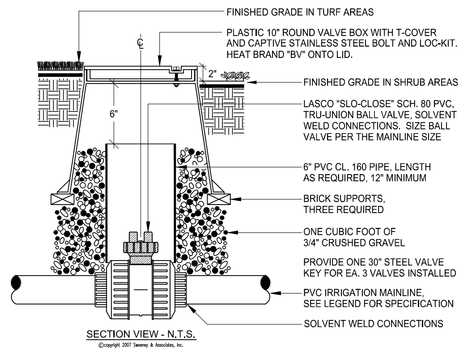
USE AN APPROVED, NON-HARDENING, TEFLON ASSEMBLY PASTE ON ALL THREADED FITTINGS.

F DRIP AIR RELIEF VALVE



SECTION VIEW - N.T.S.

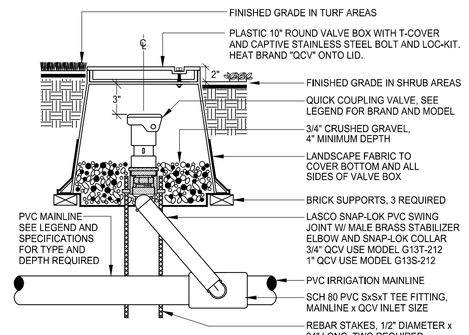
G ISOLATION VALVE



SECTION VIEW - N.T.S.

©copyright 2007 Sweeney & Associates, Inc.

H QUICK COUPLER VALVE

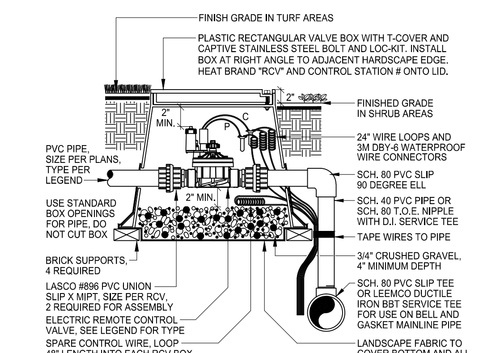


SECTION VIEW - N.T.S.

©copyright 2007 Sweeney & Associates, Inc.

NOTE:
USE AN APPROVED, NON-HARDENING, TEFLON ASSEMBLY PASTE ON ALL THREADED FITTINGS.

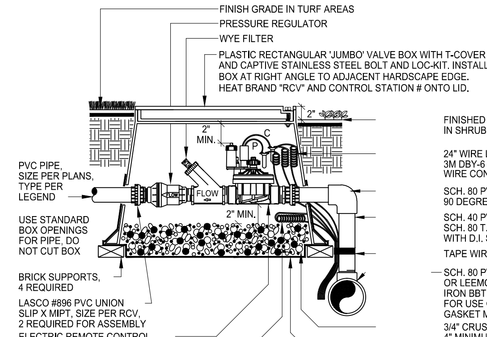
I DRIP RCV ASSEMBLY



SECTION VIEW - N.T.S.

©copyright 2007 Sweeney & Associates, Inc.

J DRIP RCV ASSEMBLY



SECTION VIEW - N.T.S.

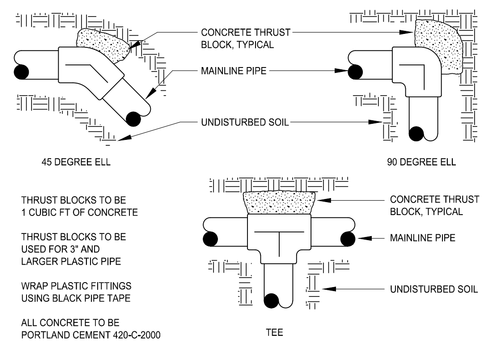
©copyright 2007 Sweeney & Associates, Inc.

K PIPE INSTALLATION

DIMENSION	A	B	C
1/2" TO 2-1/2" IN SIZE	18"	12"	4"
3" TO 6" IN SIZE	24"		4"

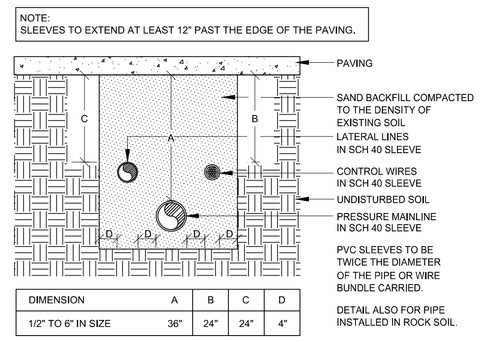
SECTION VIEW - N.T.S.

L THRUST BLOCKS



SECTION VIEW - N.T.S.

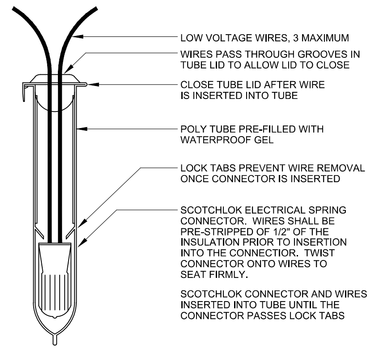
M SLEEVE INSTALLATION



DIMENSION	A	B	C	D
1/2" TO 6" IN SIZE	36"	24"	24"	4"

SECTION VIEW - N.T.S.

N WIRE CONNECTION



NOTE:
WIRE CONNECTOR SHALL BE A 3M DBY-6 DIRECT BURY SPLICE KIT (U.L. APPROVED).

KIT SHALL INCLUDE A SCOTCHLOK Y SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PREFILLED WITH GEL.

DIRECT BURY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2 - 3 #14 OR 2 #12 PRE-STRIPPED COPPER WIRES. LARGER WIRES OR GREATER QUANTITIES OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.

SECTION VIEW - N.T.S.

11/29/2012 8:38:21 AM

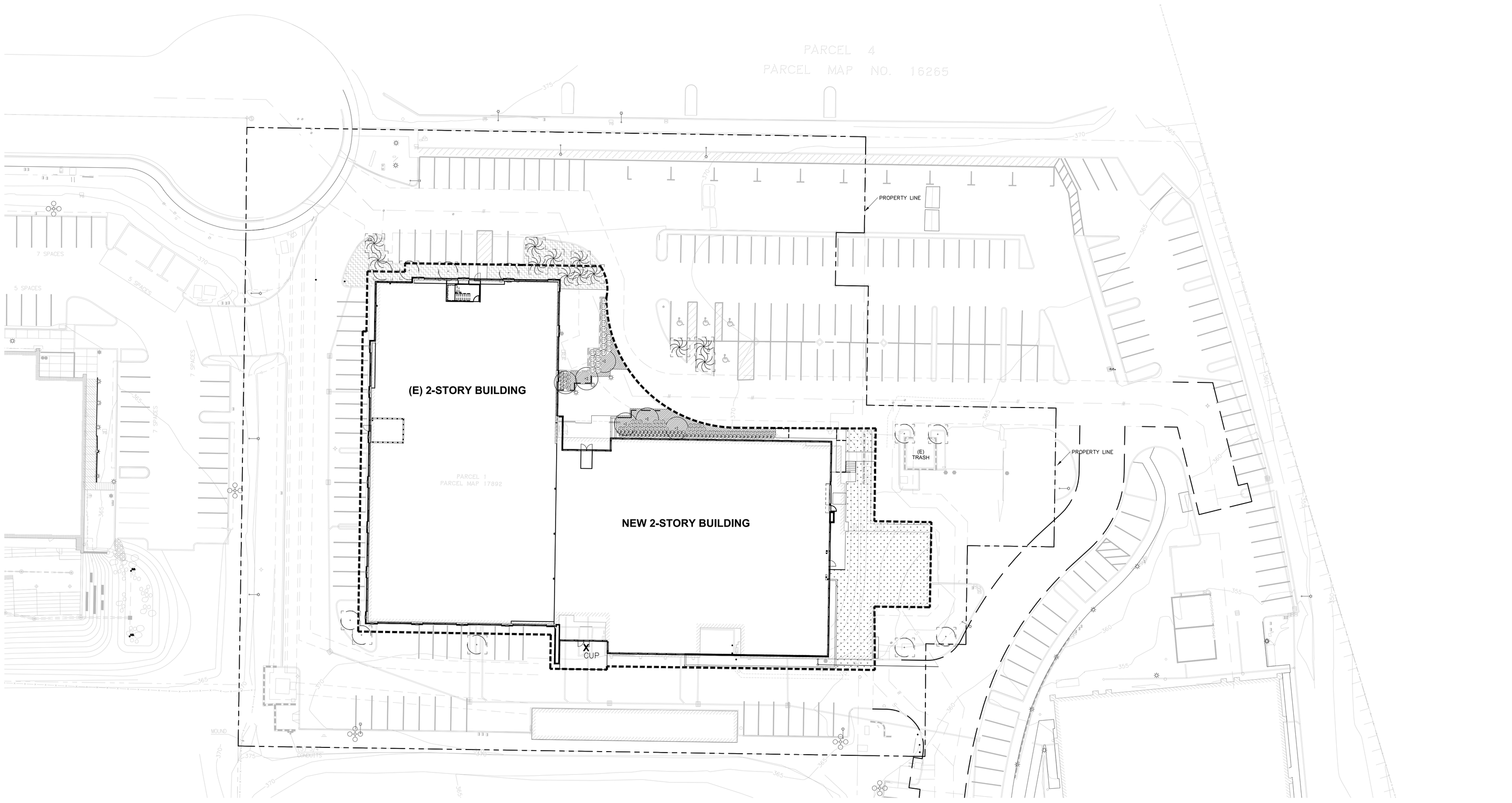
SCALE 1" = 20'-0"

TITLE

IRRIGATION DETAILS

sweeney + associates
IRRIGATION DESIGN AND CONSULTING
26756 Via Cayon Drive, Suite C
Murrieta, Ca 92563
e: info@sweeneyassoc.com t: (951) 461-9050
w: www.sweeneyassoc.com f: (951) 461-9050

L2.3



0 10' 20' 40'

SCALE 1" = 20'

N

PLANT LEGEND

SYMBOL	TREES	COMMON NAME	QUANTITY	CALIPER SIZE
	EXISTING TREES TO REMAIN AND PROTECT IN PLACE			
	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD		
	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM		
	EXISTING GROUND COVER AND SHRUBS TO REMAIN AND PROTECT IN PLACE			
	EXISTING TREES TO BE REMOVED			
X CUP	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	1	12"ø
	TREE PROTECTION FENCE			

SYMBOL	TREES / SHRUBS / G.C.	COMMON NAME	CONTAINER SIZE	O.C. SPACING	MATURE SIZE	QUANTITY	WATER NEEDS	EXPOSURE
	PROPOSED							
+1	CERSIS CANADENSIS	EASTERN REDBUD	36" BOX	AS SHOWN	20–30' H X 20–25' W	6	MED–LOW	SUN OR SHADE
	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	1 GAL	3' O.C.	3' H X 3.5' W	21	MED	SUN OR SHADE
	DIETES GRANDIFLORA 'VARIEGATA'	STRIPED FORTNIGHT LILY	1 GAL.	2' O.C.	3–4' H X 2–3' W	70	MED	SUN OR SHADE
	RHAPHIOLEPIS UMBELLATA 'MINOR'	DWARF YEDDO HAWTHORN	5 GAL.	2' O.C.	4–6' H X 2–3' W	64	MED–LOW	SUN OR SHADE
	GROUND COVER PLANTS: (626 SF)							
	CAREX DIVULSA	BERKELEY SEDGE	1 GAL.	1.5' O.C.	1' H X 2' W	40%	MED	SUN OR SHADE
	ECHEVERIA AGAVOIDES 'MARIA'	WAX AGAVE	1 GAL.	1' O.C.	1' H X 1–2' W	40%	LOW	SUN OR SHADE
	HELICHRYSUM PETIOLARE	LIMELIGHT LICORICE PLANT	1 GAL.	2' O.C.	1–23' H X 4–6' W	20%	MED–LOW	SUN OR SHADE
	HYDROSEED OR TURF TO MATCH EXISTING (3,552 SF)							
	OTHER							
	ROOT BARRIER							
	LIMIT OF WORK							

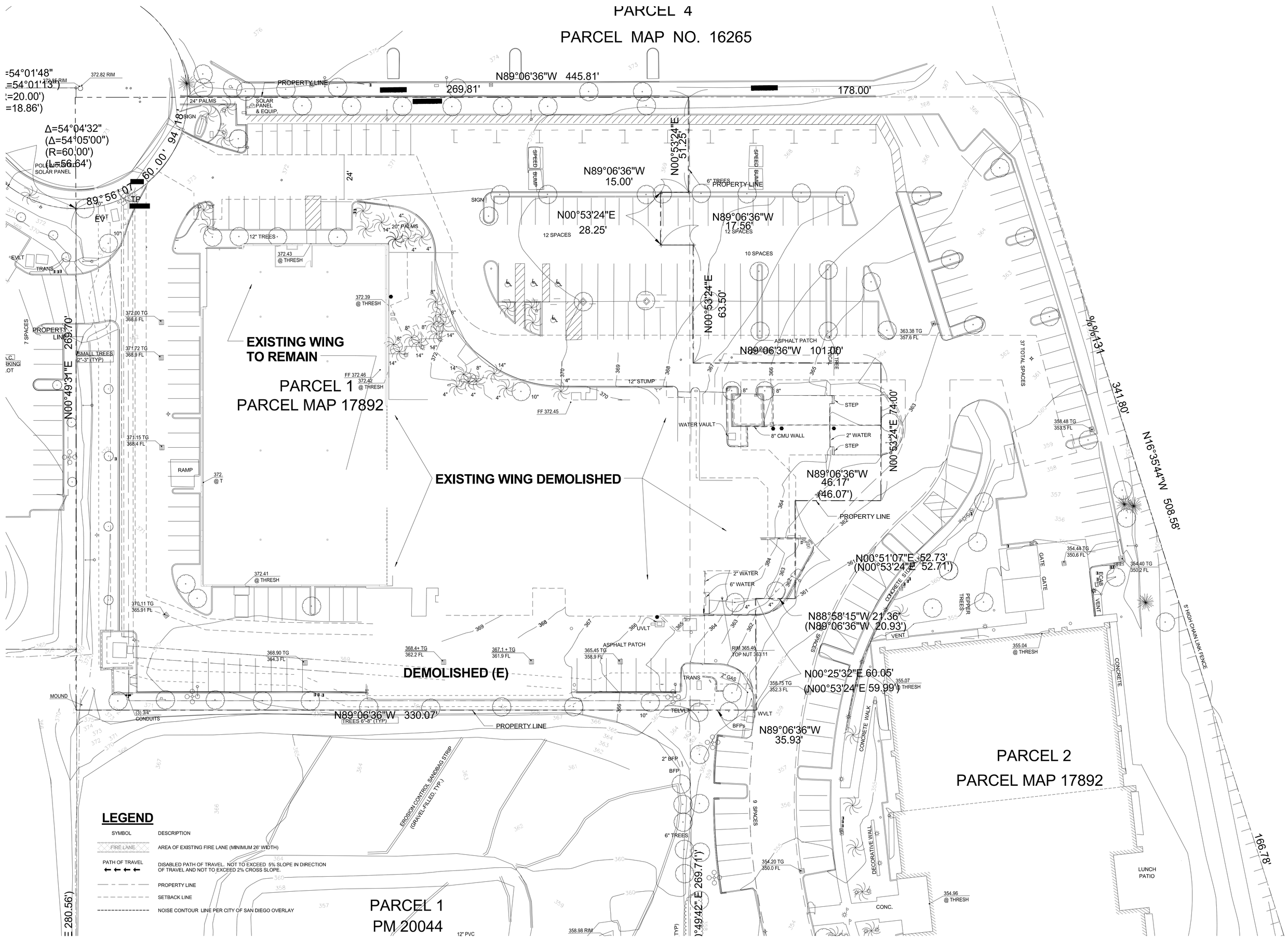
SCALE 1" = 20'-0"

TITLE

PLANTING PLAN

L3.1

11/29/2012 8:58:22 AM



1 EXISTING SITE PLAN
SCALE:1" = 20'-0"

PLAN NORTH

SCALE As indicated

TITLE

EXISTING SITE PLAN

A-001

2/15/2013 8:04:48 AM

PARCEL 4
PARCEL MAP NO. 16265

PARCEL 1
PARCEL MAP 17892

PARCEL 2
PARCEL MAP 17892

(E) 2-STORY BUILDING
0'-0" = 372'-6"

NEW 2-STORY BUILDING
0'-0" = 372'-6"

PROPERTY LINE

15' SIDE SETBACK

20' FRONT & STANDARD STREET SETBACK

25' STANDARD FRONT SETBACK

25' REAR SETBACK

PATCH & REPAIR EXISTING BRICK PAVERS AT ENTRY TO MATCH (E)

6" TREES

12" TREES

12 SPACES

10 SPACES

11 SPACES

37 TOTAL SPACES

9 SPACES

RAMP

SPEED RAMP

SIGN

EV

TELPEC

TRANS

WVLT

BFP

VENT

GATE

PEPPER TREES

CONCRETE SIDEWALK

CONCRETE WALK

DECORATIVE WALL

5' HIGH CHAIN LINK FENCE

LUNCH PATIO

8.33% MAX.

TREES 6"-8" (TYP)

372.82 RIM

372.43 @ THRESH

372.39 @ THRESH

372.42 @ THRESH

372.41 @ THRESH

355.04 @ THRESH

355.07 @ THRESH

372.00 TG 359.6 FL

371.72 TG 359.9 FL

371.15 TG 359.4 FL

370.11 TG 365.91 FL

368.90 TG 364.3 FL

367.1 + TG 361.9 FL

365.45 TG 358.9 FL

363.38 TG 357.6 FL

358.75 TG 352.3 FL

354.20 TG 350.0 FL

354.44 TG

354.40 TG

339.48 TG 352.5 FL

67' - 3 5/8" EXISTING

66' - 8 3/8" EXISTING

25' - 0"

15' - 0"

1 A-301

1 SITE PLAN
SCALE1/16" = 1'-0"

PLAN NORTH

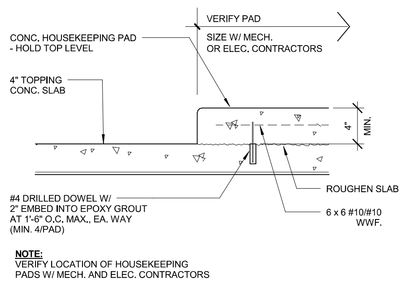
SCALE 1/16" = 1'-0"

TITLE

SITE PLAN

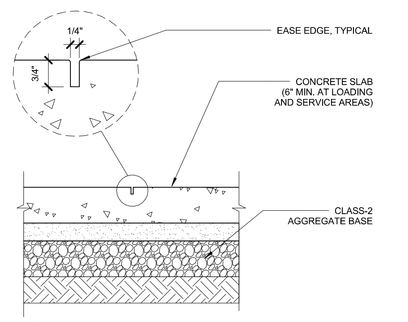
A-002

2/14/2013 8:31:39 AM

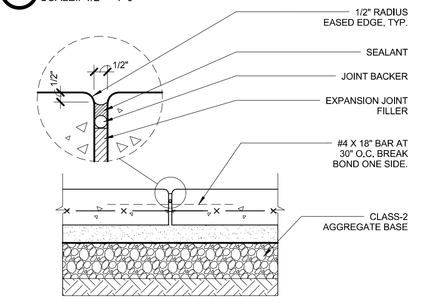


NOTE:
VERIFY LOCATION OF HOUSEKEEPING PADS W/ MECH. AND ELEC. CONTRACTORS

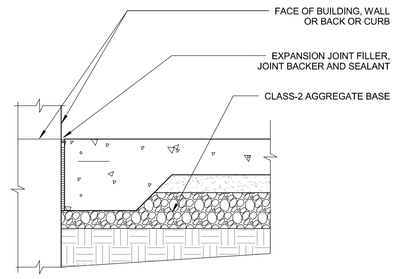
19 HOUSEKEEPING PAD
SCALE1 1/2" = 1'-0"



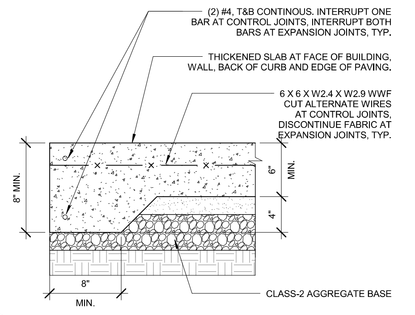
20 TOOLED CONTROL JOINT
SCALE1 1/2" = 1'-0"



21 TOOLED EXPANSION/CONSTRUCTION JOINT
SCALE1 1/2" = 1'-0"



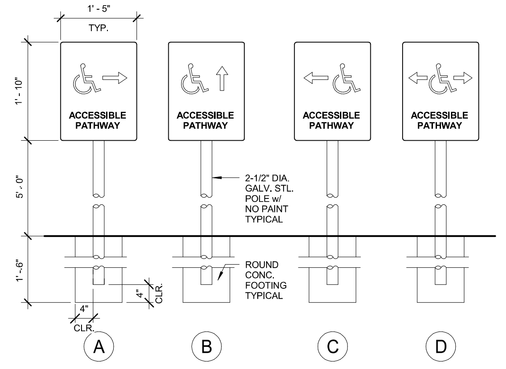
22 EXPANSION JOINT AT EDGE OF PAVING
SCALE1 1/2" = 1'-0"



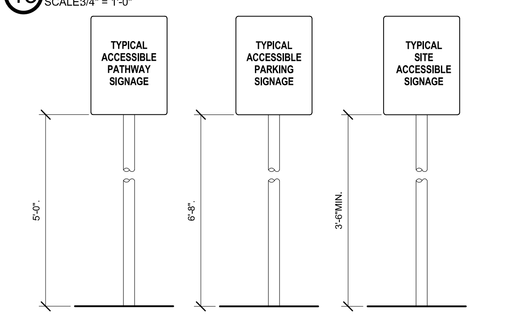
23 CONCRETE PAVING (THICKENED SLAB)
SCALE1 1/2" = 1'-0"

ACCESSIBLE ROUTE NOTES:

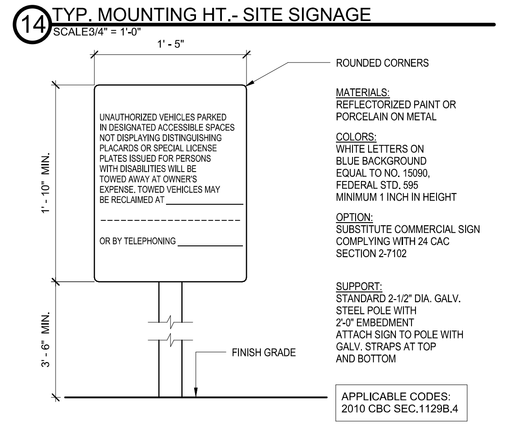
1. INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) SIGNAGE SHALL COMPLY WITH CBC SECTION 1117 B.5
2. ACCESSIBLE PARKING SPACE SIGNAGE SHALL COMPLY WITH CBC SECTION 1129 B.5
3. DETECTABLE WARNINGS SHALL COMPLY WITH CBC SECTION 1127 B.5
4. CONFIRM MAX. SLOPE IS 5% IN PATH OF TRAVEL AND MAX. CROSS SLOPE IS 2% ALONG ACCESS ROUTE.



13 ACCESSIBLE PATH SIGN
SCALE3/4" = 1'-0"



14 TYP. MOUNTING HT.- SITE SIGNAGE
SCALE3/4" = 1'-0"



MATERIALS:
REFLECTORIZED PAINT OR PORCELAIN ON METAL

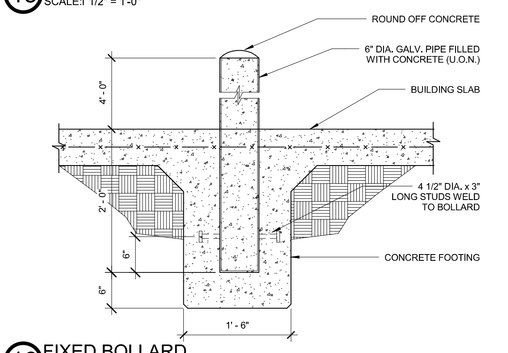
COLORS:
WHITE LETTERS ON BLUE BACKGROUND EQUAL TO NO. 15090, FEDERAL STD. 595
MINIMUM 1 INCH IN HEIGHT

OPTION:
SUBSTITUTE COMMERCIAL SIGN COMPLYING WITH 24 CAC SECTION 2-7102

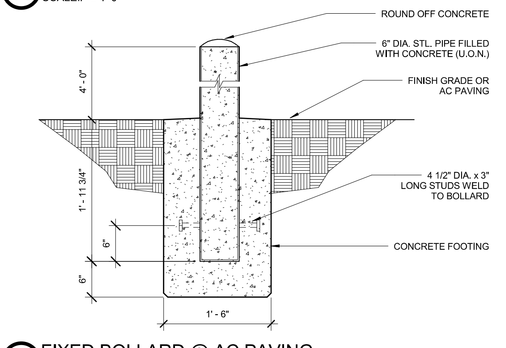
SUPPORT:
STANDARD 2-1/2" DIA. GALV. STEEL POLE WITH 2'-0" EMBEDMENT
ATTACH SIGN TO POLE WITH GALV. STRAPS AT TOP AND BOTTOM

APPLICABLE CODES:
2010 CBC SEC.1129B.4

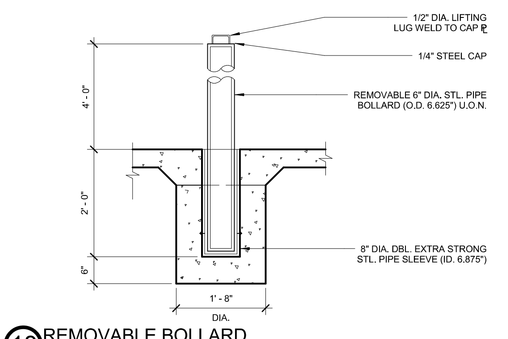
15 SITE ACCESSIBLE SIGN
SCALE1 1/2" = 1'-0"



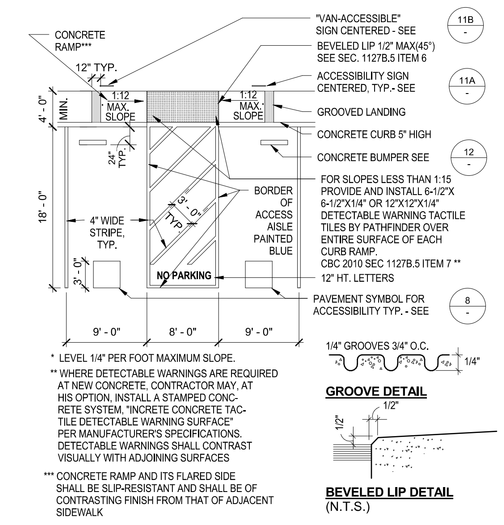
16 FIXED BOLLARD
SCALE1" = 1'-0"



17 FIXED BOLLARD @ AC PAVING
SCALE1" = 1'-0"



18 REMOVABLE BOLLARD
SCALE3/4" = 1'-0"



* LEVEL 1/4" PER FOOT MAXIMUM SLOPE.

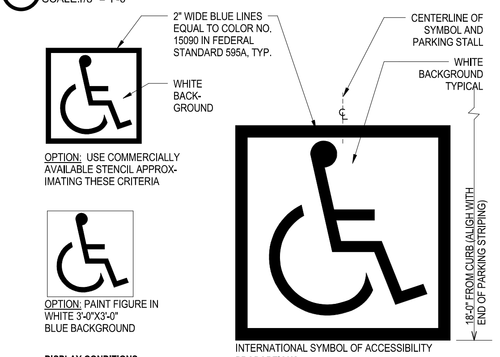
** WHERE DETECTABLE WARNINGS ARE REQUIRED AT NEW CONCRETE, CONTRACTOR MAY, AT HIS OPTION, INSTALL A STAMPED CONC-RETE SYSTEM, "INCRETE CONCRETE TAC-TILE DETECTABLE WARNING SURFACE" PER MANUFACTURER'S SPECIFICATIONS. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES

*** CONCRETE RAMP AND ITS FLARED SIDE SHALL BE SLIP-RESISTANT AND SHALL BE OF CONTRASTING FINISH FROM THAT OF ADJACENT SIDEWALK

GROOVE DETAIL

BEVELED LIP DETAIL
(N.T.S.)

7 ACCESSIBILITY PARKING STALLS - VAN
SCALE1/8" = 1'-0"



OPTION: USE COMMERCIALLY AVAILABLE STENCIL APPROX-IMATING THESE CRITERIA

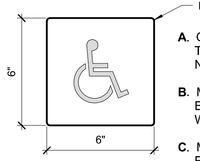
OPTION: PAINT FIGURE IN WHITE 3-0"X3-0" BLUE BACKGROUND

DISPLAY CONDITIONS

INTERNATIONAL SYMBOL OF ACCESSIBILITY

PROPORTIONS

8 PAVEMENT SYMBOL FOR ACCESSIBILITY
SCALE1" = 1'-0"



A. COLOR: BACKGROUND: BLUE TYPE/FIGURE: WHITE (COLORS TO BE NON-GLARE FINISH)

B. MOUNTING HEIGHT: CENTER OF SIGN TO BE 5 FEET ABOVE THE FLOOR ON THE WALL - LATCH SIDE

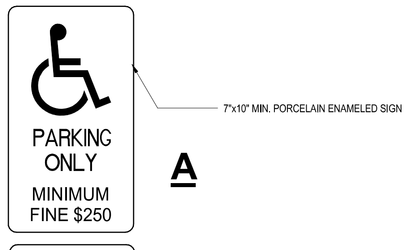
C. MOUNTING METHOD: DOUBLE STICK FOAM TAPE, SCOTCH BRAND 3M

D. THICKNESS: 1/4 INCH

E. FABRICATION METHOD: NEW PLEXIGLAS SIGN WITH SURFACE GRAPHICS AND BACK SPRAYED

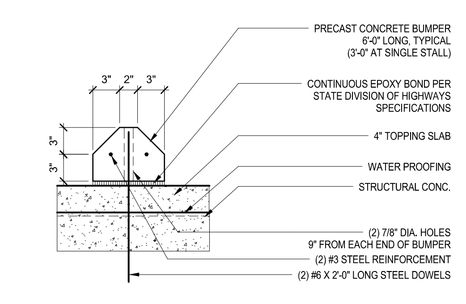
APPLICABLE CODES:
2010 CBC:SEC.1117B.5

9 BUILDING ACCESSIBLE SIGN
SCALE3" = 1'-0"

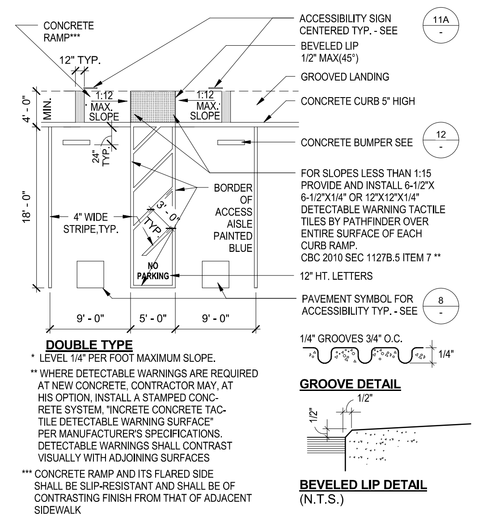


APPLICABLE CODES:
2010 CBC SEC.1129B.4

11 ACCESSIBLE PARKING SIGNAGE - TYP.
SCALE3" = 1'-0"



12 PRECAST CONCRETE BUMPER
SCALE1 1/2" = 1'-0"



DOUBLE TYPE

* LEVEL 1/4" PER FOOT MAXIMUM SLOPE.

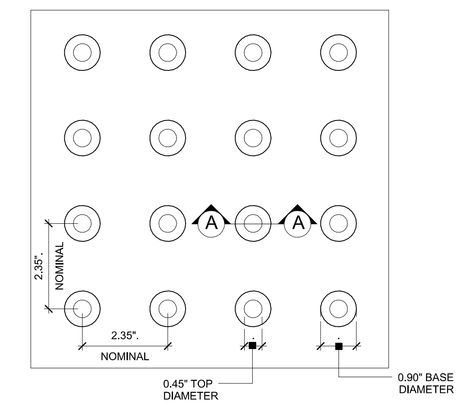
** WHERE DETECTABLE WARNINGS ARE REQUIRED AT NEW CONCRETE, CONTRACTOR MAY, AT HIS OPTION, INSTALL A STAMPED CONC-RETE SYSTEM, "INCRETE CONCRETE TAC-TILE DETECTABLE WARNING SURFACE" PER MANUFACTURER'S SPECIFICATIONS. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES

*** CONCRETE RAMP AND ITS FLARED SIDE SHALL BE SLIP-RESISTANT AND SHALL BE OF CONTRASTING FINISH FROM THAT OF ADJACENT SIDEWALK

GROOVE DETAIL

BEVELED LIP DETAIL
(N.T.S.)

1 ACCESSIBILITY PARKING STALLS
SCALE1/8" = 1'-0"



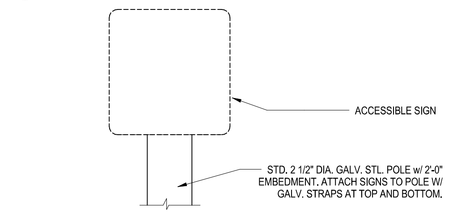
TYPICAL PLAN

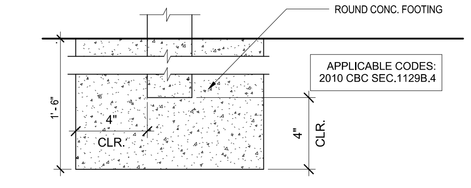
DETACTABLE WARNING PRODUCT SHALL BE DSA-AC APPROVED

TYPICAL SECTION A-A

APPLICABLE CODES:
2010 CBC SEC.1127B.5 ITEM 7

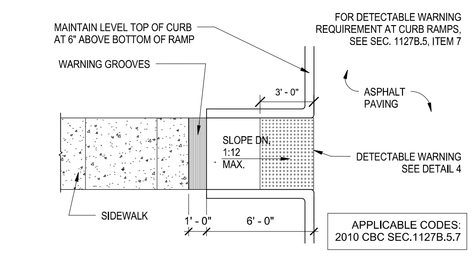
2 DETECTABLE WARNING SURFACE
SCALE6" = 1'-0"





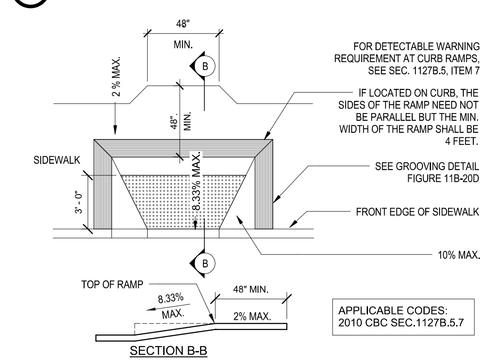
APPLICABLE CODES:
2010 CBC SEC.1129B.4

4 TYPICAL ACCESSIBLE SIGNAGE POST
SCALE3" = 1'-0"



APPLICABLE CODES:
2010 CBC SEC.1127B.5.7

5 CURB RAMP AT SIDEWALK - PLAN
SCALE1/4" = 1'-0"



SECTION B-B

APPLICABLE CODES:
2010 CBC SEC.1127B.5.7

6 CURB RAMP AT SIDEWALK
SCALE1/4" = 1'-0"

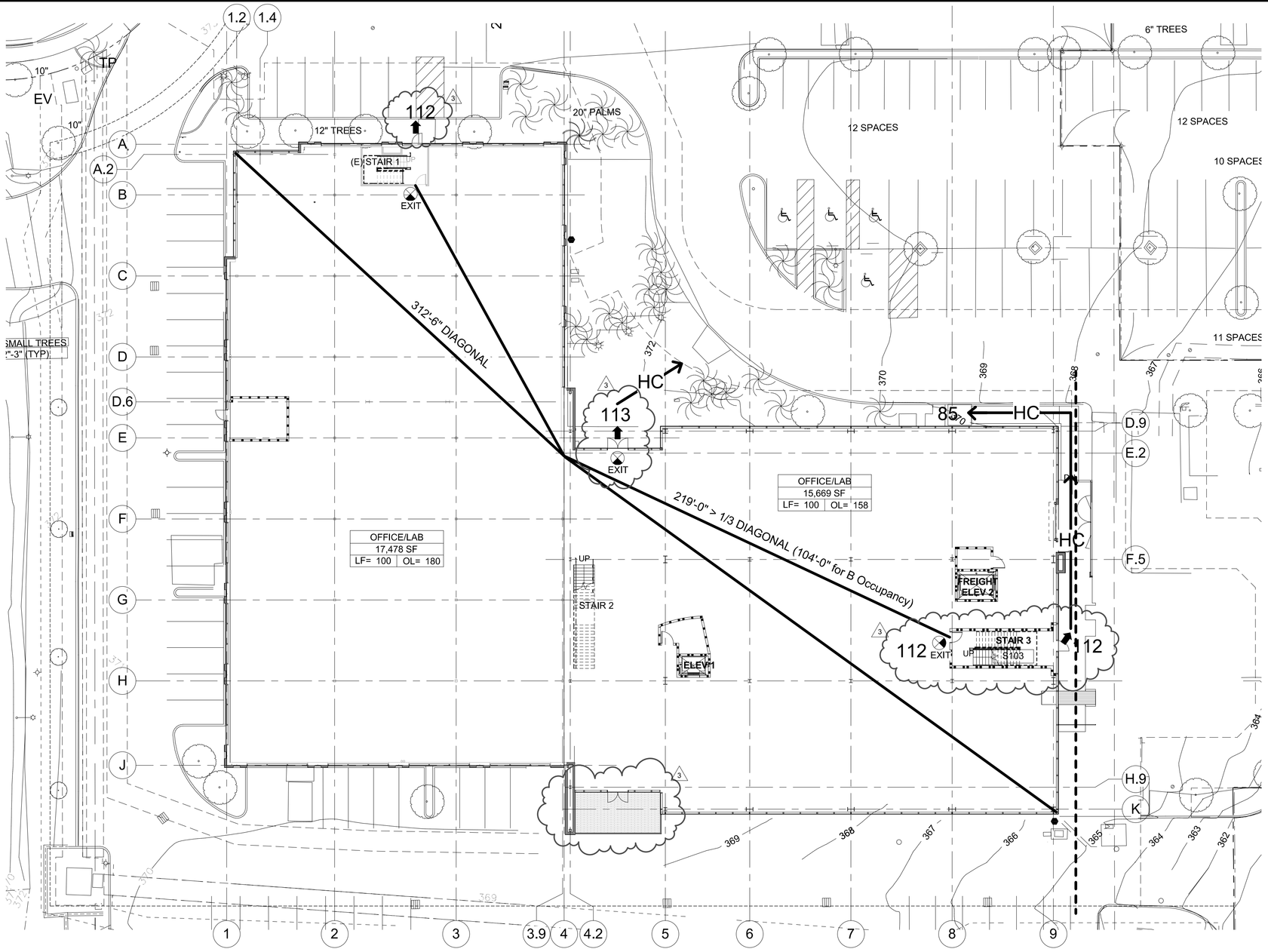
SCALE As indicated

TITLE

SITE DETAILS

A-003

2/13/2013 2:38:28 PM



1 CODE COMPLIANCE -1ST LEVEL
SCALE1/16" = 1'-0"

STAIR WIDTH CALCULATIONS

PER 2010 CALIFORNIA BUILDING CODE TABLE 1004.1.1

STAIR WIDTH	REQUIRED	PROVIDED (MEASURED FROM HANDRAIL TO HANDRAIL)
(E) STAIR 1	0.3 x 113 = 33.9"	41"
STAIR 2	0.3 x 113 = 33.9"	57"
STAIR 3	0.3 x 114 = 34.2"	53"

CODE COMPLIANCE PLAN LEGEND

RM NAME	ROOM NAME
RM SQ FT	ROOM AREA (SQ. FT.)
LD FACTOR	LOAD FACTOR (L.F.) (UBC TABLE 10-A) AREA/ROOM INFO
OCC LD	OCCUPANCY LOAD (O.L.)
OPEN AREA	OCCUPANCY CLASSIFICATION

EXIT — BUILDING EXIT

4 — OCC. LOAD AT ROOM — ROOM EXIT

CEILING MOUNTED EXIT SIGN

WALL MOUNTED EXIT SIGN

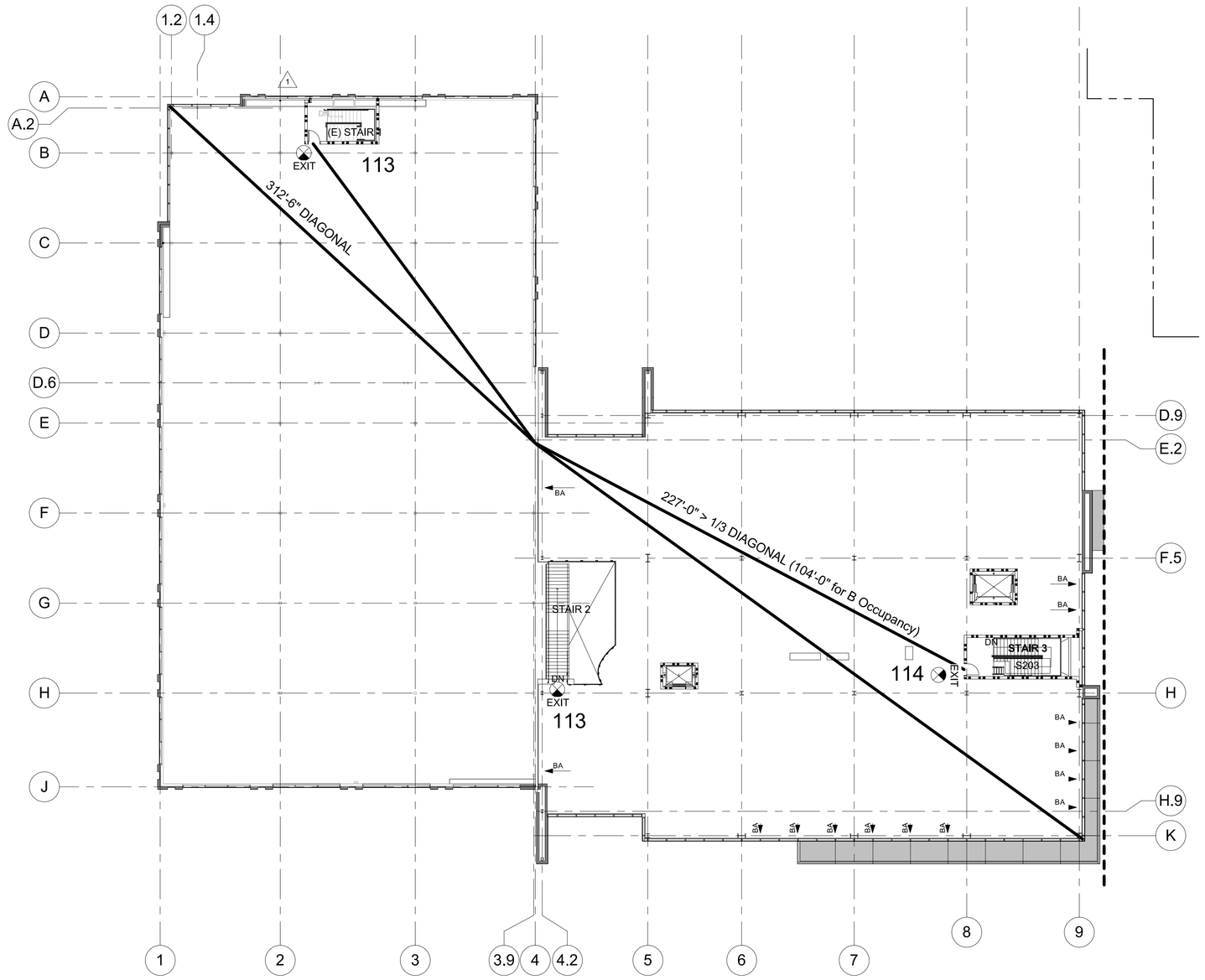
FEC — FIRE EXTINGUISHER CABINET (SEMI-RECESSED)

FE — WALL MOUNTED FIRE EXTINGUISHER

GENERAL NOTES - EXITING PLAN

1. FIRST FLOOR CODE COMPLIANCE PLAN (THIS SHEET) INDICATES THE ACCESSIBLE ROUTE OF TRAVEL.
2. WHERE UL, GA, OR IBC CONSTRUCTION ASSEMBLIES ARE DESIGNATED, THE COMPONENTS AND INSTALLATION DETAILS MUST CONFORM IN EVERY PARTICULAR WAY WITH THE DESIGN NUMBER SPECIFIED.
3. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED FIRE-RATED EXIT DOOR ASSEMBLIES AND FIRE EXTINGUISHERS AT 75'-0" MINIMUM DISTANCE. LOCATIONS OF FIRE EXTINGUISHER CABINETS WILL BE SHOWN ON TENANT IMPROVEMENT PLANS.
4. PROVIDE MINIMUM 18" STRIKE SIDE CLEARANCE AT SWING SIDE OF ALL INTERIOR DOORS AND MINIMUM 12" AT PUSH SIDE (ON DOORS WITH CLOSERS) FOR HANDICAPPED ACCESSIBILITY. PROVIDE MINIMUM 24" STRIKE SIDE CLEARANCE AT ALL EXTERIOR DOORS FOR ACCESSIBILITY.
5. EVERY EXIT DOORWAY SHALL HAVE 32" CLEAR OPENING WHEN DOOR IS OPEN 90 DEGREES.
6. EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY KNOWLEDGE OR EFFORT.
7. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2" LOWER THAN THE THRESHOLD OF ANY DOORWAY.
8. FOR UL NUMBERS OF FIRE RATED WALLS, SEE SHEET A-602.
9. PROVIDE INTERNATIONAL ACCESSIBILITY SYMBOL AT ALL ACCESSIBLE ENTRANCES PER SECTION 1117.5.8.1. THE SIGNS SHALL COMPLY WITH CBC SECTIONS 117B.5.8.1.1.
10. ELEVATORS ARE NOT PART OF THE ACCESSIBLE MEANS OF EGRESS.

PLAN NORTH



2 CODE COMPLIANCE -2ND LEVEL
SCALE1/16" = 1'-0"

SCALE As indicated

TITLE

CODE COMPLIANCE PLANS

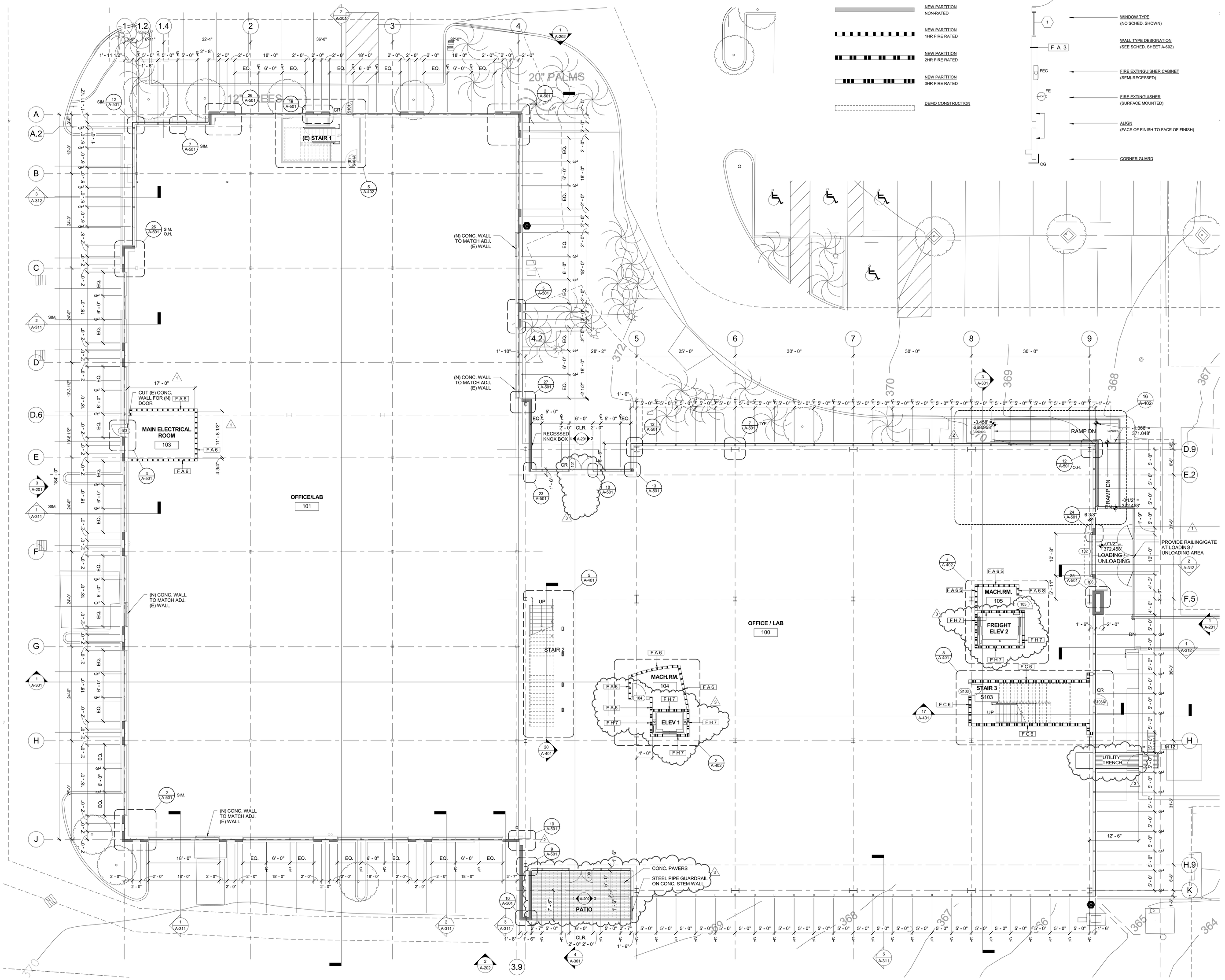
A-004

2/15/2013 9:21:57 AM

FLOOR PLAN LEGEND

- EXISTING PARTITION — NON-RATED
- NEW PARTITION — NON-RATED
- NEW PARTITION — 1HR FIRE RATED
- NEW PARTITION — 2HR FIRE RATED
- NEW PARTITION — 3HR FIRE RATED
- DEMO CONSTRUCTION

- 0000 — DOOR NUMBER (SEE SCHED. SHEET A-601)
- 1 — WINDOW TYPE (NO SCHED. SHOWN)
- F A 3 — WALL TYPE DESIGNATION (SEE SCHED. SHEET A-602)
- FEC — FIRE EXTINGUISHER CABINET (SEMI-RECESSED)
- FE — FIRE EXTINGUISHER (SURFACE MOUNTED)
- ALIGN (FACE OF FINISH TO FACE OF FINISH)
- CG — CORNER GUARD



SCALE As indicated

TITLE

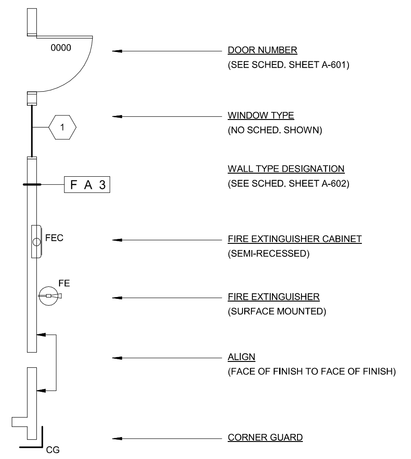
FIRST LEVEL OVERALL FLOOR PLAN

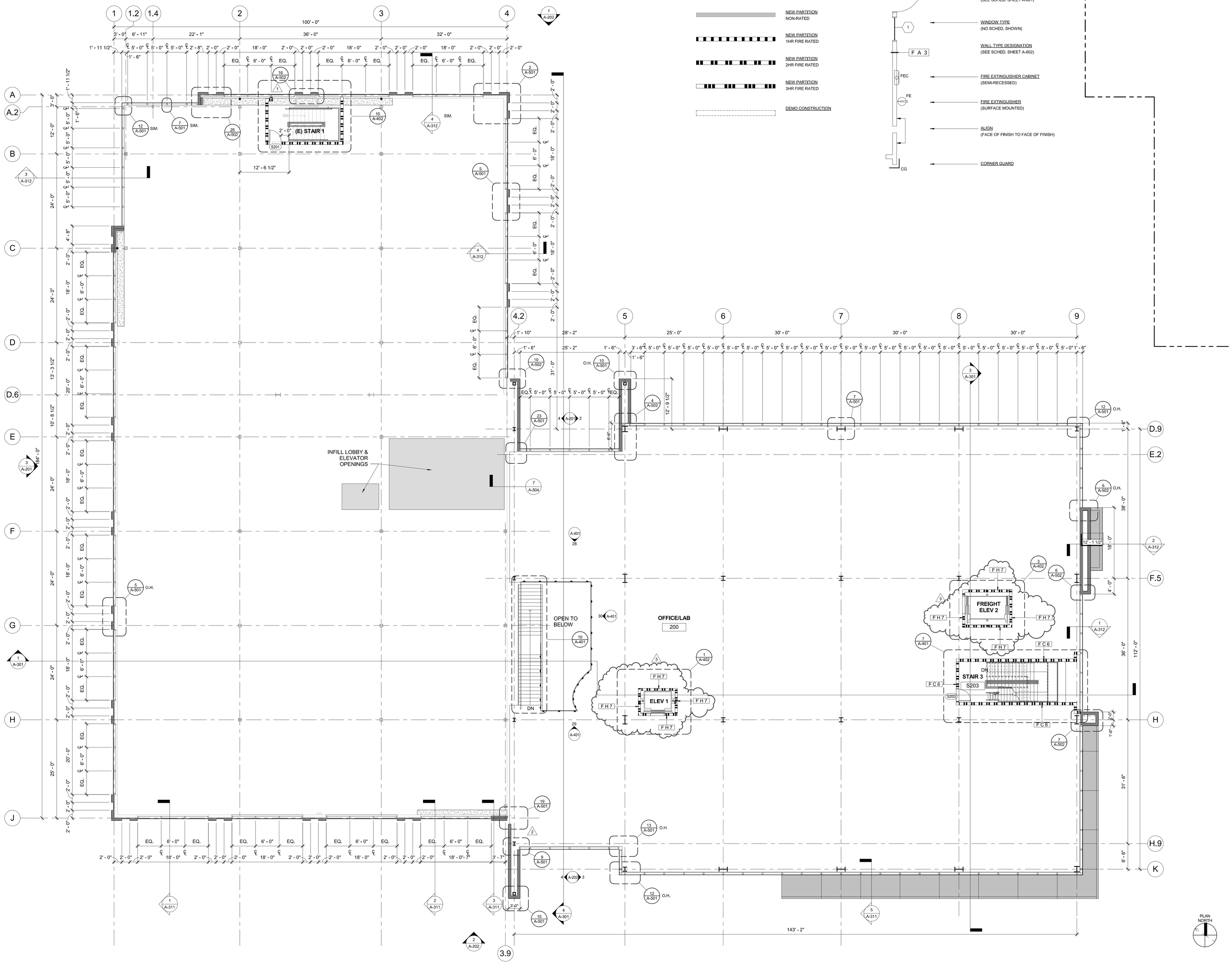
A-101

2/15/2013 1:00:52 AM

FLOOR PLAN LEGEND

- EXISTING PARTITION — NON-RATED
- NEW PARTITION — NON-RATED
- NEW PARTITION — 1HR FIRE RATED
- NEW PARTITION — 2HR FIRE RATED
- NEW PARTITION — 3HR FIRE RATED
- DEMO CONSTRUCTION





SCALE	As indicated
TITLE	**SECOND LEVEL OVERALL FLOOR PLAN**

A-102

2/15/2013 9:11:16 AM

NOTE:

CLASS "A" APPROVED ROOF SYSTEM and COOL ROOF SYSTEM
1. Insulated Deck: BU-4-I-A-M, three ply cap sheet
2. Asphalt: Min. ASTM D312, type recommended for application
3. Glass Felts: Min. ASTM D2178, Type IV or Type VI
4. Composition Flashing System: Either Modified Bitumen or Glass Felt & asphalt base
5. Mineral Cap Sheet: ASTM D3909
6, Bottom Layer Insulation: ASTM C1289, Type II, Class 1, Grade 2 glass fiber faced isocyanurate, with ASTM C1303 Long Term Thermal Resistance (LTTR) not less than required by Title 24
7. Top Layer Insulation: ASTM C728 perlite board insulation; 1/2" nominal thickness, with nominal R-1

CLASS 'A' ROOF ASSEMBLY THAT HAS BEEN TESTED IN ACCORDANCE WITH ASTM 108 OR UL790.

(N) INFILL ROOF PER STRUCTURAL

(N) INFILL ROOF PER STRUCTURAL

(E) ROOF

INFILL SKYLIGHT OPENINGS

(N) ROOF

ROOF SCREEN

ROOF SCREEN

ROOF SCREEN ABOVE

ROOF ENCLOSURE

ROOF HATCH

ER - 2469 BRISTOL SKYLIGHTS or ER - 4063 SKYVIEW SKYLIGHTS

SKYLIGHTS

4' X 4' ASPHALT WALKING PATH

STAIR DN. TO (E) BLDG.

(N) INFILL ROOF PER STRUCTURAL

CANOPY ROOF

CANOPY ROOF

CANOPY ROOF

CLASS A ROOF ASSEMBLY, TYPICAL

RD/OD

BA

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

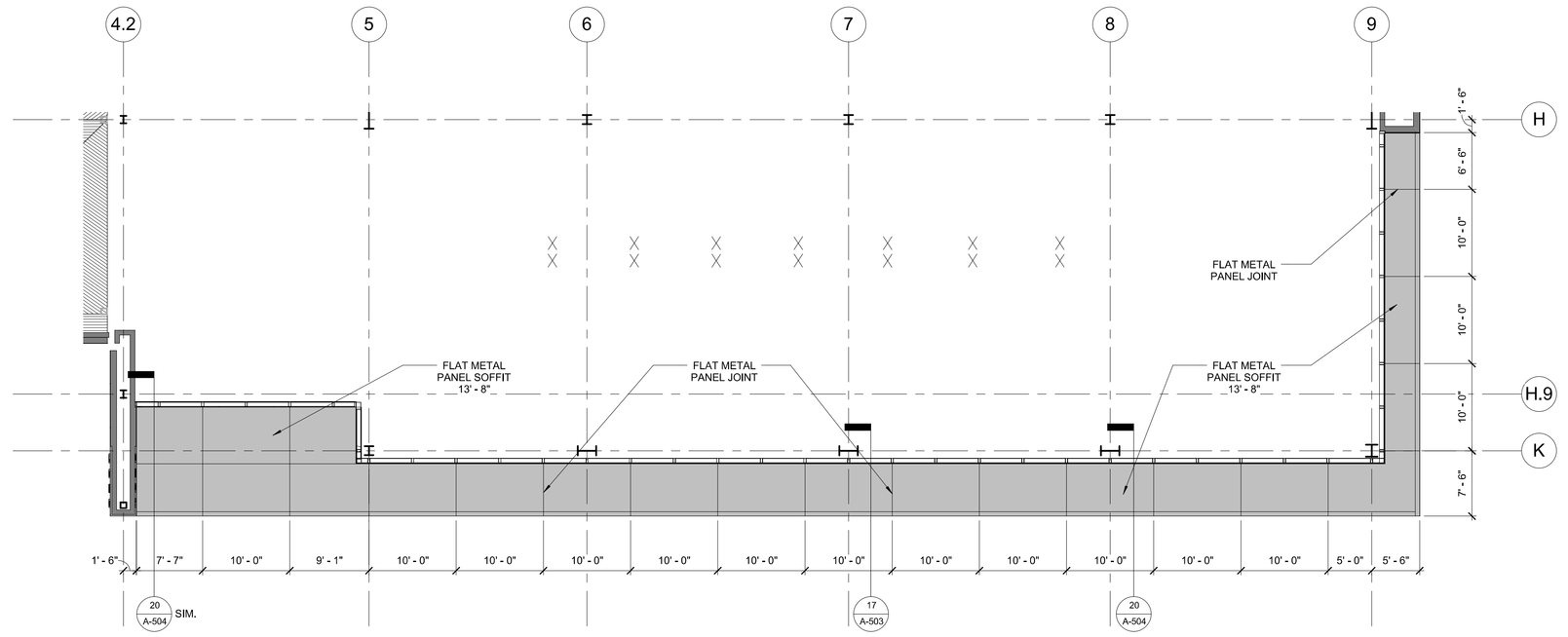
SCALE 1/8" = 1'-0"

TITLE

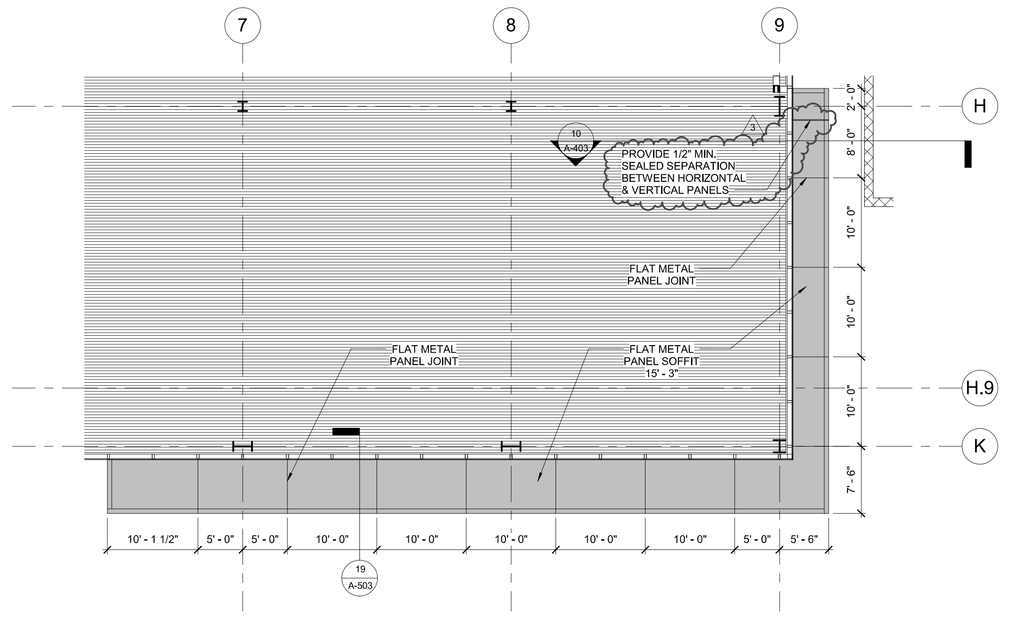
ROOF LEVEL OVERALL FLOOR PLAN

A-103

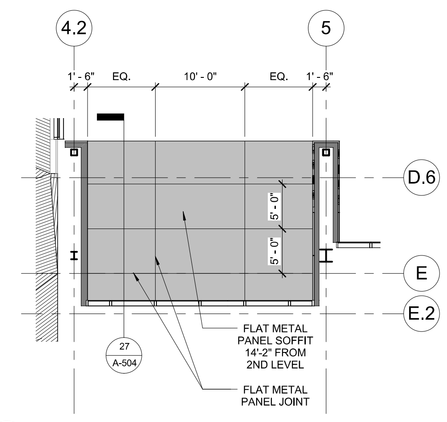
2/15/2013 9:14:58 AM



17 REFLECTED CEILING PLAN - HIGH SOUTH CANOPY
SCALE1/8" = 1'-0"



14 REFLECTED CEILING PLAN - LOW SOUTH CANOPY
SCALE1/8" = 1'-0"



5 REFLECTED CEILING PLAN - NORTH CANOPY
SCALE1/8" = 1'-0"

2/13/2013 3:00:32 PM

SCALE 1/8" = 1'-0"

TITLE

REFLECTED CEILING PLAN

A-104

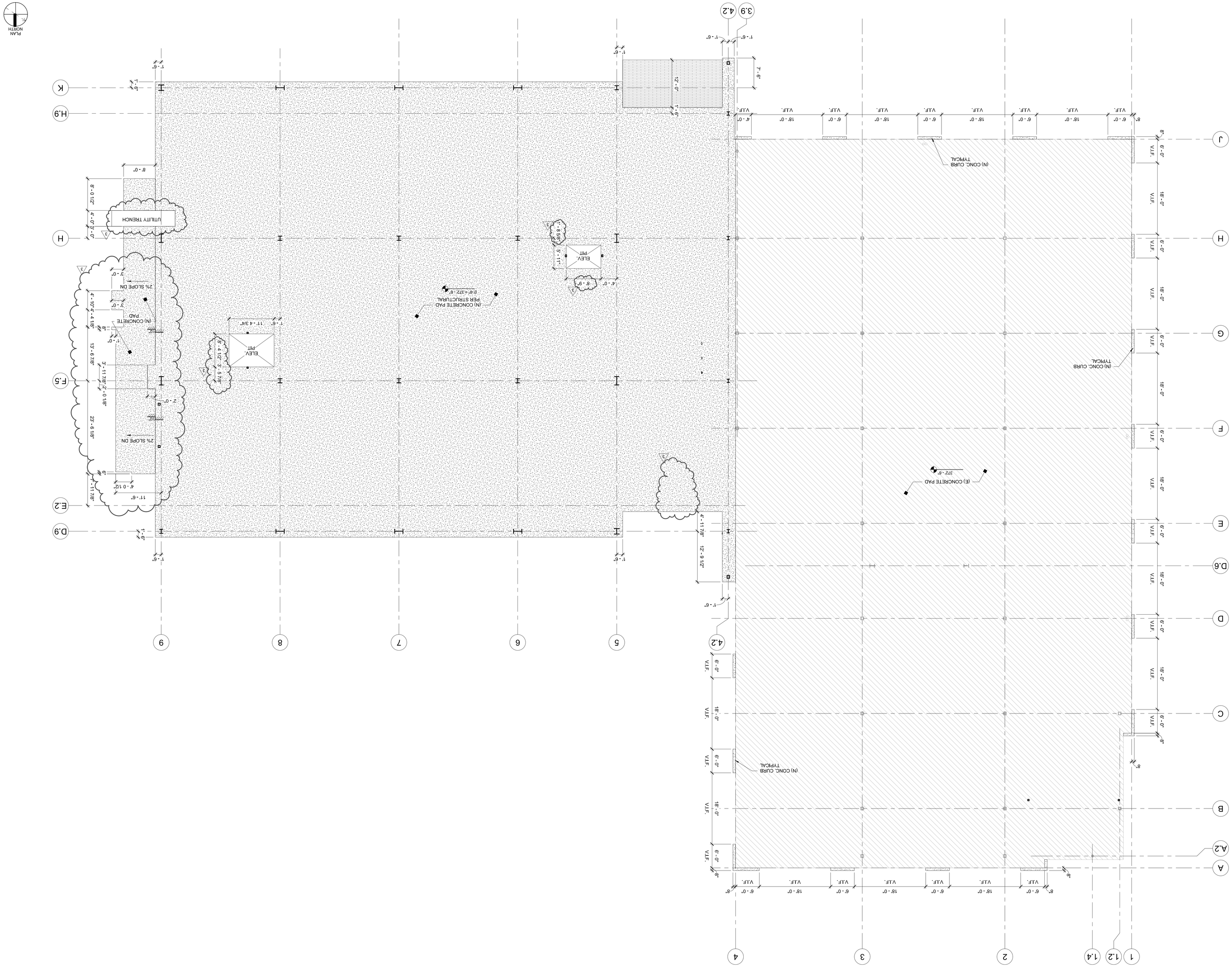
2/15/2013 8:49:57 AM

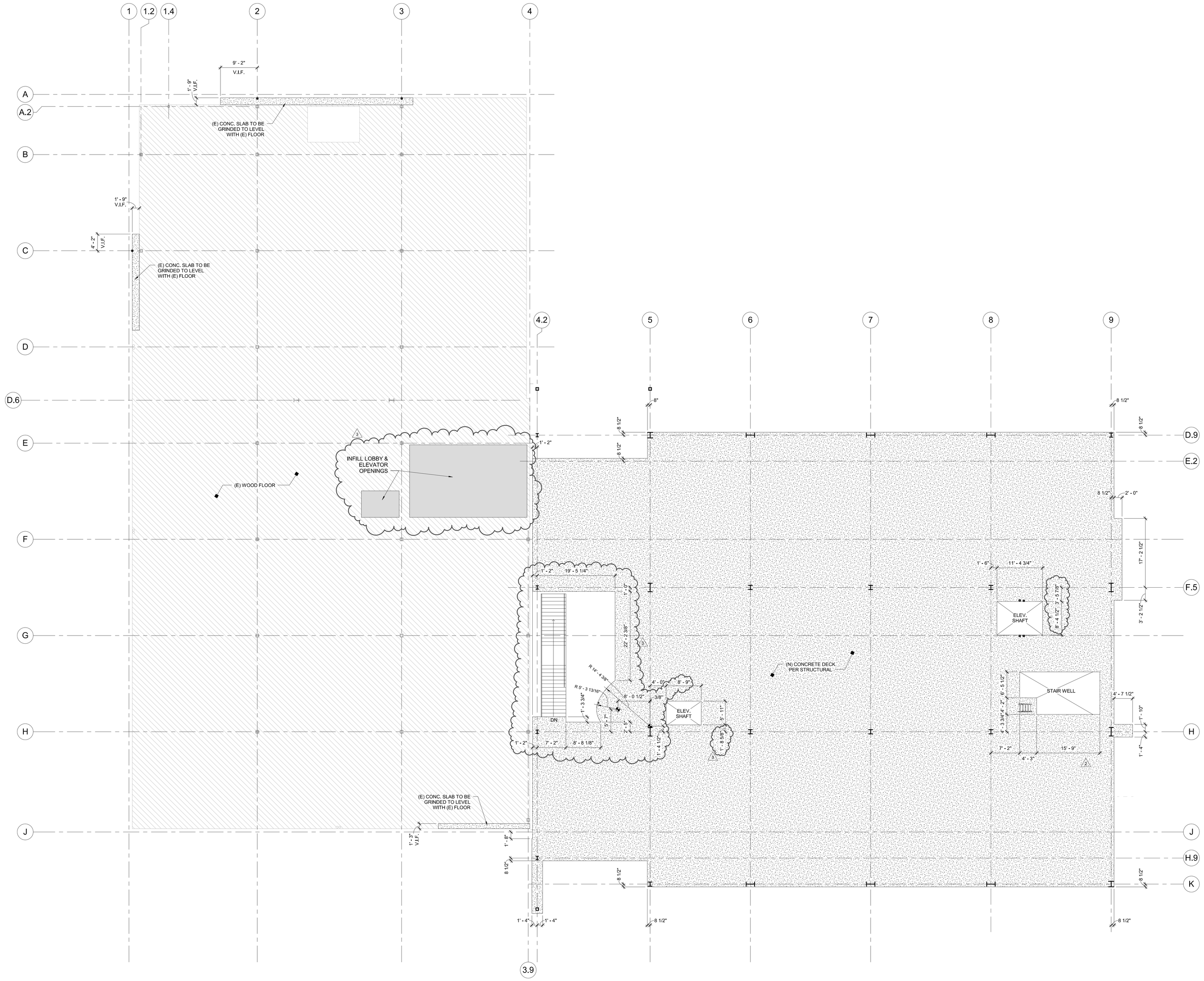
A-101S

1ST LEVEL SLAB PLAN

SCALE 1/8" = 1'-0"

TITLE





2/15/2013 8:40:24 AM

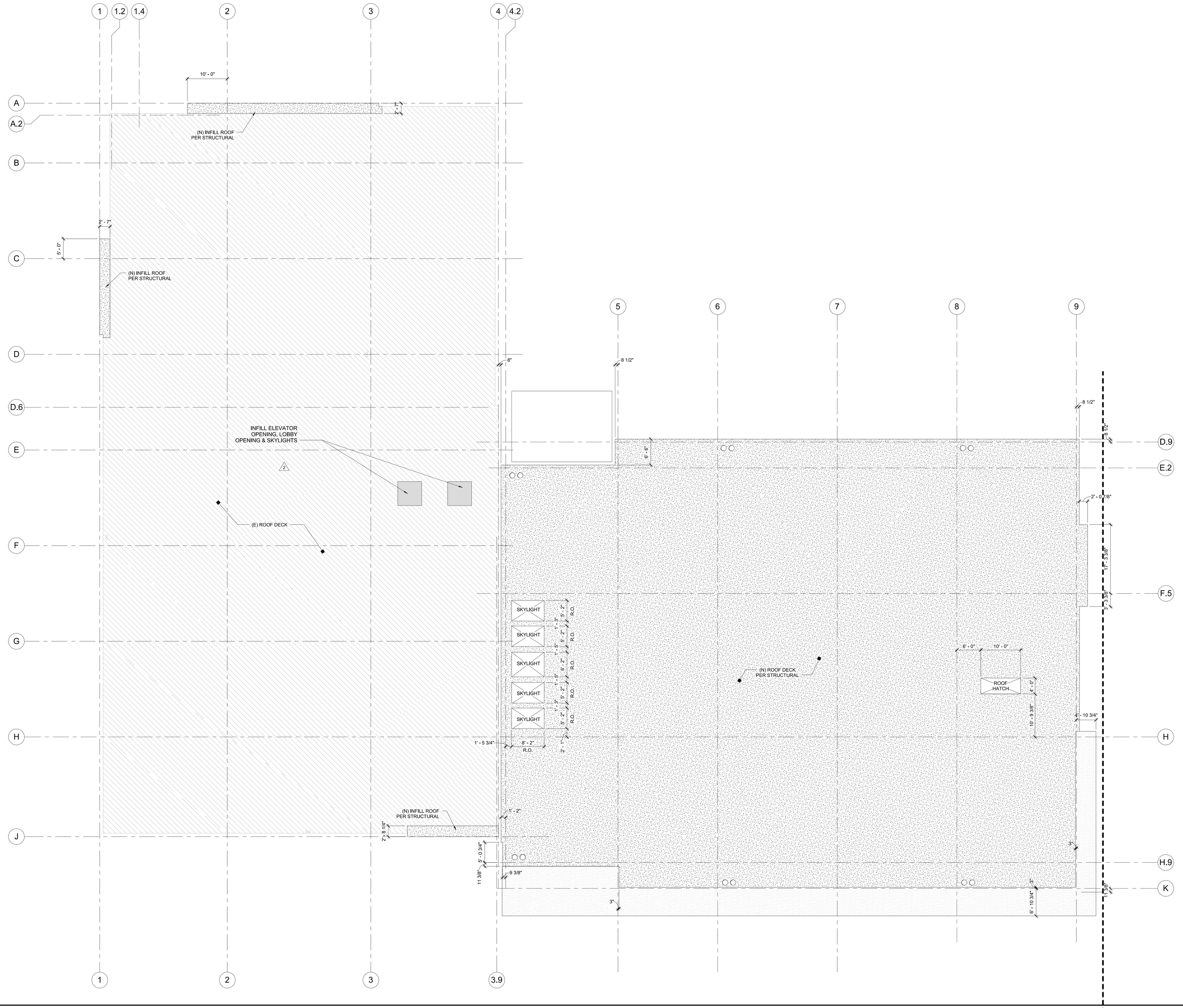
PLAN NORTH

SCALE 1/8" = 1'-0"

TITLE

2ND LEVEL SLAB PLAN

A-102S



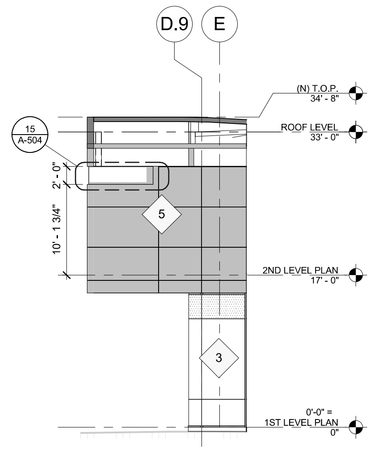
2/15/2013 8:44:08 AM

SCALE 1/8" = 1'-0"

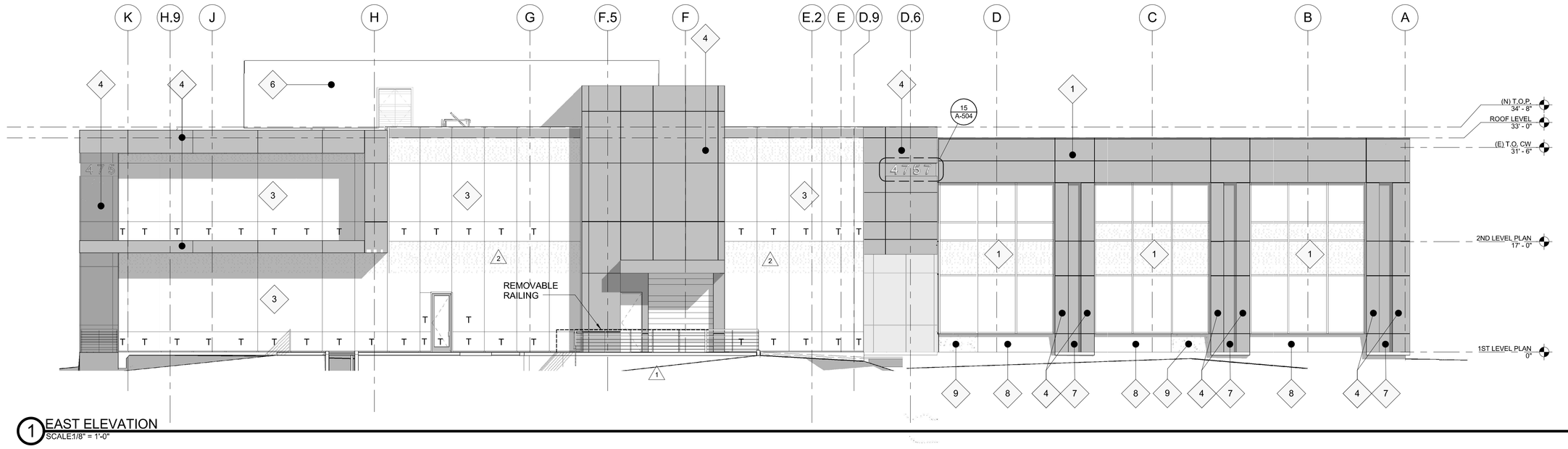
TITLE

ROOF LEVEL SLAB PLAN

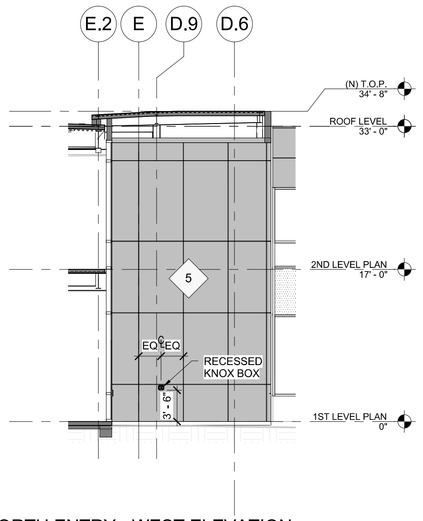
A-103S



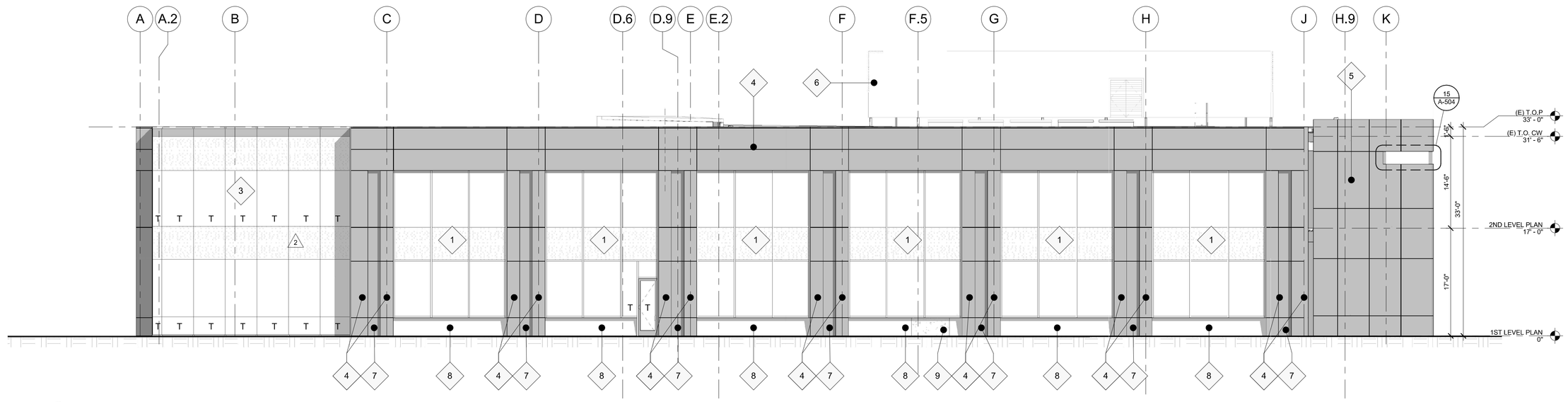
2 NORTH ENTRY - EAST ELEVATION
SCALE1/8" = 1'-0"



1 EAST ELEVATION
SCALE1/8" = 1'-0"



4 NORTH ENTRY - WEST ELEVATION
SCALE1/8" = 1'-0"



3 WEST ELEVATION
SCALE1/8" = 1'-0"

EXTERIOR FINISH / MATERIAL KEYNOTES:

1. **WINDOW WALL SYSTEM:**
   MULLIONS:
   SIZE: 3" x 6"
   FINISH: FACTORY COATED FINISH (METALLIC SILVER) WITH ASSOCIATED HARDWARE
   GLASS:
   A. VISION GLASS (COLOR: TBD)
   B. SPANDREL GLASS TO MATCH VISION GLASS
2. **NOT USED:**
3. **CURTAIN WALL SYSTEM (UNITIZED SYSTEM):**
   MULLIONS:
   SIZE: 3" x 7 ½" - STANDARD MULLION
   3" x 6" - BUTT-JOINT MULLION
   FINISH: FACTORY COATED FINISH (COLOR: TBD) WITH ASSOCIATED HARDWARE
   GLASS:
   A. VISION GLASS (COLOR: TBD)
   B. SPANDREL GLASS TO MATCH VISION GLASS
   C. CLEAR VISION GLASS
4. **METAL PANEL SYSTEM:**
   ALUMINUM PANEL ASSEMBLY (COLOR: TBD)
5. **METAL PANEL SYSTEM:**
   DRY SEAL ALUMINUM PANEL ASSEMBLY (COLOR: TBD)
6. **RIBBED METAL PANEL ROOF SCREEN:**
   RIBBED ALUMINUM PANEL (COLOR: TBD)
7. **METAL PANEL OVER (E) CONCRETE WALL:**
   FINISH: WATERPROOF SEAL OVER (E) CONCRETE BEFORE INSTALLING METAL PANEL (COLOR: TBD)
8. **(E) SLANTED CONCRETE WALL:**
   FINISH: WATERPROOF SEAL
9. **(N) SLANTED CONCRETE WALL:**
   MATCH (E) SLANTED CONCRETE WALL, SEE DETAIL 17/A-501
   FINISH: WATERPROOF SEAL

VISION GLASS
SPANDREL GLASS
CLEAR GLASS
FLAT ALUMINUM PANEL
METAL PANEL SYSTEM
CORRUGATED METAL PANEL
CEMENT PLASTER
(E) CONCRETE WALL

SPANDREL GLAZING SCHEDULE

KEY	GLAZING TYPE	SIZE (WXH)	SQ. FT.	QUANTITY	ASHRAE U VALUE		SHGC*	TOTAL GLAZING SF
					WINTER	SUMMER		
1	1" VRE19-46 Insulating HS/HS	18'-0" x 23'-4"	419.40	11	0.30	0.27	0.23	4,613.40
		18'-0" x 23'-4" (+door)	429.10	2				858.20
3	1" VRE19-46 Insulating HS/HS	6'-6" x 15'-0"	97.50	1	0.30	0.27	0.23	97.50
		38'-0" x 13' -5"	509.85	1				509.85
		41'-6" x 15'-3"	632.88	1				632.88
		30'-0" x 34'-5"	1,032.51	1				1,032.51
		21' -6" x 34'-5"	739.97	1				739.97
		31'-4 1/2" x 32'-9"	1,027.53	1				1,027.53
		118'-0" x 34'-5"	4,002.71	1				4,002.71
		25'-2" x 31'-2"	784.38	1				784.38
		19'-4 1/2"" x 32'-9"	634.53	1				634.53
		25'-2" x 30'-8"	771.80	1				771.80
		118'-0" x 30'-8"	3,483.46	1				3,483.46
		6'-6" x 30'-8"	199.33	1				199.33
* *SGHC Noted is the center of glass value*		TOTAL GLAZED AREA AT CONDITIONED SPACE						19,388.05

