

# TACO BELL

## MODERN EXPLORER T40



TACO BELL

37500 FORD ROAD  
WESTLAND, MI 48185

### PROJECT GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE 2015 EDITION OF THE MICHIGAN BUILDING CODE, AND ALL OTHER APPLICABLE CODES, STANDARDS, AND REGULATIONS OF THE CITY OF WESTLAND, MI.
- IT IS INTENDED THAT A COMPLETE OCCUPIABLE BUILDING PROJECT IS PROVIDED.
- THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION (A.I.A. A201 LATEST EDITION) ARE A PART OF THESE CONTRACT DOCUMENTS. A COPY IS ON FILE AT THE ARCHITECT'S OFFICE.
- DRAWINGS ARE BASED ON A SURVEY, DATED 12.08.17 PREPARED BY KEM-TEC & ASS, AND IS INCLUDED IN THESE DOCUMENTS.
- THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A GEOTECHNICAL INVESTIGATION DATED JANUARY 26, 2018 BY INTERTEK-PSI. THE REPORT IS PART OF THESE CONTRACT DOCUMENTS, AND THE CONTRACTOR IS RESPONSIBLE FOR CARRYING OUT ITS RECOMMENDATIONS, THOUGH SOME MAY NOT BE SPECIFICALLY DETAILED ON THE PLANS.
- DO NOT SCALE THESE DRAWINGS. VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD. ANY DISCREPANCIES IN THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO STARTING WORK.
- ALL PROPOSED SUBSTITUTIONS SHALL BE APPROVED BY THE YUM BRANDS CONSTRUCTION MANAGER, IN WRITING, PRIOR TO INSTALLATION.
- RETAIN THE PROJECT GEOTECHNICAL ENGINEER TO PROVIDE OBSERVATION AND TESTING SERVICES DURING THE GRADING (INCLUDING UTILITY TRENCHES) AND FOUNDATION PHASE OF CONSTRUCTION AS RECOMMENDED IN THE GEOTECHNICAL REPORT. ALL TESTING AND INSPECTION REPORTS, INCLUDING FINAL SUMMATION LETTER, SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT AND OWNER. G.C. SHALL CERTIFY PAD ELEVATION PRIOR TO START OF FOUNDATION WORK.
- SUBMIT PAY FEES AND OBTAIN ALL PERMITS ASSOCIATED WITH THE PROJECT EXCEPT GENERAL BUILDING PERMIT. THIS INCLUDES, BUT IS NOT LIMITED TO ELECTRICAL, MECHANICAL, PLUMBING, FIRE SPRINKLER, HOOD ANSUL OR OTHER RELATED FIRE PERMITS, ENCROACHMENT PERMIT, ETC. YUM BRANDS WILL PAY FOR "CONNECTION FEES" ASSOCIATED WITH UTILITY PERMITS. PAY FOR TEMPORARY FACILITIES FEES AS REQUIRED TO COMPLETE THE WORK IN A TIMELY MANNER.
- PROVIDE EACH SUBCONTRACTOR WITH A COMPLETE AGENCY-PERMITTED DRAWING SET AT TIME OF CONSTRUCTION.
- ALL ABBREVIATIONS INCLUDED FOLLOW INDUSTRY STANDARDS. CONTACT ARCHITECT IF ANY ABBREVIATIONS ARE NOT CLEAR.
- GC SHALL SUPPLY AND INSTALL ALL ASPECTS OF THE PROJECT DESCRIBED IN THIS DRAWING SET UNLESS OTHERWISE NOTED. SEE SCOPE OF WORK FOR EXCEPTIONS.
- GRAPHIC AND WRITTEN INFORMATION ON DRAWINGS SHALL BE COORDINATED WITH ALL TRADES PRIOR TO INSTALLATION.

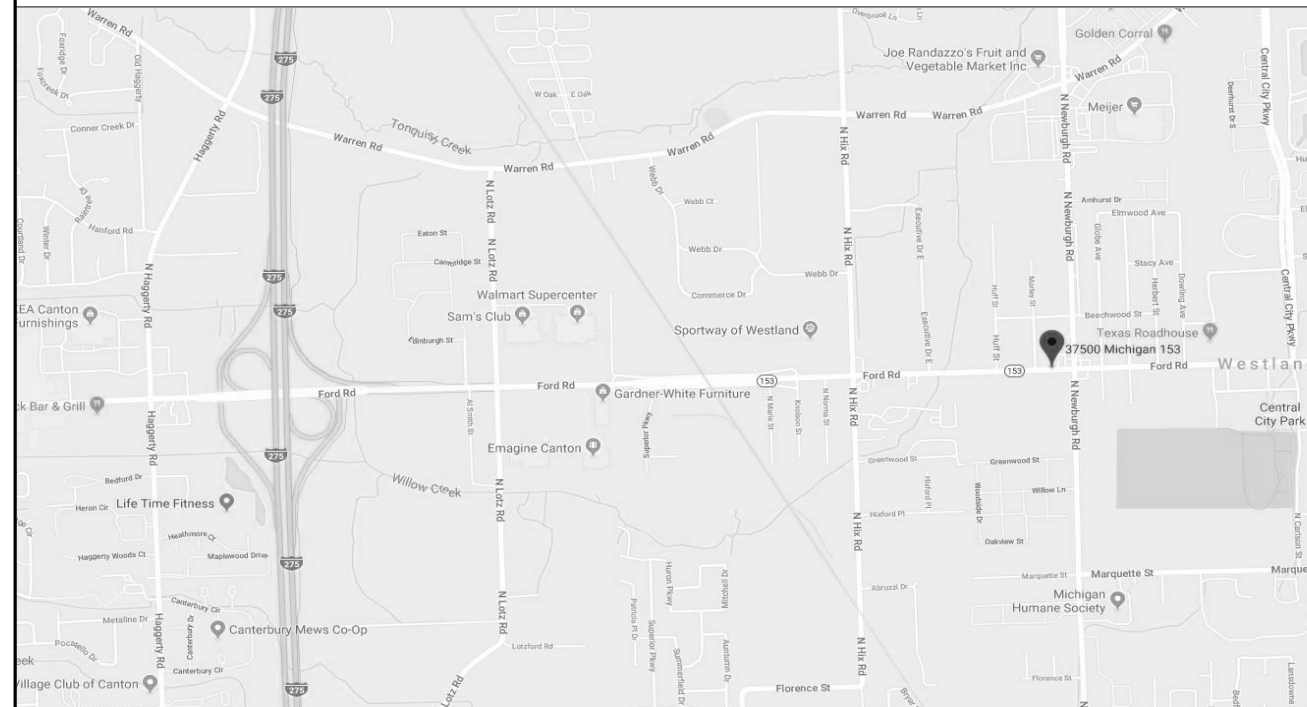
### REFERENCE SYMBOLS

NAME	ROOM NAME	DETAIL NUMBER
		1 SHEET NUMBER
		2 ELEVATION NUMBER
	8'-4"	CEILING HEIGHT
		BLDG. SECTION LETTER
		BLDG. SECTION SHEET
		DETAIL NUMBER
		DIRECTION OF DETAIL
		REVISION NUMBER
	0'-0"	BLDG. HEIGHT REFERENCE POINT
		DOOR NUMBER
		WINDOW NUMBER / DECOR ITEM NUMBER
		EXTERIOR WALL FINISH NUMBER
		KEY NOTE
		EQUIPMENT NUMBER
		ROOM FINISH NUMBER
		INTERIOR ELEVATION DESIGNATION
		SHEAR WALL TYPE (STRUCTURAL)
		EQUIPMENT / FIXTURE NUMBER (M.E.P.)
		INDICATES SUSTAINABLE DESIGN

SIGN. SEE ELEVATIONS

REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS FOR SPECIFIC SYMBOLS

### VICINITY MAP



### PROJECT SUMMARY

LEGAL JURISDICTION: CITY OF WESTLAND
BUILDING CODE: 2015 MICHIGAN BUILDING CODE
MECHANICAL CODE: 2015 MICHIGAN MECHANICAL CODE
PLUMBING CODE: 2015 MICHIGAN PLUMBING CODE
ELECTRICAL CODE: 2014 NATIONAL ELECTRIC CODE
FIRE CODE: 2015 INTERNATIONAL FIRE CODE
ENERGY CODE: 2015 COMMERCIAL MICHIGAN UNIFORM ENERGY CODE
HEALTH CODE: 2009 MICHIGAN MODIFIED FDA FOOD CODE
ACCESSIBILITY: ICC ANSI A117.1 & 2015 MICHIGAN BUILDING CODE
BUILDING AREA: 1,853 S.F.
SEATING: 52 (40 INTERIOR, 12 EXTERIOR)
OCCUPANCY: A2
TYPE CONSTRUCTION: TYPE VB
# PHONE LINES: 25 PAIR CABLE IN 2" CONDUIT
ELECTRIC SERVICE: 600 AMPS / 3 PHASE / 120-208 VOLT
GAS: 738,000 BTUH

### DESIGN CRITERIA

WIND SPEED: 115 M.P.H. 3SGVLT / EXPOSURE B
SEISMIC DESIGN CATEGORY: C
ROOF LIVE LOAD: 20 P.S.F.

### LEGAL DESCRIPTION

REFER TO CIVIL DRAWINGS
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### PROJECT DIRECTORY

<b>OWNER</b> YUM! BRANDS, INC. 1 GLEN BELL WAY IRVINE, CA 92618 CONTACT: CLINT LANGLEY PHONE: 724.263.7757	<b>ARCHITECT</b> GPD GROUP, PROFESSIONAL CORPORATION 520 SOUTH MAIN STREET, SUITE 2531 AKRON, OH 44311 CONTACT: ELLEN SELLE PHONE: 330.572.2100
<b>CONSTRUCTION MANAGER</b> YUM! BRANDS, INC. 1 GLEN BELL WAY IRVINE, CA 92618 CONTACT: CLINT LANGLEY PHONE: 724.263.7757	<b>STRUCTURAL ENGINEER</b> GPD GROUP, PROFESSIONAL CORPORATION 520 SOUTH MAIN STREET, SUITE 2531 AKRON, OH 44311 CONTACT: ELLEN SELLE PHONE: 330.572.2100
<b>CIVIL ENGINEER</b> GPD GROUP, PROFESSIONAL CORPORATION 520 SOUTH MAIN STREET, SUITE 2531 AKRON, OH 44311 CONTACT: ELLEN SELLE PHONE: 330.572.2100	<b>MECH. / ELEC. ENGINEER</b> GPD GROUP, PROFESSIONAL CORPORATION 520 SOUTH MAIN STREET, SUITE 2531 AKRON, OH 44311 CONTACT: ELLEN SELLE PHONE: 330.572.2100
<b>GEOTECHNICAL ENGINEER</b> INTERTEK-PSI 37485 INTERCHANGE DRIVE FARMINGTON HILLS, MI 48335 CONTACT: KEVIN DUBNICKI, P.E. PHONE: 248.957.9911	<b>LANDSCAPE ARCHITECT</b> GPD GROUP, PROFESSIONAL CORPORATION 520 SOUTH MAIN STREET, SUITE 2531 AKRON, OH 44311 CONTACT: ELLEN SELLE PHONE: 330.572.2100

### UTILITY CONTACTS

<b>SEWER</b> CITY OF WESTLAND, ENGINEER DEPARTMENT 36300 WARREN WESTLAND, MI 48185 CONTACT: MIKE DITTMAR (BRUCE THOMPSON) PHONE: 734.467.3210	<b>TELEPHONE</b> AT&T CONTACT: BRIAN GRIFFIN PHONE: 313.240.5486
<b>WATER</b> CITY OF WESTLAND, ENGINEER DEPARTMENT 36300 WARREN WESTLAND, MI 48185 CONTACT: MIKE DITTMAR (BRUCE THOMPSON) PHONE: 734.467.3210	<b>ROADS</b> MICHIGAN DEPT. OF TRANSPORTATION TAYLOR 6510 TELEGRAPH ROAD TAYLOR MI, 48180 CONTACT: ANDREA JONES PHONE: 313.375.2402
<b>GAS</b> DTE ENERGY (GAS) ONE ENERGY PLAZA 2020 WCB DETROIT, MI 48226 CONTACT: NEW CONSTRUCTION GAS PLAN PHONE: 800.338.0178	<b>TRASH</b> WM CONTACT: MELANIE 5900 HANNAN RD. WAYNE, MI 48184 PHONE: 877.494.8811
<b>ELECTRIC</b> DTE ENERGY CONTACT: NEW CONSTRUCTION ELECTRIC PLAN PHONE: 734.397.4321	<b>HEALTH</b> WAYNE COUNTY HEALTH, VETERANS & COMMUNITY WELL. 33030 VAN BORN WAYNE, MI 48184 CONTACT: PHYLLIS FICZYCZ PHONE: 734.727.7400

### SHEET INDEX

1 - TITLE
T1.0 TITLE SHEET
T2.0 LIFE SAFETY PLAN
G1.0 YUM GREEN CHECKLIST
G2.0 TRASH ENCLOSURE DETAILS
2 - CIVIL
- SEE SHEET T-001 FOR CIVIL DRAWING INDEX
3 - STRUCTURAL
S1.0 FOUNDATION PLAN
S2.0 WALL FRAMING PLAN
S3.0 ROOF FRAMING PLAN
S4.0 STRUCTURAL DETAILS FOUNDATION
S4.1 STRUCTURAL DETAILS FRAMING
S4.2 STRUCTURAL DETAILS ROOF
S4.3 STRUCTURAL DETAILS TACO BELL TOWER
S4.4 STRUCTURAL SECTIONS
S4.5 STRUCTURAL SECTIONS
S4.6 PRIVACY WALL SECTIONS AND DETAILS
S5.0 CANOPY/AWNING BLOCKING ELEVATIONS
4 - ARCHITECTURE
A1.0 FLOOR PLAN
A1.1 DOOR AND WINDOW ELEVATIONS & SCHEDULES
A2.0 EQUIPMENT/ SEATING PLAN
A2.1 EQUIPMENT SCHEDULE
A3.0 ROOF PLAN
A4.0 EXTERIOR ELEVATIONS
A4.1 EXTERIOR ELEVATIONS
A5.0 BUILDING SECTIONS
A5.1 BUILDING SECTIONS
A5.2 WALL SECTIONS
A5.3 WALL SECTIONS
A6.0 CONSTRUCTION PLAN DETAILS
A6.1 CONSTRUCTION DETAILS WALL
A6.2 CONSTRUCTION DETAILS ROOF
A6.3 CONSTRUCTION DETAILS DOOR
A6.4 CONSTRUCTION DETAILS WINDOW
A6.5 FINISH DETAILS
A6.6 MISCELLANEOUS
A7.0 FLOOR FINISH PLAN
A7.1 REFLECTED CEILING PLAN
A7.2 FINISH LEGEND AND SCHEDULE
A8.0 INTERIOR ELEVATIONS DINING ROOM
A8.1 INTERIOR ELEVATIONS DINING ROOM
A8.2 INTERIOR ELEV. ENLARGED RESTROOMS
A8.3 INTERIOR ELEVATIONS KITCHEN
A8.4 KITCHEN DETAILS
5 - ACCESSIBILITY
ADA1.0 ACCESSIBILITY REQUIREMENTS
ADA1.1 ACCESSIBILITY REQUIREMENTS
6 - MECHANICAL
M1.0 MECHANICAL SCHEDULES AND NOTES
M2.0 DUCT AND DIFFUSER PLAN
M2.1 MECHANICAL ROOF PLAN
M3.0 HOOD DRAWINGS PLANS AND SECTIONS
M4.0 MECHANICAL AND HOOD DETAILS
7 - PLUMBING
P1.0 PLUMBING SCHEDULES AND NOTES
P2.0 WASTE AND VENT PLAN
P3.0 WATER AND GAS PLAN
P4.0 PLUMBING ROUGH-IN PLAN
P5.0 RISER DIAGRAMS
P5.1 RISER DIAGRAM
P6.0 PLUMBING DETAILS
8 - ELECTRICAL
E1.0 SITE ELECTRICAL PLAN
E2.0 ELECTRICAL ONE LINE DIAGRAMS AND LEGEND
E2.1 ELECTRICAL SCHEDULES
E2.2 ELECTRICAL SCHEDULES
E3.0 ELECTRICAL POWER PLAN
E3.1 ENLARGED POWER PLAN AND DETAILS
E3.2 ELECTRICAL POWER ROOF PLAN
E3.3 ELECTRICAL DIMENSIONS PLAN
E4.0 LIGHTING PLAN AND DETAILS
E5.0 COMMUNICATIONS PLAN
E6.0 ELECTRICAL DETAILS
E6.1 ELECTRICAL DETAILS
E6.2 ELECTRICAL DETAILS
E7.0 ELECTRICAL DETAILS
9 - SCOPE OF WORK
SW1.0 SCOPE OF WORK MATRIX



09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

### TACO BELL

37500 FORD ROAD  
WESTLAND, MI 48185



T40  
OPEN KITCHEN  
MODERN EXPLORER

### TITLE SHEET

T1.0

PLOT DATE: 9/17/2018 2:18:22 PM

**CHECK LIST NUMBER EXPLANATION:**

The checklist numbers below align with the credit numbers in the YUM BlueLine system website. For further detail go to the following web address. Note: Follow the "Required" and "Optional" designation on this sheet rather than the ones on the YUMBlueLine website. The system has been setup so that if you do the "Required" items on this list your restaurant will meet the YUMBlueLine requirements.

- Go to the reference version of the YUM BlueLine website: " [www.yumblueLine.com](http://www.yumblueLine.com) "
- In the "User" section choose "General" from the pull down menu
- In the "Password" section type in "JZT2\*via"

P = Indicates that scope is already in the prototype drawings

\* = Indicates "optional" item

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\* = Indicates "optional" item

