GENERAL STRUCTURAL NOTES

Applies unless noted otherwise on drawings

BUILDING CODE:

2012 EDITION OF THE INTERNATIONAL BUILDING CODE.

LOADS:

GRAVITY:
ROOF LIVE LOAD = 20 PSF (REDUCIBLE).
CANOPY DEAD LOAD = ACTUAL WEIGHT OF MEMBER:
DECK = 1.0 PSF
PURLIN = 4.9 PLF
BEAM = 8.7 PLF MIN, 20.6 PLF MAX, 14.7 PLF AVG
COLUMN = 20.6 PLF
SNOW LOAD = 15 PSF (NON-REDUCIBLE)

LATERAL:

WIND:

ULTIMATE DESIGN WIND SPEED (3-SECOND GUST), V(ult) = 105 MPH.
EXPOSURE C.
RISK CATEGORY, I.

WIND LOAD(NOMINAL) FOR 1.2 DEGREE SLOPE:
C&C WIND LOAD = 24.9 PSF (TOWARD THE SURFACE).
C&C WIND LOAD = -25.9 PSF (AWAY FROM THE SURFACE).
MWFRS WIND LOAD = 5.2 PSF / 20.8 PSF (TOWARD THE SURFACE).
MWFRS WIND LOAD = -8.7 PSF / -20.8 PSF (AWAY FROM THE SURFACE).

SEISMIC:

SEISMIC IMPORTANCE FACTOR, I = 1.0.
RISK CATEGORY, I.
MAPPED SHORT PERIOD SPECTRAL ACCELERATION, Ss = 0.540g MAX.
MAPPED ONE SECOND SPECTRAL ACCELERATION, S1 = 0.171g MAX.
SOIL SITE CLASS, C.
DESIGN SHORT PERIOD SPECTRAL ACCELERATION, Sds = 0.426g MAX.
DESIGN ONE SECOND SPECTRAL ACCELERATION, Sd1 = 0.186g MAX.
SEISMIC DESIGN CATEGORY, C.
BASIC SEISMIC-FORCE-RESISTING SYSTEM = CANTILEVERED COLUMN SYSTEMS DETAILED TO CONFORM TO THE REQUIREMENTS FOR ORDINARY STEEL MOMENT FRAMES.
SEISMIC RESPONSE COEFFICIENT, Cs = 0.34 MAX.
RESPONSE MODIFICATION FACTOR (R)= 1.25.
ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATIONS:

THE ALLOWABLE LATERAL BEARING PRESSURE MAY BE MULTIPLIED BY 2.0 PER IBC SECTION 1806.3.4. ALLOWABLE LATERAL BEARING PRESSURE = 240 PSF/FT FOR DRILLED PIER FOOTINGS. THE DRILLED PIER FOOTINGS ARE DESIGNED AS CONSTRAINED (SECTION 1807.3.2.2, EQUATION 18- 3) WHERE PLACED IN ASPHALT AREAS DRILLED PIERS MUST BE A MINIMUM OF 4 FEET BELOW EXISTING GRADE.

SPREAD FOOTING DESIGNS ARE BASED ON IBC SECTION 1806, CLASS 5 SOILS. SPREAD FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL 2'-0" FEET MINIMUM BELOW ADJACENT EXISTING GRADE. DESIGN SOIL BEARING VALUE = 1500 PSF.

CONCRETE:

SPECIFIED 28 DAY COMPRESSIVE STRENGTH F'c:

FOUNDATIONS ---------- 2,500 PSI

GENERAL:

ALL CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED UNLESS NOTED OTHERWISE.
ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED. NO OTHER ADMIXTURES PERMITTED WITHOUT APPROVAL. FOR CONCRETE WITHOUT PLASTICIZER, MAXIMUM SLUMP 4 1/2" AT POINT OF PLACEMENT U.N.O. IF PLASTICIZER IS USED, A HIGHER FINAL SLUMP MAY BE ALLOWED UPON STRUCTURAL ENGINEER'S APPROVAL.

FOR REINFORCING INFORMATION, SEE REINFORCING SECTION OF G.S.N., PLANS, SCHEDULES AND DETAILS.

FLY ASH - SHALL BE LIMITED TO 50% OF TOTAL CEMENTITIOUS MATERIALS BY WEIGHT.

