GENERAL NOTES:

DESIGN:

BUILDING CODE - 2015 INTERNATIONAL BUILDING CODE

1. ROOF DEAD LOAD = 16 PSF (EXISTING)
2. ROOF LIVE LOAD = 20 PSF
3. SNOW:
   GROUND SNOW LOAD, P_g = 0 PSF
4. SEISMIC:
   RISK CATEGORY = II
   MAPPED SPECTRAL RESPONSE COEFFICIENTS
   S_s = 0.081
   S_1 = 0.030
   SITE CLASS = D (ASSUMED)
   DESIGN SPECTRAL RESPONSE COEFFICIENTS
   S_{DS} = 0.086
   S_{D1} = 0.048
   SEISMIC DESIGN CATEGORY = A
5. WIND:
   ULTIMATE DESIGN WIND SPEED (3 SEC GUST), Vult = 115 MPH
   NOMINAL DESIGN WIND SPEED, Vasd = 90 MPH
   RISK CATEGORY = II
   BUILDING CATEGORY = ENCLOSED, SIMPLE DIAPHRAGM
   OVERALL EXPOSURE CATEGORY = C

STRUCTURAL STEEL:

1. STEEL SHALL CONFORM TO THE FOLLOWING GRADES:
   WIDE FLANGE SHAPES — A992 OR A572 GR. 50 (Fy = 50)
   CHANNELS, ANGLES, PLATES, ETC. (UNO) — A36 (Fy = 36)
   STRUCTURAL TUBE — A500 (Fy=46)
   STEEL PIPE — A53 (Fy=35)
   THREADED RODS — F1554, A36 OR A307
   BOLTS — A325
   WELDING ELECTRODES — E70XX
2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (360-05), EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.
3. ALL STRUCTURAL STEEL TO HAVE A SHOP GRADE PRIMER UNLESS NOTED OTHERWISE

SUBGRADE PREPARATION:

1. ALL EXPOSED AND/OR DISTURBED GRANULAR BASE AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D1557 AT OPTIMUM MOISTURE CONTENT AND TO A MINIMUM DEPTH OF 8". ALL SUBGRADE SOIL AREAS EXPOSED BY EXCAVATIONS AND GRADING SHALL BE COMPACTED TO A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D1557 AT OPTIMUM MOISTURE CONTENT AND TO A MINIMUM DEPTH OF 12". FILL WHERE REQUIRED SHALL BE PLACED IN LIFTS NOT TO EXCEED 8" LOOSE MEASURE AND SHALL BE COMPACTED AS OUTLINED ABOVE. THE ON SITE TESTING COMPANY SHALL PROVIDE TESTING AND INSPECTION OF THE SOIL WORK PRIOR TO PLACING CONCRETE

CONCRETE:

1. ALL CONCRETE SHALL BE NORMAL-WEIGHT (DENSITY = 145 PCF) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:
   ALL FOUNDATIONS, INTERIOR SLAB.......3000psi
   EXTERIOR SLABS, CURBS, SIDEWALKS.......4000psi
   ALL OTHER CONCRETE (U.N.O.).......3000psi
2. THE SLUMP OF ALL CONCRETE SHALL NOT EXCEED 4" UNLESS A HIGH RANGE WATER-REDUCING ADMIXTURE IS USED. THE SLUMP OF CONCRETE PRIOR TO ADDITION OF A HIGH-RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 4" THE SLUMP OF CONCRETE CONTAINING A HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 10".
3. ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED WITH BETWEEN 4% AND 8% AIR CONTENT.
4. THE COARSE AGGREGATE SIZE SHALL BE #57 OR LARGER.
5. THE MINIMUM PORTLAND CEMENT CONTENT (ASTM C150 TYPE I OR II) OF ALL CONCRETE SHALL CONFORM TO THE FOLLOWING TABLE (FLY ASH NOT PERMITTED):

SPECIFIED COMPRESSIVE SRENGTH (psi)	NON AIR-ENTRAINED CONCRETE (lbs)	AIR-ENTRAINED CONCRETE (lbs)
3000	470	517
4000	564	611

6. THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW A MINIMUM OF ONE WEEK PRIOR TO THE PLACEMENT OF ANY CONCRETE. THE CONCRETE MIX DESIGNS SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS FOR EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD
7. CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
8. CONCRETE REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
10. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL
11. ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".
12. THE MINIMUM CONCRETE CLEAR COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE:
    UNFORMED SURFACE IN CONTACT WITH THE GROUND.......3 IN.
    FORMED SURFACES EXPOSED TO EARTH OR WEATHER:
    #5 BARS AND SMALLER.......1 1/2 IN.
    SLABS, WALLS, AND JOISTS:
    #11 BARS AND SMALLER.......3/4 IN
13. ALL BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC., WHICH ARE BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE
14. ALL LAP SPLICES SHALL BE IN ACCORDANCE WITH THAT SHOWN ON THE DRAWINGS.

EXISTING CONSTRUCTION:

1. WORK SHOWN IS NEW UNLESS CALLED OUT AS EXISTING.
2. EXISTING CONSTRUCTION SHOWN IS BASED UPON ASSUMED CONDITIONS AND CAN BE USED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS, ELEVATIONS, AND MEMBER SIZES PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE. THE CONTRACTOR SHALL NOTIFY THE PROFESSIONAL OF RECORD IN WRITING OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.
3. THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING CONSTRUCTION SHALL BE PERFORMED WITH GREAT CARE IN ORDER TO NOT JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE PROFESSIONAL OF RECORD SHALL BE IMMEDIATELY NOTIFIED AND PRIOR WRITTEN APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OR MODIFICATION OF MEMBERS.
4. THE CONTRACTOR SHALL PROMPTLY REPAIR DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF ALL DEMOLITION WORK AND FOR PROVIDING ALL NECESSARY TEMPORARY SHORING, BRACING AND PROTECTION AS NECESSARY FOR SAFETY, STABILITY AND PROTECTION OF ALL BUILDING ELEMENTS AND STRUCTURE DURING CONSTRUCTION AND DEMOLITION.

MISCELLANEOUS:

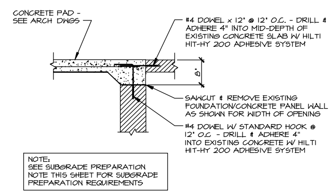
1. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD
2. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK
3. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD
4. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.
5. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
6. ANY DETAIL TITLED AS A TYPICAL DETAIL IS APPLICABLE THROUGHOUT THE DESIGN DRAWINGS. THESE DETAILS ARE DEFINED AS GENERAL STANDARDS THAT ARE USUALLY NOT IDENTIFIED BY SPECIFIC REFERENCE WITHIN THE DRAWINGS. THESE DETAILS MAY BE MODIFIED OR SUPERSEDED BY SPECIFIC DETAILS THAT ARE REFERENCED WITHIN THE DRAWINGS.
7. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

SPECIAL INSPECTIONS

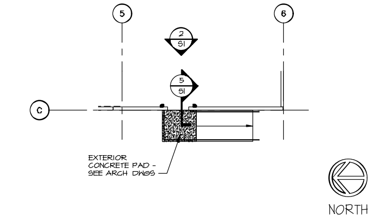
1. THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
   B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL-OF-RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL-OF-RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
   C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.
4. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF OTHER SPECIFIED TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.
5. STRUCTURAL OBSERVATION (AS DEFINED IN CHAPTER 17 OF THE BUILDING CODE) IS NOT REQUIRED, UNLESS SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL.
6. SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING TABLE:

SPECIAL INSPECTIONS SCHEDULE

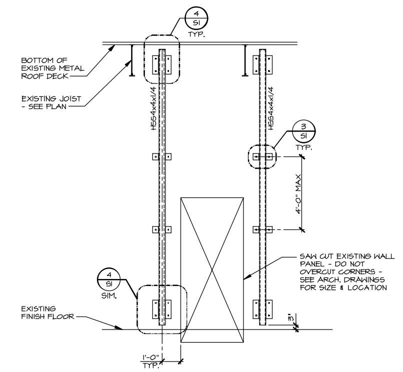
SPECIAL INSPECTION	FREQUENCY	REFERENCED STANARD(S)
STEEL CONSTRUCTION (IBC 1705.2):		
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS, HIGH-STRENGTH BOLTING.		
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	PERIODIC	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC ASD Sec. A3.4, AISC LRFD Sec. A3.3
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	PERIODIC	
2. INSPECTION OF BEARING-TYPE CONNECTIONS	PERIODIC	AISC LRFD Sec. M2.5
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL.		AISC LRFD Sec. M2.5
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	---	ASTM A-6 OR ASTM A-568
B. MANUFACTURER'S CERTIFIED MILL TEST REPORTS REQUIRED	---	
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS	---	AISC ASD Sec. A3.6; AISC LRFD Sec. A3.5
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	---	
5. INSPECTION OF WELDING:		
SINGLE-PASS FILLET WELDS ≤ 5/16"	PERIODIC	AWS D1.1
ADHESIVE ANCHORS/REINFORCEMENT:		
1. DURING PLACEMENT OF ADHESIVE ANCHORS OR REINFORCEMENT EMBEDDED WITH ADHESIVE (AS SPECIFIED ON THE CONSTRUCTION DOCUMENTS) IN MASONRY AND CONCRETE.		
A. SIZE AND EMBEDMENT OF ANCHORS/REINF	CONTINUOUS	MANUFACTURERS INSTALLATION INSTRUCTIONS
B. ANCHORS/REINFORCEMENT INSTALLED PER MANUFACTURERS RECOMMENDATIONS.	CONTINUOUS	



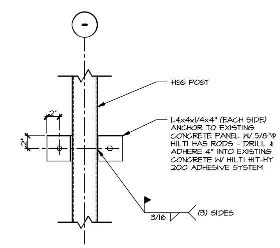
SECTION
SCALE: 3/4" = 1'-0" (5 / S1)



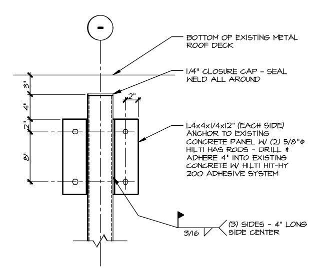
PARTIAL EXISTING FOUNDATION PLAN
SCALE: 1/8" = 1'-0" (1 / S1)



ELEVATION
SCALE: 3/8" = 1'-0" (2 / S1)



DETAIL
SCALE: 1 1/2" = 1'-0" (3 / S1)



DETAIL
SCALE: 1 1/2" = 1'-0" (4 / S1)

SHOPCORE PROPERTIES
☐ APPROVED
☒ APPROVED AS NOTED
☐ REVISE AND RESUBMIT
☐ REJECTED
Shatha Odish
Tenant Project Manager