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<p><b>VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS (Cont.)</b> Grams of VOC per liter of coating, less water &amp; less exempt compounds</p> <table border="1"> <thead> <tr> <th>SPECIALTY COATINGS</th> <th>CURRENT VOC LIMIT</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>ROOF COATINGS</td> <td>50</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RUST PREVENTATIVE COATINGS</td> <td>250</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SHELLAC</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CLEAR</td> <td>730</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OPAQUE</td> <td>550</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SPECIALTY PRIMERS, SEALERS &amp; UNDER-COATINGS</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>STAINS</td> <td>250</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>STONE CONSOLIDANTS</td> <td>450</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TRAFFIC MARKING COATINGS</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>TUB &amp; TILE REFRESH COATINGS</td> <td>420</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>WATERPROOFING MEMBRANES</td> <td>250</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>WOOD COATINGS</td> <td>275</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>WOOD PRESERVATIVES</td> <td>350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ZINC-RICH PRIMERS</td> <td>340</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Grams of VOC per liter of coating, including water &amp; exempt compounds</p> <ol style="list-style-type: none"> <li>The specified limits remain in effect unless revised limits are listed in subsequent columns in the table.</li> <li>Values in this table are derived from those specified by the California arei resource board, architectural coatings suggested control measure, feb 1, 2008. more information is available from the air resources board.</li> </ol> <table border="1"> <thead> <tr> <th>COATING CATEGORY</th> <th>CURRENT VOC LIMIT</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>FLAT COATINGS</td> <td>50</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>NON-FLAT COATINGS</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>NON-FLAT HIGH GLOSS COATINGS</td> <td>150</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>SPECIALTY COATINGS</th> <th>CURRENT VOC LIMIT</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>ALUMINUM ROOF COATINGS</td> <td>400</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BASEMENT SPECIALTY COATINGS</td> <td>400</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BITUMINOUS ROOF COATINGS</td> <td>50</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BITUMINOUS ROOF COATINGS PRIMER</td> <td>350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BOND BREAKER</td> <td>350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CONCRETE CURING COMPOUNDS</td> <td>350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CONCRETE / MASONRY SEALERS</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DRIVEWAY SEALERS</td> <td>50</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DRY FOG COATINGS</td> <td>150</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FIRE RESISTIVE COATINGS</td> <td>350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FLOOR COATINGS</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FORM-RELEASE COMPOUNDS</td> <td>250</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>HIGH TEMPERATURE COATINGS</td> <td>420</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>INDUSTRIAL MAINTENANCE COATINGS</td> <td>250</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>LOW SOLIDS COATINGS</td> <td>120</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MAGNESITE CONCRETE COATINGS</td> <td>450</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MASTIC TEXTURE COATINGS</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PRETREATMENT WASH PRIMER</td> <td>350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PRIMERS, SEALERS AND UNDERCOATS</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>REACTIVE PENETRATING SEALERS</td> <td>350</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RECYCLED COATINGS</td> <td>250</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>43.1 CONTROLLED BUILDING MATERIAL ( Required)</b> A. If fluorescent lamps are used they shall not exceed 80 picograms per lumen hour. B. Maintain the Taco Bell lamps policy of only using LED lamps in all building, site and sign lighting.</p> <p><b>45.1 THERMAL COMFORT ( Required)</b> Insure that the HVAC system provides the following comfort conditions, on average:</p> <table border="1"> <thead> <tr> <th>Store Occupation</th> <th>Mode</th> <th>Temp Setpoints</th> <th>Max Relative Humidity</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Occupied</td> <td>Dining Cooling</td> <td>73-78 F</td> <td rowspan="2">60%</td> </tr> <tr> <td>Kitchen Cooling</td> <td>68-73 F</td> </tr> <tr> <td>Dining Heating</td> <td>68-73 F</td> <td rowspan="2">60%</td> </tr> <tr> <td>Kitchen Heating</td> <td>66-71 F</td> </tr> <tr> <td rowspan="2">Unoccupied</td> <td>Cooling (minimum)</td> <td>80 F or off</td> <td></td> </tr> <tr> <td>Heating (maximum)</td> <td>60 F</td> <td></td> </tr> </tbody> </table> <p><b>46.1 THERMAL VERIFICATION ( Required)</b> A. At the 11 month warrantee the CM shall administer the "Thermal Comfort Verification Survey" with a response rate of 75% minimum. B. If 20% or more of the responders are dissatisfied then corrective actions shall take corrective action until less than 20% are dissatisfied. C. If corrective action is required go back and insure that the store meets #28 Thermal Comfort standards.</p> <p><b>48.1 LEED TEAM MEMBER ( Required)</b> Each consultant shall have a LEED AP member on each projects site specific team.</p> <p><b>49.1 COMMISSIONING ( Required)</b> Commissioning requires understanding the owners design intent prior to starting site specific design so they can insure that their design meets with the owner's requirements. Commissioning also is also intended to insure that the contractor executes the design per the owner's requirements. A. The consultant should modify the Owner's Prototype Requirements with the site specific information and insure that the site specific design meets or exceeds the Owner's Requirements prior to starting design. B. The consultant, general contractor and CM should use Sheet G1 as the checklist to insure the site specific project results meets or exceeds the Owner's Requirements.</p>																									SPECIALTY COATINGS	CURRENT VOC LIMIT							ROOF COATINGS	50							RUST PREVENTATIVE COATINGS	250							SHELLAC								CLEAR	730							OPAQUE	550							SPECIALTY PRIMERS, SEALERS & UNDER-COATINGS	100							STAINS	250							STONE CONSOLIDANTS	450							TRAFFIC MARKING COATINGS	100							TUB & TILE REFRESH COATINGS	420							WATERPROOFING MEMBRANES	250							WOOD COATINGS	275							WOOD PRESERVATIVES	350							ZINC-RICH PRIMERS	340							COATING CATEGORY	CURRENT VOC LIMIT							FLAT COATINGS	50							NON-FLAT COATINGS	100							NON-FLAT HIGH GLOSS COATINGS	150							SPECIALTY COATINGS	CURRENT VOC LIMIT							ALUMINUM ROOF COATINGS	400							BASEMENT SPECIALTY COATINGS	400							BITUMINOUS ROOF COATINGS	50							BITUMINOUS ROOF COATINGS PRIMER	350							BOND BREAKER	350							CONCRETE CURING COMPOUNDS	350							CONCRETE / MASONRY SEALERS	100							DRIVEWAY SEALERS	50							DRY FOG COATINGS	150							FIRE RESISTIVE COATINGS	350							FLOOR COATINGS	100							FORM-RELEASE COMPOUNDS	250							HIGH TEMPERATURE COATINGS	420							INDUSTRIAL MAINTENANCE COATINGS	250							LOW SOLIDS COATINGS	120							MAGNESITE CONCRETE COATINGS	450							MASTIC TEXTURE COATINGS	100							PRETREATMENT WASH PRIMER	350							PRIMERS, SEALERS AND UNDERCOATS	100							REACTIVE PENETRATING SEALERS	350							RECYCLED COATINGS	250							Store Occupation	Mode	Temp Setpoints	Max Relative Humidity	Occupied	Dining Cooling	73-78 F	60%	Kitchen Cooling	68-73 F	Dining Heating	68-73 F	60%	Kitchen Heating	66-71 F	Unoccupied	Cooling (minimum)	80 F or off		Heating (maximum)	60 F	
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<p><b>37.1 RECYCLING ( Required)</b> A. Provide dedicated recycling space in the dining room, kitchen and site. Recycling should accommodate plastic, paper and oil. B. See the "Trash Enclosure Standards" posted on the Plans.YUM.com. Unless approved the "Large" version should be used.</p> <p><b>37.2 COOKING OIL RECYCLING ( Required)</b> Collect cooking oil and provide to a third party vendor for recycling.</p> <p><b>37.3 CARDBOARD RECYCLING ( Optional)</b> Collect used corrugated cardboard and provide to a third party vendor for recycling.</p> <p><b>38. AIR VENTILATION ( Required)</b> 1. Provide air ventilation and exhaust rates per YUM BLUELINE 2. Provide fresh air per YUM BLUELINE</p> <p><b>39.1 NO SMOKING ( Required)</b> A. Maintain a policy of not smoking within the restaurant. B. Prohibit smoking within 25 feet of the restaurant.</p> <p><b>41.1 PROTECTION OF MATERIALS ( Required)</b> GC to provide a IAQ management plan with bid. Start with the prototype template and modify as required for site specific conditions. A. Protect HVAC system B. Implement pollution source control measures C. Protect stored materials D. Protect installed materials E. Maintain construction site housekeeping</p> <p><b>42. LOW EMITTING MATERIALS ( Required)</b> Finish materials shall comply with this section:  Adhesives, Sealants and Caulks, Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply: 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits. 2. 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 1 pound and do not consist of more than 16 fluid ounces) shall comply with SCAQMD.  Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in SCAQMD.  Aerosol Paints and Coatings. Aerosol paints and coatings shall meet SCAQMD requirements.  Verification. The General Contractor shall provided documentation to the CM. Documentation shall include, but is not limited to, the following: 1. Manufacturer's product specification. 2. Field verification of on-site product containers.</p> <table border="1"> <thead> <tr> <th>ARCHITECTURAL ADHEASIVE APPLICATIONS</th> <th>CURRENT VOC LIMIT</th> </tr> </thead> <tbody> <tr> <td>CERAMIC TILE</td> <td>65</td> </tr> <tr> <td>DRYWALL PANEL &amp; COVE BASE</td> <td>50</td> </tr> <tr> <td>MULTI-PURPOSE</td> <td>70</td> </tr> <tr> <td>SINGLE PLY ROOFING</td> <td>250</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>SPECIALTY APPLICATIONS</th> <th>CURRENT VOC LIMIT</th> </tr> </thead> <tbody> <tr> <td>PVC WELDING</td> <td>510</td> </tr> <tr> <td>CPVC WELDING</td> <td>490</td> </tr> <tr> <td>ABS WELDING</td> <td>325</td> </tr> <tr> <td>PLASTIC CEMENT WELDING</td> <td>250</td> </tr> <tr> <td>ADHESIVE PRIMER FOR WELDING</td> <td>550</td> </tr> <tr> <td>CONTACT ADHESIVE</td> <td>80</td> </tr> <tr> <td>SPECIAL PURPOSE CONTACT ADHESIVE</td> <td>250</td> </tr> <tr> <td>STRUCTURAL WOOD MEMBER ADHESIVE</td> <td>140</td> </tr> <tr> <td>TOP &amp; TRIM ADHESIVE</td> <td>250</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>SUBSTRATE SPECIFIC APPLICATIONS</th> <th>CURRENT VOC LIMIT</th> </tr> </thead> <tbody> <tr> <td>METAL TO METAL</td> <td>30</td> </tr> <tr> <td>PLASTIC FOAMS</td> <td>50</td> </tr> <tr> <td>POROUS MATERIALS (EXCEPT WOOD)</td> <td>50</td> </tr> <tr> <td>WOOD</td> <td>30</td> </tr> <tr> <td>FIBERGLASS</td> <td>80</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>SEALANT VOC LIMITS</th> <th>CURRENT VOC LIMIT</th> </tr> </thead> <tbody> <tr> <td colspan="2">(less water and less exempt compounds in grams per liter)</td> </tr> <tr> <td>ARCHITECTURAL</td> <td>250</td> </tr> <tr> <td>MARINE DECK</td> <td>760</td> </tr> <tr> <td>NON-MEMBRANE ROOF</td> <td>300</td> </tr> <tr> <td>ROADWAY</td> <td>250</td> </tr> <tr> <td>SINGLE PLY ROOF MEMBRANE</td> <td>450</td> </tr> <tr> <td>OTHER</td> <td>420</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>SEALANT PRIMER</th> <th>CURRENT VOC LIMIT</th> </tr> </thead> <tbody> <tr> <td>ARCHITECTURAL NON-POROUS</td> <td>250</td> </tr> <tr> <td>POROUS</td> <td>775</td> </tr> <tr> <td>MODIFIED BITUMINOUS</td> <td>500</td> </tr> <tr> <td>MARINE DECK</td> <td>760</td> </tr> <tr> <td>OTHER</td> <td>750</td> </tr> </tbody> </table>																									ARCHITECTURAL ADHEASIVE APPLICATIONS	CURRENT VOC LIMIT	CERAMIC TILE	65	DRYWALL PANEL & COVE BASE	50	MULTI-PURPOSE	70	SINGLE PLY ROOFING	250	SPECIALTY APPLICATIONS	CURRENT VOC LIMIT	PVC WELDING	510	CPVC WELDING	490	ABS WELDING	325	PLASTIC CEMENT WELDING	250	ADHESIVE PRIMER FOR WELDING	550	CONTACT ADHESIVE	80	SPECIAL PURPOSE CONTACT ADHESIVE	250	STRUCTURAL WOOD MEMBER ADHESIVE	140	TOP & TRIM ADHESIVE	250	SUBSTRATE SPECIFIC APPLICATIONS	CURRENT VOC LIMIT	METAL TO METAL	30	PLASTIC FOAMS	50	POROUS MATERIALS (EXCEPT WOOD)	50	WOOD	30	FIBERGLASS	80	SEALANT VOC LIMITS	CURRENT VOC LIMIT	(less water and less exempt compounds in grams per liter)		ARCHITECTURAL	250	MARINE DECK	760	NON-MEMBRANE ROOF	300	ROADWAY	250	SINGLE PLY ROOF MEMBRANE	450	OTHER	420	SEALANT PRIMER	CURRENT VOC LIMIT	ARCHITECTURAL NON-POROUS	250	POROUS	775	MODIFIED BITUMINOUS	500	MARINE DECK	760	OTHER	750																																																																																																																																																																																																																																																																																								
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<p><b>1.3 CONTAMINATED SITES ( Optional)</b> If you are developing a site such as a gas station that requires remedial work check this box.</p> <p><b>1.4 LOCATION COMMITMENT ( Required)</b> Commit to stay in the same location for 10 years or more.</p> <p><b>1.5 PAY UTILITIES DIRECTLY ( Required)</b> If site is leased insure that Taco Bell will pay the utilities directly rather than allowing the landlord to pay them. This will allow Taco Bell to track utility expenses easily.</p> <p><b>2.2 PROXIMITY TO BUS STOP ( Optional)</b> Site is within ½ a mile of a bus stop.</p> <p><b>3.0 BICYCLE FACILITIES ( Required)</b> Provide dedicated bicycle lockable parking for a minimum of two bicycles. Provide changing area and lockable storage for a minimum of two people. Single occupancy toilet rooms will suffice as a changing area.</p> <p><b>5.1 PARKING ( Optional)</b> Do not exceed parking spaces required by local zoning. See Credit 5 Provide 5% preferred parking for carpool.</p> <p><b>7.2 WHITE ROOF ( Required)</b> Provide white PVC single membrane roof material.</p> <p><b>9.0 CONSTRUCTION POLLUTION CONTROL ( Required)</b> A. Construction pollution control plan. B. Silt fencing C. Site vehicular access D. Wheel washing E. Covered loads F. Excavated soil storage G. Storm water drain, trench and pit drain protection H. Temporary diversion ditches and berms I. Dust control J. Exposed slope erosion control K. Weekly contractor inspection</p> <p><b>10.2 Building Water ( Required)</b> Provide plumbing fixtures as specified in the prototype drawings, specifications and equipment model.</p> <p><b>11.2 Process Water ( Required)</b> All water using equipment specified in the prototype equipment schedule shall be used for all ground-up restaurants.</p> <p><b>12.1 Landscape Design ( Required)</b> All landscape designs for new ground-up restaurants shall follow the Landscape Standards posted on the Plans.YUM.com website.</p> <p><b>13.1 Irrigation Water ( Required)</b> See landscape specifications A. Programmable irrigation controller. B. Separate irrigation zones C. Program maximum irrigation timing D. High-efficiency irrigation sprinkler heads E. Rain sensor</p> <p><b>15.3 Interior Lighting ( Required)</b> The current lighting specifications shall be used for all ground-up prototype restaurants.</p> <p><b>16.2 Exterior Lighting ( Required)</b> The current lighting specifications shall be used for all ground-up prototype restaurants.</p> <p><b>17.2 Sign Illumination ( Required)</b> The current signage specifications shall be used for all ground-up prototype restaurants.</p> <p><b>18.1 Exhaust Hoods ( Required)</b> The current 6'-4" back shelf hood design and equipment placement as shown in the ground-up prototype restaurant shall be used.</p> <p><b>19.1 LICENSED HVAC ENGINEER ( Required)</b> Use a licensed HVAC engineer for system site adaptation.</p> <p><b>19.2 OPTIMIZE HVAC DESIGN ( Required)</b> Optimize HVAC design system per YUM BlueLine Standards</p> <p><b>20.0 HVAC EFFICIENCY ( Required)</b> Use the EFLEX RTU for the kitchen and the Partial VAV RTU for the dining room and install per the current prototype ground-up restaurant.</p> <p><b>21.0 ECONOMIZER PERFORMANCE ( Required)</b> Use an economizer provided with the EFLEX and Partial VAV RTUs by Trane.</p> <p><b>22.1. Hot Water Efficiency ( Required)</b> Use the water heater specified in the Taco Bell prototype.</p> <p><b>23.1 REFRIGERANTS ( Required)</b> Do not used banned refrigerants. If you use any modern RTU you will not use banned refrigerants</p> <p><b>24.1 REFRIGERATION ( Required)</b> A. Use the current specified walk-in cooler/freezer. See Credit 24 B. Use the current specified reach-in freezer. See Credit 24 C. Use the current specified ice makers. See Credit 24</p> <p><b>25.1 COOKING &amp; WASHING EQUIPMENT ( Required)</b> A. Use the current specified fryer in the prototype. B. Use the current specified 3-comp sink in the prototype.</p> <p><b>28.1 BASIC LIGHTING &amp; THERMAL CONTROLS ( Required)</b> A. Provide programmable thermostats specified in the prototype B. Provide temperature sensor locations and specifications on plan C. Insure proper operation of ventilation equipment operations D. Provide lighting controls for interior zones E. Provide lighting controls for exterior zones.</p> <p><b>28.3 Occupancy Sensors ( Optional)</b> Provide ultrasonic/infrared occupancy sensors for 25% or more of interior lighting.</p> <p><b>33.1 Recycled Content ( Required)</b> Use materials that have a minimum of 10% recycled materials. (Note: Getting the calculations in process)</p> <p><b>36.1 Construction Waste Management ( Required)</b> A. The contractor shall recycle a minimum of 50% of all construction waste and provide records per YUM BlueLine. 75% is preferred. B. The general contractor shall provide a construction waste management plan to the construction manager with their bid submittal. They can use the starter form posted on the Plans.YUM.com website in the Green Playbook section.</p>																																																																																																																																																																																																																																																																																																																																																																																						

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE:	01.08.18
BUILDING TYPE:	T40M-O
PLAN VERSION:	DEC 2017
BRAND DESIGNER:	
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

**TACO BELL**

37500 FORD ROAD  
WESTLAND, MI 48185



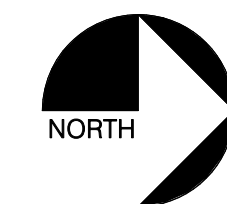
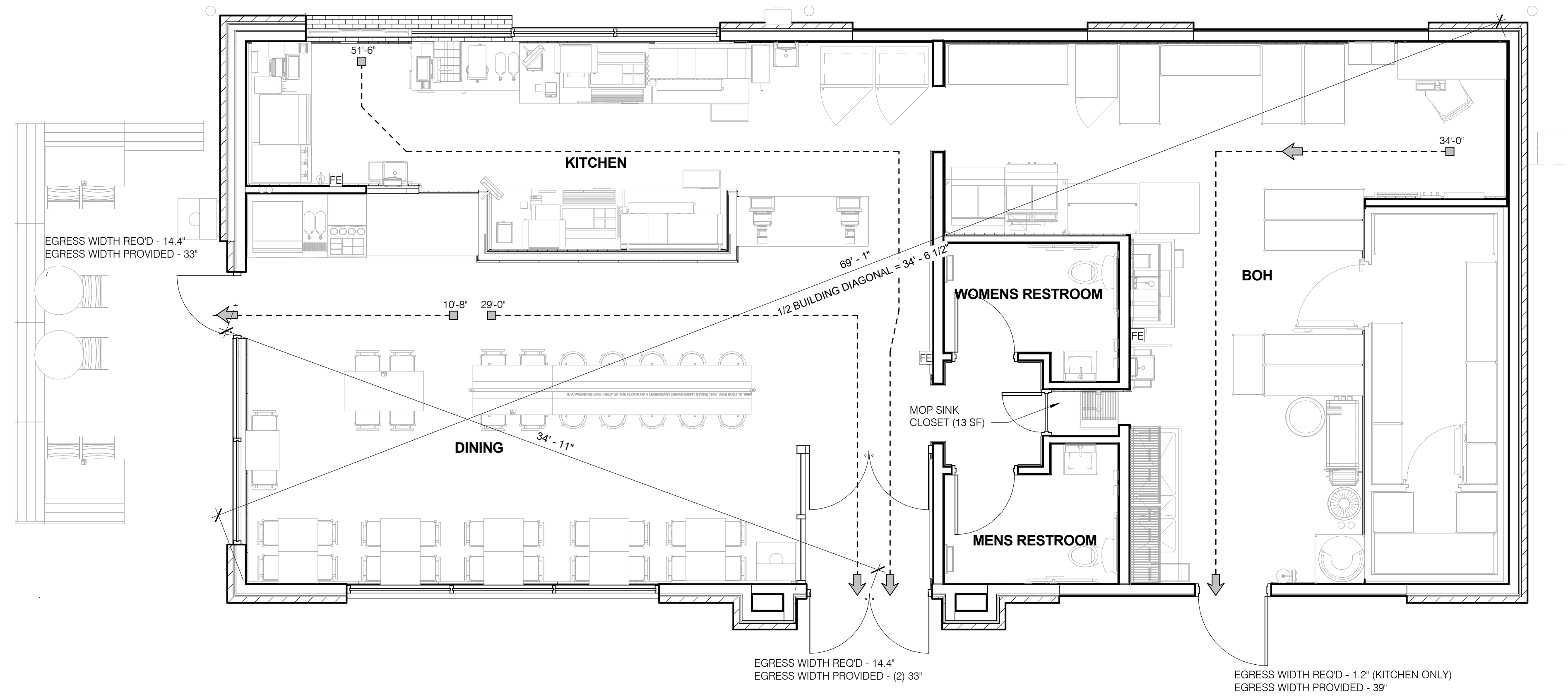
**T40**

OPEN KITCHEN  
MODERN EXPLORER

**YUM GREEN CHECKLIST**

**G1.0**





09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
B 06.07.18	CLIENT COMMENTS
A 05.24.18	HEALTH COMMENTS
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**LIFE SAFETY PLAN** 1/4" = 1'-0" **A**

1,736 GROSS SF (BUILDING)

SPACE	AREA	LOAD FACTOR	OCCUPANTS
ASSEMBLY (UNCONCENTRATED)	963 SF	15 NET	65
KITCHEN (COMMERCIAL)	1,186 SF	200 GROSS	6
STORAGE/MECHANICAL	13 SF	300 GROSS	1
<b>TOTAL</b>	<b>2,162 SF</b>		<b>72 OCCUPANTS</b>