TEST DATA FOR EACH CONCRETE MIX SHALL BE SUBMITTED FOR REVIEW PER CHAPTER 5 OF ACI 318. REFERENCE FIGURE R5.3 FOR SUBMITTAL REQUIREMENTS AND OPTIONS. CONCRETE MIX DESIGNS THAT ARE SUBMITTED WITHOUT THE APPROPRIATE TEST DATA CANNOT BE REVIEWED.

IT IS ACCEPTABLE AND INTENDED TO USE EARTH CUTS FOR THE DRILLED PIER FOOTING AND SPREAD FOOTING. THE FOOTING DESIGNS INDICATED IN THESE DRAWINGS DO NOT APPLY IF THE EARTH CUTS ARE UNSTABLE AND/OR DO NOT STAND ON THEIR OWN.

THE FOOTINGS INDICATED IN THESE DRAWINGS DO NOT APPLY WHERE ORGANIC FILL MATERIALS EXIST.

CONCRETE SHALL BE ADEQUATELY VIBRATED AROUND THE EMBEDDED STEEL COLUMNS TO ENSURE THE CONCRETE HAS COMPLETELY SURROUNDED THE STEEL COLUMN. CONCRETE SHALL SLOPE UP SLIGHTLY TOWARDS COLUMNS TO PREVENT WATER FROM PONDING AROUND COLUMNS.

IT IS ACCEPTABLE FOR CONCRETE TO FREE FALL INTO THE DRILLED PIER OR SPREAD FOOTINGS. THE GOAL OF THE CONSTRUCTION WITH THE DRILLED PIER AND SPREAD FOOTING IS TO HAVE CONCRETE WELL PLACED WITH MINIMAL VOIDS AND GOOD CONSOLIDATION (i.e. MINIMAL SEGREGATION OF THE AGGREGATE).

REINFORCING:

ALL REINFORCING PER CRSI SPECIFICATIONS AND HANDBOOK. ASTM A615 (Fy = 60 KSI / GRADE 60) DEFORMED BARS FOR ALL BARS #5 AND LARGER. ASTM A615 (Fy = 40 KSI / GRADE 40) DEFORMED BARS FOR ALL BARS #4 AND SMALLER. WHERE SHOWN ON DRAWINGS ALL GRADE 60 REINFORCING TO BE WELDED SHALL BE ASTM A706. NO TACK WELDING OF REINFORCING BARS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE WITH THE STRUCTURAL ENGINEER. LATEST ACI CODE AND DETAILING MANUAL APPLY. CLEAR CONCRETE COVERAGES AS FOLLOWS:

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ---------- 3"
EXPOSED TO EARTH OR WEATHER
#6 OR LARGER ---------- 2"
#5 AND SMALLER ---------- 1 1/2"
ALL OTHER PER LATEST EDITION OF ACI 318

ALL REINFORCING SHALL BE CHAIRED TO ENSURE PROPER CLEARANCES. SUPPORT OF FOUNDATION REINFORCING MUST PROVIDE ISOLATION FROM MOISTURE/CORROSION BY USE OF A PLASTIC OR CONCRETE CHAIR. DUCT-TAPE COVERED REINFORCING IS NOT AN ACCEPTABLE CHAIR.

ALL DIMENSIONS REFERENCED IN DRAWINGS AS "CLEAR" SHALL BE FROM FACE OF STRUCTURE TO EDGE OF REINFORCING, AND SHALL NOT BE LESS THAN STATED, NOR GREATER THAN "CLEAR" DIMENSION PLUS 3/8". ALL OTHERS SHALL BE PLUS OR MINUS 1/4" TYPICAL UNLESS NOTED OTHERWISE.

FIELD BENDING OR STRAIGHTENING OF DEFORMED BARS SHALL BE LIMITED TO #5 BARS AND SMALLER AND SHALL BE FIELD BENT OR STRAIGHTENED ONLY ONCE. ANY BEND SHALL BE LIMITED TO 90 DEGREES. IF FIELD BENDING OR STRAIGHTENING OF #6 BARS OR LARGER IS REQUIRED, OR IF A SECOND BEND IS REQUIRED FOR #5 BARS AND SMALLER, HEAT SHALL BE APPLIED FOR BENDING OR STRAIGHTENING. CONTRACTOR SHALL SUBMIT PROCEDURE FOR APPLYING HEAT TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO BENDING OR STRAIGHTENING BARS.

STRUCTURAL STEEL:

GENERAL:

ALL CONSTRUCTION PER LATEST AISC STEEL CONSTRUCTION MANUAL. ALL MISCELLANEOUS STEEL UNLESS NOTED OTHERWISE SHALL BE ASTM A36 (Fy = 36 KSI).