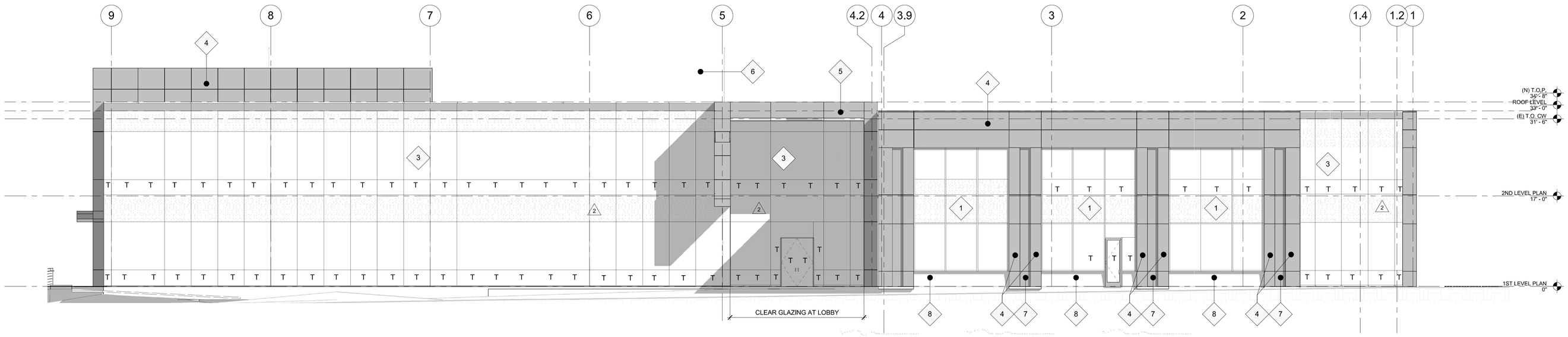
SCALE As indicated

TITLE

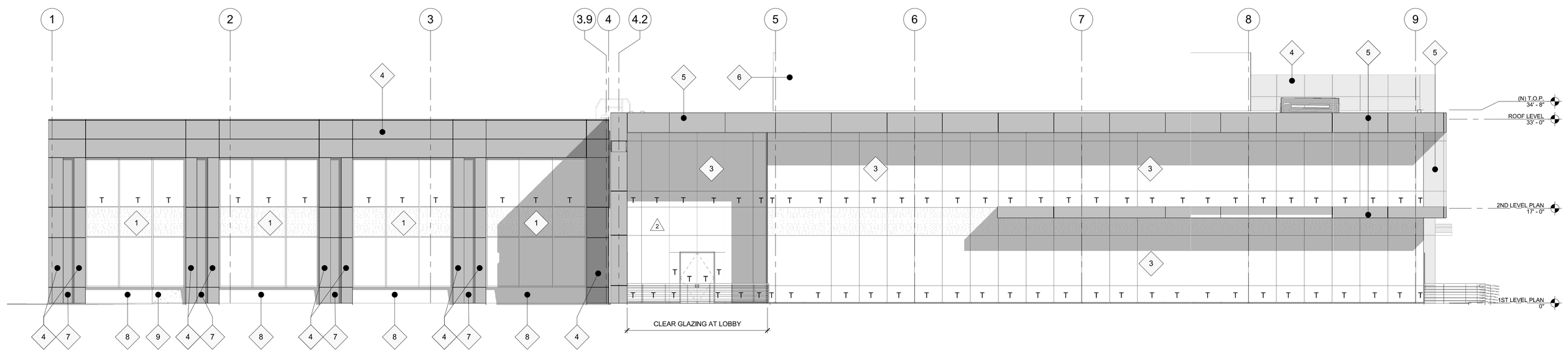
EXTERIOR ELEVATIONS

A-201

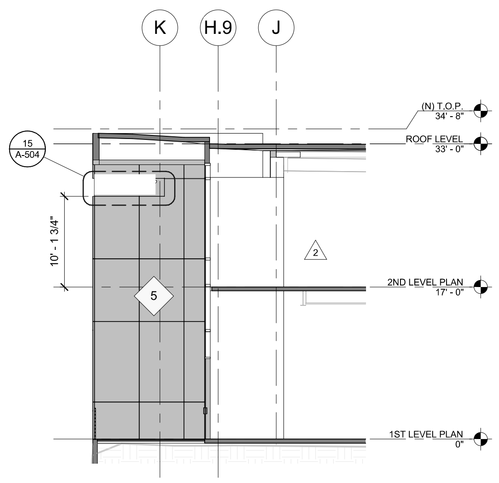
2/15/2013 8:53:32 AM



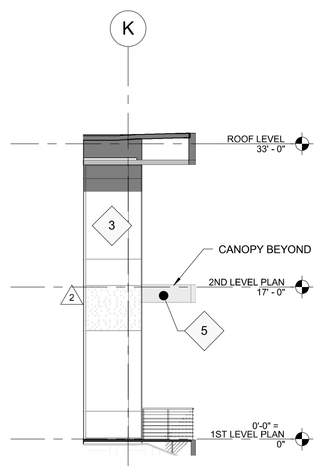
1 NORTH ELEVATION
SCALE:1/8" = 1'-0"



2 SOUTH ELEVATION
SCALE:1/8" = 1'-0"



4 SOUTH ENTRY - WEST ELEVATION
SCALE:1/8" = 1'-0"



3 SOUTH ENTRY - EAST ELEVATION
SCALE:1/8" = 1'-0"

EXTERIOR FINISH / MATERIAL KEYNOTES:

1 **WINDOW WALL SYSTEM:**

MULLIONS:

SIZE: 3" x 6"
FINISH: FACTORY COATED FINISH (METALLIC SILVER) WITH ASSOCIATED HARDWARE

GLASS:

A. VISION GLASS (COLOR: TBD)
B. SPANDREL GLASS TO MATCH VISION GLASS

2 **NOT USED:**

3 **CURTAIN WALL SYSTEM (UNITIZED SYSTEM):**

MULLIONS:

SIZE: 3" x 7 ½" - STANDARD MULLION
3" x 6" - BUTT-JOINT MULLION
FINISH: FACTORY COATED FINISH (COLOR: TBD) WITH ASSOCIATED HARDWARE

GLASS:

A. VISION GLASS (COLOR: TBD)
B. SPANDREL GLASS TO MATCH VISION GLASS
C. CLEAR VISION GLASS

4 **METAL PANEL SYSTEM:**

ALUMINUM PANEL ASSEMBLY (COLOR: TBD)

5 **METAL PANEL SYSTEM:**

DRY SEAL ALUMINUM PANEL ASSEMBLY (COLOR: TBD)

6 **RIBBED METAL PANEL ROOF SCREEN:**

RIBBED ALUMINUM PANEL (COLOR: TBD)

7 **METAL PANEL OVER (E) CONCRETE WALL:**

FINISH: WATERPROOF SEAL OVER (E) CONCRETE BEFORE INSTALLING METAL PANEL (COLOR: TBD)

8 **(E) SLANTED CONCRETE WALL:**

FINISH: WATERPROOF SEAL

9 **(N) SLANTED CONCRETE WALL:**

MATCH (E) SLANTED CONCRETE WALL, SEE DETAIL 17/A-501
FINISH: WATERPROOF SEAL

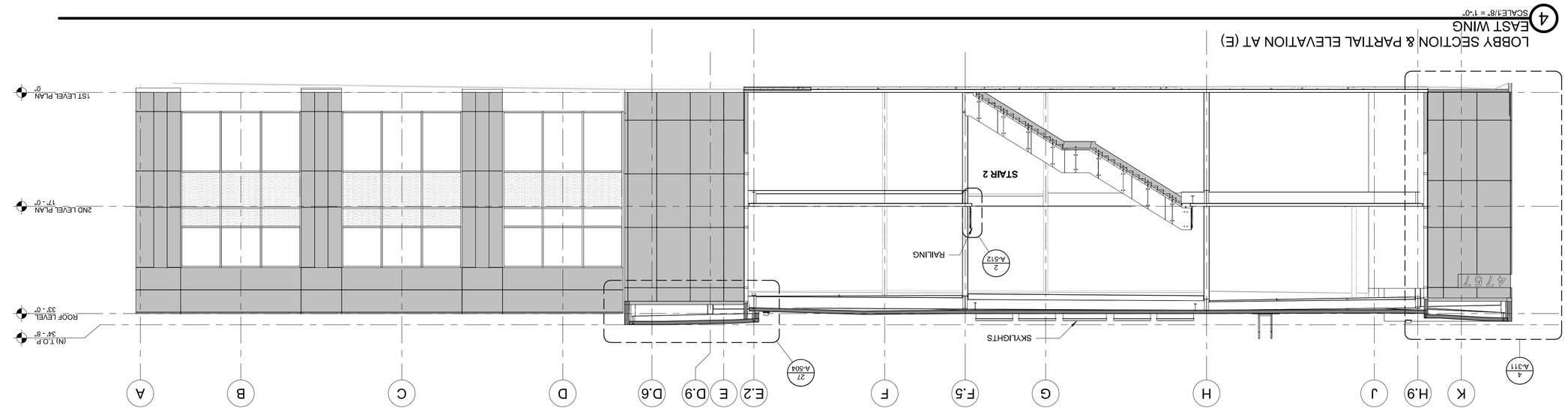
VISION GLASS
SPANDREL GLASS
CLEAR GLASS
FLAT ALUMINUM PANEL
METAL PANEL SYSTEM
CORRUGATED METAL PANEL
CEMENT PLASTER
(E) CONCRETE WALL

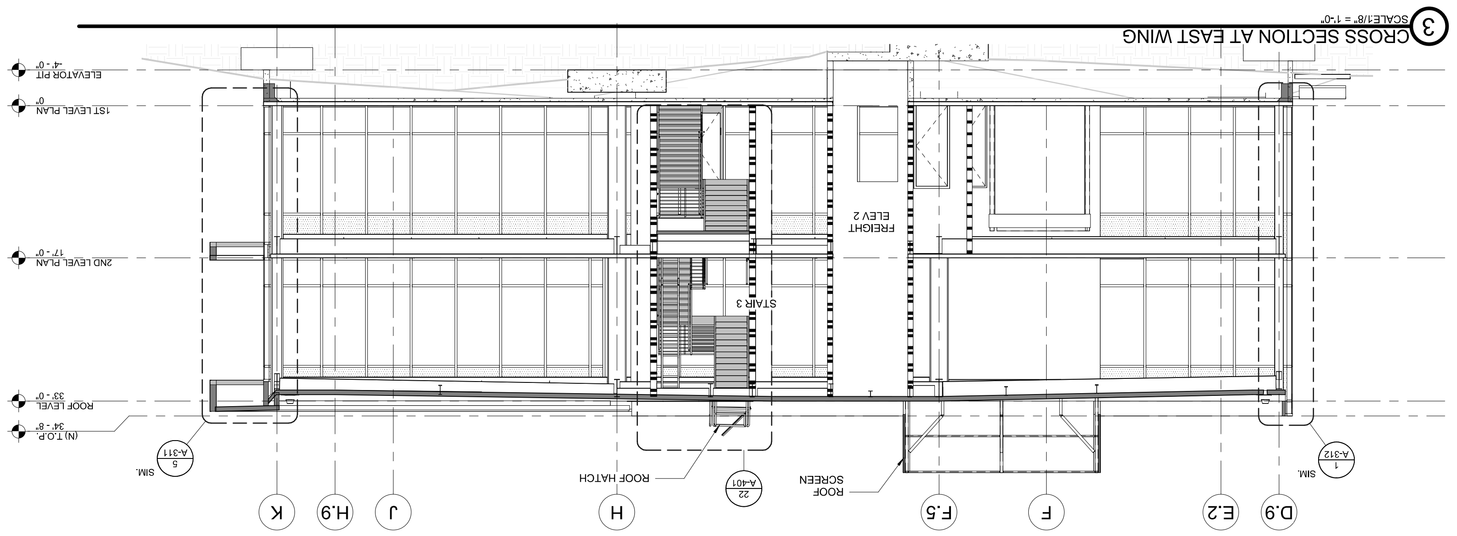
SCALE As indicated

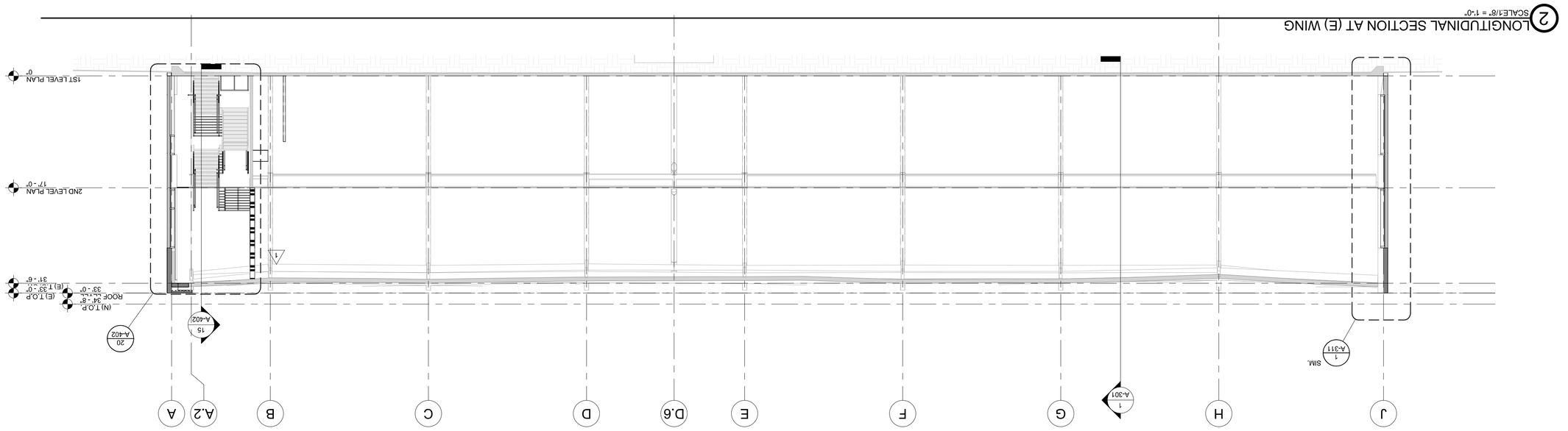
TITLE
EXTERIOR ELEVATIONS

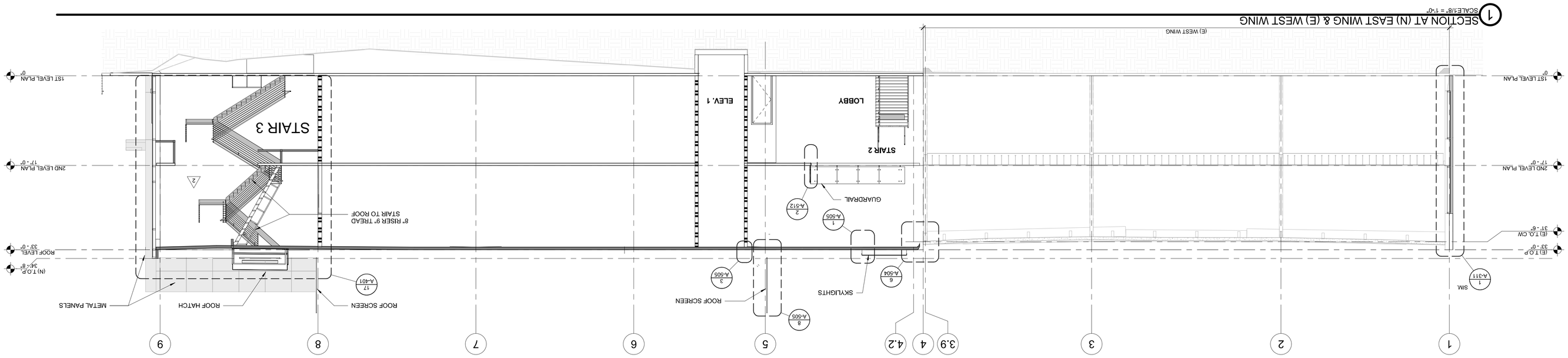
A-202

2/15/2013 85436.AM









2/15/2013 9:27:24 AM

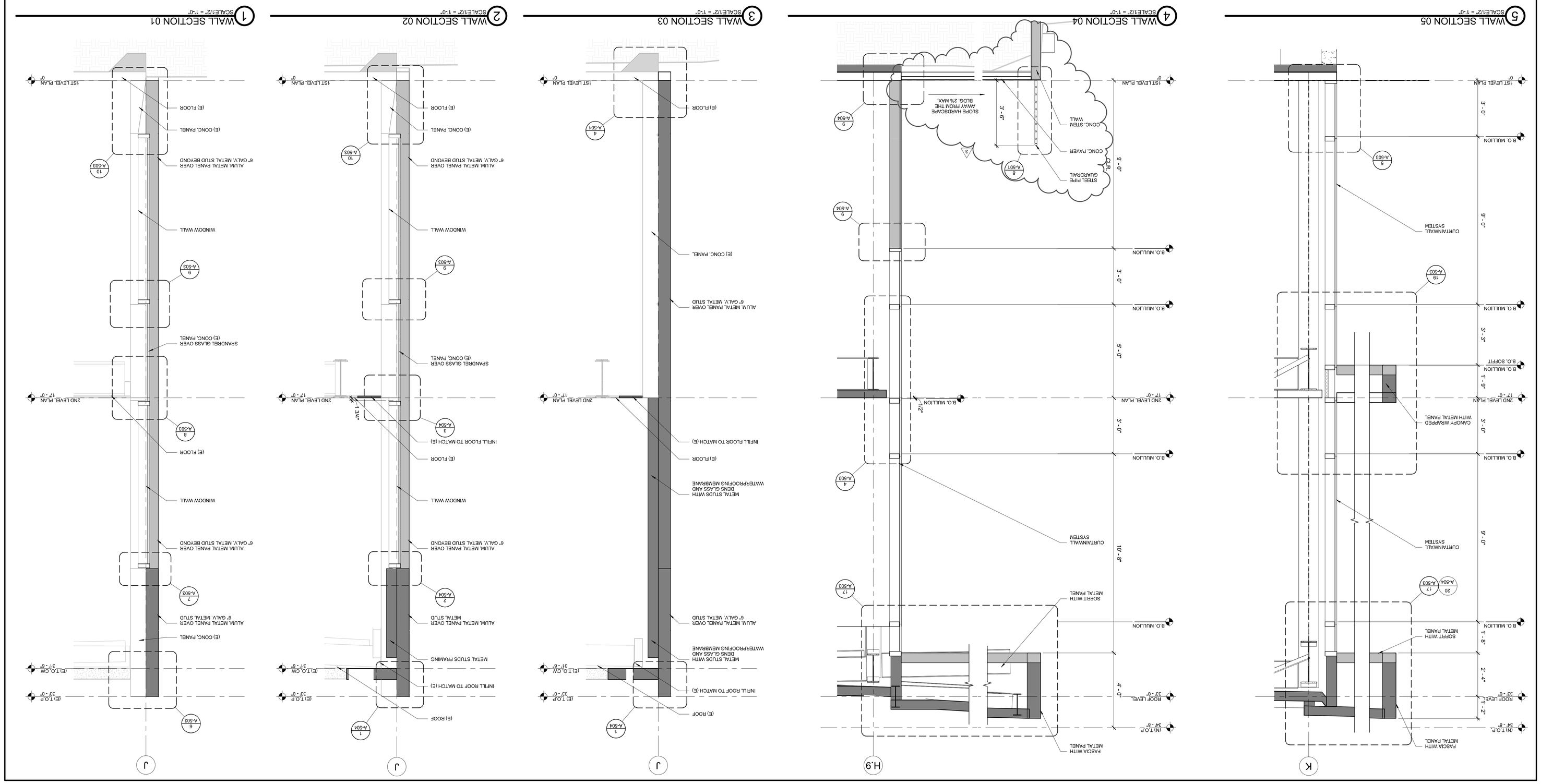
A-301

BUILDING SECTIONS

TITLE

SCALE 1/8" = 1'-0"

2/15/2013 9:26:38 AM

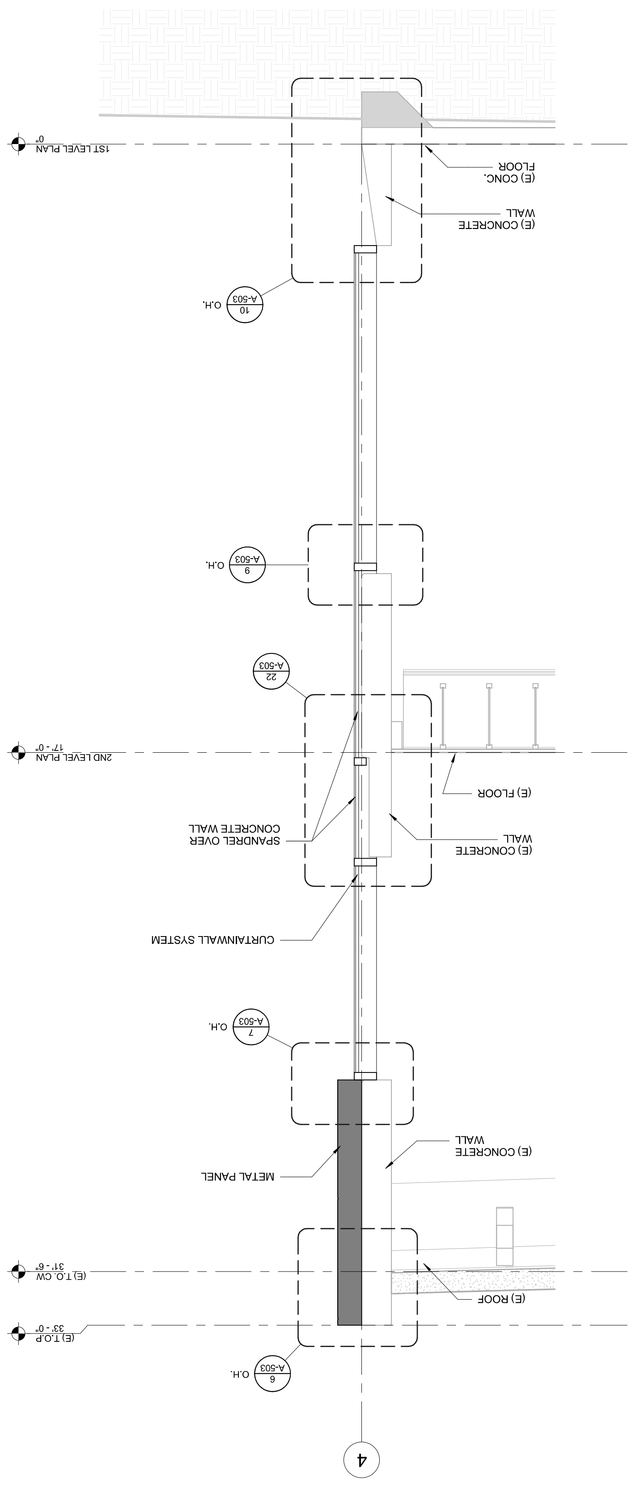


A-311

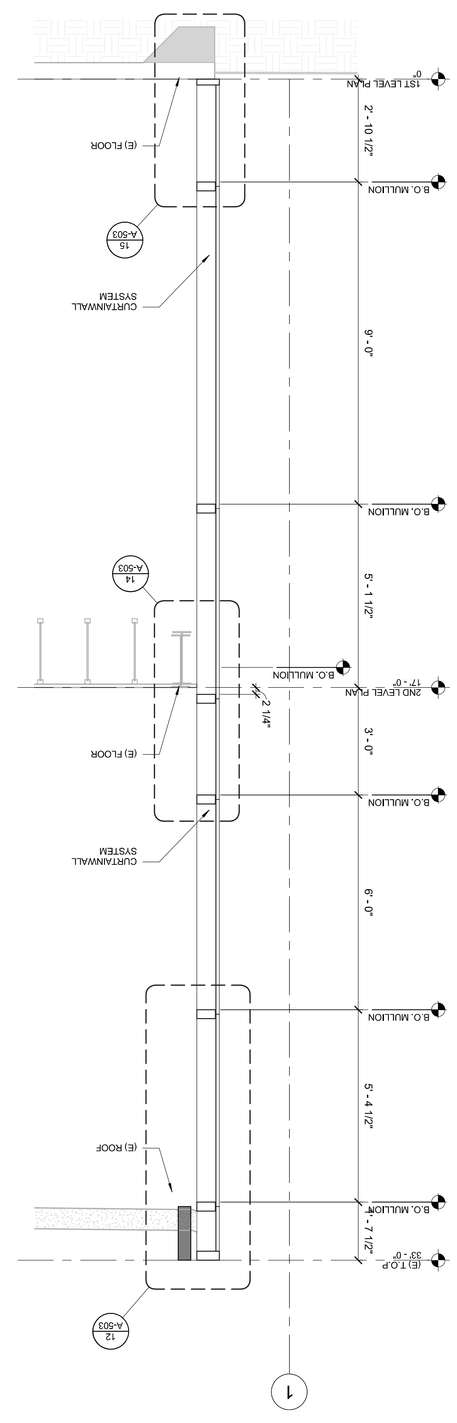
WALL SECTIONS

SCALE 1/2" = 1'-0"

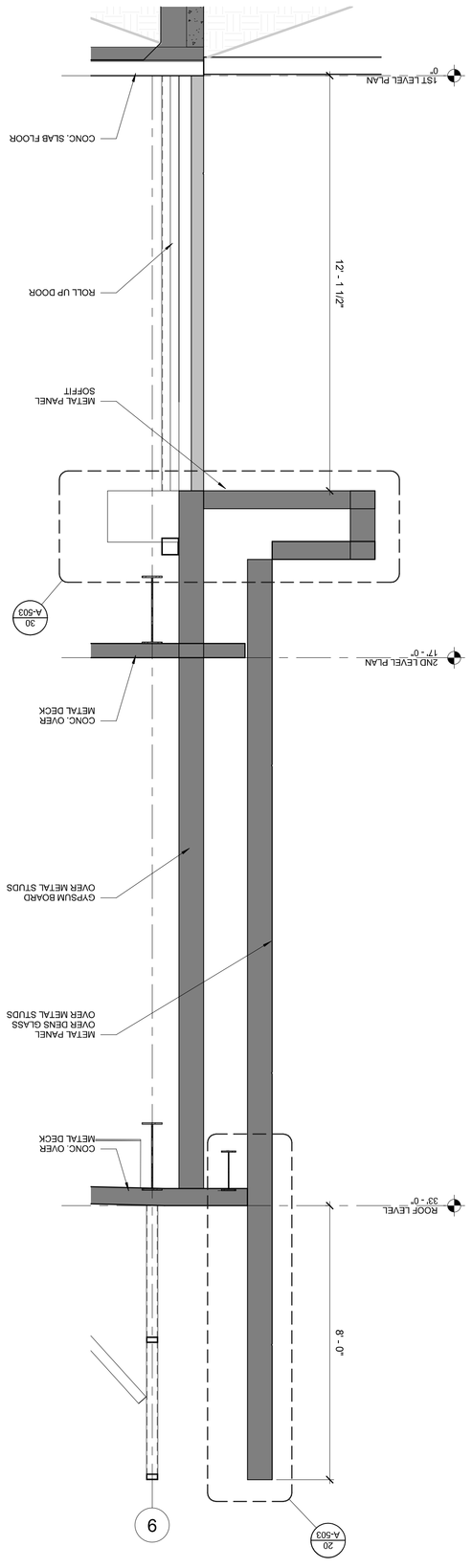
TITLE



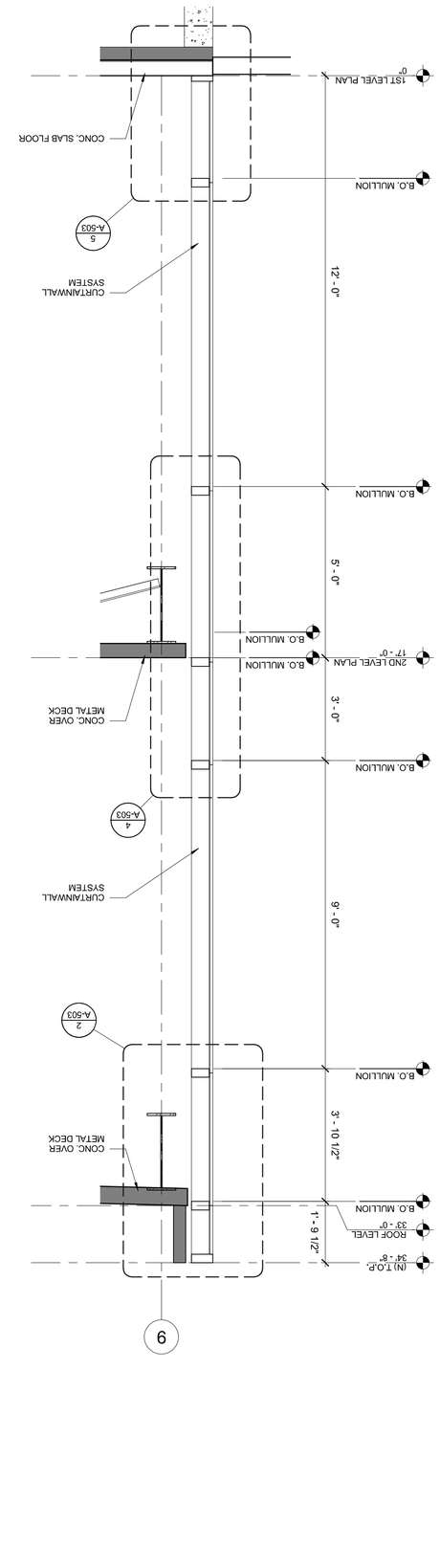
4 WALL SECTION 09
SCALE:1/2" = 1'-0"



3 WALL SECTION 08
SCALE:1/2" = 1'-0"



2 WALL SECTION 07
SCALE:1/2" = 1'-0"



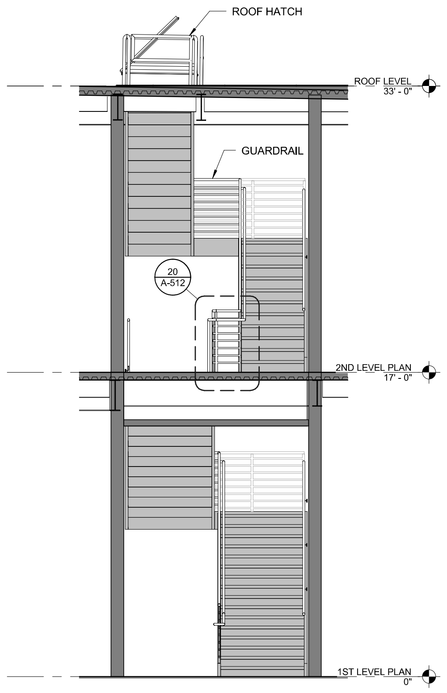
1 WALL SECTION 06
SCALE:1/2" = 1'-0"

A-312

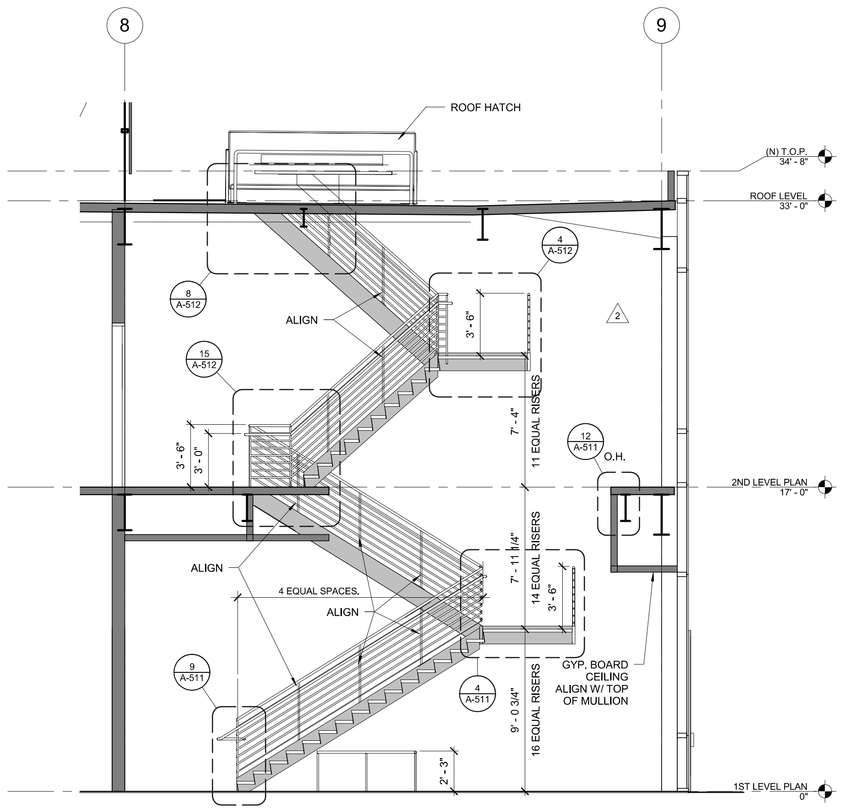
WALL SECTIONS

SCALE 1/2" = 1'-0"

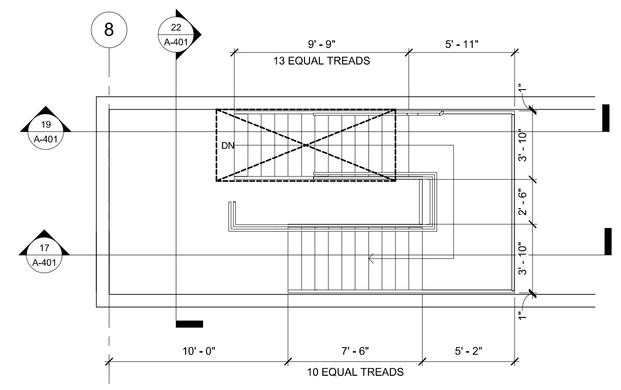
TITLE



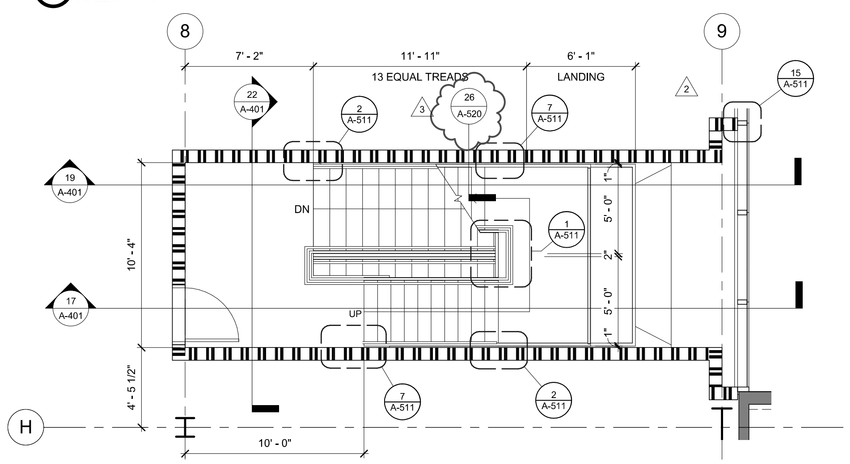
22 STAIR 3 CROSS SECTION
SCALE1/4" = 1'-0"



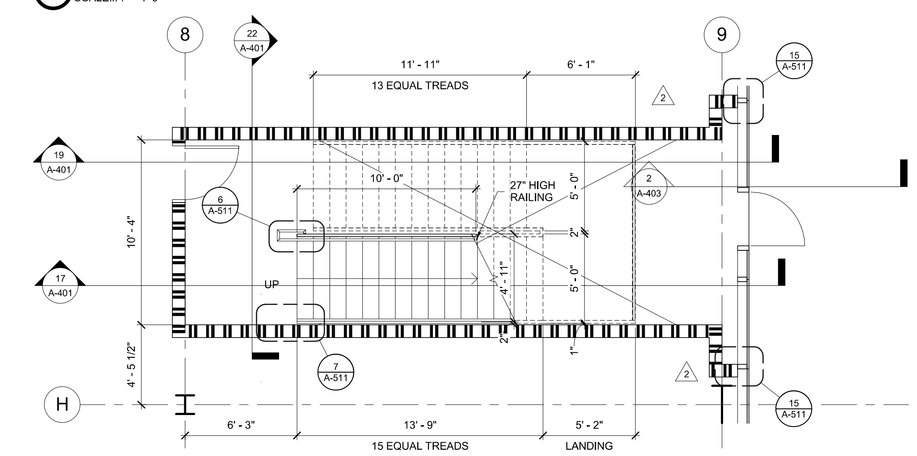
17 STAIR 3 SECTION
SCALE1/4" = 1'-0"



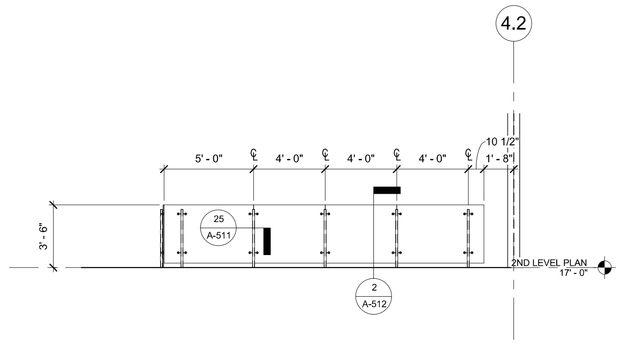
2 STAIR 3 ENLARGED PLAN - ROOF LEVEL
SCALE1/4" = 1'-0"



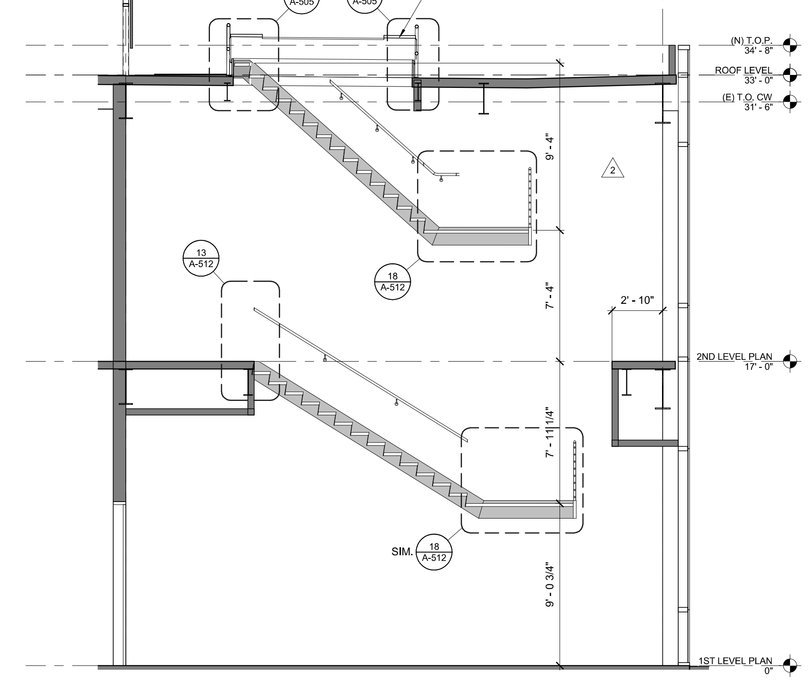
7 STAIR 3 ENLARGED PLAN - 2ND LEVEL
SCALE1/4" = 1'-0"



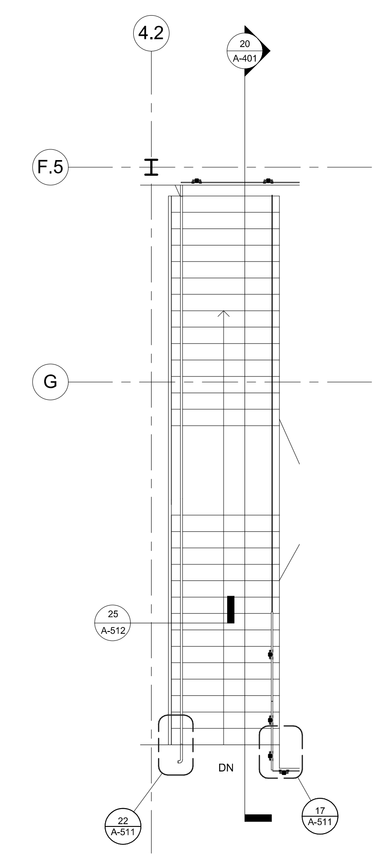
8 STAIR 3 ENLARGED PLAN - 1ST LEVEL
SCALE1/4" = 1'-0"



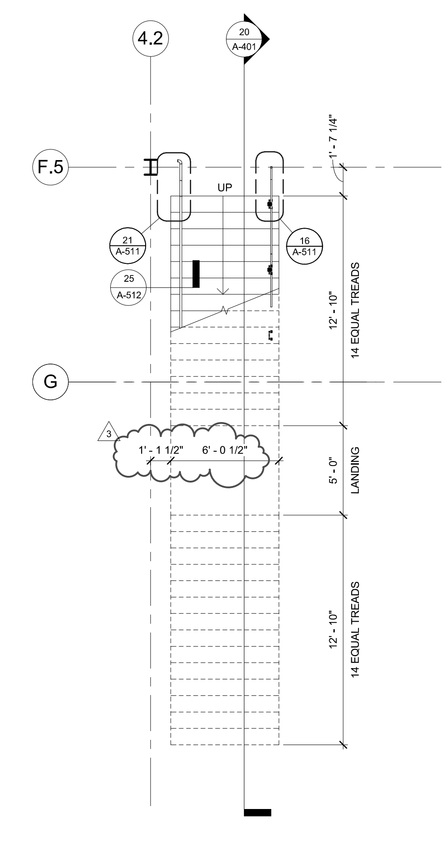
28 GUARDRAIL - NORTH ELEVATION
SCALE1/4" = 1'-0"



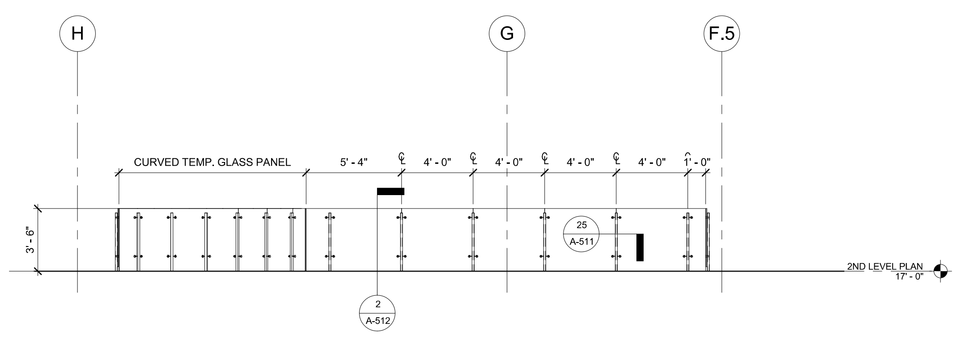
19 STAIR 3 ROOF ACCESS SECTION
SCALE1/4" = 1'-0"



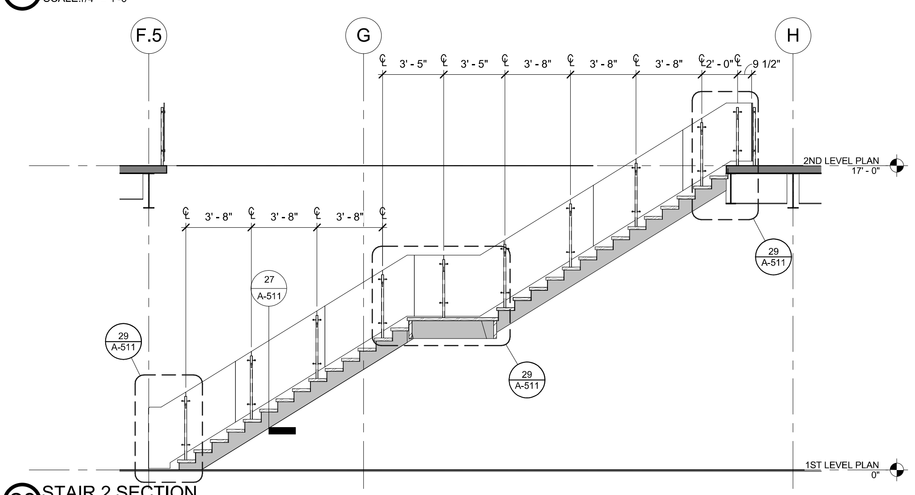
10 STAIR 2 ENLARGED PLAN - 2ND LEVEL
SCALE1/4" = 1'-0"



5 STAIR 2 ENLARGED PLAN - 1ST LEVEL
SCALE1/4" = 1'-0"



30 GUARDRAIL - EAST ELEVATION
SCALE1/4" = 1'-0"



20 STAIR 2 SECTION
SCALE1/4" = 1'-0"

5 STAIR 2 ENLARGED PLAN - 1ST LEVEL
SCALE1/4" = 1'-0"

SCALE 1/4" = 1'-0"

TITLE

ENLARGED PLANS & SECTIONS

A-401

2/15/2013 8:38:27 AM

2/15/2013 9:01:29 AM

A402

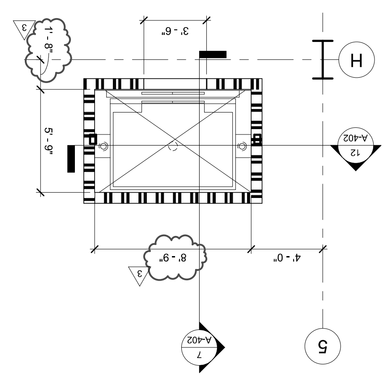
ENLARGED PLANS & SECTIONS

SCALE 1/4" = 1'-0"

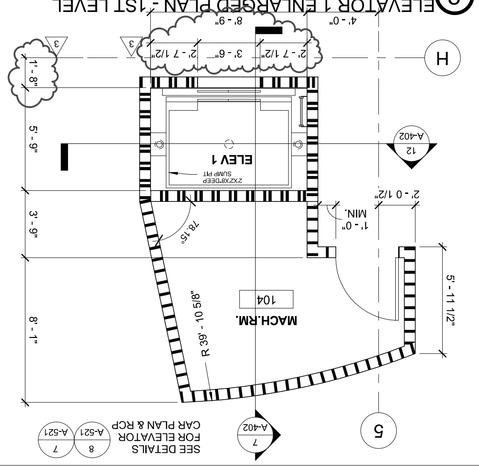
TITLE

---

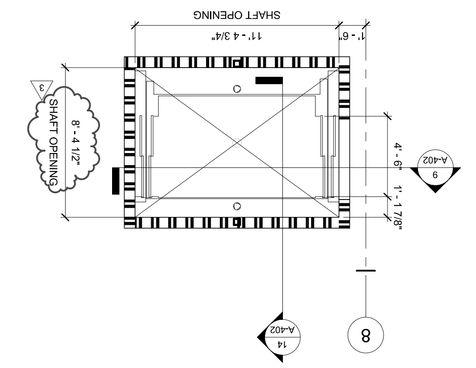
1 ELEVATOR 1 ENLARGED PLAN - 2ND LEVEL
SCALE:1/4" = 1'-0"



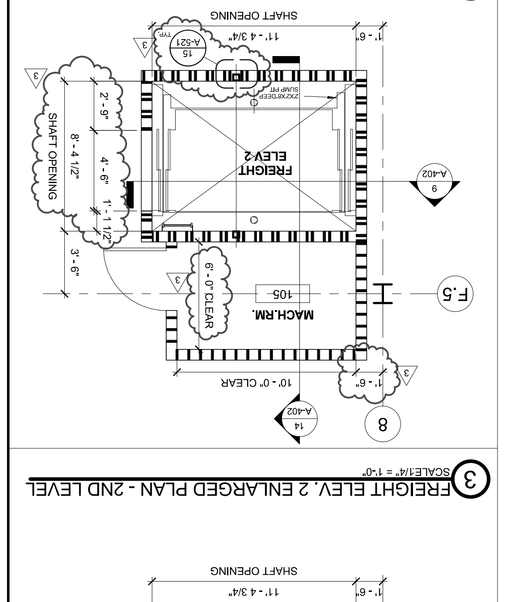
2 ELEVATOR 1 ENLARGED PLAN - 1ST LEVEL
SCALE:1/4" = 1'-0"



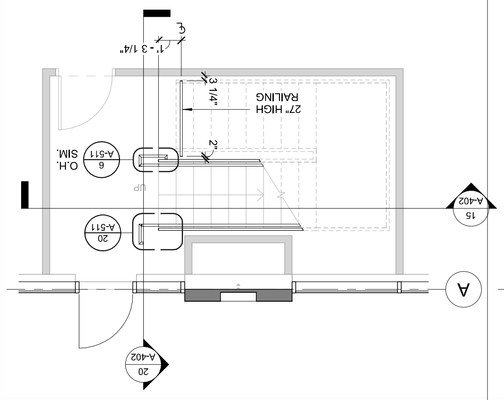
3 FREIGHT ELEV. 2 ENLARGED PLAN - 2ND LEVEL
SCALE:1/4" = 1'-0"



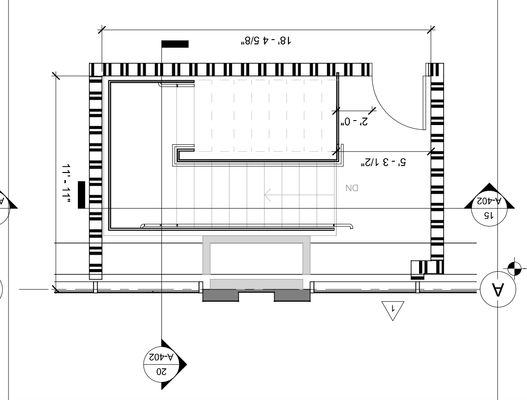
4 FREIGHT ELEV. 2 ENLARGED PLAN - 1ST LEVEL
SCALE:1/4" = 1'-0"



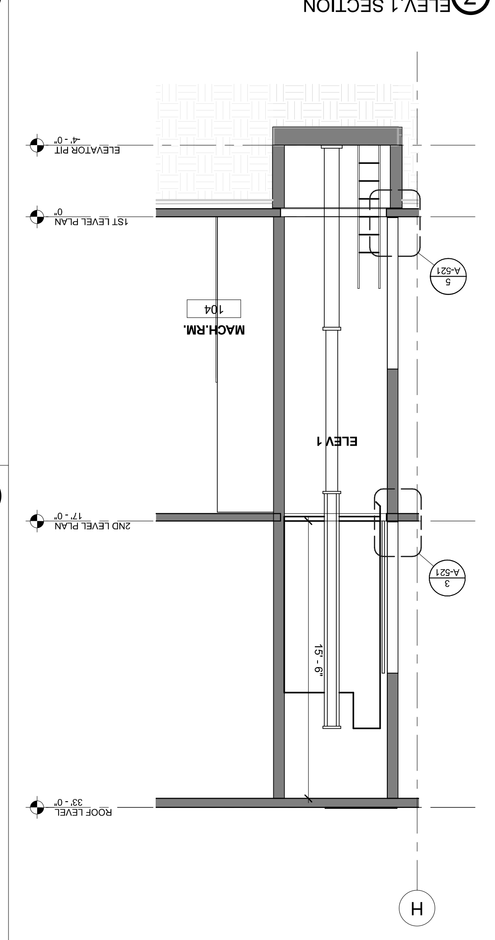
5 STAIR 1 ENLARGED PLAN - 1ST LEVEL
SCALE:1/4" = 1'-0"



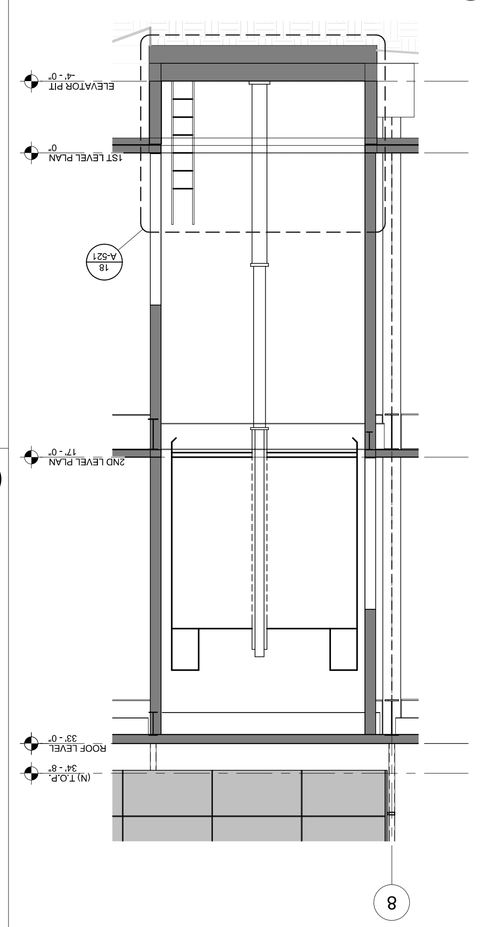
6 STAIR 1 ENLARGED PLAN - 2ND LEVEL
SCALE:1/4" = 1'-0"



7 ELEV.1 SECTION
SCALE:1/4" = 1'-0"



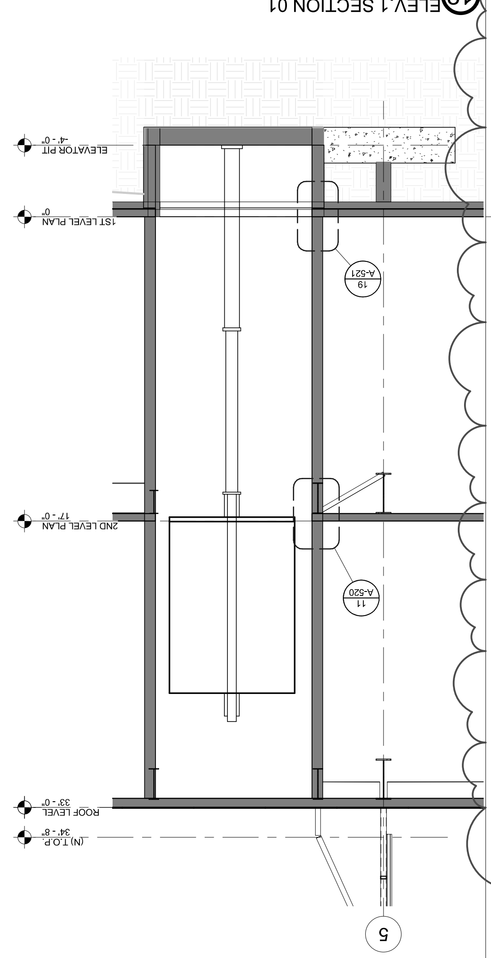
8 FREIGHT ELEV.2 SECTION
SCALE:1/4" = 1'-0"



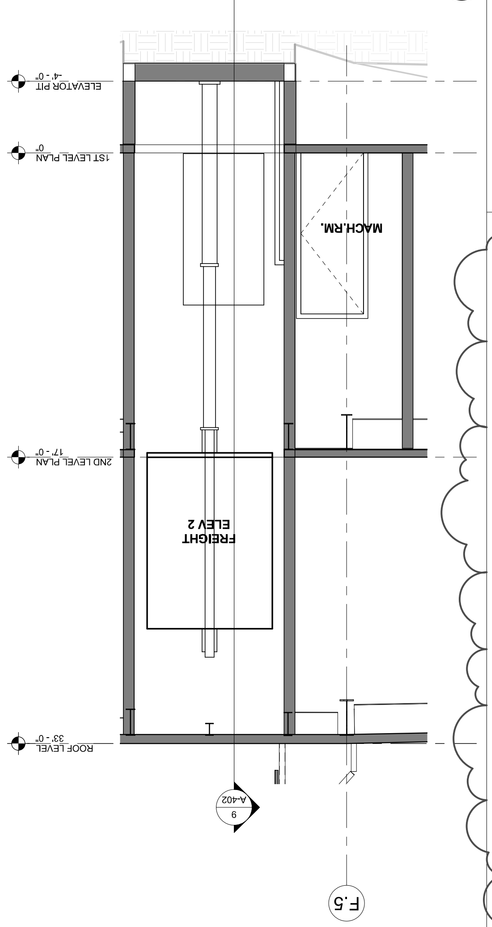
9 FREIGHT ELEV.2 SECTION
SCALE:1/4" = 1'-0"

10 STAIR 1 ENLARGED PLAN - 2ND LEVEL
SCALE:1/4" = 1'-0"

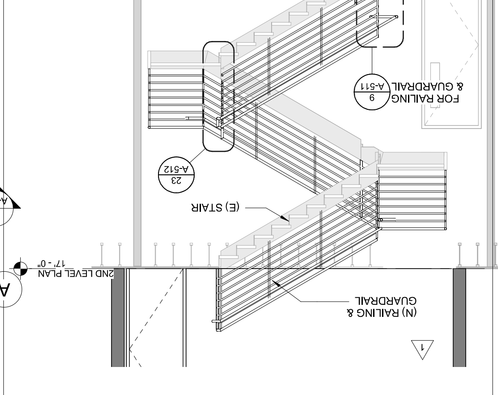
12 ELEV.1 SECTION 01
SCALE:1/4" = 1'-0"



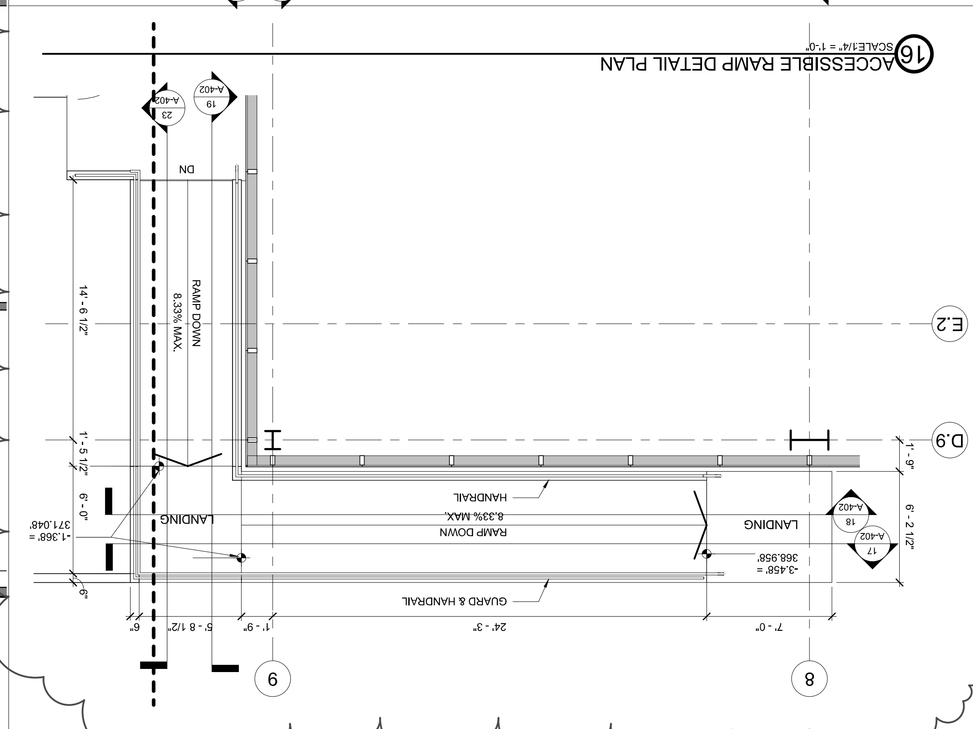
14 FREIGHT ELEV.2 SECTION 01
SCALE:1/4" = 1'-0"



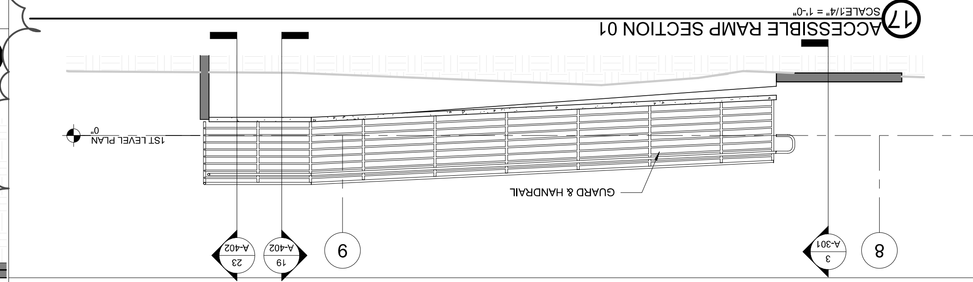
15 STAIR 1 SECTION
SCALE:1/4" = 1'-0"



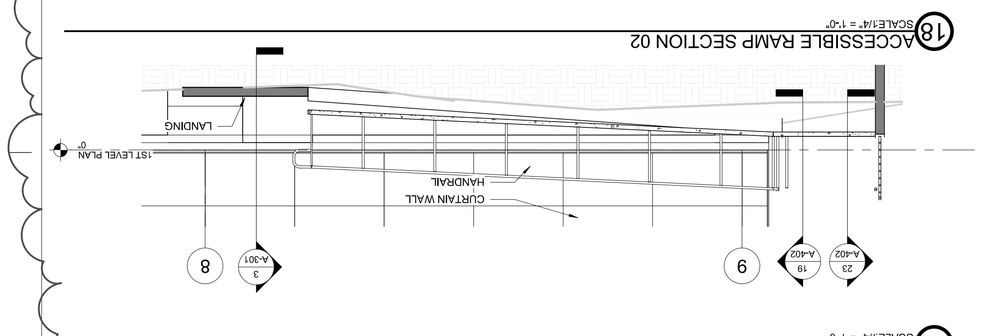
16 ACCESSIBLE RAMP DETAIL PLAN
SCALE:1/4" = 1'-0"



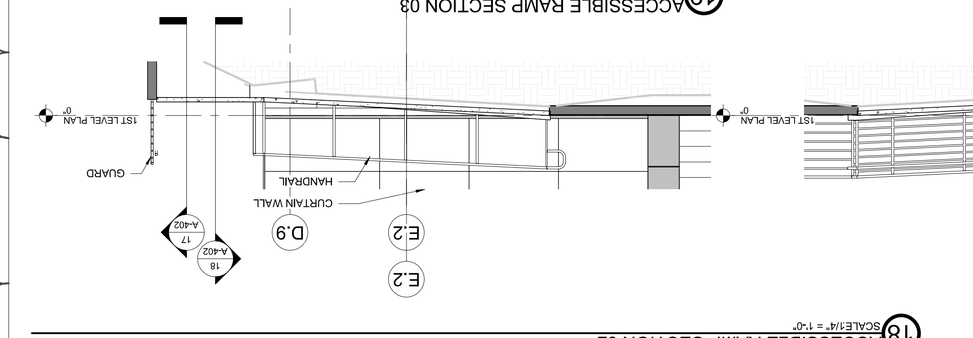
17 ACCESSIBLE RAMP SECTION 01
SCALE:1/4" = 1'-0"



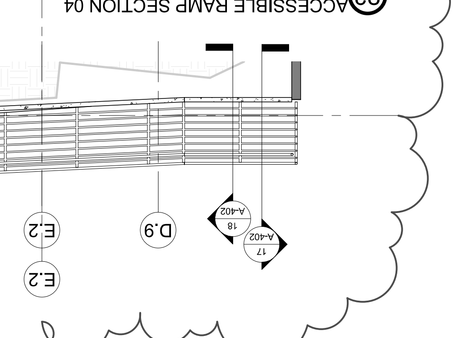
18 ACCESSIBLE RAMP SECTION 02
SCALE:1/4" = 1'-0"

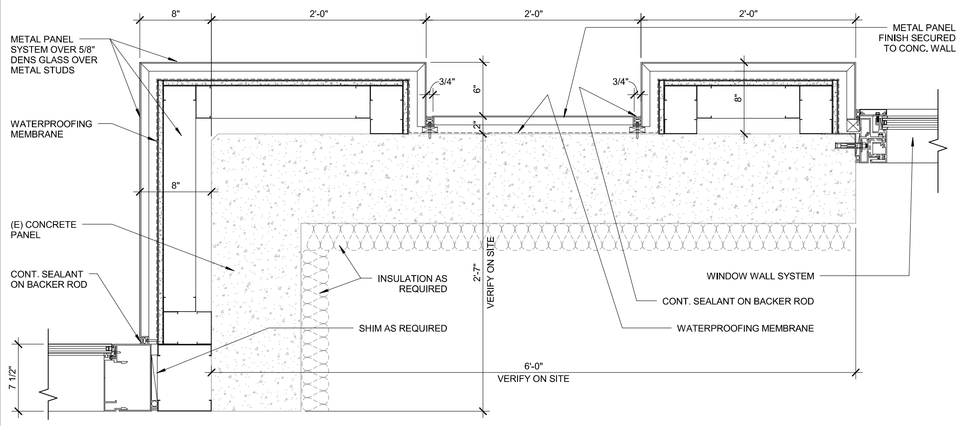


19 ACCESSIBLE RAMP SECTION 03
SCALE:1/4" = 1'-0"

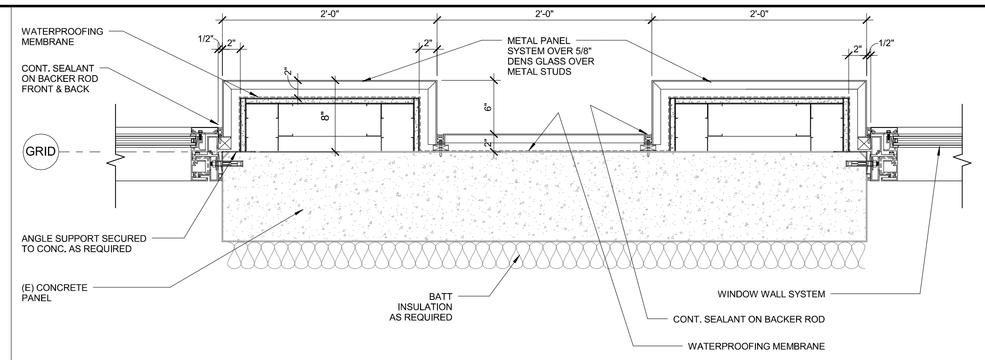


23 ACCESSIBLE RAMP SECTION 04
SCALE:1/4" = 1'-0"

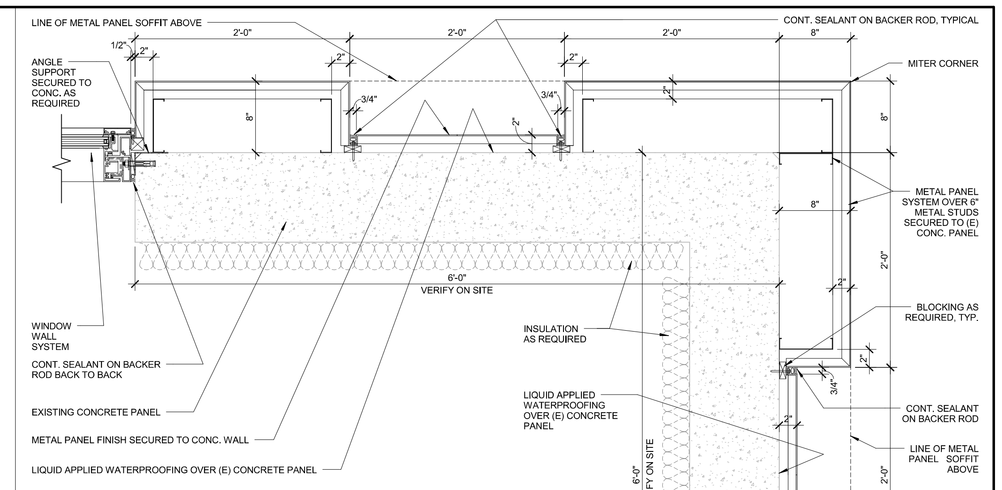




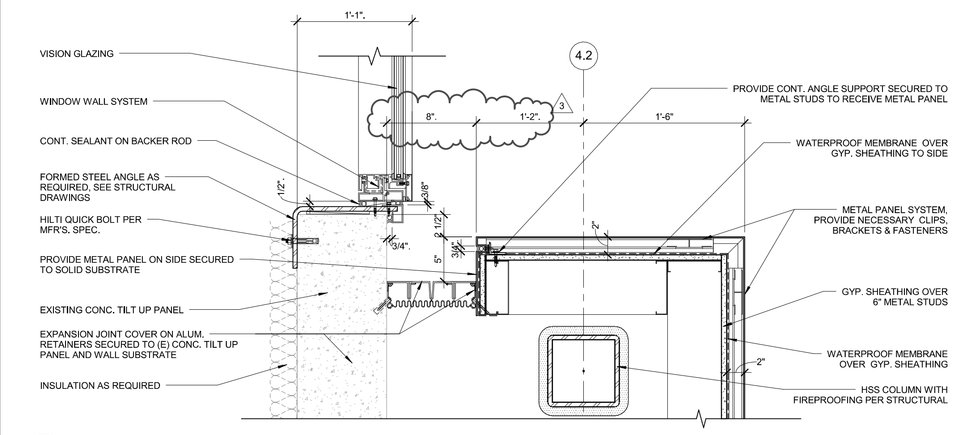
26 METAL PANEL AT CORNER AT FIRST LEVEL
SCALE1 1/2" = 1'-0"



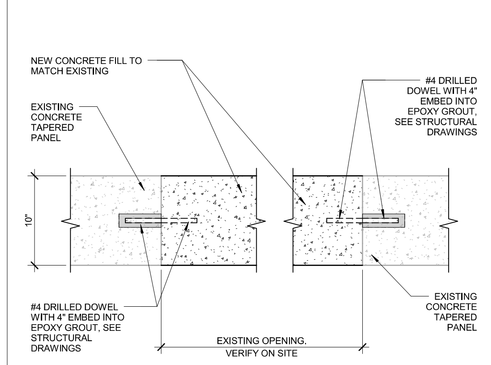
16 METAL PANEL AT PILASTER AT 1ST LEVEL
SCALE1 1/2" = 1'-0"



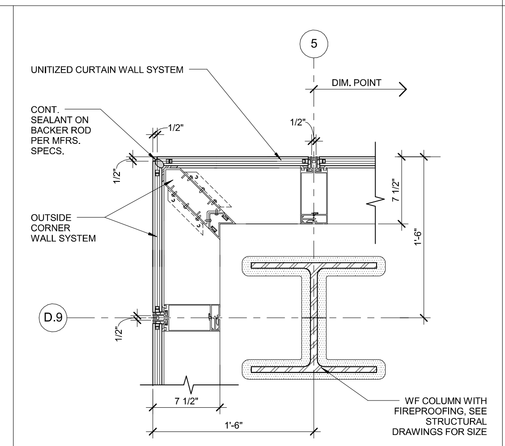
2 METAL PANEL AT CORNER
SCALE1 1/2" = 1'-0"



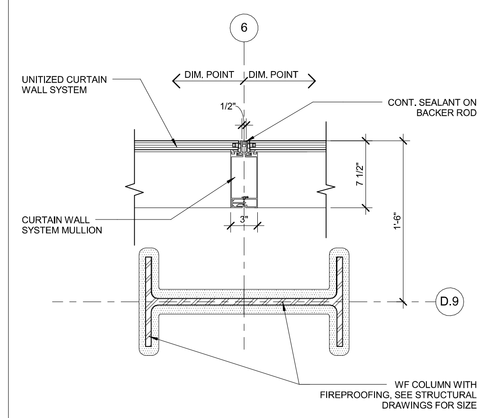
27 METAL PANEL AT EXPANSION JOINT
SCALE1 1/2" = 1'-0"



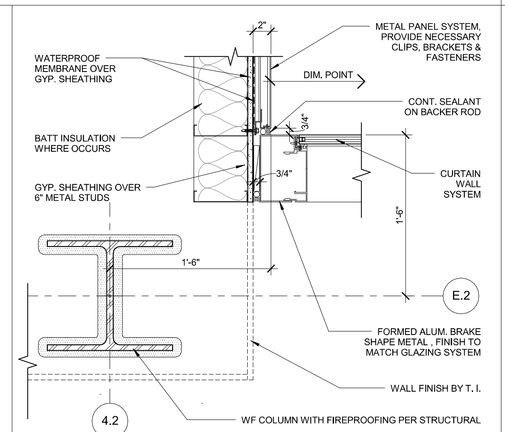
17 CONCRETE FILL AT (E) DOOR OPENINGS - PLAN
SCALE1 1/2" = 1'-0"



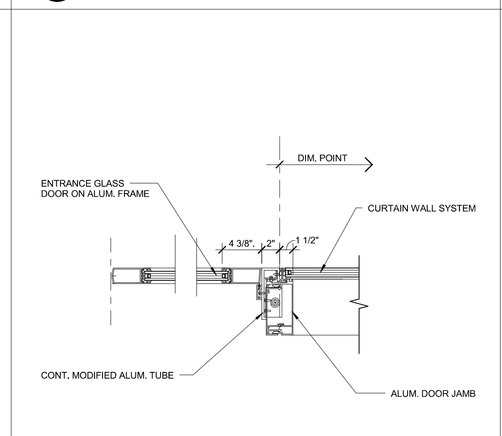
12 WINDOW AT OUTSIDE CORNER
SCALE1 1/2" = 1'-0"



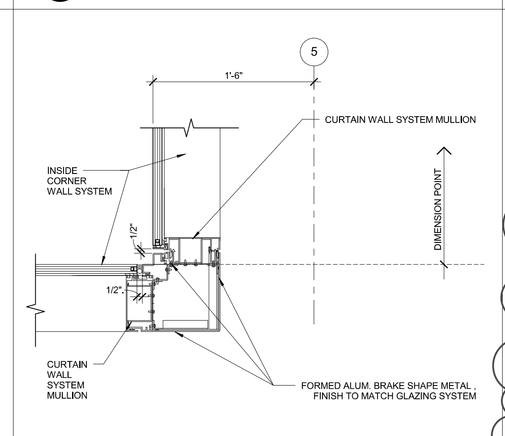
7 WINDOW MULLION AT COLUMN
SCALE1 1/2" = 1'-0"



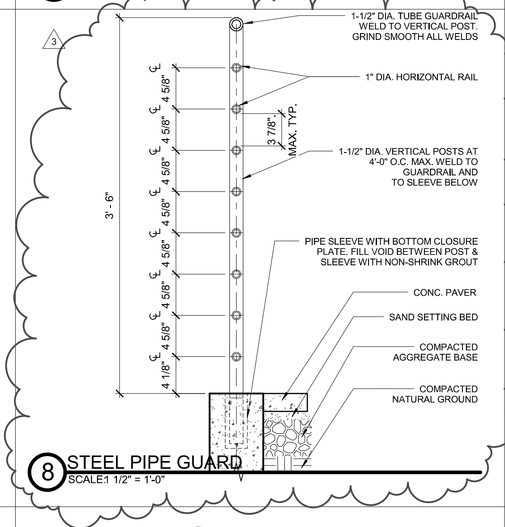
23 METAL PANEL INSIDE CORNER
SCALE1 1/2" = 1'-0"



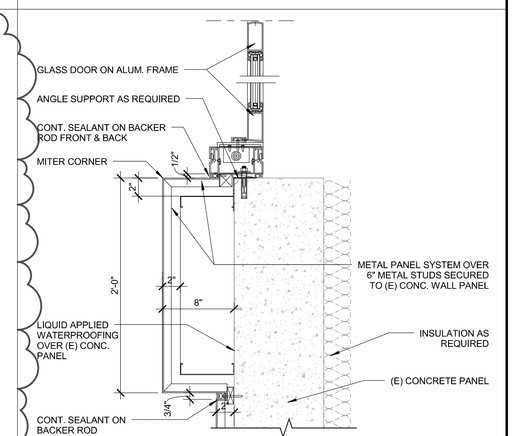
18 ALUM. DOOR JAMB
SCALE1 1/2" = 1'-0"



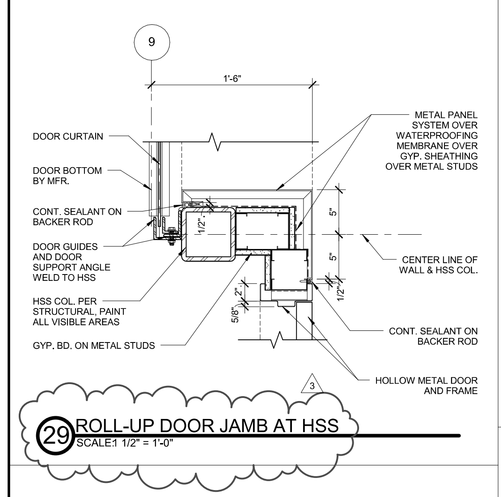
13 WINDOW AT INSIDE CORNER
SCALE1 1/2" = 1'-0"



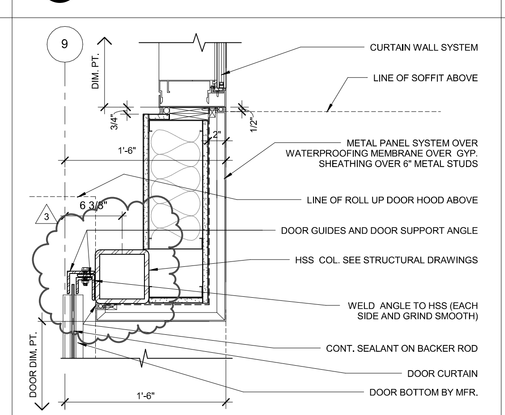
8 STEEL PIPE GUARD
SCALE1 1/2" = 1'-0"



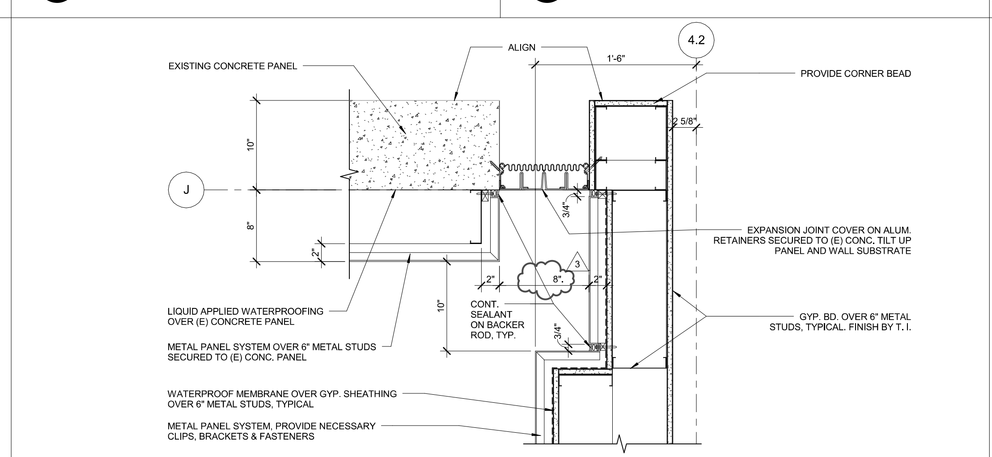
3 DOOR JAMB AT METAL PANEL
SCALE1 1/2" = 1'-0"



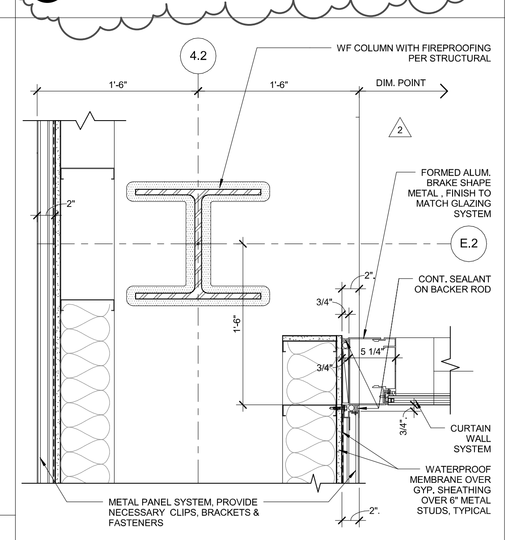
29 ROLL-UP DOOR JAMB AT HSS
SCALE1 1/2" = 1'-0"



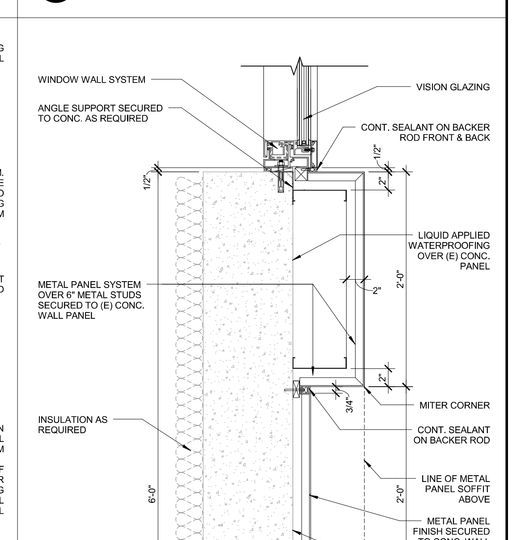
24 ROLL-UP DOOR JAMB @ METAL PANEL
SCALE1 1/2" = 1'-0"



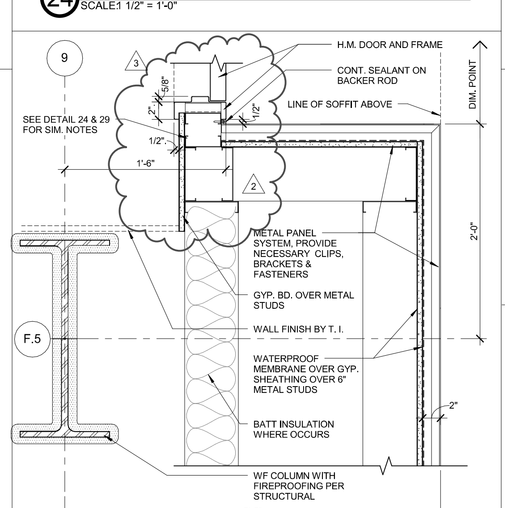
19 DETAIL AT EXPANSION JOINT
SCALE1 1/2" = 1'-0"



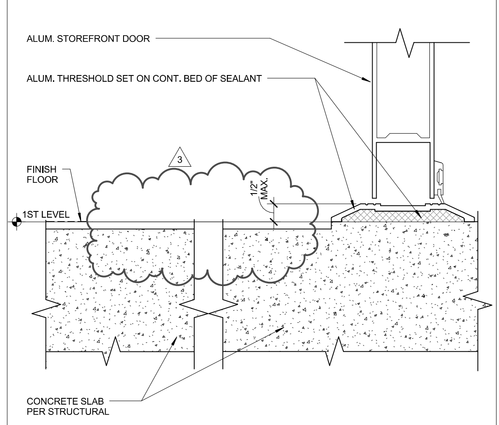
9 MULLION INSIDE CORNER
SCALE1 1/2" = 1'-0"



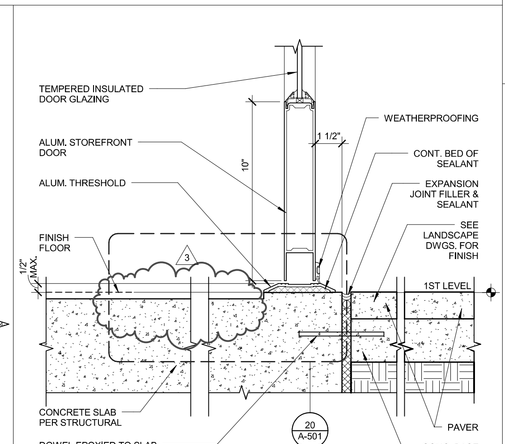
5 TYP. MTL. PANEL @ CONC. PANEL
SCALE1 1/2" = 1'-0"



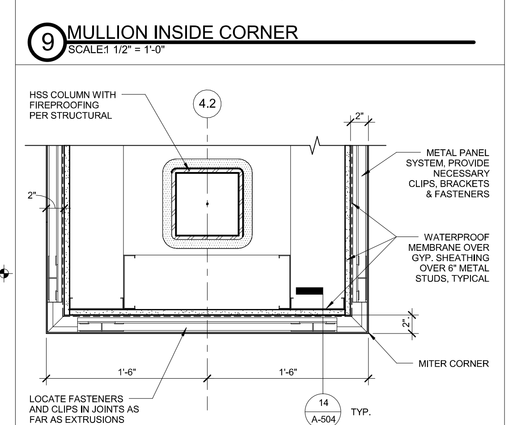
25 ROLL-UP DOOR JAMB @ METAL PANEL
SCALE1 1/2" = 1'-0"



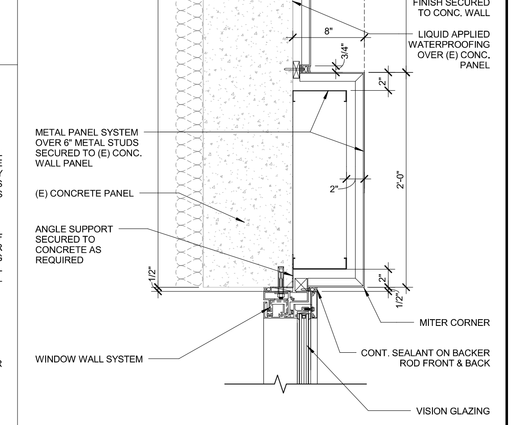
20 RECESSED MAT
SCALE6" = 1'-0"