**FE** FIRE EXTINGUISHER LOCATION.

EMERGENCY EXIT

TRAVEL DISTANCE

EXIT SIGNS

**OCCUPANT LOAD CALCULATIONS** **C**

**LIFE SAFETY LEGEND** N.T.S. **B**

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

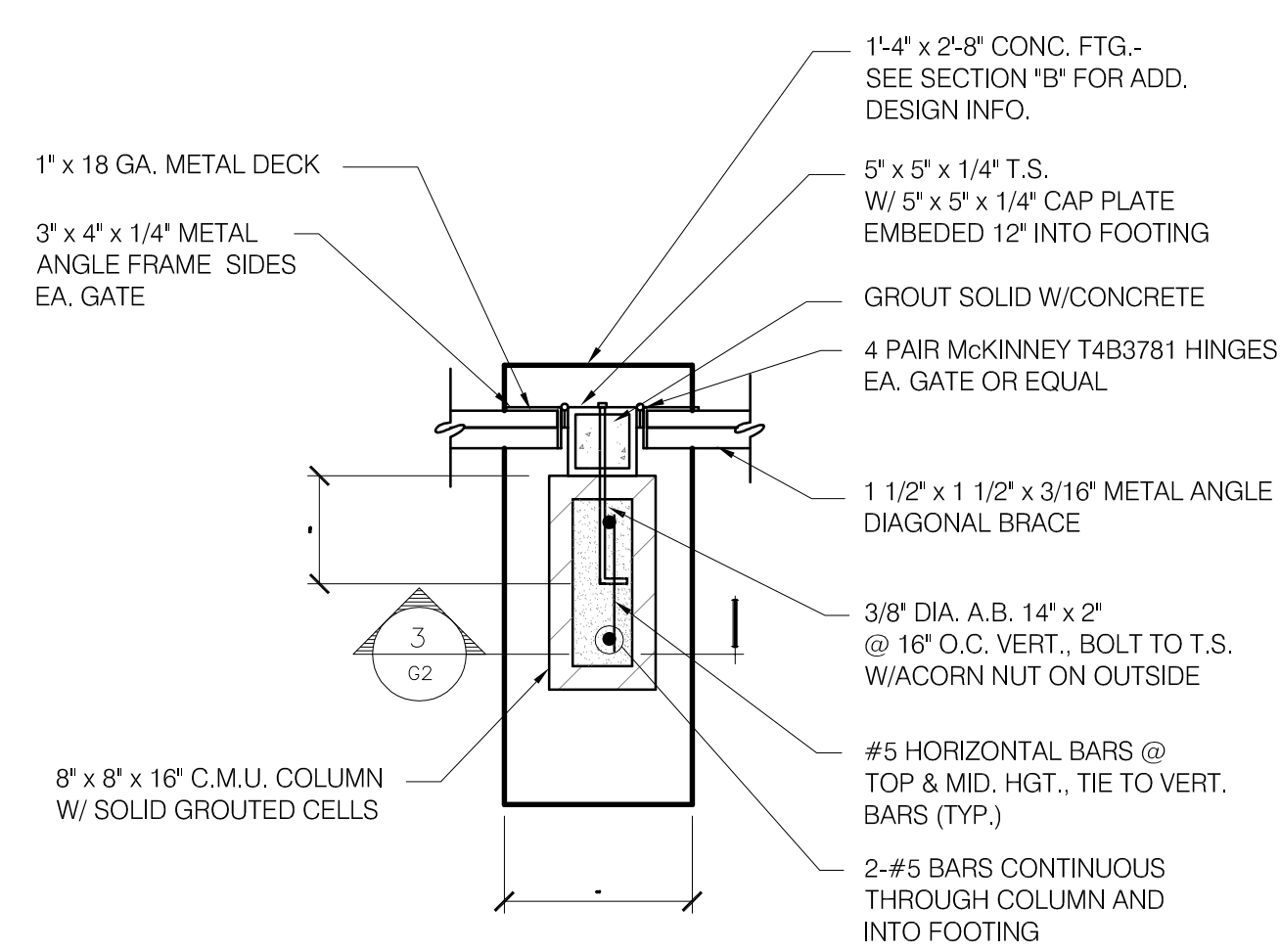


T40  
OPEN KITCHEN  
MODERN EXPLORER

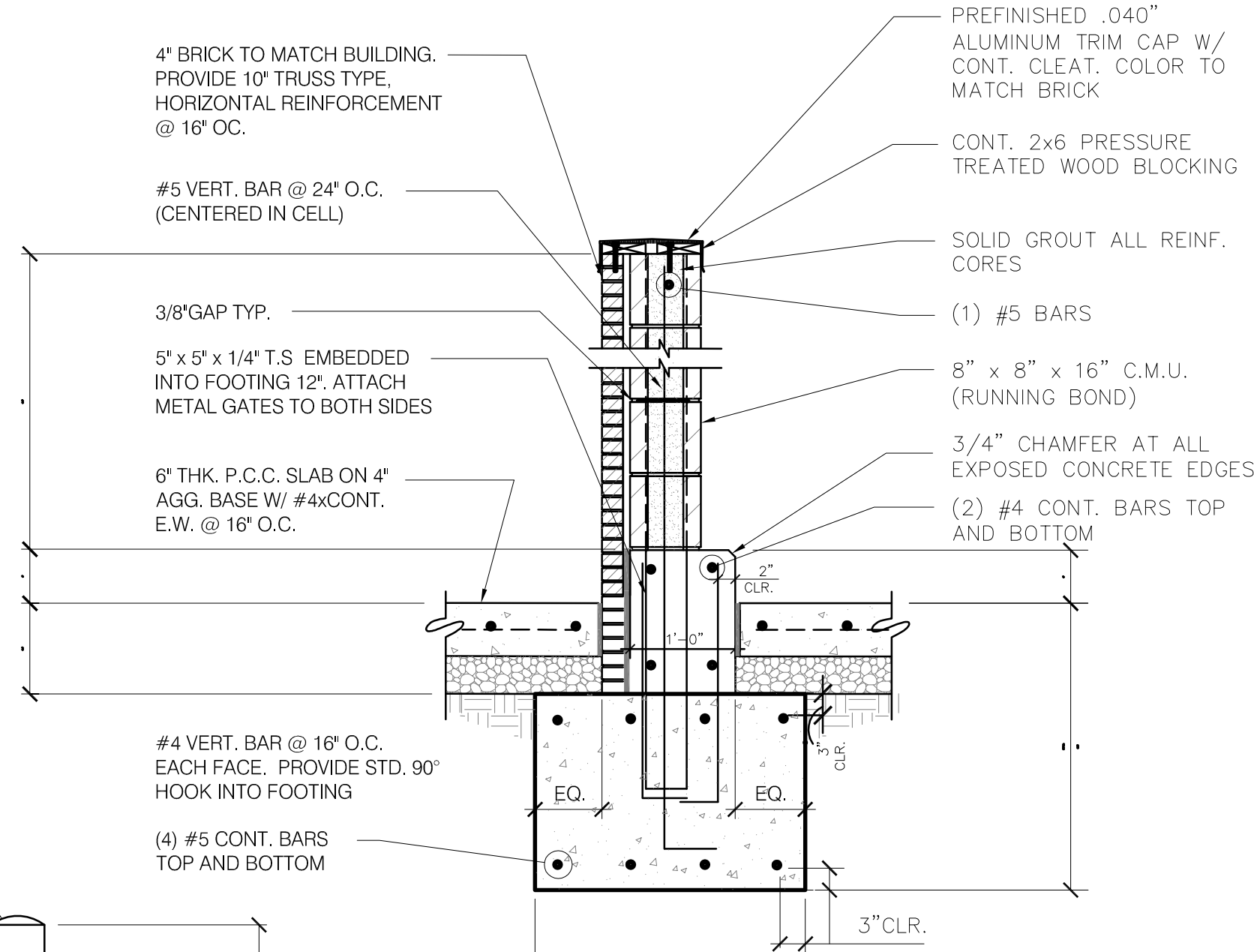
**LIFE SAFETY PLAN**

**T2.0**

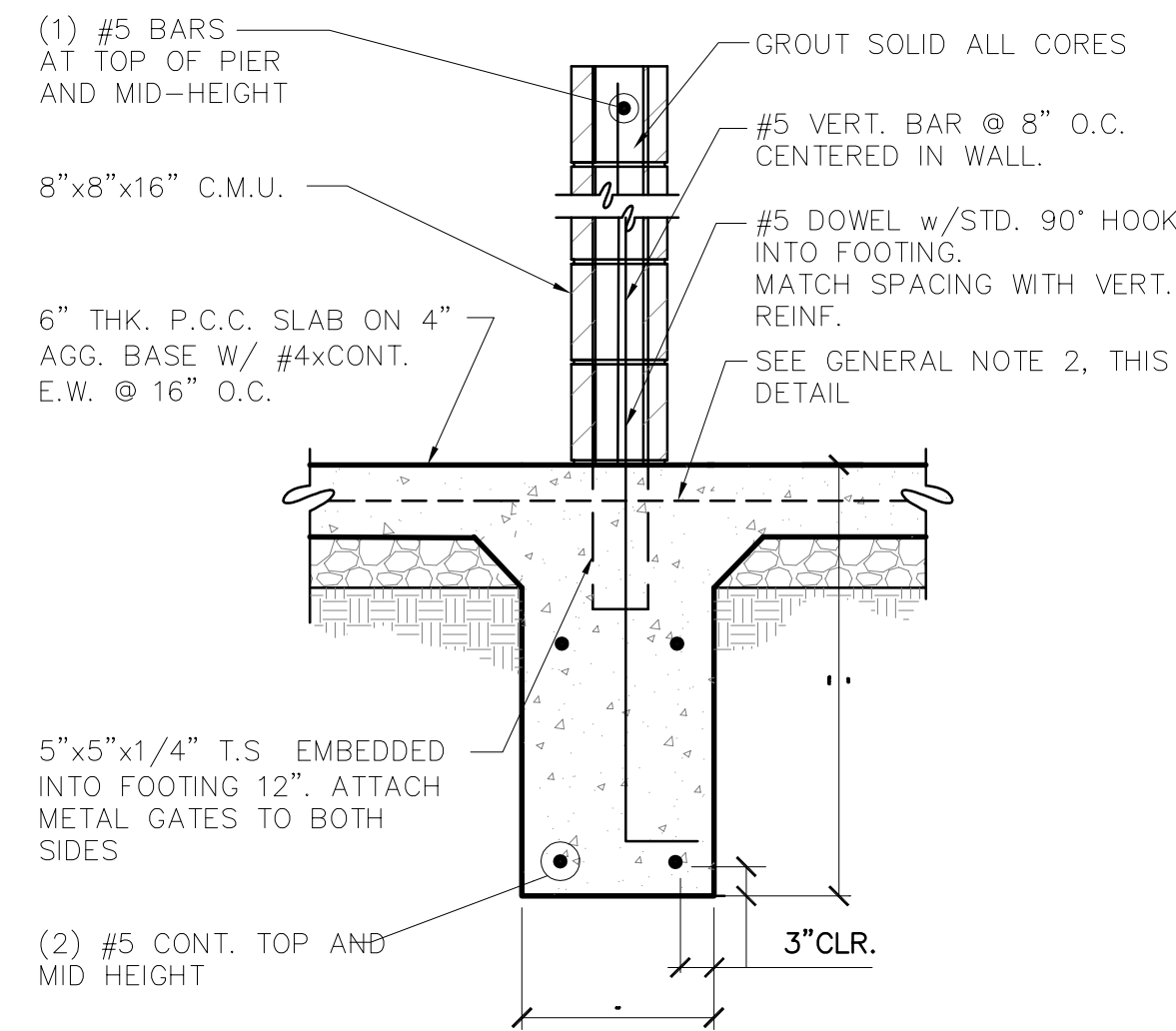
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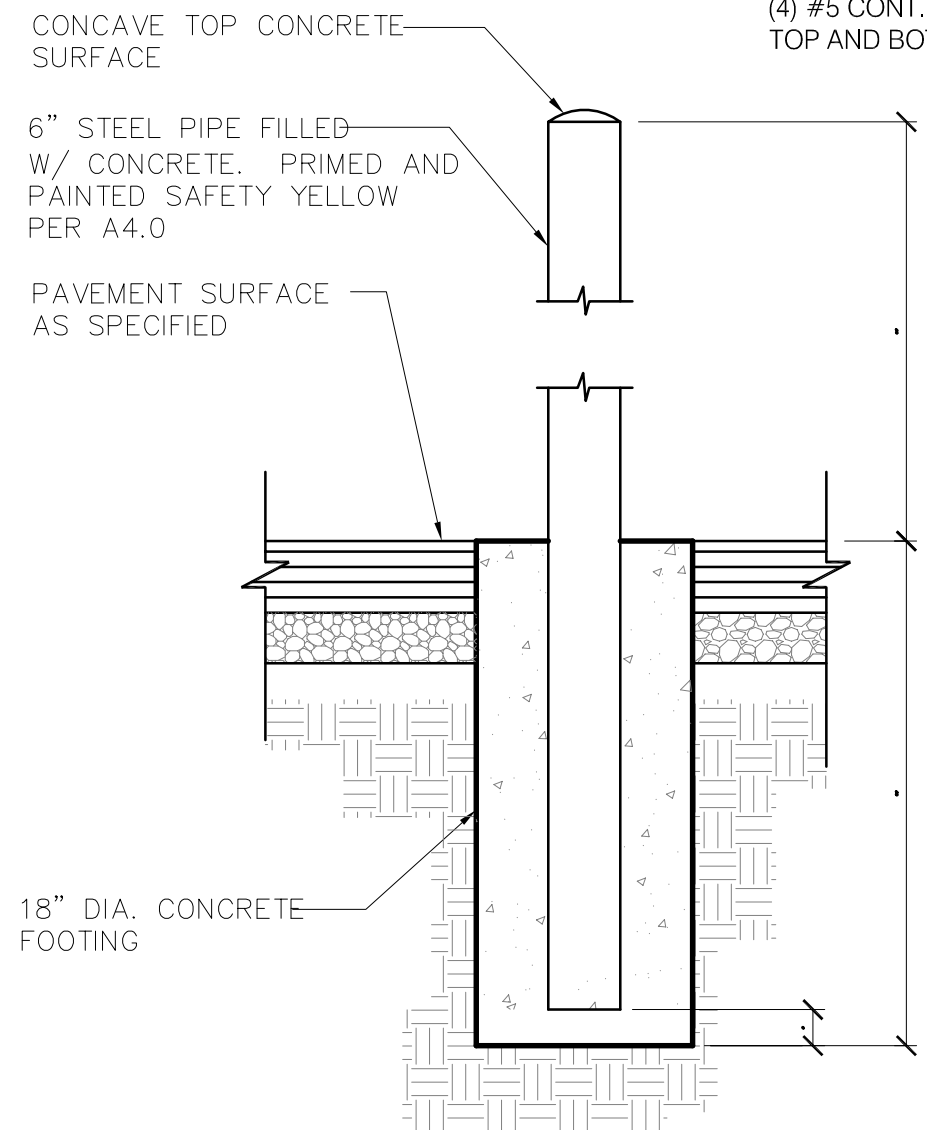
**5 JAMB DETAIL**  
3/4"=1'-0"



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



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



**7 BOLLARD DETAIL**  
3/4"=1'-0"

GATE NOTES:

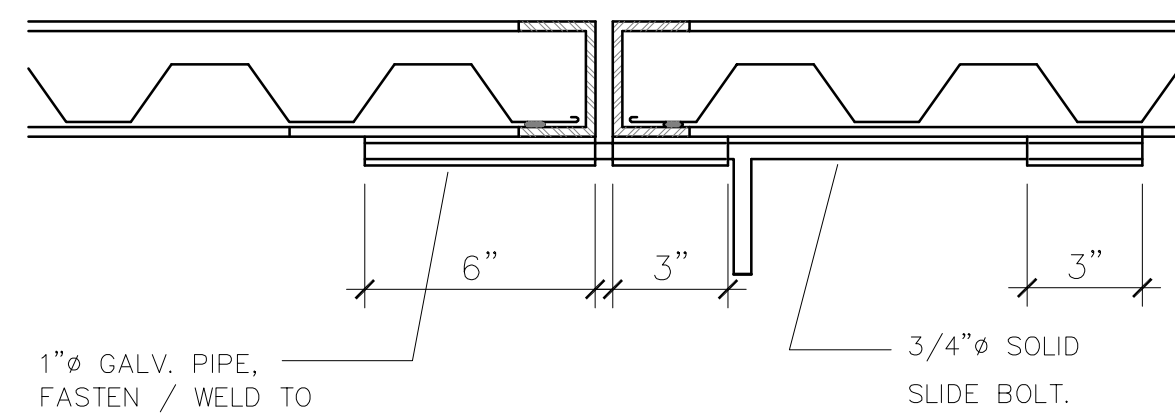
- (2) EQUAL (±6'-0") WIDE x 6'-0" HIGH MTL. GATES, TYPE 'B' 1 1/2" DECKING, 22GA. W/ T.S. 5 X 5 X .1875 BAR CROSS BRACING WELD AND GRIND SMOOTH ALL CONNECTIONS, TYP. PRIME AND PAINT COLOR TO MATCH PLASTER.

GATE HARDWARE:

ALL HARDWARE AND ACCESSORIES SHALL BE HEAVY GALVANIZED.  
GATE STOP - MUSHROOM TYPE OR FLUSH PLATE WITH ANCHORS SET IN CONCRETE TO ENGAGE THE CENTER DROP ROD OR PLUNGER BAR.



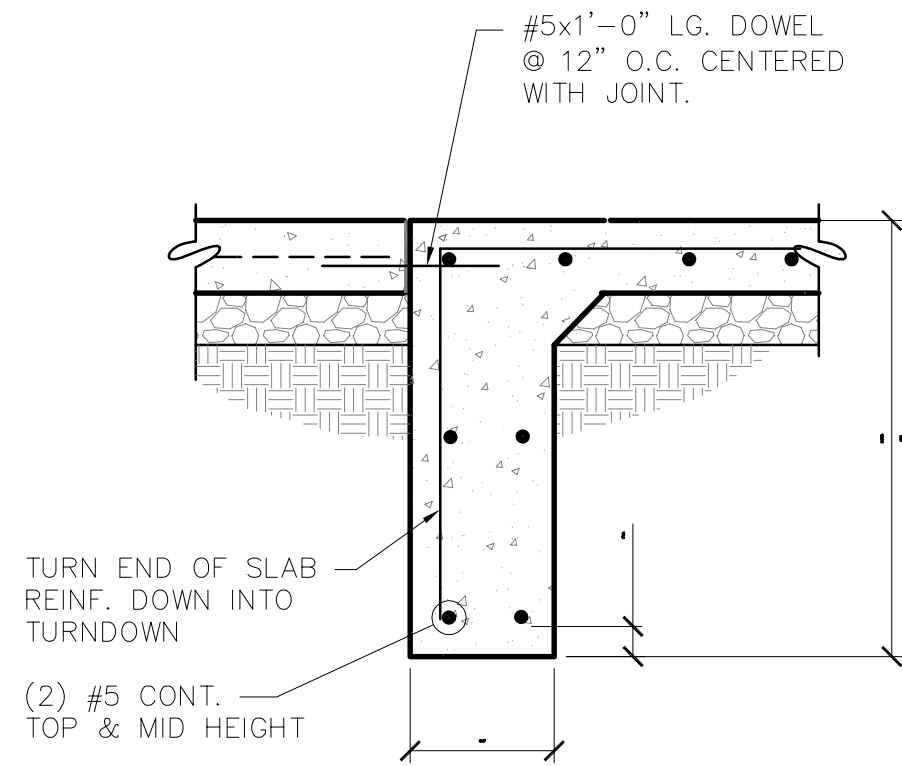
HEAD



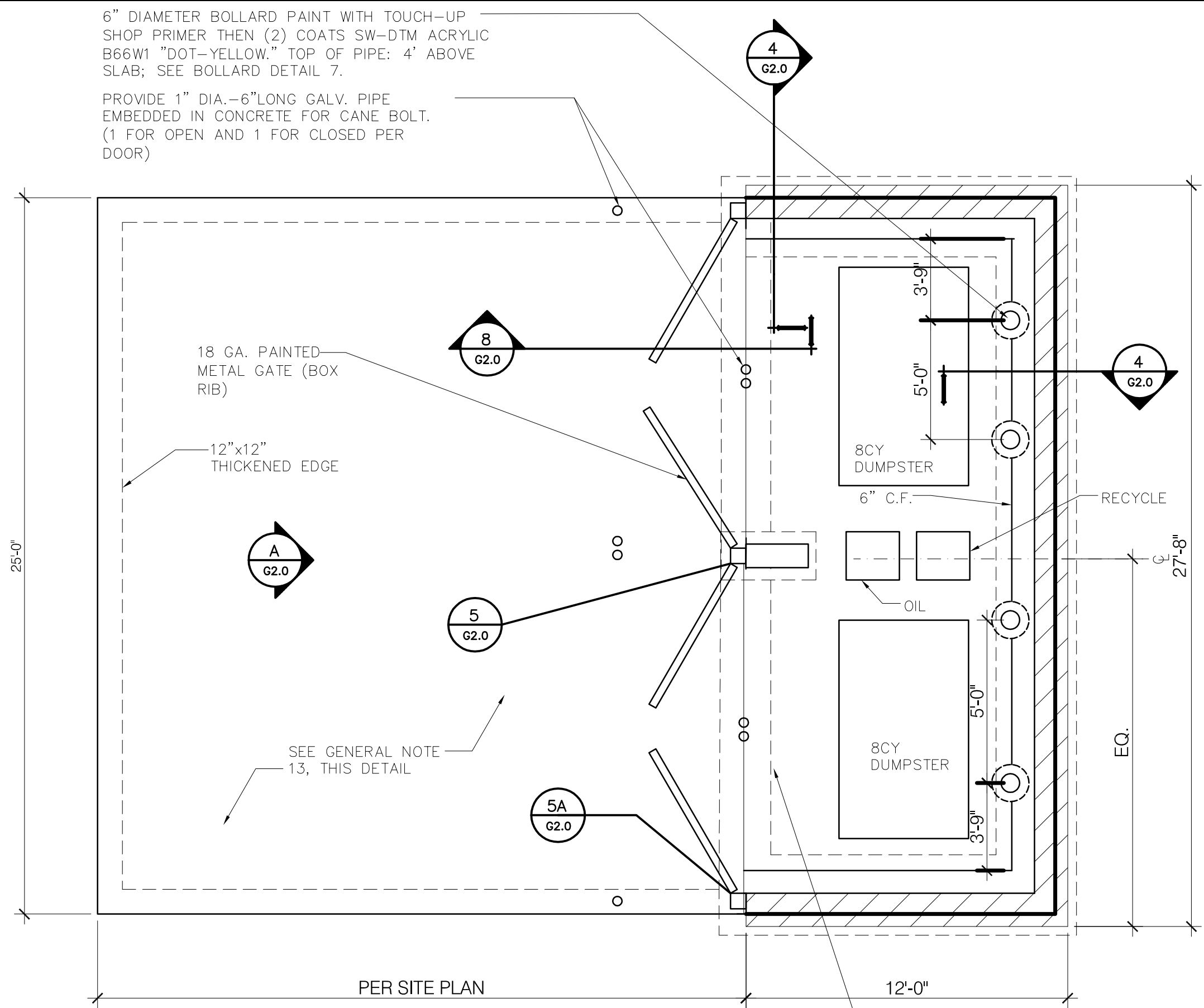
LATCH

NOTE:  
PRIME AND PAINT ALL METAL WORK TO MATCH BLOCK WALL

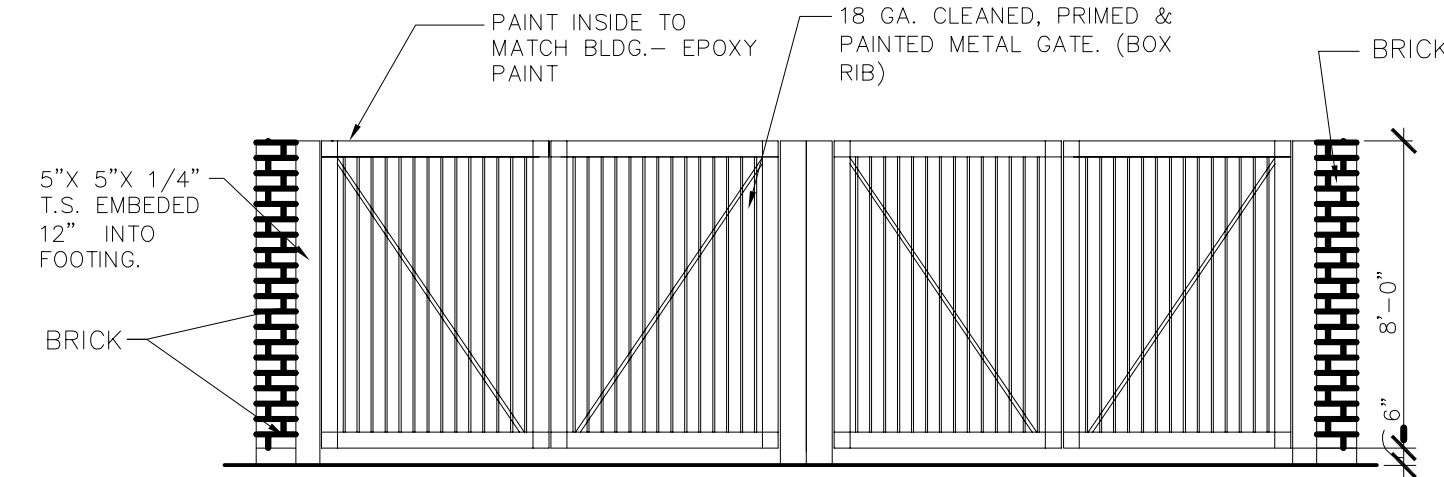
**GATE DETAILS - 6**  
N.T.S.