ALL STRUCTURAL ROLLED STEEL MEMBERS WITH Fy GREATER THAN 36 KSI ARE TO BE IDENTIFIED WITH AN ASTM SPECIFICATION MARK OR TAG PER IBC SEC. 2203.1.

PROTECET ALL EXPOSED STEEL BELOW GRADE WITH HE107 ASPHALT EMULSION PRODUCT. EXTEND A MINIMUM OF 2 INCHES ABOVE FINISHED GRADE.

WELDING:

UNLESS NOTED OTHERWISE, ALL WELDS PER LATEST EDITION OF THE AWS STANDARDS. ALL WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES. CERTIFICATES SHALL BE THOSE ISSUED BY AN ACCEPTED TESTING AGENCY. ALL WELDING DONE BY E70 SERIES UNLESS NOTED OTHERWISE. FOR GRADE 60 REINFORCING BARS, USE E90 SERIES. THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS; THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW.

SCREW FASTENERS:

ALL SCREWS 3/4" MIN. LENGTH U.N.O.

ALL STEEL SCREWS SHALL BE IN ACCORDANCE WITH AISI-GENERAL AND AISI-NAS. Fy = 50 ksi AND Ft = 70 ksi FOR ALL SCREWS.

1. MINIMUM SPACING OF SCREWS SHALL NOT BE LESS THAN 3 TIMES THE NOMINAL DIAMETER. MINIMUM EDGE DISTANCE FOR SCREWS SHALL NOT BE LESS THAN 1.5 TIMES THE NOMINAL SCREW DIAMETER.
2. THE HEAD OF THE SCREW OR WASHER SHALL HAVE A DIAMETER, DW, OF NOT LESS THAN 5/16". WASHERS SHALL BE AT LEAST 0.05" THICK.

SCREW NUMBER DESIGNATION	8	10	12 (12-14)	14
NOMINAL DIAMETER	0.164"	0.190"	0.216"	0.250"

STEEL DECKING:

GENERAL:

ALL STEEL DECK SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBER". STEEL DECK SHALL BEAR ON SUPPORTS A MINIMUM OF 2 INCHES. ENDS OF SHEETS MUST BE LAPPED A MINIMUM OF 2 INCHES OVER SUPPORTS.

1. STEEL DECK TO RUN CONTINUOUS OVER MINIMUM TWO SPANS.
2. FOR SCREW PATTERN ATTACHING ROOF DECK TO BEAMS AND/OR PURLINS, SEE TYPICAL DETAIL.

COLD FORMED STRUCTURAL STEEL FRAMING:

GENERAL:

ALL COLD FORMED STRUCTURAL STEEL FRAMING AND COMPONENTS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF AISC'S "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS".

FRAMING:

ALL WELDING TO BE PERFORMED BY WELDERS HOLDING A VALID CERTIFICATE AND HAVING CURRENT EXPERIENCE IN LIGHT GAUGE STEEL. CERTIFICATES SHALL BE ISSUED BY AN ACCEPTED TESTING AGENCY. DO NOT NOTCH FLANGES OF MEMBERS WITHOUT EXPRESSED APPROVAL OF THE ENGINEER OF RECORD. ALL WELDING TO BE PERFORMED IN AN APPROVED FABRICATORS SHOP.

COLD FORMED STRUCTURAL STEEL MEMBERS SHAL HAVE A MINIMUM YEILD STRENGTH OF Fy = 55,000 PSI. THE GRADE AND THE ASTM SPECIFICATION NUMBER OR OTHER SPECIFICATION DESIGNATION SHALL BE INDICATED BY PAINTING, DECAL, TAGGING OR OTHER SUITABLE MEANS ON EACH BUNDLE OF FABRICATED ELEMENTS. IT IS ACCEPTABLE TO USE THE Fy SHOWN ON THE MILL CERTIFICATION IN LIEU OF THE "ORDERED" Fy.

THE STEEL PURLINS DO NOT HAVE TO BEAR DIRECTLY ON THE STEEL BEAMS. IT IS ACCEPTABLE AND COMMON FOR THE PURLINS TO NEED TO BE RAISED A LITTLE (1/2" MAXIMUM) TO ASSIST IN LEVELING AND TUNING THE STRUCTURE. THE LOAD BETWEEN THE PURLIN AND THE BEAM IS TRANSFERRED ENTIRELY THROUGH THE SCREWS CONNECTING THE PURLIN TO THE PURLIN CLIP. THE PURLIN DOES NOT NEED TO BEAR ON THE BEAM.