15 DOOR BOTTOM/THRESHOLD
SCALE3" = 1'-0"



10 CORNER DETAIL
SCALE1 1/2" = 1'-0"



5 TYP. MTL. PANEL @ CONC. PANEL
SCALE1 1/2" = 1'-0"

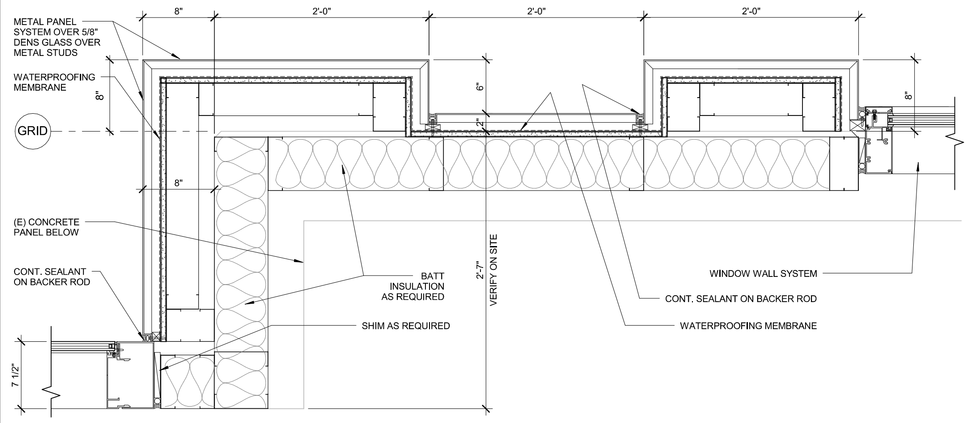
SCALE AS SHOWN

TITLE

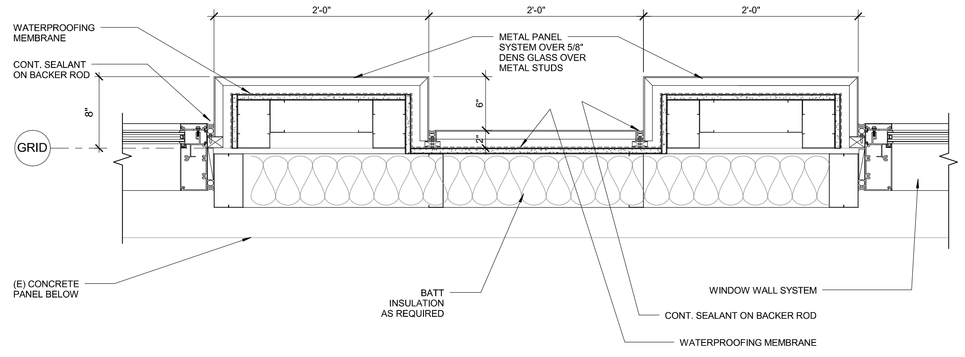
EXTERIOR DETAILS

A-501

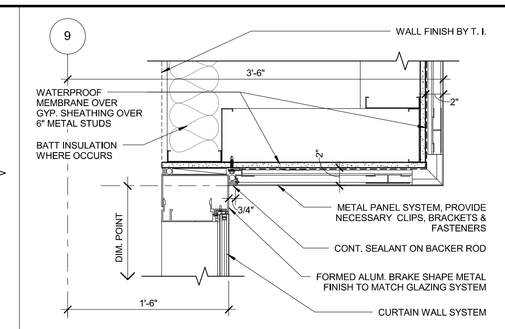
2/14/2013 3:21:55 PM



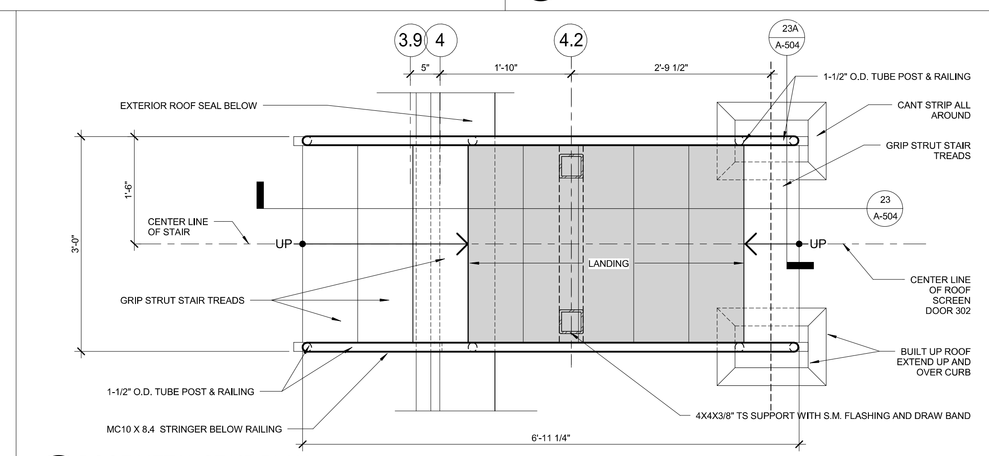
26 METAL PANEL AT BLDG. CORNER AT 2ND LEVEL
SCALE1 1/2" = 1'-0"



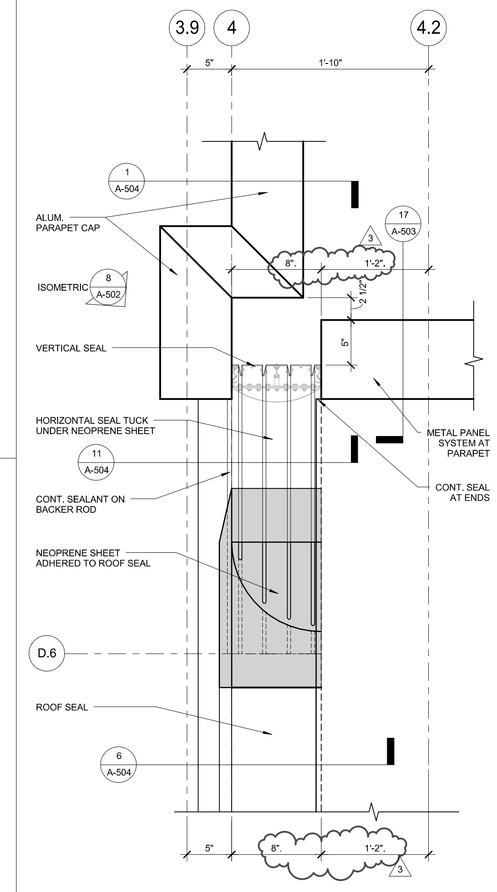
16 METAL PANEL AT PILASTER AT 2ND LEVEL
SCALE1 1/2" = 1'-0"



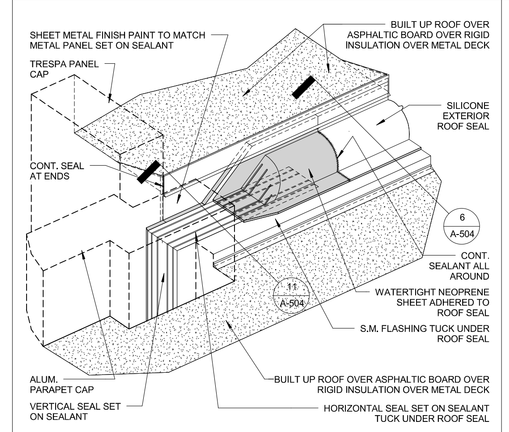
6 INSIDE CORNER AT GRID 9
SCALE1 1/2" = 1'-0"



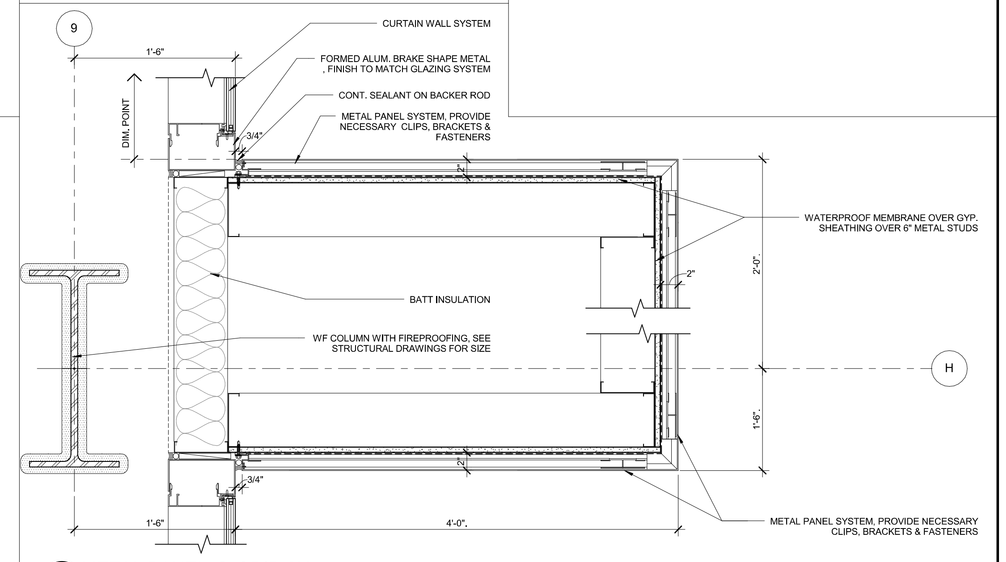
22 ROOF METAL STAIR PLAN
SCALE1" = 1'-0"



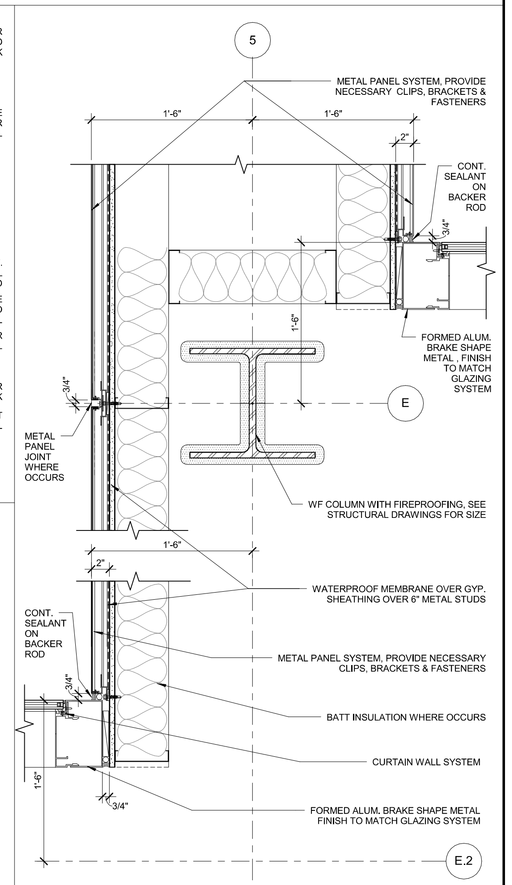
13 EXPANSION JOINT @ GRIDS D.6 & 4
SCALE1 1/2" = 1'-0"



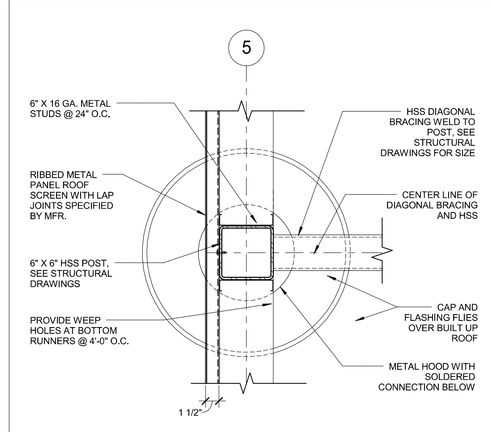
8 ISOMETRIC OF EXPANSION JOINT
SCALE3/4" = 1'-0"



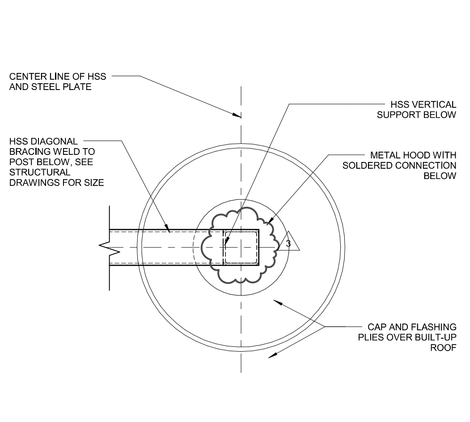
7 METAL PANEL @ GRID 9H
SCALE1 1/2" = 1'-0"



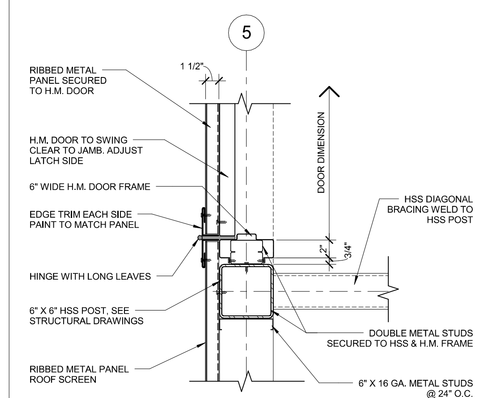
4 METAL PANEL DETAIL @ GRID 5E
SCALE1 1/2" = 1'-0"



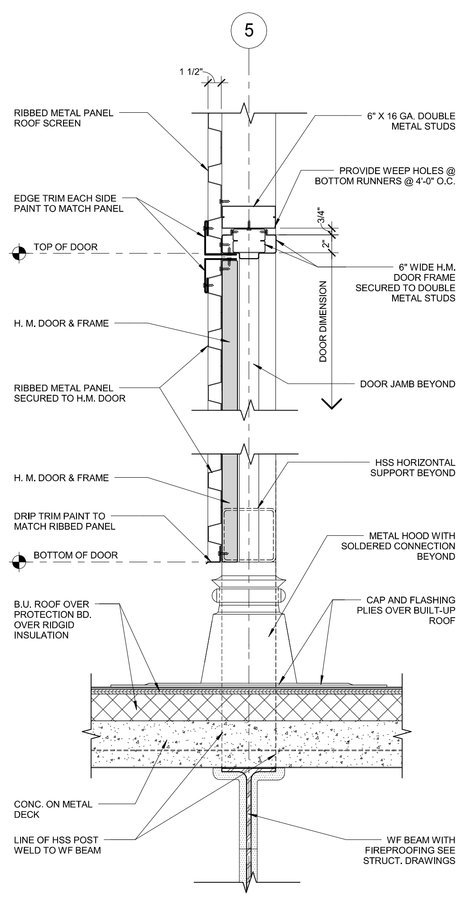
23 ROOF SCREEN AT HSS
SCALE1 1/2" = 1'-0"



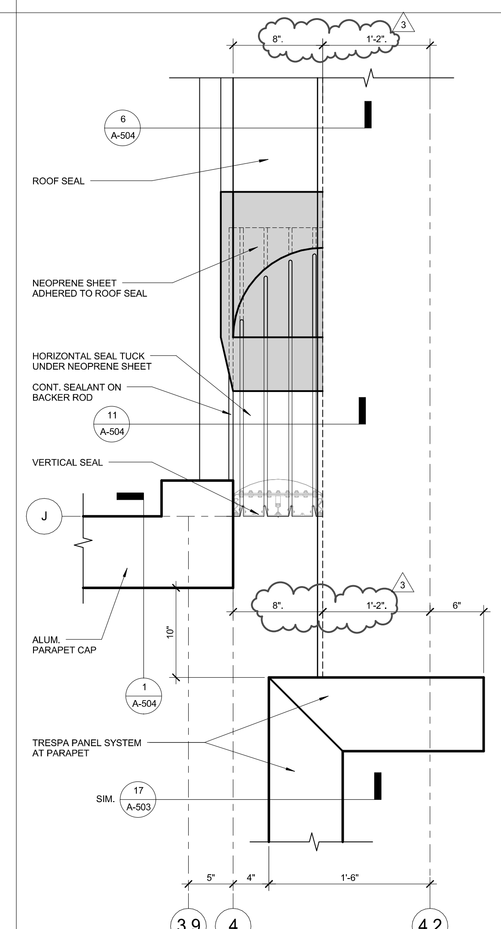
18 ROOF SCREEN AT BRACE
SCALE1 1/2" = 1'-0"



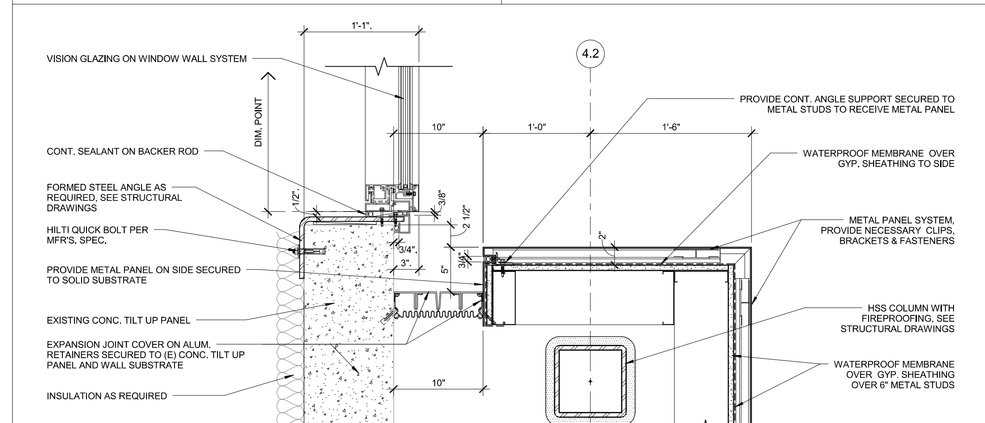
24 ROOF SCREEN DOOR JAMB
SCALE1 1/2" = 1'-0"



20 ROOF SCREEN DOOR HEAD
SCALE1 1/2" = 1'-0"



15 EXPANSION JOINT @ GRIDS J & 3.9
SCALE1 1/2" = 1'-0"



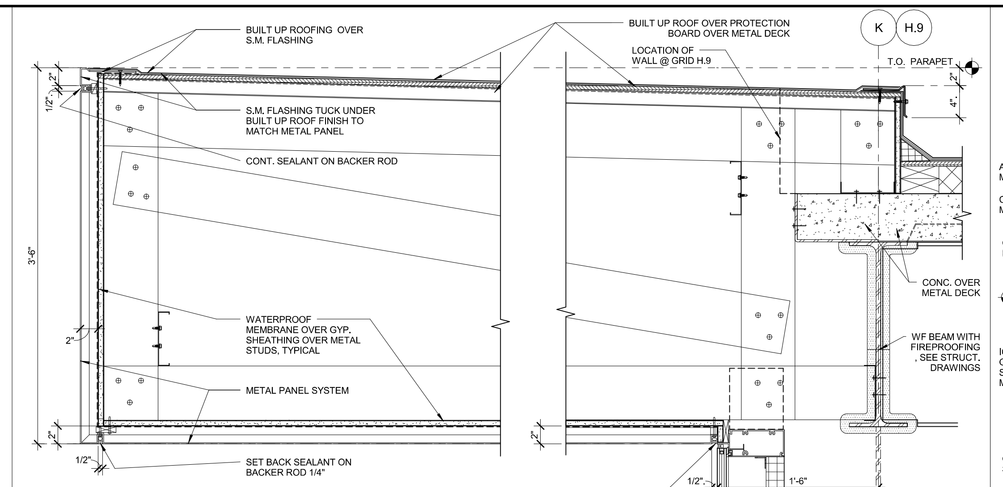
10 EXPANSION JOINT @ SECOND LEVEL
SCALE1 1/2" = 1'-0"

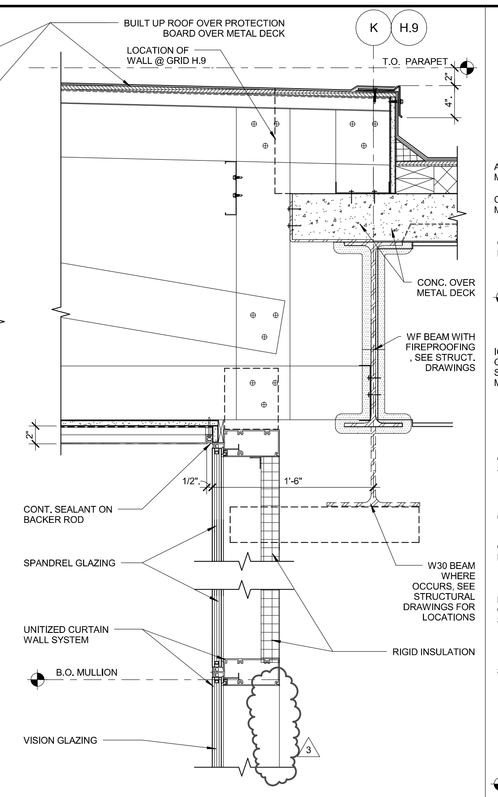
SCALE AS SHOWN

TITLE **EXTERIOR DETAILS**

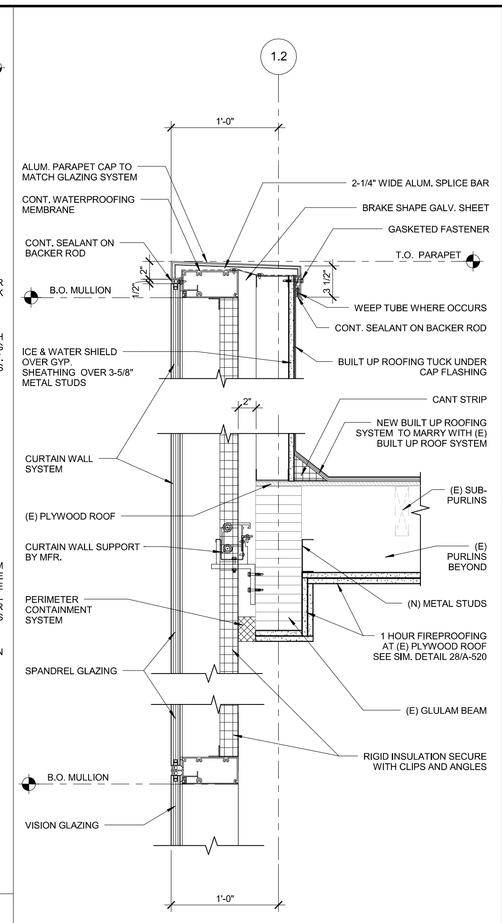
A-502

2/14/2013 2:08:42 PM

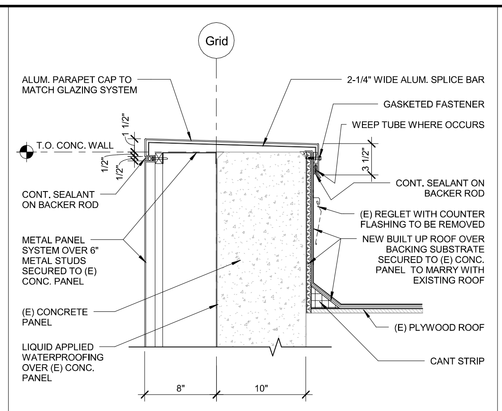




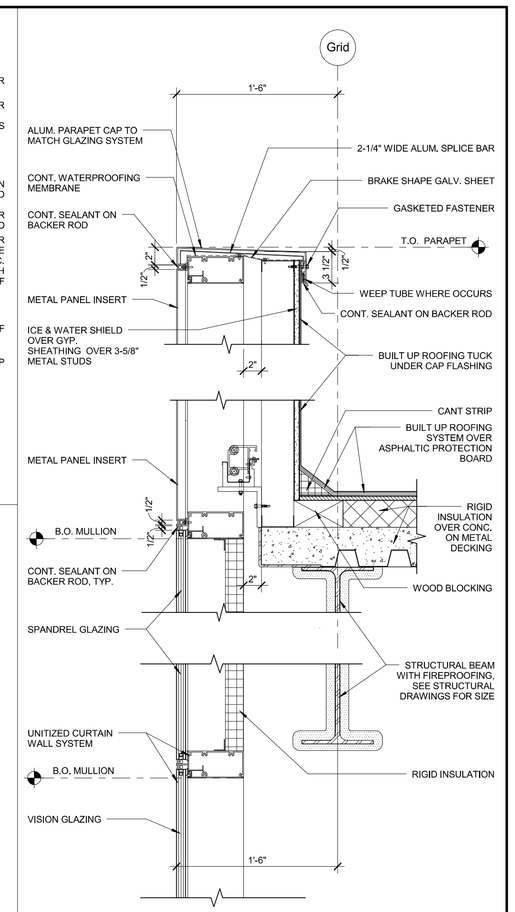
17 ROOF CANOPY AT GRIDS 5, 7 & 9 (@ H.9 SIM.)
SCALE1 1/2" = 1'-0"



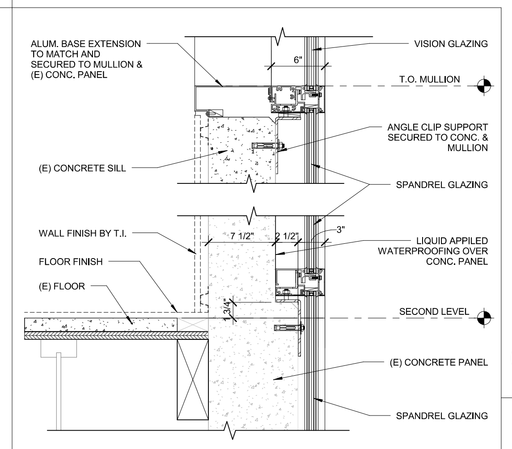
12 PARAPET AT ROOF
SCALE1 1/2" = 1'-0"



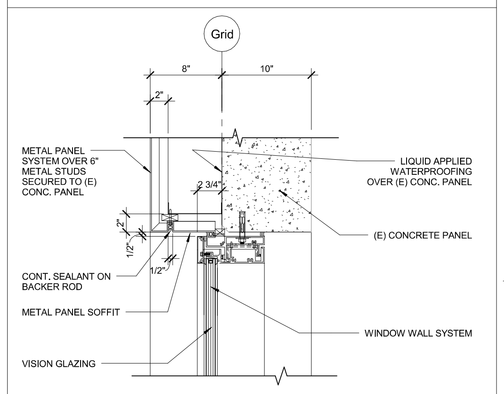
6 PARAPET CAP AT ROOF
SCALE1 1/2" = 1'-0"



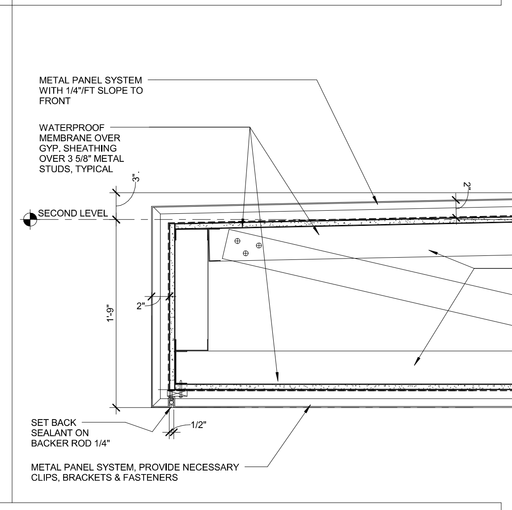
2 PARAPET DETAIL AT ROOF
SCALE1 1/2" = 1'-0"

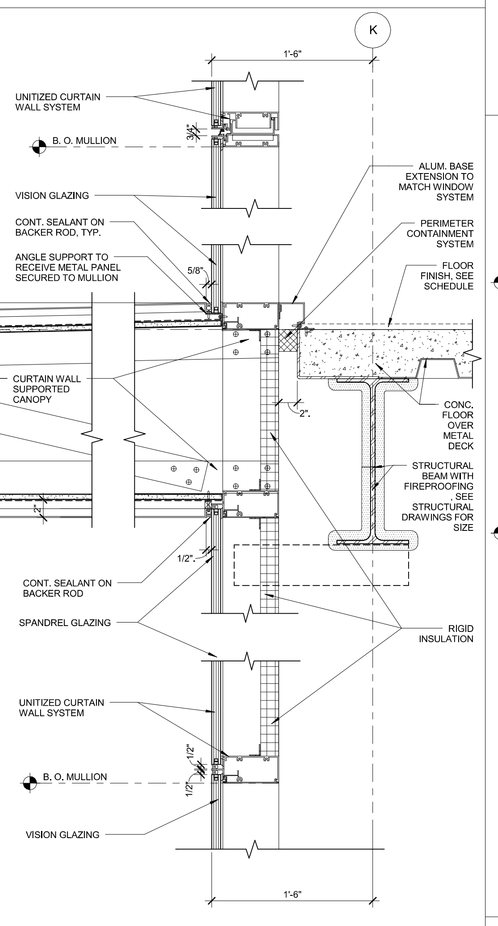


22 GLAZING AT (E) CONCRETE SILL
SCALE1 1/2" = 1'-0"

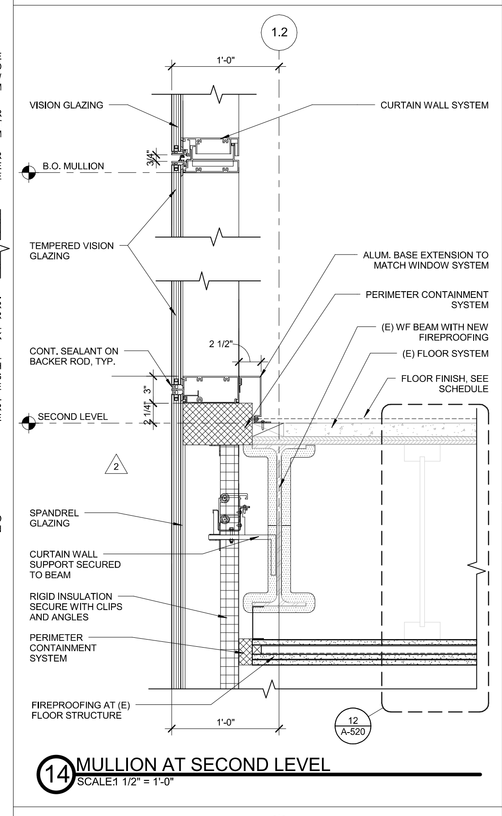


7 METAL PANEL SOFFIT
SCALE1 1/2" = 1'-0"

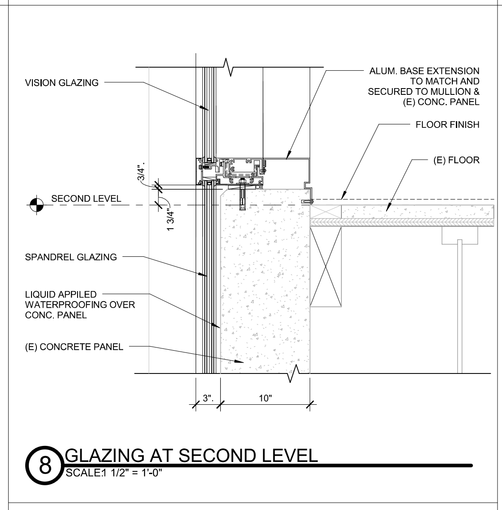




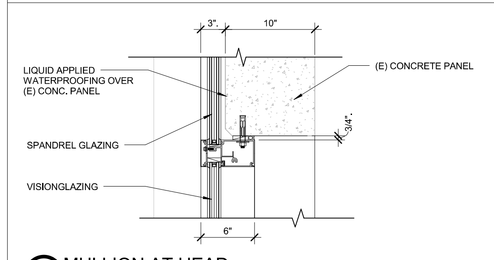
19 CANOPY AT SECOND LEVEL
SCALE1 1/2" = 1'-0"



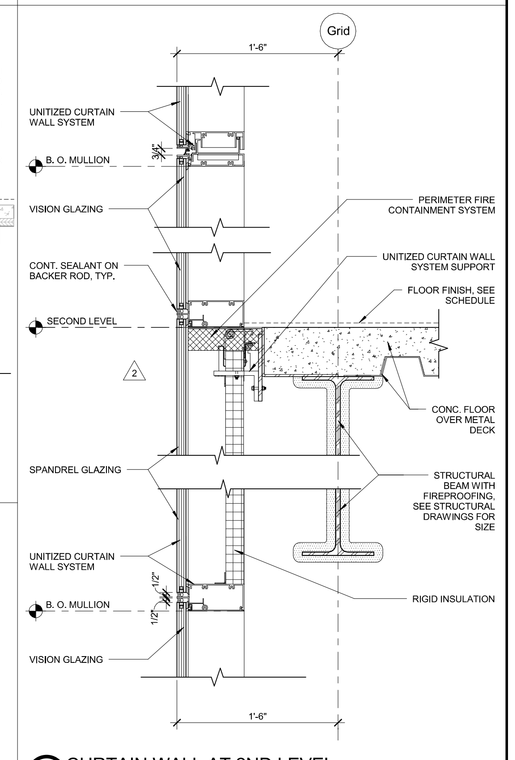
14 MULLION AT SECOND LEVEL
SCALE1 1/2" = 1'-0"



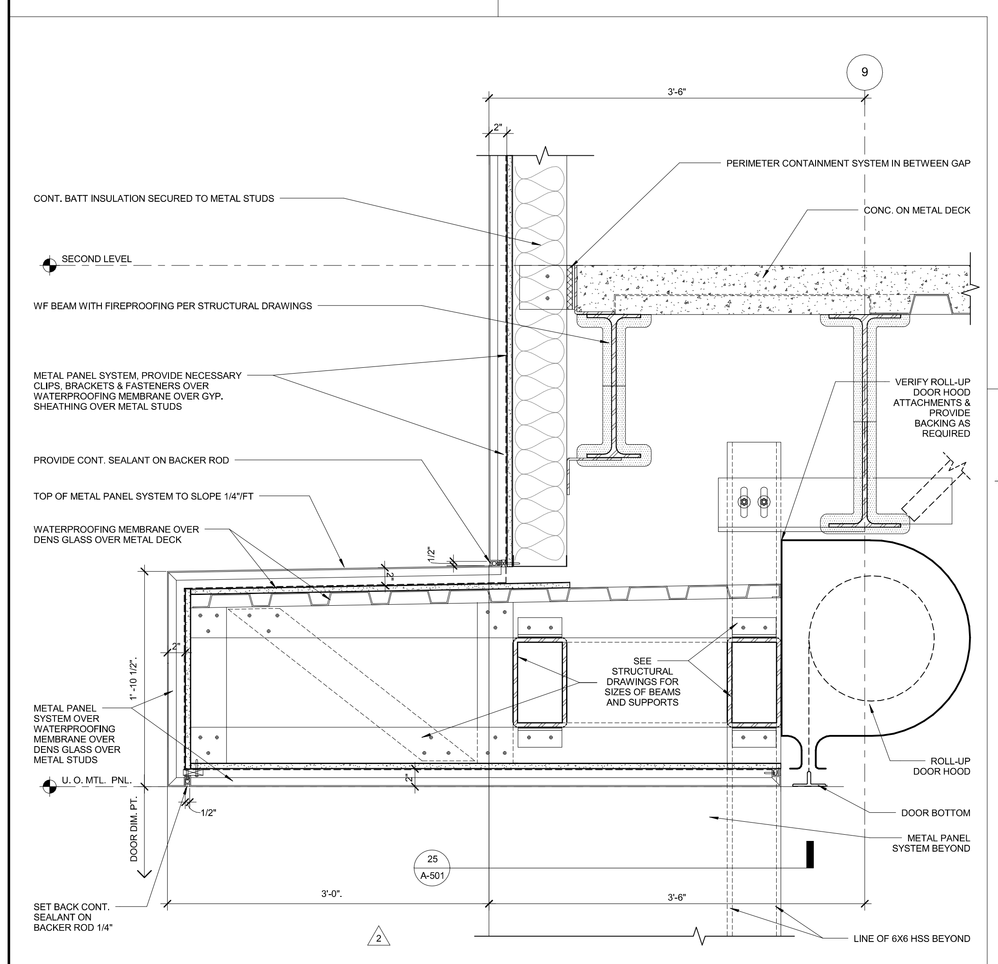
8 GLAZING AT SECOND LEVEL
SCALE1 1/2" = 1'-0"



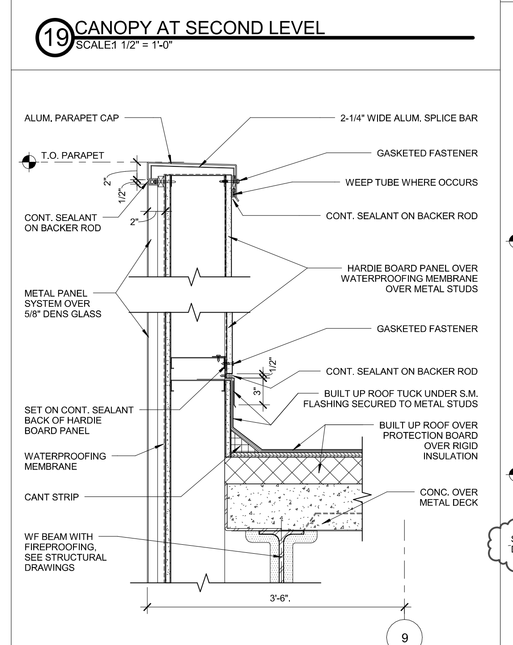
9 MULLION AT HEAD
SCALE1 1/2" = 1'-0"



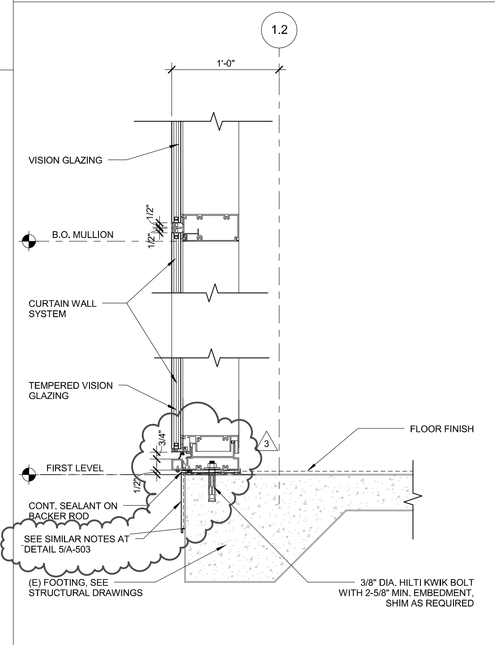
4 CURTAIN WALL AT 2ND LEVEL
SCALE1 1/2" = 1'-0"



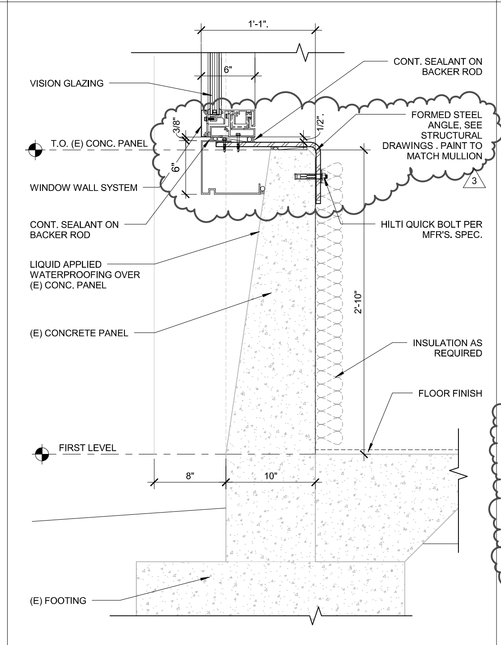
30 ROLL UP DOOR HEAD / CANOPY
SCALE1 1/2" = 1'-0"



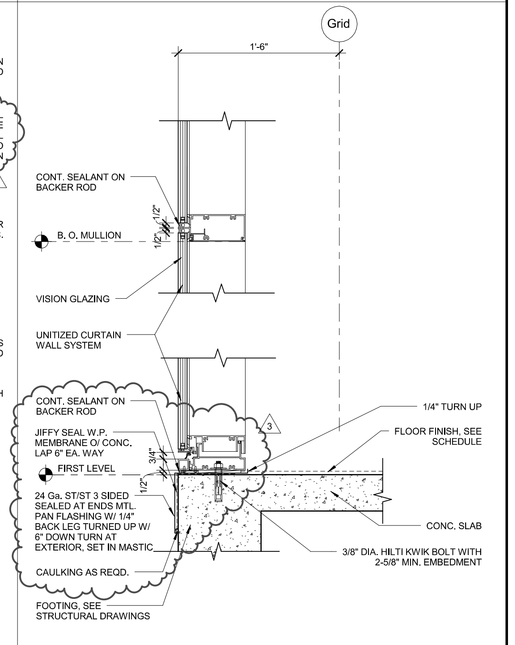
20 DETAIL AT PARAPET
SCALE1 1/2" = 1'-0"



15 WINDOW AT FIRST LEVEL
SCALE1 1/2" = 1'-0"



10 MULLION AT FIRST LEVEL
SCALE1 1/2" = 1'-0"



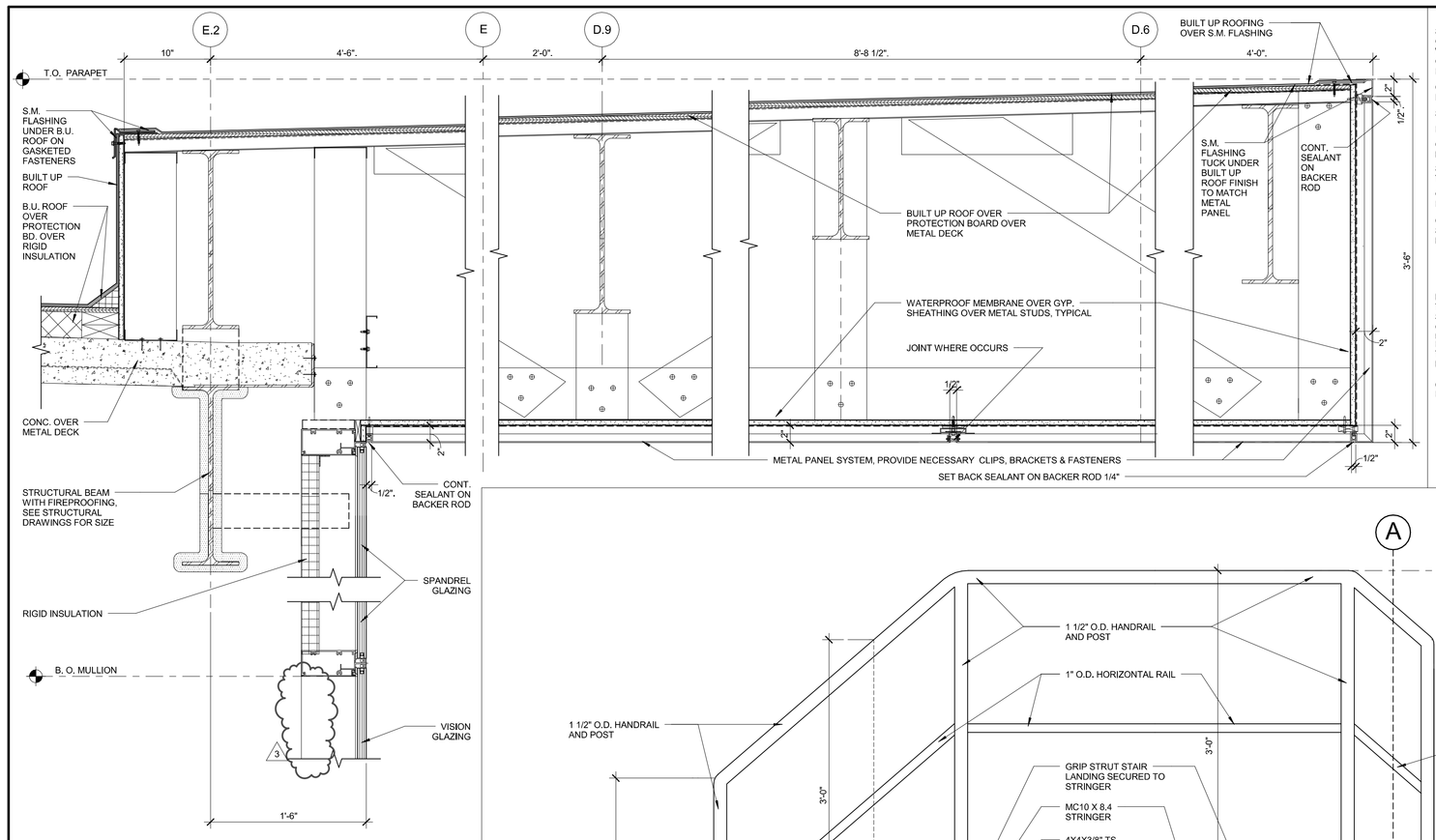
5 CURTAIN WALL AT BASE
SCALE1 1/2" = 1'-0"

SCALE AS SHOWN

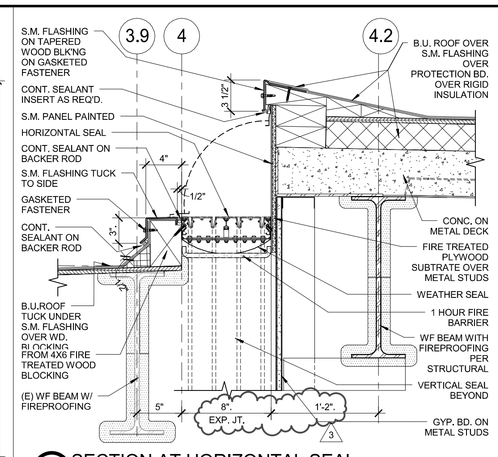
TITLE **EXTERIOR DETAILS**

A-503

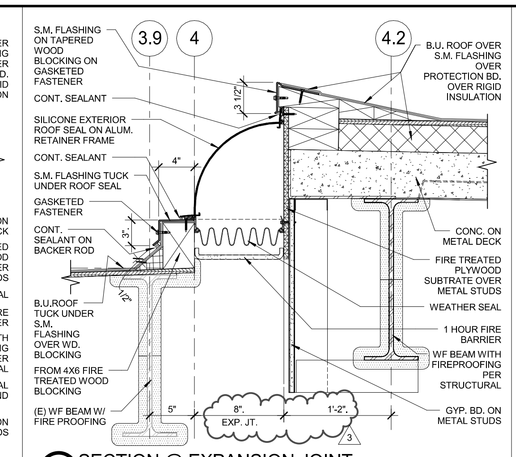
2/13/2013 4:25:35 PM



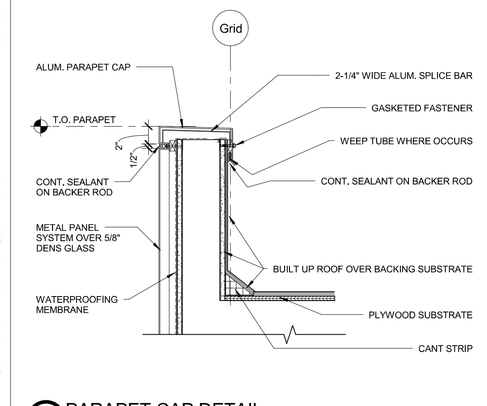
27 CANOPY DETAIL @ GRID E.2 (NORTH ELEVATION)
SCALE1 1/2" = 1'-0"



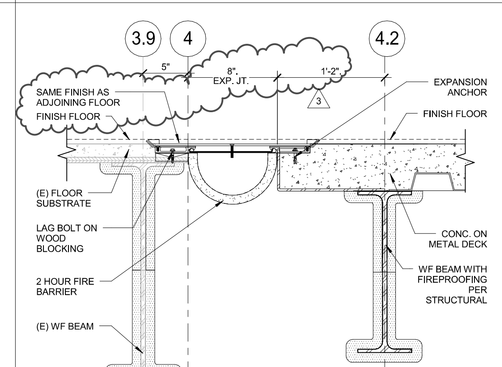
11 SECTION AT HORIZONTAL SEAL
SCALE1 1/2" = 1'-0"



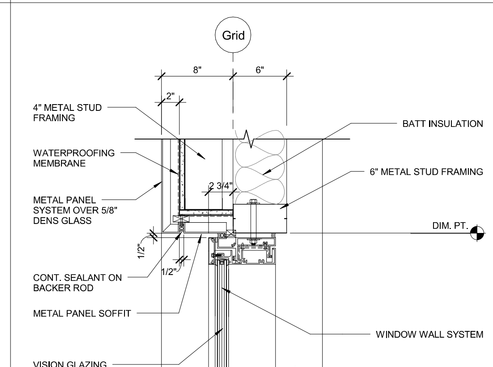
6 SECTION @ EXPANSION JOINT
SCALE1 1/2" = 1'-0"



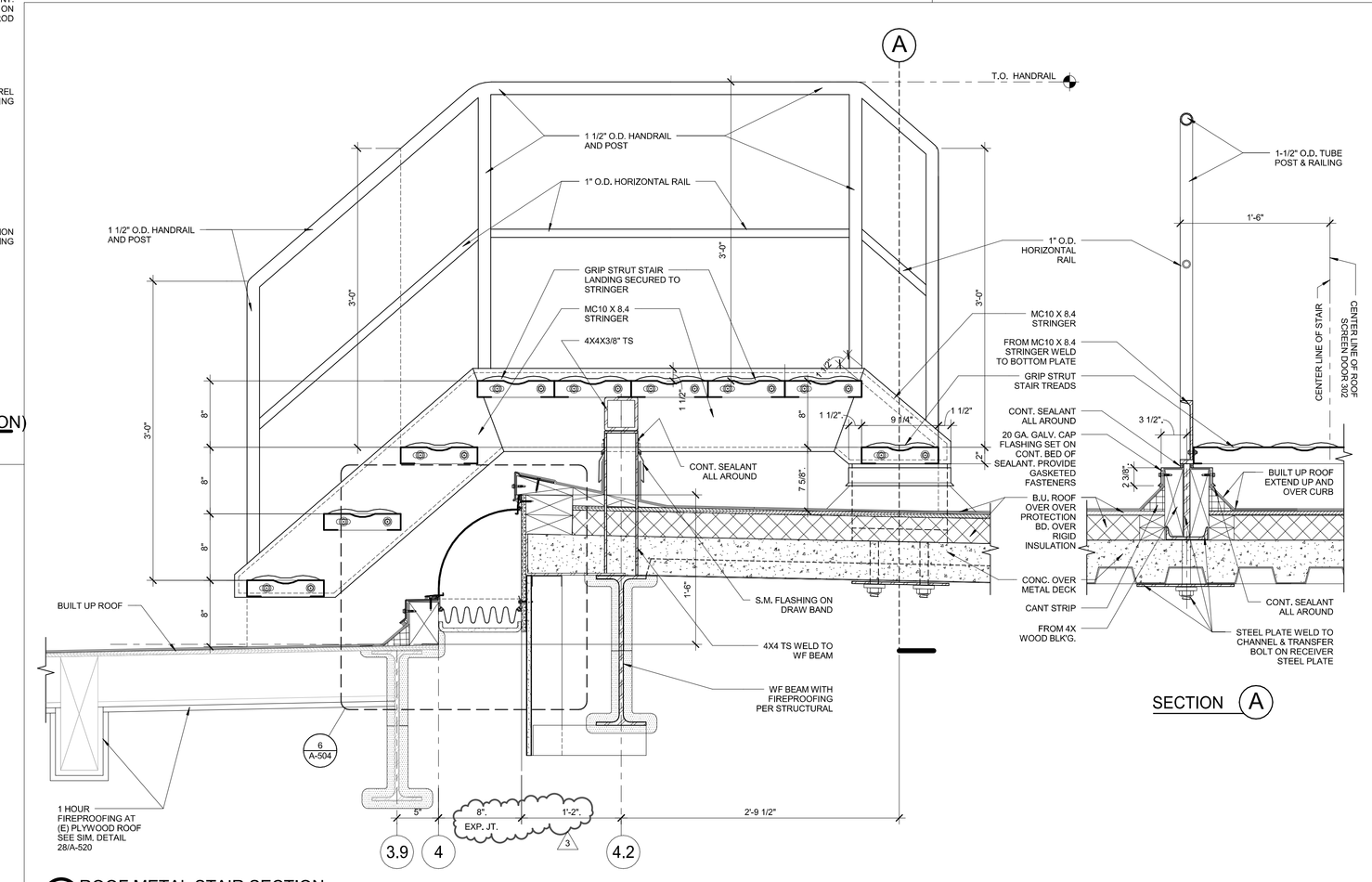
1 PARAPET CAP DETAIL
SCALE1 1/2" = 1'-0"



7 SECOND LEVEL EXPANSION JOINT
SCALE1 1/2" = 1'-0"

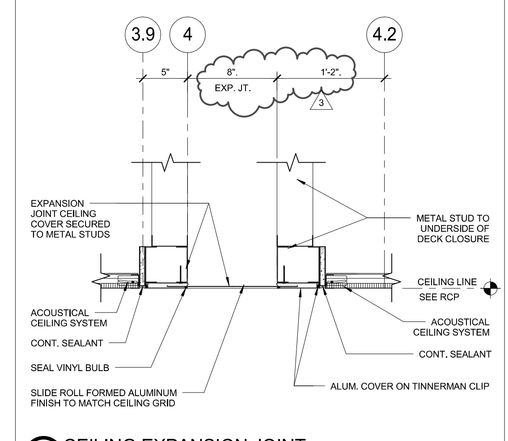


2 WINDOW HEAD
SCALE1 1/2" = 1'-0"

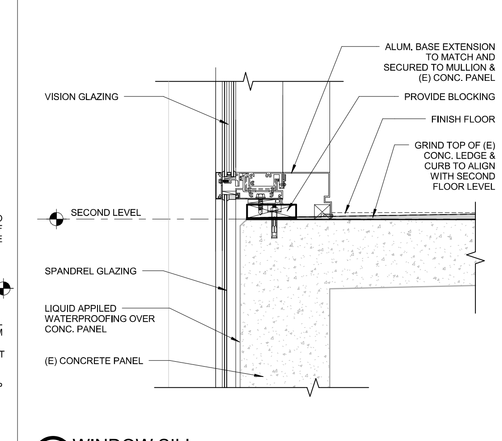


SECTION A

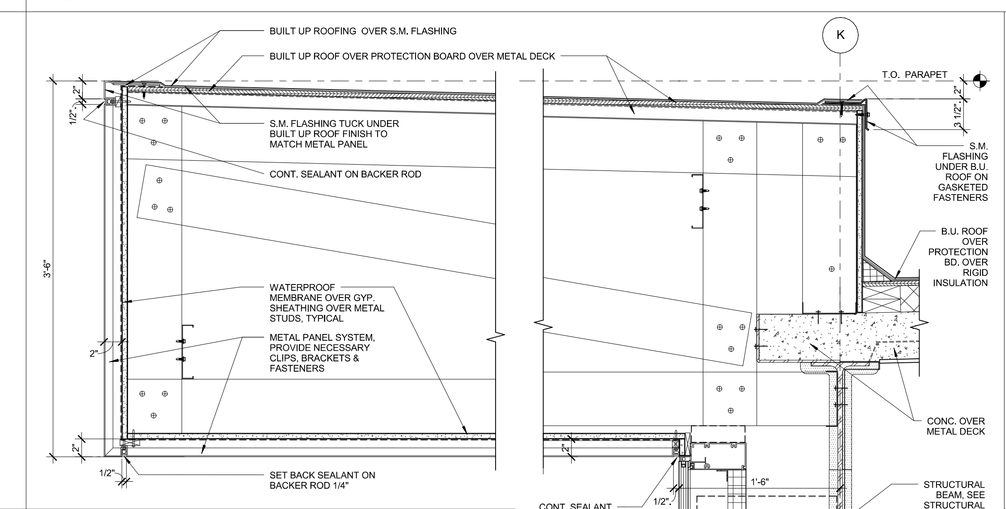
23 ROOF METAL STAIR SECTION
SCALE1 1/2" = 1'-0"



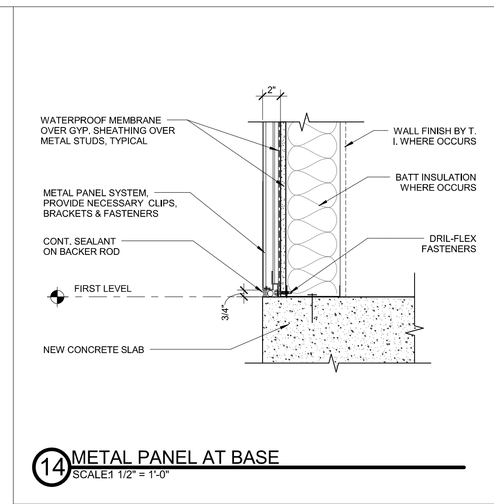
8 CEILING EXPANSION JOINT
SCALE1 1/2" = 1'-0"



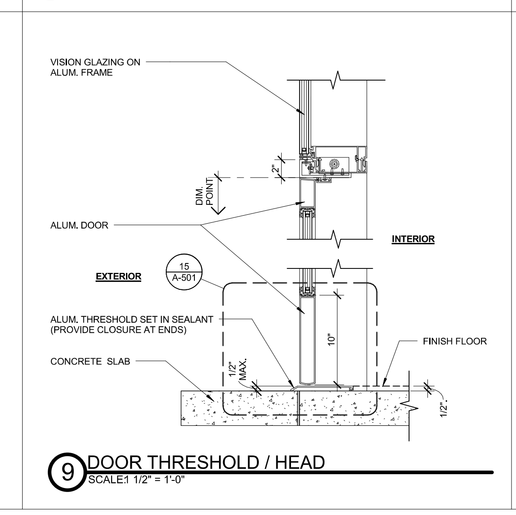
3 WINDOW SILL
SCALE1 1/2" = 1'-0"



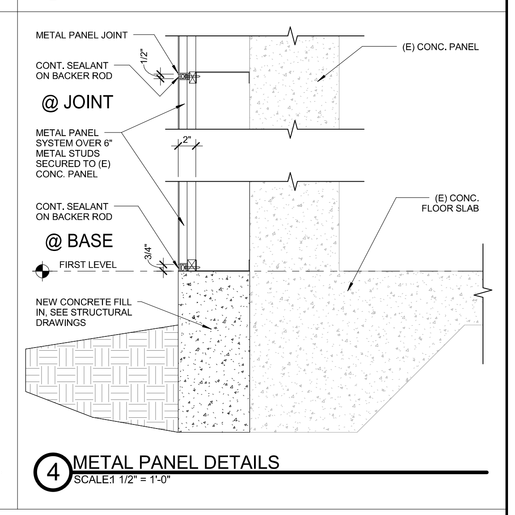
20 ROOF CANOPY AT GRIDS 4.2, 6 AND 8
SCALE1 1/2" = 1'-0"



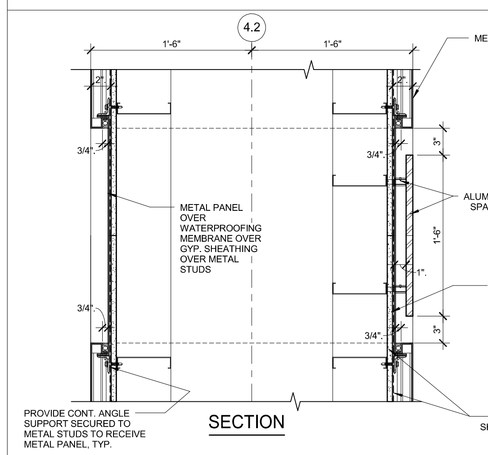
14 METAL PANEL AT BASE
SCALE1 1/2" = 1'-0"

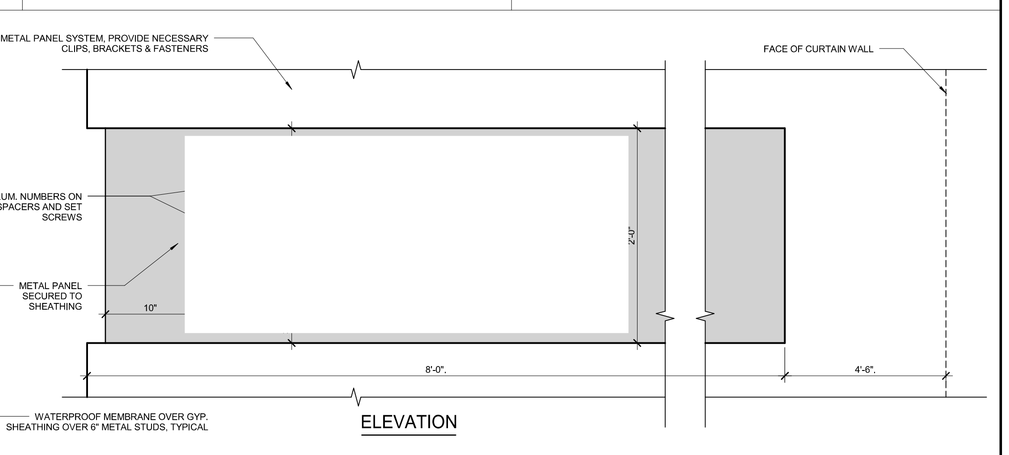


9 DOOR THRESHOLD / HEAD
SCALE1 1/2" = 1'-0"



4 METAL PANEL DETAILS
SCALE1 1/2" = 1'-0"





15 BUILDING ADDRESS DETAIL
SCALE1 1/2" = 1'-0"

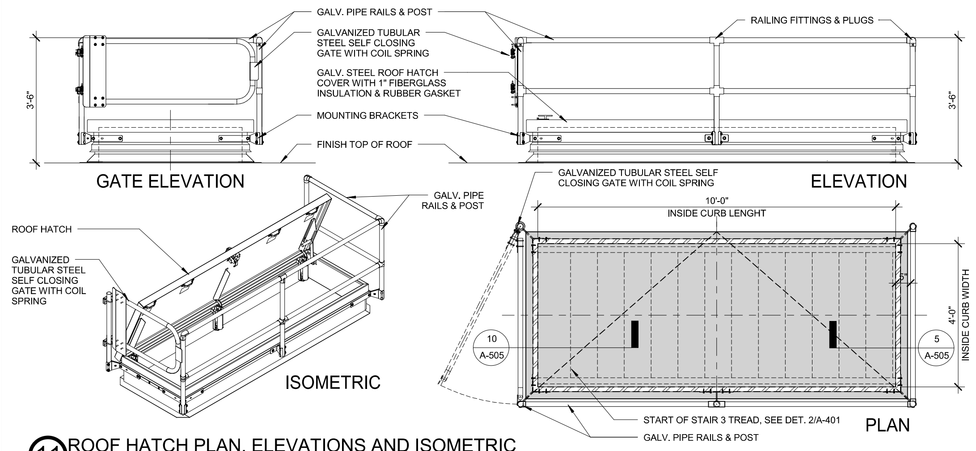
SCALE AS SHOWN

TITLE

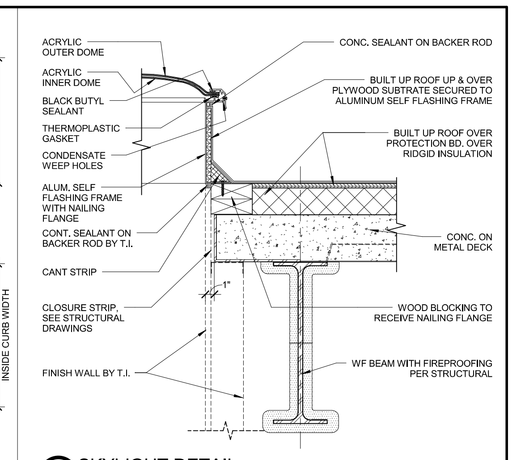
EXTERIOR DETAILS

A-504

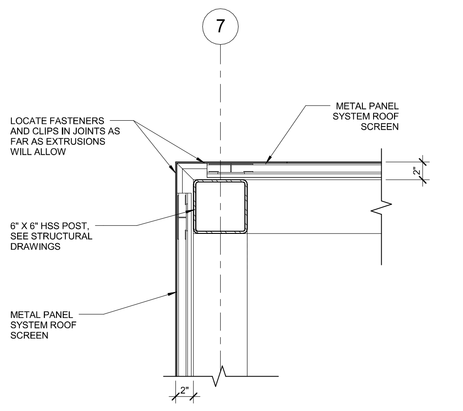
2/13/2013 4:26:39 PM



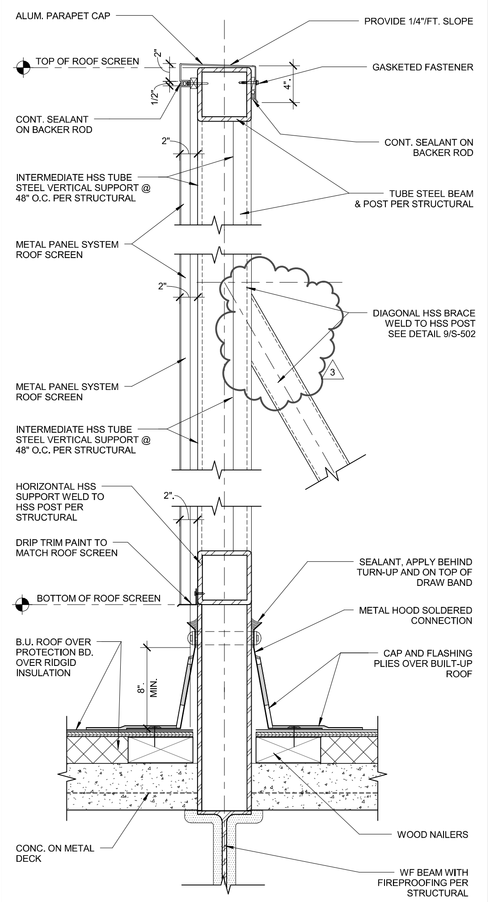
11 ROOF HATCH PLAN, ELEVATIONS AND ISOMETRIC
SCALE1 1/2" = 1'-0"



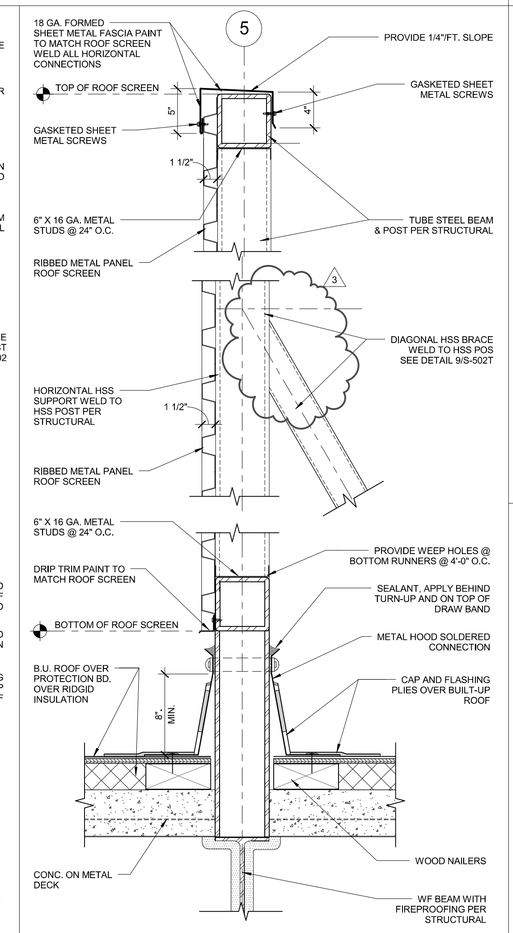
1 SKYLIGHT DETAIL
SCALE1 1/2" = 1'-0"



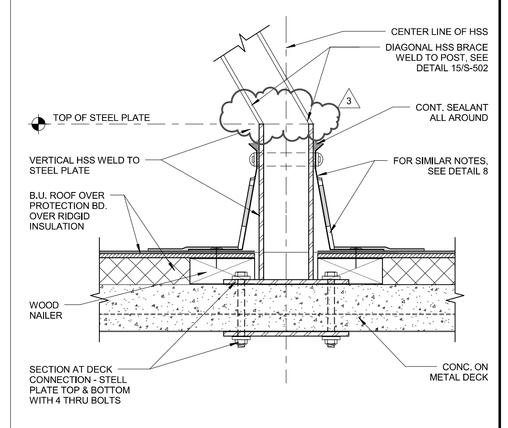
17 METAL PANEL AT OUTSIDECORNER
SCALE1 1/2" = 1'-0"



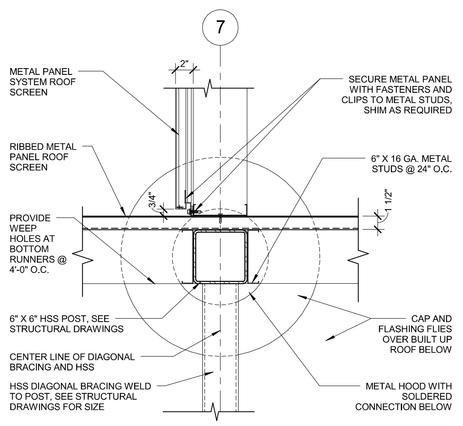
13 ROOF SCREEN AT METAL PANEL
SCALE1 1/2" = 1'-0"



8 ROOF SCREEN DETAIL
SCALE1 1/2" = 1'-0"

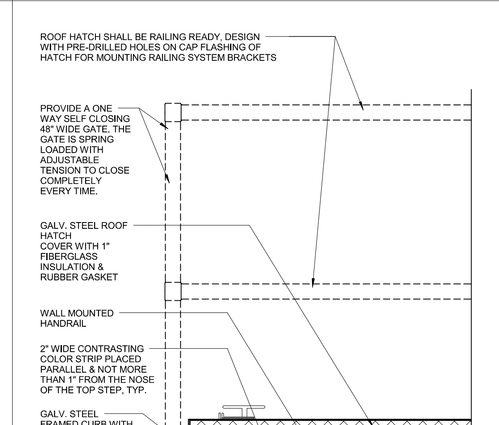


3 ROOF SCREEN BRACE
SCALE1 1/2" = 1'-0"

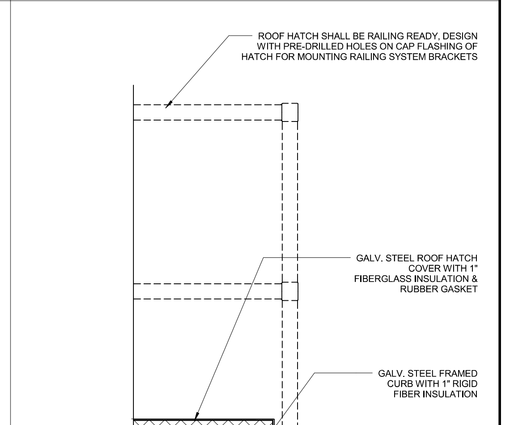


18 METAL PANEL ROOF SCREEN @ JOINT
SCALE1 1/2" = 1'-0"

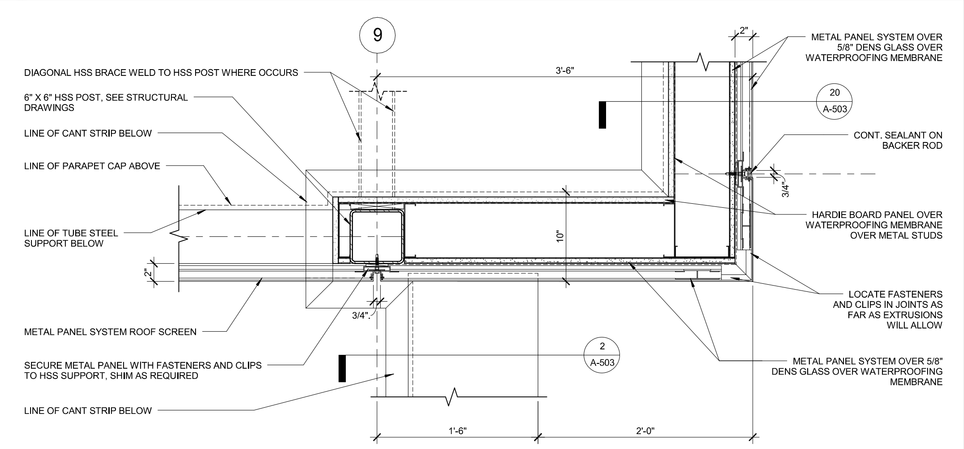
19 METAL PANEL @ INTERSECTION
SCALE1 1/2" = 1'-0"



10 ROOF HATCH DETAIL AT STAIR
SCALE1 1/2" = 1'-0"



5 ROOF HATCH DETAIL
SCALE1 1/2" = 1'-0"



20 METAL PANEL PARAPET AT CORNER
SCALE1 1/2" = 1'-0"

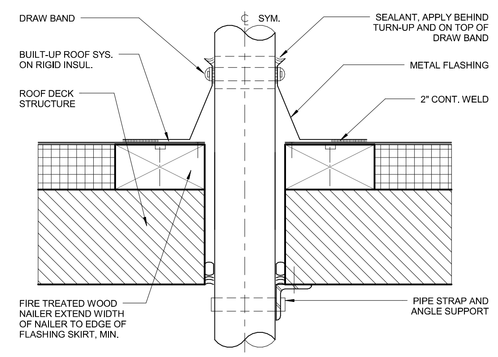
SCALE AS SHOWN

TITLE

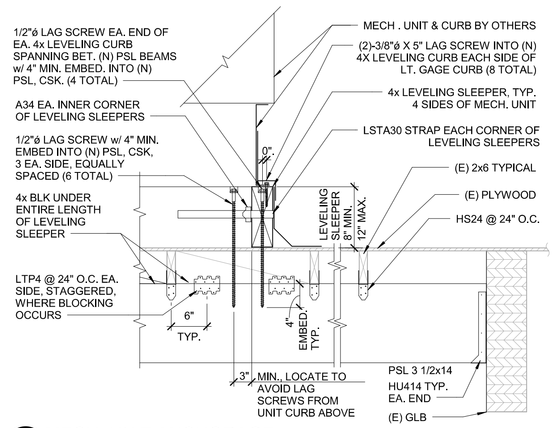
EXTERIOR DETAILS

A-505

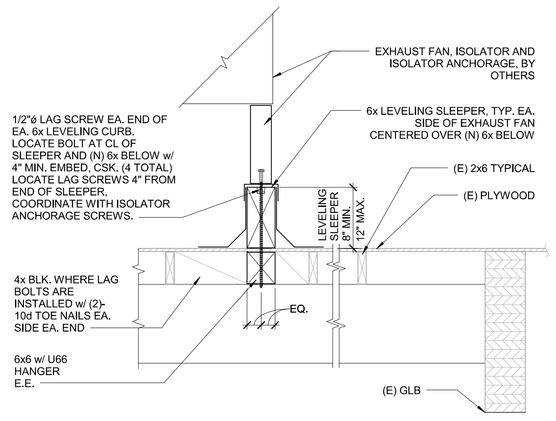
2/14/2013 2:13:02 PM



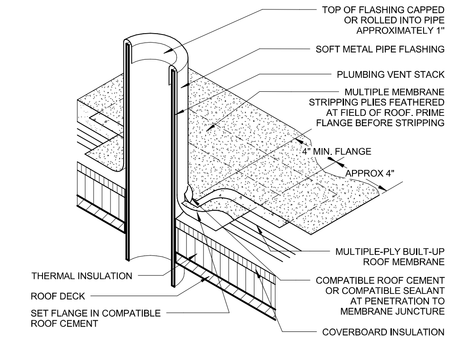
13 BARE PIPE THRU ROOF
SCALE1 1/2" = 1'-0"



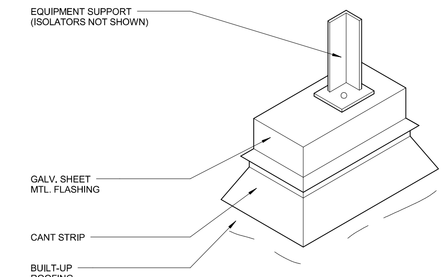
14 MECH. UNIT ANCHORAGE
SCALE1" = 1'-0"



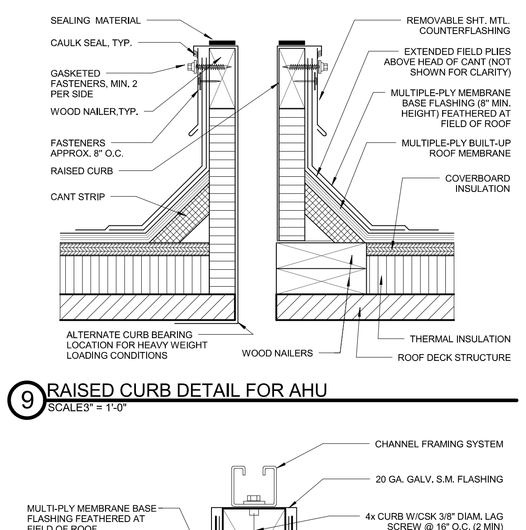
15 EXHAUST FAN ANCHORAGE
SCALE1" = 1'-0"



7 PLUMBING VENT
SCALE3" = 1'-0"

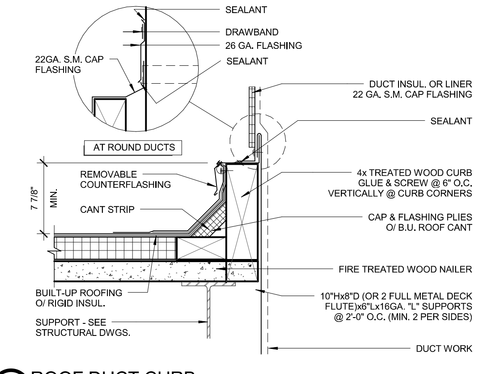


8 FLASHING AT EQUIP. SUPPORT
SCALE12" = 1'-0"



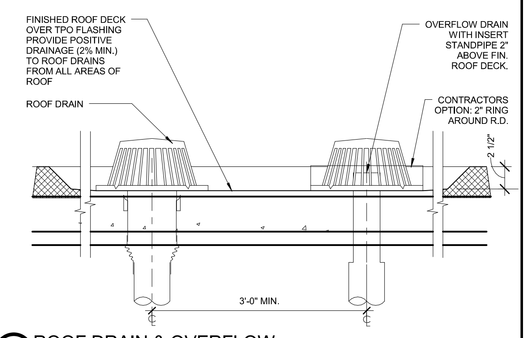
9 RAISED CURB DETAIL FOR AHU
SCALE3" = 1'-0"

10 PIPE SLEEPER ON CONCRETE DECK
SCALE3" = 1'-0"

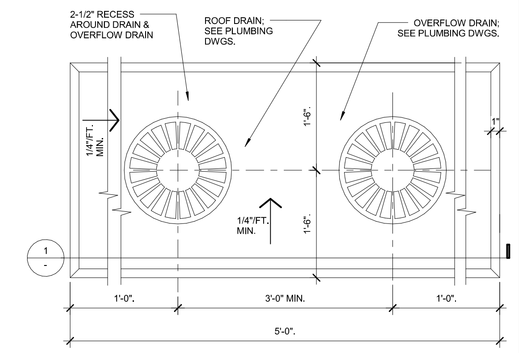


11 ROOF DUCT CURB
SCALE1 1/2" = 1'-0"

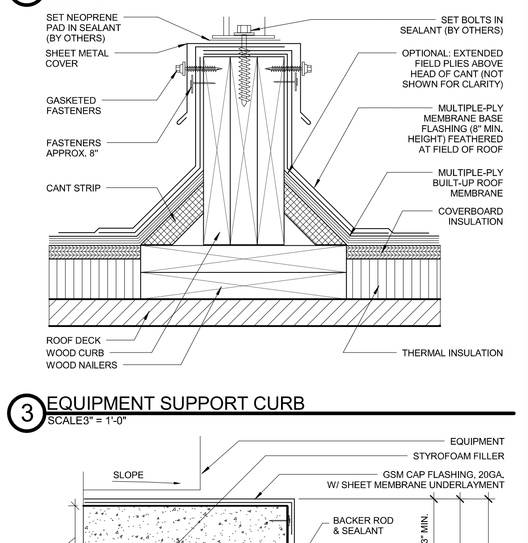
12 ISOLATED STACK FLASHING
SCALE1 1/2" = 1'-0"



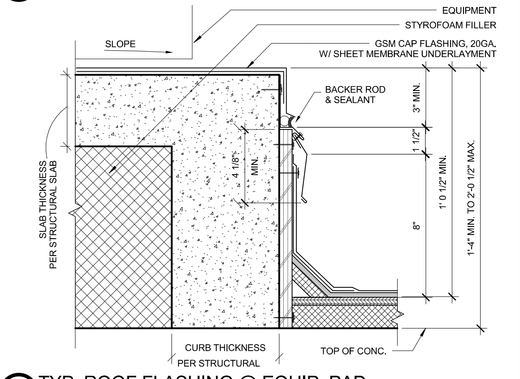
1 ROOF DRAIN & OVERFLOW
SCALE1 1/2" = 1'-0"



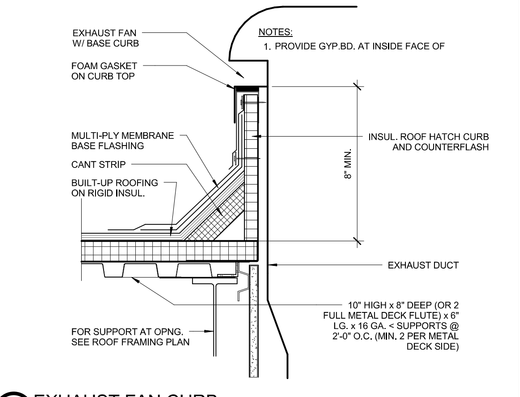
2 ROOF/OVERFLOW DRAIN - PLAN
SCALE1 1/2" = 1'-0"



3 EQUIPMENT SUPPORT CURB
SCALE3" = 1'-0"



4 TYP. ROOF FLASHING @ EQUIP. PAD
SCALE3" = 1'-0"



5 EXHAUST FAN CURB
SCALE1 1/2" = 1'-0"

6 EQUIP. SUPPORT STAND W/ RAIN COLLAR
SCALE1 1/2" = 1'-0"

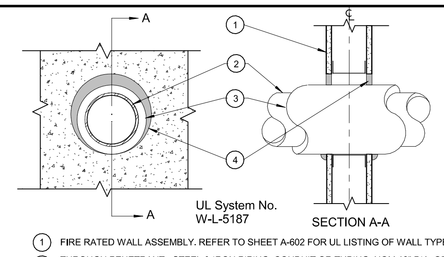
SCALE As indicated

TITLE

ROOF DETAILS

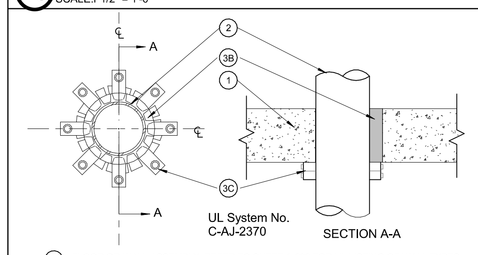
A-508

2/13/2013 4:28:11 PM



1. FIRE RATED WALL ASSEMBLY. REFER TO SHEET A-602 FOR UL LISTING OF WALL TYPES
2. THROUGH PENETRANT - STEEL & IRON PIPING, CONDUIT OR TUBING. NOM 12" DIA. OR SMALLER SCHEDULE ST40 STL. PIPE. NOM. 4" DIA. OR SMALLER STL. CONDUIT
3. PIPE COVERING - MAX 2" THK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN. 3.5 pcf)) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL THE SERVICE JACKET. THE ANNULAR SPACE BET. THE INSULATED PIPE & THE EDGE OF THE THROUGH OPENING SHALL BE MIN 0" TO MAX 1 1/4",
4. FILL, VOID OR CAVITY MATERIAL - SEALANT - MIN 5/8" THICKNESS OF FILL MATERIAL FOR A 1-HR RATED WALL ASSEMBLY. MIN 1" THICKNESS OF FILL MATERIAL FOR 2, 3, 4-HR RATED WALL ASSEMBLIES APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL, AT POINT OF CONTACT LOCATION BET. PIPE & WALLBOARD, A MIN. OF 1/2" DIA. BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE WALLBOARD / PIPE COVERING INTERFACE ON BOTH SURFACES OF WALL

19 INSULATED PIPE THRU 1-HR & 2-HR WALL
SCALE1 1/2" = 1'-0"

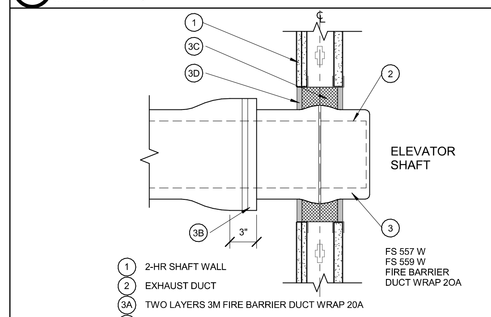


1. FLOOR OR WALL ASSEMBLY. REFER TO SHEET A-602 FOR UL LISTING OF WALL TYPES
2. THROUGH PENETRANTS - ONE NON-METALLIC PIPE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICITY WITHIN THE FIRESTOP SYSTEM, THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 0 (POINT OF CONTACT) TO MAX 1 3/8". THE PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL OR FLOOR.

3B. FIRESTOP SYSTEM - MORTAR - MIN 4 1/2 THICKNESS OF HYDRAULIC CEMENT APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL, AT POINT OF CONTACT LOCATION BET. THROUGH PENETRANT & CONCRETE. ADDITIONAL MORTAR FORCED BET. THROUGH PENETRANT & CONCRETE TO MAX EXTENT POSSIBLE ON BOTH SURFACES OF FLOOR & WALL.

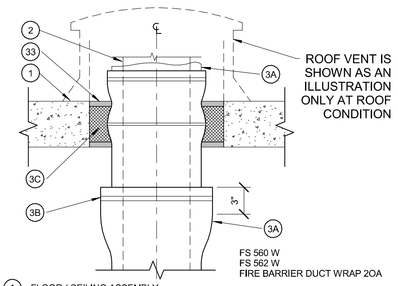
3C. FIRESTOP SYSTEM - FIRESTOP DEVICE - STAINLESS STEEL COLLAR LINED WITH INTUMESCENT INSERT SUPPLIED IN A CONTINUOUS COILED STRIP, WHICH IS CUT TO LENGTH TO FIT THE SPECIFIC DIA OF THE THROUGH PENETRANT. TWO COLLARS INDIVIDUALLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE THROUGH PENETRANT & INSTALLED ON BOTTOM SURFACE OF FLOOR OR BOTH SURFACES OF WALL.