**8 SECTION**  
3/4"=1'-0"



**PLAN VIEW - 1**  
N.T.S.



**ELEVATION - 2**  
N.T.S.

**JAMB DETAIL - 5A**  
N.T.S.

NOTES:

- 1. LOCATION SHALL BE APPROVED BY THE PUBLIC WORKS DEPARTMENT.
- 2. AREAS SHALL BE ACCESSIBLE FOR DELIVERY AND COLLECTION.
- 3. GATES SHALL BE CORRUGATED METAL DOORS AND MUST BE APPROVED BY PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLATION.
- 4. GATE LATCHES SHALL BE OF THE PLUNGER BAR TYPE OR EQUIVALENT AS APPROVED BY THE PUBLIC WORKS DEPARTMENT.
- 5. SEE ATTACHED SPECIFICATIONS, NOTES AND PROCEDURES

TRASH ENCLOSURE DETAIL MATERIAL SPECIFICATIONS:

- 1. CONCRETE BLOCK: 6" MINIMUM IN SIZE. ASTM C90.
- 2. REINFORCING STEEL: ASTM 615. GRADE 60.
- 3. ACCEPTABLE SOIL TYPES:  
A. MIN. ALLOWABLE BEARING: 2000 LBS./SQ. FT.  
B. MIN. LATERAL BEARING: 100 LBS./SQ. FT./FT.  
C. MAX EXPANSION INDEX: 20
- 4. CONCRETE: 4000 LBS./SQ. IN. IN 28 DAYS.
- 5. MORTAR: 1: 1/4: 3 (PORTLAND CEMENT: HYDRATED LIME OR LIME PUTTY: SAND, BY VOLUME), MIXED TO PLASTIC CONSISTENCY. REFER TO UBC TABLE 24-A FOR OTHER TYPES OF CEMENT.
- 6. GROUT: 1: 1/10: 3 (PORTLAND CEMENT: HYDRATED LIME OR LIME PUTTY: SAND BY VOLUME), MIX TO FLOW WITHOUT SEGREGATION. GROUT MAY CONTAIN 2 PARTS PEA GRAVEL (3/8" MAX. SIZE), MINIMUM COMPRESSIVE STRENGTH: 2000 LBS./SQ. IN. REFER TO UBC TABLE 24-B FOR OTHER TYPES OF CEMENT.

GENERAL NOTES:

- 1. THIS DESIGN IS FOR AVERAGE CONDITIONS AND MAY NOT BE SUITABLE FOR ALL CASES. IT IS RECOMMENDED THAT A LICENSED CIVIL OR STRUCTURAL ENGINEER BE CONSULTED.
- 2. FOOTINGS SHALL EXTEND 3'-6" MINIMUM BELOW FINISH GRADE AND SHALL BE IN NATURAL SOIL OR CERTIFIED FILL.
- 3. BLOCKS TO BE STAGGERED (RUNNING BOND).
- 4. ALL CELLS CONTAINING REINFORCING STEEL SHALL BE GROUTED.
- 5. APPROVED GROUT STOPS ARE REQUIRED BELOW HORIZONTAL STEEL IN PARTIALLY GROUTED WALLS, BAGS, NEWSPAPERS, ETC. ARE NOT APPROVED GROUT STOPS.
- 6. INITIAL BED JOINT SHALL BE 1/4" MIN. 1" MAX. SUBSEQUENT BED JOINTS SHALL BE 1/4" MIN., 3/8" MAX.
- 7. VERTICAL CONTINUITY OF CELLS SHALL BE UNOBSTRUCTED. MORTAR DROPPINGS OR OTHER FOREIGN MATTER ARE NOT PERMITTED IN CELLS AND MUST BE REMOVED.
- 8. EXPANSION JOINTS REQUIRED AT 60'-0" MAX. INTERVALS.
- 9. REQUIRED BAR LAPS:  
A. VERTICAL STEEL : 30 BAR DIAMETERS.  
B. HORIZONTAL STEEL: 40 BAR DIAMETERS.  
C. WIRE JOINT REINFORCEMENT IN THE MORTARED BED JOINT: 75 WIRE DIAMETERS OR IN ALTERNATE BED JOINTS OF RUNNING BOND. 54 DIAMETERS PLUS TWICE THE BED JOINT SPACING.
- 10. WHERE HORIZONTAL WIRE JOINT REINFORCEMENT IS REQUIRED OR UTILIZED, IT SHALL BE EQUIVALENT TO TWO 3/16" DIAMETER CONNECTED AT 16" INTERVALS BY NO. 9 GAUGE WELDED WIRE.
- 11. FOR PIPES AND CONDUIT EMBEDDED IN MASONRY, REFER TO SEC. 24-07(g), UBC.
- 12. 3" MIN. COVER REQUIRED FOR REINFORCEMENT IN CONCRETE WHICH IS CAST AGAINST EARTH.
- 13. 8" THICK CONCRETE SLAB OVER 6" THICK CRUSHED AGGREGATE. 12"x12" T. THICKENED EDGE FOR APPROACH SLAB. #4 REBAR @ 2'-0" O.C. EACH WAY.

INSPECTION PROCEDURES:

- 1. FOUNDATION: AFTER TRENCHES ARE DUG, STEEL IS TIED IN PLACE AND BEFORE ANY CONCRETE IS POURED.
- 2. PREGROUT: AFTER ALL BLOCKS (EXCEPT CAP) ARE IN PLACE, VERTICAL AND HORIZONTAL STEEL IS IN PLACE, GROUT STOPS (FOR PARTIALLY GROUTED MASONRY) ARE IN PLACE, AND PRIOR TO GROUTING.
- 3. FINAL: AFTER GROUT IS IN PLACE AND PRIOR TO PLACEMENT OF CAP.

ISSUED FOR BID	07/30/18
ISSUED FOR BID	07/30/18
ISSUED FOR PERMIT	04/12/18

CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

**TACO BELL**

20779 13 MILE RD.  
WESTLAND, MI



MODERN EXPLORER  
T40 - OPEN KITCHEN

**TRASH ENCLOSURE DETAILS**

**G2.0**

# IMPROVEMENT PLANS

# TACO BELL

37500 FORD ROAD  
WESTLAND, MI  
REVISED: SEPTEMBER 17, 2018

**WAYNE COUNTY DPS GENERAL NOTES**

1. ALL WORK WITHIN THE WAYNE COUNTY ROAD RIGHT-OF-WAY (ROW) AND DRAIN EASEMENT SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOT 2012 SPECIFICATIONS FOR CONSTRUCTION.
2. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD ROW, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER JURISDICTION OF THE WAYNE COUNTY (07/01/93) REVISED 12/15/2004.
3. A WAYNE COUNTY PERMIT ENGINEER MUST OBSERVE CONSTRUCTION / INSTALLATION OF THE PROPOSED SITE STORM WATER MANAGEMENT SYSTEM COMPONENTS (MANUFACTURED TREATMENT SYSTEM, UNDERGROUND DETENTION SYSTEM, AND OUTLET CONTROL STRUCTURE). CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY PERMIT OFFICE AT (734) 595-6504 EXT. 2009 AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION.

**STATE OF MICHIGAN SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF MICHIGAN, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

**PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE CONSTRUCTION OF A NEW TACO BELL RESTAURANT LOCATED AT 37500 FORD ROAD, WESTLAND, MICHIGAN, 48185.

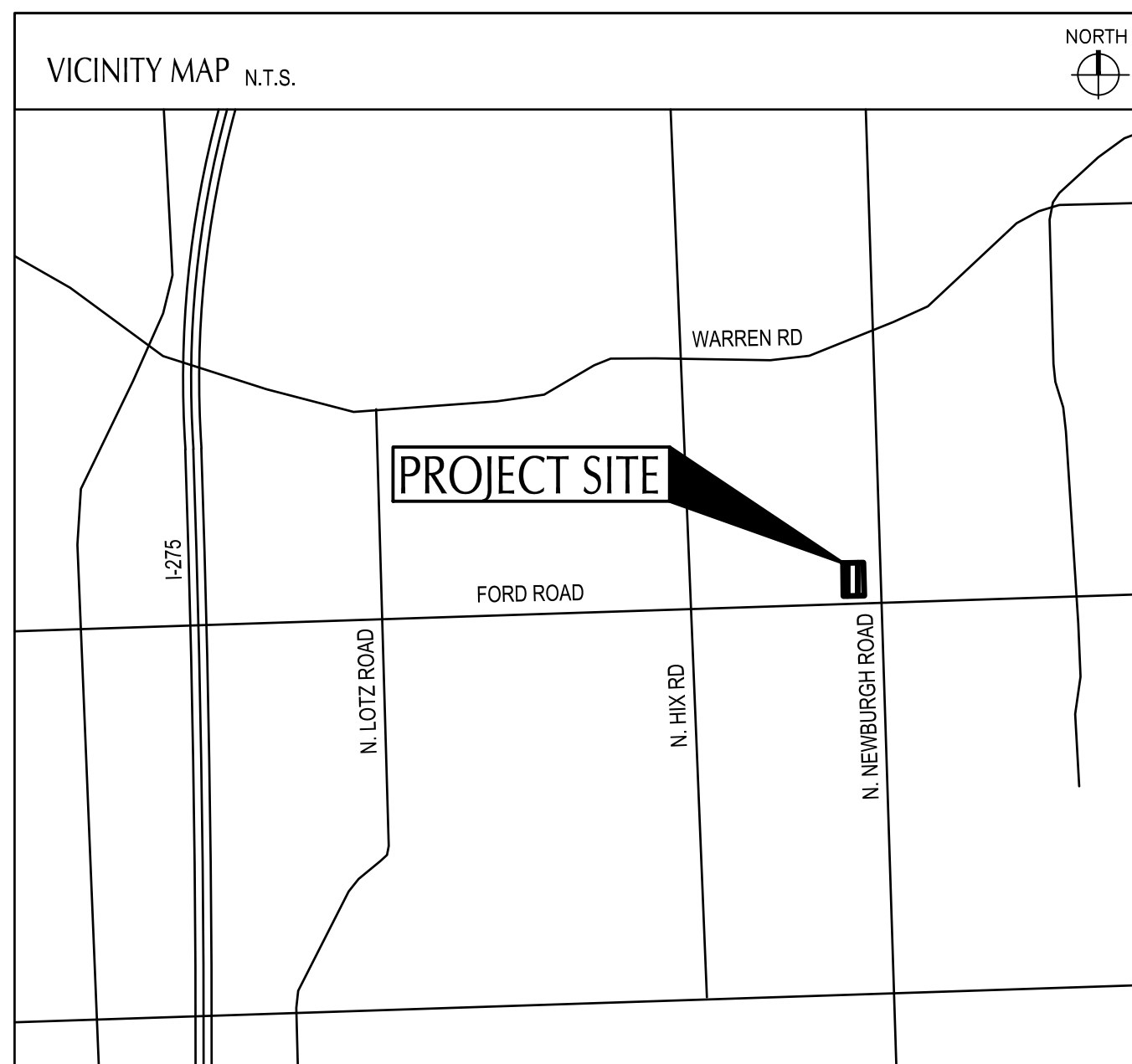
**STATE OF MICHIGAN SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF MICHIGAN, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

**OWNER AND DEVELOPER**

TACO BELL OF AMERICA, LLC  
1900 COLONEL SANDERS LANE LOUISVILLE, KY 40213

LANDLORD  
MIKE KOZA  
29200 NORTHWESTERN HIGHWAY, S 450  
SOUTHFIELD, MI 48034



INDEX OF DRAWINGS	
TITLE SHEET .....	TS-001
ALTA .....	1 of 1
GENERAL NOTES .....	C-001
GENERAL NOTES (CONT.) .....	C-002
DEMOLITION PLAN .....	C-101
SITE PLAN .....	C-111
WAYNE COUNTY AND MDOT DETAILS .....	C-112
GRADING PLAN .....	C-121
SWPPP NOTES .....	C-131
SWPPP PLAN .....	C-132
SWPPP PLAN NOTES AND DETAILS .....	C-133
SWPP PLAN NOTES AND DETAILS .....	C-134
UTILITY PLAN .....	C-140
UTILITY PLAN (CONT.) .....	C-141
DRAINAGE DISTRIBUTION MAPS .....	C-142
UTILITY PROFILES .....	C-143
DESIGN CALCULATIONS .....	C-144
OUTLET STRUCTURE DETAILS .....	C-145
STORMTECH DETAILS .....	C-146
STORMTECH DETAILS .....	C-147
STORMWATER EXHIBITS .....	C-148
SITE DETAILS .....	C-501
SITE DETAILS .....	C-502
SITE DETAILS .....	C-503
LANDSCAPE NOTES .....	L-001
LANDSCAPE PLAN .....	L-101
LANDSCAPE DETAILS .....	L-501

**APPROVALS**

\_\_\_\_\_  
CITY ENGINEER

DATE: \_\_\_\_\_

\_\_\_\_\_  
SANITARY ENGINEER

DATE: \_\_\_\_\_

\_\_\_\_\_  
WATER DEPARTMENT

DATE: \_\_\_\_\_

\_\_\_\_\_  
STORMWATER MANAGEMENT

DATE: \_\_\_\_\_



- ISSUED FOR CONSTRUCTION 09/17/18
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  - △

CONTRACT DATE: XX.XX.XX  
BUILDING TYPE: T40M-O  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

TACO BELL  
20779 13 MILE RD.  
WESTLAND, MI

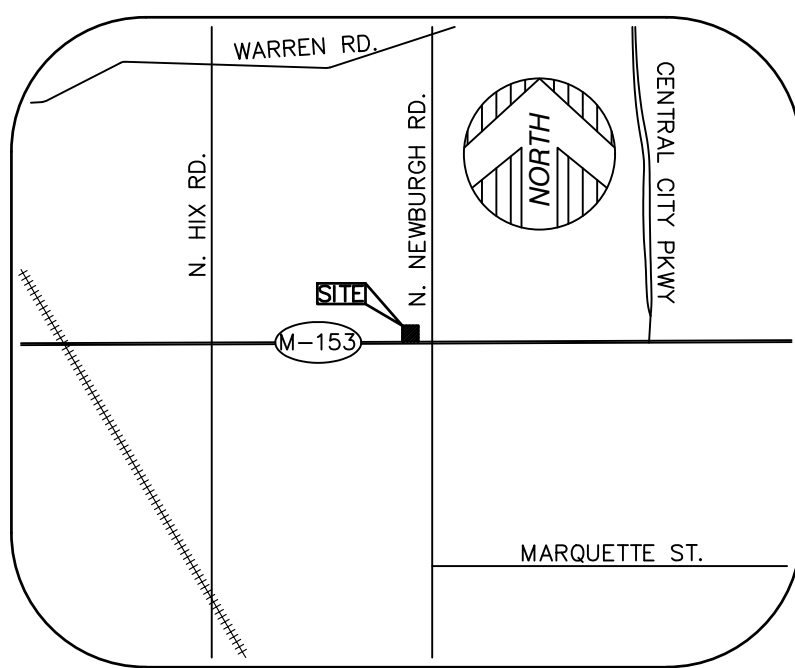


MODERN EXPLORER  
T40 - OPEN KITCHEN

**TITLE SHEET**

**TS-001**





VICINITY MAP  
(NOT TO SCALE)

**PARKING**

NO PARKING MARKED ON SITE

**PARCEL AREA**

PARCEL 1 = 15,000± SQUARE FEET = 0.344± ACRES  
 PARCEL 2 = 9,440± SQUARE FEET = 0.217± ACRES  
 PARCEL 3 = 13,155± SQUARE FEET = 0.302± ACRES  
 TOTAL = 37,595± SQUARE FEET = 0.863± ACRES

**BASIS OF BEARING**

NORTH 88°45'00" WEST, BEING THE SOUTH LINE OF THE SUBDIVISION AS PLATTED AND THE CENTER LINE OF FORD ROAD, AS DESCRIBED.

**BENCHMARK**

**SITE BENCHMARK #1:**  
 ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.  
 ELEVATION = 664.67' (NAVD88)

**SITE BENCHMARK #2:**  
 SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.  
 ELEVATION = 666.18' (NAVD88)

**SITE BENCHMARK #3:**  
 SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.  
 ELEVATION = 663.88' (NAVD88)

**FLOOD NOTE**

SUBJECT PARCEL LIES WITHIN:  
 OTHER AREA (ZONE X); AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26163C0208E, CITY OF WESTLAND - PANEL NUMBER 260739 0208 E, DATED FEBRUARY 2, 2012, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

**ZONING REGULATIONS**

CB-1- LOW INTENSITY COMMERCIAL BUSINESS DISTRICT

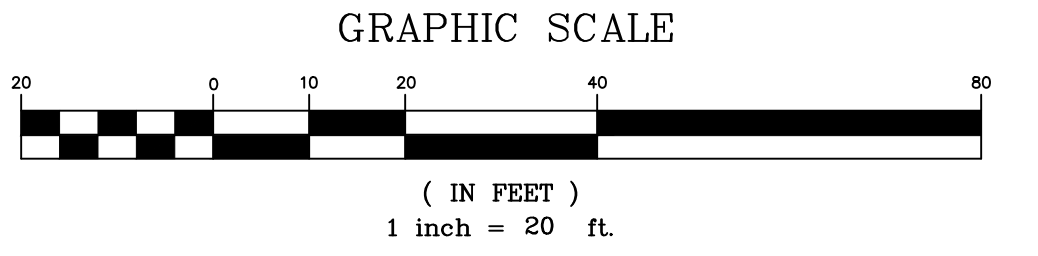
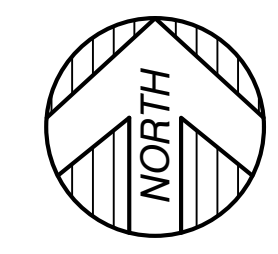
- \*MINIMUM LOT AREA - 10,000 SQUARE FEET
- \*MINIMUM LOT WIDTH - 80 FEET
- \*MINIMUM USABLE OPEN SPACE IN PERCENTAGE OF LOT AREA - 40%
- \*MINIMUM SETBACK REQUIREMENTS FOR PRINCIPAL AND ACCESSORY STRUCTURES  
 FRONT - 15 FEET  
 SIDE - 10 FEET  
 REAR - 20 FEET
- \*MAXIMUM BUILDING HEIGHT IN STORIES - 2 STORIES
- \*MAXIMUM BUILDING HEIGHT IN FEET - 30 FEET
- \*MAXIMUM LOT COVERAGE - 40% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS

NOTE: ALL ZONING INFORMATION IS TAKEN FROM THE CITY OF WESTLAND WEBSITE. ALL ZONING INFORMATION MUST BE VERIFIED FOR COMPLETENESS WITH CURRENT ZONING REGULATIONS.

**LEGEND**

- SET 1/2" REBAR WITH CAP P.S. 32341
- FOUND MONUMENT (AS NOTED)
- (R&M) FOUND SECTION CORNER (AS NOTED)
- (R) RECORD AND MEASURED DIMENSION
- (M) MEASURED DIMENSION
- (M) GROUND POINT
- ⊠ ELECTRIC RISER
- ⊠ TRANSFORMER
- UTILITY POLE
- SANITARY MANHOLE
- SQUARE CATCH BASIN
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- WATER VALVE
- LIGHTPOST/LAMP POST
- SINGLE POST SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- PARCEL BOUNDARY LINE
- PLATTED LOT LINE
- SECTION LINE
- EASEMENT (AS NOTED)
- RIGHT-OF-WAY
- BUILDING
- BUILDING HATCH
- CONCRETE CURB
- EDGE OF CONCRETE (CONC.)
- EDGE OF ASPHALT (ASPH.)
- EDGE OF GRAVEL
- FENCE (AS NOTED)
- WALL (AS NOTED)
- OVERHEAD UTILITY LINE
- SANITARY LINE
- STORM LINE
- WATER LINE
- GAS LINE
- CONTOUR MAJOR
- CONTOUR MINOR
- PAVEMENT MARKINGS

# ALTA/NSPS LAND TITLE SURVEY



**PROPERTY DESCRIPTION**

LAND SITUATED IN THE STATE OF MICHIGAN, COUNTY OF WAYNE, CITY OF WESTLAND IS DESCRIBED AS FOLLOWS:

**PARCEL 1:**  
 THE NORTH 75 FEET OF LOTS 21 AND 22, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

TAX NUMBER: 56-028-01-0021-001

**PARCEL 2:**  
 THE NORTH 113 FEET OF THE SOUTH 140 FEET OF LOT 21, EXCEPT THE WEST 20 FEET OF THE NORTH 93 FEET OF THE SOUTH 120 FEET THEREOF, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

TAX NUMBER: 56-028-01-0021-004

**PARCEL 3:**  
 THE WEST 20 FEET OF THE SOUTH 120 FEET OF LOT 21, EXCEPT THE SOUTH 27 FEET THEREOF, ALSO THE SOUTH 140 FEET OF LOT 22, EXCEPT THE SOUTH 27 FEET THEREOF, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

TAX NUMBER: 56-028-01-0021-006

**ALSO DESCRIBED AS:**  
 LOTS 21 AND 22, EXCEPT THE SOUTH 27 FEET THEREOF, WARREN JUNCTION SUBDIVISION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 43, PAGE 94 OF PLATS, WAYNE COUNTY RECORDS.