MILS	GAGE NO.	MIN DELIVERED THICKNESS	DESIGN THICKNESS
12	30	0.0120"	0.0126"
14	29	0.0132"	0.0139"
16	28	0.0174"	0.0183"
33	20	0.0336"	0.0354"
43	18	0.0447"	0.0470"
54	16	0.0561"	0.0590"
68	14	0.0713"	0.0750"
97	12	0.0998"	0.1050"
118	10	0.1283"	0.1350"
150	9	0.1430"	0.1500"

GENERAL NOTES:

THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. EXCEPT WHERE NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS).

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA. ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.

CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL ITEMS WITH THE APPROPRIATE TRADE DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

TYPICAL DETAILS MAY NOT NECESSARILY BE CUT ON PLANS, BUT APPLY UNLESS NOTED OTHERWISE.

CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS CHOSEN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES, APPROVALS AND THE COORDINATION OF THE WORK WITH ALL RELATED TRADES AND SUPPLIERS.

SPECIAL INSPECTION - STRUCTURAL ONLY:

(IF REQUIRED BY THE JURISDICTION HAVING AUTHORITY):

SPECIAL INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STATE REGISTERED STRUCTURAL ENGINEER WHO IS FAMILIAR WITH THE STRUCTURAL DESIGN OF THIS PROJECT. THE SUPERVISING STRUCTURAL ENGINEER SHALL SEAL THE SPECIAL INSPECTION CERTIFICATE.

SPECIAL INSPECTION IS TO BE PROVIDED FOR THE ITEMS LISTED BELOW IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING JURISDICTION. "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE BUILDING JURISDICTION INSPECTIONS REQUIRED BY SECTION 109 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTION IS REQUIRED PER CHAPTER 17 FOR THE FOLLOWNS:

CONCRETE CONSTRUCTION:

1. CONCRETE(SSI EXCEPTION BASED ON F'c = 2,500 PSI):
A. NO INSPECTION IS REQUIRED FOR THE PLACEMENT OF FOUNDATION CONCRETE. INSPECTION OF FOUNDATION REINFORCING AND ANCHOR BOLTS IS REQUIRED PER "REINFORCING STEEL" SECTION BELOW.

2. REINFORCING STEEL: INSPECTION OF IN-PLACE REINFORCING FOR CONFORMANCE PRIOR TO THE CLOSING OF FORMS OR THE DELIVERY OF CONCRETE TO THE JOBSITE FOR THE FOLLOWING:
A. REINFORCING FOR ALL CONCRETE REQUIRED TO HAVE INSPECTION NOTED ABOVE.
B. REINFORCING FOR SPREAD FOOTING CONCRETE FOUNDATIONS.

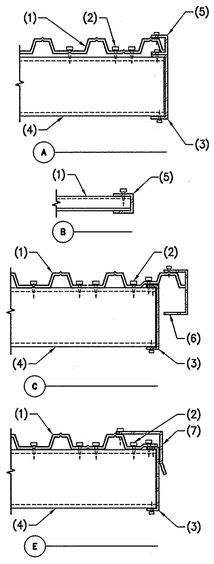
STEEL CONSTRUCTION:

1. WELDING:
A. PERIODIC VISUAL INSPECTION OF ALL FIELD WELDS.
B. CONTINUOUS INSPECTION OF ALL MULTIPASS FILLET WELDS OR SINGLE PASS FILLET WELDS LARGER THAN 5/16".
C. NON-DESTRUCTIVE TESTING OF ALL COMPLETE PENETRATION WELDS BY AN AWS CERTIFIED INDEPENDENT TESTING LABORATORY AT THE CONTRACTORS EXPENSE.
D. VERIFICATION OF VALID WELDER'S CERTIFICATES.
E. ALL STRUCTURAL STEEL FABRICATORS SHALL EMPLOY AN AWS CERTIFIED INDEPENDENT TESTING LAB TO PROVIDE SHOP WELD INSPECTIONS PER CODE. INSPECTION REPORTS SHALL BE SUBMITTED TO ENGINEER OF RECORD PRIOR TO STEEL INSTALLATION.