20 NON-METAL. PIPE/COND THRU 1.5,2&3-HR WALL
SCALE1 1/2" = 1'-0"



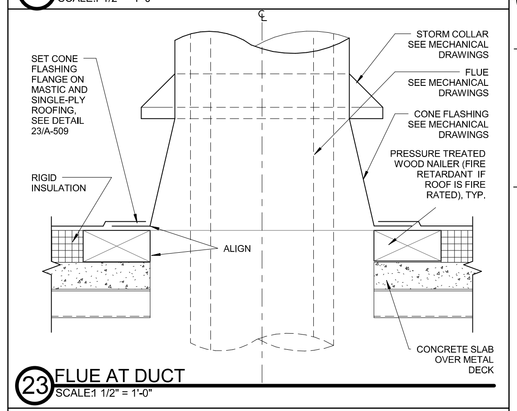
1. 2-HR SHAFT WALL
2. EXHAUST DUCT
3A. TWO LAYERS 3M FIRE BARRIER DUCT WRAP 20A
3B. BANDING OR PINNING
3C. PACKING MATERIAL
3D. 3M FIRE BARRIER 100 N/S OR 2000+ SILICONE SEALANT FOR WALL ASSEMBLY APPLY SEALANT TO BOTH SIDES OF WALL

21 2-HR THRU PENETRATION SYSTEM - WALL
SCALE1 1/2" = 1'-0"

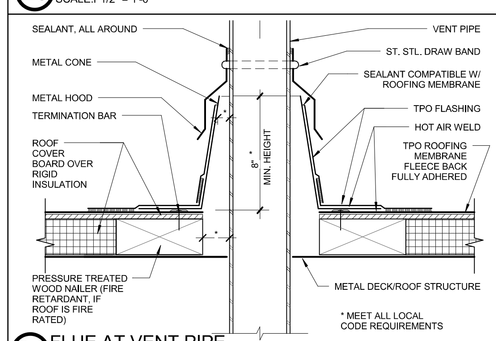


1. FLOOR / CEILING ASSEMBLY
2. DUCT
3A. TWO LAYERS 3M FIRE BARRIER DUCT WRAP 20A
3B. BANDING OR PINNING
3C. PACKING MATERIAL
3D. 3M FIRE BARRIER 100 N/S OR 2000+ SILICONE SEALANT

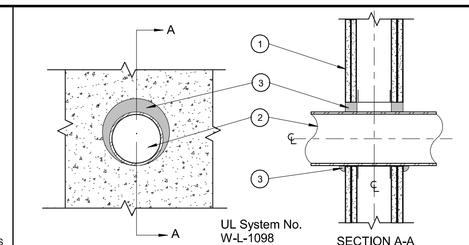
22 2-HR THRU PENET. SYSTEM - FLOOR / CEILING
SCALE1 1/2" = 1'-0"



23 FLUE AT DUCT
SCALE1 1/2" = 1'-0"

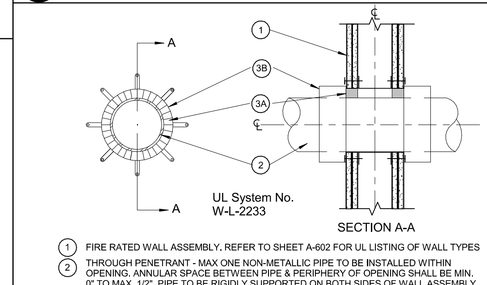


24 FLUE AT VENT PIPE
SCALE1 1/2" = 1'-0"



1. FIRE RATED WALL ASSEMBLY. REFER TO SHEET A-602 FOR UL LISTING OF WALL TYPES
2. THROUGH PENETRANT - STEEL & IRON PIPING, CONDUIT OR TUBING. NOM 24" DIA. OR SMALLER SCHEDULE 10 STL. PIPE. NOM. 4" DIA. OR SMALLER STL. CONDUIT
3. SEALANT - MIN. 5/8" THICKNESS FOR 1-HR WALL, 1" MIN. THICKNESS FOR 2, 3, 4-HR RATED WALLS. A MIN. OF 1/2" DIA. BEAD OF FILL MATL. SHALL BE APPLIED AT WALLBOARD / PENETRANT INTERFACE ON BOTH SURFACES OF WALL.

13 BARE PIPE THRU 1-HR & 2-HR WALL
SCALE1 1/2" = 1'-0"

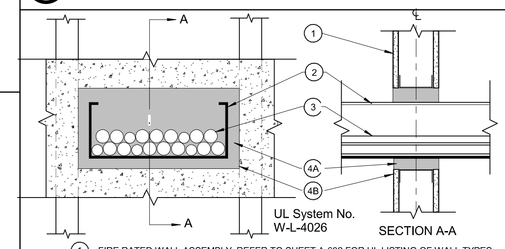


1. FIRE RATED WALL ASSEMBLY. REFER TO SHEET A-602 FOR UL LISTING OF WALL TYPES
2. THROUGH PENETRANT - MAX ONE NON-METALLIC PIPE TO BE INSTALLED WITHIN OPENING. ANNULAR SPACE BETWEEN PIPE & PERIPHERY OF OPENING SHALL BE MIN. 0" TO MAX. 1/2". PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

3A. FIRESTOP SYSTEM - FILL, VOID, CAVITY MATERIALS - SEALANT - MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF THE WALL.

3B. FIRESTOP DEVICE - COLLAR - COLLAR TO BE INSTALLED IN ACCORDANCE TO THE MANUFACTURER'S INSTRUCTIONS. COLLAR TO BE INSTALLED & LATCHED AROUND PIPES & SECURED ON BOTH SIDES OF WALL WITH MIN. 3/16" DIA. STEEL TOGGLE BOLTS WITH STEEL NUTS & 1 1/4" DIA. STEEL WASHERS. MIN. 2, 3 & 4 BOLTS FOR NOM. 2" DIA., NOM 3" DIA & NOM. 4" & 6" DIA. PIPES, RESPECTIVELY.

14 PLASTIC PIPE / CONDUIT THRU 1-HR & 2-HR WALL
SCALE1 1/2" = 1'-0"

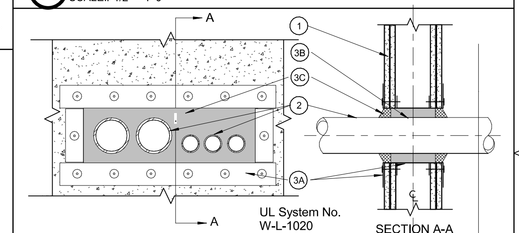


1. FIRE RATED WALL ASSEMBLY. REFER TO SHEET A-602 FOR UL LISTING OF WALL TYPES
2. CABLE TRAY+ - MAX 24" WIDE BY MAX 6" DEEP 15 GA (OR HEAVIER) ALUM. OR STEEL CABLE TRAY INSTALLED WITHIN THE OPENING. THE ANNULAR SPACE BET. THE CABLE TRAY & PERIPHERY OF THE OPENING SHALL BE MIN 0" TO MAX 5 3/4" CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
3. CABLES - AGGREGATE CROSS-SECTIONAL AREA OF CABLES TO BE MAX 40% OF CROSS-SECTIONAL AREA OF THE OPENING. THE ANNULAR SPACE BET. THE CABLES & PERIPHERY OF THE OPENING SHALL BE MIN 0" TO MAX 5 3/4" CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

4A. FIRESTOP SYSTEM - CONSIST OF THE FOLLOWING: PACKING MATERIAL - MIN.3 5/8" THICKNESS OF WOOL BATT INSULATION PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE FLUSH WITH BOTH SIDES OF STUDS.

4B. ALTERNATIVE FIRESTOP SYSTEM - FILL, VOID OR CAVITY MATL. - SEALANT - MIN 1/8" THICKNESS OF FILL MATERIAL SPRAYED OR BRUSHED ON EACH SIDE OF WALL ASSEMBLY COMPLETELY COVERING MINERAL WOOL, OVERLAPPING A MIN 1/2" ONTO WALLBOARD.

15 CABLE TRAY PENET. THRU 1-HR & 2-HR WALL
SCALE1 1/2" = 1'-0"



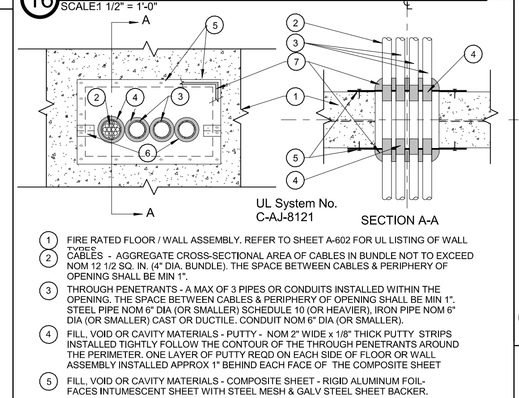
1. FIRE RATED WALL ASSEMBLY. REFER TO SHEET A-602 FOR UL LISTING OF WALL TYPES
2. THROUGH PENETRANTS - MAX OF 5 PIPES OR CONDUITS TO BE INSTALLED WITHIN THE OPENING, ONLY 2 OF THE PIPES OR CONDUITS CAN HAVE NOM. DIA. > 1", THE ANNULAR SPACE BETWEEN PIPES OR CONDUITS SHALL BE 1/2". THE ANNULAR SPACE BETWEEN PIPES OR CONDUITS & PERIPHERY OPENING SHALL BE MIN 1/4" TO MAX 3/4". PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

3A. FIRESTOP SYSTEM - METALLIC SLEEVE - MIN 1/2" BEAD OF SEALANT SHALL BE APPLIED AROUND THE PERIMETER OF THE OPENING. NOM 5" LONG RECTANGULAR SHAPED SLEEVE WITH MIN 2" WIDE RETAINER TABS FABRICATED FROM MIN 0.019" (#30 MSG) GALV SHT STL. STL SLEEVE SECURED TO BOTH SIDES OF WALL BY MEANS OF 1 1/2" LONG TYPE G STL SCREWS & FENDER WASHERS SPACED @ 2 3/4" O.C.

3B. FIRESTOP SYSTEM - PACKING MATERIAL - MIN 4" THICKNESS OF MIN 6PCF CERAMIC FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM.

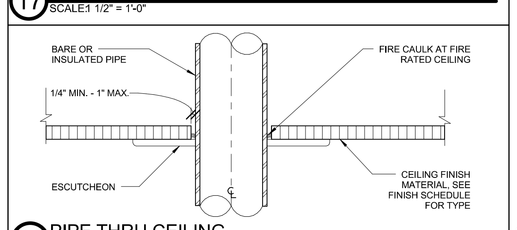
3C. FIRESTOP SYSTEM - FILL, VOID OR CAVITY MATERIAL - MIN 1/2" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED 1/4" CROWN FORMED AROUND THE PENETRATION ITEMS.

16 METAL PIPE PENETRATION THRU 1-HR & 2-HR WALL
SCALE1 1/2" = 1'-0"



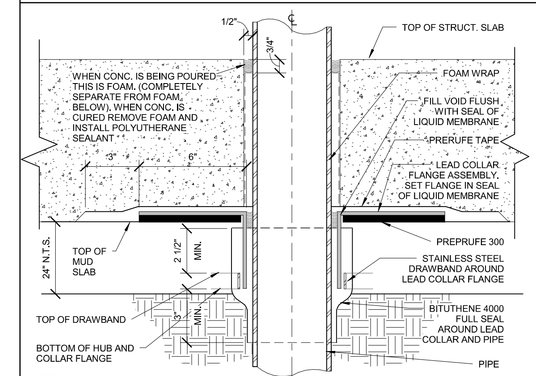
1. FIRE RATED FLOOR / WALL ASSEMBLY. REFER TO SHEET A-602 FOR UL LISTING OF WALL TYPES
2. CABLES - AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN BUNDLE NOT TO EXCEED NOM 12 1/2 SQ. IN. (4" DIA. BUNDLE). THE SPACE BETWEEN CABLES & PERIPHERY OF OPENING SHALL BE MIN 1".
3. THROUGH PENETRANTS - A MAX OF 3 PIPES OR CONDUITS INSTALLED WITHIN THE OPENING. THE SPACE BETWEEN CABLES & PERIPHERY OF OPENING SHALL BE MIN 1", STEEL PIPE NOM 6" DIA (OR SMALLER) SCHEDULE 10 (OR HEAVIER). IRON PIPE NOM 6" DIA (OR SMALLER) CAST OR DUCTILE. CONDUIT NOM 6" DIA (OR SMALLER).
4. FILL, VOID OR CAVITY MATERIALS - PUTTY - NOM 2" WIDE x 1/8" THICK PUTTY STRIPS INSTALLED TIGHTLY FOLLOW THE CONTOUR OF THE THROUGH PENETRANTS AROUND THE PERIMETER. ONE LAYER OF PUTTY REQ'D ON EACH SIDE OF FLOOR OR WALL ASSEMBLY INSTALLED APPROX 1" BEHIND EACH FACE OF THE COMPOSITE SHEET
5. FILL, VOID OR CAVITY MATERIALS - COMPOSITE SHEET - RIGID ALUMINUM FOIL-FACES INTUMESCENT SHEET WITH STEEL MESH & GALV STEEL SHEET BACKER.
6. STEEL COVER STRIP - MIN 2" WIDE STRIP OF MIN 0.021 THICK (26 GA) GALV STEEL CENTERES OVER INTIRE LENGTH OF THE BUTTED SEAM OR SLIT MADE IN THE COMPOSITE SHEET.
7. FILL, VOID OR CAVITY MATERIALS - ONE LAYER OF 1/2" x 1/8" THICK PUTTY STRIPS OR 1/2" WIDE x 1/16" THICK JOINT STRIP OF 1/2" DIA BEAD OF CAULK POSITIONED UNDER COMPOSITE SHEET AROUND THE PERIMETER OF THROUGH OPENING & UNDER COVER STRIP.

17 MET. PIPE / CABLE PENET. THRU 1-HR-2-HR WALLS
SCALE1 1/2" = 1'-0"

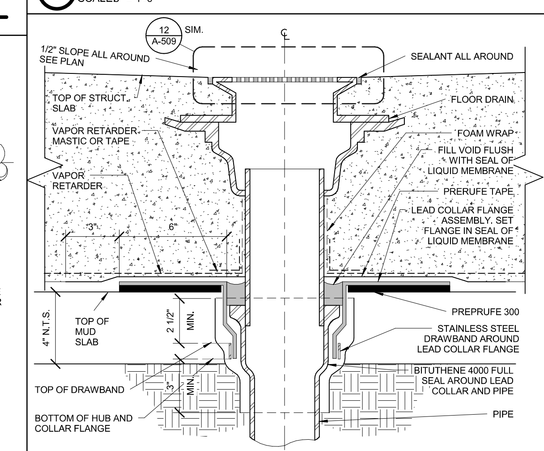


18 PIPE THRU CEILING
SCALE3" = 1'-0"

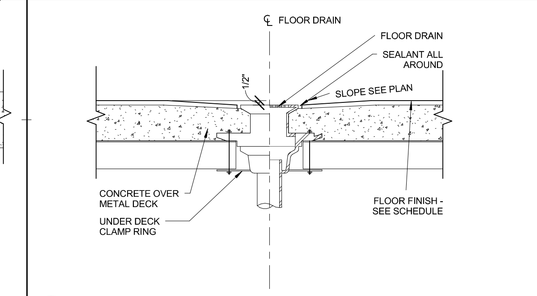
8 INSULATED PIPE THRU CONCRETE SLAB
SCALE3" = 1'-0"



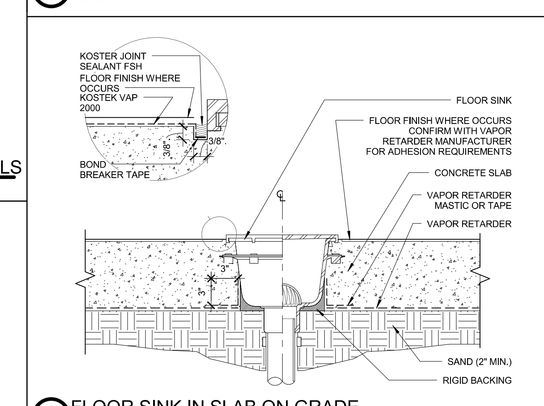
9 PIPE PENET. THRU CONCRETE SLAB ON GRADE
SCALE3" = 1'-0"



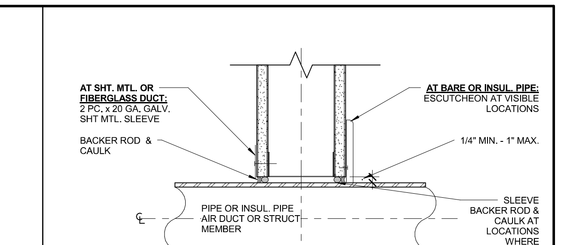
10 FLOOR DRAIN - BELOW GRADE PENETRATION
SCALE3" = 1'-0"



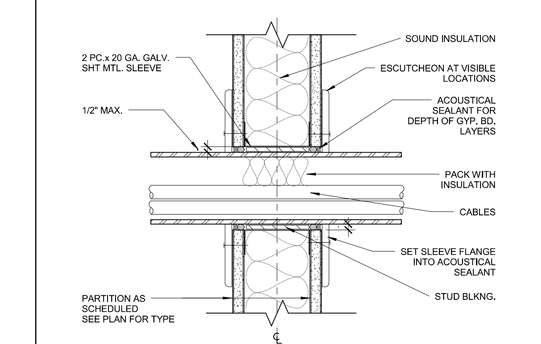
11 FLOOR DRAIN ON CONCRETE ON METAL DECK
SCALE1 1/2" = 1'-0"



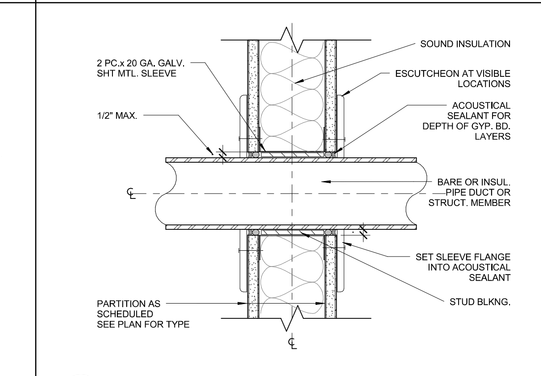
12 FLOOR SINK IN SLAB ON GRADE
SCALE1 1/2" = 1'-0"



1 PIPE OR DUCT THRU GYP BD WALL
SCALE3" = 1'-0"



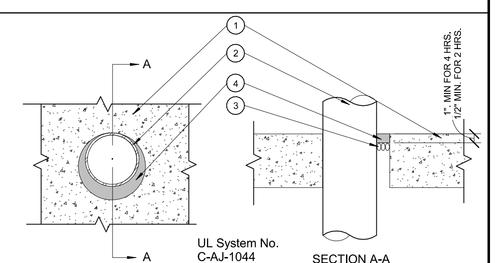
2 CABLE TRAY THRU SOUND WALL
SCALE3" = 1'-0"



3 PIPE OR DUCT THRU SOUND WALL
SCALE3" = 1'-0"

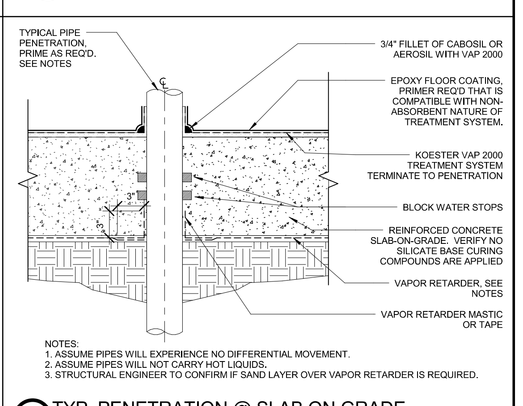
PENETRATION NOTES:

1. THESE DETAILS ARE GENERAL IN NATURE AND SUPPLEMENT DETAILS SPECIFIED MANUFACTURED ITEMS, OR SPECIFIC CONDITIONS DETAILED IN THIS SET OF DOCUMENTS.
2. EXCEPT FOR SLEEVES CAST INTO CONCRETE WALLS, SLEEVES AND SEALING MAY BE SPECIFIED IN WALL SECTION WHICH SPECIFIES THE PENETRATING ITEM IN LIEU OF THE SPECIFIED MANUFACTURED SLEEVE ASSEMBLIES. AT THE CONTRACTOR'S OPTION, SLEEVES MAY BE FABRICATED FROM GALVANIZED SHEET METAL IN GAUGES AND CONSTRUCTION COMPARABLE TO THE MANUFACTURED ITEM. IF SLEEVES AND SEALING ARE NOT SPECIFIED IN THE RESPECTIVE SECTION FOR THAT PENETRATING ITEM THEN THE SUPPLEMENTAL DETAILS SHOWN IN THESE DOCUMENTS SHALL GOVERN.
3. THE WORD "PIPE" AS USED ON THESE DETAILS SHALL BE INTERPRETED TO MEAN PLUMBING, AUTOMATIC FIRE SPRINKLER, & MECHANICAL PIPING OR ELECTRICAL CONDUIT.
4. AT GYPSUM BOARD FIRE RATED WALLS, CONSTRUCTION SHOWN IS FOR ONE HOUR FIRE RESISTIVE RATING (WHERE APPLICABLE). PENETRATION DETAILS SHALL BE SIMILAR WITH 2 LAYERS OF GYPSUM BOARD EACH SIDE OF METAL STUD WALL CONSTRUCTION.
5. WHERE A WALL IS SHOWN ON DRAWING TO BE BOTH A SOUND RATED WALL, THE APPLICABLE PENETRATION DETAIL SHALL BE THAT FOR A FIRE RATED WALL, EXCEPT, ADD BEAD OF SEALANT UNDER OUTER METAL SLEEVE BASE PLATE AGAINST GYPSUM BOARD.
6. THE UL NUMBER IS TYPICALLY FOR A SPECIFIC MANUFACTURER, AND IS TO BE FOLLOWED EXACTLY; UNLESS AN ALTERNATE IS SUBMITTED AND APPROVED.
7. SEE SHEET A-XXX FOR INTENT OF FIRE RATINGS.



1. FLOOR OR WALL ASSEMBLY
2. THROUGH PENETRANTS - STEEL PIPE, IRON PIPE, CONDUIT, COPPER TUBING
3. PACKING MATERIAL - POLYETHYLENE BACKER ROD OR MINERAL WOOL BATT INSULATION
4. FILL VOID OR CAVITY MATERIAL - CAULK / SEALANT* *3M COMPANY - CP 25 WB+ SEALANT

5 INSUL. PIPE THRU 2-HR RATED CONC. DECK FLR.
SCALE1 1/2" = 1'-0"



NOTES:
1. ASSUME PIPES WILL EXPERIENCE NO DIFFERENTIAL MOVEMENT.
2. ASSUME PIPES WILL NOT CARRY HOT LIQUIDS.
3. STRUCTURAL ENGINEER TO CONFIRM 6" SAND LAYER OVER VAPOR RETARDER IS REQUIRED.

6 TYP. PENETRATION @ SLAB ON GRADE
SCALE1 1/2" = 1'-0"

SCALE As indicated

TITLE

PENETRATION DETAILS

A-509

2/13/2013 4:29:29 PM

2/12/2013 4:30:22 PM

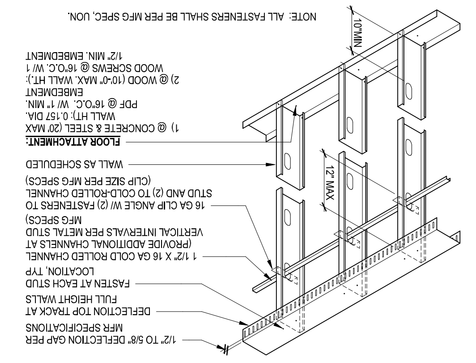
A-510

INTERIOR FRAMING DETAILS

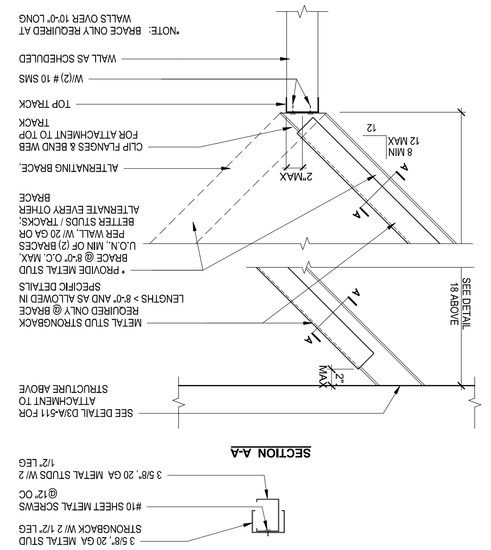
SCALE: As indicated

TITLE

24 TYPICAL INTERIOR WALL FRAMING
SCALE:3/4" = 1'-0"



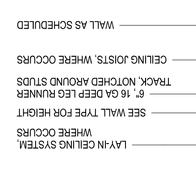
23 WALL BRACING DETAIL
SCALE:1 1/2" = 1'-0"



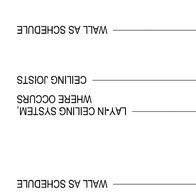
29 WALL TO CEILING FRAMING
SCALE:1" = 1'-0"

NOTE: REFER TO CHARTS IN NON-BEARING WALL AND CEILING FRAMING NOTES FOR STUD AND JOIST SIZE, GAUGE AND SPACING.

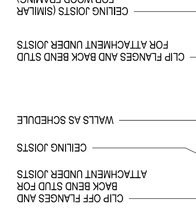
A. CEILING @ METAL STUD WALL



B. CEILING @ METAL STUD WALL



C. METAL STUD WALL TO CEILING
(WALLS PARALLEL TO CEILING FRAMING)



D. CEILING @ PLUMBING CHASE
(WALLS PARALLEL TO CEILING FRAMING)

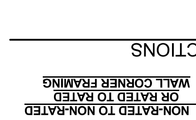
26 BACKING PLATES
SCALE:1" = 1'-0"

A. FOR ITEMS THAT WEIGH OR SUPPORT LESS THAN 20 LBS PER LF
(DOOR STOPS, BUMPER RAILS, CASHA RAILS, WHITE BOARDS, FIRE EXTINGUISHERS, ETC)

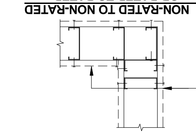
B. FOR ITEMS THAT WEIGH OR SUPPORT BETWEEN 20 AND 100 LBS PER LF
(BASE CABINETS, TALL CABINETS, HANDRAILS, GUARDRAILS, WALL MOUNTED EQUIPMENT, ETC.)

27 FRAMING AT WALL INTERSECTIONS
SCALE:1/2" = 1'-0"

A. NON-RATED TO NON-RATED WALL INTERSECTION FRAMING



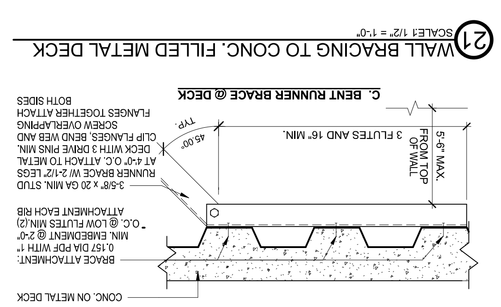
B. NON-RATED TO RATED WALL INTERSECTION FRAMING



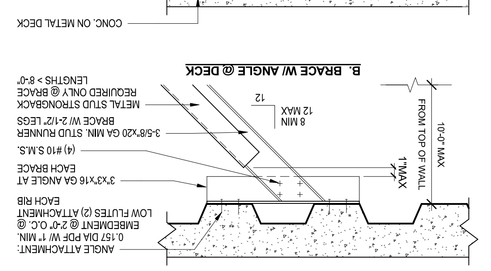
C. NON-RATED TO RATED OR RATED TO RATED WALL CORNER FRAMING

21 WALL BRACING TO CONC. FILLED METAL DECK
SCALE:1/2" = 1'-0"

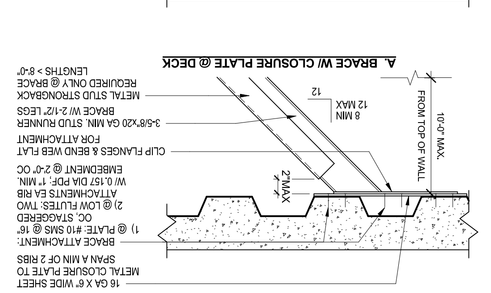
C. BENT RUNNER BRACE @ DECK



B. BRACE W/ ANGLE @ DECK

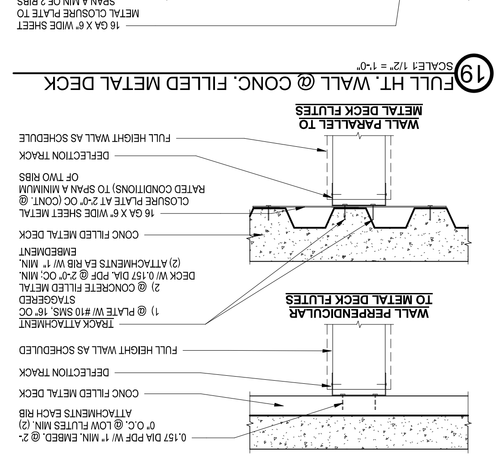


A. BRACE W/ CLOSURE PLATE @ DECK



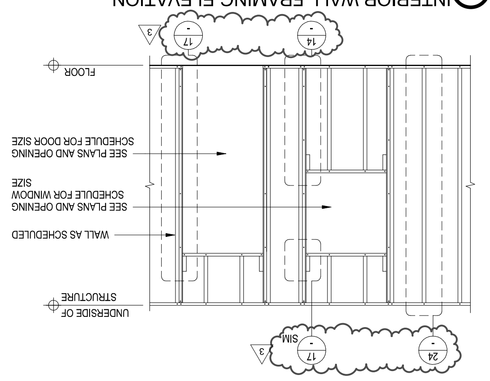
19 FULL HT. WALL @ CONC. FILLED METAL DECK
SCALE:1" = 1'-0"

WALL PERPENDICULAR TO METAL DECK FLUTES



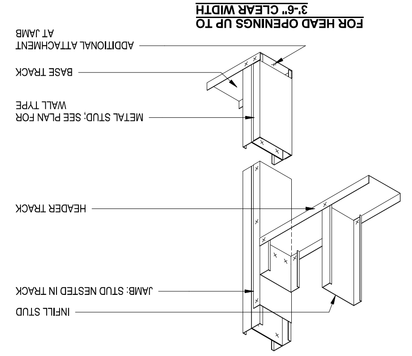
WALL PARALLEL TO METAL DECK FLUTES

18 INTERIOR WALL FRAMING ELEVATION
SCALE:3/8" = 1'-0"

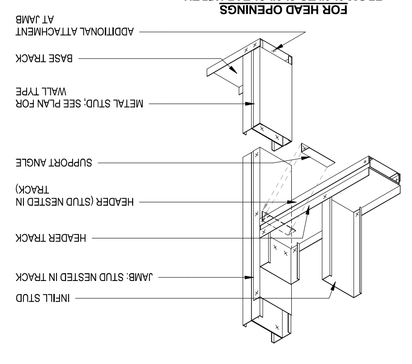


17 HEAD OPENING FRAMING DETAILS
SCALE:1" = 1'-0"

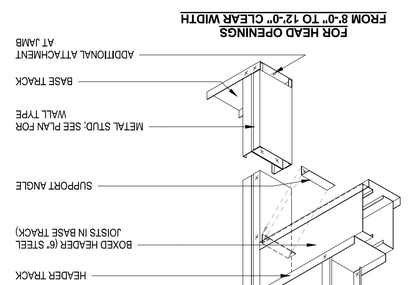
FOR HEAD OPENINGS UP TO 3'-6" CLEAR WIDTH



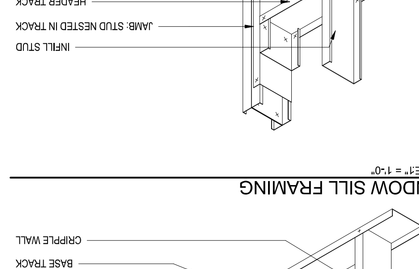
FOR HEAD OPENINGS FROM 3'-6" TO 8'-0" CLEAR WIDTH



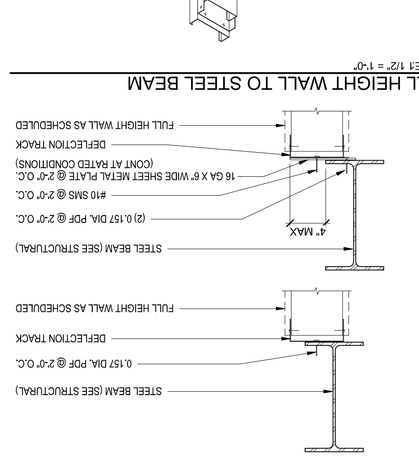
FOR HEAD OPENINGS FROM 8'-0" TO 12'-0" CLEAR WIDTH



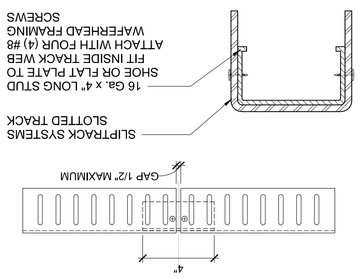
14 WINDOW SILL FRAMING
SCALE:1" = 1'-0"



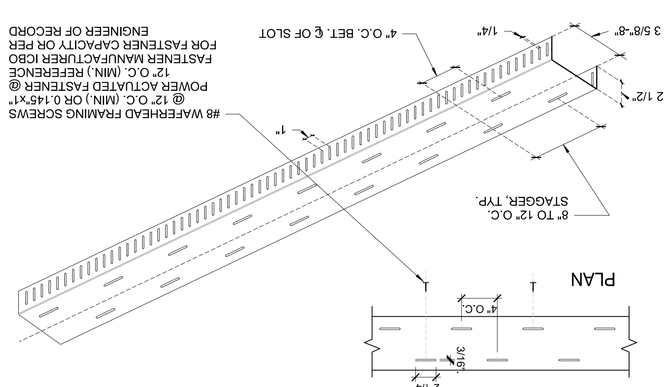
13 FULL HEIGHT WALL TO STEEL BEAM
SCALE:1/2" = 1'-0"



6 SPLICE DETAIL - MTL TO MTL CONNECTION
SCALE:3" = 1'-0"



5 HEAD OF WALL - HORIZ. SLOTTED TRACK
SCALE:1 1/2" = 1'-0"



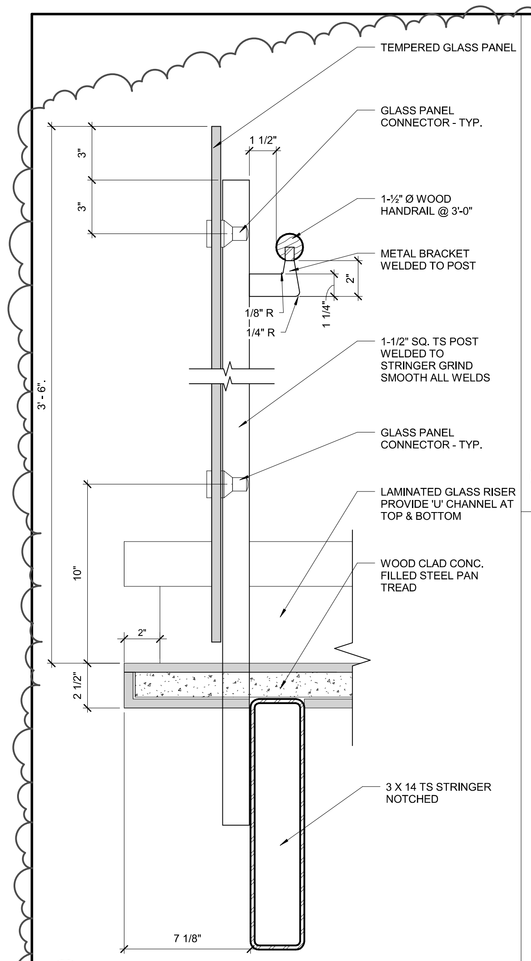
WALL STUD SCHEDULE

STUD SIZE	GA	SPACING (IN.) O.C.	MAX. ALLOWABLE SPAN	MAX. ALLOWABLE SPAN
			FOR OFFICE USE L/240	**FOR LAB, LAB SUPPORT, RESTROOM, UTILITY ROOM AND STAIRWELL USE L/240 10 PSF**
1 5/8"	22	12	8'-11"	7'-1"
	20	12	9'-3"	7'-4"
		16	8'-2"	6'-5"
	18	12	9'-6"	7'-7"
		16	8'-5"	6'-8"
	200	12	9'-9"	7'-7"
		16	8'-7"	6'-11"
2 1/2"	22	12	12'-4"	9'-10"
		16	11'-3"	8'-11"
	20	12	12'-9"	10'-2"
		16	11'-7"	9'-2"
	18	12	13'-2"	10'-6"
		16	12'-0"	9'-6"
	200	12	13'-2"	10'-6"
		16	12'-0"	9'-6"
3 5/8"	22	12	13'-6"	10'-9"
		16	12'-4"	9'-10"
	20	12	13'-10"	11'-0"
		16	12'-8"	10'-1"
	18	12	14'-4"	11'-5"
		16	13'-0"	10'-4"
	200	12	14'-4"	11'-5"
		16	13'-0"	10'-4"
4"	22	12	15'-3"	12'-1"
		16	14'-0"	11'-2"
	20	12	15'-7"	12'-4"
		16	14'-4"	11'-5"
	18	12	15'-11"	12'-8"
		16	14'-8"	11'-8"
	200	12	15'-11"	12'-8"
		16	14'-8"	11'-8"
6"	22	12	17'-7"	14'-0"
		16	16'-2"	12'-10"
	20	12	17'-11"	14'-3"
		16	16'-6"	13'-1"
	18	12	18'-2"	14'-5"
		16	16'-9"	13'-4"
	200	12	18'-2"	14'-5"
		16	16'-9"	13'-4"
8"	18	12	23'-1"	18'-4"
		16	21'-3"	16'-11"
	200	12	23'-1"	18'-4"
		16	21'-3"	16'-11"
10"	18	12	28'-10"	22'-11"
		16	26'-5"	21'-0"
	200	12	28'-10"	22'-11"
		16	26'-5"	21'-0"
12"	18	12	34'-7"	27'-6"
		16	31'-8"	25'-2"
	200	12	34'-7"	27'-6"
		16	31'-8"	25'-2"
14"	18	12	40'-4"	32'-0"
		16	36'-11"	29'-4"
	200	12	40'-4"	32'-0"
		16	36'-11"	29'-4"
16"	18	12	46'-1"	36'-7"
		16	42'-2"	33'-6"
	200	12	46'-1"	36'-7"
		16	38'-1"	30'-2"

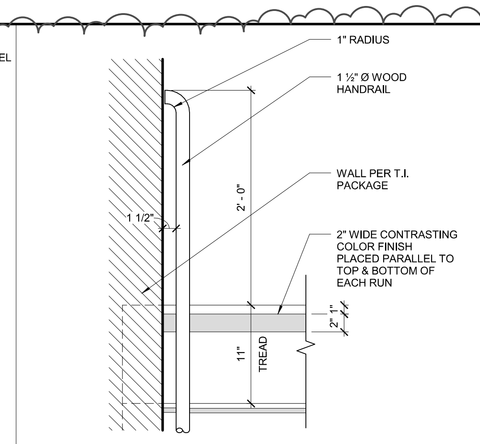
NOTES
1. BASED ON SSMA CUBELINES.
2. 5 PSF AND 10 PSF LOADS HAVE NOT BEEN REDUCED FOR STRENGTH OR DEFLECTION CHECKS. FULL LATERAL LOAD IS APPLIED.
3. LIMITING HEIGHTS ARE BASED ON BEARING ON STEEL PROPERTIES ONLY. UNON-COMPOSITE
4. LIMITING HEIGHTS ARE BASED ON 1/240 DEFLECTION OF THE FULL HEIGHT OF THE STUD.
5. WEB CRIPPLING CHECK BASED ON 1 INCH END BEARING. WHERE LIMITING HEIGHTS ARE FOLLOWED BY 'A', WEB STIFFENERS ARE REQUIRED.

INTERIOR NON-BEARING WALL FRAMING NOTES

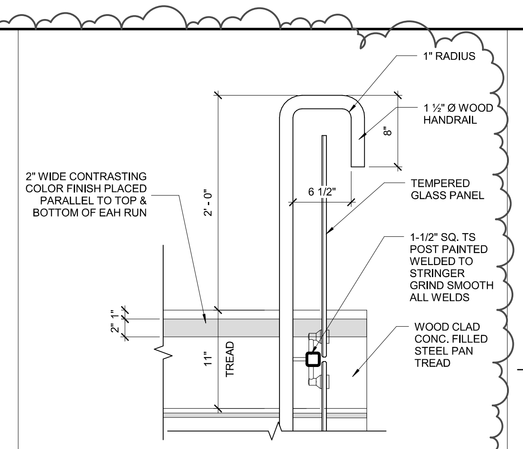
1. THIS SHEET DEPICTS TYPICAL INTERIOR NON-LOAD BEARING METAL STUD FRAMING ELEVATIONS AND FRAMING DETAILS.
2. THE TYPICAL DETAILS SHOWN INDICATE HOW FULL HEIGHT WALLS MEET THE STRUCTURE AND NON OPENINGS IN THE TYPICAL WALL PARTITION SHALL BE FRAMED.
3. THE TYPICAL DETAILS WILL NOT COVER ALL POSSIBLE CONDITIONS THAT MAY OCCUR IN THE PROJECT. THE CONTRACTOR IS TO MODIFY THE FRAMING AS REQUIRED TO ACCOMMODATE SPECIAL CONDITIONS THAT MAY OCCUR AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
4. THESE DETAILS MODIFY THE CONFIGURATION AND FRAMING OF THE TYPICAL WALL TYPES THAT HAVE BEEN SCHEDULED.
5. METAL FRAMING COMPONENTS: MANUFACTURERS STANDARD NON-LOAD BEARING FRAMING OF TYPE, SIZE, SHAPE AND GAUGE AS SPECIFIED AND INDICATED. PROVIDE MANUFACTURERS STANDARD COMPONENTS AND ACCESSORIES FOR EACH TYPE OF FRAMING TO PROVIDE A COMPLETE FRAMING SYSTEM.
6. STUDS AND RUNNERS: PROVIDE SCREW TYPE PUNCH-'C' STUDS AND CHANNEL, FLANGES WITH 1-1/4 INCH MINIMUM FLANGE, COMPLY WITH ASTM C645, UNLESS OTHERWISE NOTED.
   a. ESTABLISHED STANDARD: STEEL STUD MANUFACTURERS ASSOCIATION TECHNICAL PUBLICATION NO. 1, "RECOMMENDED PRACTICE FOR STEEL STUDS AND TRACKS FOR NON-LOADBEARING WALLS ONLY." REFER TO STRUCTURAL FOR LOAD BEARING WALL SPECIFICATIONS.
   b. SIZE: PROVIDE SIZES AS INDICATED ON THE DRAWINGS. USE TOP AND BOTTOM TRACK OF SAME GAUGE AS WALL STUDS, UNLESS OTHERWISE NOTED ON DRAWINGS.
   c. GAUGE AND SPACING: REFER TO THE WALL STUD SCHEDULE FOR MINIMUM GAUGE AND SPACING FOR STUDS AND WALL HEIGHT INDICATED IN THE DRAWINGS, UNLESS OTHERWISE NOTED ON DRAWINGS PRIOR INTERIOR NON-STRUCTURAL APPLICATIONS ONLY.
   d. AT HEADER AND JAMB FRAMING ASSEMBLIES OF DOORS, WINDOWS AND OTHER OPENINGS, UNLESS OTHERWISE INDICATED, PROVIDE STUDS AND TRACKS SAME GAUGE AS WALL STUDS PROVIDED, UNLESS OTHERWISE NOTED ON DRAWINGS.
   e. FOR OPENINGS 4'-0" WIDE AND GREATER PROVIDE 16 GAUGE STUDS AND TRACKS. JAMB STUDS TO BE DOUBLED. PROVIDE STUDS AND HEADER TRACK. JAMB STUDS NESTED SNUG WITH HEADER TRACK AND ATTACHED TO THE STUD NESTED TRACK ASSEMBLY, AND AT 6" LONG PIECES OF TRACK USED TO ASSEMBLE THE FRAMED OPENING.
   f. DEFLECTION TRACK: PROVIDE 16 GAUGE SLOTTED STEEL DEEP-LEG RECEIVER TRACK MOUNTED ITEMS UNLESS NOTED OTHERWISE ON DRAWINGS.
   g. BACKING: PROVIDE 16 GAUGE STUDS FOR SUPPORT OF BACKING FOR ALL ITEMS SCHEDULED OR INDICATED ON THE DRAWINGS. PROVIDE FOR CUSHION TYPE SEISMIC JOINT BETWEEN WALL AND FRAMING ASSEMBLIES AT HEAD OF FULL HEIGHT FLOOR-TO-FLOOR OR FLOOR-TO-ROOF WALLS AS DETAILED. COMPRESSION TRACKS ARE NOT ACCEPTABLE.
7. THE MATERIALS TO BE INSTALLED OVER THE METAL FRAMING ARE INDICATED ON THE WALL TYPES SCHEDULED AND OTHER SUPPORTING DETAILS.
8. WHERE UTILITY PENETRATIONS OCCUR, COORDINATE EDGE DETAILS OF OPENING WITH SPECIFIED RATED UTILITY PENETRATION ASSEMBLY. MODIFY EDGE CONDITION TO MATCH APPROVED LISTED ASSEMBLY FOR ASSEMBLY/SYSTEM INSTALLED.
9. WHERE ROUND DUCTS OCCUR WITH FIRE DAMPERS PROVIDE FRAMING AS REQUIRED FOR RECTILINEAR OPENINGS. COORDINATE RATED ASSEMBLY AT OPENING IN WALL WITH APPROVED LISTED FIRE DAMPER ASSEMBLY.
10. FASTENERS NOTED REPRESENT MINIMUM SIZE OF FASTENER TO BE PROVIDED.
11. MISCELLANEOUS ACCESSORIES: PROVIDE ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.
   a. BRIDGING: 1/2 INCH COLD ROLLED STEEL CHANNELS AND 1-1/2" X 1-1/2" 16 GAUGE CLIPS AS RECOMMENDED BY THE STUD/JOIST MANUFACTURER.
   b. AT FULL HEIGHT WALLS AND WHERE DEFLECTION TRACKS USED, INSTALL CHANNELS CONTINUOUSLY THROUGHOUT THE UPPER MOST PUNCHOUTS (MUST BE A MINIMUM OF 12 INCHES FROM THE TOP TRACK), SHALL NOT BE MORE THAN 12 INCHES FROM TOP TRACK.
   c. FASTENERS: PROVIDE SCREWS AND OTHER FASTENERS AS RECOMMENDED BY MANUFACTURER.
   d. BACKING PLATES: GALVANIZED PLATE OR TRACK SECTIONS IN SIZES AND GAUGES AS SHOWN AND SPECIFIED IN DRAWINGS.
   e. ANCHORS AND INSERTS: PROVIDE ANCHORS AND INSERTS AS REQUIRED FOR ANCHORING FRAMING TO BUILDING STRUCTURE.
12. MISCELLANEOUS MATERIALS: PROVIDE MISCELLANEOUS MATERIALS AS REQUIRED FOR COMPLETE FRAMING SYSTEM, INCLUDING FASTENING AND ANCHORING MEMBERS, AND OTHER ACCESSORIES.
13. FRAMING ERECTION: COMPLY WITH ASTM C754 AND MANUFACTURER'S INSTRUCTIONS. ERECT FRAMING PLUMB, RIGID AND TRUE TO LINE, WITH MEMBERS SECURELY FASTENED IN PLACE AND SPACED AT INDICATED SPACINGS.
   a. ALIGN TRACK ACCURATELY AND SECURELY ANCHORED TO BUILDING STRUCTURE.
   b. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   c. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   d. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   e. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   f. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   g. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   h. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   i. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   j. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   k. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   l. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   m. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   n. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   o. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   p. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   q. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   r. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   s. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   t. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   u. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   v. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   w. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.
   x. ATTACH STUDS AT TOP AND BOTTOM TO STRUCTURE AT SPACINGS INDICATED, BUT NOT MORE THAN MAXIMUM SPACING RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   y. ATTACH STUDS TO TRACK BY METHOD RECOMMENDED BY STUD MANUFACTURER FOR LOADING INDICATED.
   z. ISOLATE NON-LOAD BEARING FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF LOADS IMPOSED BY STRUCTURE TO FRAMING SYSTEM.



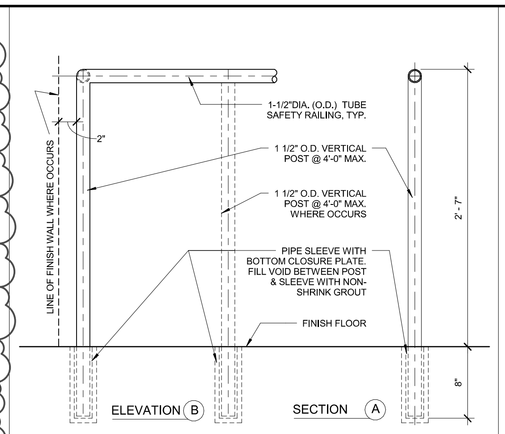
27 STAIR 2 DETAIL SECTION
SCALE3" = 1'-0"



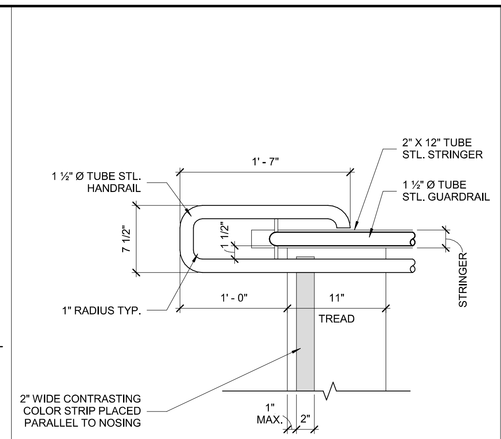
21 BOTTOM OF STAIR PLAN @ LOBBY
SCALE1 1/2" = 1'-0"



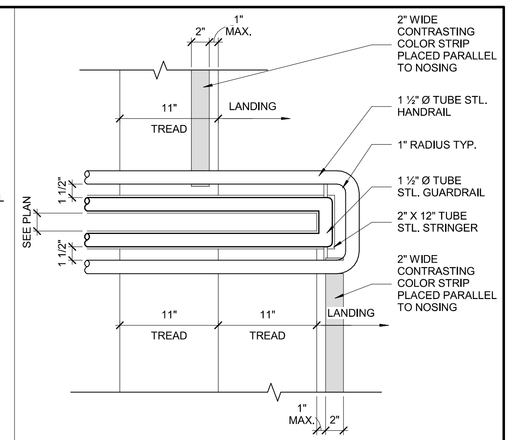
16 BOTTOM OF STAIR PLAN @ LOBBY
SCALE1 1/2" = 1'-0"



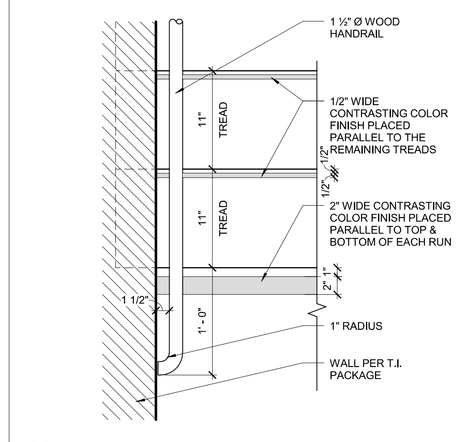
11 SAFETY RAILING
SCALE1 1/2" = 1'-0"



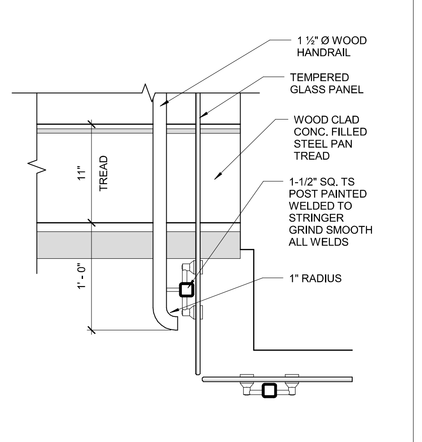
6 BOTTOM OF STAIR PLAN
SCALE1 1/2" = 1'-0"



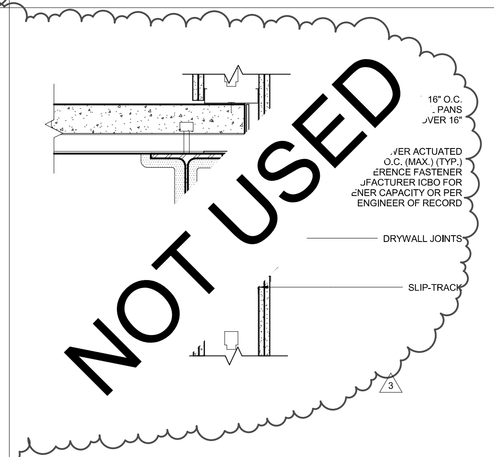
1 TOP OF STAIR PLAN
SCALE1 1/2" = 1'-0"



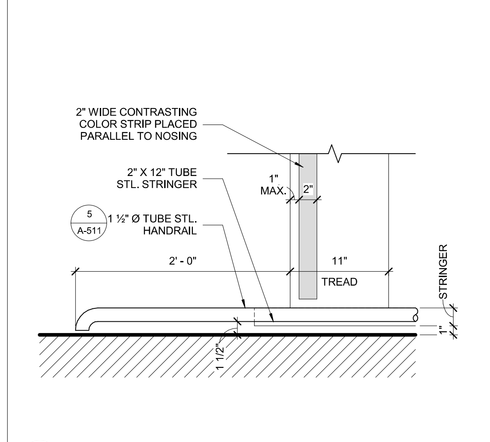
22 TOP OF STAIR PLAN @ LOBBY
SCALE1 1/2" = 1'-0"



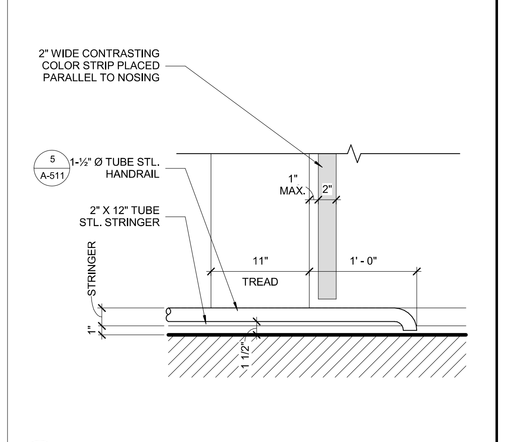
17 TOP OF STAIR PLAN @ LOBBY
SCALE1 1/2" = 1'-0"



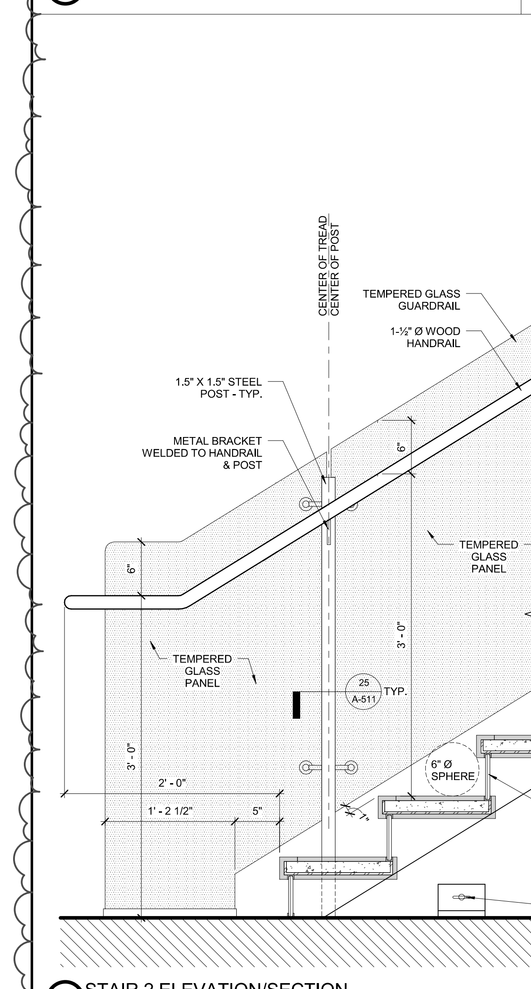
12 HEAD OF WALL @ STAIRWELL
SCALE1 1/2" = 1'-0"



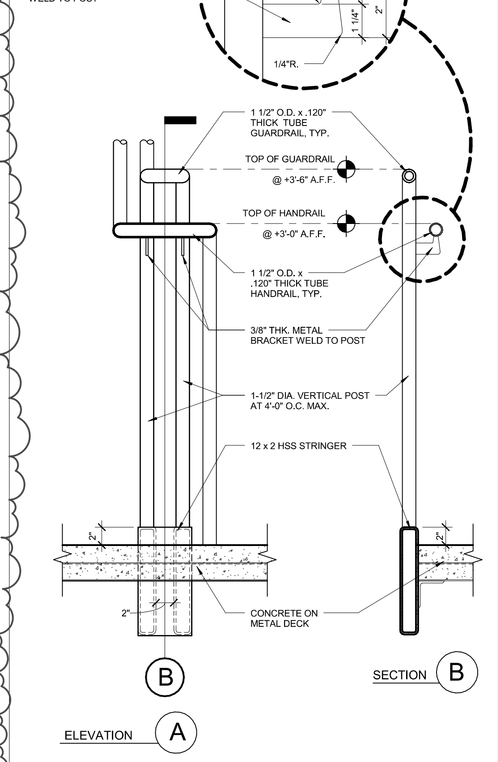
7 BOTTOM OF STAIR PLAN
SCALE1 1/2" = 1'-0"



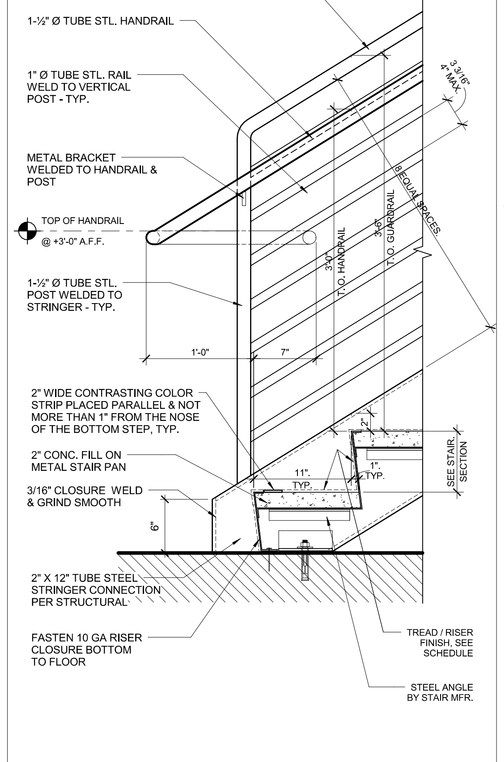
2 TOP OF STAIR PLAN.
SCALE1 1/2" = 1'-0"



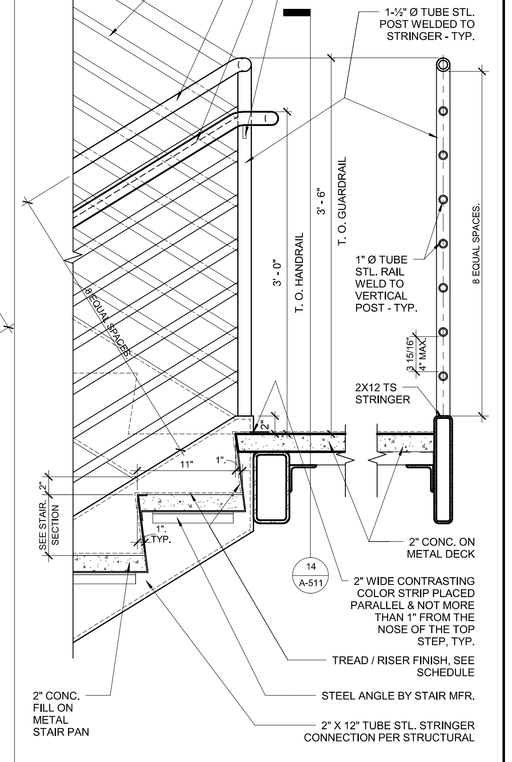
29 STAIR 2 ELEVATION/SECTION
SCALE1 1/2" = 1'-0"



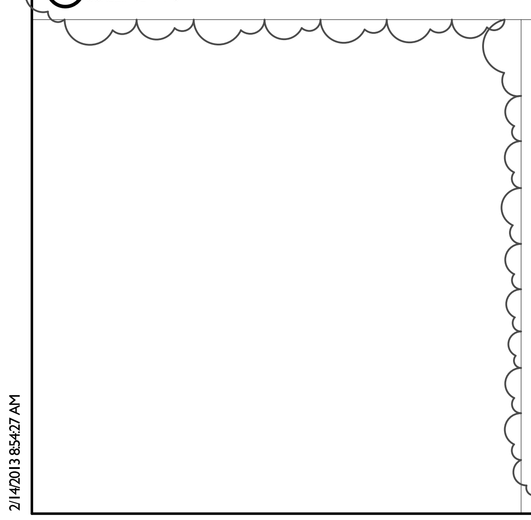
14 HANDRAIL/GUARDRAIL ELEV. AT LANDING
SCALE1 1/2" = 1'-0"



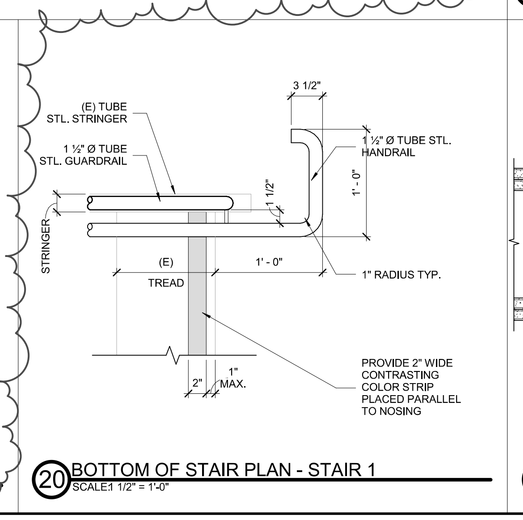
9 BOTTOM OF STAIR ELEVATION
SCALE1 1/2" = 1'-0"



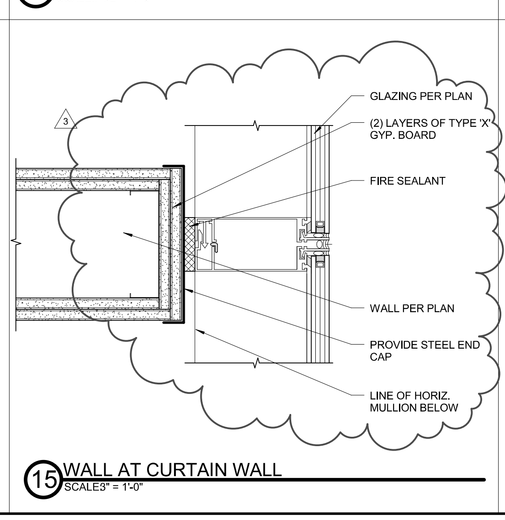
4 TOP OF STAIR AT LANDING
SCALE1 1/2" = 1'-0"



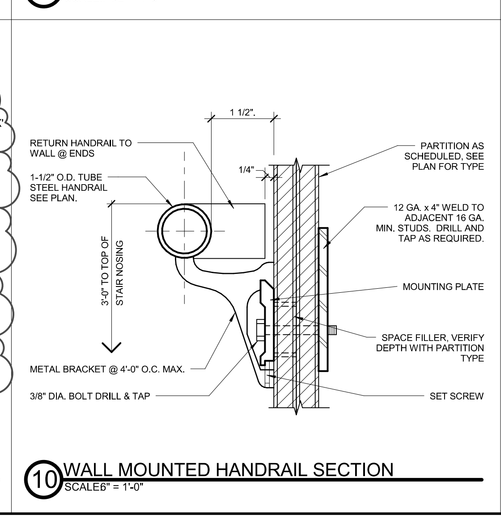
25 STEEL POST SECTION
SCALE6" = 1'-0"



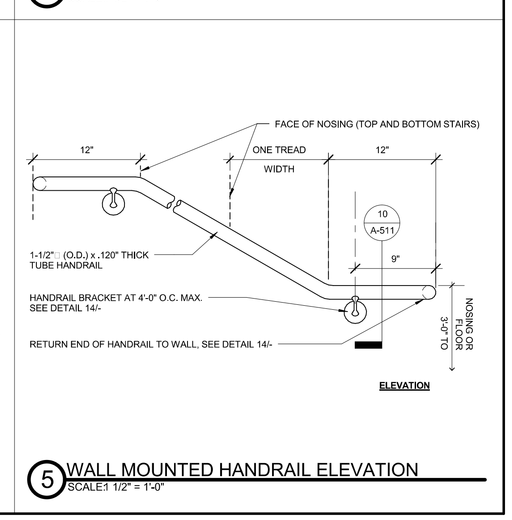
20 BOTTOM OF STAIR PLAN - STAIR 1
SCALE1 1/2" = 1'-0"



15 WALL AT CURTAIN WALL
SCALE3" = 1'-0"



10 WALL MOUNTED HANDRAIL SECTION
SCALE6" = 1'-0"



5 WALL MOUNTED HANDRAIL ELEVATION
SCALE1 1/2" = 1'-0"

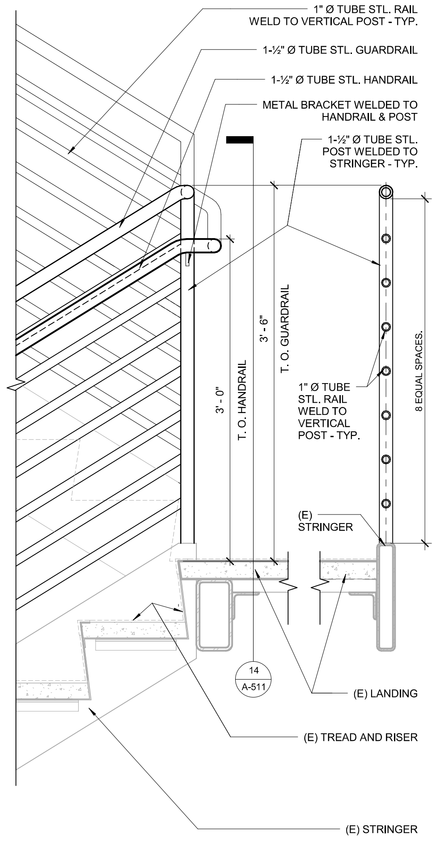
SCALE As indicated

TITLE

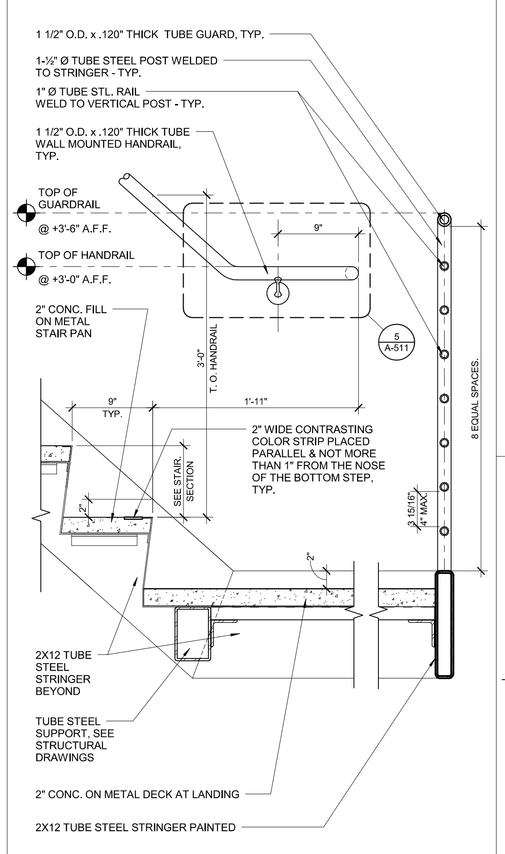
INTERIOR DETAILS (STAIRS)

A-511

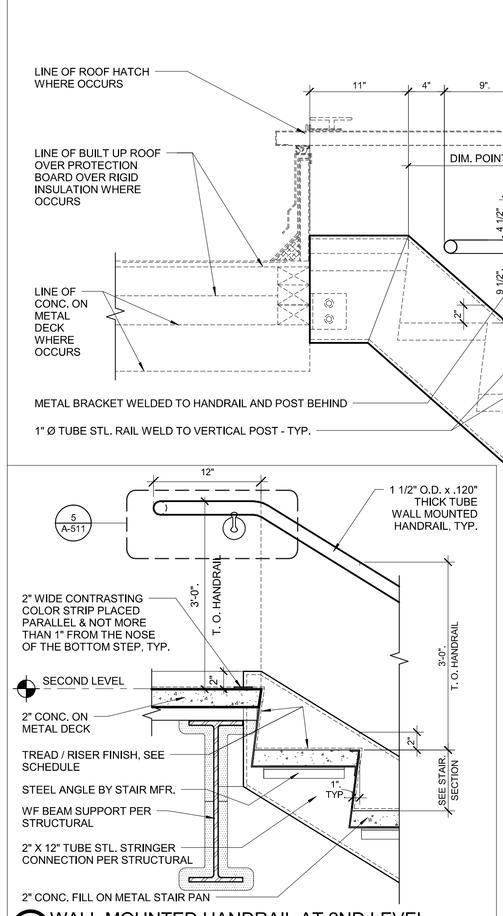
2/14/2013 8:54:27 AM



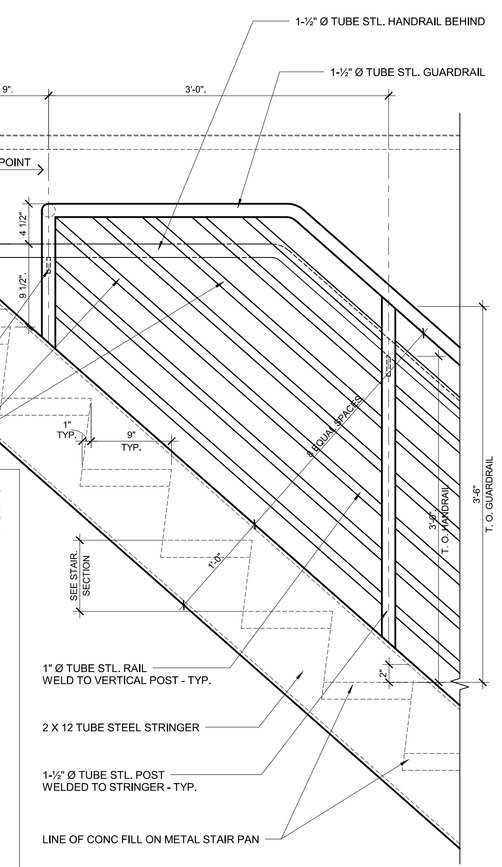
23 TOP OF STAIR AT LANDING (E) STAIR
SCALE1 1/2" = 1'-0"



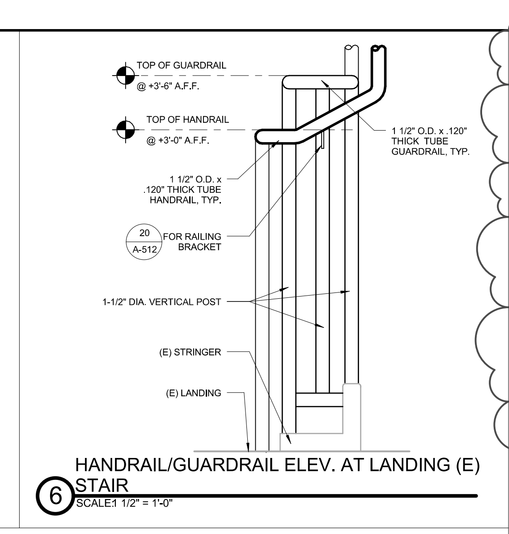
18 WALL MOUNTED HANDRAIL AT LANDING
SCALE1 1/2" = 1'-0"



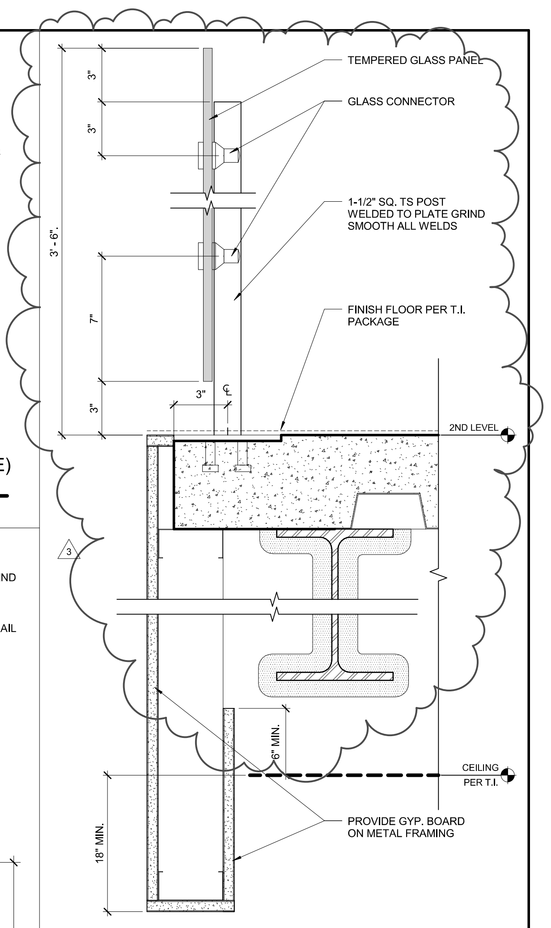
13 WALL MOUNTED HANDRAIL AT 2ND LEVEL
SCALE1 1/2" = 1'-0"



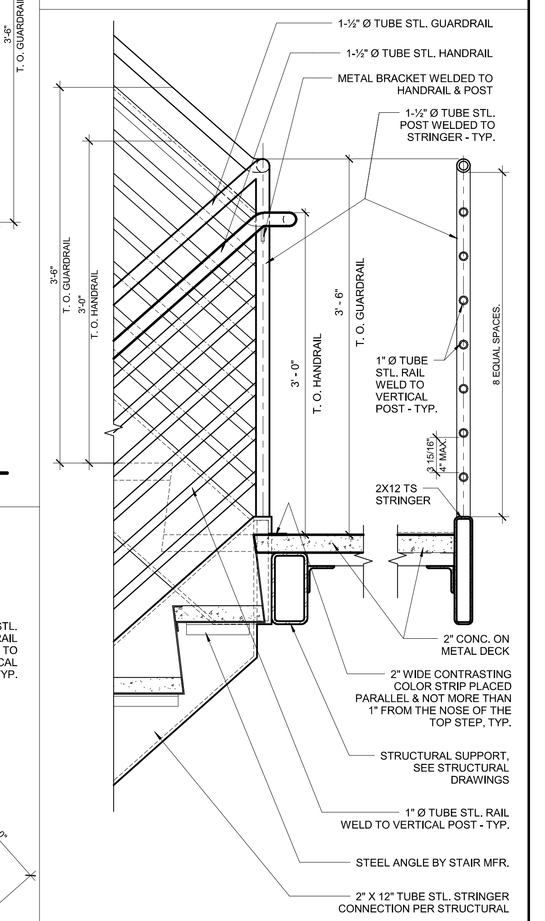
8 GUARDRAIL / HANDRAIL TO ROOF HATCH
SCALE1 1/2" = 1'-0"



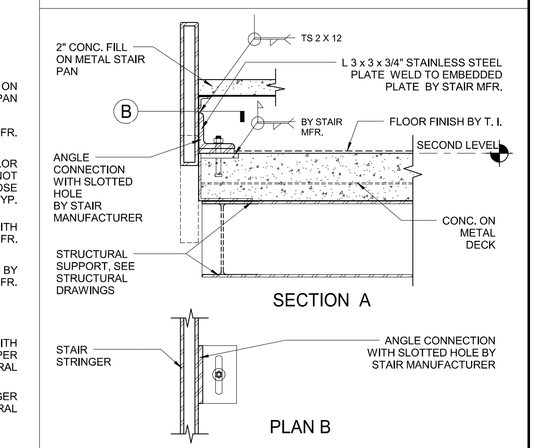
HANDRAIL/GUARDRAIL ELEV. AT LANDING (E) STAIR
6 SCALE1 1/2" = 1'-0"



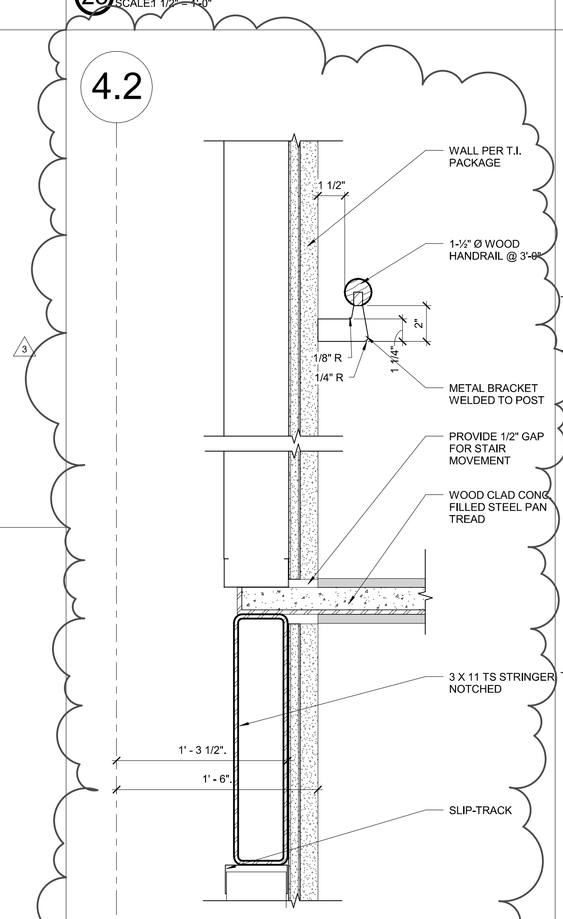
2 TYPICAL GLASS GUARDRAIL SECTION
SCALE3" = 1'-0"



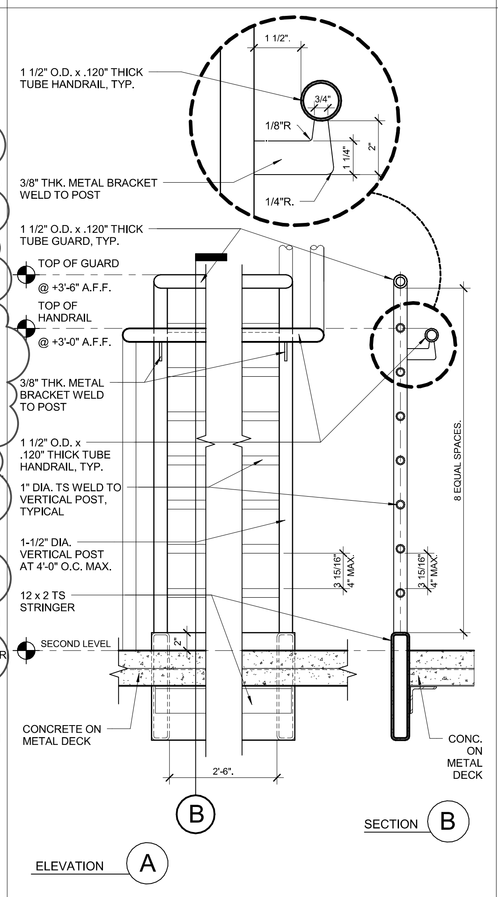
4 STAIR LANDING TO ROOF LEVEL
SCALE1 1/2" = 1'-0"



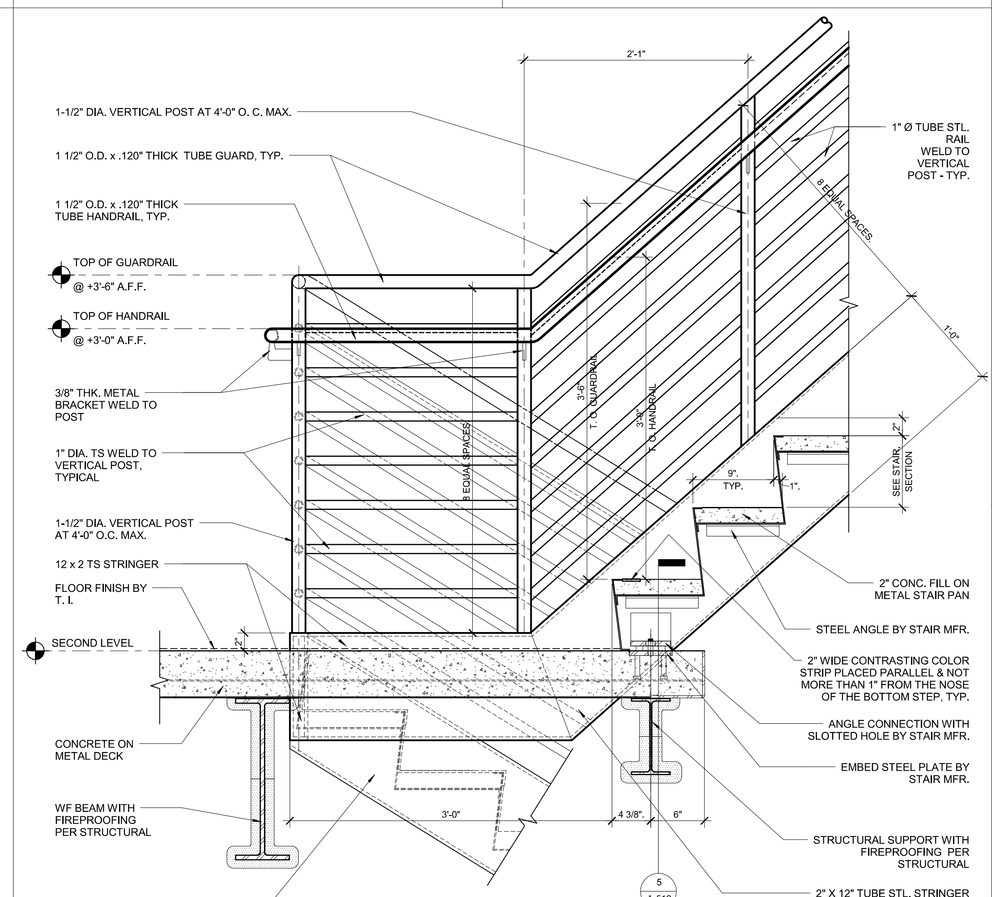
5 STEEL SUPPORT AT STRINGER
SCALE1 1/2" = 1'-0"



25 STAIR 2 DETAIL SECTION @ WALL
SCALE3" = 1'-0"



20 HANDRAIL/GUARDRAIL ELEVATION AT 2ND LEVEL
SCALE1 1/2" = 1'-0"



15 STAIR AT SECOND LEVEL
SCALE1 1/2" = 1'-0"

SCALE As indicated

TITLE

INTERIOR DETAILS

A-512

2/14/2013 2:16:38 PM

RCA - rinaldo | architecture | interiors 2013 ©

2/13/2013 4:33:01 PM

A-520

RATED WALL DETAILS

SCALE: As indicated

TITLE

GENERAL NOTES:

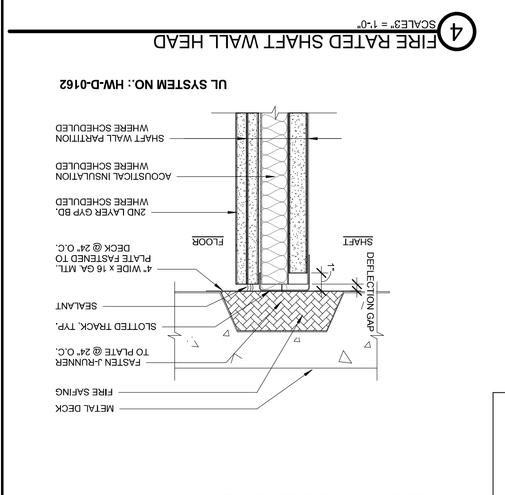
1. ALL CEILING RUNNERS SHALL BE SLOTTED DEFLECTION TRACK.
2. ACCEPTABLE MANUFACTURERS OF SLOTTED DEFLECTION TRACK:
   CEMCO - FASTRACK
   BRADY - SLPTRACK
3. CYCLICAL DESIGN - UL 2079 TEST STANDARD.
4. DO NOT SCREW DRYWALL TO SLOTTED TRACK.
5. ALL HEAD OF WALL DESIGNS VARY IN NOMINAL JOINT WIDTH. REFER TO THE UL DIRECTORY FOR SPECIFIC INFORMATION ON EACH UL SYSTEM NOTED ON DRAWINGS.
6. SYSTEMS VARY IN MOVEMENT CAPABILITY.