date	09/13/17
project	S17565
designed	GY
drawn	BWT
checked	GY

mark	date	by	description
revisions			

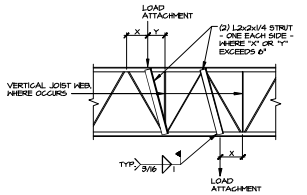
CASCO
10877 WATSON ROAD
ST. LOUIS, MO 63127
PROJECT MANAGERS

CASCO DIVERSIFIED CORPORATION
ENGINEERING FIRM LICENSE #F-11545
EXPIRES 08/31/18

PROFESSIONAL OF RECORD
DANIEL E. CUTTER
LIC. NO. 103366
EXP. DATE 03/31/18
PHONE: 314-821-1100

project
DOLLAR TREE
INGRAM HILLS
6020 INGRAM ROAD, SAN ANTONIO, TX 78238
drawing
PARTIAL PLAN, ELEVATION & DETAILS

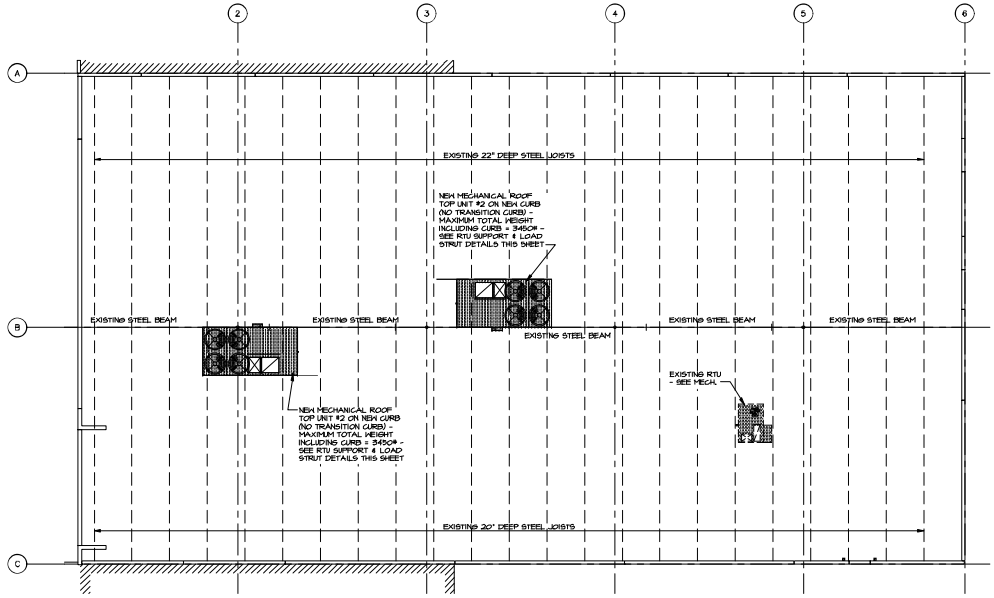
S1



JOIST LOAD STRUT DETAIL

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

3
52



EXISTING ROOF FRAMING PLAN

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

1
52

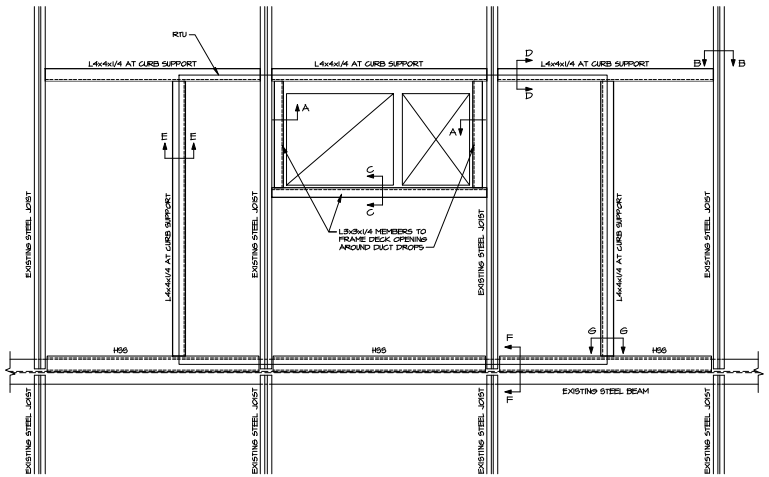
NORTH

EXISTING ROOF FRAMING PLAN NOTES

1. PLACE NEW UNITS WHERE SHOWN ON PLAN.
2. THE GENERAL CONTRACTOR SHALL FIELD VERIFY THAT THE DEPTHS OF THE EXISTING JOISTS INDICATED TO SUPPORT NEW ROOF TOP UNITS MATCH THE DEPTHS OF THE RESPECTIVE JOISTS INDICATED ON PLAN AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER OF RECORD PRIOR TO INSTALLING THE ROOF TOP UNITS.
3. SEE ARCHITECTURAL DEMOLITION DRAWINGS FOR EXISTING STRUCTURAL ELEMENTS TO BE DEMOLISHED SEE GENERAL STRUCTURAL NOTES FOR DEMOLITION AND SHORING NOTES.
4. ALL ROOF DECK PENETRATIONS WITH DIMENSIONS LESS THAN 13" SHALL BE REINFORCED WITH GAGE SHEET METAL IN ACCORDANCE WITH THE STEEL DECK INSTITUTE RECOMMENDATIONS.