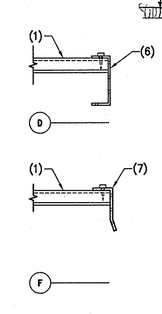
2. STEEL FRAMES: VERIFICATION OF BRACING, STIFFENING, MEMBER LOCATIONS, AND PROPER JOINT DETAIL APPLICATION AT ALL STEEL FRAME CONNECTIONS.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

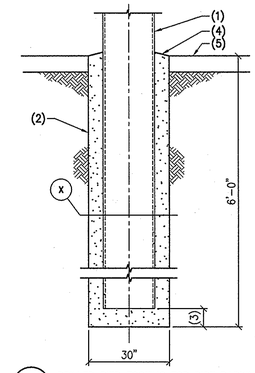
A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATION.
B. THE SPECIAL INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE DESIGN DRAWINGS OR SPECIFICATIONS, AND ALL DEVIATIONS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK. ALL REQUESTS FOR DEVIATIONS SHALL BE INITIATED BY THE CONTRACTOR VIA WRITTEN REQUEST FOR INFORMATION (RFI).
C. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE ENGINEER OR ARCHITECT OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
D. CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR ACCESS TO ALL ITEMS REQUIRING SPECIAL INSPECTION. ACCESS SHALL BE PROVIDED BY IN-PLACE LADDERS, SCAFFOLDS, LIFTS AND/OR OTHER EQUIPMENT OPERATED BY THE CONTRACTOR'S PERSONNEL AS REQUIRED FOR SAFE OBSERVATION. INSPECTOR IS NOT RESPONSIBLE OR AUTHORIZED TO OPERATE CONTRACTOR'S EQUIPMENT.
E. UPON COMPLETION OF THE ASSIGNED WORK THE ENGINEER OR ARCHITECT SHALL COMPLETE AND SIGN THE APPROPRIATE FORMS CERTIFYING THAT TO THE BEST OF THEIR KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.



NOTES:
1. STEEL ROOF DECK - SEE PLAN.
2. SCREWS PER DETAIL 01 AND PLAN.
3. CONTINUOUS END CAP TRIM. ATTACH TO PURLIN WITH #12x3/4" SCREWS AT TOP AND BOTTOM FLANGE AND SCREWS AT 12" O.C. INTO STEEL ROOF DECK.
4. PURLIN.
5. FASCIA TRIM (OPTIONAL) ATTACH TO STEEL ROOF DECK WITH #8x3/4" LONG SCREWS AT 12" O.C.
6. 4" MAXIMUM FASCIA TRIM (OPTIONAL) ATTACH TO ROOF DECK WITH #8x3/4" LONG SCREWS AT 12" O.C.
7. DRIP EDGE (OPTIONAL ATTACH TO STEEL ROOF DECK WITH #8x3/4" LONG SCREWS AT 12" O.C.



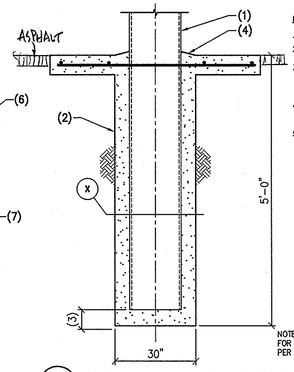
7 END CAP AND FASCIA TRIM AT PURLIN — 14-050 — NO SCALE



NOTES:
1. COLUMN.
2. CAST-IN-PLACE CONCRETE DRILLED PIER.
3. EMBED COLUMN INTO CONCRETE DRILLED PIER TO WITHIN 12" OF THE BOTTOM OF THE DRILLED PIER.
4. SLOPE CONCRETE UP SLIGHTLY TO PREVENT WATER FROM ACCUMULATING AROUND COLUMNS.
5. ASPHALT PAVEMENT.

NOTE:
AT LOCATIONS WHERE 6 FT. DEPTH CANNOT BE ACHIEVED, USE DETAIL 5A.