---

1 HEAD OF WALL PARALLEL TO FLUTE

SCALE3" = 1'-0"

UL SYSTEM NO.: HW-D-0162

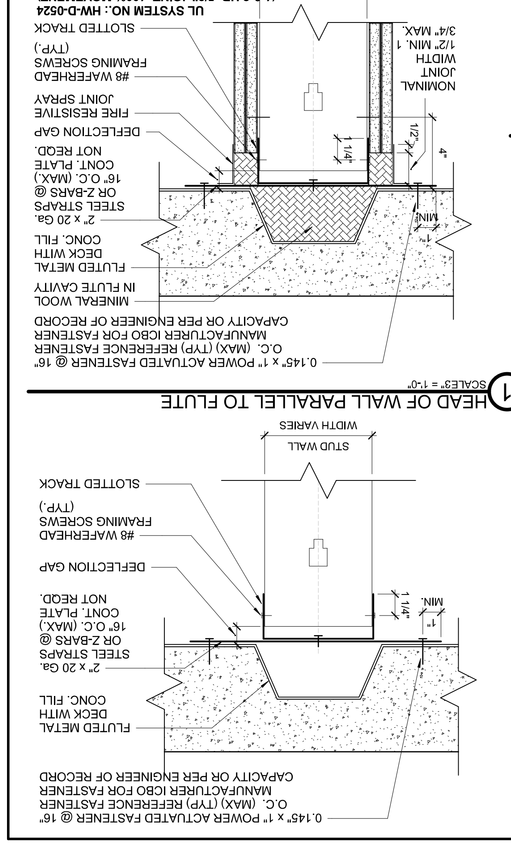


2 HEAD OF WALL PARALLEL TO FLUTE

SCALE3" = 1'-0"

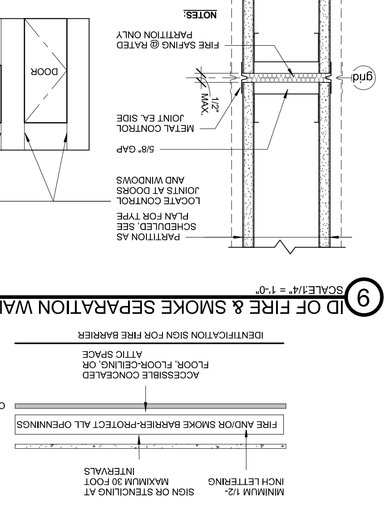
IDENTIFICATION OF FIRE AND SMOKE SEPARATION WALLS (705.8)

WALLS REQUIRED TO HAVE PROTECTED OPENINGS OR UNPROTECTED PENETRATIONS OR NONSEALED IDENTIFICATION IN ACCESSIBLE CONCEALED FLOOR-CEILING OR ATTIC SPACE



3 ID OF FIRE & SMOKE SEPARATION WALLS

SCALE1/4" = 1'-0"



4 FIRE RATED SHAFT WALL HEAD

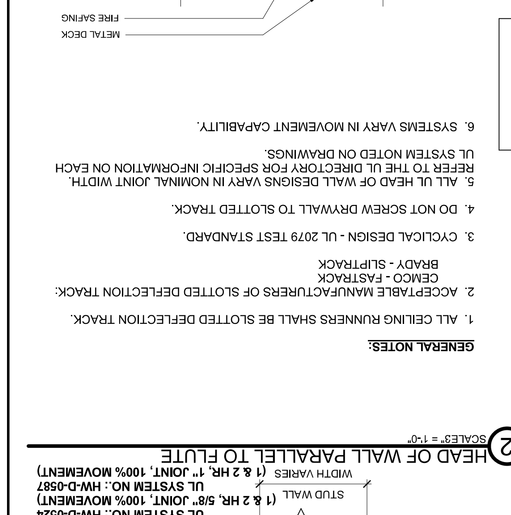
SCALE3" = 1'-0"

UL SYSTEM NO.: U-469

5 FIRE RATED SHAFT WALL BASE

SCALE3" = 1'-0"

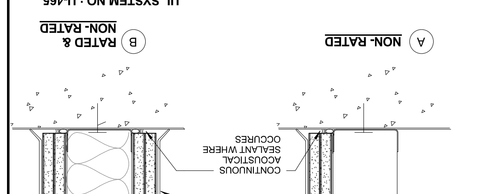
UL SYSTEM NO.: U-469



6 WALL BASE DETAIL

SCALE3" = 1'-0"

UL SYSTEM NO.: U-465



7 1-HR ENCLOSURE

SCALE1" = 1'-0"

WHI-495 PSH 0154/0167

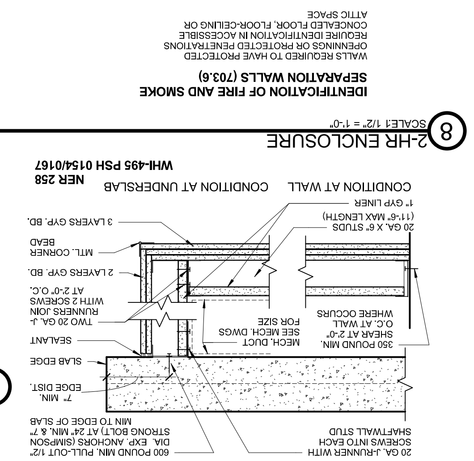
NER 258

8 2-HR ENCLOSURE

SCALE1" = 1'-0"

WHI-495 PSH 0154/0167

NER 258



9 ID OF FIRE & SMOKE SEPARATION WALLS

SCALE1/4" = 1'-0"

10 GYPSUM BOARD CONTROL JOINT

SCALE3" = 1'-0"

11 HEAD OF WALL AT ELEVATOR SHAFT

SCALE1 1/2" = 1'-0"

UL SYSTEM NO.: HW-D-0636
(1 & 2 HR, 1 1/2" JOINT, 50% MOVEMENT)

12 FIREPROOFING AT (E) FLOOR STRUCTURE

SCALE1 1/2" = 1'-0"

UL DESIGN ID. L538 - 2 HOUR

13 HEAD WALL OFFSET FROM STEEL BEAM

SCALE1 1/2" = 1'-0"

14 SHAFT WALL OFFSET FROM STEEL BEAM

SCALE1 1/2" = 1'-0"

UL SYSTEM NO.: HW-D-0636
(1 & 2 HR, 1 1/2" JOINT, 50% MOVEMENT)

15 HEAD OF WALL AT SLAB EDGE

SCALE1 1/2" = 1'-0"

16 HEAD OF FIRE RATED WALL AT SLAB EDGE

SCALE1 1/2" = 1'-0"

UL SYSTEM NO. HW-D-XXXX

17 SHAFT WALL AT SLAB EDGE

SCALE1 1/2" = 1'-0"

UL SYSTEM NO. HW-D-0504
(1 & 2 HR. 3/8" TO 1" JOINT, 50% MOVEMENT)

18 COLUMN FIRE PROOFING

SCALE3" = 1'-0"

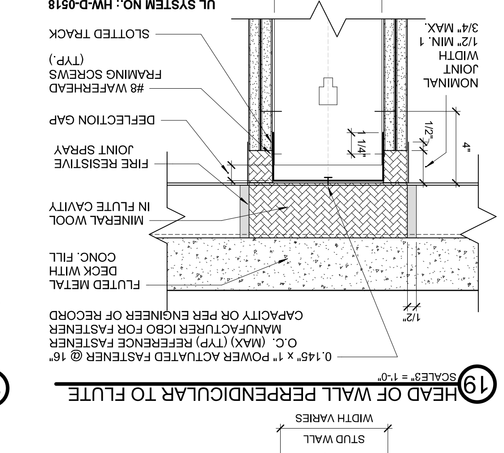
19 HEAD OF WALL PERPENDICULAR TO FLUTE

SCALE3" = 1'-0"

20 HEAD OF WALL PERPENDICULAR TO FLUTE

SCALE3" = 1'-0"

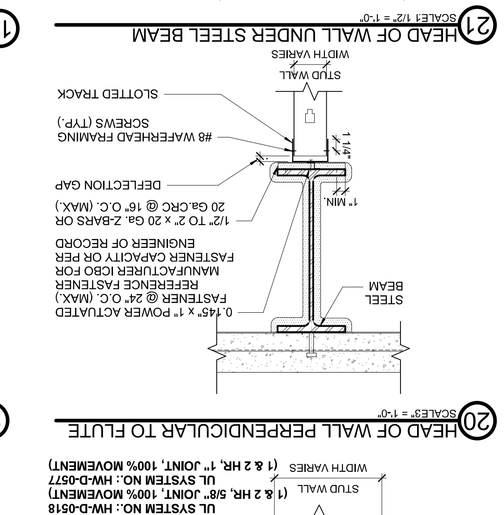
UL SYSTEM NO.: HW-D-0518
(1 & 2 HR, 5/8" JOINT, 100% MOVEMENT)
UL SYSTEM NO.: HW-D-0527
(1 & 2 HR, 1" JOINT, 100% MOVEMENT)



21 HEAD OF WALL UNDER STEEL BEAM

SCALE1 1/2" = 1'-0"

UL SYSTEM NO.: HW-D-0551
(1 & 2 HR, 5/8" JOINT, 100% MOVEMENT)
UL SYSTEM NO.: HW-D-0579
(1 & 2 HR, 1" JOINT, 100% MOVEMENT)



22 HEAD OF WALL UNDER STEEL BEAM

SCALE1 1/2" = 1'-0"

UL SYSTEM NO.: HW-D-0551
(1 & 2 HR, 5/8" JOINT, 100% MOVEMENT)
UL SYSTEM NO.: HW-D-0579
(1 & 2 HR, 1" JOINT, 100% MOVEMENT)

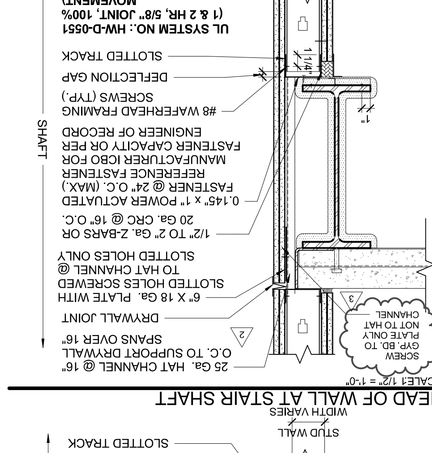
23 SHAFT WALL UNDER STEEL BEAM

SCALE1 1/2" = 1'-0"

UL SYSTEM NO. HW-D-0504
(1 & 2 HR. 3/8" TO 1" JOINT, 50% MOVEMENT)

24 1 HOUR FIRE-PROOFING AT (E) ROOF STRUCTURE

SCALE1 1/2" = 1'-0"



25 HEAD OF WALL AT STAIR SHAFT

SCALE1 1/2" = 1'-0"

26 HEAD OF WALL AT STAIR SHAFT

SCALE1 1/2" = 1'-0"

UL SYSTEM NO.: HW-D-0551
(1 & 2 HR, 5/8" JOINT, 100% MOVEMENT)
UL SYSTEM NO.: HW-D-0579
(1 & 2 HR, 1" JOINT, 100% MOVEMENT)

27 1-HR & 2-HR RATED FLOOR ASSEMBLIES

SCALE1-2" = 1'-0"

1. ROOF/CEILING SYSTEM AT MACHINE ROOM AND PENTHOUSE. CEMENTITIOUS FIRE PROOFING (1 HR.) AT BEAMS.

UL # P732

POLYISOCYANURATE FOAM INSULATION
STEEL DECK 1 1/2-3"

2. UNPROTECTED FLOOR SYSTEM. CEMENTITIOUS FIRE PROOFING (2 HR.) AT BEAMS.

UL # D923

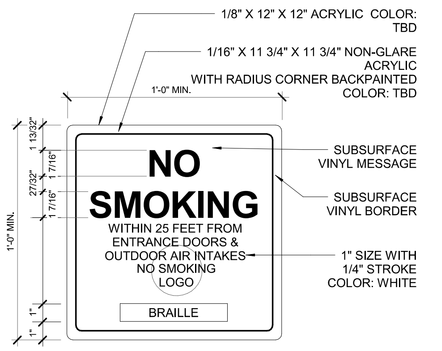
NORMAL WT. CONC. 4 1/2" MIN.
LIGHT WT. CONC. 3 1/4" MIN.
STEEL DECK 2"

1. UNPROTECTED ROOF AND FLOOR SYSTEMS. CEMENTITIOUS FIRE PROOFING (1 HR.) AT BEAMS.

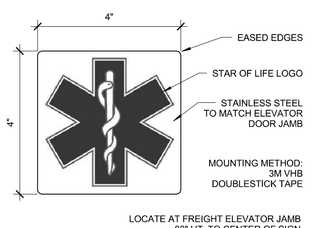
UL # D919

NORMAL WT. CONC. 3 1/2" MIN.
LIGHT WT. CONC. 2 1/2" MIN.
STEEL DECK 2"

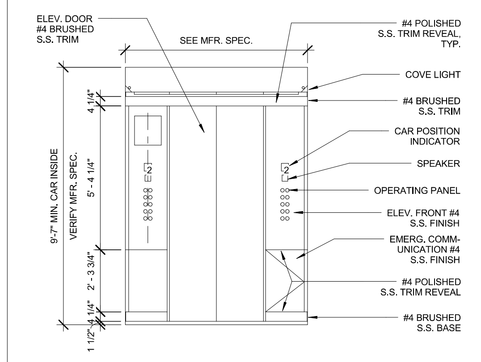
NOTE:
SPRAY-ON FIRE PROOFING BY:
MONOKOTE MK-6 BY W.R. GRACE OR EQUAL
ICBO #ES 4607



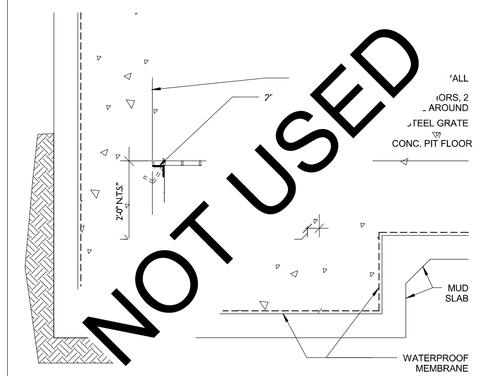
26 NO SMOKING SIGNAGE
SCALE1/4" = 1'-0"



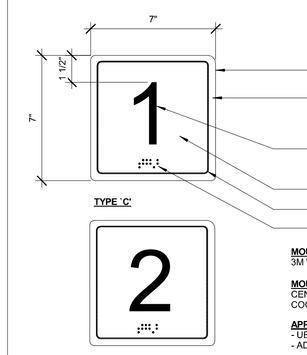
21 STAR OF LIFE
SCALE6" = 1'-0"



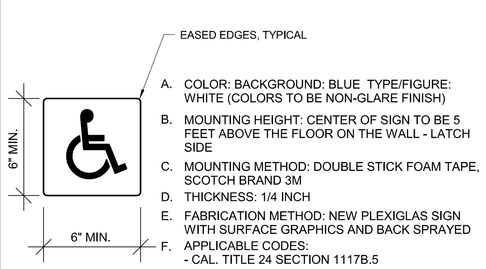
11 ELEVATOR CAR INTERIOR SOUTH ELEV. - Small
SCALE3/8" = 1'-0"



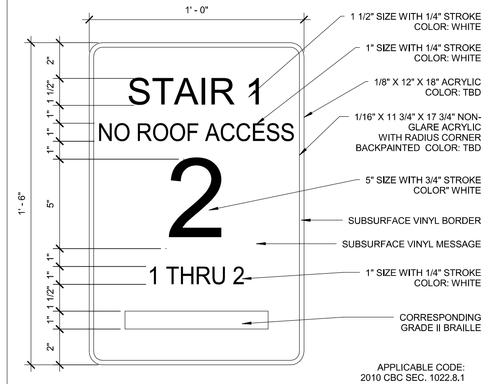
6 ELEVATOR SUMP PIT
SCALE1" = 1'-0"



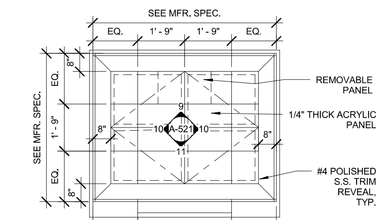
1 ELEVATOR FLOOR SIGNAGE
SCALE3" = 1'-0"



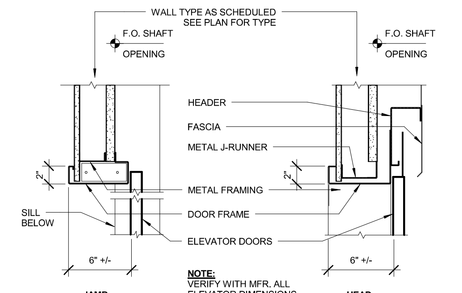
27 BUILDING EXTERIOR SIGN
SCALE1/4" = 1'-0"



22 STAIR ID SIGN
SCALE3" = 1'-0"



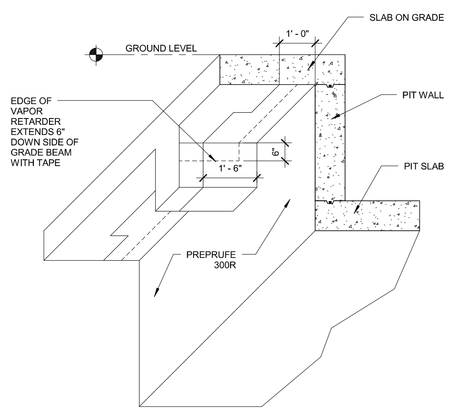
7 ELEVATOR CAR REFLECTED CEILING PLAN
SCALE3/8" = 1'-0"



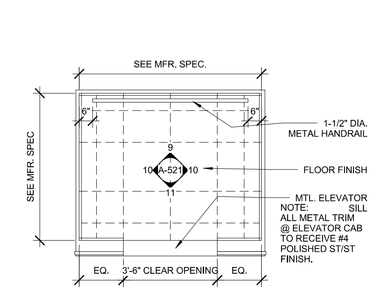
2 ELEVATOR DOOR JAMB AND HEAD
SCALE1 1/2" = 1'-0"

28 STAIR EXIT SIGNS
SCALE3" = 1'-0"

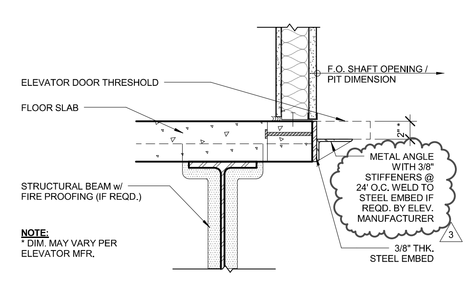
23 STAIR SIGNS
SCALE3" = 1'-0"



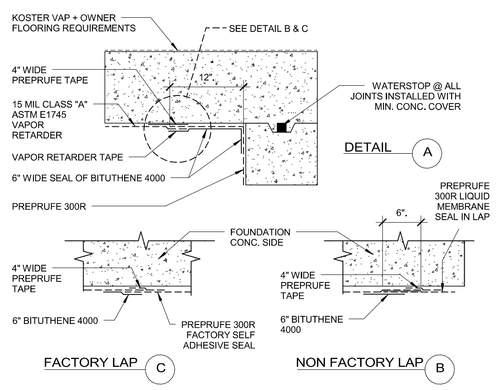
18 LADDER ELEVATION/ELEVATOR PIT DETAIL
SCALE1/2" = 1'-0"



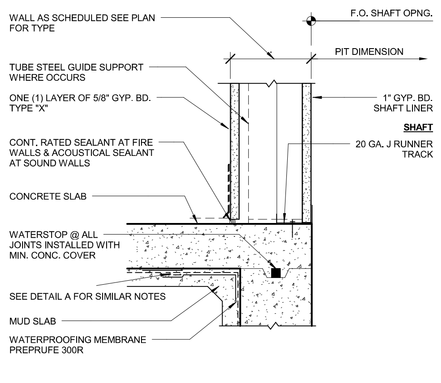
8 ELEVATOR CAR PLAN
SCALE3/8" = 1'-0"



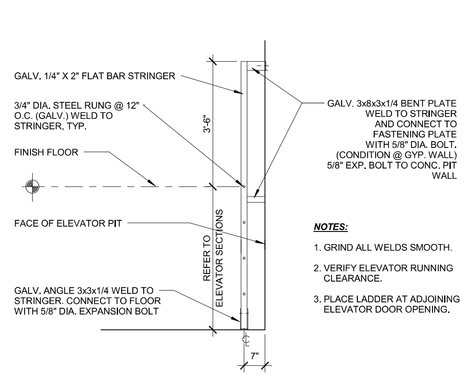
3 ELEVATOR DOOR SILL
SCALE1 1/2" = 1'-0"



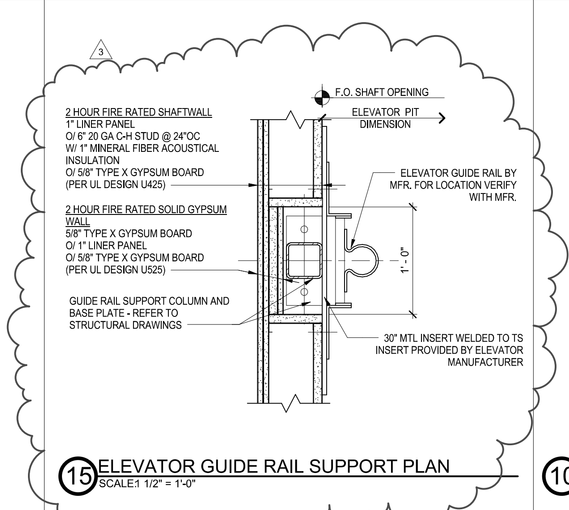
19 ELEVATOR SHAFT @ FIRST FLOOR & PIT
SCALE1 1/2" = 1'-0"



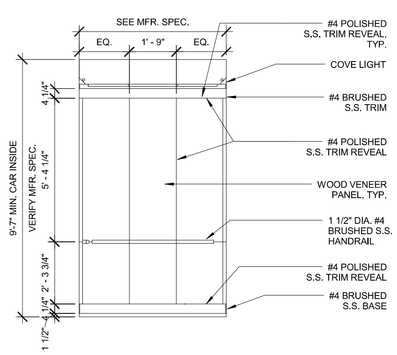
9 ELEVATOR CAR INTERIOR NORTH ELEV. - Small
SCALE3/8" = 1'-0"



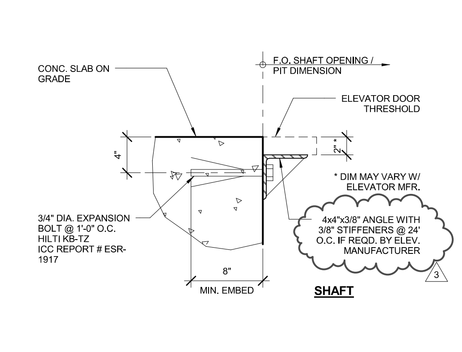
4 LADDER AT ELEVATOR
SCALE1/2" = 1'-0"



15 ELEVATOR GUIDE RAIL SUPPORT PLAN
SCALE1 1/2" = 1'-0"



ELEVATOR CAR INTERIOR EAST-WEST ELEV. - Small
10 SCALE3/8" = 1'-0"



5 ELEVATOR DOOR SILL @ FIRST LEVEL
SCALE1 1/2" = 1'-0"

2/14/2013 2:50:51 PM

SCALE As indicated

TITLE

INTERIOR DETAILS & SIGNAGE

A-521

HARDWARE GROUP:

HARDWARE GROUP #1

QTY.	ITEM	PRODUCT	FINISH	MFR.
1 Ea.	Padlock or Cylinder	Verify Type with Door Mfr.	626	SC
	Balance of Hardware Furnished with Door Assembly		-	-

HARDWARE GROUP #2

QTY.	ITEM	PRODUCT	FINISH	MFR.
1 Ea.	Padlock or Cylinder	Verify Type with Door Mfr. 626	SC	
1 Ea.	Panic Hardware	H-100-B	SS	BLUM
1 Ea.	Dummy Handle	DH-100-B	SS	BLUM
1 Ea.	Dead Bolt	DB-100-B	SS	BLUM
	Balance of Hardware Furnished with Door Assembly		-	-

HARDWARE GROUP #3

QTY.	ITEM	PRODUCT	FINISH	MFR.
1 Ea.	Padlock or Cylinder	Verify Type with Door Mfr.	626	SC
	Balance of Hardware Furnished with Door Assembly		-	-

HARDWARE GROUP #4

QTY.	ITEM	PRODUCT	FINISH	MFR.
1 Ea.	Padlock or Cylinder	Verify Type with Door Mfr.	626	SC
	Balance of Hardware Furnished with Door Assembly		-	-

HARDWARE GROUP #5

QTY.	ITEM	PRODUCT	FINISH	MFR.
4 Ea.	Hinges	3CB1HW 5 x 4.5 NRP	630	IVE
1 Ea.	Storeroom Lock	L9080T 17A	630	SCH
1 Ea.	Core Only	23-030	626	SCH
1 Ea.	Surface Closer	4040XP EDA	689	LCN
1 Ea.	Dome Stop	FS436	626	IVE
1 Ea.	Set Seals	5050C 20'	CHA	NGP

HARDWARE GROUP #6

QTY.	ITEM	PRODUCT	FINISH	MFR.
1 Ea.	Padlock or Cylinder	Verify Type with Door Mfr.	626	SC
	Balance of Hardware Furnished with Door Assembly		-	-

HARDWARE GROUP #7

QTY.	ITEM	PRODUCT	FINISH	MFR.
4 Ea.	Hinges	3CB1HW 4.5 x 4.5 NRP	630	IVE
1 Ea.	Power Transfer	EPT-10	689	VON
1 Ea.	Fire Exit Hardware	LD98L-F E996L-17	626	VON
1 Ea.	Rim Cylinder	20-057-ICX	626	SCH
1 Ea.	Core Only	23-030	626	SCH
1 Ea.	Surface Closer	4040XP EDA	626	LCN
1 Ea.	Security Floor Stop	FS18L	BLK	IVE
1 Ea.	Set Seals	5050C 20'	CHA	NGP
1 Ea.	Door Sweep	200 NA 36"	CL	NGP
1 Ea.	Threshold	950V 36"	AL	NGP
1 Ea.	Power Supply	PS902	GRY	VON

HARDWARE GROUP #8

QTY.	ITEM	PRODUCT	FINISH	MFR.
6 Ea.	Hinges	3CB1HW 4.5 x 4.5 NRP	630	IVE
1 Ea.	Const Latching Bolt	FB51T	630	IVE
1 Ea.	Storeroom Lock	L9080T 17A	630	SCH
1 Ea.	Core Only	23-030	626	SCH
1 Ea.	Coordinator	COR52 x FL20	628	IVE
2 Ea.	Mounting Bracket	MB1	600	IVE
2 Ea.	Surface Closer	4040XP EDA	689	LCN
2 Ea.	Overhead Holder	104H-ADJ	630	GLY
1	Astragal	Welded Astragal by Door Manufacturer	PRI	

HARDWARE GROUP #9

QTY.	ITEM	PRODUCT	FINISH	MFR.
	Balance of Hardware Furnished with Door Assembly			

DOOR SCHEDULE

OPENING NUMBER (1)	ROOM NAME	OPENING SIZE (2) DOOR WIDTH	OPENING SIZE (2) DOOR HEIGHT	SIDELITE WIDTH	DOOR TYPE (3)	DOOR MATERIAL (4)	DOOR GLAZING (5)	FRAMES MATERIAL (6)	FRAMES DETAILS (7) HEAD	FRAMES DETAILS (7) JAMB	FIRE RATING (8)	HARDWARE GROUP (9)	HARDWARE GASKETING (10)	HARDWARE ELECTRICAL(11)	HARDWARE PROTECTION (12)	REMARKS (13)
1ST LEVEL PLAN																
001	SERVICE YARD -TBD	4' - 10"	9' - 0"		D	COR	-	HM	5/A-506	3/A-506		8				
001A	SERVICE YARD -TBD	3' - 0"	4' - 3"		F	HM	-	HM				9				
002	TRASH ENCLOSURE - TBD	10' - 0"	9' - 0"		D	COR	-	HM				9				
100	OFFICE / LAB	6' - 0"	9' - 0"		C	AL	T	AL		18/A-501		2	WS	CR		
101	OFFICE / LAB	6' - 0"	9' - 0"		C	AL	T	AL		18/A-501		1	WS			
102	OFFICE / LAB	10' - 0"	12' - 1 1/2"		H	HM	T	HM	30/A-503	24,25/A-501		3	WS			
103	MAIN ELECTRICAL ROOM	3' - 0"	9' - 0"		A	AL	T	AL		18/A-501		4	WS			
104	MACH.RM.	3' - 6"	9' - 0"		F	WD	-	AL	4/A-601	4/A-601	45	5	SD			
105	MACH.RM.	3' - 6"	9' - 0"		F	WD	-	AL	4/A-601	4/A-601	45	5	SD			
106	OFFICE / LAB	3' - 0"	9' - 0"		A	HM	-	HM	3/A-601	3/A-601		5	WS			
S101	(E) STAIR 1	3' - 0"	9' - 0 1/2"		A	AL	T	AL		18/A-501		6	WS	CR		
S103	STAIR 3	3' - 0"	9' - 0"		E	WD	T	AL	4/A-601	4/A-601	90	7	SD			
S103A	STAIR 3	3' - 0"	9' - 0"		A	AL	T	AL				6		CR		
2ND LEVEL PLAN																
S201	(E) STAIR 1	3' - 0"	9' - 0"		E	WD	T	AL	4/A-601	4/A-601	90	7	SD			
S203	STAIR 3	3' - 0"	9' - 0"		E	WD	T	AL	4/A-601	4/A-601	90	7	SD			
ROOF LEVEL																
301	ROOF ENCLOSURE	5' - 0"	6' - 0"		G	HM	-	HM	20/A-502	24/A-502		8				
302	ROOF ENCLOSURE	5' - 0"	6' - 0"		G	HM	-	HM	20/A-502	24/A-502		8				

DOOR AND FRAME NOTES

NOTES BELOW APPLY TO NUMBERS IN PARENTHESES ON DOOR SCHEDULE.

(1) NUMBER:

THE DOOR NUMBER MATCHES THE ROOM NUMBER. WHEN MORE THAN ONE DOOR EXISTS PER ROOM THE SECOND DOOR NUMBER IS FOLLOWED WITH "A", THE THIRD WITH "B", ETC.

(2) SIZE:

DOOR SIZES ARE NOMINAL. FIELD VERIFY OPENINGS

ALL DOORS ARE 1-3/4" THICK WITH 3/8" UNDERCUT UNLESS OTHERWISE NOTED.

(3) TYPE:

SEE DOOR TYPES ON THIS SHEET.

(4) MATERIAL:

A. HM = HOLLOW METAL
AL = ALUMINUM
STL = STEEL
WD = SOLID CORE - MAPLE FINISH
COR = CORRUGATED METAL

(5) GLAZING:

A. MIN./FR = FIRE RATED (FIRE LITE PLUS)

W = WIRE GLASS
T = TEMPERED GLASS
F = FIRELITE GLASS

(6) MATERIAL:

A. HM = HOLLOW METAL
AL = ALUMINUM
STL = STEEL

(7) DETAILS:

A. SEE DETAIL AND DRAWING NOTED.

B. FOR DETAILS DESIGNATED "MFR", REFER TO DOOR AND FRAME MANUFACTURER'S STANDARD PUBLISHED DETAILS.

(8) FIRE RATING:

A. PROVIDE LABELS FOR ALL RATED DOORS AND FRAMES. LABEL SHALL BE FOR ENTIRE RATED ASSEMBLY AS DEFINED IN CBC SECTION 713.

B. ALL 20, 45, 60 & 90 MINUTE RATED ASSEMBLIES GASKETING MATERIAL SO INSTALLED SHALL BE PROVIDED WITH APPROVED TO PROVIDE A SEAL HERE THE DOOR MEETS THE STOP ON BOTH SIDES AND ACROSS THE TOP (CBC STANDARDS 7.210). SEE GASKETING COLUMN.

C. USE FIRE RATED GLASS AT RATED CONDITIONS (FIRELITE NT PLUS OR VETROTECH SGG PYROSWISS AND SGG KERALITE)

(9) HARDWARE GROUP:

SEE THIS SHEET FOR HARDWARE GROUP

(10) GASKETING:

A. SD = SMOKE DRAFT SEAL
AS = AIR SEAL
WS = WEATHER STRIPPING PER MANUFACTURER

B. SEE SPECIFICATIONS

(11) ELECTRIFICATION / SECURITY

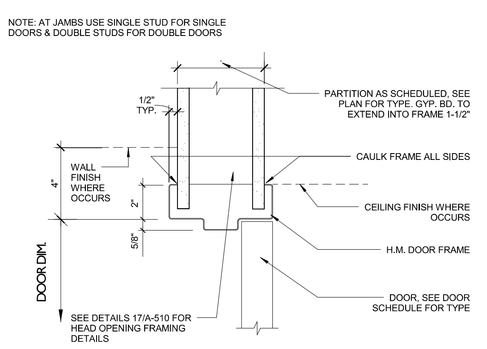
HO = HOLD OPEN, SMOKE DETECTOR ACTIVATED
AL = ALARM SIGNAL
CR = CARD READER
PD = PANIC DEVICE
SO = SMOKE DETECTOR ACTIVATED

(12) DOOR PROTECTION

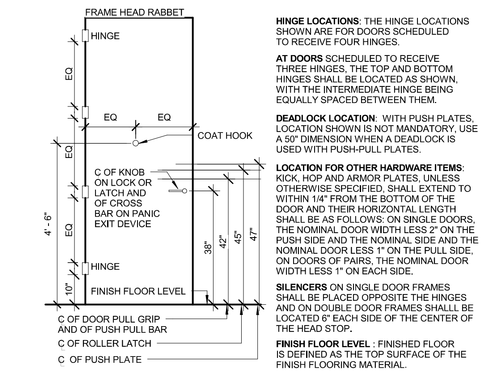
KP = KICK PLATE

(13) REMARKS

1. .



3 TYP. HOLLOW METAL DOOR JAMB/HEAD
SCALE3" = 1'-0"



HINGE LOCATIONS: THE HINGE LOCATIONS SHOWN ARE FOR DOORS SCHEDULED TO RECEIVE FOUR HINGES.

AT DOORS SCHEDULED TO RECEIVE THREE HINGES, THE TOP AND BOTTOM HINGES SHALL BE LOCATED AS SHOWN, WITH THE INTERMEDIATE HINGE BEING EQUALLY SPACED BETWEEN THEM.

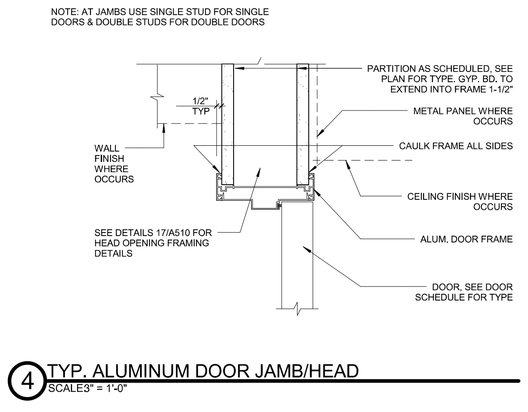
DEADLOCK LOCATION: WITH PUSH PLATES, LOCATION SHOWN IS NOT MANDATORY. USE A 50" DIMENSION WHEN A DEADLOCK IS USED WITH PUSH-PULL PLATES.

LOCATION FOR OTHER HARDWARE ITEMS: KICK, HOP AND ARMOR PLATES, UNLESS OTHERWISE SPECIFIED, SHALL EXTEND TO WITHIN 1/4" FROM THE BOTTOM OF THE DOOR AND THEIR HORIZONTAL LENGTH SHALL BE AS FOLLOWS: ON SINGLE DOORS, THE NOMINAL DOOR WIDTH LESS 2" ON THE PUSH SIDE AND THE NOMINAL SIDE AND THE NOMINAL DOOR LESS 1" ON THE PULL SIDE. ON DOORS OF PAIRS, THE NOMINAL DOOR WIDTH LESS 1" ON EACH SIDE.

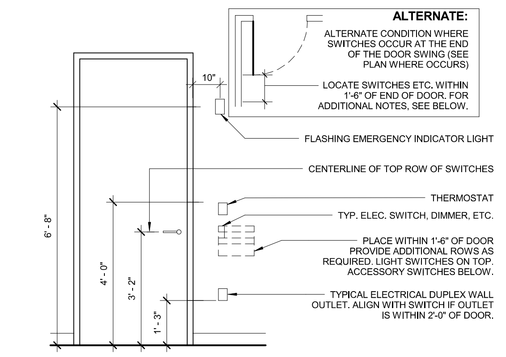
SILENCERS ON SINGLE DOOR FRAMES SHALL BE PLACED OPPOSITE THE HINGES AND ON DOUBLE DOOR FRAMES SHALLL BE LOCATED 6" EACH SIDE OF THE CENTER OF THE HEAD STOP.

FINISH FLOOR LEVEL : FINISHED FLOOR IS DEFINED AS THE TOP SURFACE OF THE FINISH FLOORING MATERIAL.

1 DOOR HARDWARE MOUNTING LOCATIONS
SCALE1/2" = 1'-0"



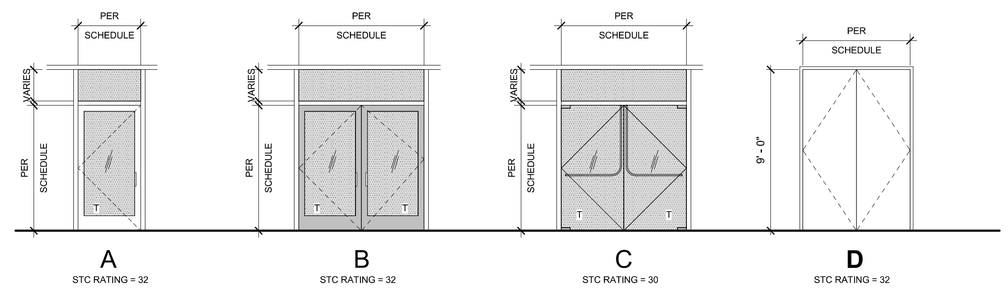
4 TYP. ALUMINUM DOOR JAMB/HEAD
SCALE3" = 1'-0"

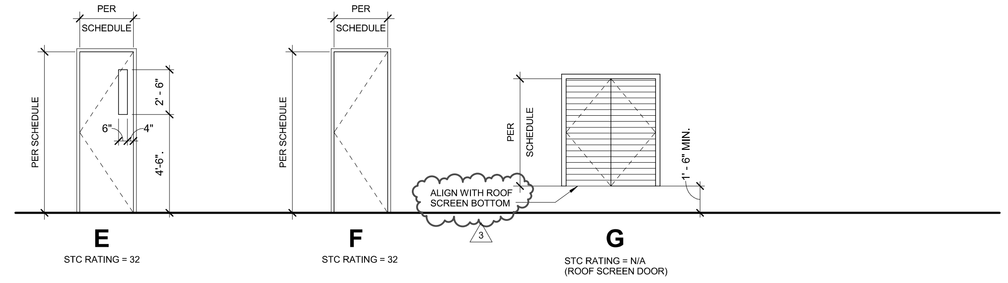


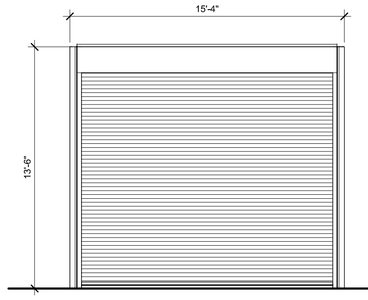
2 DEVICE PLATE LOCATIONS
SCALE1/2" = 1'-0"

DOOR TYPES

NOTE: ALL NEW GLASS DOORS SHALL HAVE A MINIMUM SOUND TRANSMISSION CLASS (STC) 30







H
STC RATING = 30

SCALE As indicated

TITLE

DOOR SCHEDULE

A-601

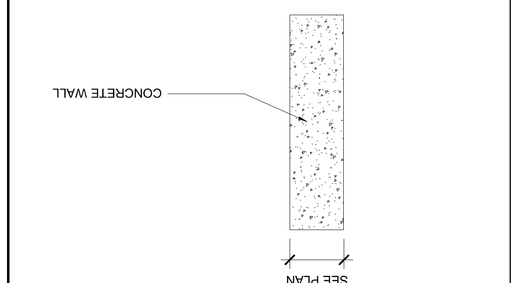
2/14/2013 9:55:17 AM

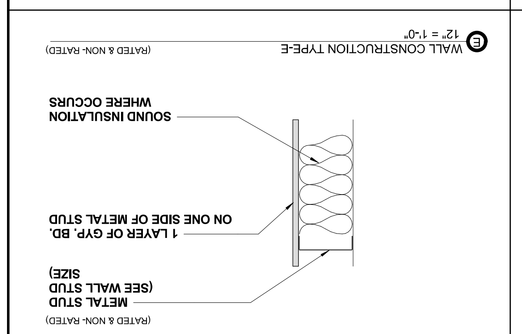
2/13/2013 4:44:51 PM

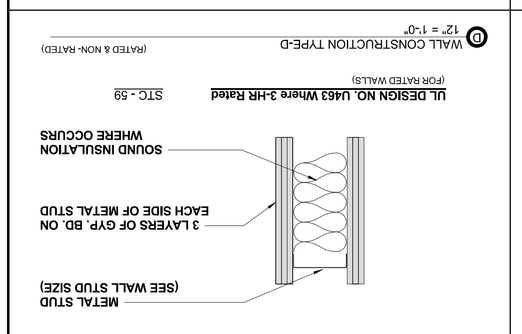
SCALE As indicated

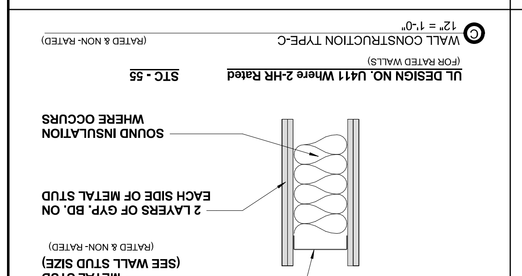
TITLE

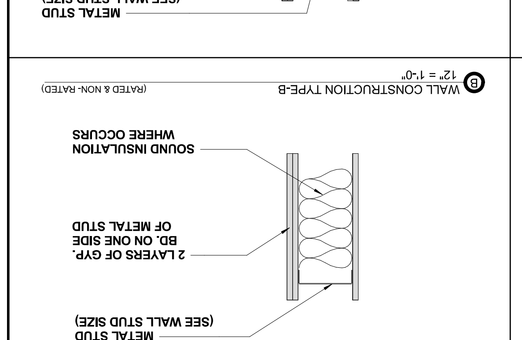
WALL TYPE SCHEDULE

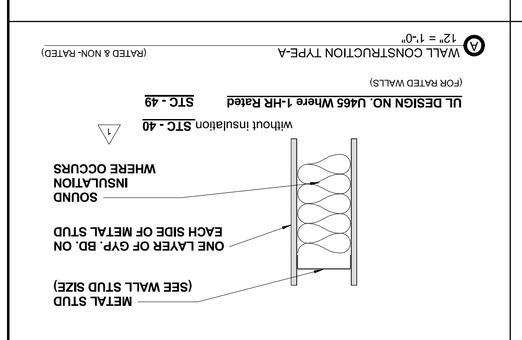


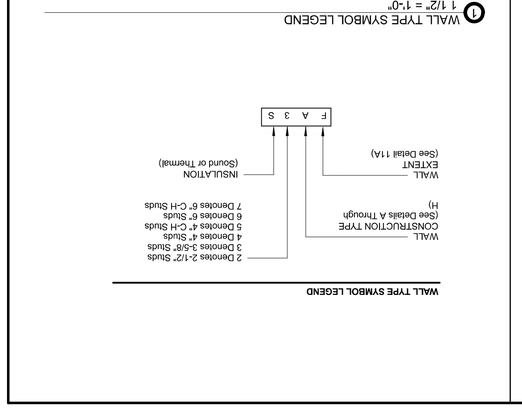


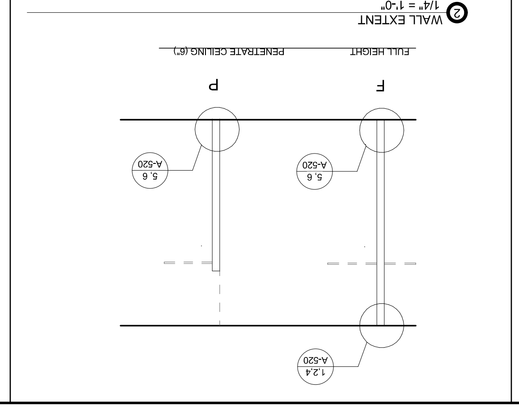


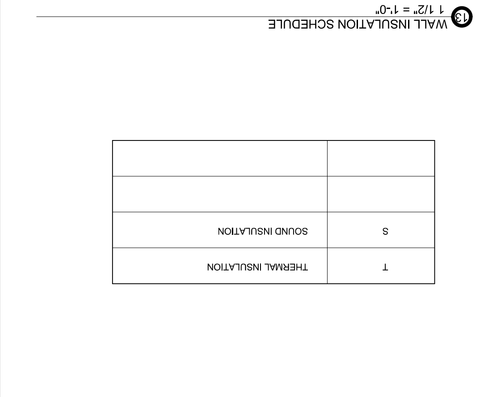


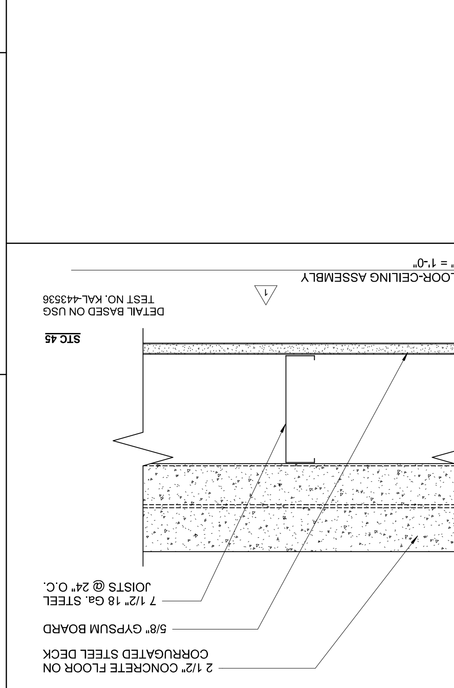












STRUCTURAL NOTES

5. HOLLOW STRUCTURAL STEEL (HSS) MEMBERS SHALL BE SEAL WELDED IN DRY CONDITION IN THE SHOP. PROVIDE WEEP HOLES AT THE LOW END OF ALL HOLLOW MEMBERS IN EXTERIOR CONDITIONS, AND SEAL WELD AROUND ALL MATING SURFACES IN EXTERIOR CONDITIONS WHETHER COVERED OR OPEN. CONCEAL WELD SEAM FROM VIEW WHERE PRACTICAL.

6. ANCHOR RODS SHALL CONFORM TO ASTM F 1554, GRADE 36, UNLESS OTHERWISE NOTED. NUTS FOR ANCHOR RODS SHALL CONFORM TO ASTM A 563, GRADE A HEX (HEAVY HEX WHERE ANCHOR ROD DIAMETER IS GREATER THAN 1 1/2").

7. MAIN MEMBERS SHALL HAVE HIGH STRENGTH BOLTS CONFORMING TO AISC SPECS FOR ASTM A 325N BOLTS, U.O.N. OTHER BOLTS SHALL CONFORM TO ASTM A 307. NUTS FOR HIGH STRENGTH BOLTS SHALL BE HEAVY HEX GRADE C CONFORMING TO ASTM A 563.

8. EXTERIOR STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION. ZINC COATING SHALL CONFORM TO ASTM A 123 (G60, U.O.N.).

9. TIGHTEN ASTM A 325N BOLTS TO "SNUG-TIGHT" CONDITION PER AISC SPECIFICATION FOR STRUCTURAL JOINTS. TEST ASTM A 325SC BOLTS WITH A CALIBRATED WRENCH UNLESS LOAD INDICATOR BOLTS ARE USED.

10. WELDING DONE AFTER GALVANIZING SHALL BE PROTECTED WITH TWO COATS OF "GALVANIZED", "GALVALOY", OR EQUAL.

11. APPLY SPRAYED FIREPROOFING OVER STRUCTURAL STEEL WITH MONOKOTE MK6/CBF OF MK6/ED AS MANUFACTURED BY W.R. GRACE AND COMPANY, PER ICC ER-4607. HOURLY FIRE RESISTANCE SHALL BE DETERMINED USING TABLE 6-A OF THE CBC AND BUILDING TYPES OF CONSTRUCTION AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

N. STEEL STAIRS:

1. STEEL COMPONENTS SHALL COMPLY WITH THE APPLICABLE NOTES UNDER "STRUCTURAL STEEL."

2. WELDING SHALL COMPLY WITH THE APPLICABLE NOTES UNDER "WELDING."

3. POST-INSTALLED ANCHORS SHALL COMPLY WITH THE APPLICABLE NOTES UNDER "POST-INSTALLED MECHANICAL ANCHORS" OR "POST-INSTALLED ADHESIVE ANCHORS."

4. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

5. MEMBER SIZES INDICATED ARE THE MINIMUM SIZES THAT SHALL BE USED FOR CONSTRUCTION. MEMBER SIZES USED SHALL BE OF THE SAME NOMINAL SHAPE AND DIMENSION INDICATED.

6. VERTICAL AND HORIZONTAL DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS PRIOR TO FABRICATION. THE ARCHITECT SHALL BE NOTIFIED OF ANY FIELD CONDITIONS NOT COVERED BY THE CONTRACT DOCUMENTS PRIOR TO FABRICATION.

7. CONNECTIONS TO THE STRUCTURE SHALL INCLUDE STABILIZING ELEMENTS SUCH AS BRACES, STIFFENER PLATES, ETC., SO AS TO NOT IMPOSE ECCENTRIC LOADING, TWISTING, OR WARPING TO STRUCTURAL MEMBERS. PROVIDE MATERIAL AND INSTALL STABILIZING ELEMENTS. NECESSARY STABILIZING ELEMENTS SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.

O. DRYPACK / NON-SHRINK GROUT:

1. NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 6,000 psi IN ACCORDANCE WITH ASTM C 104.

2. NON-SHRINK GROUT SHALL BE INSTALLED UNDER A COLUMN BASE PLATE AFTER THE COLUMN HAS BEEN PLUMBED AND PRIOR TO PLACING CONCRETE FILL ON THE STRUCTURE.

P. COLD-FORMED STEEL DECK:

1. COLD-FORMED STEEL DECK SHALL BE OF THE TYPE AND GAUGE AS INDICATED ON THE DRAWINGS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND PUBLISHED ICC REPORT.

2. COLD-FORMED STEEL DECK SHALL BE GALVANIZED (G90), AND CONFORM TO ASTM A 653, GR. 33.

3. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

4. COLD-FORMED STEEL FLOOR DECK SHALL BE FACTORY VENTED WHERE STRUCTURAL CONCRETE FILL OCCURS, AND AT ROOF DECK WHEN INSULATING CONCRETE FILL IS USED, U.O.N.

5. COLD-FORMED STEEL DECK AND ACCESSORIES SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A 653, WITH COATING DESIGNATION G60 (G90).

6. COLD-FORMED STEEL DECK SHALL BE CONTINUOUS OVER THREE SPANS WHEREVER POSSIBLE. SHORE DECK IF RECOMMENDED BY THE MANUFACTURER. MINIMUM BEARING AT ENDS IS 2".

7. WHERE 3/4" DIAMETER SHEAR STUDS ARE TO BE WELDED TO SUPPORTS, 18 GAUGE (OR THICKER) DECKING SHALL NOT BE LAPPED.

8. CONTRACTOR SHALL CUT DECK PER STRUCTURAL DETAILS AT ALL OPENINGS, COLUMNS, AND REQUIRED PENETRATIONS AND SHALL SUPPLY NECESSARY ACCESSORY ITEMS SUCH AS CLOSURES, CLIPS, ETC.

9. HANGERS SUPPORTED BY COLD-FORMED STEEL DECKING ONLY OR COLD-FORMED STEEL DECKING WITH INSULATING FILL SHALL BE ATTACHED TO STEEL BARS, 3/8" ROUND X 12" OR 1/8" X 12" FLAT, PLACED PERPENDICULAR TO FLUTES. ONLY LIGHT DUCTWORK (12" X 16" MAX.), (1-1/2" ROUND PIPING MAX.). OR CEILING MAY BE HUNG FROM SUCH INSTALLATIONS. MAXIMUM WEIGHT PER HANGER SHALL NOT EXCEED 75 LBS. HANGERS MUST BE AT LEAST TWO FLUTES APART ON THE SAME SPAN.

10. HANGERS SUPPORTED BY COLD-FORMED STEEL DECK WITH STRUCTURAL CONCRETE FILL SHALL BE INSTALLED USING ICC APPROVED ANCHORAGE SYSTEMS. SUCH HANGERS SHALL BE USED TO SUPPORT DUCTWORK (19" X 16" MAX.), PIPING (4" ROUND MAX.). OR CEILINGS. MAXIMUM WEIGHT PER HANGER SHALL NOT EXCEED 250 LBS. HANGERS MUST BE AT LEAST TWO FLUTES APART ON THE SAME DECK SPAN. LARGER DUCTWORK AND PIPING SHALL BE SUPPORTED BY STRUCTURAL BEAMS OR COLUMNS.

19. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4" CHAMFER U.O.N.

20. CONSTRUCTION OR CONTROL JOINTS IN SLABS ON GRADE AND PRECAST CONCRETE FLOOR TOPPINGS SHALL BE PROVIDED AS INDICATED. THE LOCATIONS OF JOINTS NOT SPECIFICALLY INDICATED SHALL BE REVIEWED BY THE ENGINEER AND APPROVED BY THE ARCHITECT. JOINTS SHALL ALIGN WITH RE-ENTRANT CORNERS OF THE SLAB OR TOPPING.

21. CONSTRUCTION JOINTS IN STRUCTURAL MEMBERS THAT ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. LONGITUDINAL REINFORCEMENT SHALL CONTINUE UNINTERRUPTED THROUGH CONSTRUCTION JOINTS. KEYWAYS SHALL BE PROVIDED PERPENDICULAR TO THE DIRECTION OF LOAD IN CONSTRUCTION JOINTS.

22. WHERE CONCRETE IS PLACED AGAINST EXISTING CONCRETE SURFACES, THE EXISTING CONCRETE SURFACES SHALL BE THOROUGHLY CLEANED AND ROUGHENED TO A MINIMUM AMPLITUDE OF ¼-INCH. A CONCRETE BONDING AGENT SHALL BE APPLIED TO THE EXISTING CONCRETE SURFACE.

23. CONDUIT, PIPES OR DUCTS SHALL NOT BE PLACED IN CONCRETE COLUMNS, WALLS, SLABS OR CONCRETE TOPPING FILLS UNLESS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER. SLEEVES FOR OPENINGS IN CONCRETE SHALL BE INSTALLED BEFORE PLACING. REINFORCING WHICH MAY CONFLICT SHALL NOT BE CUT UNLESS APPROVED IN WRITING BY THE ENGINEER.

24. WHERE PERMITTED, CONDUITS AND SLEEVES WITHIN SLABS AND WALLS SHALL BE PLACED WITHIN THE MIDDLE THIRD OF THE THICKNESS OF THE SLAB OR WALL. THE MAXIMUM SIZE OF A CONDUIT IS 1/4 OF THE SLAB OR WALL THICKNESS. CONDUITS OR SLEEVES SHALL BE SPACED AT LEAST 3 TIMES THEIR DIAMETER CLEAR BETWEEN.

25. STAY-IN-PLACE FORMS SHALL HAVE MATERIAL STRENGTH AND STIFFNESS PROPERTIES SUFFICIENT FOR THE SUPPORT OF WET CONCRETE DURING CURING.

26. THE CONCRETE SLAB-ON-GRADE AND TOPPING FILL THICKNESS SHOWN IS THE MINIMUM REQUIRED THICKNESS. FLOORS SHALL BE MONITORED BY TRANSIT LEVEL OR LASER DURING PLACEMENT TO MAINTAIN LEVEL FLOOR.

27. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF 7 DAYS AFTER ITS PLACEMENT. APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOIST CURING.

L. REINFORCED CONCRETE MASONRY UNITS (CMU):

1. MASONRY CONSTRUCTION SHALL CONFORM TO CHAPTER 21 OF THE BUILDING CODE AND ACI 530.1.

2. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

3. CONCRETE MASONRY CONSTRUCTION SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF f'm=1,500 psi EXCEPT WHERE NOTED THAT f'm=3,000 psi IS REQUIRED. BASEMENT RETAINING WALLS SHALL BE f'm=3,000 psi.

4. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C 90, MEDIUM WEIGHT, SINGLE OPEN-END UNITS, U.O.N.

5. MORTAR SHALL CONFORM TO ASTM C 270, TYPE "S".

6. GROUT SHALL CONFORM TO ASTM C 476. GROUT MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

7. STRENGTH VERIFICATION OF MASONRY PRIOR TO AND DURING CONSTRUCTION SHALL BE[] BY THE PRISM TEST METHOD IN ACCORDANCE WITH SECTION 2105.2.2.2 OF THE BUILDING CODE. WHERE THE PRISM TEST METHOD IS USED, MASONRY COMPONENTS SHALL BE OF SUFFICIENT STRENGTH SUCH THAT THE COMPLETED MASONRY WORK MEETS THE SPECIFIED MINIMUM COMPRESSIVE STRENGTH.

8. VERTICAL BARS IN WALLS SHALL BE PLACED IN THE CENTER OF THE WALL UNLESS OTHERWISE INDICATED. VERTICAL BARS SHALL BE TIED OR OTHERWISE FIXED IN POSITION AT THE TOP AND BOTTOM AND AT INTERVALS OF NOT MORE THAN 200 BAR DIAMETERS.

9. HORIZONTAL BARS SHALL BE PLACED IN BOND BEAM UNITS.

10. CONDUITS OR PIPES SHALL NOT OCCUR IN SAME CELL AS REINFORCING BARS.

11. MASONRY UNITS SHALL BE PLACED IN A RUNNING BOND PATTERN, U.O.N.

12. MASONRY CELLS SHALL BE SOLID GROUTED, U.O.N.

13. A GROUT POUR SHALL BE THE TOTAL HEIGHT OF MASONRY THAT IS GROUTED PRIOR TO THE ERECTION OF ADDITIONAL MASONRY. A GROUT POUR SHALL NOT EXCEED THE HEIGHT LIMITS GIVEN IN ACI 530.1, TABLE 7 AND MAY CONSIST OF ONE OR MORE GROUT LIFTS.

14. A GROUT LIFT SHALL BE THE HEIGHT OF GROUT THAT IS PLACED IN A SINGLE, CONTINUOUS OPERATION BEFORE CONSOLIDATION OF GROUT. GROUT LIFTS SHALL NOT EXCEED 5'-0" IN HEIGHT, UNLESS THE FOLLOWING CONDITIONS ARE MET:
   A. MASONRY IS ALLOWED TO CURE FOR A MINIMUM OF 4 HOURS PRIOR TO GROUTING
   B. GROUT SLUMP IS MAINTAINED BETWEEN 10 AND 11 INCHES AS VERIFIED BY TESTING
   C. LIFTS ARE LIMITED TO A HEIGHT BETWEEN HORIZONTAL BOND BEAMS, OR A MAXIMUM OF 12'-0".

15. GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION. WHERE LIFTS EXCEED 12 INCHES, GROUT SHALL BE RE-CONSOLIDATED BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT.

16. INSPECTION AND CLEAN OUT HOLES SHALL BE PROVIDED AT THE BASE OF GROUTED CELLS WHERE A GROUT POUR EXCEEDS 5'-0" IN HEIGHT. HOLE SPACING SHALL NOT EXCEED 32 INCHES ON CENTER.

17. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT POUR 1-1/2" BELOW TOP OF THE UPPERMOST UNIT.

M. STRUCTURAL STEEL:

1. STRUCTURAL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 22 OF THE BUILDING CODE, AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

2. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

3. FOR MOMENT FRAME STEEL REQUIREMENTS, SEE SHEET S-301.

4. STRUCTURAL STEEL STRENGTHS AND GRADES SHALL BE AS FOLLOWS, U.O.N.

DESCRIPTION	YIELD Fy ksi	ASTM GRADE
WF AND WT SHAPES, U.O.N.	50 ksi	A992, GR 50
ANGLES, CHANNELS & OTHER SHAPES	36 ksi	A36
HSS SECTIONS	46 ksi	A500, GR B
STRUCTURAL PIPE SECTIONS	35 ksi	A53, GR B
BASE PLATES, CONNECTION PLATES & MISC., U.O.N.	36 ksi	A36
CONNECTION PLATES & BASE PLATES AT FRAMES	50 ksi	A572, GR 50

14. REINFORCING BAR LAP SPLICES SHALL NOT BE PERMITTED IN MOMENT FRAMES OR SHEAR WALLS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER IN WRITING.

15. REINFORCING BARS FOR CONCRETE SHALL BE PROVIDED WITH THE FOLLOWING MINIMUM COVER:

CONC. CAST AGAINST EARTH	3"
FORMED CONC. EXPOSED TO EARTH / WEATHER	
#5 OR SMALLER	1-1/2"
#6 OR LARGER	2"
SLABS (#11 AND SMALLER)	3/4"

16. VERTICAL WALL BARS SHALL BE ACCURATELY POSITIONED AT THE CENTER OF THE WALL, U.O.N., AND SHALL BE TIED IN PLACE AT THE TOP AND BOTTOM.

17. #3 SPACER TIES SHALL BE INSTALLED AT 30" ON CENTER IN BEAMS AND FOOTINGS TO SECURE REINFORCING BARS IN PLACE, U.O.N.

18. REINFORCEMENT SUPPORTS IN SLABS SHALL BE MANUFACTURED OF NONCORROSIVE MATERIAL

J. MINIMUM SPECIFICATIONS FOR WELDING OF REINFORCING STEEL:

1. PRIOR TO WELDING, THE CHEMICAL ANALYSIS AND THE CARBON EQUIVALENT OF STEEL (C.E.) SHALL BE DETERMINED. THE CARBON EQUIVALENT OF REINFORCING STEEL OR SPLICE MATERIAL SHALL BE LIMITED FROM ITS CHEMICAL COMPOSITION AND SHALL BE LESS THAN 0.55.

2. MILL REPORTS STATING THE CHEMICAL COMPOSITION AND THE CARBON EQUIVALENT DETERMINED BY HEAT ANALYSIS BY THE MANUFACTURER SHALL BE FURNISHED FOR REVIEW BY THE REGISTERED SPECIAL INSPECTOR. STEEL DELIVERED TO THE JOB SITE SHALL BE CLEARLY IDENTIFIED SO AGREEMENT WITH THE HEAT NUMBER(S) OF THE MILL REPORT(S) CAN BE VERIFIED.

3. JOINT WELDING PROCEDURES FOR REINFORCING BAR SPLICES, BAR CONNECTIONS, AND INSERT CONNECTIONS THAT ARE TO BE EMPLOYED SHALL BE ESTABLISHED IN A PROCEDURE SPECIFICATION AND SHALL BE QUALIFIED PRIOR TO USE BY TESTS AS PRESCRIBED IN AWS D1.4:
   A. WELDING PROCEDURES FOR FILLET WELDS WHICH CONFORM TO THE APPLICABLE PRESCRIPTIONS OF AWS D1.4 SHALL BE DEEMED AS PREQUALIFIED.
   B. THE BUILDING OFFICIAL MAY ACCEPT EVIDENCE OF PREVIOUS QUALIFICATION OF THE JOINT WELDING PROCEDURE.

4. PROCEDURE QUALIFICATION TESTS SHALL BE WITNESSED AND TESTED BY AN APPROVED TESTING AGENCY.

5. THE RESULTS OF THE PROCEDURE QUALIFICATION TESTS AND/OR THE PROCEDURE SPECIFICATION SHALL BE SUBMITTED TO AND APPROVED BY THE DESIGN ENGINEER AND THE BUILDING INSPECTION DEPARTMENT. APPROVED PROCEDURE SPECIFICATIONS SHALL BE AVAILABLE FOR REVIEW BY THE REGISTERED SPECIAL INSPECTOR AT THE SITE WHERE WELDING IS PERFORMED.

K. REINFORCED CONCRETE:

1. CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19 OF THE BUILDING CODE AND TO THE PROVISIONS OF ACI 318.

2. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

3. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C 94.

4. CEMENT SHALL CONFORM TO ASTM C 150 TYPE I OR II, LOW ALKALI.

5. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C 33.

6. NORMAL WEIGHT CONCRETE SHALL BE 150 pcf.

7. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND APPROVED BY THE ENGINEER. MIX DESIGN METHODS (TEST HISTORY OR TRIAL BATCH METHOD) IN ACCORDANCE WITH ACI 318, SECTION 5.3 SHALL BE USED TO PROPORTION CONCRETE.

8. MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS, MAXIMUM SLUMPS, AND MAXIMUM WATER/CEMENT RATIOS SHALL BE AS FOLLOWS:

DESCRIPTION	MIN 28 DAY f'c	SLUMP	MAX W/C RATIO
SPREAD FOOTINGS	3.0 KSI	4" +/- 1"	0.64
GRADE BEAMS	3.5 KSI	4" +/- 1"	0.52
SLAB ON GRADE	3.5 KSI	4" +/- 1"	0.45
SHEAR WALLS	4.0 KSI	4" +/- 1"	0.52
LIGHT WEIGHT FILL ON COLD-FORMED STEEL DECK	4.0 KSI	4" +/- 1"	0.48
OTHER CONCRETE	3.5 KSI	4" +/- 1"	0.50

9. ADMIXTURES SHALL BE APPROVED IN ADVANCE.

10. CONCRETE IN AREAS OF SHEARWALLS, COLUMNS, BEAMS OR SLABS WHERE REBAR IS CONGESTED OR DUCTS CREATE PLACING DIFFICULTIES, SHALL BE SELF CONSOLIDATING CONCRETE (SCC) OR SHALL INCLUDE A PLASTICIZER ADMIXTURE AND/OR SMALLER MAXIMUM AGGREGATE SIZE, WITH APPROPRIATE AIR AND CEMENT CONTENT ADJUSTMENTS.

11. GROUT OR CONCRETE CONTAINING CHLORIDE ADDITIVES SHALL NOT BE USED IN POST-TENSIONED CONSTRUCTION.

12. SLUMPS INDICATED ARE PRIOR TO PLASTICIZER ADDITIVES.

13. DRYING SHRINKAGE OF CONCRETE IN ELEVATED SLABS, BEAMS AND GIRDERS [AND IN STRUCTURAL WALLS AND COLUMNS] SHALL BE LIMITED TO 0.05 PERCENT AS VERIFIED BY TEST IN ACCORDANCE WITH ASTM C 157. THE PROCEDURES OF ASTM C 157 SHALL BE MODIFIED AS FOLLOWS (BASED ON SEAOC SUPPLEMENTARY RECOMMENDATIONS).
   A. THE CURING PERIOD SHALL BE 7 DAYS.
   B. FOLLOWING CURING, SPECIMENS SHALL BE AIR-STORED.
   C. COMPARATIVE MEASUREMENTS OF SPECIMENS SHALL BE MADE AFTER 4, 7, 14, 21 AND 28 DAYS OF AIR-STORAGE.

14. CONCRETE ADMIXTURES CONTAINING CHLORIDE OR CHLORIDE SALTS SHALL NOT BE USED EXCEPT WHERE APPROVED IN WRITING BY THE ENGINEER.

15. FLYASH SHALL CONFORM TO ASTM C 618, CLASS F. FLYASH SHALL BE LIMITED TO NO MORE THAN THE FOLLOWING PERCENTAGES OF THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS IN THE CONCRETE, U.O.N.

COLUMNS AND WALLS	20%
FOUNDATIONS	20%
SLABS ON GRADE	20%

16. CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED.

17. WATER MAY BE ADDED ON-SITE TO OBTAIN SPECIFIED SLUMPS PROVIDED THAT IT IS ADDED WITHIN ONE HOUR OF BATCHING AND SITE-ADDED WATER IS SPECIFIED ON THE BATCH REPORT. SITE-ADDED WATER SHALL NOT COMPROMISE THE STRENGTH OR SLUMP OF THE CONCRETE.

18. CONCRETE SHALL NOT BE PLACED BEYOND 1-1/2 HOURS FOLLOWING BATCHING.

7. LOOSE SOIL AND FILL MATERIAL SHALL BE COMPACTED ACCORDING TO THE REQUIREMENTS OF THE SOILS REPORT.

8. COMPACTION TEST REPORTS FOR FILL BY A QUALIFIED TESTING LAB SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER, GEOTECHNICAL ENGINEER AND BUILDING OFFICIAL PRIOR TO REQUESTING FOUNDATION INSPECTION.

9. FOOTING DEPTHS INDICATED ON THE STRUCTURAL DRAWINGS ARE FOR BIDDING PURPOSES ONLY AND ARE ASSUMED TO BE IN SUITABLE BEARING MATERIALS. THE GEOTECHNICAL ENGINEER MAY REQUIRE FOUNDATION DEPTHS TO BE INCREASED. THE RESPONSIBILITY FOR CONFORMING TO THE GEOTECHNICAL REPORT RECOMMENDATIONS REGARDING DEPTH OF FOOTINGS SHALL BEAR ON THE CONTRACTOR.

10. FOOTING ELEVATIONS SHALL BE LOCATED SUCH THAT THEIR BEARING IS A MINIMUM HORIZONTAL DISTANCE OF 1 FT FROM THE DAYLIGHT OF AN ADJACENT SLOPE OR AS RECOMMENDED WITHIN THE GEOTECHNICAL REPORT.

11. ANCHOR BOLTS, DOWELS AND HOLD-DOWN ANCHORS SHALL BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION.

12. WALLS RETAINING EARTH SHALL BE DRAINED AND BACKFILLED ACCORDING TO THE RECOMMENDATIONS WITHIN THE GEOTECHNICAL REPORT.

13. BACKFILLING BEHIND RETAINING WALLS SHALL NOT BEGIN UNTIL WALLS HAVE BEEN CURED FOR A MINIMUM OF 14 DAYS.

14. SHORING SHALL BE INSTALLED AT THE TOP OF RESTRAINED RETAINING WALLS PRIOR TO BACKFILLING. SHORING SHALL REMAIN IN PLACE UNTIL THE PERMANENT STRUCTURE SUPPORTING MEMBERS ARE IN PLACE. FOR CONCRETE SUPPORTING MEMBERS, SHORING TO REMAIN IN PLACE FOR A MINIMUM OF 7 DAYS AFTER CONCRETE PLACEMENT.

15. SLABS ON GRADE THAT RESTRAIN THE BOTTOM OF RETAINING WALLS SHALL BE IN PLACE PRIOR TO BACKFILLING OF THE WALLS.

H. WELDING:

1. WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN WELDING SOCIETY (AWS) D1.1. ELECTRODE FILLER MATERIAL SHALL BE A MINIMUM OF E70XX U.O.N

2. WELDING OF COLD-FORMED STEEL DECK AND COLD-FORMED FRAMING SHALL BE PERFORMED BY WELDERS CERTIFIED FOR SHEET STEEL IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN WELDING SOCIETY (AWS) D1.3. E60XX ELECTRODES SHALL BE USED FOR WELDING OF COLD-FORMED STEEL DECK AND COLD-FORMED FRAMING.

3. WELDING OF REINFORCING BARS SHALL BE PERFORMED BY WELDERS CERTIFIED FOR REINFORCING BARS IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN WELDING SOCIETY (AWS) D1.4. E70XX ELECTRODES SHALL BE USED FOR WELDING OF REINFORCING BAR TO REINFORCING BAR. E10XX ELECTRODES SHALL BE USED FOR WELDING OF REINFORCING BAR TO ROLLED STEEL SHAPES AND PLATES.

4. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

5. WELDING ELECTRODE FOR THE SHIELDED METAL-ARC WELDING (S.M.A.W.) PROCESS AND WELDING ELECTRODE SHALL CONFORM TO AWS A5.1 "SPECIFICATION FOR CARBON STEEL ELECTRODES FOR SHIELDED METAL ARC WELDING."

6. WELDS SHALL HAVE A WELD CONTROLLED SEQUENCE AND TECHNIQUE IN ORDER TO MINIMIZE SHRINKAGE STRESSES AND DISTORTION.

7. FOR SPECIAL STEEL MOMENT RESISTING FRAME WELDING REQUIREMENTS, SEE SHEET S3.1.

8. FOR SPECIAL STEEL CONCENTRIC BRACED FRAME WELDING REQUIREMENTS, SEE SHEET S3.2.

I. REINFORCING STEEL:

1. DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS SHALL BE PREFORMED IN ACCORDANCE WITH ACI 315, "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."

2. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

3. REINFORCING BARS SHALL CONFORM TO ASTM A 615, GRADE 60, U.O.N.

4. LONGITUDINAL REINFORCING BARS FOR COLUMNS AND IN SEISMIC ELEMENTS INCLUDING MOMENT FRAME BEAMS AND COLUMNS AND SHEAR WALLS SHALL CONFORM TO ASTM A 706, GRADE 60. BARS CONFORMING TO ASTM A 615, GRADE 60 MAY BE SUBSTITUTED AT THESE LOCATIONS PROVIDED THE FOLLOWING CONDITIONS ARE MET (BASED ON MILL TESTS):
   A. THE ACTUAL YIELD STRENGTH DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 psi.
   B. THE RATIO OF THE ACTUAL TENSILE STRENGTH TO ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25.

5. WELDED REINFORCING BARS SHALL CONFORM TO ASTM A 706, GRADE 60. BARS TO BE WELDED CONFORMING TO ASTM A 615, GRADE 60 MAY BE SUBSTITUTED PROVIDED THAT THE WELDING OF BARS COMPLIES WITH AWS D1.4 AND THE MINIMUM SPECIFICATIONS FOR WELDING OF REINFORCING STEEL INCLUDED HEREIN.

6. CORROSION-RESISTANT UNCOATED REINFORCING BARS SHALL BE LOW-CARBON, WITH A MINIMUM CHROMIUM CONTENT OF 8.0% BY WEIGHT AND SHALL CONFORM TO ASTM A 1035, GRADE 100.

7. WELDED DEFORMED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A 497 AND SHALL BE FABRICATED USING DEFORMED WIRE CONFORMING TO ASTM A 496, GRADE 80. WELDED DEFORMED WIRE REINFORCEMENT MAY BE SUBSTITUTED FOR REINFORCING BARS IN THE FOLLOWING LOCATIONS PROVIDED THAT IT IS QUANTITATIVELY DEMONSTRATED TO PROVIDE EQUIVALENT STRENGTH AS THE SPECIFIED REINFORCING BARS:
   A. SLABS-ON-GRADE
   B. FLEXURAL REINFORCEMENT IN 1-WAY SLABS.
   C. SHEAR REINFORCEMENT IN BEAMS THAT DO NOT DIRECTLY SUPPORT OTHER BEAMS.

8. WELDED REINFORCEMENT GRIDS SHALL BE BAUGRID (ICC #ESR-2352). ALTERNATE PRODUCTS SHALL CARRY AN ICC APPROVAL AND SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO DELIVERY TO THE JOBSITE.

9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185. MINIMUM LAP OF WWF SHALL BE ONE FULL MESH + 2".

10. REINFORCING BAR LAP SPLICES SHALL BE:
    CLASS B, (18" MIN.) FOR CONCRETE, U.O.N.
    65 BAR DIA. (24" MIN.) FOR MASONRY, U.O.N. .

11. DETAILS OF REINFORCEMENT SHALL COMPLY WITH ACI 318, CHAPTER 7.

12. WHERE HOOKS ARE ILLUSTRATED AS 90-DEGREE HOOKS, 180-DEGREE HOOKS MAY BE USED IN LIEU OF 90-DEGREE HOOKS.

13. IN AREAS OF CONFINED CONCRETE, SUCH AS COLUMN CORES AND SHEAR WALL BOUNDARY ZONES, BAR TERMINATORS MAY BE SUBSTITUTED FOR HOOKS AT LONGITUDINAL REINFORCING OF BEAMS GIRDERS OR COLUMNS (INCLUDING MOMENT FRAME MEMBERS) OR AT HORIZONTAL REINFORCING IN WALLS. THE BAR TERMINATOR SHALL OCCUR WITHIN THE CONFINED CONCRETE CORE IN THE SAME POSITION AS THE REQUIRED HOOK.

D. SUBMITTALS:

1. THE CONTRACTOR SHALL MAKE SUBMITTALS PRIOR TO FABRICATION AS REQUIRED BY THE WRITTEN SPECIFICATIONS AND SHALL INCLUDE AS A MINIMUM THE FOLLOWING SUBMITTALS:
   A. CONCRETE MIX DESIGNS.
   B. REINFORCING STEEL DRAWINGS.
   C. MASONRY GROUT MIX DESIGNS
   D. MASONRY UNIT CERTIFICATES
   E. STRUCTURAL STEEL DRAWINGS
   F. STEEL STAIRS DRAWINGS.
   G. COLD-FORMED STEEL DECK DRAWINGS.
   H. WELDING PROCEDURES (SHOP AND FIELD WELDING).

2. THE FOLLOWING SHOP DRAWINGS ARE NOT REQUIRED FOR SUBMISSION FOR STRUCTURAL REVIEW:
   A. SHORING AND BRACING.
   B. UNSPLICED REBAR AT SLAB-ON-GRADE AND FOOTINGS
   C. FORMWORK.
   D. STRUCTURAL STEEL MILL REPORTS.
   E. WELDER CERTIFICATIONS
   F. WWF FOR CONCRETE OVER STEEL DECK.

3. STEEL REINFORCING LISTS AND QUANTITIES AND LENGTHS OF ALL MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE COMPLIANCE WITH THE PLANS. ENGINEER WILL NOT REVIEW.

4. SHOP DRAWINGS SUBMITTED TO THE ENGINEER FOR REVIEW SHALL BE STAMPED AND SIGNED BY THE CONTRACTOR INDICATING THE CONTRACTORS PRIOR REVIEW AND THAT THE SUBMITTAL IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

5. AS AN ALTERNATE TO MULTIPLE PAPER COPIES, SHOP DRAWINGS MAY BE SUBMITTED IN ELECTRONIC (PDF) FORMAT, WHERE SUBMITTED ELECTRONICALLY, SHOP DRAWING

STATEMENT OF SPECIAL INSPECTIONS

POST-INSTALLED ANCHORS			
INSTALLATION OF MECHANICAL ANCHORS (SEE FOOTNOTE 6)	X		
INSTALLATION OF SCREW ANCHORS (SEE FOOTNOTE 8)	X		
JOBSITE STORAGE OF ADHESIVE PRIOR TO INSTALLATION FOR CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS		X	
INITIAL INSTALLATION OF ADHESIVE ANCHORS (SEE FOOTNOTE 12)	FOOT NOTE 10		
SUBSEQUENT INSTALLATION OF ADHESIVE ANCHORS (SEE FOOTNOTE 12)		FOOT NOTE 10	
OTHER			
SPRAYED FIRE-RESISTANT MATERIALS IN ACCORDANCE WITH SECTION 1704.13 OF THE BUILDING CODE		FOOT NOTE 11	

FOOTNOTES FOR STATEMENT OF SPECIAL INSPECTIONS:

1. AT TIME OF CONCRETE SAMPLING:
   A. FABRICATE SPECIMENS FOR STRENGTH TESTS
   B. PERFORM SLUMP AND AIR CONTENT TESTS
   C. DETERMINE CONCRETE TEMPERATURE

2. AT THE BEGINNING OF MASONRY CONSTRUCTION, VERIFY THE FOLLOWING:
   A. TYPE AND GRADE OF MASONRY UNITS
   B. PROPORTIONS OF SITE-PREPARED MORTAR
   C. CONSTRUCTION OF MORTAR JOINTS
   D. LOCATION OF REINFORCEMENT STEEL, CONNECTIONS AND ANCHORAGES

3. DURING THE COURSE OF MASONRY CONSTRUCTION, VERIFY THE FOLLOWING:
   A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS
   B. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS AND OTHER CONSTRUCTION
   C. SIZE, GRADE AND TYPE OF REINFORCING STEEL
   D. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING WEATHER (BELOW 40° F) OR HOT WEATHER (ABOVE 90° F)

4. PRIOR TO GROUTING, VERIFY THE FOLLOWING:
   A. GROUT SPACE IS CLEAN
   B. PLACEMENT OF REINFORCEMENT, CONNECTORS AND ANCHORAGES
   C. PROPORTIONS OF SITE-PREPARED GROUT
   D. CONSTRUCTION OF MORTAR JOINTS

5. VERIFICATION MAY BE BY VISUAL INSPECTION OR CERTIFICATE OF COMPLIANCE. HIGH-STRENGTH BOLTS, NUTS AND WASHERS MAY BE REQUIRED TO BE SAMPLED, TESTED AND INSPECTED BY THE BUILDING OFFICIAL, PRIOR TO INSTALLATION.

6. HIGH-STRENGTH BOLTS, NUTS AND WASHERS WHICH ARE NOT MELTED AND MANUFACTURED IN THE UNITED STATES SHALL BE SAMPLED AND TESTED AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO INSTALLATION.

7. PERIODIC INSPECTION SHALL BE PERMITTED FOR HIGH-STRENGTH BOLTS IN BEARING TYPE CONNECTIONS. VERIFICATION MAY BE VISUAL INSPECTION THAT THE CONNECTED MATERIALS HAVE BEEN DRAWN TOGETHER AND PROPERLY SNUGGED.

8. PERIODIC INSPECTION SHALL BE PERMITTED FOR HIGH-STRENGTH BOLTS IN SLIP-CRITICAL TYPE CONNECTIONS WHERE BOLT TENSION IS VERIFIED BY ANY OF THE FOLLOWING METHODS:
   A. TURN-OF-NUT METHOD USING MATCH-MARKING TECHNIQUES.
   B. DIRECT TENSION INDICATOR METHOD.
   C. ALTERNATE DESIGN FASTENER (TWIST-OFF BOLT) METHOD.

9. VERIFY THE FOLLOWING RELATING TO THE INSTALLATION OF POST-INSTALLED ANCHORS:
   A. CONCRETE TYPE AND COMPRESSIVE STRENGTH AND THICKNESS
   B. HOLE DIMENSIONS AND CLEANING PROCEDURES.
   C. ANCHOR TYPE, DIMENSIONS, EMBEDMENT, SPACING, EDGE DISTANCE AND TIGHTENING TORQUE.
   D. ADHESIVE TYPE, EXPIRATION DATE AND STORAGE PROCEDURES.

10. THE SPECIAL INSPECTOR SHALL CONTINUOUSLY INSPECT THE INITIAL INSTALLATION OF EACH TYPE AND SIZE OF ADHESIVE ANCHOR BY EACH INSTALLER. SUBSEQUENT INSTALLATIONS OF THE SAME TYPE AND SIZE OF ANCHOR BY THE SAME INSTALLER MAY BE PERFORMED ON A PERIODIC BASIS.

11. SPECIAL INSPECTIONS AND TESTS FOR SPRAY APPLIED FIRE RESISTANT MATERIALS SHALL BE IN ACCORDANCE WITH SECTIONS 1704.1.2.1 THROUGH 1704.1.2.6 AND SHALL BE PERFORMED AFTER THE ROUGH INSTALLATION OF ELECTRICAL, AUTOMATIC SPRINKLER, MECHANICAL AND PLUMBING SYSTEMS AND SUSPENSION SYSTEMS FOR CEILINGS, WHERE APPLICABLE.

No.	DESCRIPTION OF TYPE OF INSPECTION REQUIRED, REFERENCE DETAIL	CONTINUOUS	PERIODIC	STRUCTURAL OBSERVATION
	SOIL			
	SOIL MATERIAL BELOW FOUNDATIONS FOR ADEQUACY TO ACHIEVE DESIGN BEARING CAPACITY		X	
	EXCAVATIONS EXTENDED TO PROPER DEPTH AND BEARING STRATA		X	
	CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIAL		X	
	SUBGRADE AND SITE PREPARATION PRIOR TO PLACEMENT OF CONTROLLED FILL		X	
	PLACEMENT AND COMPACTION OF CONTROLLED FILL, INCLUDING RELATIVE DENSITY	X		
	SOIL EXPANSION TEST RESULTS INCLUDING EXPANSION INDEX, RECOMMENDATIONS FOR FOUNDATION AND FLOOR SLAB DESIGN.		X	
	CONCRETE			
	SHAPE, LOCATION AND DIMENSION OF CONCRETE FORMWORK PRIOR TO PLACEMENT OF REINFORCING		X	
	REINFORCING STEEL, MATERIAL		X	
	CERTIFIED MILL TEST REPORTS FOR EACH SHIPMENT OF ASTM A 615 REINFORCING STEEL MATERIAL TO BE USED IN SHEAR WALLS (HOOPS AND CROSS-TIES EXEMPTED)		X	
	CERTIFIED MILL TEST REPORTS FOR EACH SHIPMENT OF ASTM A 615 REINFORCING STEEL MATERIAL TO BE USED IN CONCRETE BEAMS BETWEEN SHEAR WALLS (HOOPS AND CROSS-TIES EXEMPTED)		X	
	CERTIFIED MILL TEST REPORTS FOR EACH SHIPMENT OF ASTM A 615 REINFORCING STEEL MATERIAL TO BE USED IN MOMENT FRAMES (HOOPS AND CROSS-TIES EXEMPTED)		X	
	PLACEMENT OF REINFORCING STEEL PRIOR TO CLOSING OF FORMS OR DELIVERY OF CONCRETE		X	
	INSTALLATION OF EMBEDDED BOLTS PRIOR TO AND DURING CONCRETE PLACEMENT	X		
	CONCRETE MIX VERIFICATION AT TIME OF DELIVERY		X	
	SAMPLING OF FRESH CONCRETE (SEE FOOTNOTE 1)	X		
	TESTING OF CONCRETE STRENGTH FOR CONFORMANCE WITH THE CONSTRUCTION DRAWING REQUIREMENTS		X	
	APPLICATION TECHNIQUES OF CONCRETE PLACEMENT	X		
	MAINTENANCE OF REQUIRED CURING TEMPERATURE AND TECHNIQUES		X	
	WELDING OF REINFORCING STEEL			
	WELDING PROCEDURES PRIOR TO THE START OF WORK		X	
	QUALIFICATIONS OF WELDERS PRIOR TO THE START OF WORK		X	
	CERTIFIED MILL TEST REPORTS, IDENTIFYING CHEMICAL MAKE-UP AND CARBON EQUIVALENT, FOR EACH SHIPMENT OF REINFORCING STEEL MATERIAL TO BE WELDED, OTHER THAN ASTM A 706		X	
	MATERIAL OF WELD FILLER MATERIAL		X	
	WELDS OF REINFORCING STEEL IN SPECIAL MOMENT FRAMES	X		
	WELDS OF REINFORCING STEEL IN BOUNDARY ZONES OF SHEAR WALLS	X		
	WELDS OF SHEAR REINFORCING STEEL	X		
	WELDS OF OTHER REINFORCING STEEL		X	
	MASONRY			
	(LEVEL 1 SPECIAL INSPECTION)			
	CERTIFICATES OF MATERIALS COMPLIANCE PRIOR TO THE START OF WORK		X	
	PREPARATION OF TEST PRISMS PRIOR TO THE START OF WORK (IF USING PRISM TEST METHOD)	X		
	TESTING OF MASONRY PRISM STRENGTH PRIOR TO START OF WORK (IF USING PRISM TEST METHOD)		X	
	MASONRY CONSTRUCTION AT THE START OF WORK (SEE FOOTNOTE 2)		X	
	REINFORCING STEEL, MATERIAL		X	
	CERTIFIED MILL TEST REPORTS FOR EACH SHIPMENT OF ASTM A 615 REINFORCING STEEL MATERIAL TO BE USED IN SHEAR WALLS (HOOPS AND CROSS-TIES EXEMPTED)		X	
	PLACEMENT OF REINFORCING STEEL PRIOR TO DELIVERY OF GROUT		X	
	MASONRY CONSTRUCTION DURING COURSE OF WORK (SEE FOOTNOTE 3)		X	
	MASONRY CONSTRUCTION PRIOR TO GROUTING (SEE FOOTNOTE 4)		X	
	GROUT PLACEMENT	X		
	GROUT SLUMP DURING GROUT PLACEMENT (IF LIFTS GREATER THAN 5'-0" ARE USED)	X		
	PREPARATION OF GROUT SPECIMENS DURING CONSTRUCTION (IF USING UNIT STRENGTH METHOD)	X		
	PREPARATION OF TEST PRISMS DURING CONSTRUCTION (IF USING PRISM TEST METHOD)	X		
	TESTING OF GROUT STRENGTH DURING CONSTRUCTION (IF USING UNIT STRENGTH METHOD)		X	
	TESTING OF MASONRY PRISM STRENGTH DURING CONSTRUCTION (IF USING PRISM TEST METHOD)		X	
	STRUCTURAL STEEL			
	STRUCTURAL STEEL MATERIAL		X	
	STRUCTURAL STEEL FRAMING, BRACING AND CONNECTIONS CONFIGURATION		X	
	STRUCTURAL STEEL CONNECTIONS AT SPECIAL MOMENT RESISTING FRAMES (SEE SHEET S-301)			X
	HIGH-STRENGTH BOLTING			
	MATERIAL OF HIGH STRENGTH BOLTS, NUTS AND WASHERS (SEE FOOTNOTES 3 & 6)		X	
	INSTALLATION OF HIGH STRENGTH BOLTS (BEARING TYPE CONNECTIONS)		FOOT NOTE 7	
	PREINSTALLATION TESTING AND CALIBRATION PROCEDURE (SLIP-CRITICAL TYPE CONNECTIONS)	X		
	INSTALLATION OF HIGH STRENGTH BOLTS (SLIP-CRITICAL TYPE CONNECTIONS)	X	FOOT NOTE 8	
	WELDING OF STRUCTURAL STEEL			
	WELDING PROCEDURES PRIOR TO THE START OF WORK		X	
	QUALIFICATIONS OF WELDERS PRIOR TO THE START OF WORK		X	
	WELD FILLER MATERIALS		X	
	EXECUTION OF GROOVE WELDS	X		
	EXECUTION OF MULTI PASS FILLET WELDS	X		
	EXECUTION OF SINGLE PASS FILLET WELDS LARGER THAN 5/16 INCH	X		
	EXECUTION OF PLUG AND SLOT WELDS	X		
	EXECUTION OF SINGLE PASS FILLET WELDS, 5/16 INCH OR SMALLER		X	
	INSTALLATION OF WELDED STUDS AT LOCATIONS OTHER THAN COLD-FORMED STEEL DECKS	X		
	WELDING OF STAIRS AND RAILING SYSTEMS		X	
	COLD-FORMED STEEL DECK			
	COLD-FORMED STEEL DECK MATERIAL		X	
	WELDING PROCEDURES PRIOR TO THE START OF WORK		X	
	QUALIFICATIONS OF WELDERS PRIOR TO THE START OF WORK		X	
	WELDING OF COLD-FORMED STEEL FLOOR OR ROOF DECK		X	
	INSTALLATION OF WELDED STUDS AT COLD-FORMED STEEL DECK		X	
	COLD-FORMED STEEL FRAMING			
	COLD-FORMED STEEL FRAMING MATERIAL		X	
	WELDING PROCEDURES PRIOR TO THE START OF WORK		X	
	QUALIFICATIONS OF WELDERS PRIOR TO THE START OF WORK		X	
	WELDING OF COLD-FORMED STEEL FRAMING		X	
	SCREW ATTACHMENT, BOLTING ANCHORING AND OTHER FASTENERS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM INCLUDING SHEAR WALLS, BRACES, DIAPHRAGMS, DRAG-STRUTS AND HOLD-DOWNS		X	

SPECIAL INSPECTION PROGRAM

A. GENERAL:

1. NOTICE TO THE APPLICANT, OWNER, OWNER'S AGENT, ARCHITECT OR ENGINEER OF RECORD:
   BY USING THESE PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION OR INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING OFFICIAL FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY CALIFORNIA CONSTRUCTION CODES.