SHOPCORE PROPERTIES
☐ APPROVED
☒ APPROVED AS NOTED
☐ REVISE AND RESUBMIT
☐ REJECTED
Shatha Odish
Tenant Project Manager

ALL FINAL MEPs AND STRUCTURAL DRAWINGS SUBMITTED TO LL MUST BE STAMPED BY ENGINEERS BEFORE LL CAN PROVIDE FINAL APPROVAL.



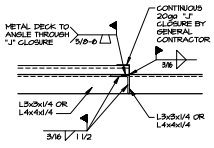
NOTES:
1. FOR TYPICAL RTU SUPPORT FRAMING DETAIL, PROVIDE JOIST STRUTS, AS REQUIRED, PER JOIST STRUT DETAIL SHOWN ON THIS SHEET.
2. CUT AND REMOVE EXISTING ROOF DECK AFTER FRAME IS INSTALLED, IMMEDIATELY PRIOR TO INSTALLING EQUIPMENT. CUT OPENINGS FOR DUCT PENETRATIONS ONLY.
3. COORDINATE WITH THE MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR FOR ALL CURB AND DUCT OPENING DIMENSIONS FOR ROOF TOP EQUIPMENT.

RTU SUPPORT FRAME PLAN

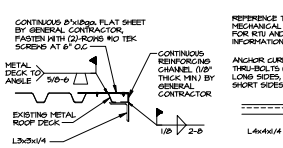
ROOF TOP UNIT FRAMING DETAIL

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

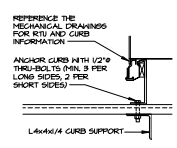
2
52



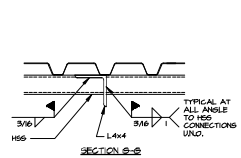
SECTION A-A



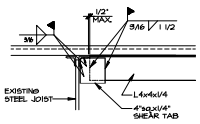
DETAIL C-C (AT LOW RIB CONDITION)



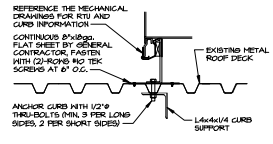
SECTION E-E



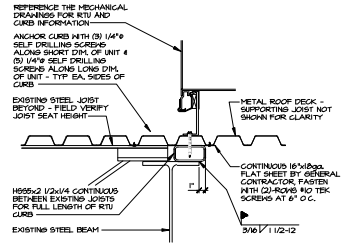
SECTION G-G



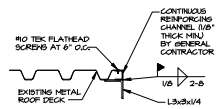
SECTION B-B



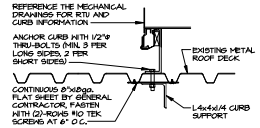
DETAIL D-D (CURB OVER DECK VALLEY)



SECTION F-F (CURB FULLY SUPPORTED BY DECK RIB)
(REFERENCE DETAIL D-D IF CURB OVER DECK VALLEY)



DETAIL C-C (AT HIGH RIB CONDITION)



DETAIL D-D (CURB FULLY SUPPORTED BY DECK RIB)

GASCO
1609 MAYSON ROAD
ST. LOUIS, MO 63127
PROJECT MANAGERS

GASCO DIVERSIFIED CORPORATION
ENGINEERING FIRM
LICENSE #F-1545
EXPIRES 08/31/18

PROFESSIONAL OF RECORD

DANIEL E. CUTTER
MO. NO. 023866
EXP. DATE 12/31/19
PHONE: 314.822.1322

project: DOLLAR TREE
INGRAM HILLS
6020 INGRAM ROAD, SAN ANTONIO, TX 78238
drawing: ROOF FRAMING PLAN DETAILS

date	08/31/18
project	3986
designed	BR
drawn	BR
checked	BR

mark	date	by	description
			revisions

S2