**TITLE REPORT NOTE**

ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE CHICAGO TITLE OF MICHIGAN, CHICAGO TITLE INSURANCE COMPANY COMMITMENT NO. 821038693N1S, DATED SEPTEMBER 5, 2017, AND LISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

3. EASEMENT (FOR WATER AND SEWER MAIN PURPOSES) VESTED IN THE TOWNSHIP OF NANKIN RECORDED IN LIBER 15672, PAGE 223. (AS SHOWN)
4. EASEMENT (FOR WATER AND SEWER MAIN PURPOSES) VESTED IN THE TOWNSHIP OF NANKIN RECORDED IN LIBER 15672, PAGE 224. (AS SHOWN)
5. 6 FOOT EASEMENT OVER SUBJECT PROPERTY AS SHOWN ON THE RECORDED PLAT, AS RECORDED IN LIBER 43 OF PLATS, PAGE 94. (AS SHOWN)

**SURVEYOR'S NOTES**

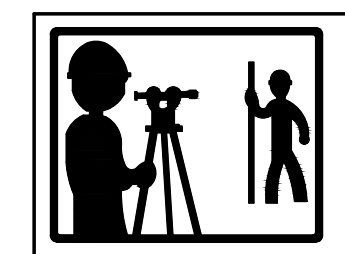
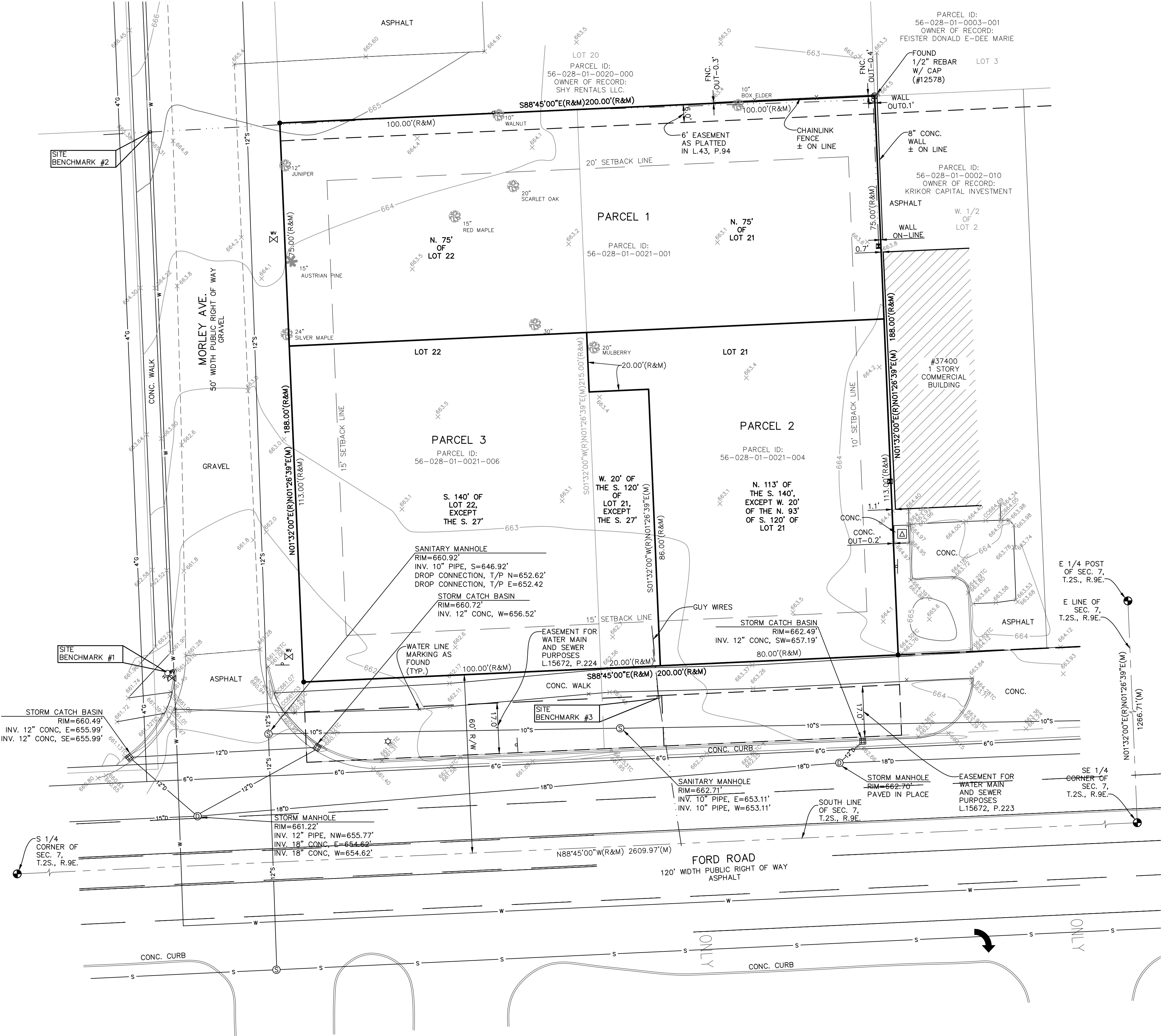
1. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.
2. THERE ARE NO DELINEATED WETLANDS ON SITE AT TIME OF SURVEY.

**SURVEYOR'S CERTIFICATION**

TO TACO BELL OF AMERICA, LLC, A DELAWARE LIMITED LIABILITY COMPANY, CHICAGO TITLE OF MICHIGAN, INC., CHICAGO TITLE INSURANCE COMPANY AND GPD GROUP:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDED ITEMS 1, 2, 3, 4, 5, 6A, 6B, 7A, 7B1, 8, 9, 10A, 10B, 11, 13, 18, 19, AND 20 OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 1, 2017.

DATE OF PLAT OR MAP: (12/07/17)



**KEM-TEC & ASSOCIATES**  
 PROFESSIONAL SURVEYORS - PROFESSIONAL ENGINEERS  
 22556 GRATIOT AVE \* EASTPOINTE, MICHIGAN 48021  
 (586)772-2222 \* (800)295-7222 \* FAX (586)772-4048



PARCEL ADDRESS: 37500 FORD RD, WESTLAND, MI  
 PARCEL AREA: 37595± S.F.  
 ENTITY NUMBER: 446548  
 SITE NUMBER: 312720

SCALE: 1"=20' DRAWN BY: DB SHEET: 1 OF 1  
 DATE: 12/8/17 CHECKED BY: DD GPD JOB NO.:

THOMAS G. SMITH, P.S.  
 PROFESSIONAL SURVEYOR  
 MICHIGAN LICENSE NO. 32341



DEMOLITION NOTES	
1.	DEMOLITION INCLUDES THE FOLLOWING:
1.A.	TRANSFER BENCHMARK CONTROL TO NEW LOCATIONS OUTSIDE THE DISTURBED AREA PRIOR TO COMMENCING DEMOLITION OPERATIONS (WHEN APPLICABLE).
1.B.	DEMOLITION AND REMOVAL OF SITE IMPROVEMENTS.
1.C.	DISCONNECTING, CAPPING OR SEALING, AND ABANDONING/REMOVING SITE UTILITIES IN PLACE (WHICHEVER IS APPLICABLE).
2.	REMOVE AND LEGALLY DISPOSE OF ITEMS EXCEPT THOSE INDICATED TO BE REINSTALLED, SALVAGED, OR TO REMAIN.
3.	REMOVE, REINSTALL, AND RELOCATE: REMOVE ITEMS INDICATED; CLEAN, SERVICE, AND OTHERWISE PREPARE THEM FOR REUSE; STORE AND PROTECT AGAINST DAMAGE. REINSTALL ITEMS IN LOCATIONS INDICATED.
4.	EXISTING TO REMAIN: PROTECT ITEMS INDICATED TO REMAIN AGAINST DAMAGE AND SOILING THROUGHOUT CONSTRUCTION. WHEN PERMITTED BY THE ENGINEER, ITEMS MAY BE REMOVED TO A SUITABLE, PROTECTED STORAGE LOCATION THROUGHOUT CONSTRUCTION AND THEN CLEANED AND REINSTALLED IN THEIR ORIGINAL LOCATIONS.
5.	CONTRACTOR SHALL SCHEDULE DEMOLITION ACTIVITIES WITH THE CONSTRUCTION/PROJECT MANAGER INCLUDING THE FOLLOWING:
5.A.	DETAILED SEQUENCE OF DEMOLITION AND REMOVAL WORK, WITH STARTING AND ENDING DATES FOR EACH ACTIVITY.
5.B.	DATES FOR SHUTOFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES.
5.C.	IDENTIFY AND ACCURATELY LOCATE UTILITIES AND OTHER SUBSURFACE STRUCTURAL, ELECTRICAL, OR MECHANICAL CONDITIONS.
6.	REGULATORY REQUIREMENTS: COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE STARTING DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
7.	STORAGE OR SALE OF REMOVED ITEMS OR MATERIALS ON-SITE WILL NOT BE PERMITTED.
8.	OBTAIN APPROVED BORROW SOIL MATERIALS OFF-SITE WHEN SUFFICIENT SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE ON-SITE.
9.	MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE THROUGHOUT CONSTRUCTION OPERATIONS.
9.A.	DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY ENGINEER AND AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO OWNER AND TO GOVERNING AUTHORITIES.
10.	DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTING AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING.
11.	UTILITY REQUIREMENTS: LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF INDICATED UTILITY SERVICES SERVING THE SITE.
11.A.	ARRANGE TO SHUT OFF AND CAP UTILITIES WITH UTILITY COMPANIES AND FOLLOW THEIR RESPECTIVE UTILITY KILL AND CAP POLICIES.
12.	CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND DEMOLITION AREA.
12.A.	ERECT TEMPORARY PROTECTION, BARRICADES AS PER LOCAL GOVERNING AUTHORITIES.
12.B.	PROTECT EXISTING SITE IMPROVEMENTS AND APPURTENANCES TO REMAIN.
13.	EXPLOSIVES: USE OF EXPLOSIVES WILL NOT BE PERMITTED.
14.	REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
15.	CLEAN ADJACENT BUILDINGS AND IMPROVEMENT OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF DEMOLITION.
16.	DAMAGES: PROMPTLY REPAIR DAMAGES TO ADJACENT FACILITIES CAUSED BY DEMOLITION OPERATIONS AT THE CONTRACTORS COST.
17.	GENERAL: PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.
18.	BURNING: DO NOT BURN DEMOLISHED MATERIALS.
19.	FILLING BELOW-GRADE AREAS: COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION OF BUILDINGS AND PAVEMENTS WITH SOIL MATERIALS ACCORDING TO REQUIREMENTS PER SOILS REPORT (TO BE COMPLETED AT A LATER DATE AND TIME) (TO BE COMPLETED AT A LATER DATE AND TIME); CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO FILLING ANY AREAS. CONTRACTOR SHALL CONTACT ENGINEER TO OBSERVE FILL PROCEDURES.
20.	CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
20.A.	DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY GOVERNING REGULATIONS.
21.	CONTRACTOR TO SAWCUT EXISTING PAVEMENT TO REMAIN PRIOR TO CURB, GUTTER, PAVEMENT, ETC REMOVAL.

GENERAL PLAN NOTES	
1.	PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
2.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY. THE SOILS REPORT (TO BE COMPLETED AT A LATER DATE AND TIME) AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION/PROJECT MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT (TO BE COMPLETED AT A LATER DATE AND TIME) AND PLANS, ETC.
3.	THE A.L.T.A. SURVEY BY KEM-TEC & ASSOC., DATED 12/8/2017 SHALL BE CONSIDERED A PART OF THESE PLANS. THE G.C. IS RESPONSIBLE FOR LOCATING IMPROVEMENTS PER THESE PLANS.
4.	THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THE PLAN ARE BASED ON FIELD SURVEYS AND CITY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
5.	ALL DIMENSIONS, GRADES, AND UTILITY LOCATIONS SHOWN ON THESE PLANS WERE BASED ON A.L.T.A. SURVEY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION/PROJECT MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
6.	ALL WORK WITHIN THE RIGHTS OF WAY SHALL BE IN ACCORDANCE WITH THE GOVERNING JURISDICTION AND SPECIFICATIONS.
7.	CONTRACTOR SHALL COORDINATE ANY MAINTENANCE OF TRAFFIC WITH THE OWNER'S REPRESENTATIVE AND THE LOCAL JURISDICTION PRIOR TO CONSTRUCTION.
8.	CONTRACTOR SHALL AT ALL TIMES ENSURE THAT SWPP MEASURES PROTECTING EXISTING DRAINAGE FACILITIES BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY PHASE OF THE SITE CONSTRUCTION OR LAND ALTERATION. (SEE SHEET C-131 TO C-134).
9.	UPON COMPLETION OF PROJECT, CONTRACTOR SHALL CLEAN THE PAVED AREAS PRIOR TO REMOVAL OF TEMPORARY SEDIMENT CONTROLS. AS DIRECTED BY THE CITY AND/OR CONSTRUCTION/PROJECT MANAGER. IF POWER WASHING IS USED, NO SEDIMENT LADEN WATER SHALL BE WASHED INTO THE STORM SYSTEM. ALL SEDIMENT LADEN MATERIAL ON PAVEMENT OR WITHIN THE STORM SYSTEM SHALL BE COLLECTED AND REMOVED FROM THE SITE AT CONTRACTOR'S EXPENSE.
10.	THE CONTRACTOR WILL, UPON BECOMING AWARE OF SUBSURFACE OR LATENT PHYSICAL CONDITIONS DIFFERING FROM THOSE DISCLOSED BY THE ORIGINAL SOIL EXPLORATION WORK, PROMPTLY NOTIFY THE OWNER VERBALLY TO PERMIT VERIFICATION OF THE CONDITIONS AND IN WRITING, AS TO THE NATURE OF THE DIFFERING CONDITIONS. NO CLAIM BY THE CONTRACTOR FOR ANY CONDITIONS DIFFERING FROM THOSE ANTICIPATED IN THE PLAN AND SPECIFICATIONS AND DISCLOSED BY THE SOIL STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING AS REQUIRED ABOVE, OF SUCH DIFFERING CONDITIONS.
11.	THESE PROJECT CONSTRUCTION DOCUMENTS SHALL NOT CONSTITUTE A CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR THE ENGINEER AND THE SUBCONTRACTOR.
12.	THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION OR SAFETY MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES UTILIZED IN CONSTRUCTION BY THE CONTRACTOR OR SUBCONTRACTORS.
13.	THE CONTRACTOR SHALL RUN AN INDEPENDENT VERTICAL CONTROL TRAVERSE TO CHECK BENCHMARKS AND A HORIZONTAL CONTROL TRAVERSE THROUGH THE REFERENCED PROJECT CONTROL DATUM TO CONFIRM GEOMETRIC DATA. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.

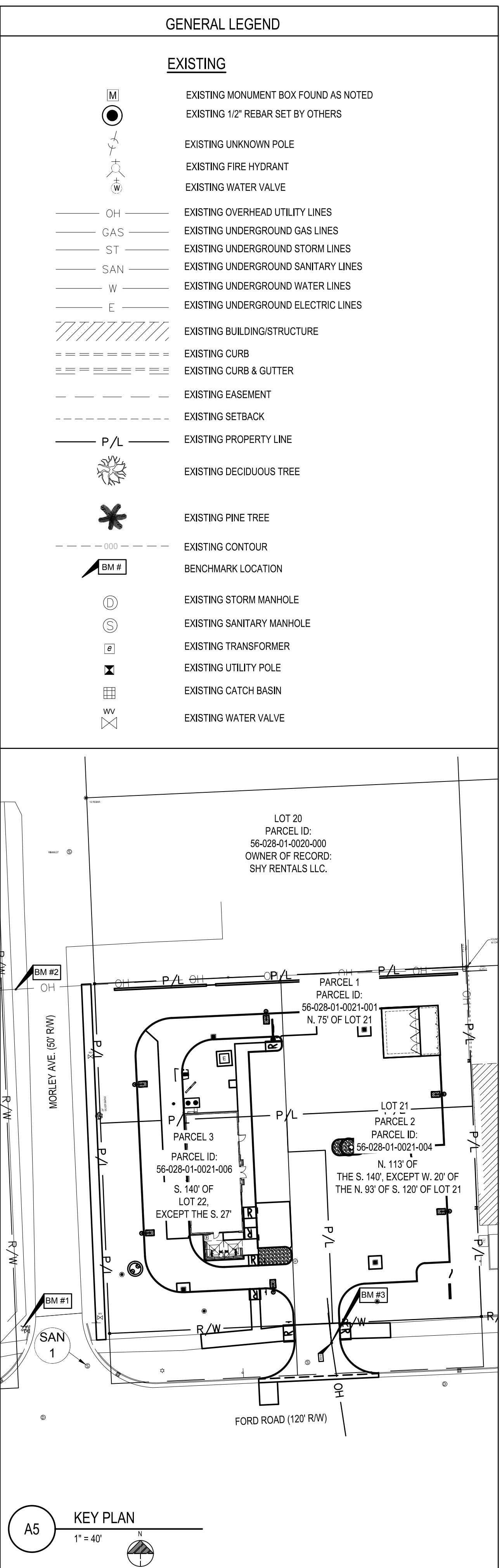
SITE PLAN NOTES	
1.	ALL DIMENSIONS AND RADII ARE GIVEN TO FACE OF CURB UNLESS OTHERWISE NOTED.
2.	ALL EXTERIOR SITE SPECIFIC PORTLAND CONCRETE CEMENT (I.E. SIDEWALK, PAVEMENT OR CURBING) SHALL MEET THE LATEST EDITION OF THE STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS USED, MIXING, TRANSPORTATION, PLACEMENT AND CURING. THE MINIMUM STRENGTH FOR PCC ALLOWED IS 4000 PSI AT 28 DAY STRENGTH. AIR ENTRAINMENT SHALL BE IN ACCORDANCE WITH DOT SPECIFICATIONS FOR EXTERIOR CONCRETE. (CONTRACTOR SHALL REFER TO DETAILS WITHIN THIS DRAWING SET FOR ANY VARIATIONS TO THIS SPECIFICATION.)
3.	ALL EXTERIOR CURB SHALL HAVE EXPANSION JOINTS AT 10'-0" O.C. AND CONTROL JOINTS AT 10'-0" O.C. (UNLESS OTHERWISE SPECIFIED ON THE DETAIL SHEETS) ALL EXTERIOR WALK SHALL HAVE EXPANSION JOINTS AT 20'-0" O.C. AND CONTROL JOINTS @ 5'-0" MAX. O.C. (UNLESS OTHERWISE SPECIFIED ON THE DETAIL SHEETS).
4.	ALL CONCRETE SHALL HAVE A MEDIUM TRANSVERSE FINISH.