2. NOTICE TO THE CONTRACTOR, BUILDER, INSTALLER, SUBCONTRACTOR OR OWNER-BUILDER:
   BY USING THESE PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION OR INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGE THAT YOU ARE AWARE OF THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS. YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING OFFICIAL FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND AS REQUIRED BY CALIFORNIA CONSTRUCTION CODES.

3. THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL ACTING AS THE OWNER'S AGENT SHALL EMPLOY A SPECIAL INSPECTION AGENCY TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS.

4. SPECIAL INSPECTION SHALL BE PERFORMED IN ADDITION TO INSPECTION BY THE BUILDING OFFICIAL AS REQUIRED IN SECTION 110 OF THE BUILDING CODE. SPECIAL INSPECTION SHALL NOT BE A SUBSTITUTE FOR INSPECTION BY THE BUILDING OFFICIAL.

5. WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE OBSERVED IN ACCORDANCE WITH THE STATEMENT OF SPECIAL INSPECTIONS AND SECTION 1704 OF THE BUILDING CODE, IT SHALL BE THE SPECIAL INSPECTION AGENCY'S RESPONSIBILITY TO EMPLOY A SUFFICIENT NUMBER OF INSPECTORS TO ASSURE THAT THE REQUIRED WORK IS INSPECTED.

6. THE SPECIAL INSPECTION AGENCY SHALL BE APPROVED BY THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
   EXCEPTIONS:
   A. SOILS INSPECTIONS SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER OF RECORD.
   B. SMOKE CONTROL SYSTEM INSPECTIONS SHALL BE PERFORMED BY THE MECHANICAL ENGINEER OF RECORD.
   C. WHEN THIS REQUIREMENT IS WAIVED BY THE BUILDING OFFICIAL.

7. THE CONSTRUCTION MATERIALS TESTING LABORATORY SHALL BE APPROVED BY THE BUILDING OFFICIAL FOR THE TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND EQUIPMENT.

8. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND- OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR WIND- OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A STATEMENT OF RESPONSIBILITY TO THE OWNER AND BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.

9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE SPECIAL INSPECTION AGENCY AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION.

10. WORK REQUIRING SPECIAL INSPECTION THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL IS SUBJECT TO REMOVAL OR EXPOSURE AT THE CONTRACTOR'S EXPENSE.

11. THE SPECIAL INSPECTOR MUST BE CERTIFIED BY THE CITY OF SAN DIEGO, DEVELOPMENT SERVICES, IN THE CATEGORY OR WORK REQUIRED TO HAVE SPECIAL INSPECTION.

B. REQUIRED REPORTS:

1. A SOILS INSPECTION REPORT, SIGNED, STAMPED AND DATED BY THE GEOTECHNICAL ENGINEER OF RECORD, SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION OR THE PLACEMENT OF FOUNDATION CONCRETE. THE REPORT SHALL STATE THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.

2. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

3. SPECIAL INSPECTION REPORTS SHALL INDICATE WHETHER THE WORK INSPECTED WAS, OR WAS NOT PERFORMED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

4. THE TESTING LABORATORY SHALL FURNISH REPORTS OF MATERIAL TESTS TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

5. LABORATORY TESTING REPORTS SHALL INDICATE THAT THE TESTED MATERIALS CONFORM TO THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS.

6. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.

7. IF DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO COMPLETION OF THAT PHASE OF WORK.

8. A FINAL REPORT DOCUMENTING THE REQUIRED SPECIAL INSPECTIONS, MATERIAL TESTING AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON BY THE PERMIT APPLICANT AND THE BUILDING OFFICIAL PRIOR TO THE START OF WORK.

9. A PROPERTY OWNER'S FINAL REPORT FORM FOR WORK REQUIRED TO HAVE SPECIAL INSPECTIONS, MATERIAL TESTING AND STRUCTURAL OBSERVATIONS MUST BE COMPLETED BY THE PROPERTY OWNER, PROPERTY OWNER'S AGENT OF RECORD, ARCHITECT OF RECORD, OR ENGINEER OF RECORD AND SUBMITTED TO THE BUILDING OFFICIAL.

C. CONTINUOUS AND PERIODIC INSPECTIONS:

1. WHERE CONTINUOUS SPECIAL INSPECTION IS REQUIRED, THE SPECIAL INSPECTOR SHALL CONTINUOUSLY PROVIDE FULL-TIME VERIFICATION OF THE WORK.

2. WHERE PERIODIC SPECIAL INSPECTION IS REQUIRED, THE SPECIAL INSPECTOR NEED NOT BE CONTINUOUSLY PRESENT DURING THE WORK WHERE PERIODIC INSPECTION IS INDICATED. AS A MINIMUM, PERIODIC SPECIAL INSPECTION SHALL OCCUR DAILY.

D. OFF-SITE FABRICATION:

1. SPECIAL INSPECTION IS REQUIRED FOR THE OFF-SITE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS, REINFORCING AND ASSEMBLIES, UNLESS THE FABRICATION IS PERFORMED BY AN APPROVED FABRICATOR.

2. AN APPLICATION FOR OFF-SITE FABRICATION MUST BE SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO COMMENCING ANY FABRICATION WORK REQUIRING SPECIAL INSPECTION.

3. A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION MUST BE COMPLETED BY THE SPECIAL INSPECTOR AND SUBMITTED TO THE BUILDING OFFICIAL PRIOR TO ERECTION OF PREFABRICATED COMPONENTS.

4. SPECIAL INSPECTION SHALL INCLUDE VERIFICATION THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO THE APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.

5. SPECIAL INSPECTION SHALL INCLUDE REVIEW OF THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE REQUIREMENTS OF THE BUILDING CODE.

6. FABRICATOR MUST BE REGISTERED AND APPROVED BY THE CITY OF SAN DIEGO, DEVELOPMENT SERVICES, IN THE CATEGORY OR WORK REQUIRED TO HAVE SPECIAL INSPECTION.

E. STRUCTURAL OBSERVATIONS:

1. STRUCTURAL OBSERVATIONS ARE REQUIRED IN ACCORDANCE WITH SECTION 1710 OF THE BUILDING CODE.

2. THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN TO PERFORM VISUAL OBSERVATIONS AT SIGNIFICANT STAGES FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS.

3. PRIOR TO COMMENCEMENT OF OBSERVATIONS, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT IDENTIFYING THE FREQUENCY AND EXTENT OF STRUCTURAL OBSERVATIONS.

4. CONTRACTOR SHALL NOTIFY THE STRUCTURAL OBSERVER AT THE CONSTRUCTION STAGES INDICATED AND AT COMPLETION OF THE STRUCTURAL SYSTEM.

5. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY OF THE SPECIAL INSPECTION NOR INSPECTION BY THE BUILDING OFFICIAL.

6. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER, SPECIAL INSPECTION AGENCY, CONTRACTOR AND BUILDING OFFICIAL.

7. AT THE CONCLUSION OF WORK, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE STRUCTURAL OBSERVATIONS HAVE BEEN MADE AND IDENTIFYING AND REPORTED DEFICIENCIES, WHICH, TO THE BEST OF THE OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

STRUCTURAL NOTES CONTINUED

S. POST-INSTALLED SCREW ANCHORS:

1. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1709 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

2. SCREW ANCHORS FOR INSTALLATION IN SOLID NORMAL-WEIGHT OR LIGHT-WEIGHT CONCRETE SHALL BE [POWERS FASTENERS WEDGE-BOLT+ (ICC #ESR-2526)] [SIMPSON TITEN HD (ICC #ESR-2713)]. ALTERNATE PRODUCTS SHALL CARRY AN ICC APPROVAL THAT IS BASED ON TESTING IN ACCORDANCE WITH ICC ACCEPTANCE CRITERIA AC193 AND SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO DELIVERY TO THE JOBSITE.

3. SCREW ANCHORS FOR INSTALLATION IN CONCRETE MASONRY SHALL BE [POWERS FASTENERS WEDGE-BOLT+ (ICC #ESR-1678)] [SIMPSON TITEN HD (ICC #ESR-1056)]. ALTERNATE PRODUCTS SHALL CARRY AN ICC APPROVAL THAT IS BASED ON TESTING IN ACCORDANCE WITH ICC ACCEPTANCE CRITERIA AC106 AND SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO DELIVERY TO THE JOBSITE.

4. ANCHORS SHALL BE OF THE TYPE, DIAMETER, AND MINIMUM DIMENSIONAL REQUIREMENTS (EMBEDMENT, SPACING AND EDGE DISTANCE) AS INDICATED ON THE DRAWINGS.

5. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH DRILLING EQUIPMENT OF THE TYPE REQUIRED IN THE MANUFACTURER'S PUBLISHED ICC REPORT. HOLES SHALL BE CLEANED IN CONFORMANCE WITH THE ANCHOR MANUFACTURER'S INSTRUCTIONS.

6. WHEN INSTALLING ANCHORS IN EXISTING REINFORCED CONCRETE OR MASONRY, AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.

7. WHEN INSTALLING ANCHORS INTO PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. AVOID CUTTING OR DAMAGING THE TENDONS.

T. POST-INSTALLED ADHESIVE ANCHORS:

1. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

2. ADHESIVE ANCHOR INSTALLERS SHALL BE TRAINED BY A QUALIFIED REPRESENTATIVE OF THE ADHESIVE MANUFACTURER ON THE PROPER PROCEDURES AND TECHNIQUES FOR INSTALLATION.

3. ADHESIVE SHALL BE STORED ON THE JOBSITE IN A COOL, DRY LOCATION IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS.

4. ADHESIVE ANCHORS FOR INSTALLATION IN SOLID NORMAL-WEIGHT CONCRETE SHALL BE [HILTI HIT RE500-SD (ICC #ESR-2322)] [SIMPSON SET-XP (ICC #ESR-2508)] [POWERS FASTENERS PE1000+ (ICC #ESR-2583)]. ALTERNATE PRODUCTS SHALL CARRY AN ICC APPROVAL THAT IS BASED ON TESTING IN ACCORDANCE WITH ICC ACCEPTANCE CRITERIA AC308 AND SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO DELIVERY TO THE JOBSITE.

5. ADHESIVE ANCHORS FOR INSTALLATION IN NORMAL-WEIGHT CONCRETE FILL OVER COLD-FORMED STEEL DECK SHALL BE [HILTI HIT RE500-SD (ICC #ESR-2322)] [SIMPSON SET-XP (ICC #ESR-2508)] [POWERS FASTENERS PE1000+ (ICC #ESR-2583)]. ALTERNATE PRODUCTS SHALL CARRY AN ICC APPROVAL THAT IS BASED ON TESTING IN ACCORDANCE WITH ICC ACCEPTANCE CRITERIA AC308 AND SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO DELIVERY TO THE JOBSITE.

6. ADHESIVE ANCHORS SHALL NOT BE USED FOR OVERHEAD INSTALLATION THRU COLD-FORMED STEEL DECK, INTO CONCRETE FILL.

7. ADHESIVE ANCHORS FOR INSTALLATION IN CONCRETE MASONRY SHALL BE [HILTI HIT HY150 MAX (ICC #ESR-1967)] [SIMPSON SET (ICC #ESR-1772)]. ALTERNATE PRODUCTS SHALL CARRY AN ICC APPROVAL THAT IS BASED ON TESTING IN ACCORDANCE WITH ICC ACCEPTANCE CRITERIA AC58 AND SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO DELIVERY TO THE JOBSITE.

8. ANCHORS SHALL BE OF THE TYPE, DIAMETER, AND MINIMUM DIMENSIONAL REQUIREMENTS (EMBEDMENT, SPACING AND EDGE DISTANCE) AS INDICATED ON THE DRAWINGS.

9. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH DRILLING EQUIPMENT OF THE TYPE REQUIRED IN THE MANUFACTURER'S PUBLISHED ICC REPORT. HOLES SHALL BE CLEANED IN CONFORMANCE WITH THE ANCHOR MANUFACTURER'S INSTRUCTIONS.

10. WHEN INSTALLING ANCHORS IN EXISTING REINFORCED CONCRETE OR MASONRY, AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.

11. WHEN INSTALLING ANCHORS INTO PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. AVOID CUTTING OR DAMAGING THE TENDONS.

Q. SHEAR CONNECTORS (WELDED STUDS):

1. SPECIAL INSPECTION AND TESTING IS REQUIRED IN ACCORDANCE WITH SECTIONS 1704, 1707 AND 1708 OF THE BUILDING CODE AND THE "STATEMENT OF SPECIAL INSPECTIONS" ON THESE CONSTRUCTION DOCUMENTS.

2. SHEAR CONNECTORS SHALL COMPLY WITH ICC #ESR-2856, NELSON SHEAR CONNECTOR STUDS, OR EQUAL. SHEAR CONNECTORS SHALL BE MADE FROM COLD ROLLED STEEL CONFORMING TO ASTM A 108, GRADES 1015-1020 WITH A MINIMUM TENSILE STRENGTH 60,000 psi. STUD WELDING INSPECTING AND TESTING SHALL CONFORM TO ANS D1.1.

3. WHERE USED WITH 3" DEEP COLD-FORMED STEEL DECK, SHEAR CONNECTORS SHALL NOT BE LESS THAN 4-1/2" INCHES IN LENGTH IN PLACE, U.O.N.

4. SHEAR STUDS SHALL HAVE NOT LESS THAN 3/4 INCH OF CONCRETE COVER.

5. USE SHORTER SHEAR STUDS WHERE CONCRETE SURFACE IS REDUCED IN THICKNESS DUE TO FLOOR DEPRESSIONS. STUD LENGTH SHALL BE EQUAL TO THE STRUCTURAL FLOOR THICKNESS, MINUS 3/4" FOR COVER.

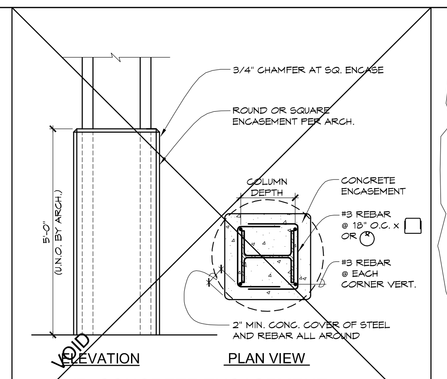
6. STUDS SHALL BE AUTOMATICALLY END WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN SUCH A MANNER AS TO PROVIDE COMPLETE FUSION BETWEEN THE END OF THE STUD AND THE PLATE. THERE SHOULD BE NO POROSITY OR EVIDENCE OF LACK OF FUSION BETWEEN THE WELDED END OF THE STUD AND THE PLATE. THE STUD SHALL DECREASE IN LENGTH DURING WELDING APPROXIMATELY 1/8" FOR 5/8" DIAMETER AND UNDER, AND 3/16" FOR OVER 5/8" DIAMETER. WELDING SHALL BE DONE ONLY BY QUALIFIED WELDERS APPROVED BY THE WELDING INSPECTOR.

7. NUMBER OF 3/4" DIA. HEADED STUD SHEAR CONNECTORS ARE SHOWN ON FRAMING PLANS. SPACE SHEAR CONNECTORS EQUALLY ALONG LENGTH OF BEAM. IF DECK FLUTES PREVENT EQUAL SPACING, STUDS SHALL BE SPACED CLOSER NEAR ENDS OF BEAMS OR SUPPORTS. MAY BE SPACED TWO PER FLUTE NEAR ENDS IF TOTAL NUMBER EXCEEDS NUMBER OF FLUTES. A SINGLE NUMBER INDICATES UNIFORM SPACING FROM END TO END. MULTIPLE NUMBERS INDICATE NUMBER OF STUDS TO BE SPACED UNIFORMLY BETWEEN BEAM REACTION POINTS AND/OR ENDS OF BEAM. MINIMUM SPACING IN A SINGLE ROW SHALL BE 6x STUD DIAMETER.

8. INSTALL STUDS IN SINGLE ROW DIRECTLY OVER BEAM WEBS. WHERE OBSTRUCTIONS PREVENT PLACEMENT DIRECTLY OVER WEB PLACE STUDS CLOSE TO WEB AS POSSIBLE.

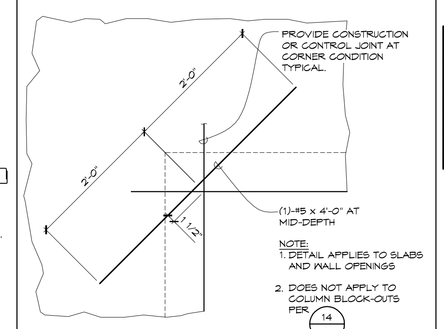
9. WHERE SHEAR STUDS AND DECK WELDING LOCATION COINCIDE, THE SHEAR STUD WELDED THROUGH THE DECK MAY REPLACE THE DECK WELDING.

10. WHEN WELDING THRO



TYP. CONCRETE ENCASEMENT AT STEEL COLUMN
3119120A

19



TYP. SLAB-ON-GRADE INSIDE CORNER
2100-15UC

13

BAR SIZE	CONC. f'c=3000 PSI SPLICE TOP	SPLICE OTHER	DEVELOPMENT TOP	DEVELOPMENT OTHER	DEVELOPMENT HOOKED
3	24	22	22	17	9
4	36	24	24	22	11
5	47	36	36	28	14
6	56	43	43	33	16
7	82	62	63	48	19
8	94	72	72	55	22
9	105	81	81	62	25
10	118	91	91	70	28
11	131	101	101	78	31

BAR SIZE	CONC. f'c=4000 PSI SPLICE TOP	SPLICE OTHER	DEVELOPMENT TOP	DEVELOPMENT OTHER	DEVELOPMENT HOOKED
3	25	20	19	15	7
4	33	25	25	19	9
5	40	31	31	24	12
6	48	35	37	28	14
7	70	55	54	42	17
8	81	62	62	48	19
9	91	70	70	54	21
10	103	79	79	61	24
11	113	87	87	67	27

BAR SIZE	CONC. f'c=5000 PSI SPLICE TOP	SPLICE OTHER	DEVELOPMENT TOP	DEVELOPMENT OTHER	DEVELOPMENT HOOKED
3	22	17	17	13	6
4	30	22	23	17	8
5	36	28	28	22	11
6	44	34	34	26	13
7	64	49	49	38	15
8	73	56	56	43	17
9	82	63	63	48	19
10	92	70	71	54	22
11	101	78	78	60	24

BAR SIZE	CONC. f'c=6000 PSI SPLICE TOP	SPLICE OTHER	DEVELOPMENT TOP	DEVELOPMENT OTHER	DEVELOPMENT HOOKED
3	21	16	16	12	6
4	27	21	21	16	8
5	34	26	26	20	10
6	40	31	31	24	12
7	54	44	45	34	14
8	62	51	51	39	15
9	74	57	57	44	17
10	83	65	64	50	20
11	92	72	71	55	22

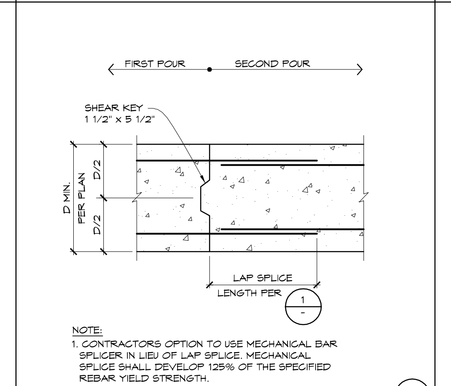
NOTES:
1. SCHEDULE VALUES FOR DEVELOPMENT ARE BASED ON ACI 318, SECTION 12.2.2 AND 12.5 FOR GRADE 60 BARS.
2. SCHEDULE VALUES FOR SPLICES ARE BASED ON ACI 318, SECTION 12.15 FOR CLASS B SPLICES.
3. CLEAR SPACING BETWEEN BARS BEING SPLICED OR DEVELOPED SHALL BE 2 BAR DIAMETERS (MIN.)
4. CONCRETE CLEAR COVER OVER BARS BEING DEVELOPED SHALL BE 1 BAR DIAMETER (MIN.)
5. DEVELOPMENT AND SPLICE LENGTHS ARE GIVEN IN INCHES.
6. TOP BARS ARE STRAIGHT HORIZONTAL BARS LOCATED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS PLACED BELOW.
7. OTHER BARS ARE STRAIGHT HORIZONTAL BARS LOCATED SUCH THAT 12 INCHES OR LESS OF FRESH CONCRETE IS PLACED BELOW OR STRAIGHT VERTICAL BARS.
8. HOOKED BARS ARE VERTICAL OR HORIZONTAL BARS TERMINATING WITH STANDARD HOOKS THAT COMPLY WITH DETAIL 9

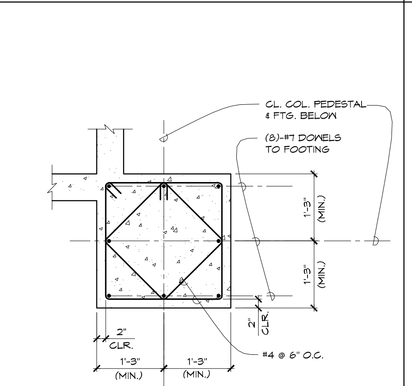
REBAR SPLICE AND DEVELOPMENT IN NORMAL WEIGHT CONCRETE, U.O.N.
1200-01

1

TYP. CONCRETE STAIR ON GRADE
2100-08

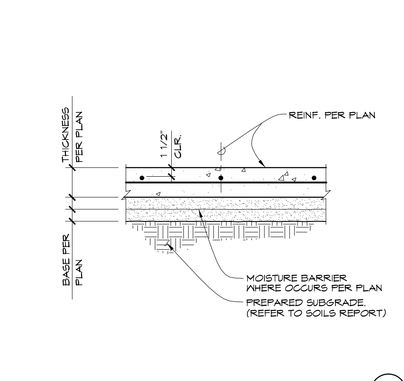
20



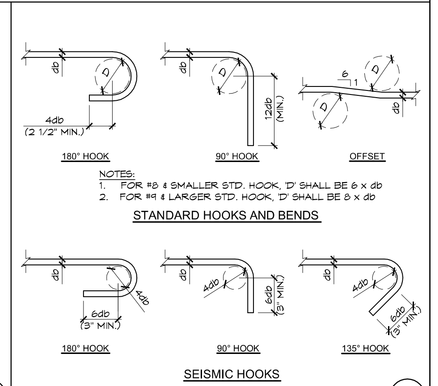


TYP. SLAB-ON-GRADE BLOCK-OUT AT COLUMNS
2100-01

14



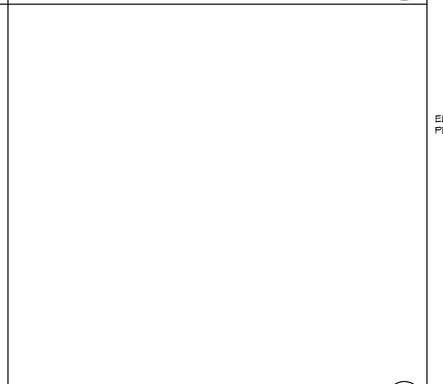
PIPE PERPENDICULAR



PIPE PARALLEL

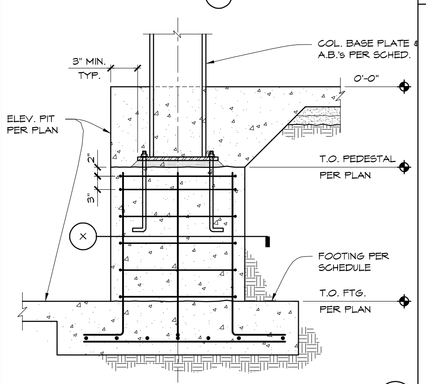
TYP. PIPE ADJACENT TO FOOTING
2200-02UC

2



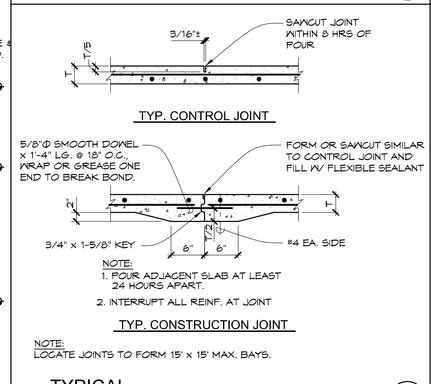
TYP. CONC. ELEVATOR PIT
3000-08UC

21



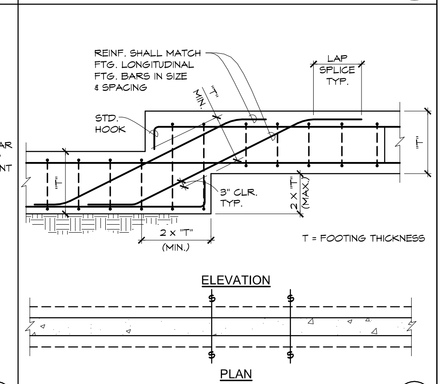
TYP. DEPRESSED SLAB ON GRADE
2100-03UC

15



TYPICAL STIRRUP TIE, HOOP OR CROSS-TIE
1200-03

9



NOTE:
1. WHERE SINGLE LAYER OF REINF. OCCURS, BEND REINF. AS SHOWN FOR OUTSIDE BARS.
2. DETAIL APPLIES TO FOOTINGS, BEAMS AND CONCRETE WALLS
3. d = BAR DIAMETER

TYP. REINF. AT INTERSECTION
2200-01UC

3

BOLT DIA. "D"	MINIMUM EMBEDMENT HORIZONTAL ANCHOR RODS	VERTICAL ANCHOR RODS
1/2"	4"	T'
5/8"	4 1/2"	T'
3/4"	5"	T'
7/8"	6"	T'
1"	T'	T'
1 1/8"	8"	8"

NOTE:
WHERE BENT-BAR ANCHOR RODS ARE INDICATED ANCHOR ROD MAY BE BENT-BAR OR HEADED. WHERE HEADED ANCHOR RODS ARE INDICATED, BENT-BAR ANCHOR RODS SHALL NOT BE USED.

TYP. ANCHOR ROD IN CONCRETE
1200-11

22

NOTES:
1. THIS DETAIL APPLICABLE AT OPENINGS WHERE ANY SIDE IS GREATER THAN 1'-0".
2. FOR OPENINGS SMALLER THAN 1'-0" BEND ALL REINF. AROUND OPENINGS.

TYP. REINF. AT OPNGS. IN CONC. SLAB
3000-03UC

16

ANCHOR SIZE	REBAR SIZE	EMBED DEPTH (UON)	MINIMUM CONC THICK, 'T' (UON)	MINIMUM EDGE DIST, 'E' (UON)	MINIMUM SPACING, 'S' (UON)
3/8" DIA.	#3	3"	4 1/4"	2 1/4"	4 1/2"
1/2" DIA.	#4	4"	5 1/4"	3"	6"
5/8" DIA.	#5	5"	6 1/4"	3 3/4"	7 1/2"
3/4" DIA.	#6	6"	7 1/2"	4 1/2"	9"
7/8" DIA.	#7	T'	8 3/4"	5 1/4"	10 1/2"
1" DIA.	#8	8"	10"	6"	12"
N/A	#9	9"	11 1/4"	6 3/4"	13 1/2"
1 1/4" DIA.	#10	10"	12 1/2"	7 1/2"	15"

NOTES:
1. SPECIAL INSPECTION IS REQ'D FOR INSTALLATION OF ANCHORS, U.O.N.
2. ADHESIVE SHALL BE HILTI HIT-RE-500-SD (ICC ESR-2322)
3. THREADED ROD ANCHORS SHALL BE ISO 898-1 CLASS 5.8, ASTM A193 B7 OR ASTM F593, CW STAINLESS
4. REINF. STEEL ANCHORS SHALL BE ASTM A615 OR ASTM A706 GRADE 60
5. HOLES SHALL BE DRILLED INTO DRY CONCRETE WITH A HAMMER DRILL AND CARBIDE BIT
6. CONCRETE SHALL BE NORMAL WEIGHT, f'c SHALL BE 3000 PSI, MIN.

ADHESIVE ANCHOR SCHEDULE
1200-02

CONCRETE EDGE PERPENDICULAR TO DIRECTION OF LOAD

CONCRETE EDGE PARALLEL TO DIRECTION OF LOAD

7. UNLESS OTHERWISE NOTED, THE ANCHOR (OR ANCHOR GROUP) SHALL BE NO CLOSER TO THE CONCRETE EDGE ON THREE SIDES THAN THE LARGER OF:
   A) 12 ANCHOR DIAMETERS, OR
   B) 1.5 TIMES THE ACTUAL DISTANCE TO THE CLOSEST EDGE
8. ANCHORS SHALL BE INSTALLED IN TEMPERATURE RANGE 'A', AS DEFINED BY THE CC APPROVAL:
   MAX. SHORT-TERM TEMP = 110°F;
   MAX LONG TERM TEMP = 80°F

4

NOTE:
1. CONTRACTORS OPTION TO USE MECHANICAL BAR SPLICER IN LIEU OF LAP SPLICE. MECHANICAL SPLICE SHALL DEVELOP 125% OF THE SPECIFIED REBAR YIELD STRENGTH.

TYP. FOOTING CONSTRUCTION JOINT
2200-04

23

TYPICAL COLUMN PEDESTAL
2200-01UC

18

TYP. CONC SLAB ON GRADE
2100-02

11

NOTES:
1. FOR #3 & SMALLER STD. HOOK, 'D' SHALL BE 6 x db
2. FOR #4 & LARGER STD. HOOK, 'D' SHALL BE 8 x db

STANDARD HOOKS AND BENDS

SEISMIC HOOKS

TYPICAL REINF. BAR BENDS AND HOOKS
1200-08

5

TYPICAL CONTROL/CONSTRUCTION JOINT
2100-05UC

12

TYP. STEPPED FOOTING
2200-07UC

6

NOT USED

24

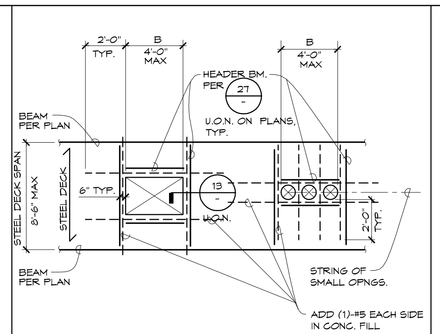
SCALE AS NOTED

TITLE TYPICAL DETAILS

S-003

I:\PROJECTS\2012\12138.00 AREE - 4757 NCD Shell\2 Dwg\12138.00_S-003.dwg, 2/14/2013 11:31:29 AM, Joan, 1:1
10/24/2012 2:15:16 PM
I:\PROJECTS\2012\12138.00 AREE - 4757 NCD Shell\2 Dwg\12138.00_S-003.dwg
Date: Feb 14, 2013 — 11:31am
SCALE: 1/12" OPR: Joan

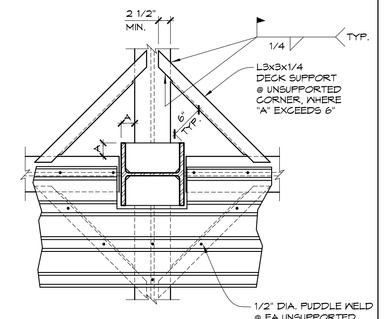
C:\Projects\S-004.dwg 10/24/2012 3:15:19 PM
Date: Tue, Oct 23, 2012 - 11:24pm
User: ALEX.YU - Office: ANA
Xrefs: NO SHAPES - 4157 NO SHAPES - 4157 NO SHAPES - 4157



FRAMING FOR LARGE OPENINGS IN FLOOR METAL DECK

5300-14

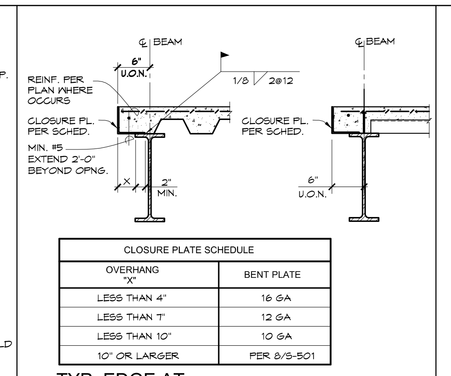
25



TYP. ANGLE SUPPORT AT COLUMN

5300-06

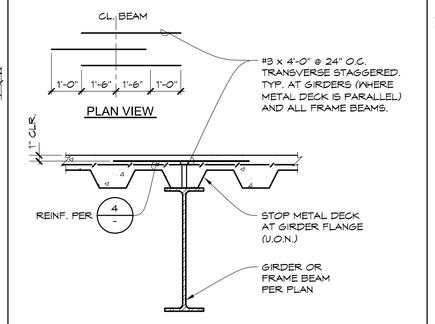
19



TYP. EDGE AT INTERIOR FLOOR OPENINGS

5300-05

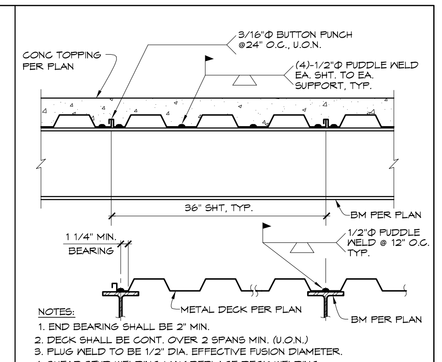
13



TYP. REINFORCING AT GIRDERS AND FRAME BEAMS

5300-08

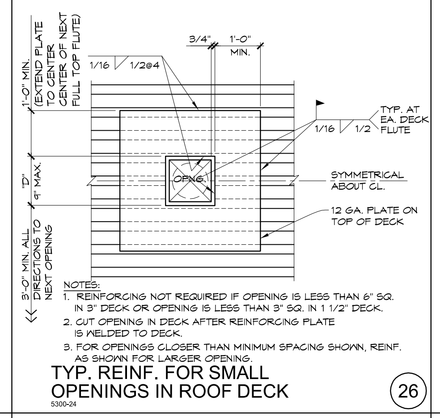
7



TYP. FLOOR METAL DECK WELDING PATTERN

5300-01

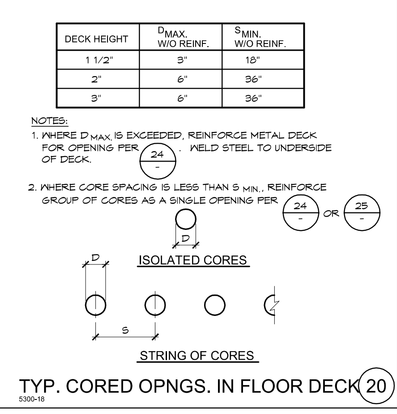
1



TYP. REINF. FOR SMALL OPENINGS IN ROOF DECK

5300-04

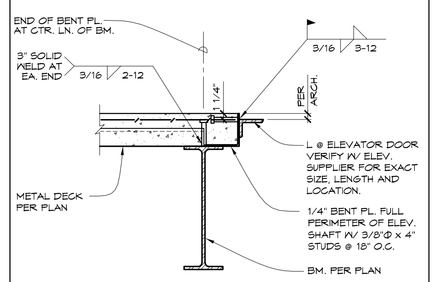
26



TYP. CORED OPNGS. IN FLOOR DECK

5300-18

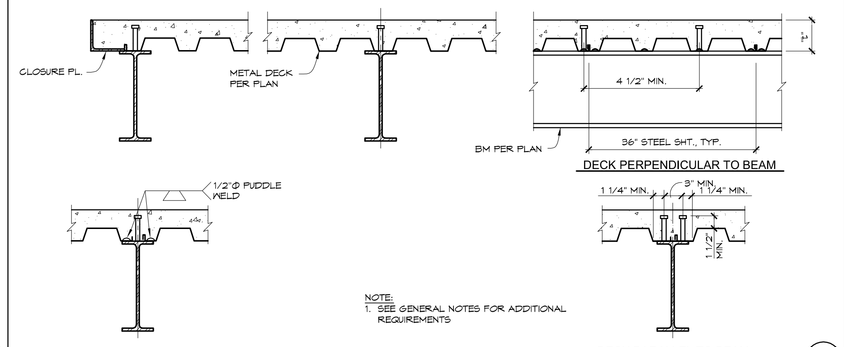
20



TYP. ELEV. SILL SUPPORT AT FLOOR

5300-07

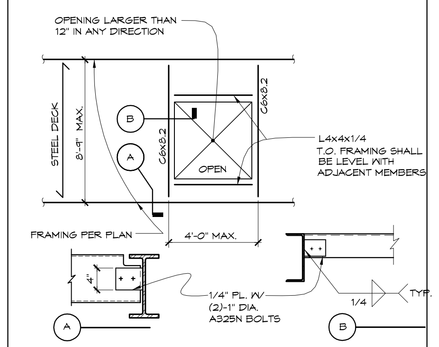
14



TYP. METAL DECK ATTACHMENT WITH SHEAR STUDS

5300-03

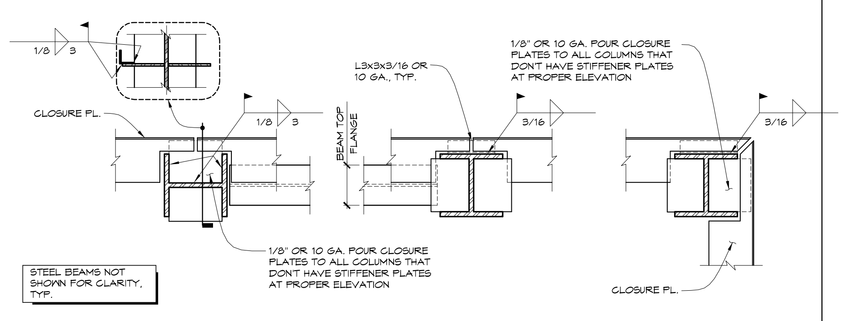
2



TYP. FRAMING FOR LARGE OPENINGS IN ROOF DECK

5300-02

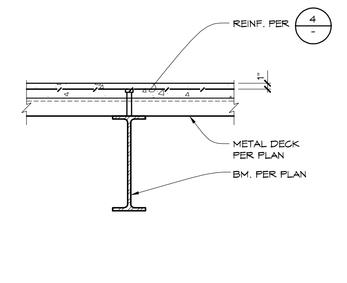
27



TYP. SUPPORT FOR CLOSURE PLATE AT COLUMN (ROOF OR FLOOR)

5300-08

15

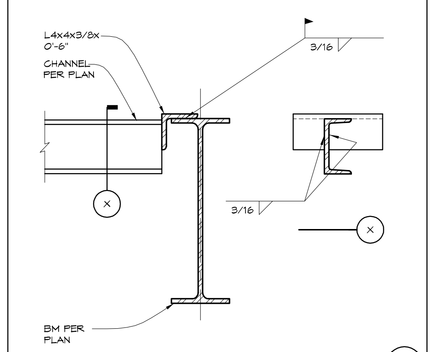


TYPICAL DETAIL AT PURLINS

5300-09

9

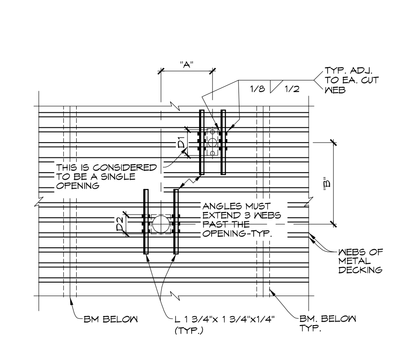
DECK TYPE	CONC. THICKNESS & TYPE	SHEAR STUD LENGTH	TYPICAL REINF. (U.O.N.)
W2	3 1/4" LT. WT.	4 1/2"	6x6 - W2.9xW2.9 WWF.



TYP. CHANNEL TO BM. CONN.

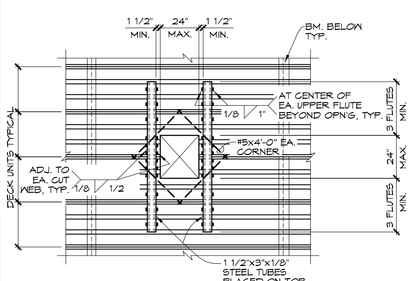
5300-15

28



NOTES:
1. TWO ADJACENT WEB OPENING IS DEFINED AS A 6" MAX. HOLE AT 1 1/2" DECK AND 12" MAX. HOLE AT 2" & 3" DECK. TYP.
2. ANGLES SHALL BE PLACED ON TOP OF DECK. IF ANGLES ARE LOCATED BELOW DECK, WELD ANGLE AS SHOWN ABOVE TO EACH BOTTOM FLUTE.
3. IF DIMENSION "A" IS GREATER THAN 4xD1, 4xD2, OR 32", WHICHEVER IS LARGER, THEN THERE IS NO RESTRICTION ON DIMENSION "B"
4. IF DIMENSION "B" IS GREATER THAN 4xD1, 4xD2, OR 32" WHICHEVER IS LARGER, THEN THERE IS NO RESTRICTION ON DIMENSION "A"
5. IF DIMENSION "A" AND "B" ARE LESS THAN 4xD1, 4xD2, OR 32", WHICHEVER IS LARGER, THE OPENING GROUP WILL BE CONSIDERED AS A SINGLE HOLE, AND MUST BE REINFORCED AS REQUIRED FOR THE LARGER COMBINED OPENING.

HOLES CUTTING NO MORE THAN TWO ADJACENT WEBS (A)



NOTES:
1. IF THE OPENING OR GROUP OF OPENINGS OCCURS IN ONE DECKING UNIT, THE OPENING OR OPENING GROUP MAY BE CUT PRIOR TO POURING OF CONCRETE.
2. IF, AS SHOWN ON DETAIL ABOVE, THE OPENING OR OPENING GROUP CUTS THROUGH TWO DECKING UNITS, THE DECKING SHALL NOT BE CUT UNTIL CONCRETE HAS BEEN PLACED AND CURED.
   A. AT THE TIME OF POURING, SUITABLE SLEEVES OR FOUR-STOPS SHALL BE PLACED AROUND THE OPENING.
3. ADD REBAR AT CORNERS OF OPENING.
4. WHEN THE MAXIMUM DIMENSION OF AN OPENING OR OPENING GROUP EXCEEDS 24", PLACE HEADER BEAM AROUND OPENING PER 25

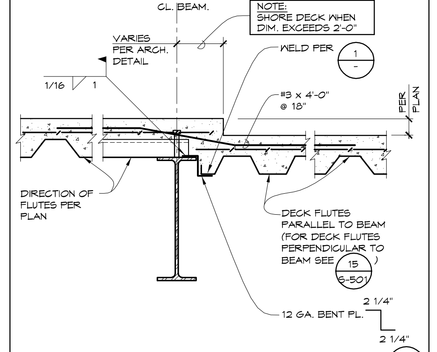
LARGER HOLES CUTTING MORE THAN TWO ADJACENT WEBS, RECTANGULAR OR SQUARE (B)

NOTE:
PRIOR TO CONCRETE POUR, SMALL OPENINGS SHOULD BE BLOCKED OUT AND METAL DECK LEFT INTACT. HOLES LESS THAN 6" IN DIAMETER AND CUTTING NO MORE THAN 1 WEB NEED NO REINFORCING. AFTER THE CONC. HAS CURED, THE BLOCKOUT CAN BE REMOVED AND THE METAL DECK IN THE AREA OF THE HOLE REMOVED.

TYP. OPENING IN FLOOR METAL DECK

5300-17

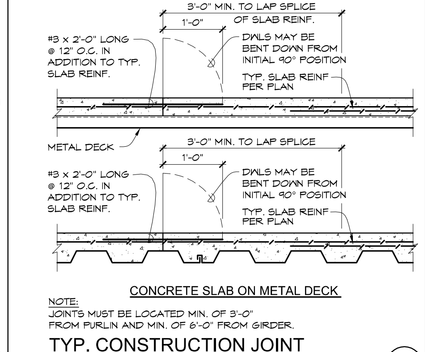
24



TYP. METAL DECK TRANSITION

5300-13

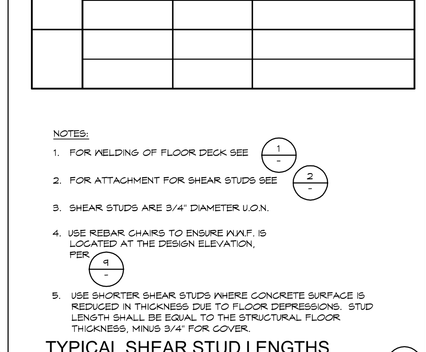
16



TYP. CONSTRUCTION JOINT AT METAL DECK CONCRETE FILL

5300-10

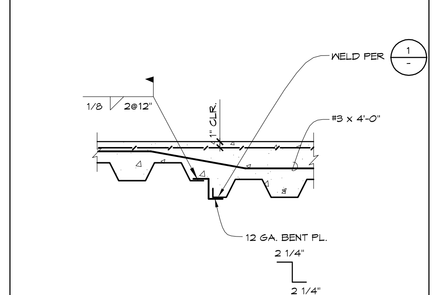
10



TYPICAL SHEAR STUD LENGTHS AND DECK REINFORCEMENT

5300-21

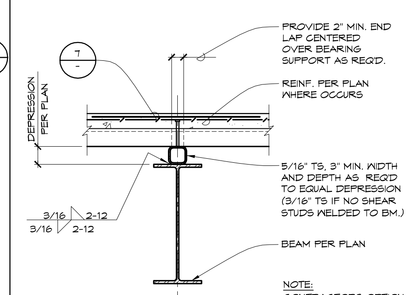
4



TYP. METAL DECK TRANSITION

5300-20

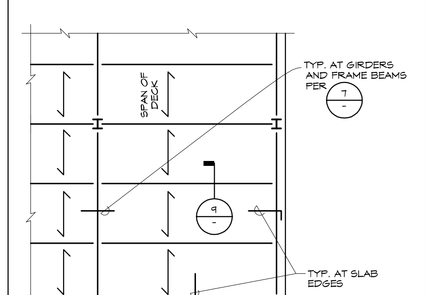
17



TYP. TS SHIM AT METAL DECK

5300-11

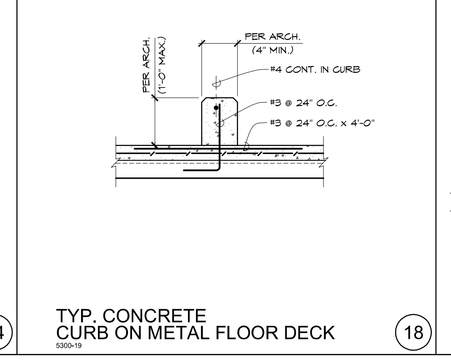
11



TYP. FLOOR METAL DECK REINFORCING AT BMS. AND GIRDERS

5300-07

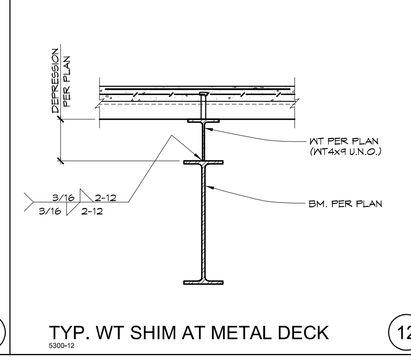
5



TYP. CONCRETE CURB ON METAL FLOOR DECK

5300-19

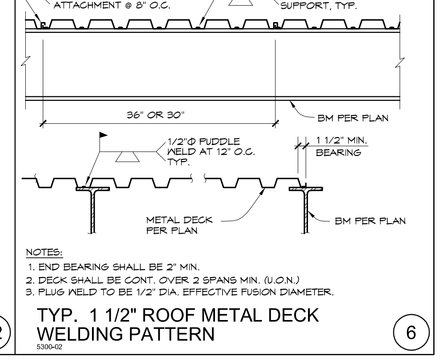
18



TYP. WT SHIM AT METAL DECK

5300-12

12



TYP. 1 1/2" ROOF METAL DECK WELDING PATTERN

5300-02

6

SCALE AS NOTED

TITLE

TYPICAL DETAILS

S-005

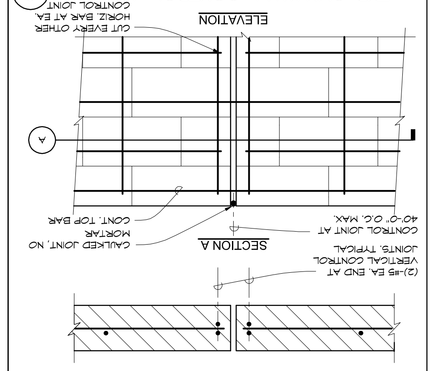
I:\PROJECTS\2012\12121738.00 AREE - 4757 NCD Shell\2 Dwg\12121738.00_S-005.dwg, 2/14/2013 11:31:52 AM, Jean, 1:1
10/24/2012 2:15:16 PM
I:\PROJECTS\2012\12121738.00 AREE - 4757 NCD Shell\2 Dwg\12121738.00_S-005.dwg
XREFs: Feb 14, 2013 — 11:31am
LAYOUT: S-005
SCALE: 1/12" — GFTR, Jean

PLOTTED: 10/24/2012 2:15:19 PM
DGN: S:\Projects\2012\212838.00 AMEC - 4157 NCO SHA\12 CWs\12121838.00_S-006.dgn
SCALE: 1/2" = 1'-0"
USER: JHuh

S:\Projects\2012\212838.00 AMEC - 4157 NCO SHA\12 CWs\Dwg\12121838.00_S-006.dwg, 8.5x11, 1:1, 10/24/2012 2:15:02 PM, JHuh

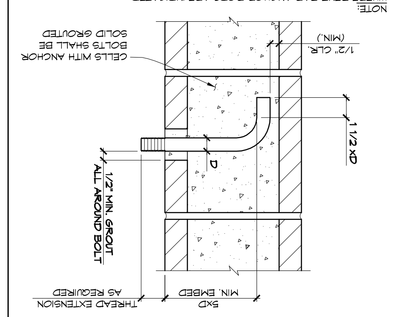
TYP. CMU WALL CONTROL JOINT

6 — S-006/D6.0



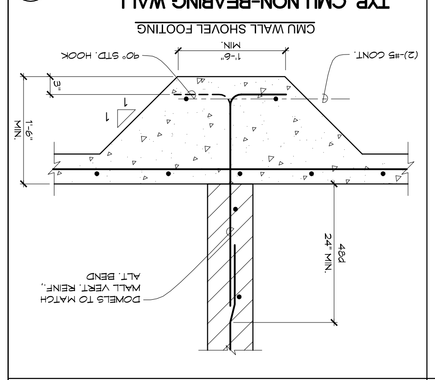
TYPICAL ANCHOR ROD IN CMU

5 — T2005-21



TYP. CMU NON-BEARING WALL BASE DETAIL

4

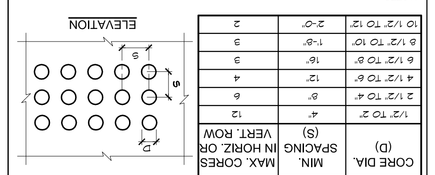


TYPICAL CORED OPENINGS IN EXISTING CONC. WALL

3 — T2005-13

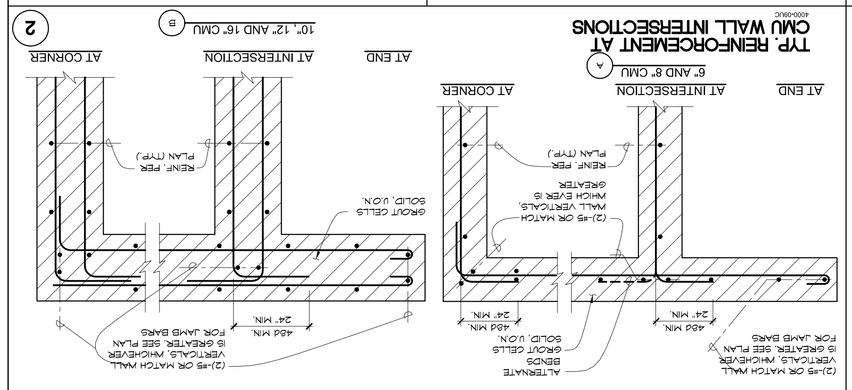
NOTES:
1. WHERE CORES OR GROUPS OF CORES NOT INDICATED ON THE STRUCTURAL DRAWINGS EXCEED 12" IN EITHER HORIZONTAL OR VERTICAL DIMENSION OR ALL INTERMEDIATE EXISTING REINFORCING BARS OBTAIN WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH WORK.
2. NO CORES OF ANY SIZE SHALL BE MADE IN WALL BOUNDARY ZONES OR HEADERS WITHOUT PRIOR WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER

CORE DIA. (D)	MIN. SPACING (S)	MAX. CORES IN HORIZ. OR VERT. ROW
1/2" TO 2"	4"	12
2 1/2" TO 4"	6"	6
4 1/2" TO 6"	12"	4
6 1/2" TO 8"	18"	3
8 1/2" TO 10"	1'-0"	3
10 1/2" TO 12"	2'-0"	2



TYP. REINFORCEMENT AT CMU WALL INTERSECTIONS

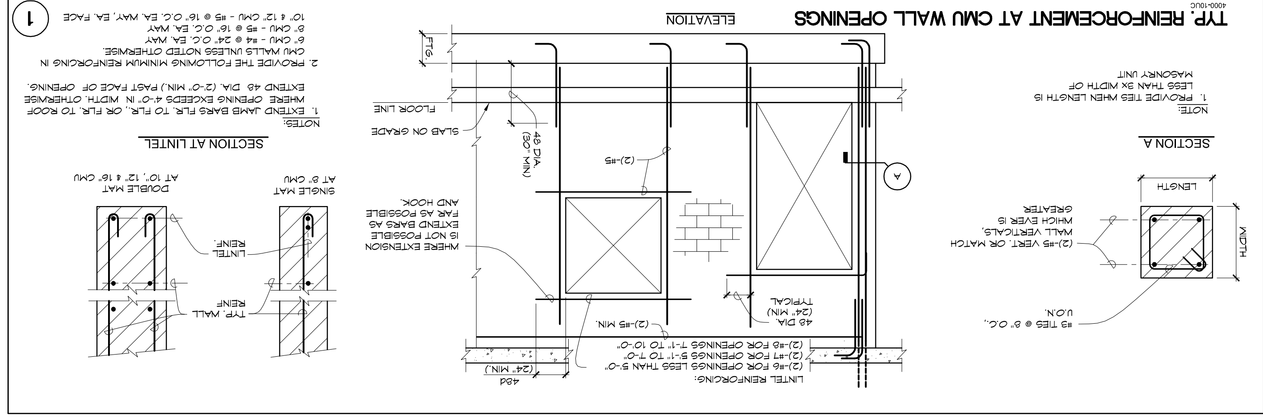
2 — S-006/D6.0



TYP. REINFORCEMENT AT CMU WALL OPENINGS

A5000-D5JC

1

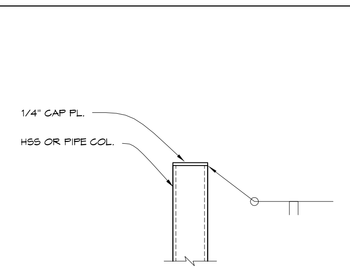


S

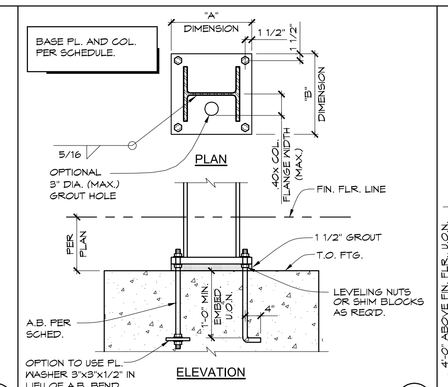
COLUMN SCHEDULE

		C1	C2	C3	C4	C5	C6	C7
	ROOF							HSS6X6X3/8
	LEVEL 2	W12X87	W12X72	W12X53	W10X45	W10X30	HSS8.625X.322	
	FOUNDATION							
BASE PLATE	DIMENSON "A"	18"	18"	18"	16"	16"	14"	PER DETAIL
	DIMENSON "B"	18"	18"	18"	16"	16"	14"	PER DETAIL
	THICKNESS	1 1/4"	3/4"	1/2"	3/4"	1/2"	1/2"	PER DETAIL
	DETAIL	9 -	9 -	9 -	9 -	9 -	10 -	8 -
	NOTES	-	-	-	-	-	-	PER DETAIL
A.B. (ASTM GR 36 U.O.N.)	NO.	4	4	4	4	4	4	PER DETAIL
	DIA.	1"	1"	1"	1"	1"	1"	PER DETAIL

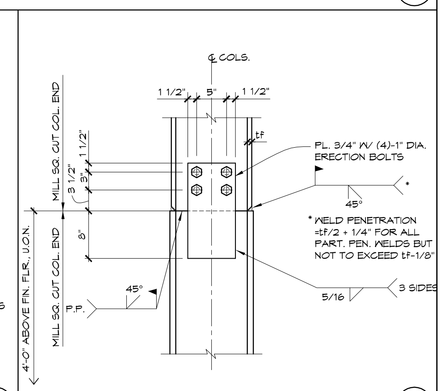
COLUMN SCHEDULE (2)



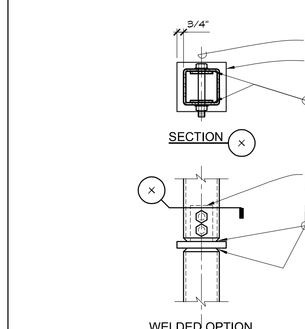
TYP. HSS COL. CAP PLATE 5000-15 (15)

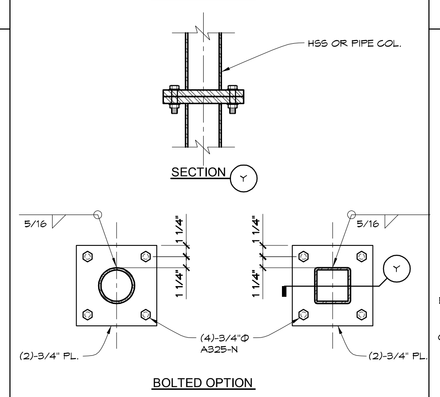


TYP. W COL. BASE PLATE 5000-02 (9)

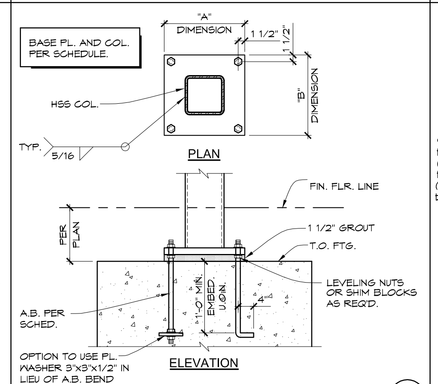


TYP. NON-FRAME COLUMN SPLICE 5000-07 (3)

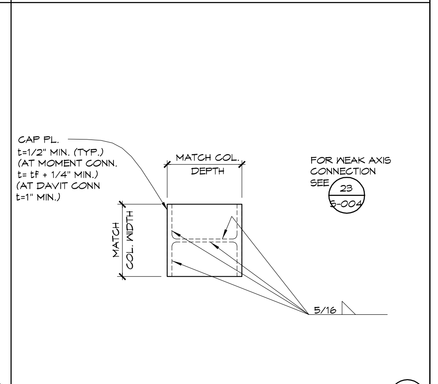




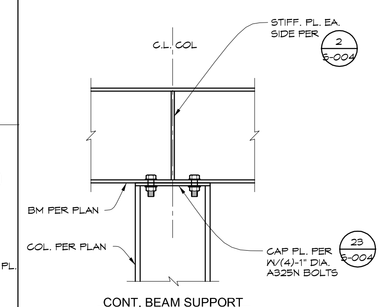
TYP. TUBE OR PIPE COLUMN SPLICE 5000-12 (17)

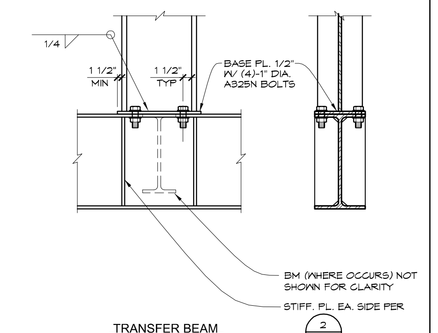


TYP. HSS COL. BASE PLATE 5000-03 (10)

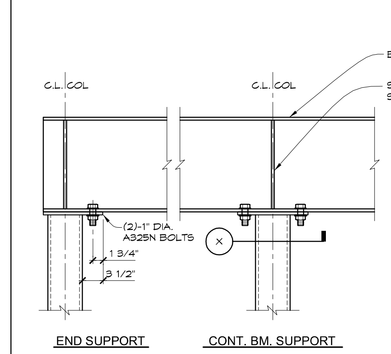


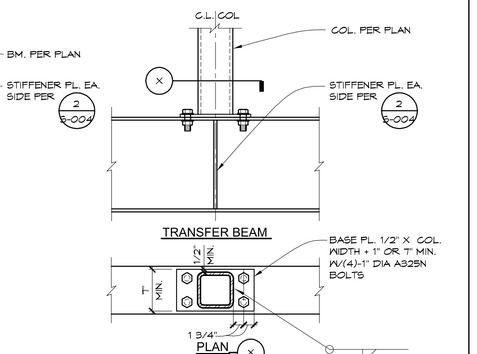
TYP. W COL. CAP PLATE 5000-04 (4)





TYP. CONT. BEAM AT W COL. 5000-05 (5)





TYP. CONT. BM AT HSS OR PIPE COL. 5000-08 (6)

SCALE AS NOTED

TITLE

COLUMN SCHEDULE AND DETAILS

S-007

S:\PROJECTS\2012\121238.00 AREE - 4757 NCD Shell\2 Dwg\121238.00_S-007.dwg, 2/14/2013 11:32:13 AM, Jean, 1:1
10/24/2012 2:15:16 PM
J:\PROJECTS\2012\121238.00 AREE — 4757 NCD Shell\2 Dwg\121238.00_S-007.dwg
Date: Feb 14, 2013 — 11:32am
USERSCALE: 1/12" OPR: Jean

FOUNDATION PLAN LEGEND:

C1 / F11.0 — COLUMN MARK. SEE COLUMN SCHEDULE ON 2/S-001
FOOTING MARK. SEE SCHEDULE

-2'-0" — INDICATES TOP OF FOOTING ELEVATION (BELOW TOP OF SLAB)

INDICATES SLAB DEPRESSION PER COORDINATE WITH ARCH DWGS. 15/S-003

GB-1 — INDICATES GRADE BEAM. SEE GRADE BEAM SCHEDULE.

INDICATES STEPPED FOOTING SEE DETAIL 6/S-003

FOUNDATION PLAN NOTES:

1. TOP OF CONC. SLAB ASSUMED ELEVATION = 0'-0".
2. PRIOR TO THE CONTRACTOR REQUESTING BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT:
   A. THE BUILDING PAD HAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
   C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.
3. VERIFY ALL DIMENSIONS WITH ARCH'L DRAWINGS. SEE ARCH. FOR DIMENSIONS NOT SHOWN.
4. TOP OF FOOTINGS AND GRADE BEAMS SHALL BE AT ELEVATION 1'-0" BELOW TOP OF SLAB U.O.N. ON PLAN.

FOOTING SCHEDULE

TYPE	SIZE W x L x D	REINFORCEMENT	DETAIL
F3.2	3'-0"x3'-0"x2'-0"	(4)-#4 EA. WAY TOP (4)-#5 EA. WAY BOTT.	26/S-401 SIM
F4.0	4'-0"x4'-0"x1'-6"	(4)-#5 EA. WAY BOTT.	1/S-401
F6.0	6'-0"x6'-0"x1'-6"	(6)-#6 EA. WAY BOTT.	1/S-401
F6.5	6'-0"x6'-0"x2'-0"	(7)-#4 EA. WAY TOP (7)-#7 EA. WAY BOTT.	28/S-401 SIM
F6.7	6'-0"x6'-0"x2'-0"	(7)-#4 EA. WAY TOP (7)-#7 EA. WAY BOTT.	26/S-401 SIM
F7.0	7'-0"x7'-0"x2'-0"	(7)-#7 EA. WAY BOTT.	1/S-401
F11.0	11'-0"x11'-0"x3'-0"	(10)-#8 EA. WAY BOTT.	1/S-401
F12.9	12'-0"x9'-0"x2'-0"	SEE DETAIL	8/S-401

GRADE BEAM SCHEDULE

MARK	WIDTH	DEPTH	TOP REINF. CONT.	BOTTOM REINF. CONT.	TIE REINFORCEMENT SIZE & SPACING	TIE REINFORCEMENT # OF LEGS	DETAIL	COMMENTS
GB-1	6'-0"	3'-0"	(6) - #8	(14) - #8	#5 @ 12" O.C.	(4) LEGS	7/S-401	SEE 7/S-401 FOR ADD'L REINF. REQMNTS.
GB-2	8'-0"	3'-0"	(6) - #8	(10) - #8	#5 @ 12" O.C.	(4) LEGS	7/S-401	SEE 7/S-401 FOR ADD'L REINF. REQMNTS.

(E) 10" CONC. WALL
(E) BRACE FRAME SEE DEMO DWGS
TOP OF FTG. TO MATCH (E) FTG.
5" THICK CONC. PAD FOR MTL. STUDS REINF. W/ #3 @ 12" O.C. @ 1" CLR. FROM TOP OF SLAB, TYP.
(E)HSS6x6x3/4 TYP., U.N.O.
(E)8x8x18" FOOTING TYP., U.O.N.
DEMO (E) WALL AFTER HSS IS IN PLACE
5" CONC. SLAB ON GRADE W/ #3 @ 18" O.C. EA WAY OVER 2" SAND OVER VAPOR BARRIER OVER 2" SAND. SEE 11/S-003
5" Foundation Slab
CONTROL JOINTS PER 12/S-003
PEDESTAL PER 18/S-003
10" CONC. WALL BTWN. PEDESTALS PER 18/S-401
GB-1
GB-2
CF
CT
DN

1 FOUNDATION PLAN
1/8" = 1'-0"

PLAN NORTH

PROJECT NO.	12137
SCALE	As indicated
TITLE	FOUNDATION PLAN

S-101

2/14/2013 4:13:35 PM

STEEL FLOOR FRAMING LEGEND:

- MOMENT FRAME CONNECTION PER FRAME ELEVATIONS.
- W18X50 [30] — BEAM SIZE AND STUD COUNT. U.O.N., STUDS ARE TO BE DISTRIBUTED UNIFORMLY OVER ENTIRE LENGTH OF BEAM. IF DECK CELL LAYOUT IS SUCH THAT UNIFORM DISTRIBUTION IS NOT POSSIBLE, PLACE EXTRA CONNECTORS TOWARD EACH END OF BEAM STUD LENGTH PER
- (C+1") — UPWARD CAMBER AT MIDSPAN
- (-0") — TOP OF STEEL (RELATIVE TO TYPICAL STEEL ELEVATION)
- BA — BRACE ANGLE PER
- BOTT. FLANGE CONNECTION
- MOMENT JOINT BRACE ANGLE PER SPACING PER
- FULL HEIGHT STIFFENER PL PER
- USE OF A325SC (SLIP CRITICAL) BOLTS AT BEAM CONNECTION, PER
- NON-FRAME BEAM TO COLUMN MOMENT CONNECTION PER
- NON-FRAME BEAM TO BEAM MOMENT CONNECTION PER

STEEL FLOOR FRAMING NOTES:

1. TOP OF STEEL ELEV. = 16'-6 3/4" U.O.N.
2. TOP OF CONCRETE ELEV. = 17'-0" U.O.N.
3. WHERE SPACING OF BEAMS NOT INDICATED, PROVIDE EQUAL SPACING WITHIN EACH BAY.
4. WHERE 2", 18 GA. DECK IS INDICATED ON THE DRAWINGS, METAL FLOOR DECK SHALL BE VERCO XD FORM-LOK, VENTED AND GALVANIZED OR APPROVED EQUAL. MAX. SPAN = 12'-2". WITH 2-SPAN MINIMUM. (IAPMO ER-0217)
5. COORDINATE W/ MECHANICAL DRAWINGS FOR LOCATION AND SIZES OF MECHANICAL EQUIPMENT AND OPENINGS.
6. CONCRETE FILL THICKNESS SHOWN IS MINIMUM REQUIRED THICKNESS. FLOOR SHALL BE MONITORED BY TRANSIT LEVEL OR LASER DURING PLACEMENT TO MAINTAIN LEVEL FLOOR.
7. INFILL EXISTING FLOOR OPENINGS USING 14" T.J.I (L65) JOISTS @ 16" O.C. (1)MAX. = 16 FT.) USE SIMPSON LSV HANGERS WITH 10D-1/6D NAILS TO EXISTING NAILER AND (2)-10d NAILS TO JOIST. USE STRUCT I 5/8" PLYWOOD SHEATHING DECK WITH 10d E.N. @ 4" O.C. AND 10d F.N. @ 10" O.C.

1 SECOND FLOOR FRAMING PLAN
1/8" = 1'-0"

PLAN NORTH

SCALE As indicated

TITLE

SECOND LEVEL FRAMING PLAN

S-102

2/14/2013 11:35:45 AM

STEEL ROOF FRAMING LEGEND:

- MOMENT FRAME CONNECTION PER FRAME ELEVATIONS.
- W18x50 [30] — BEAM SIZE AND STUD COUNT, U.O.N., STUDS ARE TO BE DISTRIBUTED UNIFORMLY OVER ENTIRE LENGTH OF BEAM. IF DECK CELL LAYOUT IS SUCH THAT UNIFORM DISTRIBUTION IS NOT POSSIBLE, PLACE EXTRA CONNECTORS TOWARD EACH END OF BEAM STUD LENGTH PER 4/S-005
- (c=1") — UPWARD CAMBER AT MIDSPAN
- (-6") — TOP OF STEEL (RELATIVE TO TYPICAL STEEL ELEVATION)
- BA — BRACE ANGLE PER 3/S-004; BOTT. FLANGE CONNECTION
- MOMENT JOINT BRACE ANGLE PER SPACING PER 24/S-301; 3/S-004
- FULL HEIGHT STIFFENER PL PER 2/S-004
- USE OF A325SC (SLIP CRITICAL) BOLTS AT BEAM CONNECTION, PER 25/S-301, 26/S-301, OR 28/S-301
- NON-FRAME BEAM TO COLUMN MOMENT CONNECTION PER 23/S-004
- NON-FRAME BEAM TO BEAM MOMENT CONNECTION PER 6/S-004
- ROOF SCREEN BRACE
- INDICATES GONC. EQUIPMENT PAD
- INDICATES FUTURE MECHANICAL UNIT WITH APPROXIMATE WEIGHT REFERNGED FOR ROOF DESIGN ONLY

STEEL ROOF FRAMING NOTES:

1. TOP OF STEEL ELEVATION AS SHOWN ON PLAN.
2. WHERE SPACING OF BEAMS NOT INDICATED, PROVIDE EQUAL SPACING WITHIN EACH BAY.
3. WHERE 2", 18 GA. DECK IS INDICATED ON THE DRAWINGS, METAL FLOOR DECK SHALL BE VERCO W2 FORM-LOK, VENTED AND GALVANIZED OR APPROVED EQUAL. MAX. SPAN = 12'-2" WITH 2 SPAN MINIMUM. (IAPMO ER-0211).
4. COORDINATE W/ MECHANICAL DRAWINGS FOR LOCATION AND SIZES OF MECHANICAL EQUIPMENT AND OPENINGS.
5. FOR SIZE AND LOCATIONS OF CURBS AND SLAB OPENINGS, REFER TO ARCHITECTURAL OR MECHANICAL DRAWINGS
6. HOIST BEAM IS REMOVABLE AS NECESSARY FOR ELEVATOR OPERATION. PROVIDE ONLY BOLTED CONNECTION AND NO ATTACHMENT TO DECK.

1 ROOF FRAMING PLAN
1/8" = 1'-0"

SCALE 1/8" = 1'-0"

TITLE

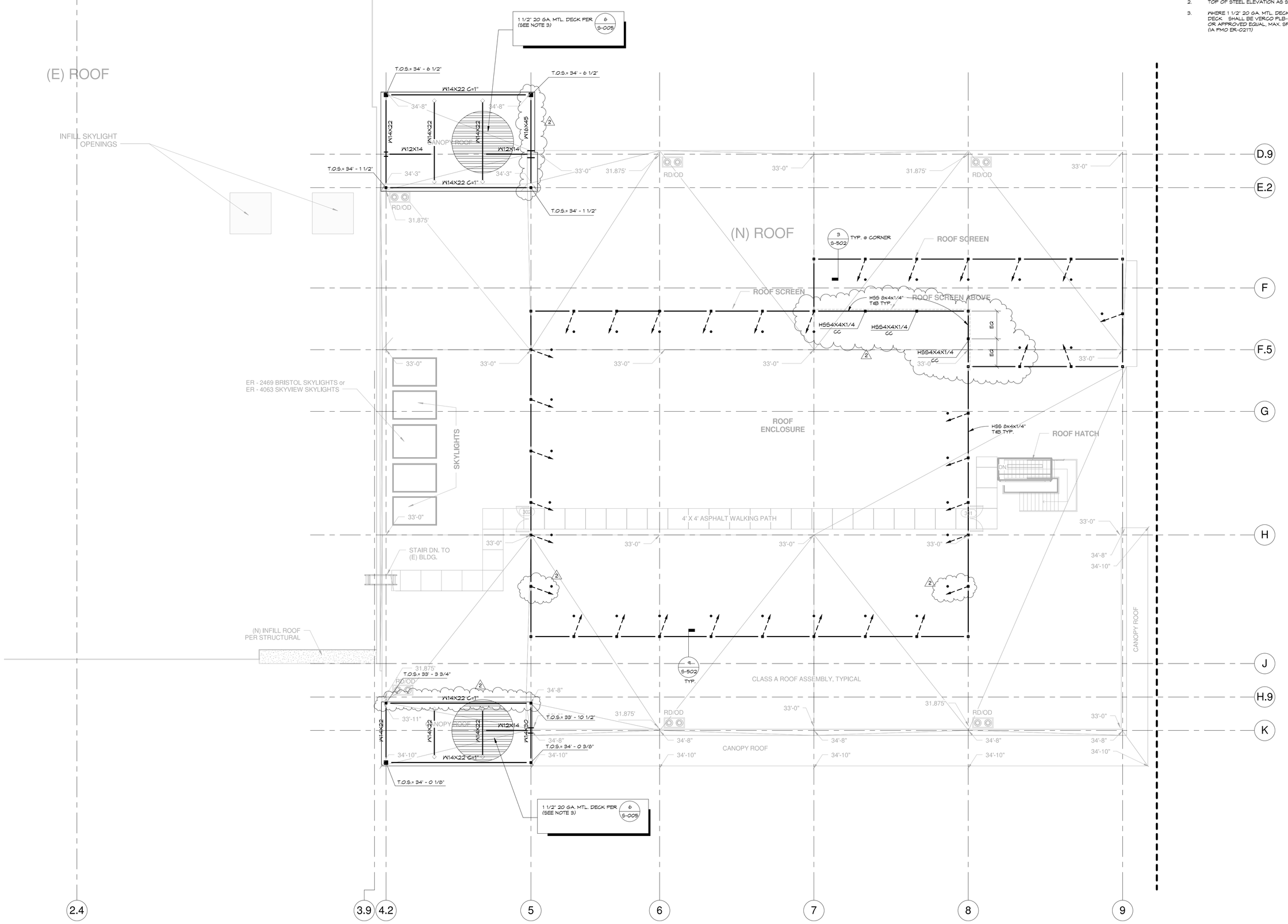
ROOF FRAMING PLAN

S-103

2/14/2013 11:36:03 AM

STEEL ROOF FRAMING NOTES:

1. FOR NOTES AND LEGENDS SEE SHEET S-103.
2. TOP OF STEEL ELEVATION AS SHOWN ON PLAN.
3. WHERE 1 1/2" 20 GA. MTL. DECK IS INDICATED ON PLAN DECK SHALL BE VERCO PLB-36 OR HSB-36 GALVANIZED OR APPROVED EQUAL, MAX. SPAN = 10'-0" WITH (2)-SPANS MIN. (IA PMD ER-0217)



1 ROOF SCREEN FRAMING PLAN
1/8" = 1'-0"

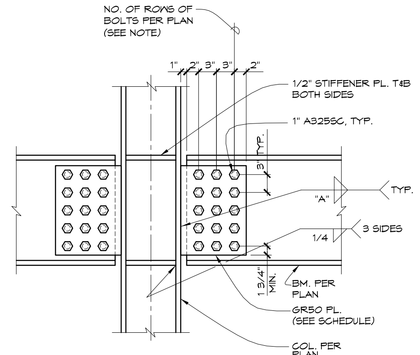
PLAN NORTH

SCALE 1/8" = 1'-0"

TITLE
ROOF SCREEN FRAMING PLAN

S-104

2/14/2013 11:36:19 AM



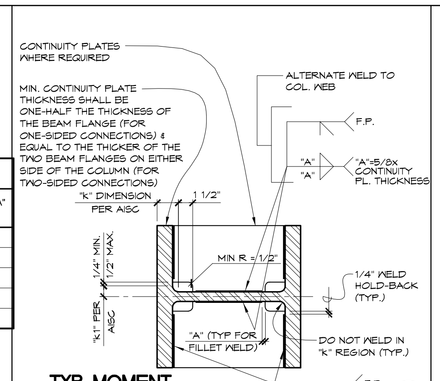
TYP. BM TO COL. FLANGE DRAG CONN.

5050-01UC

DRAG CONNECTION SCHEDULE			
BEAM SIZE	NO. OF BOLTS PER ROW	PL t	WELD "A"
W12,W14	3	3/8"	5/16"
W16	4	1/2	3/8"
W18,W21	5	5/8"	1/2"
W24	6	5/8"	1/2"
W27	7	5/8"	1/2"

NOTE:
OF DOTS ON PLAN IS # OF ROWS OF BOLTS (— ● — ● 2 ROWS)

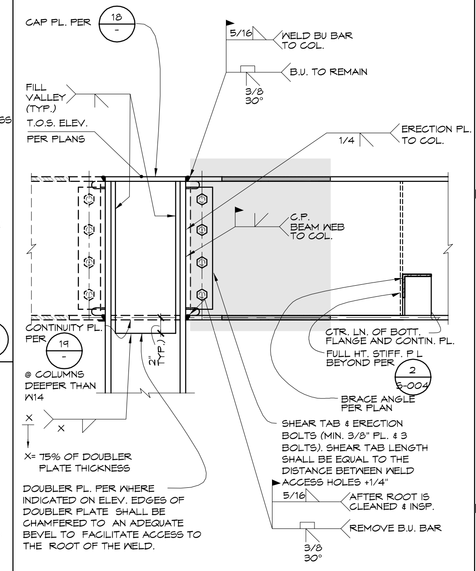
25

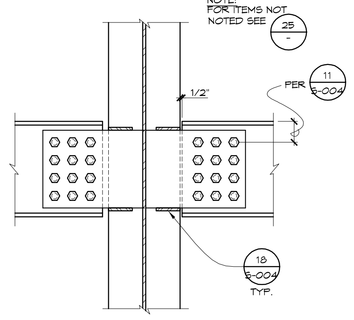


TYP. MOMENT FRAME CONTINUITY PLATE

5101-06UC

19

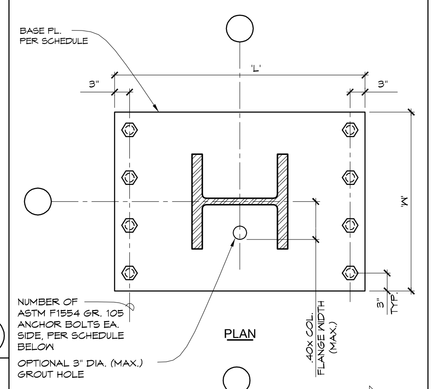


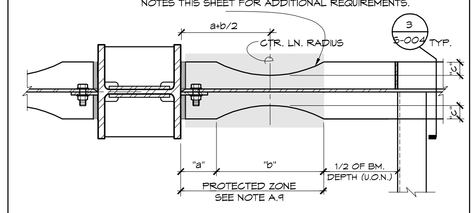


TYP. BEAM TO COL. WEB DRAG CONN.