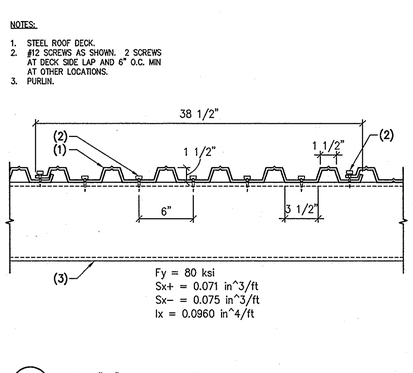
05 DRILLED PIER FOOTING FOR DIRT PARKING AREAS — 13-356 — NO SCALE



NOTES:
1. COLUMN.
2. CAST-IN-PLACE CONCRETE DRILLED PIER.
3. EMBED COLUMN INTO CONCRETE DRILLED PIER TO WITHIN 12" OF THE BOTTOM OF THE DRILLED PIER.
4. SLOPE CONCRETE UP SLIGHTLY TO PREVENT WATER FROM ACCUMULATING AROUND COLUMNS.
5. 6" THICK x 4 FT x 4 FT SLAB W/4 #4 BARS E.W. AT CENTER. CAST SLAB AND DRILLED PIER MONOLITHICALLY.

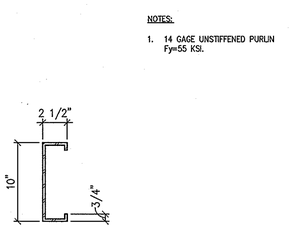
NOTE:
FOR USE AT LOCATIONS WHERE DEPTH PER DETAIL 05 CANNOT BE ACHIEVED.

05A DRILLED PIER FOOTING FOR DIRT PARKING AREAS — 14-050 — NO SCALE



NOTES:
1. STEEL ROOF DECK.
2. #12 SCREWS AS SHOWN. 2 SCREWS AT DECK SIDE LAP AND 6" O.C. MIN AT OTHER LOCATIONS.
3. PURLIN.

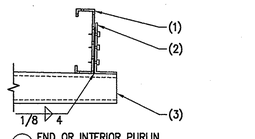
1 POWERS "SB" 29 GAUGE STEEL ROOF DECK — 14050 — NO SCALE



NOTES:
1. 14 GAGE UNSTIFFENED PURLIN Fy=55 KSI.

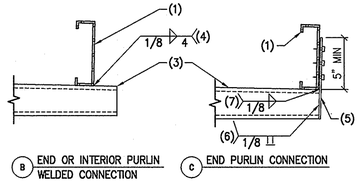
NOTE:
MINIMUM PURLIN BEARING LENGTH = 2".

2 PURLIN — 14-050 — NO SCALE



NOTES:
1. PURLIN.
2. 6"x4"x5" LONG (LLV) 14 GAUGE ANGLE WITH 6- #12 x 3/4" LONG SCREWS INTO PURLIN.
3. TAPERED BEAM.
4. AS AN OPTION TO THE ANGLE AND SCREW CONNECTION, WELD PURLIN DIRECTLY TO BEAM AS SHOWN.
5. 6" WIDE x 12 GAUGE STEEL PLATE WITH 6- #12 x 3/4" LONG SCREWS INTO PURLIN.
6. WELD PLATE TO BEAM.
7. TOP AND BOTTOM.

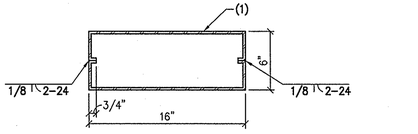
A END OR INTERIOR PURLIN SCREWED CONNECTION



B END OR INTERIOR PURLIN WELDED CONNECTION

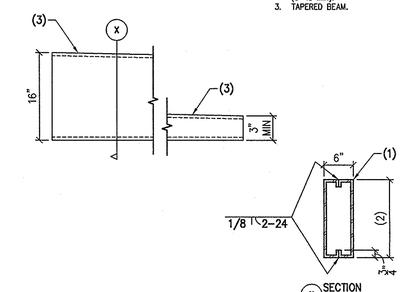
C END PURLIN CONNECTION

6 PURLIN TO BEAM CONNECTION — 14-050 — NO SCALE



NOTES:
1. 10 GA COLUMN MADE FROM 2 UN-STIFFENED SECTIONS.

3 COLUMN — 14-050 — NO SCALE



NOTES:
1. 10 GAGE BEAM MADE FROM 2 - UNSTIFFENED PURLINS.
2. BEAM DEPTH VARIES 16" TO 3" (3" IS MIN).
3. TAPERED BEAM.