**PLAN REPRODUCTION WARNING**  
THE PLANS HAVE BEEN CREATED ON ANSI D (22"x34") SHEETS, REFER TO GRAPHIC SCALE.

GRADING PLAN NOTES	
1.	BEFORE STARTING GRADING OPERATIONS, SEE SHEET C-131 THROUGH C-134, STORMWATER POLLUTION PREVENTION PLAN NOTES AND DETAILS (SWPP).
2.	BEFORE STARTING GRADING OPERATIONS, SEE LANDSCAPE PLAN L-101 AND SOILS REPORT (TO BE COMPLETED AT A LATER DATE AND TIME) FOR TREATMENT OF EXISTING GRADE.
3.	PRIOR TO SITE CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL INSTALL ALL SWPP MEASURES TO PROTECT EXISTING DRAINAGE FACILITIES. CONTRACTOR SHALL PREVENT SILTATION FROM LEAVING THE SITE AT ALL TIMES.
4.	STRIP BUILDING AND PAVEMENT AREAS OF ALL ORGANIC TOPSOILS. STOCKPILE SUITABLE TOPSOILS FOR RESPREADING ONTO LANDSCAPE AREAS. ALL EXCESS EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE. SEE GEOTECHNICAL REPORT FOR STRIPPING AND TOPSOIL REQUIREMENTS.
5.	SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT COMPLETED BY INTERTEK-PSI, DATED JANUARY 26, 2018 AND REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT (TO BE COMPLETED AT A LATER DATE AND TIME), UNLESS OTHERWISE SPECIFIED IN THE PLANS, SPECIFICATIONS, OR SOILS REPORT (TO BE COMPLETED AT A LATER DATE AND TIME) THE SITE GRADING, EXCAVATION, AND EMBANKMENT SHALL BE IN ACCORDANCE WITH THE STATE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.
6.	AT A MINIMUM ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 96% OF STANDARD PROCTOR MAXIMUM DRY DENSITY PER A.S.T.M. TEST D-698. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 2% BELOW OPTIMUM. THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT COMPLETED BY INTERTEK-PSI, DATED JANUARY 26, 2018 AND RETAIN A QUALIFIED SOILS ENGINEER REGISTERED WITHIN THE STATE TO ENSURE COMPLIANCE WITH THE GEOTECHNICAL REPORT, MAKE GEOTECHNICAL RECOMMENDATIONS BASED ON FIELD CONDITIONS, AND ENSURE THAT ALL SHORING AND DEWATERING MEANS AND METHODS WILL NOT COMPROMISE THE STABILITY OF EXISTING OR PROPOSED FOOTINGS/FOUNDATIONS. THE REQUIREMENT TO HIRE AN INDEPENDENT GEOTECHNICAL ENGINEER MAY BE WAIVED IF AN OWNER HIRED GEOTECHNICAL ENGINEER IS ONSITE. THE OWNER RESERVES THE RIGHT TO REQUEST COMPACTOR REPORTS PREPARED BY THE CONTRACTORS GEOTECHNICAL ENGINEER, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT. NOTIFY PROJECT CONSTRUCTION MANAGER IF ANY UNSUITABLE SOILS ARE FOUND.
7.	FOLLOWING GRADING OF SUBSOIL TO SUBGRADE ELEVATIONS THE CONTRACTOR SHALL PLACE TOPSOIL TO A 6" DEPTH IN ALL DISTURBED AREAS WHICH ARE NOT TO BE PAVED. SMOOTHLY FINISH GRADE TO MEET SURROUNDING LAWN AREAS AND ENSURE POSITIVE DRAINAGE. STOCKPILED TOPSOIL SHALL BE SCREENED PRIOR TO RESPREADING. TOPSOIL SHALL BE FREE OF SUBSOIL, DEBRIS, BRUSH AND STONES LARGER THAN 1" IN ANY DIMENSION. ROCK HINDING IN PLACE WILL NOT BE PERMITTED. ALL EXCESS TOPSOIL SHALL BE LEGALLY DISPOSED OF OFF SITE.
8.	ELEVATIONS GIVEN ARE AT BOTTOM FACE OF CURB AND/OR FINISHED PAVEMENT GRADE UNLESS OTHERWISE SPECIFIED ON GRADING PLAN. ALL PAVEMENT SHALL BE LAID ON A STRAIGHT, EVEN, AND UNIFORM GRADE WITH A MINIMUM OF 1% SLOPE TOWARD THE COLLECTION POINTS UNLESS OTHERWISE SPECIFIED ON THE GRADING PLAN. DO NOT ALLOW NEGATIVE GRADES OR PONDING OF WATER.
9.	SLOPE BUILDING SIDEWALK AWAY FROM THE BUILDING AT A MAXIMUM OF 1.5% (UNLESS OTHERWISE INDICATED ON SHEET C-121).
10.	CONTRACTOR SHALL PROVIDE BUTT END JOINT TO MEET EXISTING PAVEMENT IN ELEVATION AT DRIVE RETURNS AND ENSURE POSITIVE DRAINAGE.

UTILITY NOTES	
<b>GENERAL UTILITY NOTES</b>	
1.	CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES IMMEDIATELY AFTER BID IS AWARDED AND ENSURE THE UTILITY COMPANIES HAVE THE ESSENTIALS REQUIRED FOR COMPLETE SERVICE INSTALLATION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER OF ANY TIME FRAMES ESTABLISHED BY UTILITY COMPANIES WHICH WILL NOT MEET OPENING DATE.
2.	CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, INVERT ELEVATION, AND CONDITION OF EXISTING UTILITIES WHICH ARE INTENDED TO BE UTILIZED AS A CONNECTION POINT FOR ALL PROPOSED UTILITIES (SEE SHEET C-140 AND C-141), PRIOR TO ANY CONSTRUCTION. CONTRACTOR TO ENSURE EXISTING UTILITIES ARE IN GOOD CONDITION AND FREE FLOWING (IF APPLICABLE). IF ELEVATIONS, SIZE, OR LOCATION DIFFER FROM WHAT IS SHOWN ON SHEET C-140 AND C-141, CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IMMEDIATELY.
3.	WHERE PLANS PROVIDE FOR PROPOSED WORK TO BE CONNECTED TO, OR CROSS OVER AN EXISTING SEWER OR UNDERGROUND UTILITY. THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING THE PROPOSED WORK. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE RESULTS IN A CHANGE IN THE PLAN, THE CONSTRUCTION MANAGER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED WORK WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT ITEM.
<b>STORM SEWER NOTES</b>	
1.	ALL STORM SEWER PIPE 12" OR GREATER IN DIAMETER SHALL BE C76 CLASS IV REINFORCED CONCRETE PIPE (UNLESS OTHERWISE NOTED). STORM SEWER LESS THAN 12" IN DIAMETER SHALL BE PVC, SDR 35, PER ASTM D 3034 AND JOINTS PER ASTM D 3212 (OR APPROVED EQUAL).
2.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BACKFILLING AND PIPE INSTALLATION, PIPE MATERIAL AND TAP CONNECTION. COORDINATE ALL WORK WITH WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICE, ENGINEERING DIVISION - PERMIT OFFICE, ALI ALJAWAD @ 734-595-6504 x 2079.
3.	ALL DRAINAGE STRUCTURES AT PAVEMENT SUMPS SHALL HAVE FINGER DRAINS PER SHEET C-503.
4.	ALL DRAINAGE STRUCTURES WITHIN PROPOSED PAVEMENTS SHALL HAVE CONCRETE COLLAR, SEE SHEET C-503.

UTILITY NOTES (CONTINUED)	
<b>SANITARY SEWER NOTES</b>	
1.	SANITARY SEWER LATERAL INVERT AT BUILDING SHALL BE A MINIMUM OF 5.00' BELOW FINISH FLOOR.
2.	CLEAN-OUTS TO BE INSTALLED AT ALL PIPE BENDS AND ANGLES, UNLESS A MANHOLE IS INDICATED.
3.	THE CONTRACTOR SHALL HIRE A LOCAL PLUMBER LICENSED WITH THE LOCAL SANITARY JURISDICTION TO MAKE ALL CONNECTIONS FROM THE BUILDING TO THE EXISTING 12" MAIN. CONTRACTOR SHALL SECURE A SANITARY SEWER CONNECTION PERMIT PRIOR TO ANY CONSTRUCTION. THE CONTRACTORS PRICE FOR SANITARY SEWER INSTALLATION SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE LOCAL SANITARY JURISDICTION TO PROVIDE A COMPLETE WORKING SERVICE. COORDINATE ALL WORK WITH MIKE DITTMAR AT (734) 467-3210 AT THE CITY OF WESTLAND DEPARTMENT OF PUBLIC SERVICE WATER AND SEWER DIVISION.
4.	ALL SANITARY PIPE MATERIAL SHALL BE 6" PVC, SDR 35 CONFORMING TO ASTM D 3034, WITH JOINTS PER ASTM 3212.
<b>WATER NOTES</b>	
1.	WATER SERVICE MATERIALS SHALL BE COPPER TYPE 1K UNLESS OTHERWISE NOTED ON PLANS. DIAMETER SHALL BE AS NOTED ON THESE PLANS (SHEET C-141) AND SHALL BE INSTALLED WITH A MINIMUM COVER OF 42" OR BELOW FROST LINE, WHICHEVER IS GREATER.
2.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE WATER COMPANY:</b> <ul style="list-style-type: none"> <li>TAP MAIN.</li> <li>FURNISH AND INSTALL CURB STOP &amp; BOX AND WATER METER.</li> <li>COORDINATE ALL WORK WITH MIKE DITTMAR AT (734) 467-3210 AT THE CITY OF WESTLAND DEPARTMENT OF PUBLIC SERVICE WATER AND SEWER DIVISION.</li> </ul>
3.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE CONTRACTOR:</b> <ul style="list-style-type: none"> <li>FURNISH AND INSTALL COPPER SERVICE LINE FROM METER TO BUILDING.</li> <li>ALL TRENCHING AND BACKFILLING.</li> </ul>
<b>ELECTRICAL NOTES</b>	
1.	SEE ELECTRICAL DRAWINGS FOR SITE LIGHTING AND LUMINAIRE DESCRIPTION.
2.	SEE ELECTRICAL SHEETS FOR ALL DEDICATED EXTERIOR BUILDING AND SIGN LIGHTING SCHEDULES. ELECTRICAL CONTRACTOR SHALL BALANCE LOADS WHERE REQUIRED.
3.	ALL PARKING LOT LIGHTING WIRING SHALL BE NO. 10 AWG IN 3/4" PVC DUCT.
4.	WHEN INSTALLING VERTICAL SWEEPS FOR UTILITY CONDUITS, CONTRACTOR SHALL USE 4" SCHD. 80 DUCTS.
5.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE ELECTRIC COMPANY:</b> <ul style="list-style-type: none"> <li>FURNISH AND INSTALL POLE MOUNTED TRANSFORMER.</li> <li>MAKE APPROPRIATE PRIMARY AND SECONDARY CONNECTIONS AT TRANSFORMER.</li> <li>FURNISH AND INSTALL METER.</li> <li>RUN CONDUIT UP POLE.</li> <li>COORDINATE ALL WORK WITH DTE ENERGY @ (734)-397-4321.</li> </ul>
6.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE CONTRACTOR:</b> <ul style="list-style-type: none"> <li>FURNISH AND INSTALL 1-4" PVC SCHEDULE 40 DUCTS, INCLUDING ALL TRENCHING AND BACKFILLING FROM TRANSFORMER TO BUILDING.</li> <li>FURNISH AND INSTALL SECONDARY WIRE FROM THE BUILDING TO THE TRANSFORMER.</li> <li>FURNISH AND INSTALL METER BASE AND CT CABINET.</li> <li>INCLUDE ALL FEES REQUIRED BY ELECTRIC COMPANY TO PROVIDE A COMPLETE WORKING SERVICE.</li> </ul>
<b>TELEPHONE NOTES</b>	
1.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE TELEPHONE COMPANY:</b> <ul style="list-style-type: none"> <li>COORDINATE ALL WORK WITH BRIAN GRIFFIN @ (313) 240-5486 @ AT&amp;T.</li> <li>PROVIDE AND INSTALL WIRING TO EXISTING SERVICE MANHOLE.</li> </ul>
2.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE CONTRACTOR:</b> <ul style="list-style-type: none"> <li>FURNISH AND INSTALL ONE 4" PVC SCH. 40 CONDUIT WITH PULLWIRE FROM THE BUILDING TO EXISTING SERVICE.</li> <li>ALL TRENCHING AND BACKFILLING.</li> <li>INCLUDE ALL FEES REQUIRED BY TELEPHONE COMPANY TO PROVIDE A COMPLETE WORKING SERVICE.</li> </ul>
3.	CONTRACTOR SHALL COORDINATE THE NUMBER OF LINES REQUIRED WITH THE CONSTRUCTION/PROJECT MANAGER.
<b>NATURAL GAS NOTES</b>	
1.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE GAS COMPANY:</b> <ul style="list-style-type: none"> <li>TAP MAIN.</li> <li>FURNISH AND INSTALL SERVICE FROM TAP TO BUILDING.</li> <li>ALL TRENCHING AND BACKFILLING.</li> <li>FURNISH AND INSTALL METER.</li> <li>COORDINATE ALL WORK WITH DTE ENERGY @ (800) 338-0178.</li> </ul>
2.	<b>CONSTRUCTION AND MATERIALS PROVIDED BY THE CONTRACTOR:</b> <ul style="list-style-type: none"> <li>FURNISH AND INSTALL SERVICE FROM METER TO BUILDING AND THROUGHOUT THE BUILDING.</li> <li>CONTRACTOR SHALL INCLUDE ALL FEES REQUIRED BY THE GAS COMPANY TO PROVIDE A COMPLETE WORKING SERVICE.</li> </ul>
<b>CABLE NOTES</b>	
1.	INSTALL 4" CABLE TVSS CONDUIT PER CITY/VILLAGE, STATE OR NEC CODE, WHICHEVER IS MORE STRINGENT (FOR FUTURE USE). SEE ELECTRICAL SHEETS FOR DETAILS. TERMINATE CABLE CONDUIT AT RIGHT-OF-WAY. PROVIDE END CAP AND NOTE LOCATION ON AS-BUILT DRAWINGS.



520 South Main Street, Suite 2511  
Akron, OH 44311  
330.572.2100 Fax: 330.572.2102

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ISSUED FOR CONSTRUCTION	09/17/18
CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

**TACO BELL**

20779 13 MILE RD.  
WESTLAND, MI

**MODERN EXPLORER**

T40 - OPEN KITCHEN

**GENERAL NOTES**

**C-001**



WAYNE COUNTY GENERAL NOTES

- A. ALL WORK WITHIN WAYNE COUNTY ROAD RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, AND MDOT 2012 SPECIFICATIONS FOR CONSTRUCTION.
- B. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN ROAD RIGHT-OF-WAY, PARKS, DRAIN EASEMENTS OR SANITARY SEWER EASEMENTS UNDER THE JURISDICTION OF WAYNE COUNTY (07/01/93) REVISED 12/15/2004.
- C. RESTORE ALL DISTURBED AREAS WITHIN THE COUNTY ROAD RIGHT-OF-WAY WITH EITHER SEED MIX THM AND MULCH OVER 3" TOPSOIL OR SOD OVER 2" TOPSOIL.
- D. TRAFFIC SHALL BE MAINTAINED IN BOTH DIRECTIONS AT ALL TIMES, SIGNING, BARRICADES, ETC. SHALL BE IN CONFORMANCE WITH MICHIGAN'S MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- E. CONTRACTOR SHALL NOTIFY WAYNE COUNTY THREE (3) BUSINESS DAYS (MINIMUM) PRIOR TO START OF CONSTRUCTION, CONTACT WAYNE COUNTY PERMIT OFFICE AT (734) 595-6504 EXTENSION 2009.
- F. CONTRACTOR SHALL CONTACT MISS DIG AT 811 TO IDENTIFY AND FLAG / MARK THE LOCATIONS OF ALL UNDERGROUND UTILITIES AT THE PROPOSED CONSTRUCTION AREAS PRIOR TO START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES, AND RESOLVE ANY CONFLICT BETWEEN THE PROPOSED WORK AND THE EXISTING UNDERGROUND OR ABOVE GROUND UTILITIES.
- G. ALL SURVEY MONUMENTS / CORNERS AND BENCH MARKS LOCATED WITHIN THE CONSTRUCTION AREA MUST BE PRESERVED IN ACCORDANCE WITH PUBLIC ACT 74 AS AMENDED (INCLUDING ACT 34, P.A. 2000) AND AS PER WAYNE COUNTY PERMIT RULE 1.8. THE PERMIT HOLDER AND CONTRACTOR SHALL COORDINATE THE WORK WITH A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF MICHIGAN DURING CONSTRUCTION ACTIVITIES FOR THE PURPOSE OF WITNESSING, PRESERVING OR REPLACING SURVEY MONUMENTS AND MONUMENT BOXES.
- H. BACKFILL THE TRENCH PER SEWER TRENCH "A" OR "B" IN THE WAYNE COUNTY DETAIL S-12 OR AS DIRECTED BY THE COUNTY ENGINEER.
- I. ALL ROADS, TREES, AND DRIVEWAYS TO BE BORED PER WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICE REQUIREMENTS.
- J. TUNNELING, BORING, AND JACKING OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE WAYNE COUNTY SPECIFICATIONS/ATTACHMENT AND/OR AS DIRECTED BY THE COUNTY ENGINEER.
- K. PLACE BORE PITS AT LEAST 10-FEET FROM THE EDGE OF PAVEMENT PER WAYNE COUNTY SPECIFICATIONS.
- L. CONSTRUCTION SHALL BE DONE BETWEEN 9:00A.M. AND 3:00P.M. IF YOU PLAN TO OBSTRUCT OR CLOSE ANY LANE ON A MAIN THROUGHFARE.
- M. RESTORE RIGHT-OF-WAY AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- N. RESTORE/RECONSTRUCT THE DITCH PER WAYNE COUNTY DETAIL P-4 OR AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- O. THE MINIMUM 36-INCH HORIZONTAL AND MINIMUM 18-INCH VERTICAL CLEARANCE ARE REQUIRED BETWEEN THE PROPOSED AND EXISTING UTILITIES AS PER THE WAYNE COUNTY STANDARDS. MUST BE MAINTAINED MINIMUM 6-FEET UNDER THE COUNTY DRAINS.
- P. THE DEPTH OF THE INSTALLATION SHALL BE A MINIMUM OF FOUR (4) FEET BELOW THE GROUND (FROM THE LOWEST ELEVATION ALONG THE CENTERLINE OF THE PROPOSED UTILITY) AND A MINIMUM OF SEVEN (7) FEET UNDER THE PAVEMENT MEASURED FROM THE LOWEST GUTTER LINE OR EDGE OF PAVEMENT ELEVATION PER THE COUNTY SPECIFICATIONS, ATTACHMENT, AND/OR AS DIRECTED BY THE COUNTY ENGINEER.
- Q. CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ANY CONFLICT BETWEEN THE PROPOSED UTILITIES AND THE EXISTING UTILITIES AND TO KEEP THE SUFFICIENT CLEARANCE BETWEEN THE UTILITIES AS REQUIRED BY THE SPECIFICATIONS/ORDINANCE/REGULATIONS AND THE LAWS. REVISED 7/1/2006.
- R. REPLACE SIDEWALK AS DIRECTED BY THE WAYNE COUNTY ENGINEERING AND/OR SPECIFICATIONS AND AS DIRECTED BY THE COUNTY ENGINEER. REPLACE ADA RAMPS PER MDOT STANDARDS R-28-R REQUIREMENT AND AS DIRECTED BY THE WAYNE COUNTY ENGINEER.
- S. ALL ABANDONED MAINS AND VAULTS WILL BE REMOVED.
- T. REPAIR DAMAGED UNDERDRAIN PER WAYNE COUNTY DETAIL S-14 AND AS DIRECTED BY THE COUNTY ENGINEER.
- U. IF CONCRETE CURB IS DISTURBED THE SAW-CUT FULL DEPTH TO REMOVE EXISTING CONCRETE CURB, AND ROAD PAVEMENT TO LIMITS AS DIRECTED BY THE COUNTY ENGINEER.
- V. ROADWAY PAVEMENT RECONSTRUCTION SHALL BE 1-1/2 INCH MINIMUM WAYNE COUNTY HMA TOP (F) OVER 10-INCH MINIMUM NON-REINFORCED CONCRETE PAVEMENT ON 9-INCH MINIMUM OF 21AA AGGREGATE BASE COMPACTED IN PLACE TO A MINIMUM OF 95% OF MAXIMUM UNIT WEIGHT AS DIRECTED BY THE COUNTY ENGINEER.
- W. THE NEW PAVEMENT TO EXISTING PAVEMENT WITH 18-LONG NO. 5 EPOXY COATED REBAR AT 18-INCH O.C. AS DIRECTED BY THE COUNTY ENGINEER.
- X. ALL UTILITIES, INCLUDING DRAINAGE FACILITIES, SHALL BE LOCATED PRIOR TO EXCAVATION IN THE COUNTY ROAD RIGHT-OF-WAY. SOME FACILITIES ARE NOT LOCATED THROUGH THE MISS DIG SYSTEM.
- Y. NO PARKING, STORAGE OF MATERIALS OR EQUIPMENT WILL BE ALLOWED WITHIN THE WAYNE COUNTY RIGHT-OF-WAY.
- Z. A SAFE AND ADEQUATE TRAVEL ROUTE FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES. PEDESTRIANS SHALL NOT BE DETOURED IN THE EXISTING ROADWAY.
- AA. THE CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY TRAFFIC SIGNAL SHOP AT (734) 955-3277 THREE (3) WORKING DAYS PRIOR TO STARTING ANY WORK (SIGNAL WORK, CONDUIT WORK, OR ANY EXCAVATION) WITHIN THE VICINITY OF ANY TRAFFIC SIGNAL FACILITIES.

**PLAN REPRODUCTION WARNING**  
THE PLANS HAVE BEEN CREATED ON ANSI D (22"x34") SHEETS, REFER TO GRAPHIC SCALE.

1. All materials and workmanship shall be in accordance with Wayne County Specifications which are defined as the current Michigan Department of Transportation (MDOT) Standard Specifications for Construction as modified by Wayne County Special Provisions.
2. Paving Standard Plan Details may be shown with wire fabric reinforcement. Use of reinforcement shall be required as called for on the plans.
3. A Transverse End of Pour Joint, Symbol (H), shall be constructed when there is an interruption in concrete paving for more than 1/2 hour. Transverse End of Pour Joint, Symbol (H), shall be constructed in accordance with current MDOT Standard Plan, R-39 series (Reinforced Concrete Pavement) and R-39P series (Plain Concrete Pavement). This note applies to both concrete base and finished concrete pavement.
4. When it is anticipated that construction traffic will be using the pavement, endings will be protected by means of a temporary concrete header as shown on RS-4.
5. The Expansion Joint Foam Rod shall be a solid round heat resistant Polyurethane foam capable of withstanding the temperature of the sealant. Density of the foam shall be 2-4 Lb./Cft.
6. Wire Fabric Reinforcement shall lay flat when delivered to the work area. The use of spreader bars will be required for lifting bundles of reinforcement.
7. Where the lane width of the pavement differs from wire fabric reinforcement standards, special sheets of the product for paving may be used or standard sheets may be cut to the required size or split sheets may be added to standard sheets to obtain the required size. Side laps shall not be less than the spacing of the longitudinal wires.
8. The ends of the Wire Fabric Reinforcement sheets shall be fastened in at least two places at each lap to prevent horizontal and vertical displacement.
9. When Concrete Pavement Repairs are longer than 20 feet, Transverse Plane of Weakness Joints (WT) shall be placed in-line with existing transverse joints, working cracks, or at 15 feet maximum and 6 feet minimum spacings.
10. Existing concrete pavements with HMA surface requiring saw-cutting for removal shall have the saw cuts extend completely thru the concrete pavement. Sawed slabs-cut in adjacent slab, gutter or shoulder, which will remain in place, shall be sealed.