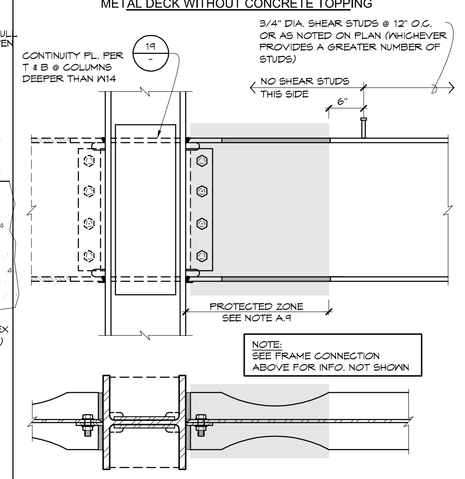
5119SEC

26

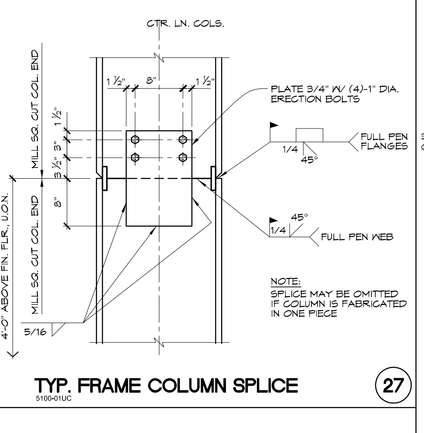




FRAME CONNECTION AT
METAL DECK WITHOUT CONCRETE TOPPING



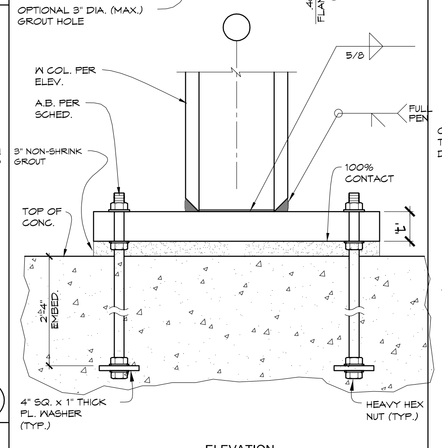
FRAME CONNECTION AT
METAL DECK WITH CONCRETE TOPPING



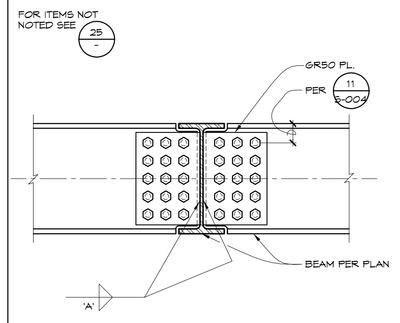
TYP. FRAME COLUMN SPLICE

5100-01UC

27



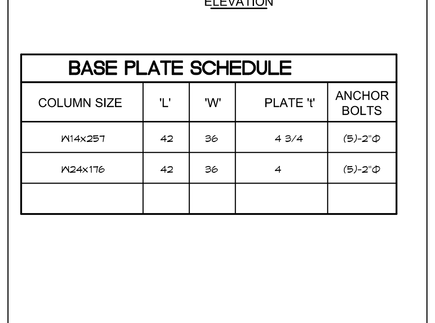
ELEVATION



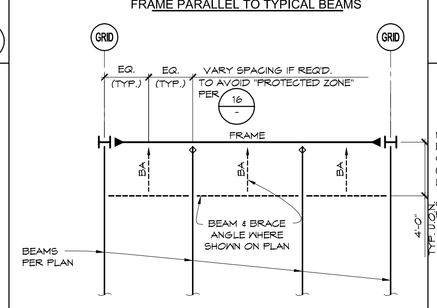
TYPICAL BM. TO BM. DRAG CONN.

5050-21UC

28



FRAME PARALLEL TO TYPICAL BEAMS



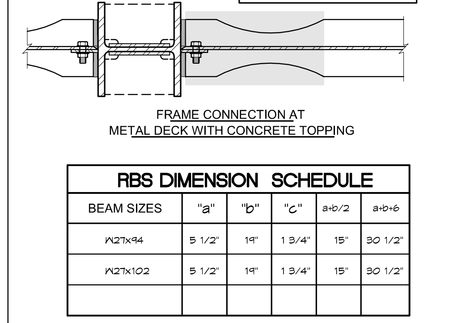
FRAME PERPENDICULAR TO TYPICAL BEAMS

FIXED BASE MOMENT FRAME BASE PLATE

5101-08UC

22

BASE PLATE SCHEDULE				
COLUMN SIZE	'L'	'W'	PLATE 't'	ANCHOR BOLTS
W14x257	42	36	4 3/4	(5)-2'-0
W24x176	42	36	4	(5)-2'-0



NOTES:
1. BEVEL AS REQUIRED BY AWS D1.1 FOR SELECTED GROOVE WELD PROCEDURE.
2. LARGER OF 1t OR 1/2 INCH. (PLUS 1/2 1t, OR MINUS 1/4 1t)
3. 3/4 1t TO 1t, 3/4" MIN. (± 1/4 INCH)
4. 3/8" MINIMUM RADIUS (PLUS 3/8", OR MINUS 0)
5. 3 1t. (± 1/2 INCH)
6. SEE AISC 360, SECTION M2.2 FOR FABRICATION DETAILS INCLUDING CUTTING METHODS, SMOOTHNESS REQUIREMENTS, AND TESTING REQUIREMENTS.

TYP. WELD ACCESS HOLE

5101-03UC

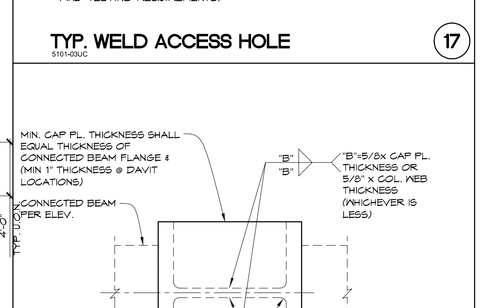
17

RBS DIMENSION SCHEDULE					
BEAM SIZES	"a"	"b"	"c"	a=0.2	a=0.6
W27x94	5 1/2"	14"	1 3/4"	15°	30 1/2"
W27x102	5 1/2"	14"	1 3/4"	15°	30 1/2"

TYPICAL RBS FRAME CONNECTION IN STRONG AXIS

5101-02UC

16



TYP. MOMENT FRAME COLUMN CAP PLATE

5101-11AUC

18

NOT USED

29

NOT USED

30

TYP. MOMENT FRAME BRACING AT METAL DECK W/ CONC. TOPPING

5101-07UC

24

WELDED STEEL MOMENT RESISTING FRAME NOTES/QUALITY ASSURANCE PLAN

5. ROLLED SHAPES WITH FLANGES 1-1/2 INCH THICK OR THICKER SHALL HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FOOT-POUNDS AT 70 DEGREES FAHRENHEIT, TESTED IN THE ALTERNATE CORE LOCATION AS DESCRIBED IN ASTM A6 SUPPLEMENTARY REQUIREMENT S30.
6. FILLER METAL SHALL MEET THE REQUIREMENTS FOR H16 (16 ML MAXIMUM DIFFUSIBLE HYDROGEN PER 100 GRAMS DEPOSITED WELD METAL) AS TESTED IN ACCORDANCE WITH AWS A4.3.
7. ALL OTHER MATERIAL REQUIREMENTS SHALL BE PER STRUCTURAL NOTES ELSEWHERE ON THESE DRAWINGS.

D. FABRICATION:

1. THE REDUCED BEAM SECTION SHALL BE MADE USING THERMAL CUTTING TO PRODUCE A SMOOTH CURVE. THE MAXIMUM SURFACE ROUGHNESS OF THE THERMALLY CUT SURFACE SHALL BE 500 MICRO-INCHES (AWS C4.1, SAMPLE 4). TRANSITIONS BETWEEN THE REDUCED BEAM SECTION AND THE UNMODIFIED BEAM FLANGE SHALL BE ROUNDED IN THE DIRECTION OF THE FLANGE LENGTH. CORNERS BETWEEN THE REDUCED BEAM SECTION AND THE TOP AND BOTTOM OF THE FLANGES SHALL BE GROUND TO REMOVE SHARP EDGES.
2. THERMAL CUTTING TOLERANCES FOR REDUCED BEAM SECTION CUTS SHALL BE PLUS OR MINUS 1/4 INCH FROM THE THEORETICAL CUT LINE. THE BEAM EFFECTIVE FLANGE WIDTH AT ANY SECTION SHALL HAVE A TOLERANCE OF PLUS OR MINUS 3/8 INCH.
3. REPAIR OF GOUGES OR NOTCHES IN REDUCED BEAM SECTIONS SHALL BE PER AISC 358, SECTION 5.7.
4. SHEAR CONNECTION PLATES SHALL BE SIZED SO THAT THEY DO NOT INTERFERE WITH WELDER'S ACCESS TO MAKE FLANGE WELDS OR TO PERFORM WORK WHICH IS REQUIRED TO INSTALL OR REMOVE BACKING OR TO PLACE REINFORCING FILLET WELDS.
5. IN THE PROTECTED ZONE, NO WELDED OR BOLTED CONNECTIONS, HOLES, OR OTHER ATTACHMENTS WILL BE PERMITTED EXCEPT AS SPECIFICALLY SHOWN ON THE STRUCTURAL DETAILS.

E. WELDING PROCEDURES:

1. WELDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF AWS D1.1, AS SUPPLEMENTED BY AISC 341, APPENDIX W.
2. EACH WELDER WORKING ON THE PROJECT SHALL BE ASSIGNED AN IDENTIFICATION SYMBOL OR MARK. EACH WELDER SHALL MARK THIS IDENTIFICATION SYMBOL AT EACH WELDMENT COMPLETED
3. FOR ALL COMPLETE JOINT PREPARATION (CJP) AND PARTIAL JOINT PENETRATION (PJP) GROOVE WELDS SUBJECT TO ULTRASONIC TESTING, A VISIBLE MARK "FOR UT" SHALL BE ACCURATELY PLACED ON THE STEEL A DISTANCE OF FOUR INCHES AWAY FROM THE ROOT OF THE EDGE PREPARATION.
4. WELD 'DAMS', OR 'END DAMS' SHALL NOT BE USED. 'RUN-OFF' OR WELD TABS, IF USED, SHALL EXTEND BEYOND THE EDGE OF THE JOINT A DISTANCE EQUAL TO A MINIMUM OF THE PART THICKNESS, BUT NOT LESS THAN ONE INCH. ALL WELD TABS SHALL BE REMOVED TO WITHIN 1/8 INCH OF THE BASE METAL SURFACE, EXCEPT AT CONTINUITY PLATES WHERE REMOVAL TO WITHIN 1/4 INCH OF THE PLATE EDGE SHALL BE PERMITTED. THE REMOVAL AREA SHALL BE FINISHED TO A SURFACE ROUGHNESS OF 500 MICRO-INCHES OR SMOOTHER. THE CONTOUR OF THE WELD END SHALL PROVIDE A SMOOTH TRANSITION TO ADJACENT SURFACES, FREE OF NOTCHES, GOUGES, AND SHARP CORNERS.
5. AT CONTINUITY PLATE TO COLUMN FLANGE WELDS, WELD TABS MAY BE USED AT THE FLANGE TIP END, BUT SHALL NOT BE PERMITTED AT THE OPPOSITE END IN THE K-AREA OF THE COLUMN.
6. WHEN USING WELD ACCESS HOLES TO FACILITATE CJP GROOVE WELDS OF BEAM BOTTOM FLANGES TO COLUMN FLANGES OR CONTINUITY PLATES, THE GROOVE WELD SHALL BE SEQUENCED AS FOLLOWS:
   A. AS FAR AS IS PRACTICABLE, STARTS AND STOPS SHALL NOT BE PLACED DIRECTLY UNDER THE BEAM WEB.
   B. EACH LAYER SHALL BE COMPLETED ACROSS THE FULL WIDTH OF THE FLANGE BEFORE BEGINNING THE NEXT LAYER.
   C. FOR EACH LAYER, THE WELD STARTS AND STOPS SHALL BE ON THE OPPOSITE SIDE OF THE BEAM WEB, AS COMPARED TO THE PREVIOUS LAYER.
7. IF STEEL BACKING IS USED UNDER THE BOTTOM BEAM FLANGE-TO-COLUMN CJP GROOVE WELD, THE WELD BACKING SHALL BE REMOVED, THE ROOT PASS BACKGOUGED TO SOUND WELD METAL, AND THE AREA SUBJECTED TO VISUAL EXAMINATION FOR DEFECTS. A REINFORCING FILLET WELD, AS SHOWN ON THE DETAILS, SHALL BE PLACED AT THIS LOCATION. THE REINFORCING FILLET LEG AT THE BEAM FLANGE SHALL BE SUCH THAT THE FILLET TOE IS LOCATED ON THE BEAM FLANGE BASE METAL.
8. IF STEEL BACKING IS USED UNDER THE TOP BEAM FLANGE-TO-COLUMN CJP GROOVE WELD, AND IS NOT REMOVED, THE BACKING SHALL BE ATTACHED TO THE COLUMN WITH A FILLET WELD ALONG THE COMPLETE BAR LENGTH ON THE UNDERSIDE OF THE BAR, AS SHOWN ON THE DETAILS. OTHER METHODS OF WELDING THE BACKING TO THE COLUMN MAY BE USED TO SUBJECT TO THE ENGINEER'S APPROVAL. BACKING AT BEAM FLANGE TO COLUMN JOINTS SHALL NOT BE WELDED TO THE UNDERSIDE OF THE BEAM FLANGE, NOR SHALL TACK WELDS BE PERMITTED AT THIS LOCATION.
9. IF STEEL BACKING IS USED AT CONTINUITY PLATE TO COLUMN FLANGES, AND IS NOT REMOVED, THE BACKING SHALL BE ATTACHED TO THE COLUMN WITH A CONTINUOUS 5/16 INCH FILLET WELD ON THE EDGE BELOW THE CJP GROOVE WELD. WHEN BACKING IS REMOVED, THE ROOT PASS SHALL BE BACKGOUGED TO SOUND WELD METAL. THE AREA SUBJECTED TO VISUAL EXAMINATION FOR DEFECTS, AND A REINFORCING FILLET WELD WITH A MINIMUM SIZE OF 5/16 INCH PLACED AT THIS LOCATION.
10. IN THE PROTECTED ZONE, TACK WELDS ATTAGHING BAGKING AND WELD TABS SHALL BE PLACED WHERE THEY WILL BE INCORPORATED INTO A FINAL WELD.
11. ADDITIONAL WELD PROCEDURES FOR DEMAND CRITICAL WELDS SHALL BE AS SPECIFIED IN AISC 341, APPENDIX W6.

F. WELDING PROCEDURE SPECIFICATION (WPS):

1. THE WPS SHOULD BE WRITTEN BY A COMPETENT WELDING ENGINEER.
2. EACH WPS SHALL SPECIFY ALL APPLICABLE ESSENTIAL VARIABLES OF AWS D1.1. WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER METAL MANUFACTURER.
3. WELDERS AND SPECIAL INSPECTORS SHALL BE INSTRUCTED IN THE PROPER USE OF THE WPS AND SHALL BE INSTRUCTED TO RETAIN A COPY OF THE WPS FOR PRESENTATION TO THE DEVELOPMENT SERVICES STRUCTURAL INSPECTOR UPON REQUEST.
4. THE SPECIAL INSPECTOR MUST VERIFY THAT WELDING IS BEING PERFORMED ACCORDING TO THE WPS.

G. INSPECTION & TESTING:

1. THE REQUIREMENTS LISTED BELOW FOR ELEMENTS OF THE SEISMIC LOAD RESISTING SYSTEM (SLRS), ARE IN ADDITION TO THE GENERAL SPECIAL INSPECTION AND STRUCTURAL OBSERVATION REQUIREMENTS. IN THE CASE OF CONFLICT, THE NOTES ON THIS SHEET ARE TO BE FOLLOWED FOR INSPECTION & TESTING OF ELEMENTS OF THE SLRS.
2. QC WELDING INSPECTORS, QA WELDING INSPECTORS, AND NDT TECHNICIANS SHALL BE QUALIFIED IN ACCORDANCE WITH AISC 341, SECTION N3.
3. NONDESTRUCTIVE TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH AISC 341, SECTION N4.
4. WELD ACCEPTANCE CRITERIA SHALL BE PER AWS D1.1, AS AMENDED BY AISC 341 APPENDIX N.
5. INSPECTION POINTS AND FREQUENCIES OF QC AND QA TASKS AND REQUIRED DOCUMENTATION SHALL BE AS SPECIFIED IN AISC 341, APPENDIX Q.
6. WHERE JUSTIFIED BY DOCUMENTION OF TEST RESULTS, THE PERCENTAGES OF ULTRASONIC TESTING AND MAGNETIC PARTICLE TESTING FOR AN INDIVIDUAL WELDER MAY BE REDUCED IN ACCORDANCE WITH THE PROVISIONS OF AISC 341, SECTION Q5.2.
7. VISUAL INSPECTIONS OF REDUCED BEAM SECTIONS AND PROTECTED ZONE SHALL BE PROVIDED AS SPECIFIED IN AISC 341, SECTION Q5.4.
8. WHERE A COLUMN RECEIVES DOUBLER PLATES ON BOTH SIDES OF THE WEB, THE REQUIRED MAGNETIC PARTICLE TESTING OF THE K-AREA SHOULD BE PERFORMED AFTER WELDING OF ONE SIDE, PRIOR TO WELDING OF THE OPPOSITE SIDE.

A. GENERAL NOTES:

1. SPECIAL MOMENT RESISTING FRAME CONNECTIONS HAVE BEEN DESIGNED AND DETAILED IN ACCORDANCE WITH AISC 358, "PREQUALIFIED CONNECTIONS FOR SPECIAL AND INTERMEDIATE STEEL MOMENT FRAMES FOR SEISMIC APPLICATIONS," AND AISC 341, "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS."
2. THE SEISMIC LOAD RESISTING SYSTEM (SLRS) ELEMENTS SUBJECT TO THE REQUIREMENTS OF AISC 358 AND AISC 341 INCLUDE:
   A. BEAMS AND COLUMNS IN SPECIAL MOMENT RESISTING FRAMES.
   B. CONNECTION PLATES, CONTINUITY PLATES, DOUBLER PLATES, AND BASE PLATES WHICH ARE PART OF FRAME BEAM AND COLUMN ASSEMBLIES.
   C. WELDING AND HIGH-STRENGTH BOLTING AT COLLECTOR (DRAG) CONNECTIONS ARE SUBJECT TO THESE REQUIREMENTS.
   D. PLATES FOR CONNECTION OF NON-FRAME BEAMS TO FRAME BEAMS ARE NOT SUBJECT TO THESE REQUIREMENTS.
3. ANGLE BRACES AND THEIR CONNECTIONS TO FRAME BEAMS ARE NOT SUBJECT TO THESE REQUIREMENTS.
4. IN ADDITION TO THE PROVISIONS CONTAINED IN THE STRUCTURAL DRAWINGS, QUALITY ASSURANCE PROCEDURES SHALL BE IN ACCORDANCE WITH AISC 341, APPENDIX Q.
5. IN ADDITION TO THE PROVISIONS CONTAINED IN THE STRUCTURAL DRAWINGS, WELDING PROVISIONS SHALL BE IN ACCORDANCE WITH AISC 341, APPENDIX W.
6. A PRE-CONSTRUCTION MEETING INCLUDING THE ENGINEER OF RECORD, FABRICATOR, ERECTOR, CONTRACTOR, TESTING AGENCY, THE CITY'S STRUCTURAL INSPECTOR AND THE SPECIAL INSPECTOR SHALL TAKE PLACE PRIOR TO THE COMMENCEMENT OF FABRICATION AND ERECTION TO DISCUSS THE FABRICATION AND WELDING PROCEDURES AND THE QUALITY CONTROL AND QUALITY ASSURANCE REQUIREMENTS.
7. ANY PROPOSED MODIFICATIONS DUE TO FABRICATION ERRORS OR UNFORESEEN FIELD CONDITIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO SUCH MODIFICATION BEING MADE.
8. CJP GROOVE WELDS OF BEAM FLANGES AND BEAM WEBS TO COLUMNS, AND CJP GROOVE WELDS AT COLUMN SPLICES AND COLUMN BASE PLATES, SHALL BE CLASSIFIED AS "DEMAND CRITICAL WELDS."
9. WHERE A "PROTECTED ZONE" IS IDENTIFIED ON THE CONNECTION DETAILS, THE FOLLOWING PROVISIONS SHALL APPLY:
   A. WITHIN THE PROTECTED ZONE, DISCONTINUITIES CREATED BY FABRICATION OR ERECTION OPERATIONS, SUCH AS TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING AND THERMAL CUTTING SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER.
   B. WELDED SHEAR STUDS AND DECKING ATTACHMENTS THAT PENETRATE THE BEAM FLANGE SHALL NOT BE PLACED ON BEAM FLANGES WITHIN THE PROTECTED ZONE. DECKING ARC SPOT WELDS AS REQUIRED TO SECURE DECKING SHALL BE PERMITTED.
   C. WELDED, BOLTED, SCREWED OR SHOT-IN ATTACHMENTS FOR PERIMETER EDGE ANGLES, EXTERIOR FACADES, PARTITIONS, DUCT WORK, PIPING OR OTHER CONSTRUCTION SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE.

B. SUBMITTALS:

1. CONTRACTOR SUBMITTALS: THE FOLLOWING DOCUMENTS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER OF RECORD PRIOR TO FABRICATION OR ERECTION, AS APPLICABLE:
   A. SHOP DRAWINGS, TO INCLUDE AS A MINIMUM THE FOLLOWING:
      (1) DESIGNATION OF MEMBERS AND CONNECTIONS THAT ARE PART OF THE SEISMIC LOAD RESISTING SYSTEM.
      (2) ACCESS HOLE DIMENSIONS, SURFACE PROFILE AND FINISH REQUIREMENTS
      (3) LOCATIONS WHERE BACKING BARS ARE TO BE REMOVED
      (4) LOCATIONS WHERE WELD TABS ARE TO BE REMOVED
      (5) LOCATIONS AND DIMENSIONS OF PROTECTED ZONES
      (6) NDT TO BE PERFORMED BY THE FABRICATOR, IF ANY
      (7) IDENTIFICATION OF DEMAND-CRITICAL WELDS
      (8) IDENTIFICATION OF THE WELDING PROCEDURE SPECIFICATION (WPS) APPLICABLE TO EACH SHOP WELD
   B. ERECTION DRAWINGS, TO INCLUDE AS A MINIMUM THE FOLLOWING:
      (1) DESIGNATION OF MEMBERS AND CONNECTIONS THAT ARE PART OF THE SEISMIC LOAD RESISTING SYSTEM.
      (2) LOCATIONS WHERE BACKING BARS ARE TO BE REMOVED
      (3) LOCATIONS WHERE SUPPLEMENTAL FILLETS ARE REQUIRED WHEN BACKING IS PERMITTED TO REMAIN
      (4) LOCATIONS WHERE WELD TABS ARE TO BE REMOVED
      (5) LOCATIONS AND DIMENSIONS OF PROTECTED ZONES
      (6) THOSE JOINTS OR GROUPS OF JOINTS IN WHICH A SPECIFIC ASSEMBLY ORDER, WELDING SEQUENCE, WELDING TECHNIQUE OR OTHER SPECIAL PRECAUTIONS ARE REQUIRED.
      (7) IDENTIFICATION OF DEMAND CRITICAL WELDS
      (8) IDENTIFICATION OF THE WELDING PROCEDURE SPECIFICATION (WPS) APPLICABLE TO EACH FIELD WELD
      (9) IDENTIFICATION OF FIELD INSTALLED HIGH-STRENGTH BOLTED CONNECTIONS AS SNUG-TIGHT, PRETENSIONED, OR SLIP-CRITICAL, AS REQUIRED BY THE CONTRACT DOCUMENTS
   C. WELDING PROCEDURE SPECIFICATIONS (WPS), WHICH SHALL SPECIFY ALL APPLICABLE ESSENTIAL VARIABLES OF AWS D1.1 AND THE FOLLOWING, AS APPLICABLE.
      (1) POWER SOURCE (CONSTANT CURRENT OR CONSTANT VOLTAGE)
      (2) FOR DEMAND CRITICAL WELDS, ELECTRODE MANUFACTURER AND TRADE NAME
   D. COPIES OF THE MANUFACTURER'S TYPICAL CERTIFICATE OF CONFORMANCE FOR ALL ELECTRODES, FLUXES AND SHIELDING GASSES TO BE USED. CERTIFICATES OF CONFORMANCE SHALL SATISFY THE APPLICABLE AWS AS REQUIREMENTS.
   E. FOR DEMAND CRITICAL WELDS, APPLICABLE MANUFACTURER'S CERTIFICATIONS OR TEST RESULTS THAT THE FILLER METAL MEETS THE SPECIFIED NOTCH TOUGHNESS REQUIREMENTS.
   F. MANUFACTURER'S PRODUCT DATA SHEETS OR CATALOG DATA FOR SMAW, FCAW, AND GMAW COMPOSITE (CORED) FILLER METALS TO BE USED. THE DATA SHEETS SHALL DESCRIBE THE PRODUCT, LIMITATIONS OF USE, RECOMMENDED OR TYPICAL WELDING PARAMETERS, AND STORAGE AND EXPOSURE REQUIREMENTS, INCLUDING BAKING, IF APPLICABLE.
2. CONTRACTOR DOCUMENTS: THE FOLLOWING DOCUMENTS NEED NOT BE SUBMITTED, BUT SHALL BE AVAILABLE FOR REVIEW BY THE ENGINEER OF RECORD PRIOR TO FABRICATION OR ERECTION, AS APPLICABLE:
   A. MATERIAL TEST REPORTS FOR STRUCTURAL STEEL, BOLTS, SHEAR CONNECTORS, AND WELDING MATERIALS
   B. INSPECTION PROCEDURES
   C. NONCONFORMANCE PROCEDURES
   D. MATERIAL CONTROL PROCEDURES
   E. BOLT INSTALLATION PROCEDURES
   F. WELDER PERFORMANCE QUALIFICATION RECORDS (WPQR), INCLUDING ANY SUPPLEMENTAL TESTING REQUIREMENTS
   G. QUALITY CONTROL (QC) INSPECTOR QUALIFICATIONS
3. QUALITY ASSURANCE AGENCY SUBMITTALS: THE AGENCY RESPONSIBLE FOR QUALITY ASSURANCE (QA) SHALL SUBMIT THE FOLLOWING DOCUMENTS TO THE CITY OF SAN DIEGO DEVELOPMENT SERVICES DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER.
   A. QA AGENCY'S WRITTEN PRACTICES FOR THE MONITORING AND CONTROL OF THE AGENCY'S OPERATIONS, INCLUDING THE PROCEDURES LISTED IN AISC 341, SECTION Q4.
   B. QUALIFICATION OF MANAGEMENT AND QA PERSONNEL DESIGNATED FOR THE PROJECT
   C. QUALIFICATION RECORDS FOR INSPECTORS AND NDT TECHNICIANS DESIGNATED FOR THE PROJECT
   D. NDT PROCEDURES AND EQUIPMENT CALIBRATION RECORDS FOR NDT TO BE PERFORMED AND EQUIPMENT TO BE USED FOR THE PROJECT
   E. DAILY INSPECTION REPORTS
   F. NONCONFORMANCE REPORTS

C. MATERIALS:

1. BEAMS AND COLUMNS IN SPECIAL MOMENT RESISTING FRAMES SHALL BE OF ASTM A992.
2. STIFFENER PLATES, CONTINUITY PLATES, DOUBLER PLATES, AND BASE PLATES TO BE OF ASTM A572 GRADE 50 STEEL COMPATIBLE WITH THE BEAMS AND COLUMNS.
3. FILLER METAL FOR DEMAND CRITICAL WELDS SHALL COMPLY WITH THE FOLLOWING:
   A. CHARPY V NOTCH (CVN) TOUGHNESS OF 20 FOOT-POUNDS AT MINUS 20 DEGREES FAHRENHEIT, AS DETERMINED BY THE APPROPRIATE AWS CLASSIFICATION TEST OR MANUFACTURER CERTIFICATION.
   B. CHARPY V NOTCH (CVN) TOUGHNESS OF 40 FOOT-POUNDS AT 70 DEGREES FAHRENHEIT, AS DETERMINED BY AISC 341 APPENDIX X, OR OTHER APPROVED METHOD.
   C. 58 KSI MINIMUM YIELD STRENGTH.
   D. 70 KSI MINIMUM TENSILE STRENGTH.
   E. 22 PERCENT MINIMUM ELONGATION.
4. FILLER METAL FOR ALL OTHER WELDS IN STEEL MOMENT FRAMES SHALL COMPLY WITH THE FOLLOWING:
   A. CHARPY V NOTCH (CVN) TOUGHNESS OF 20 FOOT-POUNDS AT ZERO DEGREES FAHRENHEIT, AS DETERMINED BY THE APPROPRIATE AWS AS CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION.
   B. 58 KSI MINIMUM YIELD STRENGTH.
   C. 70 KSI MINIMUM TENSILE STRENGTH.
   D. 22 PERCENT MINIMUM ELONGATION.

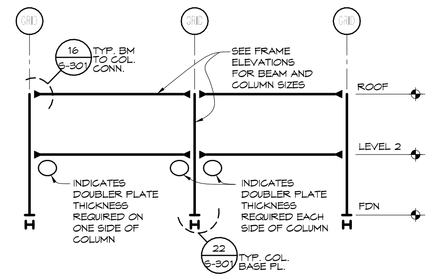
SCALE AS NOTED

TITLE

MOMENT FRAME NOTES AND DETAILS

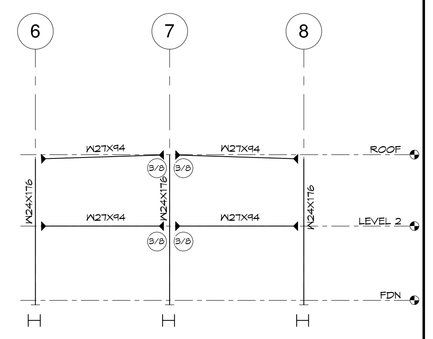
S-301

10/24/2012 2:15:16 PM
I:\PROJECTS\2012\212138.00 AREE - 4757 NCD Shell\2 Dwg\212138.00_S-301.dwg, 2/14/2013 1:53:24 AM, Jean, 1:1
I:\PROJECTS\2012\212138.00 AREE — 4757 NCD Shell\2 Dwg\212138.00_S-301.dwg
Tue, Feb 14, 2013 — 11:32pm
SCALE: 1/2" — GFIN: Jean



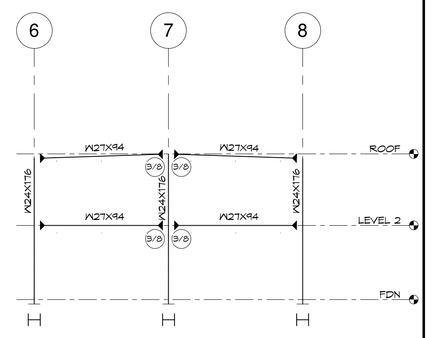
LEGEND - FRAME ELEVATIONS

5



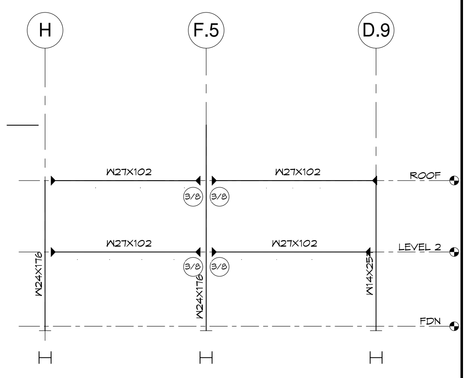
FRAME ELEVATION AT GRIDLINE K

1



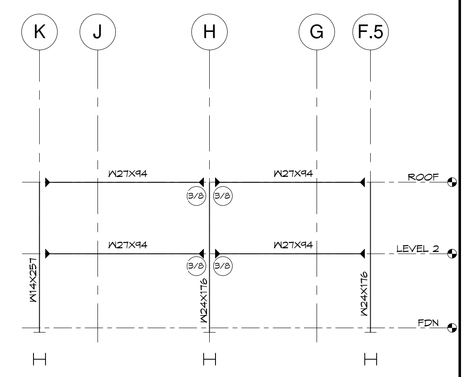
FRAME ELEVATION AT GRIDLINE D.9

2



FRAME ELEVATION AT GRIDLINE 5

3



FRAME ELEVATION AT GRIDLINE 9

4

SCALE As indicated

TITLE

MOMENT FRAME ELEVATIONS

S-302

2/14/2013 11:37:05 AM

DRAWINGS\S401.dwg, 10/4/2012 3:15:54 PM, Adobe PDF

C:\Revit Projects\2012\12138 - 4157 NO SMITH\Drawings\12138_S401.rvt
SCALE: 1/16" = 1'-0"
1/2" SCALE

SECTIONS AND DETAILS

TITLE

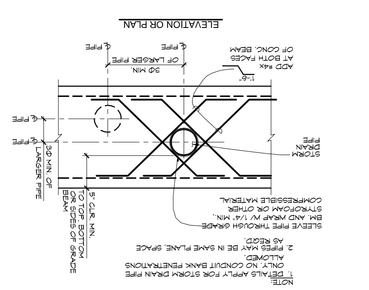
SCALE AS NOTED

S-401

S

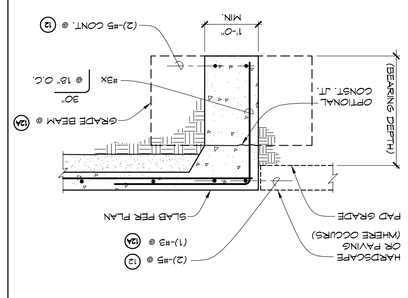
6 HORIZONTAL OR VERTICAL PIPE PENETRATION THROUGH GRADE BM.

2100-04DC



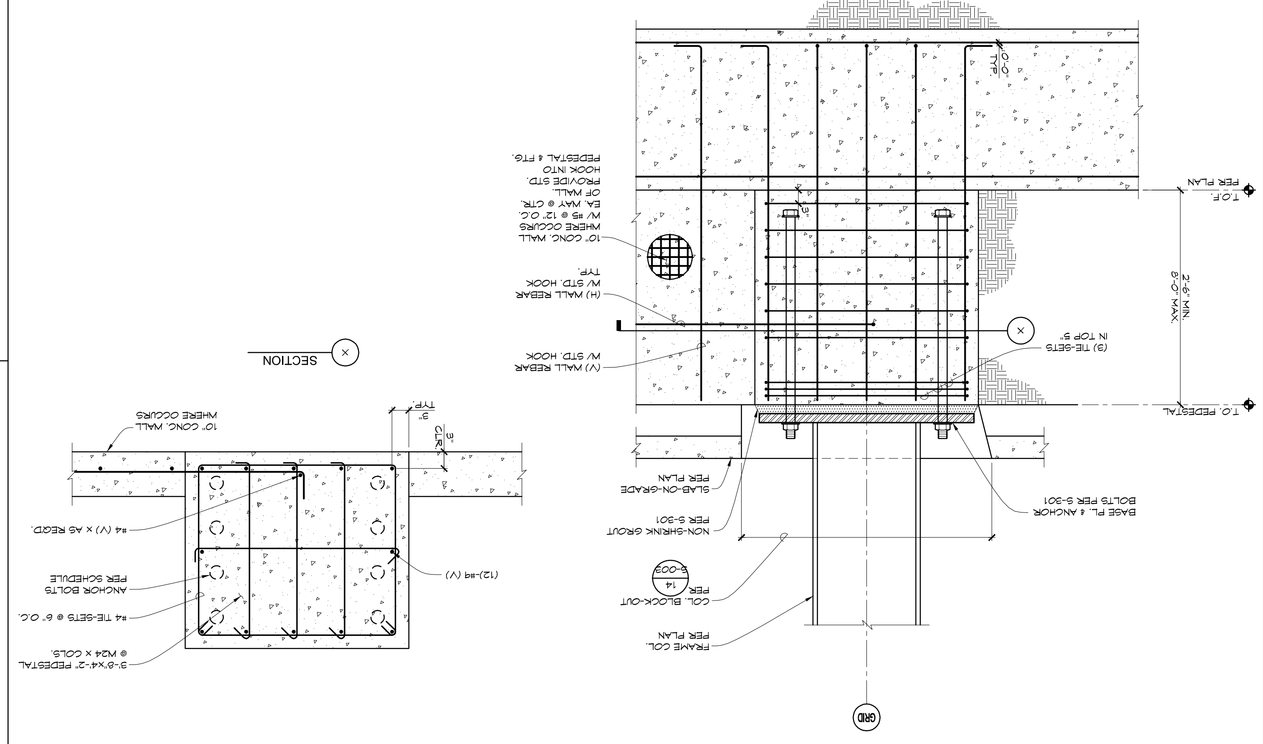
12 TYPICAL SLAB EDGE

2100-04DC

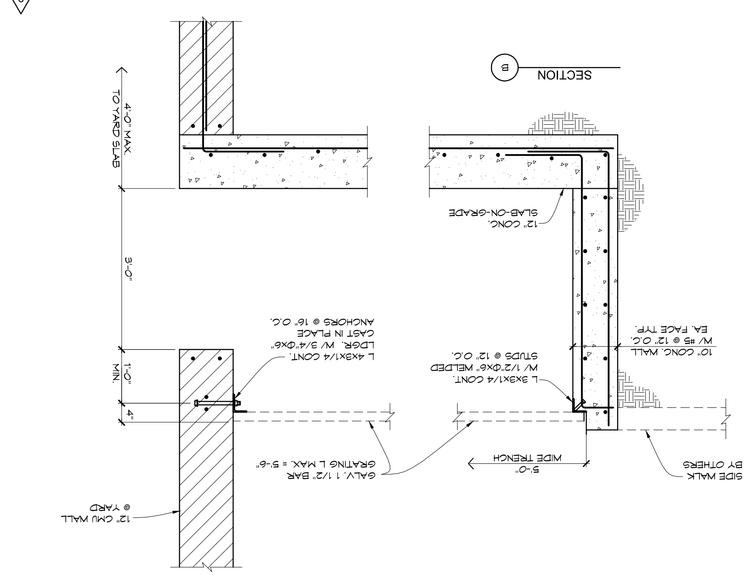


18 TYPICAL GRADE BEAM JOINT

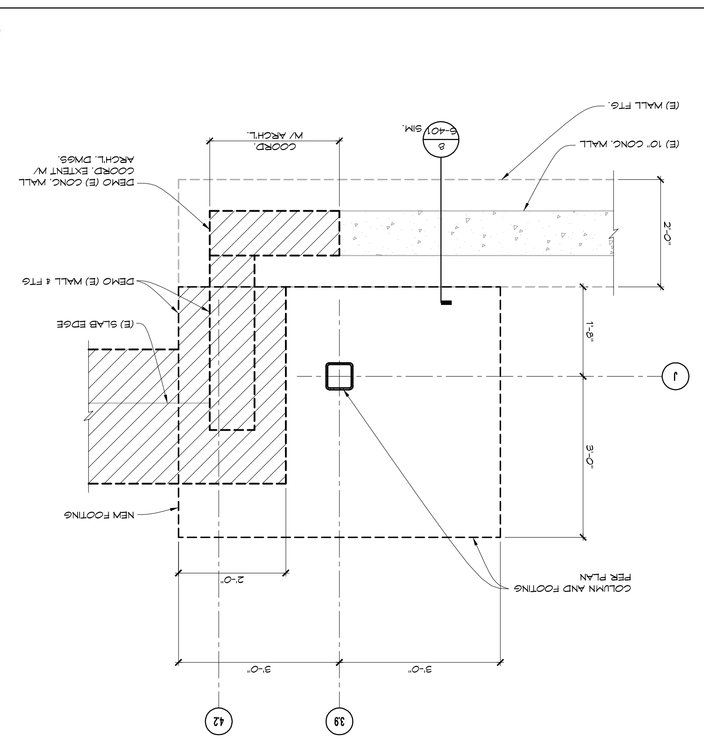
2200-04DC



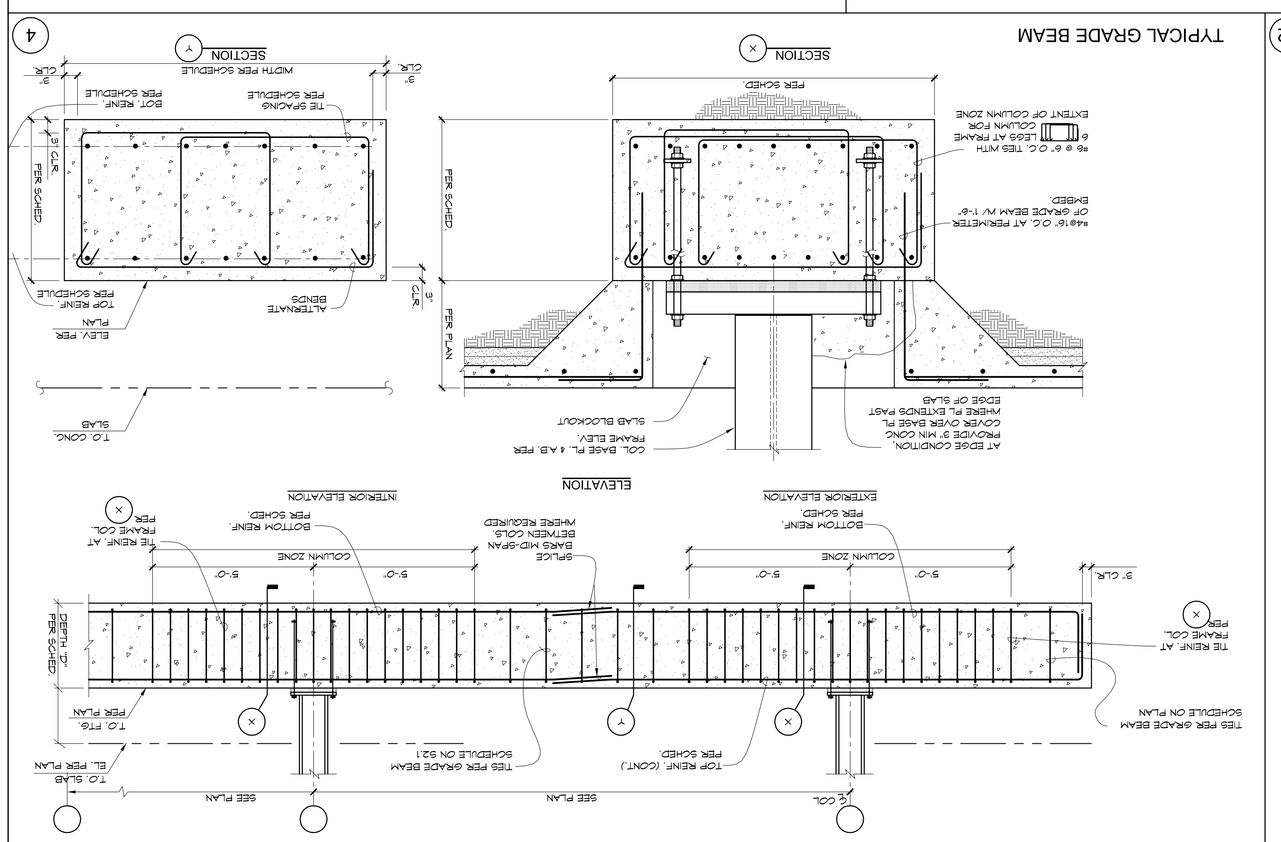
36 SECTION C



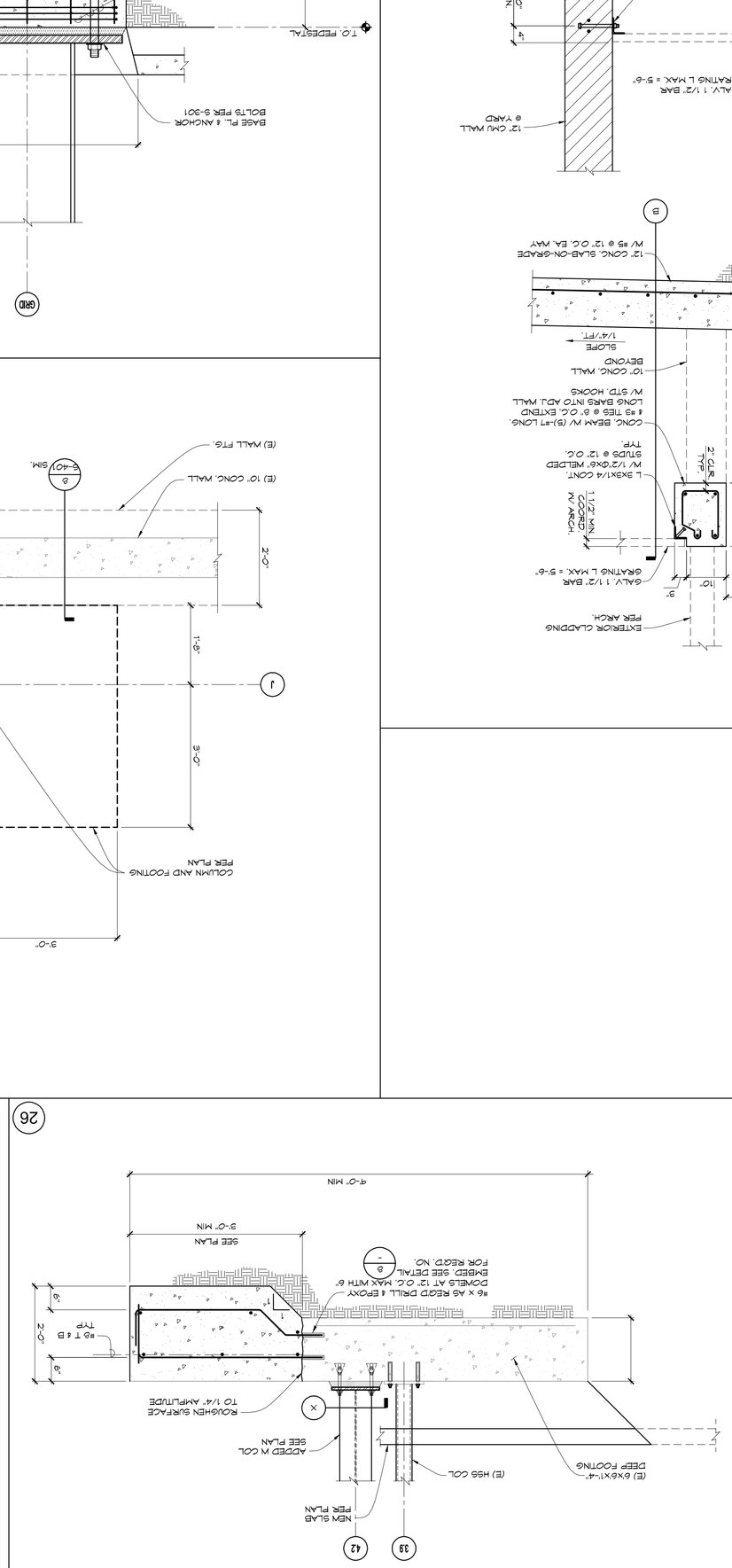
22



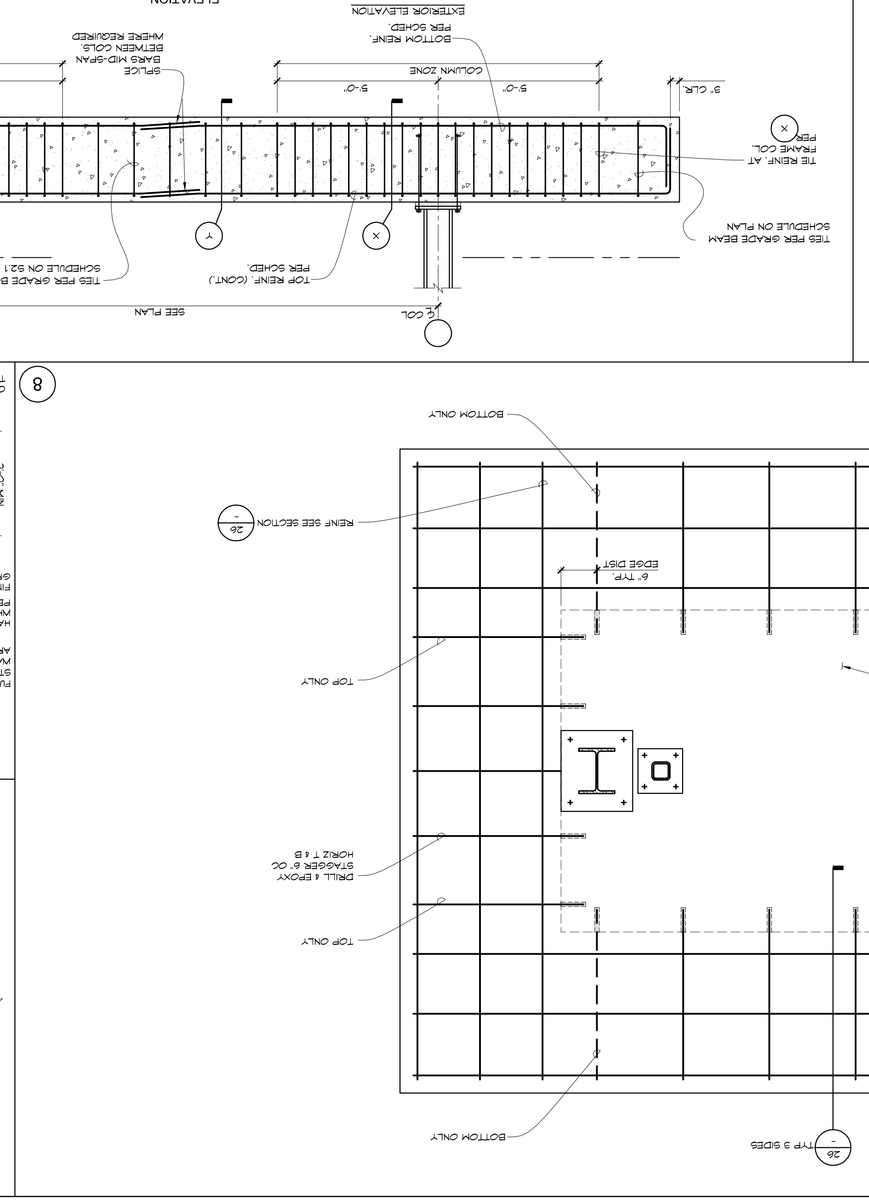
TYPICAL GRADE BEAM



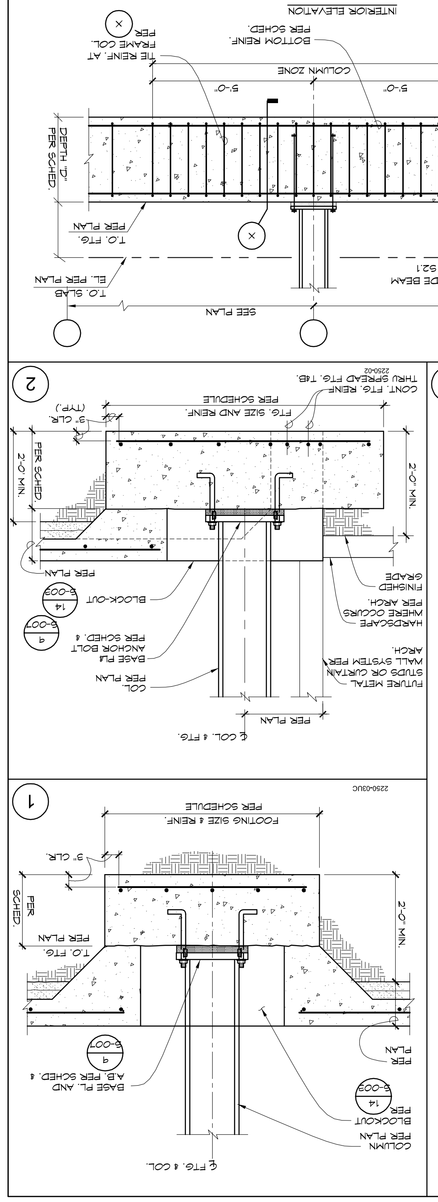
26



8



2



1

C:\Revit\S19\S19_central_NCS.rvt
Date: Feb 14, 2023 - 11:32AM
USER: KLT - OFFICE-JAMES

10/24/2012 3:15:19 PM

1:1 when A4 printed at 100%
\\Mac\Home\Desktop\S19_NCS Revit Central_2012_detailing_v4.rvt

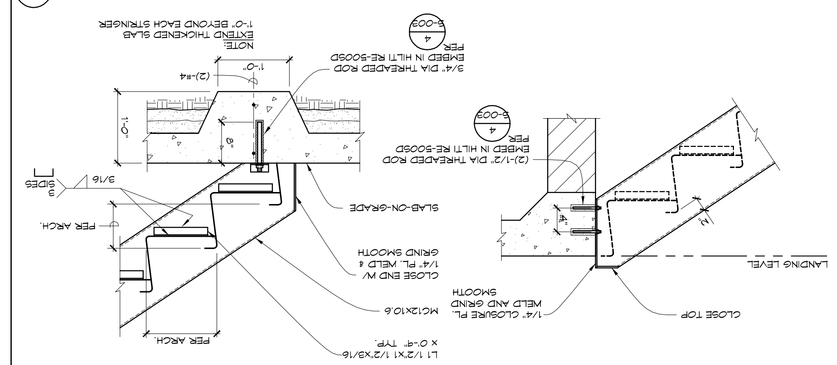
SECTIONS AND DETAILS

SCALE AS NOTED

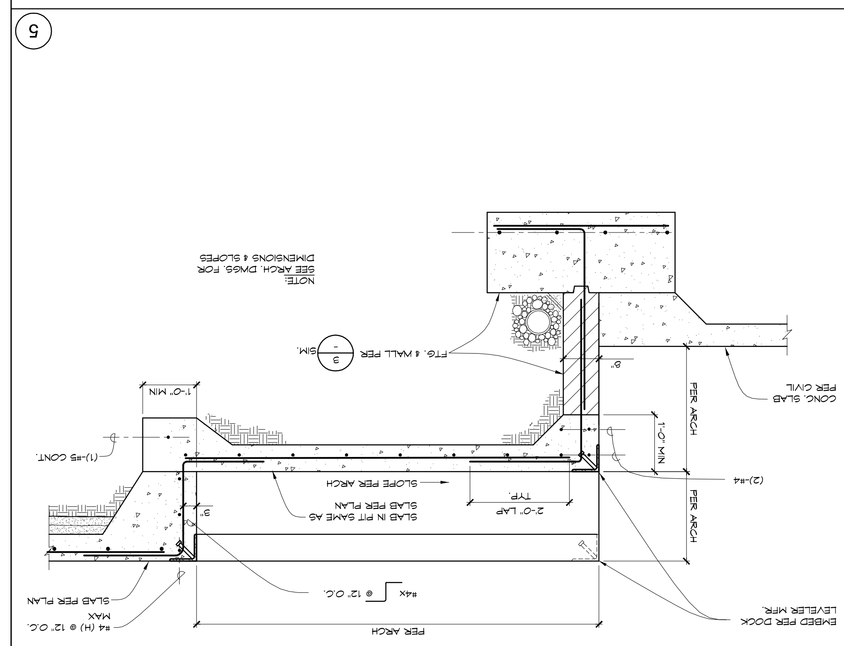
TITLE

S-402

6



5



8

RETAINING WALL SCHEDULE

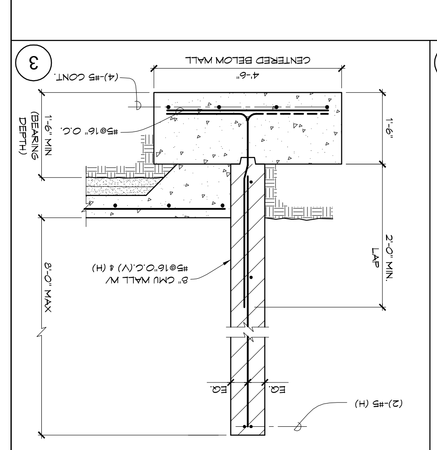
RETAINED HEIGHT	DETAIL
< 0'-6"	7/-

2

9

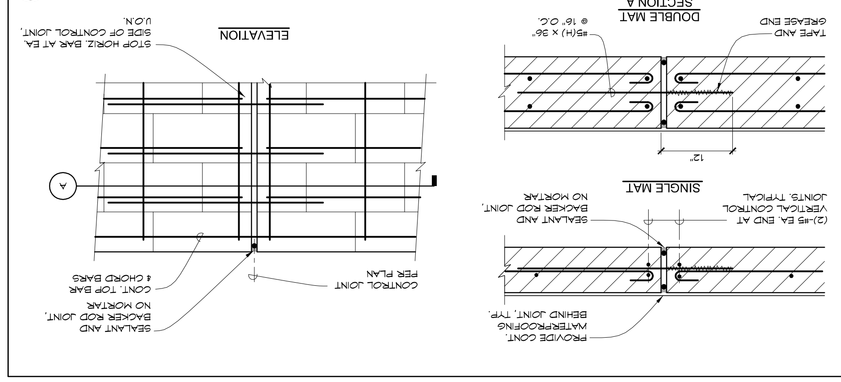
TYP. RETAINING WALL FOOTING REINF. AT CORNER

3

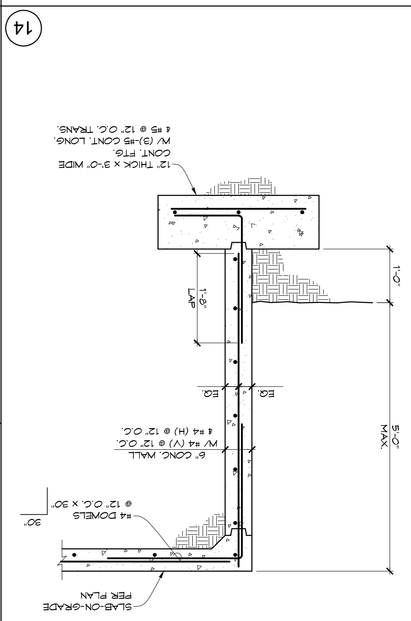


1

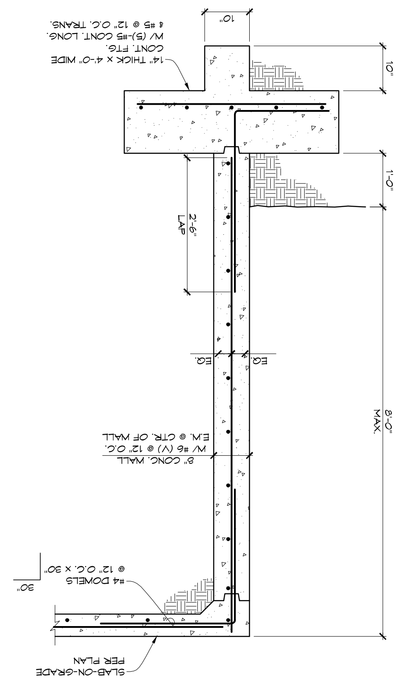
TYP. CMU RETAINING WALL CONTROL JOINT



14



16



17

18

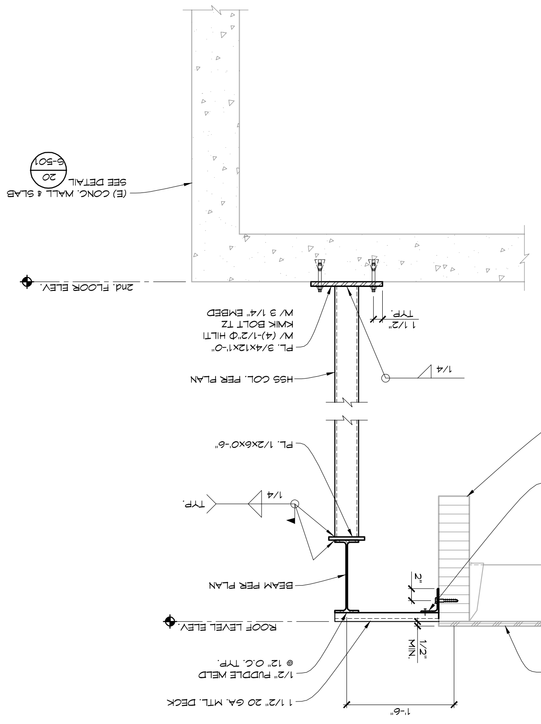
C:\Projects\S501\S501R18.dwg, 10/24/2012 3:15:59 PM, Adobe PDF, 1:1

1 YEAR/CLT/S501/S501R18.dwg - 4157 NCI SHANTZ DWG\4157S501R18.dwg, 10/24/2012 3:15:59 PM

DATE: FEB 14, 2012 - 11:22AM
SCALE: 1/2" = 1'-0"

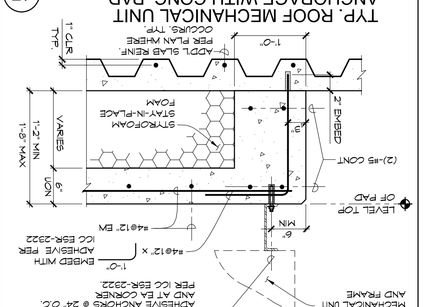
18

22



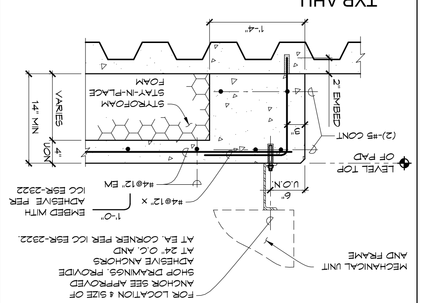
17

TYP. ROOF MECHANICAL UNIT ANCHORAGE WITH CONC. PAD



16

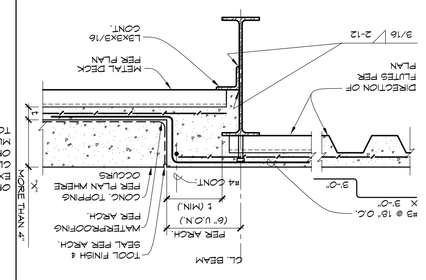
TYP AHU ANCHORAGE WITH CONC. PAD



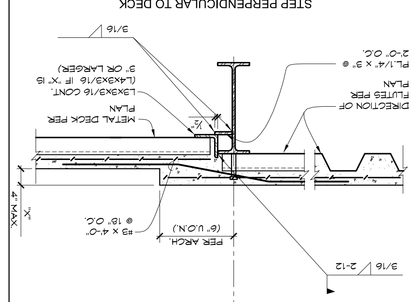
15

TYP. STEP IN CONC./METAL DECK

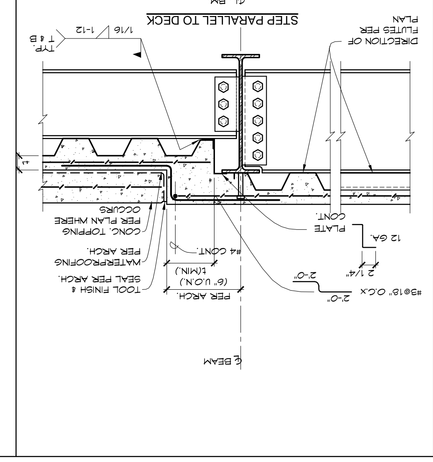
STEP PERPENDICULAR TO DECK (STEP 4" OR LARGER)



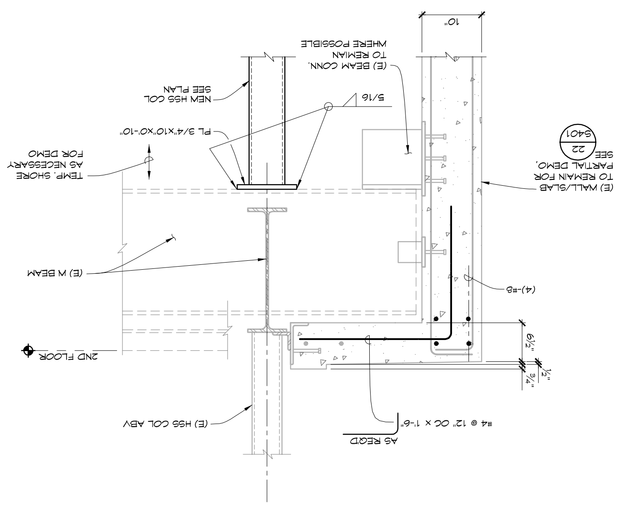
STEP PERPENDICULAR TO DECK (STEP LESS THAN 4")



STEP PARALLEL TO DECK

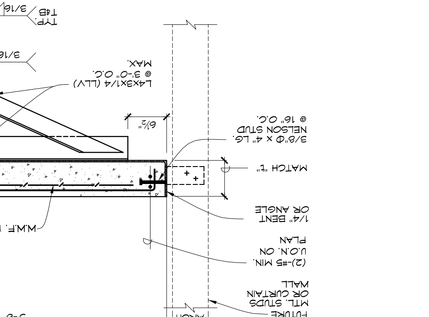


20



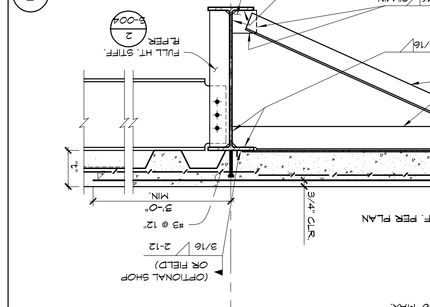
9

TYP. DECK EDGES (W/ CONC. AND TOPPING SLAB)

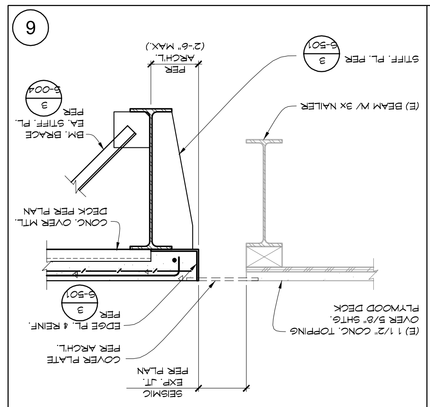


3

TYP. DECK EDGES (W/ CONC.)

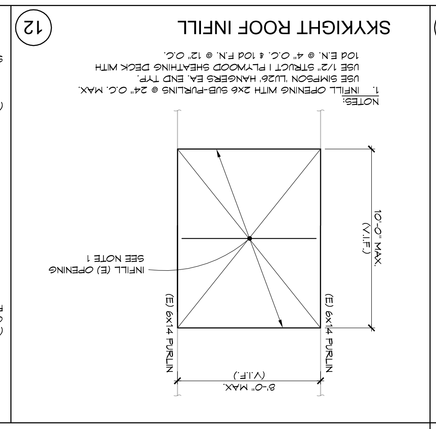


6



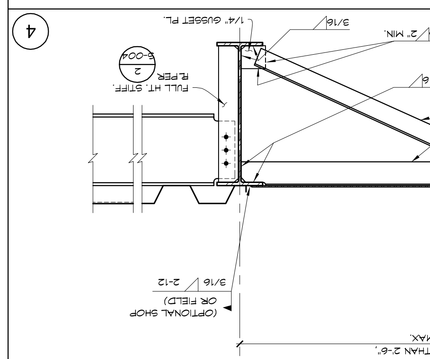
12

SKYKIGHT ROOF INFILL



5

4



S

SECTIONS AND DETAILS

TITLE

AS NOTED

SCALE

S-501

1:1 WHEN PLOTTED AT FULL SIZE
0 1"
SCALE: 1/2" = 1'-0"

C:\PROJECTS\2012\12138.00 - 4157 NOD SHAFT\CAD\12138.00_S-502.dwg
10/24/2012 2:15:19 PM

NOT USED (12)

NOT USED (6)

NOT USED (11)

NOT USED (5)

NOT USED (10)

NOT USED (4)

(15)

4'-0" TO CL OF COLUMN

9/16

BASE PL 5/8"

3"Ø X8 PIPE BRACE

(4)-1"Ø A325N BOLTS

GAGE OF W BM.

SEE NOTE ON (14)

(14)

ELEVATION

COLUMN PER SECTION

L5X3X1/4 KO'-4" (LLH) TYP.

KEEP HOLE TYP.

9/16

TYP.

HOSE HSS PER SECTION

(2)-3/4"Ø A307 BOLTS, TYP.

(13)

ELEVATION

PLATE TO COL.

9/16

TYP.

L5X3X1/4XO'-4" (LLH) TYP.

KEEP HOLE TYP.

(2)-3/4"Ø A307 BOLTS, TYP.

10"X5"X1/4" CAP/STRAP PLATE

(9)

4'-0" TO CL OF BRACE

NS 4 FS

1/4" STIFF PL

DECK AND W BM. PER PLAN

9/16

T.O.S. ELEV. VARIES PER PLAN

ROOFING OR T.O. CONC.

VARIES 1'-6" MIN. 4'-0" MAX.

X

POST HSS 4X4X1/4 @ 16'-0" O.C. MAX.

(14)

PIPE BRACE PER

(15)

HSS4X3X1/4 TOP & BOT. (PLAT)

2'-0"

9/16

#9 S.M.S. (GALV.) @ 6" O.C.

ALUMINUM PANEL PER ARCH

PER ARCH (10'-0" MAX.)

(13)

PLAN

X

HSS4X3X1/4 TOP & BOT. (PLAT)

#9 S.M.S. (GALV.) @ 6" O.C.

ALUMINUM PANEL PER ARCH

PER ARCH (10'-0" MAX.)

(4)-1"Ø A325N BOLTS

6"

1'-0"

TYP.

BASE PL 5/8"

NOTE
1. ALL EXPOSED STEEL SHALL BE GALVANIZED. FIELD WELDNG SHALL BE TOUCHED-UP IN THE FIELD.

(3)

4'-0" TO CL OF BRACE

NS 4 FS

1/4" STIFF PL

DECK AND W BM. PER PLAN

9/16

T.O.S. ELEV. VARIES PER PLAN

ROOFING OR T.O. CONC.

VARIES 1'-6" MIN. 4'-0" MAX.

X

POST HSS4X4X1/4

(14)

PER ARCH (10'-0" MAX.)

(13)

HSS4X2X1/4 TOP & BOT. (PLAT)

#9 S.M.S. (GALV.) @ 6" O.C.

ALUMINUM PANEL PER ARCH

PLAN

X

(4)-1"Ø A325N BOLTS

6"

1'-0"

TYP.

BASE PL 5/8"

NOTE
1. ALL EXPOSED STEEL SHALL BE GALVANIZED. FIELD WELDNG SHALL BE TOUCHED-UP IN THE FIELD.

SCALE AS NOTED

TITLE SECTIONS AND DETAILS

S-502

PIPING SCHEDULE

SERVICE DESIGNATION	SERVICE DESCRIPTION	INSULATION	PIPING MATERIAL
RO	REVERSE OSMOSIS	N/A	POLYPROPYLENE
DI	DEIONIZED WATER	N/A	POLYPROPYLENE
LA	LAB AIR	N/A	TYPE L ACR COPPER TUBING, CLEANED FOR OXYGEN SERVICE
LV	LAB VACUUM	N/A	TYPE L COPPER TUBING, CLEANED FOR OXYGEN SERVICE
N2	NITROGEN	N/A	TYPE L ACR COPPER TUBING, CLEANED FOR OXYGEN SERVICE
LN2	LIQUID NITROGEN	VACUUM JACKETED	VACUUM INSULATED PIPING WITH JACKET
IA	INSTRUMENT AIR	N/A	COPPER TUBING, CLEANED FOR OXYGEN SERVICE
W	SANITARY WASTE	N/A	CAST IRON: HUB & SPIGOT BELOW GRADE, HUBLESS ABOVE GRADE
V	SANITARY VENT	N/A	CAST IRON: HUBLESS ABOVE GRADE
IW	INDUSTRIAL WASTE	N/A	POLYPROPYLENE PIPE, SCH 80, SOCKET FUSION WELDED
IV	INDUSTRIAL VENT	N/A	POLYPROPYLENE PIPE, SCH 80, SOCKET FUSION WELDED
PW	PROCESS WASTE	2" THICK, K=.27–.30	316L SS PIPE, MILL ID, MILL OD / 316L SS TUBE, MILL ID, MILL OD
PV	PROCESS VENT	N/A	316L SS TUBING, MILL ID, MILL OD
DCW	DOMESTIC COLD WATER	N/A	TYPE L COPPER, SOLDERED 95/5
DHW	DOMESTIC HOT WATER	1" THICK, K=.24–.28	TYPE L COPPER, SOLDERED 95/5
ICW	INDUSTRIAL COLD WATER	N/A	TYPE L COPPER, SOLDERED 95/5
IHW	INDUSTRIAL HOT WATER	1" THICK, K=.24–.28	TYPE L COPPER, SOLDERED 95/5
ISW	INDUSTRIAL SOFT COLD WATER	N/A	TYPE L COPPER, SOLDERED 95/5
ISHW	INDUSTRIAL SOFT HOT WATER	1" THICK, K=.24–.28	TYPE L COPPER, SOLDERED 95/5
HPS	HIGH PRESSURE STEAM	2" THICK, K=.27–.30	SCH 40 CARBON STEEL
MPS	MEDIUM PRESSURE STEAM	2" THICK, K=.27–.30	SCH 40 CARBON STEEL
HHWS	HEATING HOT WATER SUPPLY	1–1/2" THICK, K=.25–.29	3/4" TO 2" TYPE L COPPER, 2–1/2" TO 4" CARBON STEEL
HHWR	HEATING HOT WATER RETURN	1–1/2" THICK, K=.25–.30	3/4" TO 2" TYPE L COPPER, 2–1/2" TO 4" CARBON STEEL
CD	CONDENSATE PIPING	1/2" THICK, K=.23–.27	TYPE M COPPER, SOLDERED 95/5

NOTES: NO CPVC PIPING WILL BE USED FOR POTABLE WATER SYSTEMS.

COMPLIANCE NOTES

1. PIPING AND DUCTWORK SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF SECTION 118, 123, AND 124 E.E.S. AND TABLE 6–6A & 6–6B OF THE 2010 C.M.C.
2. LAVATORY FAUCETS IN REST ROOMS SHALL BE THE SELF CLOSING TYPE.
3. LAVATORY FAUCETS TO BE .5 G.P.M. MAX.
4. NEW TOILETS TO BE ULTRA LOW FLUSH TYPE, 1.6 G.P.F.
5. SINK FAUCETS SHALL BE 2.2 GPM MAXIMUM.
6. URINALS TO BE 1.0 G.P.F. MAX.
7. TUB AND TUB–SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER SECTION 418 OF THE 2010 CPC.
8. CROSS–CONNECTION PROTECTION SHALL BE PROVIDED AT ALL POTABLE WATER SUPPLIED APPLIANCES AND EQUIPMENT (OTHER THAN THOSE LISTED IN INFORMATION BULLETIN 103).
9. SERVICE WATER HEATING EQUIPMENT SHALL MEET ALL OF THE REQUIREMENTS OF THE APPLICABLE EFFICIENCY STANDARDS AND SHALL BE CURRENTLY LISTED AS CERTIFIED BY THE C.E.C.
10. PROVIDE VACUUM BREAKERS AT HOSE BIBBS.
11. LABEL MEDIUM PRESSURE GAS PIPING EVERY 5 FEET.
12. STATE HEALTH CODE SEC. 17921.9 BANS THE USE OF CHLORINATED POLY VINYL CHLORIDE (CPVC) FOR INTERIOR WATER SUPPLY PIPING.
13. CHEMICAL WASTE PIPING SHALL COMPLY WITH SECTION 811.0 OF THE 2010 CPC.
14. FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEAL.
15. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH 2010 CALIFORNIA PLUMBING CODE SECTIONS 701.0 AND 903.0.
16. SERVICE WATER HEATING SYSTEMS AND EQUIPMENT SHALL COMPLY WITH ENERGY EFFICIENCY STANDARDS, SECTION 113.
17. WATER HEATER PRESSURE AND TEMPERATURE RELIEF DRAINS THAT TERMINATE OUTSIDE OF THE BUILDING SHALL COMPLY WITH SECTION 608.5 OF THE 2010 CALIFORNIA PLUMBING CODE.
18. PROVIDE EXPANSION TANK OR OTHER APPROVED METHOD OF RELIEVING PRESSURE PER SECTION 608.3 OF THE 2010 CALIFORNIA PLUMBING CODE.
19. EACH WATER HEATER SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION PER SECTION 508.2 OF THE 2010 CALIFORNIA PLUMBING CODE.
20. EACH NON–STORAGE INSTANTANEOUS WATER HEATER HAVING AN INSIDE DIAMETER OF NOT MORE THAN 3 INCHES. WATER HEATERS NOT MEETING THIS CRITERIA SHALL BE PROVIDED WITH AN EXPANSION TANK OR OTHER APPROVED METHOD OF RELIEVING PRESSURE PER SECTION 608 OF THE 2010 CALIFORNIA PLUMBING CODE.
21. ADA WATER CLOSET, LAVATORY, AND SHOWER UNIT SHALL MEET THE AMERICAN DISABILITIES ACT GUIDELINES AND CALIFORNIA C.C.R. TITLE 24.
22. THE HEIGHT OF ACCESSIBLE WATER CLOSETS SHALL BE MINIMUM OF 17 INCHES AND A MAXIMUM OF 19 INCHES MEASURED TO THE TOP OF THE TOILET SEAT. CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS, NO MORE THAN 44 INCHES ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS.
23. WHERE URINALS ARE PROVIDED, AT LEAST ONE WITH RIM PROJECTING A MINIMUM OF 14 INCHES FROM THE WALL AND AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR SHALL BE PROVIDED.
24. FLUSH CONTROLS SHALL BE HAND OPERATED AND SHALL BE MOUNTED NO MORE THAN 44 INCHES ABOVE THE FLOOR.
25. LAVATORIES SHALL BE MOUNTED WITH A CLEARANCE OF AT LEAST 29 INCHES FROM THE FLOOR TO THE BOTTOM OF THE APRON WITH KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30 INCHES WIDE WITH 8 INCHES MINIMUM DEPTH AT THE TOP. TOE CLEARANCE SHALL BE THE SAME WIDTH AND SHALL BE A MINIMUM OF 9 INCHES HIGH FROM THE FLOOR AND A MINIMUM 17 INCHES DEEP FROM THE FRONT OF THE LAVATORY. A MAXIMUM OF 34 INCHES FROM FINISHED FLOOR TO FLOOD RIM LEVEL OF FIXTURE.
26. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS.
27. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
28. FUME HOODS SHALL HAVE SINKS WITH LIPS TO PREVENT DRAINAGE OF FUME HOOD SURFACE INTO CUP SINKS.
29. ROUTING AND TERMINATION OF WATER HEATER FLUES SHALL COMPLY WITH CHAPTER 5 OF THE 2010 CALIFORNIA PLUMBING CODE.
30. A WATER HEATER PRESSURE AND TEMPERATURE RELIEF DRAIN THAT TERMINATES OUTSIDE THE BUILDING SHALL COMPLY WITH SECTION 608.5 OF THE 2010 CALIFORNIA PLUMBING CODE.
31. SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
32. POTABLE WATER PIPING MATERIAL SHALL COMPLY WITH SECTION 604.0 OF THE 2010 CALIFORNIA PLUMBING CODE.
33. GAS PIPING MATERIAL SHALL COMPLY WITH SECTION 1209.5 OF THE 2010 CALIFORNIA PLUMBING CODE.
34. WATER HEATER (WH–2) IS A LISTED, NON–STORAGE, INSTANTANEOUS HEATER HAVING AN INSIDE DIAMETER OF NOT MORE THAN 3".
35. ROUTING AND TERMINATION OF WATER HEATER FLUES SHALL COMPLY WITH CHAPTER 5 OF THE 2010 CALIFORNIA PLUMBING CODE.
36. COMBINATION WASTE AND VENT SYSTEMS SHALL COMPLY WITH SECTION 910.0 AND APPENDIX 'B' OF THE 2010 CALIFORNIA PLUMBING CODE.

PARTIAL PLUMBING SPECIFICATIONS

PART 1 – GENERAL

GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER DIVISIONS – 1 SPECIFICATION SELECTIONS, APPLY TO WORK OF THIS SECTION.

WORK SHALL INCLUDE LABOR AND MATERIALS REQUIRED FOR THE COMPLETION OF A FULLY OPERATING PLUMBING SYSTEM INCLUDING BUT NOT NECESSARILY LIMITED TO: EXCAVATION, INSTALLATION, BACKFILL AND COMPACTION; REQUIRED TAXES; OBTAINING AND PAYING FOR REQUIRED LICENSES, PERMITS, FEES, INSPECTIONS; METERS AND CONNECTIONS; WATER DISTRIBUTION; VENTS AND WASTES; FIXTURES AND ROUGH–IN AND CONNECT CONDENSATE TO OWNER–FURNISHED AND MECHANICAL APPLIANCES.

DURING PROGRESS OF THE WORK MAINTAIN AN ACCURATE RECORD OF CHANGES MADE FROM THE PLANS, PRESENT A PROFESSIONALLY DONE REPRODUCIBLE PLAN TO ARCHITECT REFLECTING CHANGES.

PART 2 – PRODUCTS

USE ONLY NEW FIRST CLASS MATERIALS. EQUIPMENT TO BE IDENTIFIED WITH NAMEPLATE. ELECTRICAL EQUIPMENT TO BE UL LISTED. WHERE REQUIRED TO BE STATE FIRE MARSHALL APPROVED.

INSULATION SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE DENSITY NOT EXCEEDING 50.

SOIL WASTE, AND VENT PIPING WITHIN BUILDINGS: SERVICE WEIGHT CAST IRON NO–HUB SOIL PIPE UNLESS OTHERWISE NOTED. MAKE UP WITH COMPRESSION–TYPE FITTINGS AND STAINLESS STEEL CLAMP AND A SHIELD ASSEMBLIES AND NEOPRENE JOINTS. BELOW GRADE USE BELL AND SPIGOT WITH LEAD AND OKUM FOR WASTE FROM DRINK DISPENSERS USE DURIRON TO THE POINT WHERE CONNECTED TO SOIL PIPE.

VENT PIPING 2–½" SIZE AND SMALLER ABOVE FLOOR MAY BE SCHEDULE 40 GALVANIZED STEEL PIPE UP WITH CAST IRON DRAINAGE FITTINGS.

HOT AND COLD WATER PIPING ABOVE FLOOR SHALL BE TYPE "L" HARD–DRAWN COPPER TUBE MADE UP WITH 95–5 SOLDER.

CONDENSATE DRAIN AND INDIRECT WASTE PIPING: ABOVE GRADE SHALL BE DWV COPPER WITH DWV DRAINAGE TYPE FITTINGS. PVC MAY BE USED AS APPROVED BY JURISDICTIONAL AUTHORITIES.

GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE (ASTM A120) WITH 150 PSI BLACK BANDED MALLEABLE IRON SCREWED FITTINGS AND PLAIN PATTERN COUPLINGS. 1 ¼ INCHES AND LARGER FITTINGS MAY BE BUTT WELDED. COAT AND WRAP BURIED PIPING.

HOSE BIBS SHALL BE "ACORN" 8105–2 WALL BOX AND WALKWAYS AND 8126 FREE STANDING.

LOOSE KEY OPERATED; FINISHED WITH CHROME INSIDE AND BRONZE OUTSIDE. ALL HOSE BIBS SHALL HAVE BUILD IN VACUUM BREAKERS. CRANE 252 GAS COCK SHALL BE USED.

PIPE SLEEVES SHALL BE "ADJUSTO–CRETE" OR EQUAL. PROVIDE B&C CHROME ESCUTCHEONS IN FINISHED AREAS.

HANGERS AND SUPPORTS SHALL BE GRINNEL OR EQUAL. PROVIDE LATERAL BRACING WHERE HANGERS 18" LONG. ISOLATE HANGERS AND SUPPORTS FROM PIPING WITH SEMCO TRISOLATORS. INSULATE AT OPENINGS OF STRUCTURE WITH ½" FELT WRAP.

VENT FLASHING AT EACH VENT THROUGH THE ROOF SHALL BE HEAVY AMC GALVANIZED SHEET METAL WITH ZINC CHROMATE COATING.

CLEANOUTS: FLOOR CLEANOUTS: SMITH 4023, 4043. GRADE CLEANOUTS: SMITH 4253. WALL CLEANOUTS: SMITH 4553 IN TILE WALLS AND TOILET ROOMS AND 4532 IN OTHER.

UNIONS: ISOLATE ALL DISSIMILAR METAL WITH "EPCO" DIALECTRIC UNIONS. PROVIDE NEBCO 623 FOR 2" AND SMALLER AND #740 FOR LARGER.

ACCESS PLATES: ACCESS PLATES SHALL BE PROVIDED AT CONCEALED VALVES AND EQUIPMENT. MILCOR OR EQUAL, HINGED, RATED TO MATCH CONSTRUCTION, PRIME COATED STEEL (EXCEPT SS IN TOILET ROOMS) AS SELECTED BY ARCHITECT, EQUIPPED WITH KEY LOCKING DEVICE.

FIXTURES AND EQUIPMENT: FIXTURES AND EQUIPMENT SHALL BE AS SPECIFIED AND SHALL BE COMPLETE WITH ALL STOPS, SUPPLIES, BACKING DRAIN, CHROME PLATED BRONZE TRIM AND OTHER ITEMS NECESSARY FOR A COMPLETE, OPERABLE FACILITY.

FIXTURES SHALL BE KOHLER, AMERICAN STANDARD OR CRANE UNLESS OTHERWISE SPECIFIED.

INSULATE HOT WATER PIPE ABOVE GRADE PER ADA AND TITLE 24 REQUIREMENTS.

PART 3 – EXECUTION

CODES: PERFORM ALL WORK ACCORDING TO ALL APPLICABLE CODES AND REGULATION. OBTAIN AND PAY FOR ALL PERMITS, FEES AND INSPECTIONS REQUIRED BY GOVERNING AUTHORITIES. ADDITIONAL WORK REQUIRED TO CONFORM TO THESE CODES WILL BE DONE AT NO ADDITIONAL CHARGE.

SLOPE WASTE, DRAIN AND SEWER PIPING AT ¼ INCH PER FOOT UNLESS OTHERWISE NOTED OR PERMITTED.

CUTTING AND PATCHING: DO ALL DRILLING CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF THE SAME MATERIALS AND WORKMANSHIP AS THE ORIGINAL WORK.

VERIFY FIXTURE AND EQUIPMENT LOCATIONS AND SERVICE WITH THE ARCHITECTURAL PLANS AND FURNISH AND CONNECT FIXTURES AND EQUIPMENT SHOWN THEREON. EQUIPMENT SHALL BE SECURELY ANCHORED TO THE STRUCTURE.

WALL–HUNG FIXTURES ON STUD WALLS SHALL BE SECURELY ATTACHED TO A ¼" THICK BY 8" WIDE STEEL PLATE WHICH SHALL EXTEND TO AT LEAST ONE STUD BEYOND THE FIRST AND LAST FIXTURE MOUNTING POINT. PLATE SHALL BE SHOP DRILLED WITH HOLES 1/16" LARGER THAN STUD BOLTS SUPPLIED WITH FIXTURE OR FIXTURE ARMS SPECIFIED. A JAM NUT SHALL BE SET TIGHT AGAINST FACE PLATE TO SECURE STUD. FIXTURE HANGER OR ARM SHALL BE SUPPORTED FREE OF FINISHED WALL BY MEANS OF SECOND SET OF JAM NUTS. PLATES SHALL BE SECURELY BOLTED TO EACH STUD CROSSED WITH 1.8" MINIMUM BY 2" STEEL BACKUP PLATES. FIXTURES WITH BACK, SPECIFIED WITH SUPPORTING ARMS, SHALL, IN ADDITION TO THE ABOVE SPECIFIED PLATES, HAVE FIXTURE HANGERS SECURELY ATTACHED BY A 2" BY 8" WOOD BACKINGS.