4 TAPERED BEAM — 14-050 — NO SCALE

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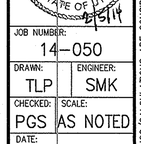
2720 EAST 450 NORTH
ST. GEORGE, UT 84770

18'-0" FULL CANTILEVERED SHADE STRUCTURE

POWERS STEEL & WIRE

REVISIONS:

SEAL:

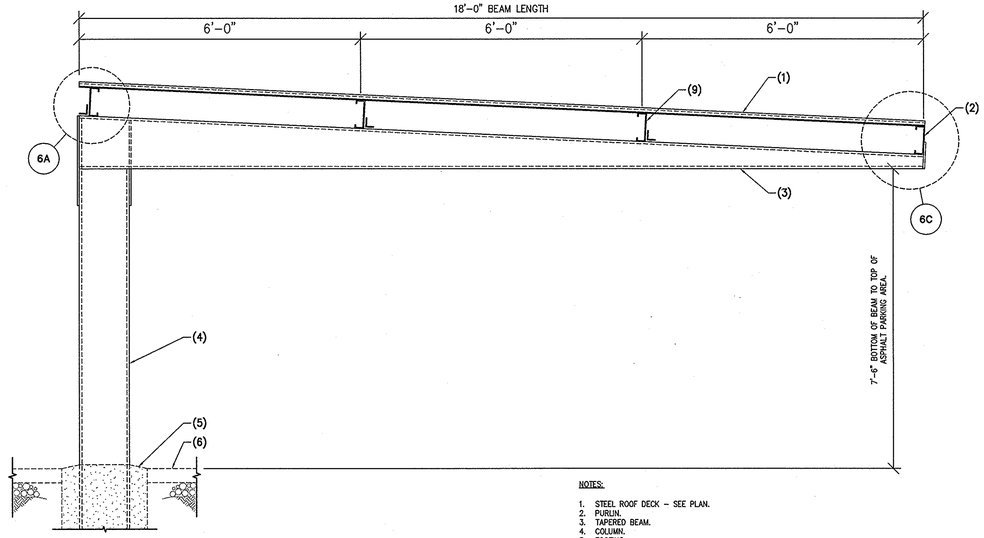


JOB NUMBER: 14-050
DRAWN: TLP | ENGINEER: SMK
CHECKED: PGS | SCALE: AS NOTED
DATE: 02.05.2014
SHEET: FULL-1 OF 2

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PATENTS PENDING

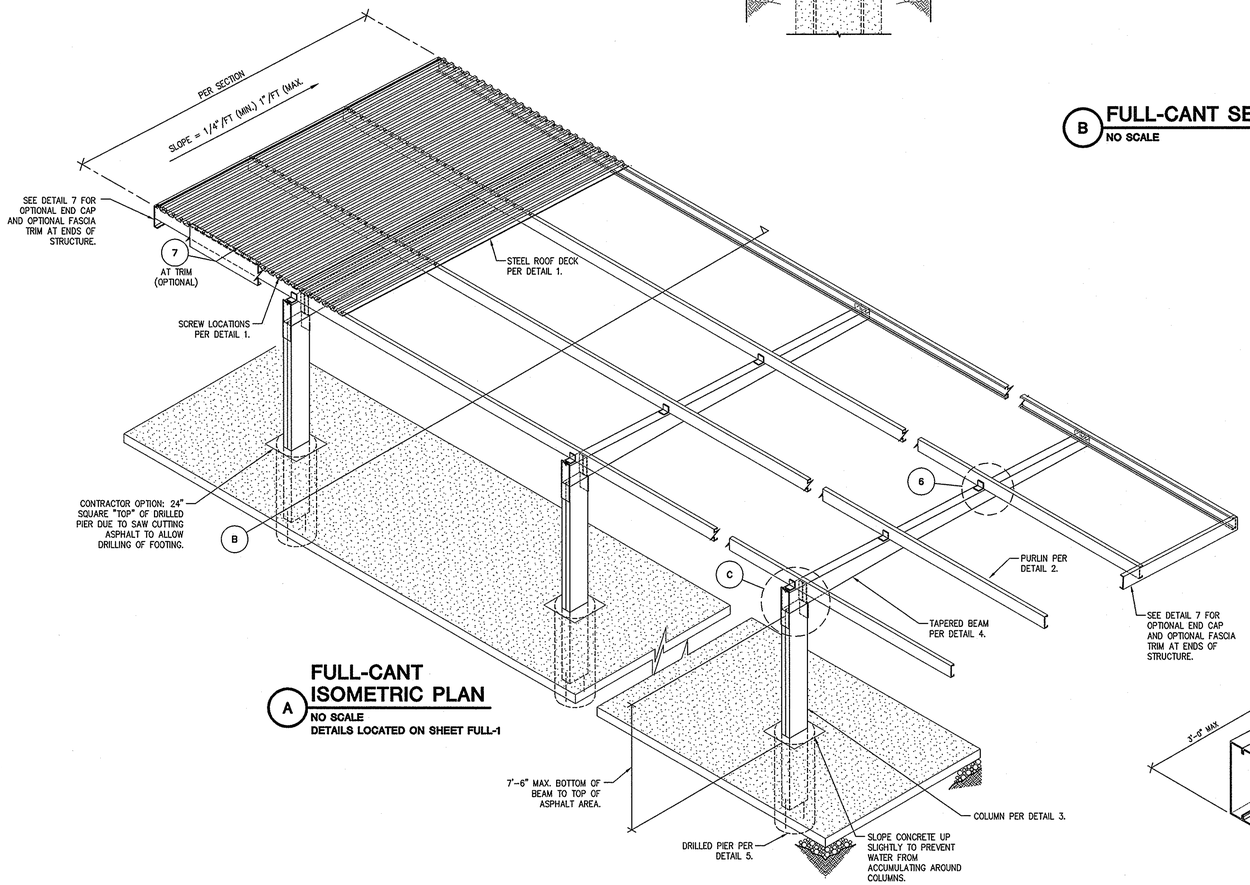
PATENTS PENDING



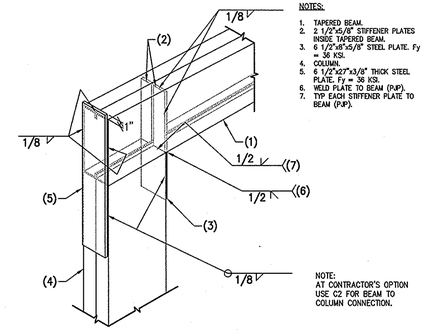
NOTES:

1. STEEL ROOF DECK - SEE PLAN.
2. PURLIN.
3. TAPERED BEAM.
4. COLUMN.
5. FOOTING.
6. ASPHALT PARKING LOT.

B FULL-CANT SECTION
NO SCALE



A FULL-CANT ISOMETRIC PLAN
NO SCALE
DETAILS LOCATED ON SHEET FULL-1

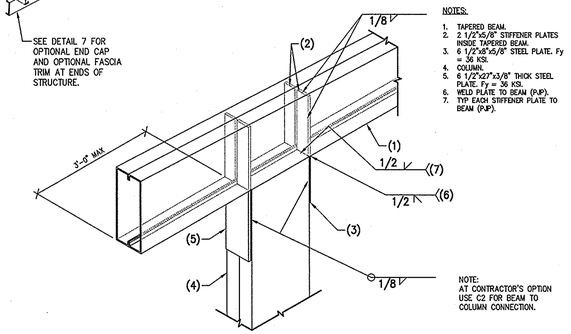


NOTES:

1. TAPERED BEAM.
2. 2 1/2"x5/8" STIFFENER PLATES INSIDE TAPERED BEAM.