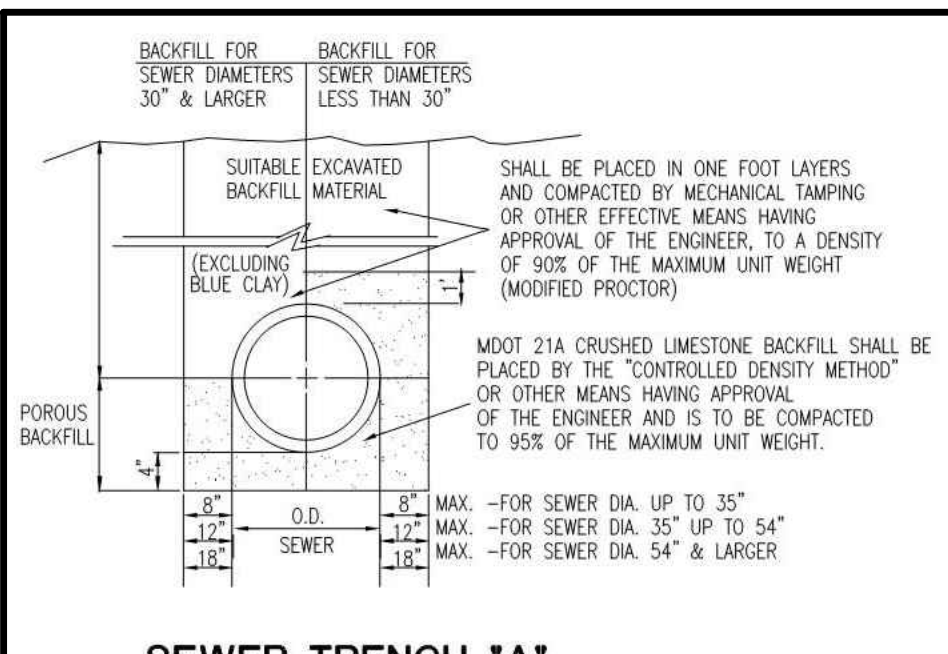
REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	RS-1
DESIGN PERMIT ENGINEER:	GENERAL NOTES	SHEET 1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICE.

1. All materials and workmanship shall be in accordance with the Wayne County Specifications which are defined as the 2003 Michigan Department of Transportation (MDOT) Standard Specifications for Construction as modified by Wayne County Special Provisions.
2. The Contractor may construct manholes, catch basins and inlets, as detailed, with precast reinforced concrete units provided the following conditions are satisfied:
  - a. All precast sections shall be made in accordance with ASTM C-478 except that:
    - (1) The minimum wall thickness shall be 5 inches.
    - (2) The thickness of base and top slabs shall be as detailed on the Standard Plans.
  - b. The maximum diameter of sewer outlet in any precast unit shall be 18 inches, except for inlets which shall have a maximum outlet diameter of 12 inches.
  - c. No openings shall be made in precast units which would leave less than 24 inches of total undisturbed precast manhole wall or would remove more than 30% of the circumference along any horizontal plane. A minimum of 8 inches of undisturbed manhole is required between any two openings. Openings may be constructed by casting, removal of green concrete, or by drilling the openings in cured concrete.
  - d. Openings for sewer pipe shall be cut or precast with a diameter 3 inches larger than the outside diameter of the pipe. The opening around the outside of the pipe shall be closed using brick masonry.
  - e. Structures for sewers larger than 18 inches or those not meeting the opening requirements shall be built of brick or brick to a minimum of 8 inches above the top of sewer, with precast units being used above this point. Where the precast units rest on the block or brick, the groove in the precast unit will be filled with mortar.

REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-1
DESIGN PERMIT ENGINEER:	GENERAL NOTES	SHEET 1 OF 2

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICE.



**SEWER TRENCH "A"**  
NOTE:  
PVC PIPE:  
MIN. TRENCH WIDTH = 1.5 X O.D.+12" (FOR ALL INSTALLATION DEPTHS)  
HOPE PIPE:  
PER MANUFACTURER'S RECOMMENDATIONS

- HMA PAVEMENT REPAIR**
- The minimum HMA Base Course repair patch size shall be 6' x 6' with no less than 6' remain to any other joints, crack, or edge of pavement.
- Saw cuts must extend completely through the pavement section. Any over-cuts except for at the outside corners of patch will be required to be removed. (this will increase the size of the patch).
- All over-cuts located at the outside corners of the patch shall be cleaned and sealed.
- Unless otherwise approved, all full depth HMA repairs will be replaced with non-reinforced concrete base course with 1 1/2" HMA Top (F).
- The required thickness of the non-reinforced concrete base course shall be 1 1/2" less than the existing pavement section with minimum thickness of 8".
- Example 1: Existing pavement is 6" HMA, the repair will be 1 1/2" HMA Top (F) on 8" non-reinforced concrete.
- Example 2: Existing pavement is 10 1/2" HMA, the repair will be 1 1/2" HMA Top (F) on 9" non-reinforced concrete.
- Non-reinforced concrete base course repairs shall have transverse plane of weakness joints (WT) installed at 15' maximum or 6' minimum spacing.
- The minimum HMA surface course repair on pavement under 10 years old shall be one lane wide and the length shall match the base repair limits. On pavement over 10 years old, the size will match the base repair.
- When additional HMA surface course is to be removed, it shall be done using the cold milling method.
- When replacing HMA pavement cores, slightly undermine existing HMA base along the outside diameter of the cores and fill the undermined area and core hole with H.E. concrete.

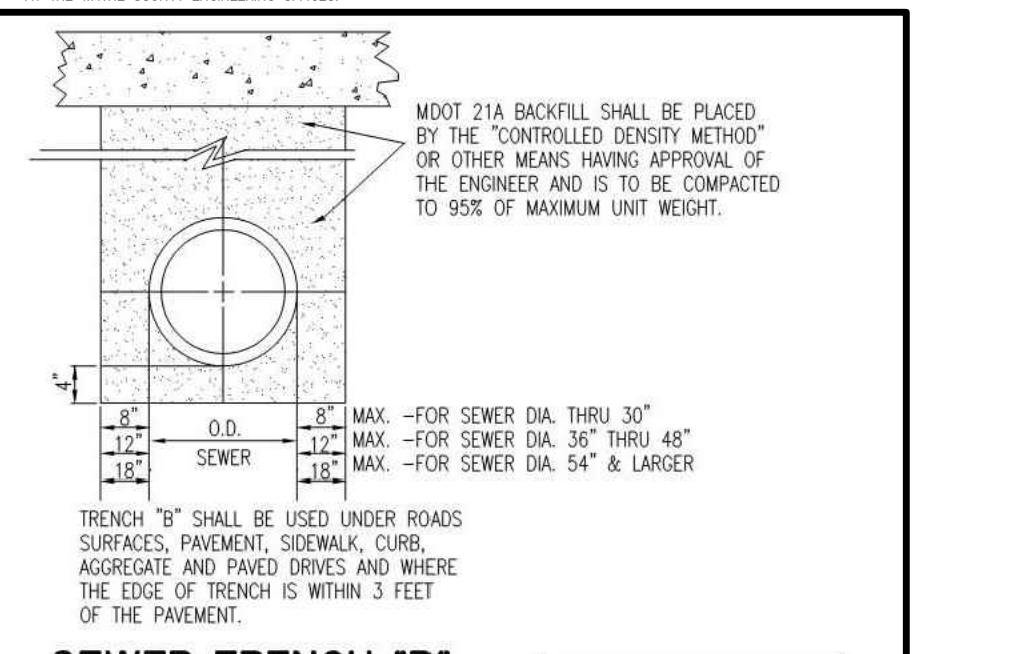
REVISION DATE:	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	PR-5
DESIGN PERMIT ENGINEER:	PAVEMENT REMOVAL AND REPAIR (PATCHING)	SHEET 1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICE.

- f. Circumstances encountered during construction may preclude the use of precast unit structures, as determined by the Engineer. If the contractor elects to use precast unit structures and field changes prohibit their use, no compensation will be made to the contractor for having these units manufactured, supplied, to the project, and not utilized.
- g. Special precast units for use on large diameter sewers must have the approval of the Engineer.
3. All vertical holes in concrete block structure wall shall be completely filled with mortar. All vertical wall joints shall be buttered.
4. The first pipe length entering or leaving any structure shall be temporarily supported by suitable means until the structure is completed and backfilled.
5. A poured Grade S1 concrete base without steel reinforcement, may be substituted for a precast base as approved by the Engineer. A porous backfill cushion will not be required under the poured base, unless the Contractor has excavated below the required elevation, at which time the Engineer will decide as to the merits of increasing the thickness of the concrete base or the use of a porous backfill cushion.
6. The conical section of brick or block manholes, catch basins or inlets, shall be shrouded with a geotextile blanket from the top down to 1 foot below the conical section. Precast structures shall be shrouded with the geotextile blanket to a point 1 foot below the stack. Enough geotextile material will be left on the top to roll over the brick stack and under the casting. Also, wrap inlet and outlet pipes at connection to the structures with a geotextile blanket, minimum 1 foot each direction. The geotextile blanket shall meet the requirements of Subsection 910.03.A in the 2003 MDOT Standard Specifications for Construction.
7. A 10 foot length of 6 inch Underdrain in Sewer Trench will be required at proposed drainage structure that do not have longer lengths of underdrain connected to them (see Standard Plan S-14). The cost of these 10 feet lengths of underdrain with end caps shall be included in the cost of the drainage structure.
8. Steps are required for all structures over 10 feet in depth. Steps shall be of an approved design, made of cast iron, aluminum, or plastic coated steel. Rungs shall be a minimum of 10 inches clear length and designed to prevent the foot from slipping off the end. The minimum horizontal load shall be 405 lbf. The minimum vertical load shall be 810 lbf.

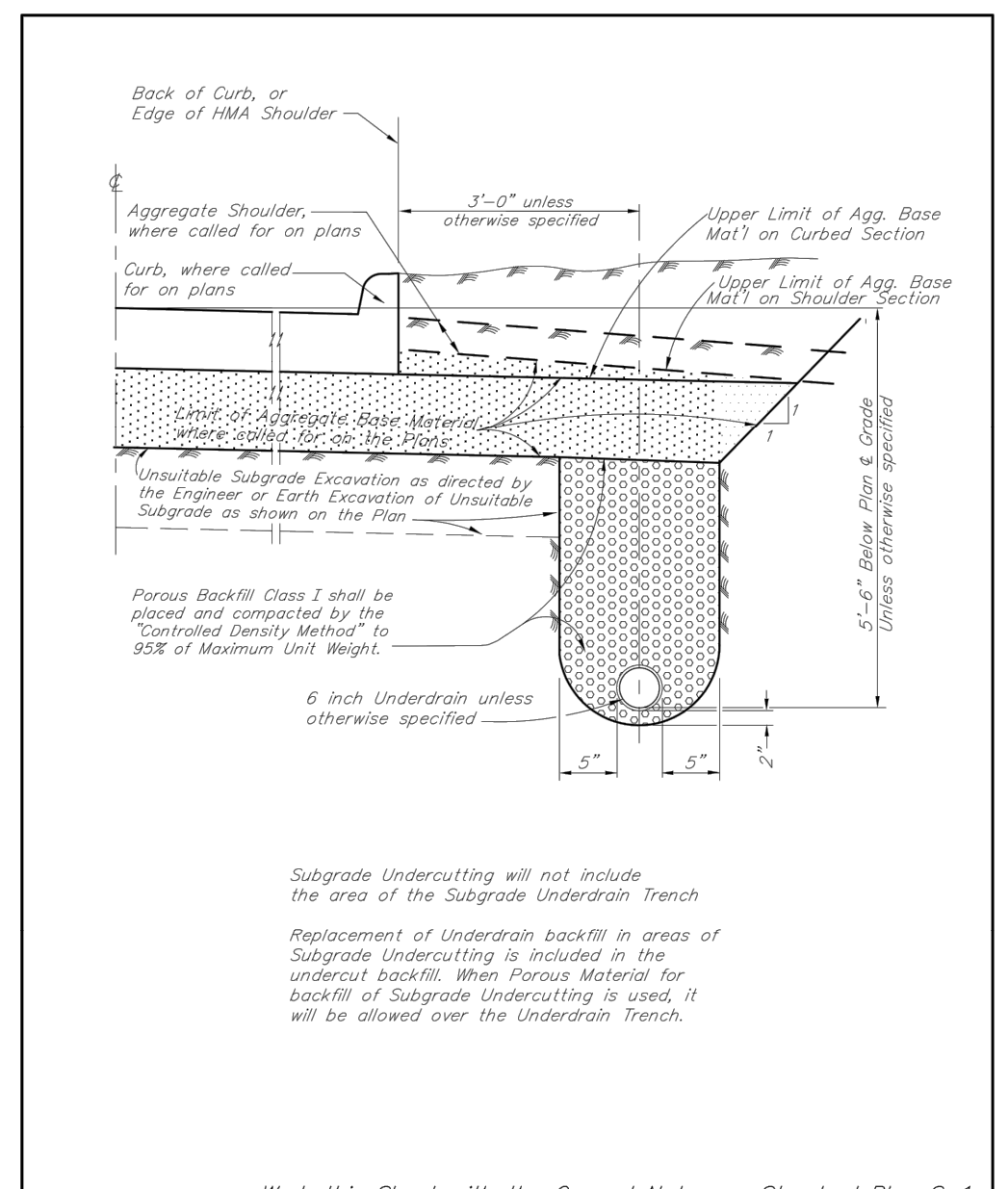
REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-1
DESIGN PERMIT ENGINEER:	GENERAL NOTES	SHEET 2 OF 2

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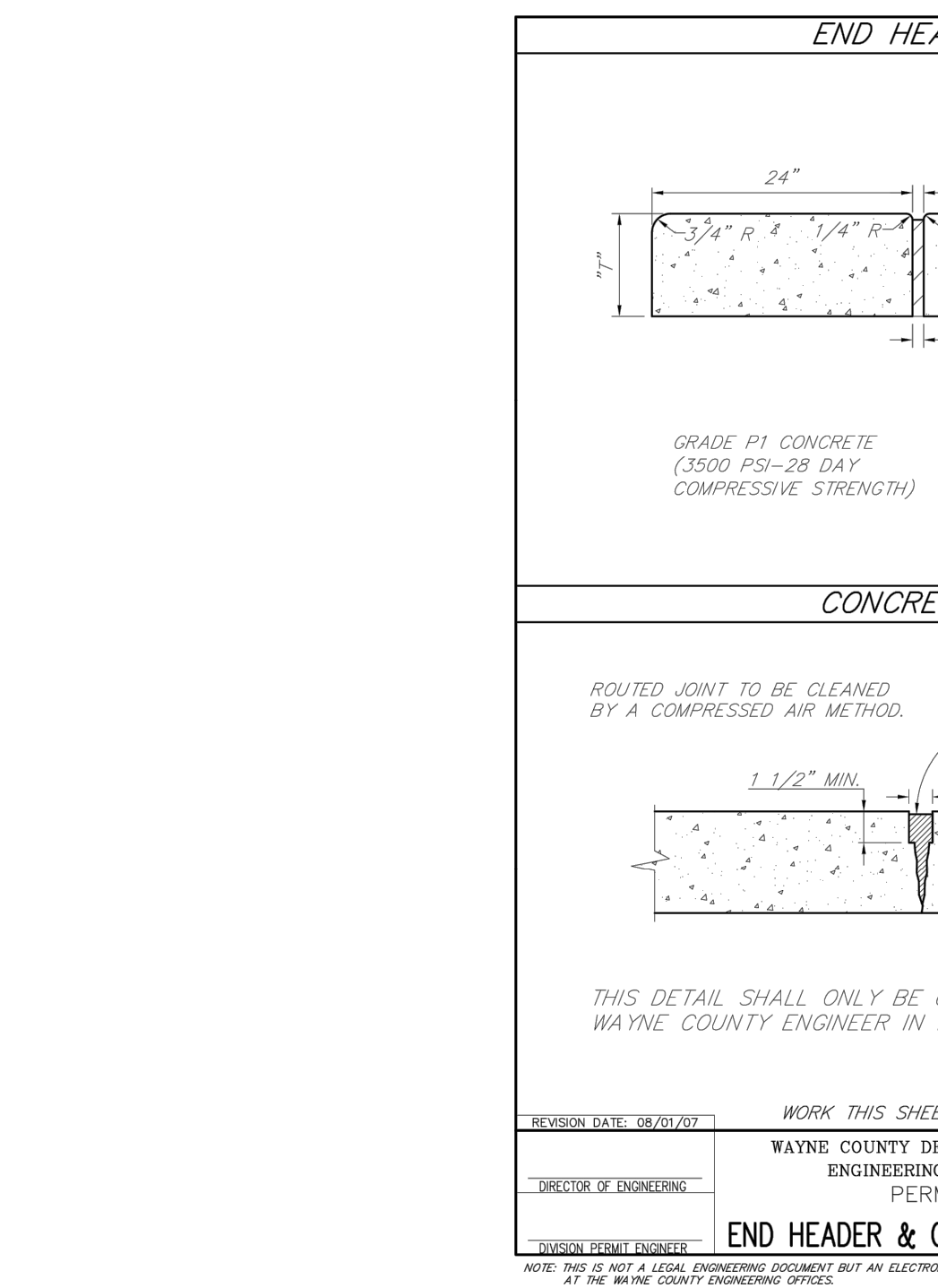
**SEWER TRENCH "B"**  
NOTE:  
PVC PIPE:  
MIN. TRENCH WIDTH = 1.5 X O.D.+12" (FOR ALL INSTALLATION DEPTHS)  
HOPE PIPE:  
PER MANUFACTURER'S RECOMMENDATIONS

WAYNE COUNTY S-12



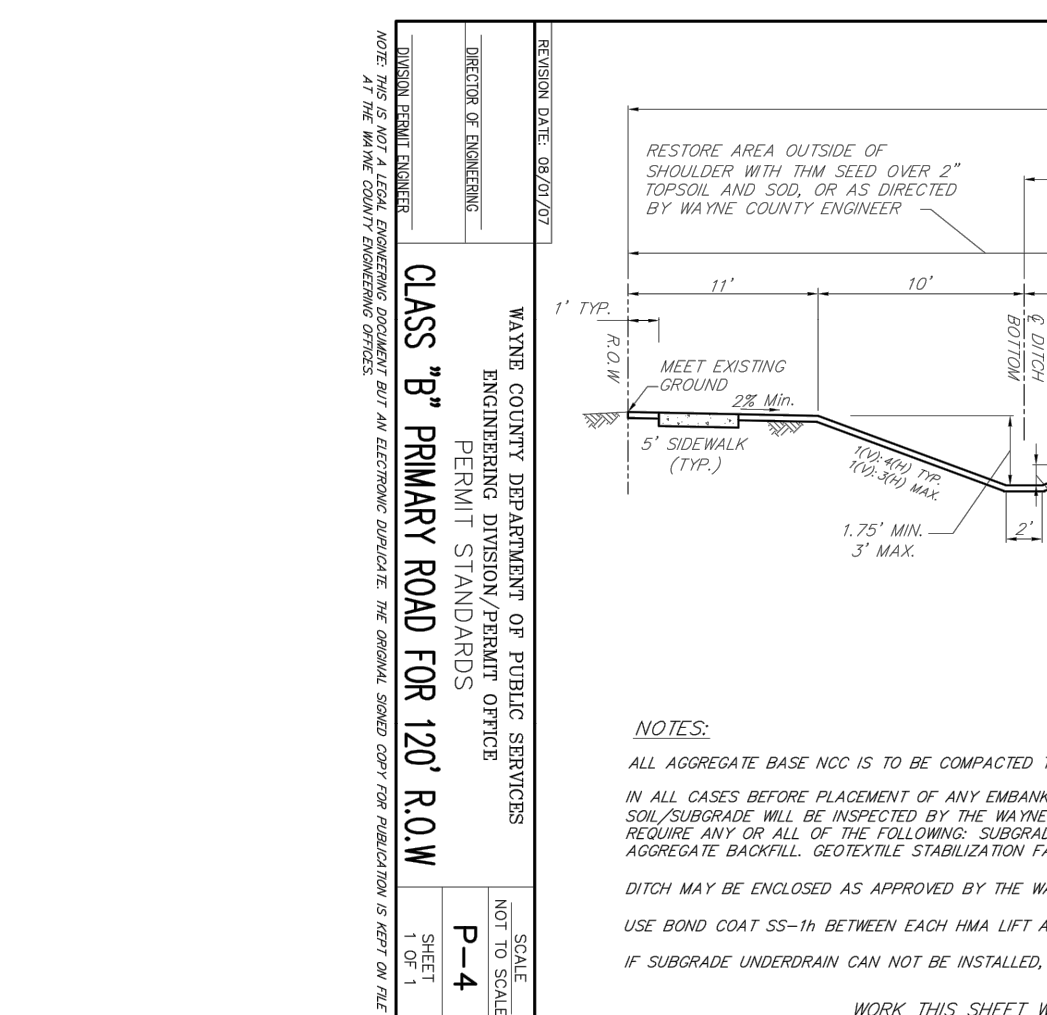
REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-14
DESIGN PERMIT ENGINEER:	UNDERDRAIN	SHEET 1 OF 2