EACH INDIVIDUAL FIXTURE SUPPLY SHALL BE PROVIDED WITH CHROME PLATED LOOSE KEY I.P.S. STOP VALVE. DELIVER LOOSE KEYS TO THE OWNER.

NO RUBBER PACKING OR COMPOSITION SEAL SHALL BE INSTALLED. SUPPLIES SHALL BE METAL TO METAL ONLY.

PROVIDE PIPING CONNECTIONS TO EQUIPMENT PROVIDED UNDER THE AIR CONDITIONING SECTION.

AFTER PRELIMINARY PURGING OF THE SYSTEM CHLORINATE THE ENTIRE POTABLE WATER IN ACCORDANCE WITH THE CURRENT RECOMMENDATIONS OF THE AMERICAN WATER WORKS ASSOCIATION. CHLORINATE ONLY WHEN THE BUILDINGS ARE UNOCCUPIED. THEN THOROUGHLY FLUSH THE ENTIRE POTABLE WATER SYSTEM.

FLUSH WATER SYSTEMS CLEAN AND MAKE TESTS REQUIRED BY JURISDICTIONAL AUTHORITIES. MAKE ADJUSTMENTS REQUIRED TO ELIMINATE NOISE AND VIBRATION AS REQUIRED FOR APPROVAL BY THE ARCHITECT.

SEAL PENETRATIONS OF RATED BARRIERS BY PIPE AND WIRE WITH 3M FIRE BARRIER CAULK.

DAMAGED AND UNUSED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.

PART 4 – GUARANTEES

MATERIALS AND EQUIPMENT PROVIDED AND/OR INSTALLED UNDER THIS SECTION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER.

NOTES:
1. REFER TO PROJECT BOOK SPECIFICATION FOR ENTIRE SPECIFICATION REQUIREMENTS.

PLUMBING NOTES

THE PLUMBING SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL CONFORM TO THE LATEST ADOPTED CODES AND REGULATIONS HAVING JURISDICTION, INCLUDING BUT NOT LIMITED TO, THE 2010 CALIFORNIA BUILDING, MECHANICAL AND PLUMBING CODES. IN CASE OF CONFLICTS WITH CODES, DRAWINGS OR SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL PREVAIL.

THESE DRAWINGS HAVE BEEN PREPARED WITH THE BEST STRUCTURAL AND ARCHITECTURAL INFORMATION AVAILABLE. IT SHALL BE UNDERSTOOD THAT EQUIPMENT LOCATIONS AND ROUTING OF PIPING MAY VARY FROM THAT SHOWN ON THE PLANS AS CONSTRUCTION PROCEEDS. IT IS THE CONTRACTORS RESPONSIBILITY TO:

A. NOTIFY THE PROJECT ENGINEER OF CONSTRUCTION RESTRAINTS WHICH MAKE VARIATIONS FROM THE PLANS NECESSARY.

B. COMPLETE WORK INCLUDING THE VARIATIONS WITHOUT CHARGING EXTRAS TO THE BID CONTRACT, COMPLETION OF WORK MEANS THE JOB IS IN GOOD WORKING ORDER AND MEETS CITY, COUNTY AND CODES STATED ABOVE.

THESE DRAWINGS DO NOT INCLUDE NECESSARY SAFETY REQUIREMENTS. THE CONTRACTOR SHALL COMPLY TO THE SAFETY REQUIREMENTS AS SET FORTH BY THE GENERAL CONTRACTOR AND LOCAL AUTHORITIES HAVING JURISDICTION.

THESE DRAWINGS ARE FOR BIDDING PURPOSES ONLY. THEY ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT MANY OFFSETS, TRANSITIONS, BONDS, UNIONS, SPECIFIC FITTING AND EXACT LOCATIONS ARE NOT INDICATED. THE CONTRACTOR SHALL PROVIDE THESE ITEMS AS A PART OF THEIR CONTRACT.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE AND CONNECTION AND SHALL MAKE APPLICATION FOR SERVICE AND PERMITS IN THE NAME OF THE OWNER AND SHALL PAY ALL FEES AND CHARGES INCLUDING THE COST OF VAULTS, EXCAVATION AND METERS. COORDINATE INFORMATION WITH OWNER'S REPRESENTATIVE PRIOR TO WORK.

COORDINATE SHUT–DOWNS OF EXISTING PIPING SYSTEMS WITH OWNER'S REPRESENTATIVE AND GENERAL CONTRACTOR PRIOR TO WORK.

PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT, MECHANICAL EQUIPMENT AND STRUCTURAL MEMBERS.

CONNECTION BETWEEN INCOMPATIBLE MATERIALS ABOVE GRADE AND INSIDE BUILDING SHALL BE MADE WITH TWO (2) DIELECTRIC UNIONS SEPARATED BY A TWELVE INCH (12") SECTION OF RED BRASS PIPE.

PIPING SHALL BE SUPPORTED WITH HANGERS AND BRACKETS WHICH PROVIDE ISOLATION FROM FRAMING. CONTACT BETWEEN PIPING AND SUPPORT SHALL BE LINED WITH PLASTIC OR FELT.

ROOF, FLOOR AND WALL PENETRATIONS SHALL BE SEALED WATERTIGHT.

SEE ARCHITECTURAL DRAWINGS FOR ADA FIXTURE LOCATIONS AND MOUNTING HEIGHTS. INSULATE EXPOSED HOT WATER AND DRAIN PIPING BELOW HANDICAP LAVATORIES AND SINKS WITH INSULATING TAPE AND OFFSET P–TRAP AGAINST WALL.

WASTE, SOIL, VENT AND CONDENSATE PIPING SHALL SLOPE AT 2% UNLESS APPROVED OTHERWISE BY THE OWNER'S REPRESENTATIVE AND THE LOCAL AUTHORITIES HAVING JURISDICTION.

HORIZONTAL CONDENSATE DRAIN PIPING FROM AIR CONDITIONING UNITS SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX PIPE INSULATION OR EQUAL. SLIP PIPE INSULATION AND SEAL BUTT JOINTS.

HOT WATER PIPING SHALL BE INSULATED WITH 1–1/2" THICK FIBERGLASS MOLDED INSULATION WITH K=0.27 BTUH–IN. SQ. FT. F. OR LESS.

BUILDING DRAIN AND VENT PIPING MATERIAL SHALL COMPLY WITH SECTION 701 AND 903 OF THE CALIFORNIA PLUMBING CODE.

SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.

CROSS CONNECTION PROTECTION SHALL BE PROVIDED AT ALL POTABLE WATER SUPPLIED APPLIANCES AND EQUIPMENT (OTHER THAN THOSE LISTED IN INFORMATION BULLETIN 103).

PROVIDE PERMANENT VACUUM BREAKERS ON ALL HOSE BIBBS.

PROVIDE ANGLE STOP VALVES AT EACH SUPPLY LINE TO EACH FIXTURE.

WATER CLOSETS SHALL BE LOW–CONSUMPTION 1.6 GPM FLUSH CYCLE.

PUBLIC LAVATORY FAUCETS SHALL BE THE SELF–CLOSING TYPE.

SINK FAUCETS SHALL RESTRICT FLOW TO 2.2 GPM.

LAVATORY FAUCETS SHALL RESTRICT FLOW TO 2.2 GPM AND .25 GALLONS PER CYCLE.

SHOWER HEADS SHALL RESTRICT FLOW TO 2.5 GPM AND SHALL BE PROVIDED WITH MIXING VALVE CONTROLS.

HOT WATER HEATER, CONTROLS, AND SYSTEM SHALL MEET THE REQUIREMENTS OF CALIFORNIA EFFICIENCY STANDARD P400–92–005, SECTION 113 (a) AND (b).

NO CPVC PIPING WILL BE USED FOR POTABLE WATER SYSTEMS.

INSULATE HOT WATER PIPING PER CALIFORNIA EFFICIENCY STANDARDS AND 2010 CPC.

WATER HEATERS SHALL BE SECURED AS REQUIRED BY THE 2010 CPC.

WATER PIPING SYSTEM SHALL BE DISINFECTED BY CHLORINATION PER SECTION 609.

WATER PIPING SYSTEM TESTING SHALL BE PERFORMED BY AN INDEPENDENT THIRD PARTY.

FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEAL.

STATE HEALTH & SAFETY CODE BANS THE USE OF CHLORINATED POLYVINYL CHLORIDE (CPVC) FOR INTERIOR WATER–SUPPLY PIPING. NO CPVC PIPING WILL BE USED FOR POTABLE WATER SYSTEMS.

ROOF ACCESS LADDER SHALL COMPLY WITH SECTION 904.10.3 OF THE 2010 CMC.

CROSS CONNECTION PROTECTION SHALL BE PROVIDED AT ALL POTABLE WATER SUPPLIED APPLIANCES AND EQUIPMENT (OTHER THAN THOSE LISTED IN INFORMATION BULLETIN 103).

COORDINATE FIXTURE REQUIREMENTS WITH ARCHITECT PRIOR TO BID. ARCHITECT SHALL APPROVE FIXTURES INCLUDING COLOR PRIOR TO ORDER.

VERIFY RIGHT HAND OR LEFT HAND FIXTURE CONNECTIONS AND WATER CLOSET LEVER REQUIREMENTS PRIOR TO WORK. INSTALL FIXTURES AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.

LABEL MEDIUM PRESSURE GAS PIPING EVERY FIVE FEET.

REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

THE EXISTING ROOF RECEPTOR BEING USED AS A CONDENSATE RECEPTOR FOR THE HVAC UNITS IS A PLUMBING FIXTURE THAT IS APPROVED AND LISTED BY IAPMO.

WATER HEATERS (WH–2 & 3) ARE A LISTED, NON–STORAGE, INSTANTANEOUS HEATER HAVING AN INSIDE DIAMETER OF NOT MORE THAT 3 INCHES.

PLUMBING SYSTEMS AND COMPONENTS SHALL COMPLY WITH "NSF/ANSI STANDARD 61 DRINKING WATER SYSTEM COMPONENTS" AND WITH CALIFORNIA ASSEMBLY BILL "AB1953" LEAD FREE STANDARDS. PRODUCTS MUST RECEIVE CERTIFICATION FROM AN INDEPENDENT ANSI–APPROVED, THIRD–PARTY TESTING ORGANIZATION.

REFER TO ARCHITECTURAL DIMENSIONS PLANS TO LOCATE SINKS, FLOOR SINKS, VENTS AND SERVICE UMBILICALS.

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	BRANCH PIPE CONNECTION SIZE				DESCRIPTION
		WASTE	VENT	CW	HW	
HB 1	HOSE BIBB	–	–	3/4"	3/4"	ACORN RECESSED HOT & COLD HOSE BOX MODEL 8156 WITH WALL FLANGE. BOX SHALL BE 18 GAGE TYPE 304 STAINLESS STEEL, VALVES SHALL BE CARTRIDGE–OPERATED WITH WHEEL HANDLE AND SCREWDRIVER STOPS, BOX SHALL HAVE HOT AND COLD WATER INLETS AND A SINGLE HOSE CONNECTION OUTLET WITH A VACUUM BREAKER.
HB 2	HOSE BIBB	–	–	3/4"	–	ACORN MODEL 8121 WITH VACUUM BREAKER AND LOOSE KEY HANDLE.
FS 1	FLOOR SINK	2", 3" OR 4"	2"	–	–	ZURN Z1902, CAST IRON FLOOR SINK, 12"x12"x10" DEEP, WITH GRATE. REFER TO PLANS FOR PIPE CONNECTION SIZE. UNLESS OTHERWISE NOTED, SIZE SHALL BE 3" MINIMUM AND CALCULATED BASED ON EQUIPMENT SERVED, WHICH EVER GREATER.
RD 1	ROOF DRAIN	–	–	–	–	ZURN Z–100 13" DIA. ROOF DRAIN DURA–COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP, GRAVEL GUARD CLAMPING COLLAR CAST IRON DOME. REFER TO PLAN FOR SIZES.
OD 1	OVERFLOW DRAIN	–	–	–	–	ZURN Z–100–89–EC 13" DIA. ROOF DRAIN DURA–COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP, GRAVEL GUARD CLAMPING COLLAR CAST IRON DOME. PROVIDE WITH ZURN Z199 DOWNSPOUT NOZZLE AT EACH OVERFLOW DISCHARGE OUTLET. REFER TO PLANS FOR SIZES.
FD 1	FLOOR DRAIN	2"	1–1/2"	1/2"	–	ZURN ZN–415B–VP 2" CAST IRON ENAMELED WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, REVERSIBLE, ADJUSTABLE CLAMPING COLLAR, NICKEL BRONZE STRAINER THREADED COLLAR, BOTTOM OUTLET WITH TRAP PRIMER CONNECTION.
TP 1	TRAP PRIMER	–	–	1/2"	–	PRECISION PLUMBING PRODUCTS PRIME–RITE MODEL PR–500, AUTOMATICALLY ACTIVATED, CORROSION RESISTANT BRASS, 1/2" INLET & OUTLET, USE SS–8 SUPPLY TUBE AND DISTRIBUTION UNIT WHEN SUPPLING MORE THAN ONE FLOOR DRAIN.

PLUMBING LEGEND

SYMBOL	ABBREV.	DESCRIPTION
	POC	POINT OF CONNECTION
	S OR W	SEWER OR WASTE ABOVE GRADE
	S OR W	SEWER OR WASTE BELOW GRADE
	FCO	FLOOR CLEAN–OUT
	WCO	WALL CLEAN–OUT
	V	VENT
IW	IW	INDUSTRIAL LAB WASTE
IV	IV	INDUSTRIAL VENT
DCW	DCW	DOMESTIC COLD WATER
	S.O.V.	SHUT–OFF VALVE
		CHECK VALVE

(E)	DENOTES EXISTING
A/G	ABOVE GRADE
B/G	BELOW GRADE
FT	FLUSH TANK
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
LAV	LAVATORY
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
TYP	TYPICAL
VTR	VENT THRU ROOF

FIXTURE CALL–OUT: FIXTURE TYPE / FIXTURE NUMBER

EQUIPMENT TAG: EQUIPMENT TYPE / EQUIPMENT ID

DETAIL CALL–OUT: DETAIL NUMBER / SHEET NUMBER

PLUMBING SHEET INDEX

SHT. NO.	DESCRIPTION
P0.1	PLUMBING LEGEND, SCHEDULES AND NOTES
P2.0	PLUMBING SITE PLAN
P2.1	PLUMBING FIRST FLOOR PLAN
P2.2	PLUMBING SECOND FLOOR PLAN
P2.3	PLUMBING ROOF PLAN

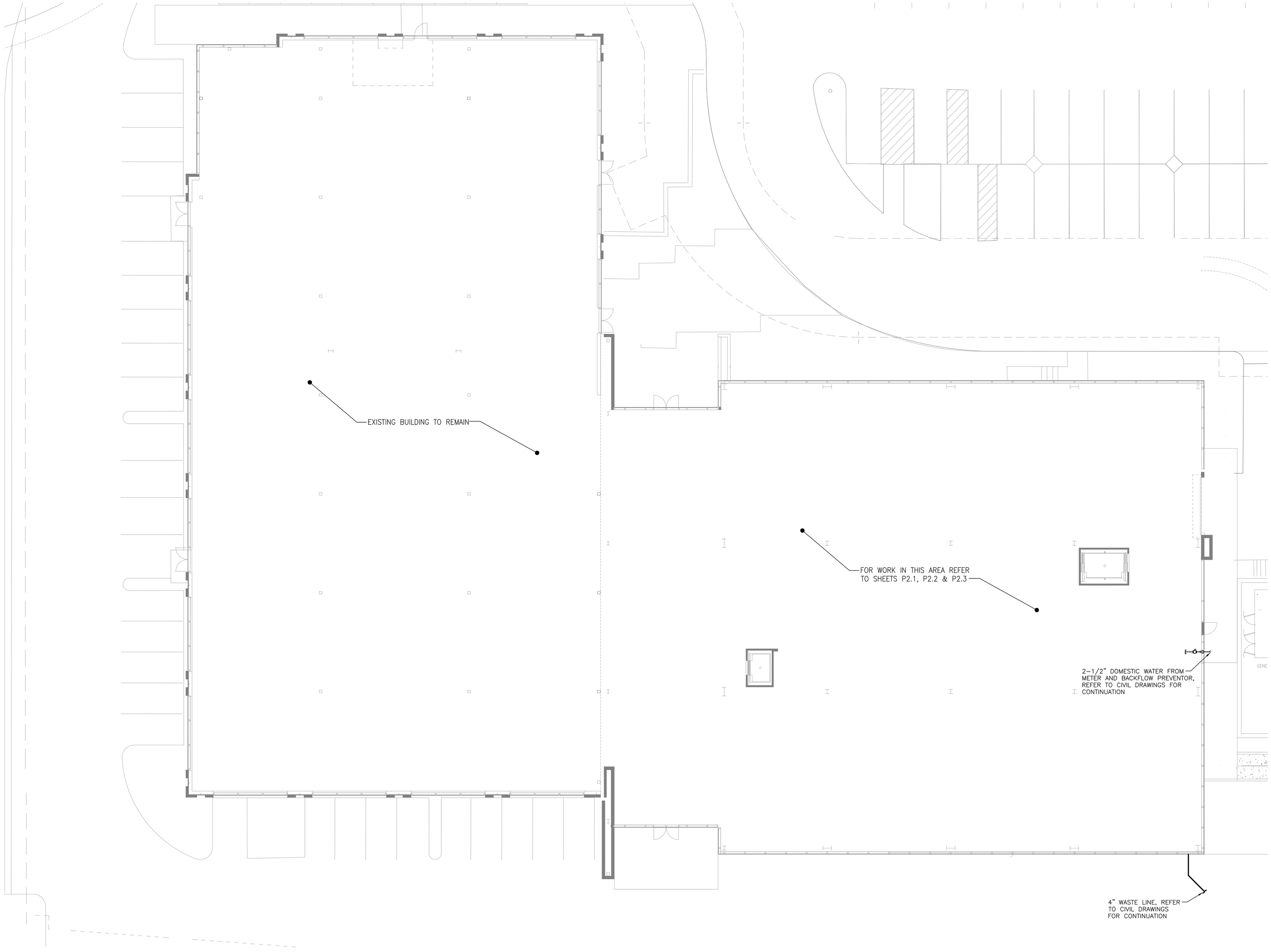
SCALE AS SHOWN

TITLE

PLUMBING LEGEND AND NOTES

P-0.1

11/15/2012 3:46:58 PM



PLUMBING SITE PLAN

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

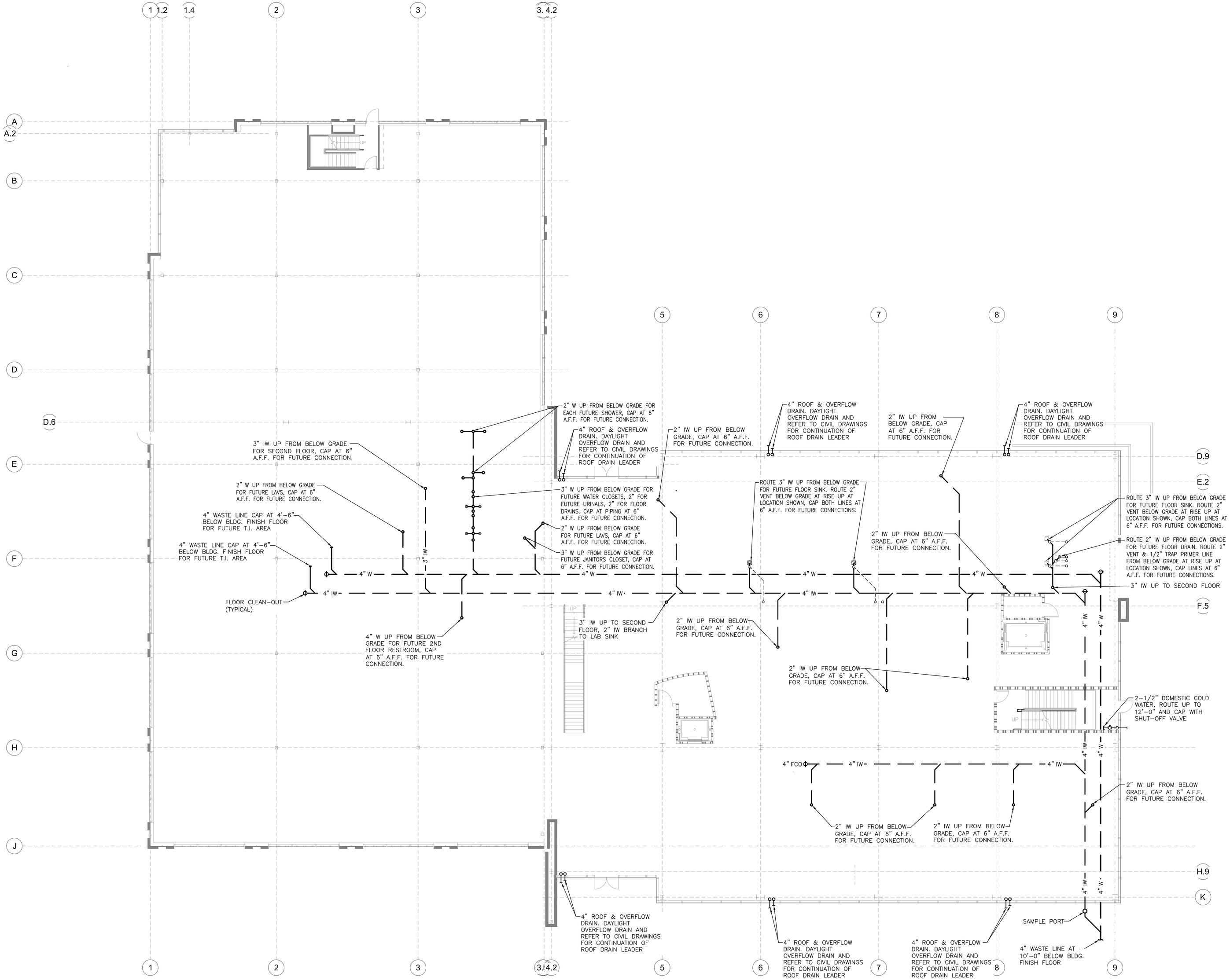
11/15/2012 3:46:58 PM

SCALE AS SHOWN

TITLE

PLUMBING SITE PLAN

P-2.0



PLUMBING FIRST FLOOR PLAN

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

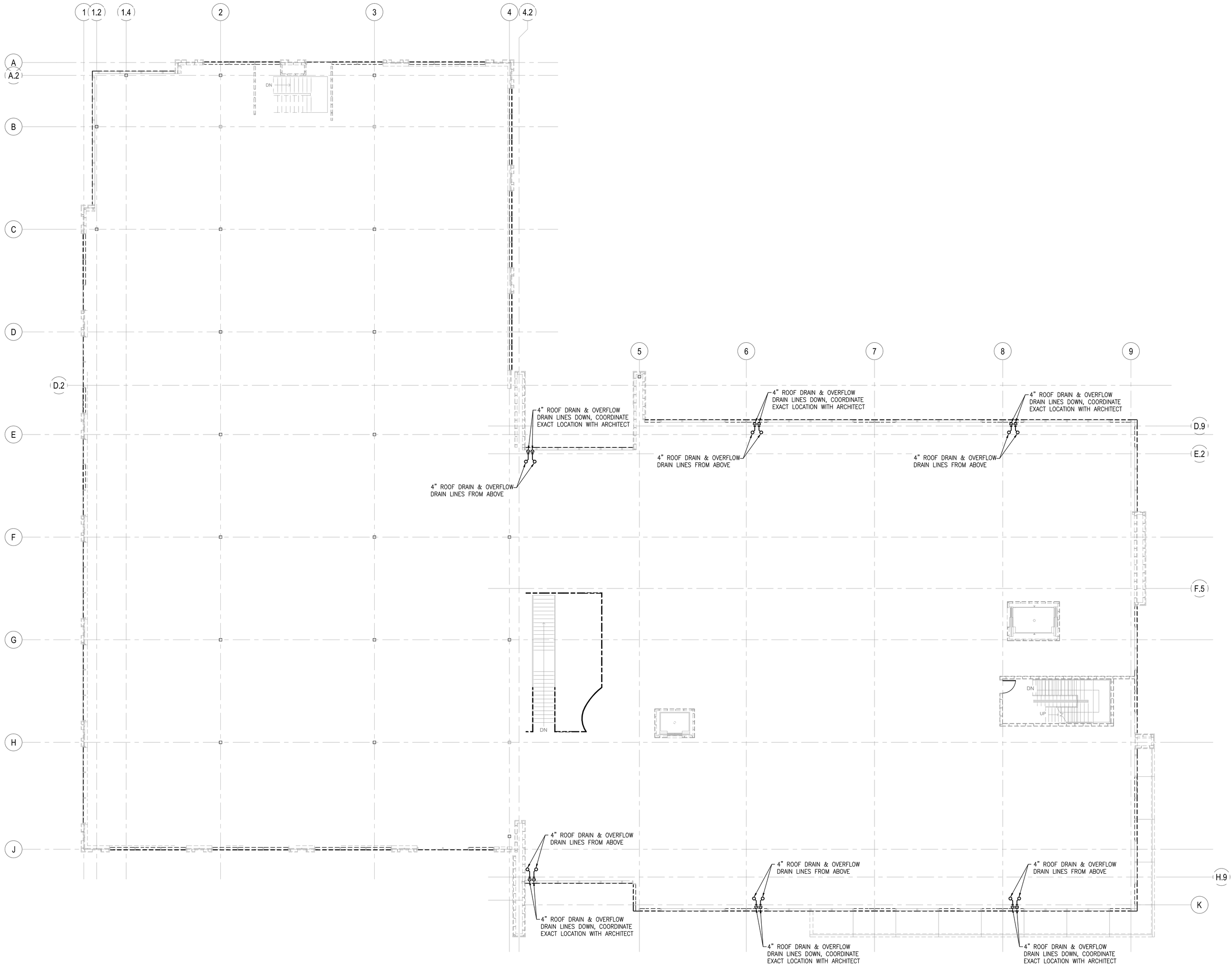
11/15/2012 3:46:58 PM

SCALE AS SHOWN

TITLE

PLUMBING FIRST FLOOR PLAN

P-2.1



PLUMBING SECOND FLOOR PLAN

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

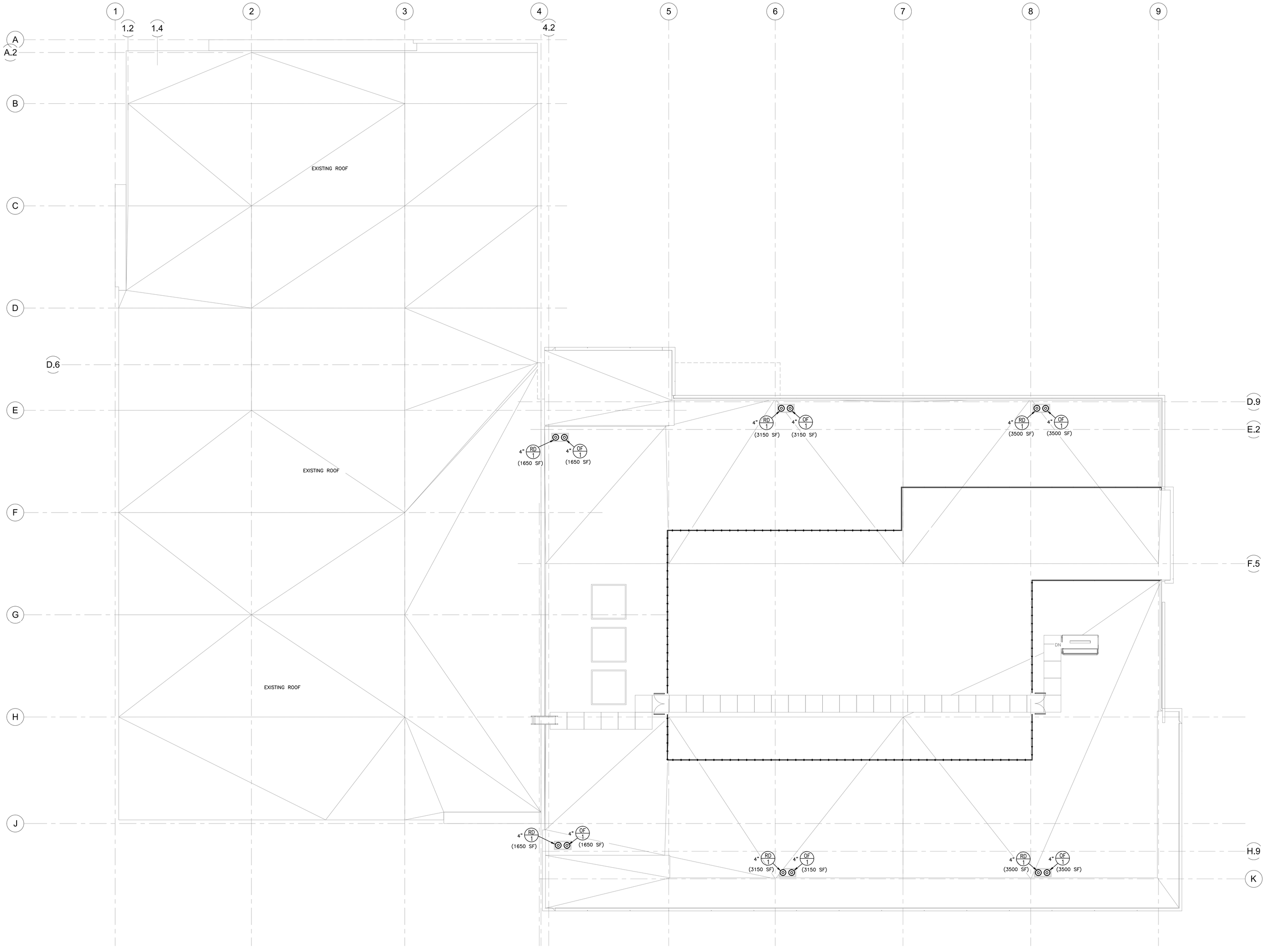
11/15/2013 3:46:58 PM

SCALE AS SHOWN

TITLE

PLUMBING SECOND FLOOR PLAN

P-2.2



PLUMBING ROOF PLAN

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

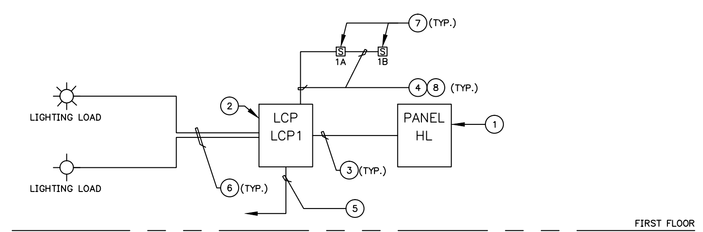
11/5/2012 3:46:58 PM

SCALE AS SHOWN

TITLE

PLUMBING
ROOF PLAN

P-2.3



KEY NOTES:

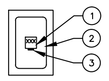
1. DENOTES LIGHTING PANELS PER PLANS. SEE SINGLE LINE DIAGRAM FOR MORE INFORMATION.
2. NEW (32)INPUT LIGHTING CONTROL PANEL 'LCP1'
   MANUFACTURER: LIGHTING CONTROL AND DESIGN
   MODEL #: GR2432/32-DTC MASTER-MOD-HL-SM
3. DENOTES LIGHTING CIRCUITS INTERCEPTED BY LIGHTING CONTROL PANEL PER PLANS.
4. DENOTES CAT 5, 4 TWISTED PAIR WIRE IN 3/4" CONDUIT PER MANUFACTURERS SPECIFICATIONS.
5. DENOTES CIRCUIT 120V 20A INPUT POWER TO LIGHTING CONTROL PANEL.
6. DENOTES LIGHTING BRANCH CIRCUIT(S) ROUTED TO LIGHTING FIXTURES. REFER TO 'LCP1' LIGHTING CONTROL SCHEDULES THIS SHEET.
7. DENOTES LOW VOLTAGE OVERRIDE SWITCH WITH ZONE NOTED, WITH MAXIMUM OVERRIDE CAPACITY OF NO MORE THAN (2) HOURS. # CH-6-XX-XX, NUMBER OF SWITCHES PER STATION, SEE DRAWINGS.
8. WIRE SWITCHES TOGETHER IN SERIES, FOR NUMBER OF SWITCHES SEE DRAWINGS.

GENERAL NOTES:

1. ALL DEVICES SHALL BE WIRED IN SERIES.

4 LIGHTING CONTROL RISER DIAGRAM

NONE



KEY NOTES:

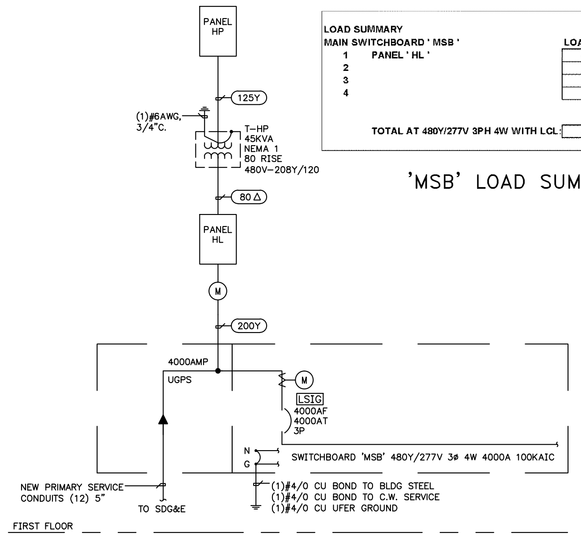
1. SWITCH BUTTON. LABEL ON SWITCH "AREA CONTROLLED" AS SHOWN ON LIGHTING CONTROL SCHEDULES, PER SWITCH. VERIFY WITH ARCHITECT PRIOR TO ENGRAVING. (TYPICAL)
2. 1 GANG PLATE/BACKBOX. (TYPICAL ON 1, 2, 3, 4, 6 BUTTON SWITCHES)
3. PILOT LIGHT. (TYPICAL)

GENERAL NOTES:

1. VERIFY OVERRIDE SWITCH LOCATIONS WITH ARCHITECT. VERIFY QUANTITY, LAYOUT, AND ORIENTATION WITH PLANS. SWITCHES SHALL BE COMPATIBLE WITH LIGHTING CONTROL SYSTEM.

5 LIGHTING CONTROL SWITCH DETAILS AND CALLOUTS

NO SCALE



LOAD SUMMARY
MAIN SWITCHBOARD 'MSB'
PANEL 'HL'

	LOAD VA	LOAD AMPS
1	70677	85
2		0
3		0
4		0
TOTAL AT 480Y/277V 3PH 4W WITH LCL	70877	85

'MSB' LOAD SUMMARY

1 SINGLE LINE DIAGRAM

NO SCALE

RELAY	PANEL	CIRCUIT	VOLTS	ZONE	NOTES
R1	HL	1	277	A	FIRST LEVEL WEST
R2	HL	3	277	A	FIRST LEVEL EAST
R3	HL	15	277	B	SECOND LEVEL WEST
R4	HL	17	277	B	SECOND LEVEL EAST
R5	HL	13	277	C	EXTERIOR LIGHTING
R6	–	–	277		SPARE
R7	–	–	277		SPARE
R8	–	–	277		SPARE

2 LIGHTING CONTROL RELAY SCHEDULE 'LCP1'

NO SCALE

ZONE	CONTROL	OVERRIDE SWITCHES	NOTES
A	TIMECLOCK 'ON/OFF' OVERRIDE 'ON' (2HRS. MAX.)	A1	SHELL LTG FIRST FLOOR
B	TIMECLOCK 'ON/OFF' OVERRIDE 'ON' (2HRS. MAX.)	B1	SHELL LTG SECOND FLOOR
C	PHOTOCELL 'ON' TIMECLOCK 'OFF'		EXTERIOR
D			
E			
F			
G			
H			

3 LIGHTING CONTROL ZONE SCHEDULE 'LCP1'

NO SCALE

SYMBOL	TYPE	VOLTAGE	INPUT WATTAGE	FIXTURE DESCRIPTION	FIXTURE INFORMATION						LAMP INFORMATION					BALLAST MANUFACTURER/ CATALOG NUMBER
					MANUFACTURER #1	CATALOG NUMBER #1	MANUFACTURER #2	CATALOG NUMBER #2	MANUFACTURER #3	CATALOG NUMBER #3	QTY	TYPE	WATTS	COLOR TEMP.	MANUFACTURER & CATALOG NUMBER	
	F1	277	58	4'-0" STRIP FIXTURE WITH WIRE GUARD AND CHAIN HANGERS. UL LISTED. 90 MIN EMERGENCY BATTERY PACK	DAY BRITE	T-2-32-UNV-WRE GUARD-CHAIN HUNG	LITHONIA	C-2-32-MVOLT-GEB101S +HC36-WGCUN NST	COLUMBIA	CS4-232-EU-CSWG4-CS HC	2	T8	32	4100	OSRAM SYLVANIA F032/841/XPS/ECO	OSRAM SYLVANIA (1) QHE 2X32T8/UNV ISN-SC
	F2	277	31	ADA VERTICALLY MOUNTED WALL MOUNTED FLUORESCENT FIXTURE. UL LISTED. 90 MIN EMERGENCY BATTERY PACK.	LIGHTOLIER	48023ALU-28W-277/ 40916					1	T5	28	4100	OSRAM SYLVANIA F032/841/XPS/ECO	OSRAM SYLVANIA (1) QHE 1X32T8/UNV ISN-SC
	F3	277	58	4'-0" STRIP FIXTURE WITH WIRE GUARD AND CHAIN HANGERS. UL LISTED. 90 MIN EMERGENCY BATTERY PACK	LIGHTOLIER	ST4WA232120SO					2	T8	32	4100	OSRAM SYLVANIA F032/841/XPS/ECO	OSRAM SYLVANIA (1) QHE 2X32T8/UNV ISN-SC
	F99	277	4	EDGE LIT EXIT SIGN. UL LISTED. 90 MIN EMERGENCY BATTERY PACK. PROVIDE # OF FACES APPROPRIATE MOUNTING AND ARROWS AS SHOWN ON PLANS	LIGHTOLIER	LG-A-1/2-X-X						LED				
	SF1	277	90	EXTERIOR WALL PACK WITH 90 MINUTE EMERGENCY BATTERY PACK	GARDCO	101EM-MT-242-TRF-277-BLP					2	CFL	42			

GENERAL NOTE:

1. ALL BIDS MUST INCLUDE BREAK OUT PRICING FOR EACH INDIVIDUAL FIXTURE.

6 LUMINAIRE SCHEDULE

NO SCALE

MOUNTING: SURFACE
FED FROM: MSB
NEMA: 1
AIC RATING: 65KAIC
PANEL HL
STATUS: NEW
VOLTAGE: 480Y/277V 3PH 4W
BUS: 200A
MAIN: 200A
FEEDER: 200A

Description	A	B	C	L	R	M	P	A				A	P	M	R	L	A	B	C	Description
FIRST LEVEL LTG - WEST	1334						1	29	1	A	-	2	80	3	-	-	976			PANEL 'HP'
FIRST LEVEL LTG - EAST		928					1	29	3	-	B	4	-	-	-	-		509		-----
STAIR 1, EXIT LIGHTING			230				1	29	5	-	-	6	-	-	-	-			534	-----
STAIR 3, EXIT LIGHTING	230						1	29	7	A	-	8	60	3			7171			ELEVATOR #1
ELEC RM 162 LTG		115					1	29	9	-	B	10	-	-	-	-		7171		-----
MECH RMS 108, 109 LTG			174				1	29	11	-	-	12	-	-	-	-			7171	-----
EXTERIOR LIGHTING	650						1	29	13	A	-	14	20	3						ELEV. #1 SHUNT TRIP
SECOND LEVEL LTG - WEST		1334					1	29	15	-	B	16	-	-	-	-				-----
SECOND LEVEL LTG - EAST			928				1	29	17	-	-	18	-	-	-	-				-----
SPARE							1	29	19	A	-	20	100	3	-	-	13813			ELEVATOR #2
SPARE							1	29	21	-	B	22	-	-	-	-		13813		-----
SPARE							1	29	23	-	-	24	-	-	-	-			13813	-----
SPARE							1	29	25	A	-	26	20	3						ELEV. #2 SHUNT TRIP
SPARE							1	29	27	-	B	28	-	-	-	-				-----
SPARE							1	29	29	-	-	30	-	-	-	-				-----
SPARE							1	29	31	A	-	32	20	1						SPARE
SPARE							1	29	33	-	B	34	20	1						SPARE
SPARE							1	29	35	-	-	36	20	1						SPARE
SPARE							1	29	37	A	-	38	20	1						SPARE
SPARE							1	29	39	-	B	40	20	1						SPARE
SPARE							1	29	41	-	-	42	20	1						SPARE
	2014	2378	1332														21957	21481	21355	

NOTES:

PHASE SUBTOTALS:
A - 23371 VA
B - 23859 VA
C - 20847 VA
SUBTOTAL= 70677 VA
X 0.25/CL= 17669 VA
TOTAL= 88346 VA
106 AMPS

MOUNTING: SURFACE
FED FROM: HP1
NEMA: 1
AIC RATING: 22KAIC
PANEL HP
STATUS: NEW
VOLTAGE: 208Y/120V 3PH 4W
BUS: 125A
MAIN: 125A 3P
FEEDER: 125A

Description	A	B	C	L	R	M	P	A				A	P	M	R	L	A	B	C	Description
ELEVATOR PIT #1	476						1	20	1	A	-	2	20	1						SPARE
ELEVATOR MACH RM. #1		500					1	20	3	-	B	4	20	1						SPARE
ELEVATOR PIT #2			534				1	20	5	-	-	6	20	1						SPARE
ELEVATOR MACH RM. #2	500						1	20	7	A	-	8	20	1						SPARE
SPARE							1	20	9	-	B	10	20	1						SPARE
SPARE							1	20	11	-	-	12	20	1						SPARE
SPARE							1	20	13	A	-	14	20	1						SPARE
SPARE							1	20	15	-	B	16	20	1						SPARE
SPARE							1	20	17	-	-	18	20	1						SPARE
SPARE							1	20	19	A	-	20	20	1						SPARE
SPARE							1	20	21	-	B	22	20	1						SPARE
SPARE							1	20	23	-	-	24	20	1						SPARE
SPARE							1	20	25	A	-	26	20	1						SPARE
SPARE							1	20	27	-	B	28	20	1						SPARE
SPARE							1	20	29	-	-	30	20	1						SPARE
SPARE							1	20	31	A	-	32	20	1						SPARE
SPARE							1	20	33	-	B	34	20	1						SPARE
SPARE							1	20	35	-	-	36	20	1						SPARE
SPARE							1	20	37	A	-	38	20	1						SPARE
SPARE							1	20	39	-	B	40	20	1						SPARE
SPARE							1	20	41	-	-	42	20	1						SPARE
	976	500	534														0	0	0	

NOTES:

PHASE SUBTOTALS:
A - 976 VA
B - 500 VA
C - 534 VA
SUBTOTAL= 2010 VA
X 0.25/CL= 503 VA
TOTAL= 2513 VA
7 AMPS

7 PANEL SCHEDULES

NTS

ABBREVIATIONS AND DESCRIPTIONS

A	AMPERES	KCM	KILO – CIRCULAR – MIL
AC	ALTERNATING CURRENT	KS	KNEE SPACE
A/C	AIR CONDITIONING	KVA	KILO-VOLTAMPERE
AIC	AMPERES INTERRUPTING CAPACITY	KW	KILO-WATT
AFC	AVAILABLE FAULT CURRENT	KWH	KILO-WATT-HOUR
AFF	ABOVE FINISHED FLOOR		
AFG	ABOVE FINISHED GRADE	LBS	POUNDS
AF	AMP FRAME/AMP FUSE	LF	LINEAL FEET
ABV	ABOVE	LOC	LOCATION
AL	ALUMINUM	LT	LIGHT
ARCH	ARCHITECT OR ARCHITECTURAL	LTG	LIGHTING
AS	AMP SWITCH	LV	LOW VOLTAGE
AT	AMP TRIP		
ATS	AUTOMATIC TRANSFER SWITCH	MH	MOUNTING HEIGHT
AWG	AMERICAN WIRE GAUGE	MANUF	MANUFACTURER
		MAX	MAXIMUM
B/G	BELOW GRADE	MC	MECHANICAL CONTRACTOR
BKBD	BACKBOARD	MCC	MOTOR CONTROL CENTER
BEL	BELOW	MCP	MOTOR CIRCUIT PROTECTION
		MECH	MECHANICAL
C	CONDUIT WITH WIRE	MIN	MINIMUM
CATV	CABLE TELEVISION	MLO	MAIN LUGS ONLY
CCTV	CLOSED CIRCUIT TELEVISION	MTD	MOUNTED
CB	CIRCUIT BREAKER	MTG	MOUNTING
CLG	CEILING		
CLF	CURRENT LIMITING FUSE	N	NEUTRAL
CLR	CLEAR	NC	NORMALLY CLOSED
CO	CONDUIT ONLY WITH NYLON PULLCORD	NEC	NATIONAL ELECTRICAL CODE
COAX	COAXIAL CABLE	NIC	NOT IN CONTRACT
CONC	CONCRETE	NL	NIGHT LIGHT
CONN	CONNECT OR CONNECTION	NTS	NOT TO SCALE
CONT	CONTINUATION	NO	NORMALLY OPEN
CONTR	CONTRACTOR		
CPT	CONTROL POWER TRANSFORMER	OC	ON CENTER
CU	COPPER	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CT	CURRENT TRANSFORMER	OFOI	OWNER FURNISHED OWNER INSTALLED
CW	COLD WATER		
		PB	PULLBOX
D	DEDICATED OUTLET	PC	PHOTOCELL CONTROL
DC	DIRECT CURRENT	PCTC	PHOTOCELL/TIMECLOCK CONTROL
DIA	DIAMETER	PE	PNEUMATIC-ELECTRIC
DISC	DISCONNECT	PH	PHASE
DIST	DISTRIBUTION	PIV	POST INDICATING VALVE
DL	DAMP LOCATION	PL	PILOT LIGHT
DB	DISTRIBUTION SWITCHBOARD	PLBG	PLUMBING
DWGS	DRAWINGS	PNL	PANEL
		PVC	POLYVINYL CHLORIDE
EA	EACH	PWR	POWER
EB	90-MINUTE BATTERY CONNECTED TO UNIT	PP	POWER POLE
EC	ELECTRICAL CONTRACTOR	PS	POWER SENTRY EMERGENCY BATTERY UNIT
EDF	ELECTRICAL DRINKING FOUNTAIN		
EG	CONNECTED TO EMERGENCY GENERATOR	Q	FIXTURE WITH QUARTZ RESTRIKE
EF	EXHAUST FAN	QTY	QUANTITY
EI	CONNECTED TO EMERGENCY INVERTER		
ELECT	ELECTRICAL	REC	RECESSED
ELEV	ELEVATION/ELEVATOR	RECEPT	RECEPTACLE
EMER, EM	EMERGENCY	REF	REFRIGERATOR
EMT	ELECTRO-METALLIC TUBING	REQ	REQUIREMENTS
EQUIP	EQUIPMENT	RGS	RIGID GALVANIZED STEEL
EXIST, EX	EXISTING	RM	ROOM
F	DEGREES FAHRENHEIT	SB	STANOBY
FA	FIRE ALARM	SD	SMOKE DETECTOR
FF	FURNITURE FEED, FINISHED FLOOR	SPEC	SPECIFICATION
FFE	FINISH FLOOR ELEVATION	SQ FT	SQUARE FEET OR SQUARE FOOT
FIN	FINISH OR FINISHED	STRUCT	STRUCTURAL
FIXT	FIXTURE	SW	SWITCH
FLUOR	FLUORESCENT	SWBD	SWITCHBOARD
FT	FEET OR FOOT	SWGR	SWITCHGEAR
FTG	FOOTING		
FVNR	FULL VOLTAGE NON-REVERSING	TEMP	TEMPERATURE OR TEMPORARY
		TV	TELEVISION
G	GROUND BUS OR WIRE	TEL, TELE	TELEPHONE
GA	GAUGE	TC	TIMECLOCK
GALV	GALVANIZED	TRANSF	TRANSFORMER
GC	GENERAL CONTRACTOR	TYP	TYPICAL
GD	GARBAGE DISPOSAL		
GFI	GROUND FAULT INTERRUPTER	UGPS	UNDERGROUND PULL SECTION
GFR	GROUND FAULT RELAY	UL	UNDERWRITERS LABORATORIES
GG	GREEN GROUND	UNO	UNLESS NOTED OTHERWISE
GND	GROUND		
		V	VOLTS
H	HORIZONTAL	VA	VOLTAMPERE
HAZMAT	HAZARDOUS MATERIAL	VFD	VARIABLE FREQUENCY DRIVE
HR	HOUR		
HP	HORSEPOWER	W/	WITH
HOA	HAND-OFF-AUTOMATIC	WH	WATER HEATER
HT	HEIGHT	WP	WEATHER PROOF
HTR	HEATER	WT	WEIGHT
HZ	HERTZ		
		X	EXISTING
IG	ISOLATED GROUND	XFMR	TRANSFORMER
IMC	INTERMEDIATE METAL CONDUIT	XL	EXISTING TO BE RELOCATED
INCAND	INCANDESCENT	XN	NEW LOCATION OF RELOCATED FIXTURE
		XR	EXISTING TO BE REMOVED
J-BOX	JUNCTION BOX		

SINGLELINE SYMBOLS AND DESCRIPTIONS

(M)	IN-LINE UTILITY METER-200A MAXIMUM
	UGPS LANDING LUGS
LSIG	CIRCUIT BREAKER WITH ELECTRONIC SENSING, TIMING AND TRIPPING CONTROL WITH FIELD INTERCHANGEABLE TRIP UNITS. PROVIDE TRUE RMS FUNCTIONS WITH DESCRETE FIELD ADJUSTABLE SETTINGS INDEPENDENT OF OTHER ADJUSTMENTS. L. LONG TIME TRIP S. SHORT TIME OVERCURRENT TRIP I. INSTANTANEOUS TRIP G. GROUND FAULT TRIP, GROUND FAULT SENSING INTEGRAL WITH CIRCUIT BREAKER.
	CIRCUIT BREAKER
	TRANSFORMER
	GROUNDING ELECTRODE AND CONDUCTOR
PANEL	PANELBOARD

SYMBOLS AND DESCRIPTIONS

	DUPLEX RECEPTACLE MTD 15" AFF TO BOTTOM. DEVICE: WHITE, COVERPLATE: WHITE
GFI	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE MTD 15" AFF TO BOTTOM. PROVIDED WITH DEDICATED NEUTRAL. DEVICE: WHITE, COVERPLATE: WHITE
J	JUNCTION BOX, WALL MOUNTED.
J	JUNCTION BOX, SURFACE MOUNTED, CONCEALED.
	PANELBOARD SURFACE MOUNTED
	SWITCHBOARD
T	TRANSFORMER
	FUSED DISCONNECT SWITCH
	UNDERGROUND CONDUIT AND #10 WIRE, UNO. 3/4"PVC MIN.
	HOMERUN
	INDICATES CONDUIT STUB-UP OR STUB-OUT LOCATION.

LIGHTING SYMBOLS AND DESCRIPTIONS

	SEE LUMINAIRE SCHEDULE FOR ADDITIONAL FIXTURE SYMBOLS.
S	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP DEVICE: WHITE COVERPLATE: WHITE PROVIDE 3-1/2" DEEP SINGLE GANG BOX
S#	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP DESIGNATED TO CONTROL LIGHTING IN CIRCUIT LEGS. DEVICE: WHITE COVERPLATE: WHITE. PROVIDE MULTI-GANG BOX AS REQUIRED TO ACCOMMODATE SWITCH LEGS INDICATED. PROVIDE 3-1/2" DEEP BOX.
S	SPECIALTY SWITCH AS DENOTED ON PLANS. DEVICE: WHITE COVERPLATE: WHITE MTD. 48" AFF TO TOP. PROVIDE 3-1/2" DEEP SINGLE GANG BOX.
	LIGHTING CONTROL PANEL
F1E F1–Xg EB	LUMINAIRE CALLOUT: UNIQUE LUMINAIRE SYMBOL LUMINAIRE TYPE LIGHTING BRANCH CIRCUIT AND SWITCH LEGS EMERGENCY POWER SOURCE: 'EB' IS EMERGENCY BATTERY 'EI' IS EMERGENCY INVERTER 'EG' IS EMERGENCY GENERATOR

FEEDER SCHEDULE

600V FEEDER SCHEDULE 3Ø 3W

LABEL	TYPE	SETS	PHASE	NEUTRAL	GROUND	CONDUIT
20A	20A–3W	1	3 # 12	N/A	1 # 12	3/4"
30A	30A–3W	1	3 # 10	N/A	1 # 10	3/4"
40A	40A–3W	1	3 # 8	N/A	1 # 10	1"
50A	50A–3W	1	3 # 6	N/A	1 # 10	1"
60A	60A–3W	1	3 # 6	N/A	1 # 10	1"
70A	70A–3W	1	3 # 4	N/A	1 # 8	1"
80A	80A–3W	1	3 # 4	N/A	1 # 8	1 1/4"
90A	90A–3W	1	3 # 2	N/A	1 # 8	1 1/4"
100A	100A–3W	1	3 # 1	N/A	1 # 8	1 1/4"
125A	125A–3W	1	3 # 1	N/A	1 # 6	1 1/2"
150A	150A–3W	1	3 # 1/0	N/A	1 # 6	1 1/2"
175A	175A–3W	1	3 # 2/0	N/A	1 # 6	2"
200A	200A–3W	1	3 # 3/0	N/A	1 # 6	2"

600V FEEDER SCHEDULE 3Ø 4W

LABEL	TYPE	SETS	PHASE	NEUTRAL	GROUND	CONDUIT
20A	20A–4W	1	3 # 12	1 # 12	1 # 12	3/4"
30A	30A–4W	1	3 # 10	1 # 10	1 # 10	3/4"
40A	40A–4W	1	3 # 8	1 # 10	1 # 10	1"
50A	50A–4W	1	3 # 6	1 # 6	1 # 10	1"
60A	60A–4W	1	3 # 6	1 # 6	1 # 10	1"
70A	70A–4W	1	3 # 4	1 # 4	1 # 8	1"
80A	80A–4W	1	3 # 4	1 # 4	1 # 8	1 1/4"
90A	90A–4W	1	3 # 2	1 # 2	1 # 8	1 1/4"
100A	100A–4W	1	3 # 1	1 # 1	1 # 8	1 1/2"
125A	125A–4W	1	3 # 1	1 # 1	1 # 6	1 1/2"
150A	150A–4W	1	3 # 1/0	1 # 1/0	1 # 6	1 1/2"
175A	175A–4W	1	3 # 2/0	1 # 2/0	1 # 6	2"
200A	200A–4W	1	3 # 3/0	1 # 3/0	1 # 6	2"

ELECTRICAL CONSTRUCTION DOCUMENTS GENERAL INFORMATION

1. THE DRAWINGS CONTAINED WITHIN THESE CONSTRUCTION DOCUMENTS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK AND SHALL INCLUDE ALL COSTS, EQUIPMENT, MATERIALS, ETC. REQUIRED FOR A COMPLETE, FUNCTIONAL, AND CODE-COMPLIANT INSTALLATION.
2. THE CONTRACTOR SHALL COORDINATE ALL INSTALLATIONS WITH ALL OTHER TRADES.
3. FINAL LOCATIONS OF ALL DEVICES, LIGHT FIXTURES, EQUIPMENT, ETC. SHALL BE INDICATED ON THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM THE ARCHITECT. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM ELECTRICAL DRAWINGS.
4. THESE DRAWINGS ARE SUPPLEMENTED BY PRINTED DIVISION 16 OR DIVISION 26 ELECTRICAL SPECIFICATIONS; THE COMPLETE ELECTRICAL CONSTRUCTION DOCUMENT PACKAGE CONTAINS BOTH SPECIFICATIONS AND DRAWINGS. THE CONTRACTOR SHALL OBTAIN AND REVIEW THE COMPLETE ELECTRICAL CONSTRUCTION DOCUMENT PACKAGE PRIOR TO THE COMMENCEMENT OF ANY WORK AND INCLUDE ALL COST IN THIS BID.
5. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, NATIONAL ELECTRICAL CODE, STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS AND ALL REQUIREMENT OF THE AUTHORITY HAVING JURISDICTION (AHJ).
6. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT LOCATIONS WITH ARCHITECTURAL, MECHANICAL, STRUCTURAL, PLUMBING AND ALL APPROPRIATE DISCIPLINES.
7. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM AND/OR ENGINEER PRIOR TO THE START OF CONSTRUCTION.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND REPAIR OF EXISTING SURFACES, AREAS, AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF ANY ELECTRICAL DEMOLITION AND/OR NEW WORK.
9. PROVIDE WEATHERPROOF (NEMA 3R) JUNCTION BOXES, CONDUIT, FITTINGS AND ENCLOSURES AT ALL EXTERIOR LOCATIONS AND ALL WET OR DAMP INTERIOR LOCATIONS. ALL EXTERIOR LIGHTING FIXTURES SHALL BE UL LISTED FOR WET OR DAMP LOCATION AS APPROPRIATE FOR THE LOCATION
10. VERIFY UTILITY COMPANY REQUIREMENTS FOR ALL WORK INCLUDING MODIFIED OR NEW SERVICE ENTRANCES. AND INCLUDE ALL COST IN BID.
11. NOTIFY POWER UTILITY COMPANY OF ANY SIGNIFICANT LOAD INCREASE, SERVICE REVISION, SHUTDOWN OF SERVICE OR ANY RELATED WORK.
12. VERIFY EXISTING CONDITIONS PRIOR TO BID AND INCLUDE ALL COSTS AS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
13. THE CONTRACTOR SHALL REVIEW EQUIPMENT MANUFACTURER'S REQUIREMENTS AND PROVIDE FUSE SIZES AS INDICATED, RELAYS, CONNECTIONS OR OTHER RELATED WORK TO COMPLETE THE ELECTRICAL SYSTEM.
14. ALL DEVICES AND EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH A.D.A. REQUIREMENTS.
15. CONTRACTOR SHALL CONCEAL ALL CONDUIT, FITTINGS, AND DEVICES FROM VIEW WHERE REASONABLY POSSIBLE.
16. CONTRACTOR SHALL ENSURE THAT ALL CONDUIT, FIXTURES, FITTINGS, AND DEVICES LOCATED IN PUBLIC AREAS ARE TAMPERPROOF AND PROTECTED FROM PHYSICAL DAMAGE.
17. ALL CURRENT CARRYING CONDUCTORS SHALL BE COPPER. INSULATION SHALL BE TYPE THHN/THWN FOR ALL BRANCH CIRCUITS UP TO AND INCLUDING SIZE #2AWG. INSULATION FOR CONDUCTORS OVER SIZE #2AWG SHALL BE XHHW.
18. ALL GROUND CONDUCTORS SHALL BE INSULATED COPPER.
19. ALL CONDUIT SHALL BE EMT (INSTALLED IN INTERIOR CONCEALED SPACES) OR SCHEDULE-40 PVC (INSTALLED UNDERGROUND) UNLESS OTHERWISE NOTED.
20. ALL AMPACITIES ARE BASED UPON TABLE 310.16 OF THE 2011 N.E.C.
21. FEEDER SCHEDULES INDICATE DATA FOR COPPER CONDUCTORS RATED UP TO 600V AT 75 DEGREES CELSIUS.
22. HEALTH CARE FACILITIES SHALL BE WIRED IN A METALLIC RACEWAY OR CABLING SYSTEM. CONTRACTOR SHALL PROVIDE A REDUNDANT GROUNDING METHOD WITH AN INSULATED GREEN GROUNDING CONDUCTOR INCLUDED.
23. ALL MULTI-WIRE BRANCH CONDUCTORS SHALL ORIGINATE FROM THE SAME PANELBOARD. THE GROUNDED AND UNGROUNDED CONDUCTORS SHALL BE GROUPED WITHIN THE PANELBOARD AND THEY SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS. THE CONTRACTOR SHALL PROVIDE THE DISCONNECTING MEANS BASED UPON THE FINAL FIELD WIRING, CIRCUITING, HOMERUNS, ETC. AS REQUIRED TO SATISFY THIS REQUIREMENT.
24. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, APPROVALS, LICENSES, ETC. AS NEEDED FOR THE COMPLETE ELECTRICAL INSTALLATION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL FEES AND DATA NEEDED FOR THE ABOVE ITEMS.
25. ALL ROOF-MOUNTED EQUIPMENT SHALL BE SERVED BY CIRCUITS ROUTED BELOW THE ROOF STRUCTURE. DO NOT ROUTE CONDUITS EXPOSED ON THE ROOF. LIMIT FINAL CONNECTIONS TO ROOF EQUIPMENT FROM ROOF PENETRATION TO 10 FEET.
26. FOR ALL EXTERIOR CONDUITS EXPOSED TO DIRECT SUNLIGHT, THE CONTRACTOR SHALL ADJUST CONDUCTOR AND CONDUIT SIZES AS NECESSARY TO COMPLY WITH CODE-REQUIRED AMBIENT TEMPERATURE AMPACITY DE-RATING.

Sheet List Table

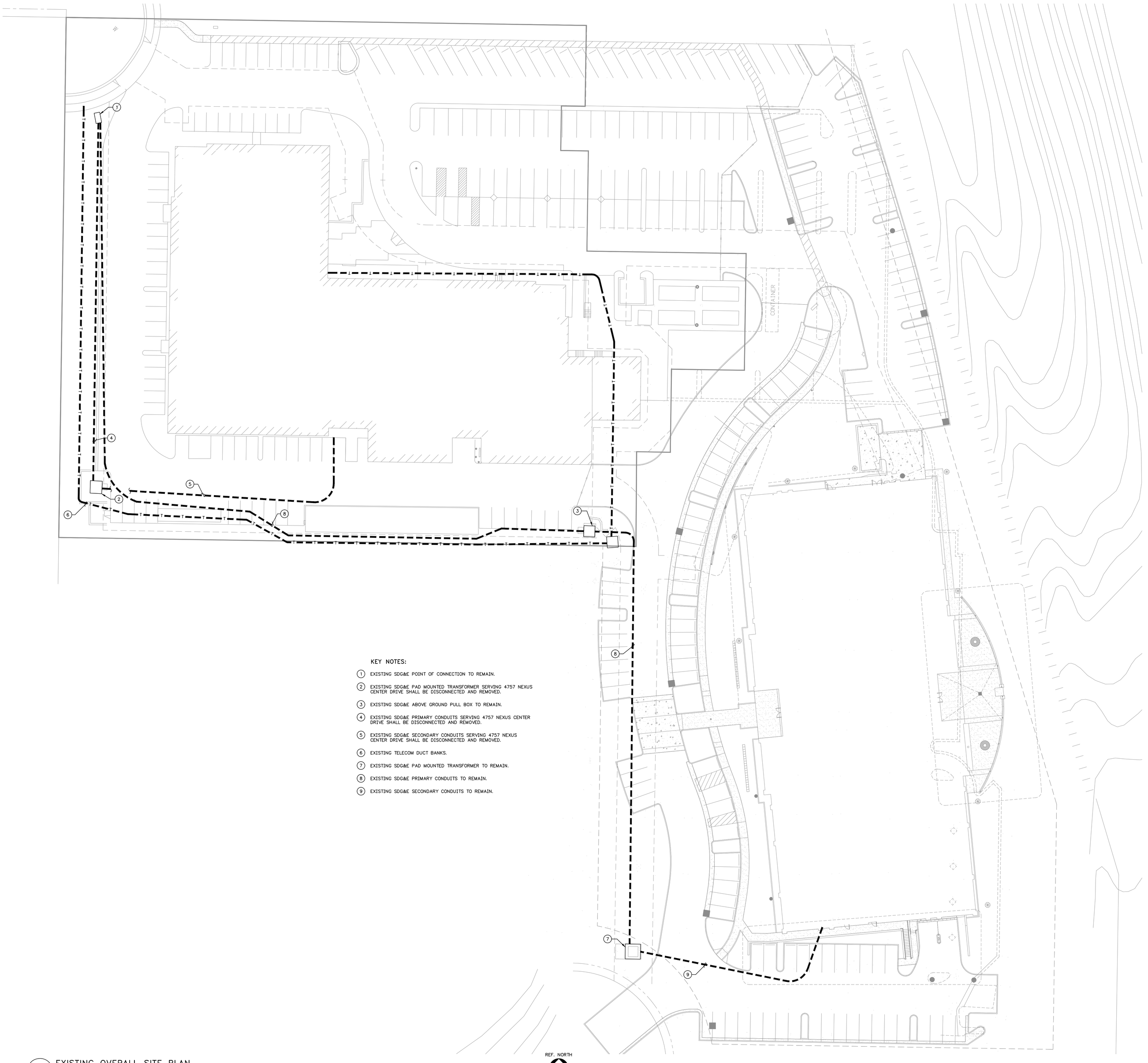
Sheet Number	Sheet Title
E-001	NOTE SHEET, SINGLELINE, PANEL SCHEDULE, FIXTURE SCHEDULE
E-002	TITLE 24 CALCULATIONS
E-101	EXISTING OVERALL SITE PLAN
E-102	NEW OVERALL SITE PLAN
E-201	FIRST FLOOR LIGHTING & POWER PLAN
E-202	SECOND FLOOR LIGHTING & POWER PLAN
E-301	ENLARGED PLANS

SCALE As indicated

TITLE

NOTE SHEET, SINGLELINE, PANEL SCHEDULE, LUMINAIRE SCHEDULE

E-001



KEY NOTES:

1. EXISTING SDG&E POINT OF CONNECTION TO REMAIN.
2. EXISTING SDG&E PAD MOUNTED TRANSFORMER SERVING 4757 NEXUS CENTER DRIVE SHALL BE DISCONNECTED AND REMOVED.
3. EXISTING SDG&E ABOVE GROUND PULL BOX TO REMAIN.
4. EXISTING SDG&E PRIMARY CONDUITS SERVING 4757 NEXUS CENTER DRIVE SHALL BE DISCONNECTED AND REMOVED.
5. EXISTING SDG&E SECONDARY CONDUITS SERVING 4757 NEXUS CENTER DRIVE SHALL BE DISCONNECTED AND REMOVED.
6. EXISTING TELECOM DUCT BANKS.
7. EXISTING SDG&E PAD MOUNTED TRANSFORMER TO REMAIN.
8. EXISTING SDG&E PRIMARY CONDUITS TO REMAIN.
9. EXISTING SDG&E SECONDARY CONDUITS TO REMAIN.

REF. NORTH

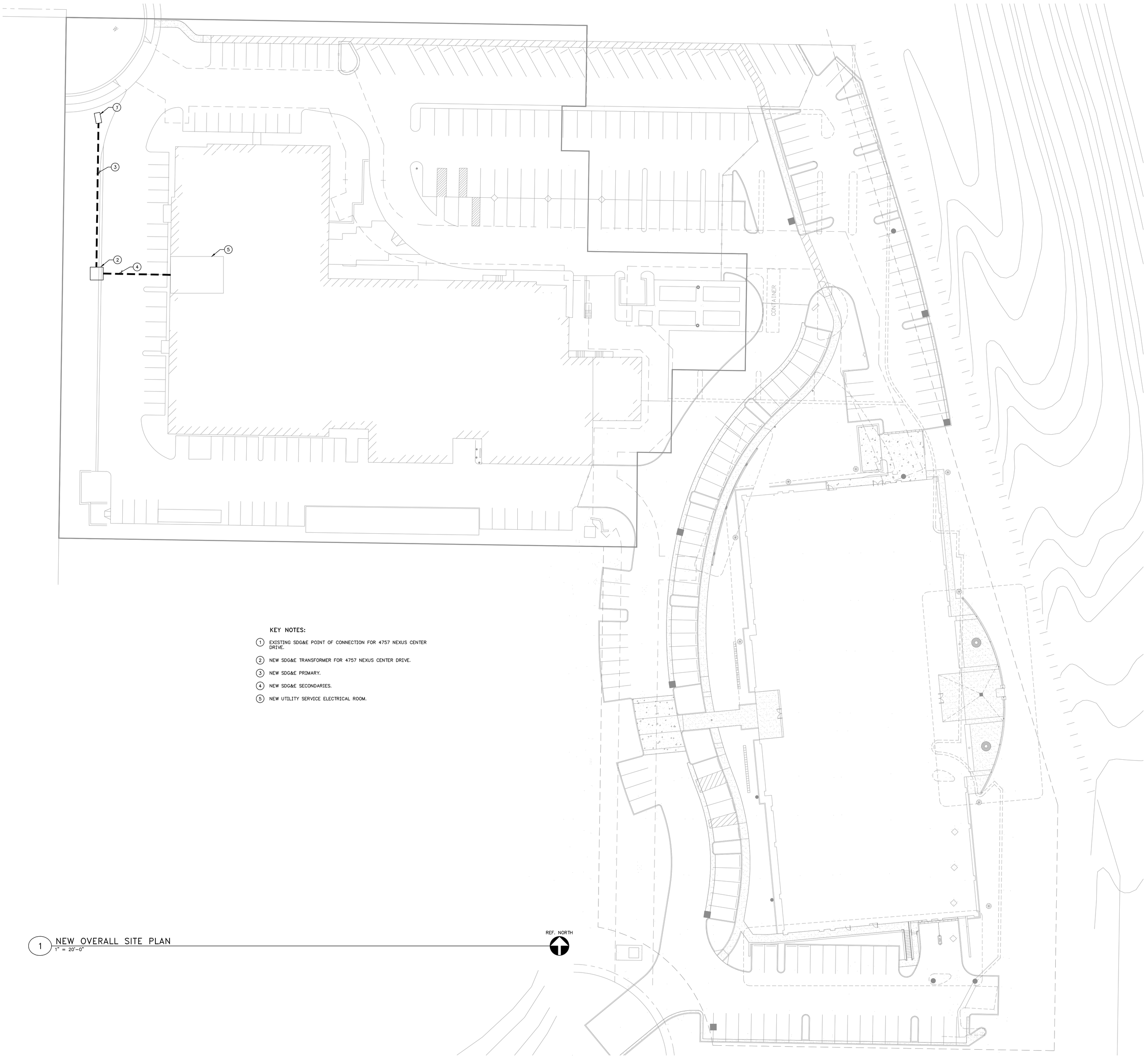
1 EXISTING OVERALL SITE PLAN
1" = 20'-0"

SCALE As indicated

TITLE

EXISTING OVERALL SITE PLAN

E-101



KEY NOTES:

1. EXISTING SDG&E POINT OF CONNECTION FOR 4757 NEXUS CENTER DRIVE.
2. NEW SDG&E TRANSFORMER FOR 4757 NEXUS CENTER DRIVE.
3. NEW SDG&E PRIMARY.
4. NEW SDG&E SECONDARIES.
5. NEW UTILITY SERVICE ELECTRICAL ROOM.

REF. NORTH

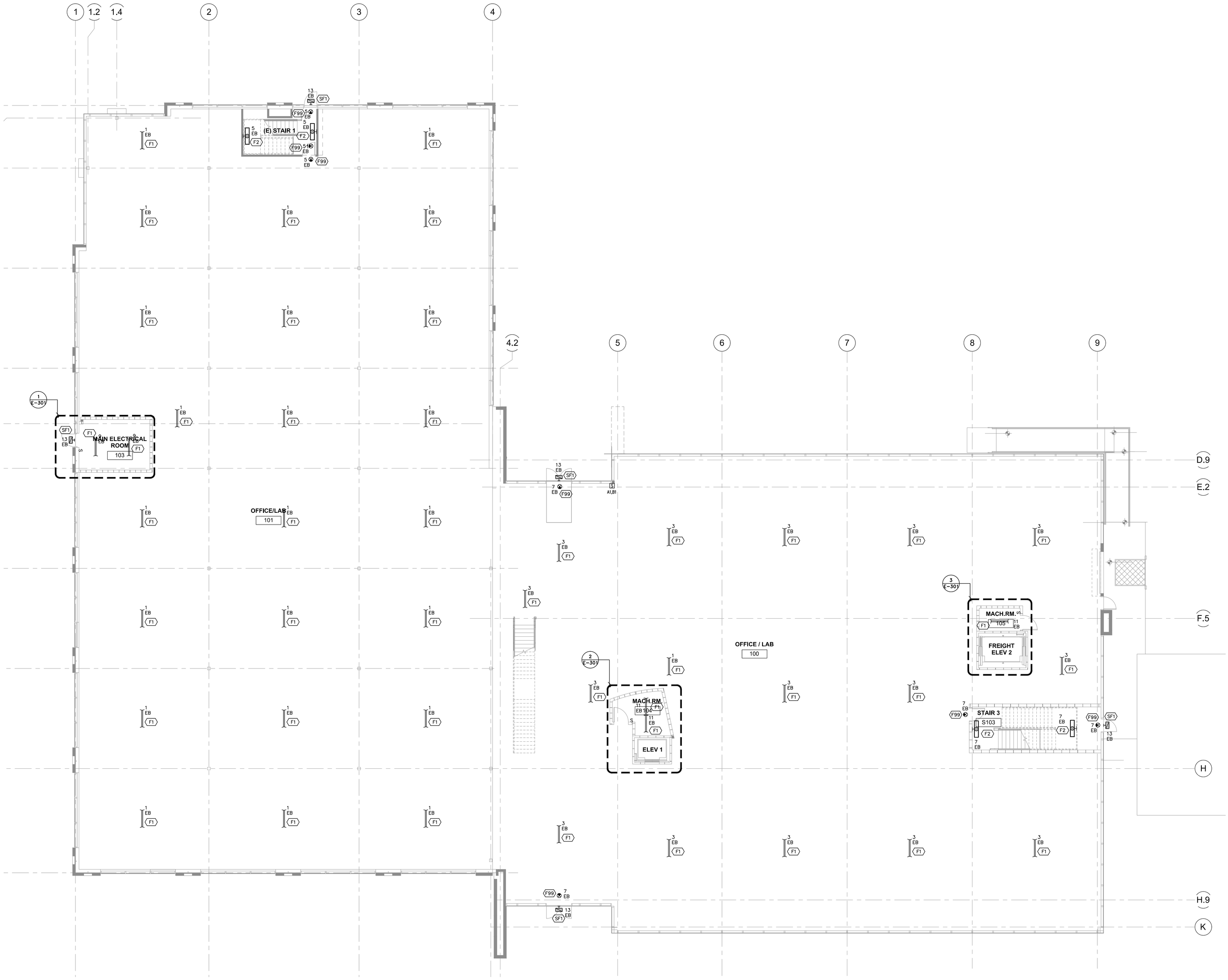
1 NEW OVERALL SITE PLAN
1" = 20'-0"

SCALE As indicated

TITLE

NEW OVERALL SITE PLAN

E-102



GENERAL NOTES:

1. ALL LIGHTING CIRCUITS CONNECTED TO PANEL 'HL'.
2. LIGHTING CONTROLLED VIA LIGHTING CONTROL PANEL 'LCP1'.

1 FIRST FLOOR LIGHTING & POWER PLAN
1/8" = 1'-0"

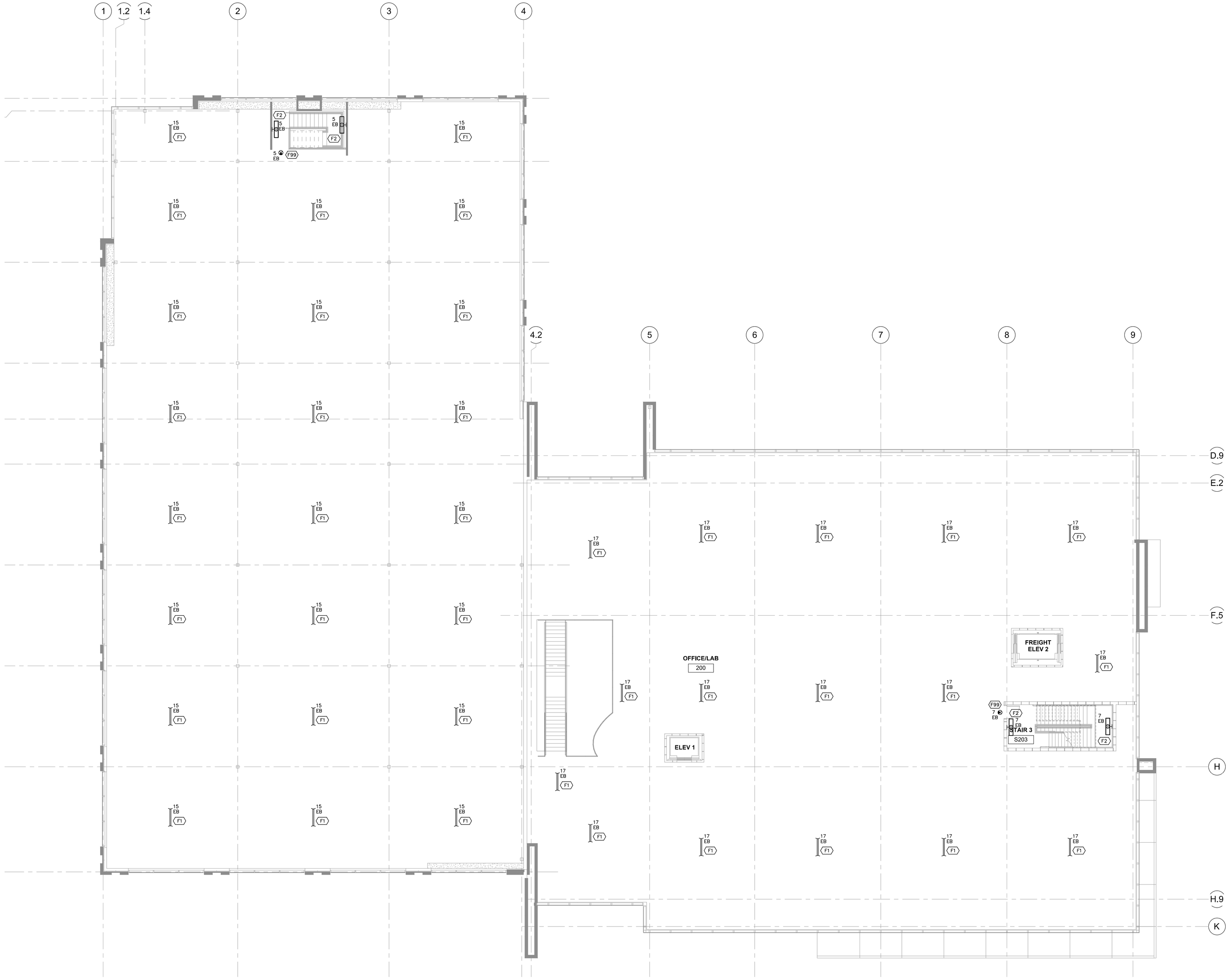
REF. NORTH

SCALE As indicated

TITLE

FIRST FLOOR LIGHTING & POWER PLAN

E-201



GENERAL NOTES:

1. ALL LIGHTING CIRCUITS CONNECTED TO PANEL 'HL'.
2. LIGHTING CONTROLLED VIA LIGHTING CONTROL PANEL 'LCP1'.

1 SECOND FLOOR LIGHITNG & POWER PLAN
1/8" = 1'-0"

REF. NORTH

SCALE As indicated

TITLE

SECOND FLOOR LIGHTING & POWER PLAN

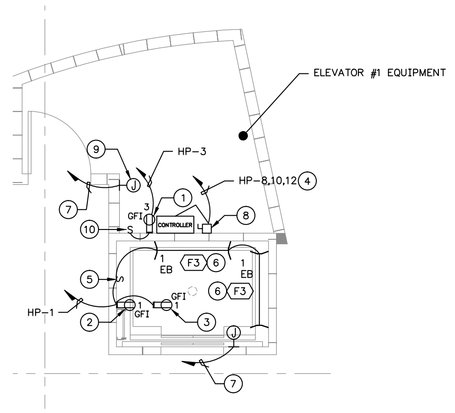
E-202

KEY NOTES:

1. DUPLEX GFI OUTLET IN ELEVATOR MACHINE ROOM. LOCATE PER MANUFACTURE AND CODE REQUIREMENTS.
2. DUPLEX GFI OUTLET AT BASE OF ELEVATOR SHAFT FOR MAINTENANCE POWER. LOCATE PER MANUFACTURER AND CODE REQUIREMENTS.
3. DUPLEX GFI OUTLET MOUNTED HALFWAY UP ELEVATOR SHAFT WHERE REQUIRED BY MANUFACTURER AND CODE.
4. ELEVATOR POWER VIA SHUNT-TRIP BREAKER.
5. MANUFACTURER APPROVED SWITCH IN ELEVATOR PIT FOR LIGHT FIXTURES.
6. WALL MOUNTED FIXTURE IN ELEVATOR PIT PER MANUFACTURER AND CODE REQUIREMENTS. CIRCUIT THROUGH GFI OUTLET AT BASE OF ELEVATOR PIT.
7. ROUTE 3/4" C.O TO TELEPHONE BACKBOARD.
8. COORDINATE LOCATION OF DISCONNECT SWITCH FOR MOTOR CONNECTION WITH MANUFACTURE AND CODE REQUIREMENTS. VERIFY FUSE SIZE AND RATING PRIOR TO INSTALLATION. MINIMUM DISCONNECT SWITCH RATING OF 100A, 3P. PROVIDE AUXILIARY CONTACTS (1 NO/ 1 NC) AND INTERCONNECT TO ELEVATOR DC BATTERY LOWERING SYSTEM.
9. PROVIDE AND INSTALL JUNCTION BOX FOR ELEVATOR CAB TELEPHONE CONNECTION. COORDINATE ROUTING WITH MANUFACTURE.
10. PROVIDE AND INSTALL WALL SWITCH WITH LOCKING DEVICE FOR ELEVATOR CAB POWER AND LIGHTING REQUIREMENTS. VERIFY REQUIREMENTS WITH MANUFACTURE.

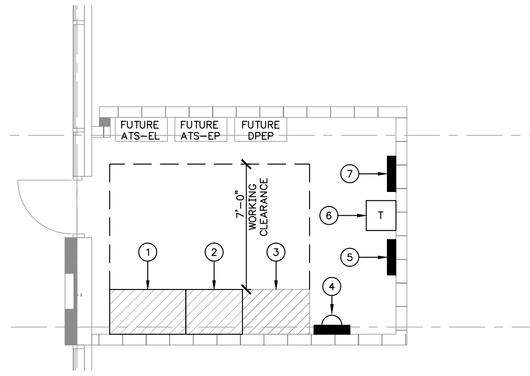
GENERAL NOTES:

1. VERIFY ALL ELEVATOR POWER, CONTROL, AND COMMUNICATION REQUIREMENTS WITH ELEVATOR SHOP DRAWINGS PRIOR TO INSTALLATION.



2 ELEVATOR #1 AND ELEVATOR MACHINE ROOM #1
1/4" = 1'-0"

REF. NORTH



KEY NOTES:

1. NEW SWITCHBOARD 'MSB' – PULL SECTION.
2. NEW SWITCHBOARD 'MSB' – METERING AND MAIN SWITCH SECTION.
3. NEW SWITCHBOARD 'MSB' – FUTURE DISTRIBUTION SECTION.
4. NEW HOUSE SERVICE METER.
5. NEW PANELBOARD 'HL'.
6. NEW TRANSFORMER 'T-HP'.
7. NEW PANELBOARD 'HP'.

1 MAIN ELECTRICAL ROOM 142
1/4" = 1'-0"

REF. NORTH

KEY NOTES:

1. DUPLEX GFI OUTLET IN ELEVATOR MACHINE ROOM. LOCATE PER MANUFACTURE AND CODE REQUIREMENTS.
2. DUPLEX GFI OUTLET AT BASE OF ELEVATOR SHAFT FOR MAINTENANCE POWER. LOCATE PER MANUFACTURER AND CODE REQUIREMENTS.
3. DUPLEX GFI OUTLET MOUNTED HALFWAY UP ELEVATOR SHAFT WHERE REQUIRED BY MANUFACTURER AND CODE.
4. ELEVATOR POWER VIA SHUNT TRIP BREAKER.
5. MANUFACTURER APPROVED SWITCH IN ELEVATOR PIT FOR LIGHT FIXTURES.
6. WALL MOUNTED FIXTURE IN ELEVATOR PIT PER MANUFACTURER AND CODE REQUIREMENTS. CIRCUIT THROUGH GFI OUTLET AT BASE OF ELEVATOR PIT.
7. ROUTE 3/4" C.O TO TELEPHONE BACKBOARD.
8. COORDINATE LOCATION OF DISCONNECT SWITCH FOR MOTOR CONNECTION WITH MANUFACTURE AND CODE REQUIREMENTS. VERIFY FUSE SIZE AND RATING PRIOR TO INSTALLATION. MINIMUM DISCONNECT SWITCH RATING OF 100A, 3P. PROVIDE AUXILIARY CONTACTS (1 NO/ 1 NC) AND INTERCONNECT TO ELEVATOR DC BATTERY LOWERING SYSTEM.
9. PROVIDE AND INSTALL JUNCTION BOX FOR ELEVATOR CAB TELEPHONE CONNECTION. COORDINATE ROUTING WITH MANUFACTURE.
10. PROVIDE AND INSTALL WALL SWITCH WITH LOCKING DEVICE FOR ELEVATOR CAB POWER AND LIGHTING REQUIREMENTS. VERIFY REQUIREMENTS WITH MANUFACTURE.

GENERAL NOTES:

1. VERIFY ALL ELEVATOR POWER, CONTROL, AND COMMUNICATION REQUIREMENTS WITH ELEVATOR SHOP DRAWINGS PRIOR TO INSTALLATION.

3 ELEVATOR #2 AND ELEVATOR MACHINE ROOM #2
1/4" = 1'-0"

REF. NORTH

SCALE As indicated

TITLE

ENLARGED PLANS

E-301