3. 6 1/2"x8"x5/8" STEEL PLATE. Fy = 36 KSI.
4. COLUMN.
5. 6 1/2"x27"x3/8" THICK STEEL PLATE. Fy = 36 KSI.
6. WELD PLATE TO BEAM (P.J.P).
7. TYP EACH STIFFENER PLATE TO BEAM (P.J.P).

NOTE:
AT CONTRACTOR'S OPTION USE C2 FOR BEAM TO COLUMN CONNECTION.

C BEAM TO COLUMN CONNECTION
13-356 NO SCALE



NOTES:

1. TAPERED BEAM.
2. 2 1/2"x5/8" STIFFENER PLATES INSIDE TAPERED BEAM.
3. 6 1/2"x8"x5/8" STEEL PLATE. Fy = 36 KSI.
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NOTE:
AT CONTRACTOR'S OPTION USE C2 FOR BEAM TO COLUMN CONNECTION.

C2 BEAM TO COLUMN CONNECTION
13-356 NO SCALE

PATENTS PENDING

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POWERS STEEL & WIRE

REVISIONS:

SEAL:
LICENSED PROFESSIONAL ENGINEER
NO. 6396
RICHARD D. TURLEY
STATE OF UTAH
2/5/14

JOB NUMBER: 14-050
DRAWN: TLP
ENGINEER: SMK
CHECKED: PGS
SCALE: AS NOTED
DATE: 02.05.2014
SHEET: FULL-2 OF 2

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