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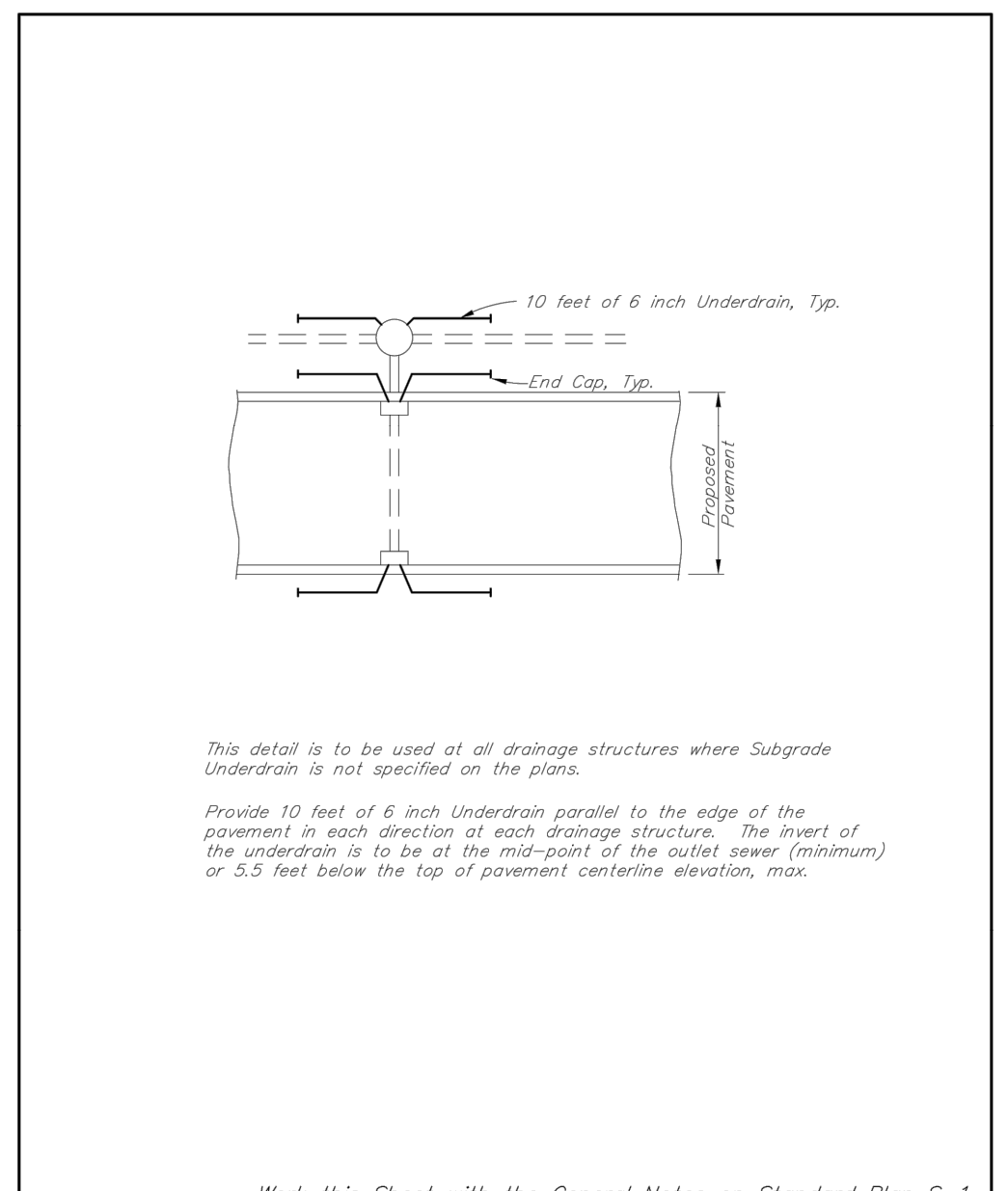


REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	RS-4
DESIGN PERMIT ENGINEER:	END HEADER & CONCRETE ROUTING DETAILS	SHEET 1 OF 1

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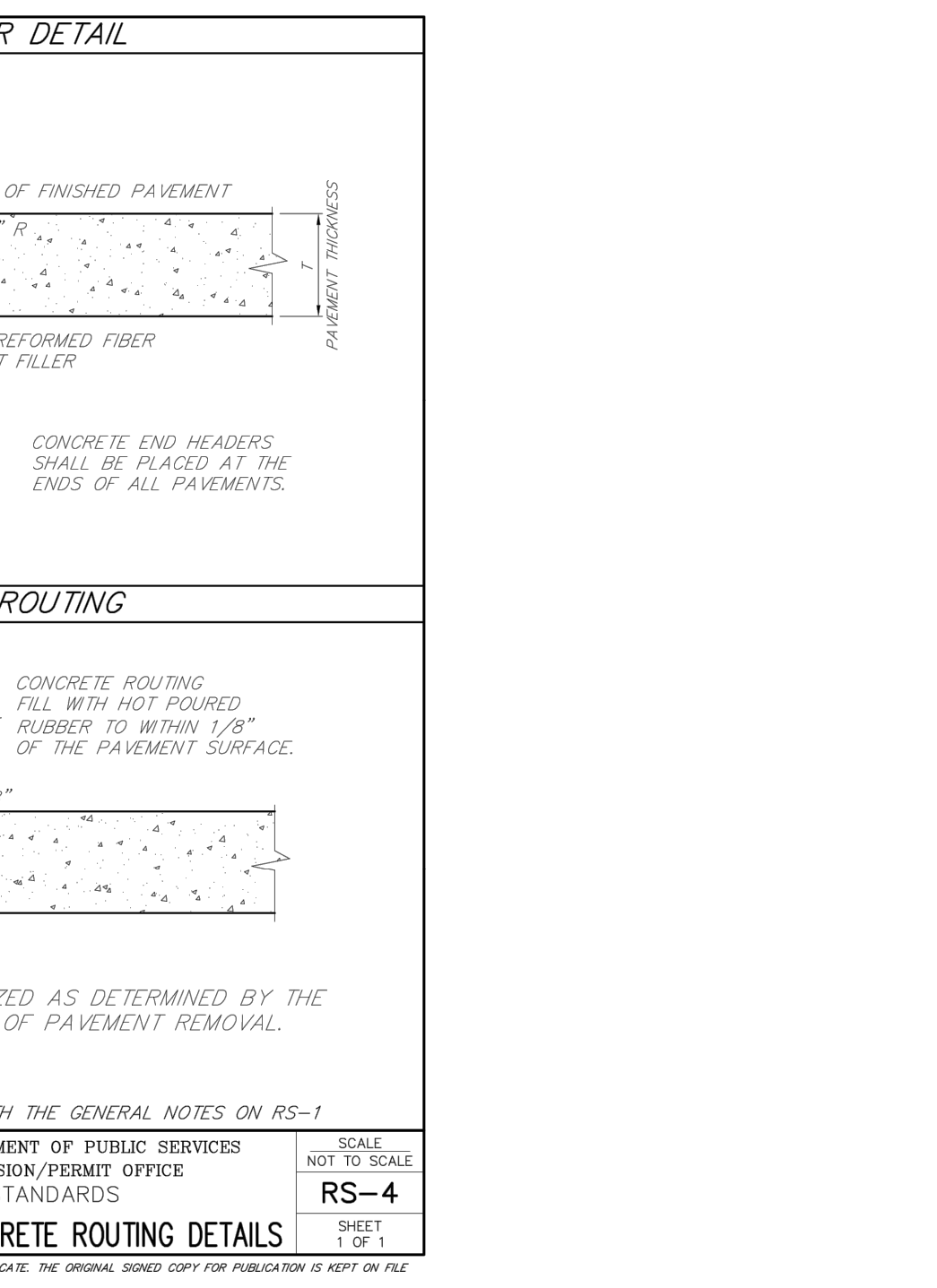


NOTE:  
ALL AGGREGATE BASE HCS IS TO BE COMPACTED TO 100% OF ITS MAXIMUM UNIT WEIGHT. MCC = NO CRUSHED CONCRETE.  
IN ALL CASES BEFORE PLACEMENT OF ANY EMBANKMENT AND/OR AFTER THE INITIAL ROUGH GRADING, THE SOIL/SUBGRADE WILL BE INSPECTED BY THE WAYNE COUNTY TESTING LABORATORY AND CORRECTIVE MEASURES MAY BE REQUIRED ANY OR ALL OF THE FOLLOWING: SUBGRADE UNDERCUTTING, BACKFILL WITH SUITABLE EMBANKMENTS, 21AA AGGREGATE BACKFILL, GEOTEXTILE STABILIZATION FABRIC AS DIRECTED BY WAYNE COUNTY ENGINEER.  
DITCH MAY BE ENCLOSED AS APPROVED BY THE WAYNE COUNTY ENGINEER.  
USE BOND COAT SS-1n BETWEEN EACH HMA LIFT AT A RATE OF 0.05 GAL/SYD.  
IF SUBGRADE UNDERDRAIN CAN NOT BE INSTALLED, EXTEND AGGREGATE BASE TO FACE OF DITCH.  
WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.



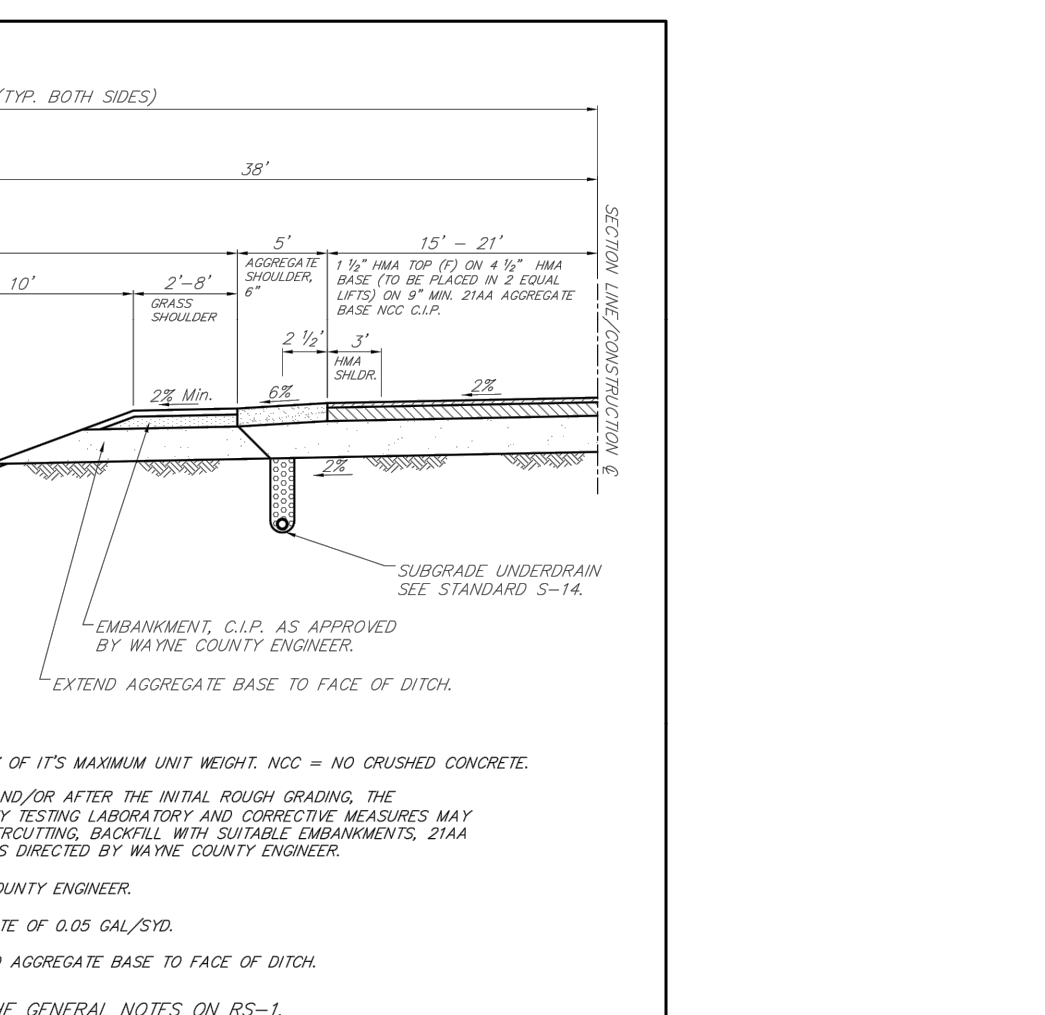
REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	S-14
DESIGN PERMIT ENGINEER:	UNDERDRAIN	SHEET 2 OF 2

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REVISION DATE: 08/01/07	WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES ENGINEERING DIVISION/PERMIT OFFICE	SCALE NOT TO SCALE
DIRECTOR OF ENGINEERING:	PERMIT STANDARDS	RS-4
DESIGN PERMIT ENGINEER:	END HEADER & CONCRETE ROUTING DETAILS	SHEET 1 OF 1

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DITCH MAY BE ENCLOSED AS APPROVED BY THE WAYNE COUNTY ENGINEER.  
USE BOND COAT SS-1n BETWEEN EACH HMA LIFT AT A RATE OF 0.05 GAL/SYD.  
IF SUBGRADE UNDERDRAIN CAN NOT BE INSTALLED, EXTEND AGGREGATE BASE TO FACE OF DITCH.  
WORK THIS SHEET WITH THE GENERAL NOTES ON RS-1.

**GPD GROUP**  
Professional Corporation  
520 South Main Street, Suite 2511  
Akron, OH 44311  
330.572.2100 Fax: 330.572.2102

ISSUED FOR CONSTRUCTION 09/17/18

CONTRACT DATE: XX.XX.XX  
BUILDING TYPE: T40M-O  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/46548  
STORE NUMBER: 2017088.72

TACO BELL  
20779 13 MILE RD.  
WESTLAND, MI

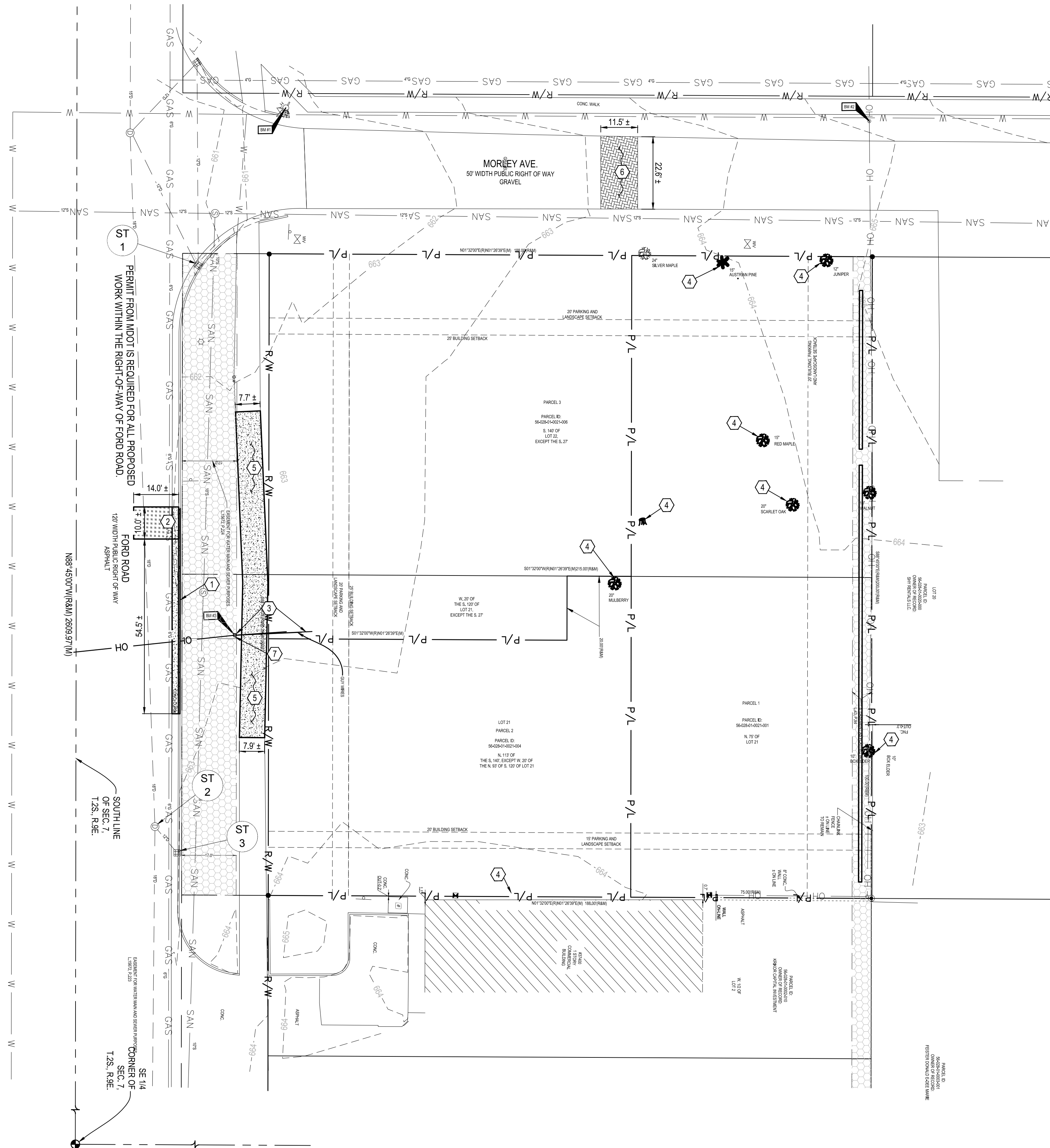
MODERN EXPLORER  
T40 - OPEN KITCHEN

**GENERAL NOTES (CONT.)**

**C-002**

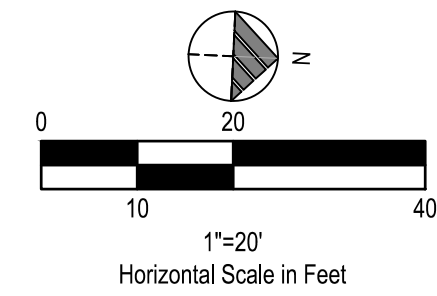


FORD ROAD 120' WIDTH PUBLIC RIGHT OF WAY



**GENERAL SHEET NOTES**

- SEE INDEX MAP, SHEET C-001 FOR LOCATION OF EXISTING BENCHMARKS.
- CONTRACTOR TO RE-ESTABLISH BENCHMARK #3 UPON RELOCATION OF EXISTING GUY POLE.
- ALL UTILITY PROVIDERS/CONTRACTORS (I.E. GAS, ELECTRIC, TELECOMMUNICATION) MUST OBTAIN SEPARATE PERMITS FROM MDT FOR THE WORK INDICATED WITHIN THIS PLAN SET AND LOCATED IN MDT RIGHT-OF-WAY.
- PAVEMENT REPAIRS INDICATED ON M-153 (FORD RD) FOR UTILITY WORK SHALL BE ONE FULL LANE WIDTH.



**PLAN KEYNOTES (#)**

- EXISTING CURB / CURB AND GUTTER TO BE REMOVED.
- EXISTING PAVEMENT TO BE REMOVED.
- EXISTING GUY POLE AND WIRE(S) TO BE REMOVED/RELOCATED, CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY.
- EXISTING LANDSCAPING (INCLUDING BUSHES, TREES, ETC.) TO BE REMOVED.
- EXISTING WALK TO BE REMOVED.
- EXISTING GRAVEL ROAD TO BE TRENCHED OPEN FOR UTILITY WORK. CONTRACTOR TO REPLACE PER CITY STANDARDS.
- CONTRACTOR SHALL HAVE PROFESSIONAL SURVEYOR RELOCATE BENCHMARK PRIOR TO SITE DISTURBANCE.

**DEMOLITION NOTES:**

- ALL EXISTING SITE AND SURROUNDING FEATURES SUCH AS UTILITIES, PAVEMENT, CURB, LANDSCAPING, ETC. SHALL REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION UNLESS NOTED OTHERWISE, OR ARE REQUIRED TO BE MODIFIED OR REMOVED FOR THE INSTALLATION OF PROPOSED IMPROVEMENTS. ALL DISTURBED FEATURES SHALL BE RESTORED OR RELOCATED AS REQUIRED TO THE SATISFACTION OF THE OWNER. CONTRACTOR SHALL REPAIR/REPLACE ANY SURROUNDING FEATURES DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.
- SEE SHEET L-101 FOR TREE REMOVAL AND REPLACEMENT CHART.

**LEGEND**

(SEE SHEET C-001 FOR GENERAL LEGEND)

- EXISTING ASPHALT TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING EASEMENT FOR WATER MAIN AND SEWER PURPOSES L.15672, P.223
- EXISTING GRAVEL ROAD TO BE TRENCHED FOR UTILITY WORK
- ## ± DENOTES LIMITS OF SAWCUT
- DEMOLITION KEYNOTE

**EXISTING STRUCTURES**

STRICT. ID	STRUCTURE DETAILS
ST 1	EXISTING STORM CATCH BASIN RIM=660.72' INV. 12' CONC (W)=656.52'
ST 2	EXISTING STORM MANHOLE RIM=662.70' PAVED IN PLACE
ST 3	EXISTING STORM CATCH BASIN RIM=662.49' INV. 12' CONC. (SW)=657.19'
SAN 1	EXISTING SANITARY MANHOLE RIM=662.71' INV. 8' (E&W)=653.11'

MICHIGAN'S ONE - CALL
UTILITY NOTIFICATION ORGANIZATION

THREE FULL WORKING DAYS BEFORE YOU DIG.  
 CALL THE MISS DIG SYSTEM AT  
 1-(800)-482-7171

OR CALL #DIG  
 FREE FROM YOUR AT&T OR CINGULAR CELLULAR PHONE

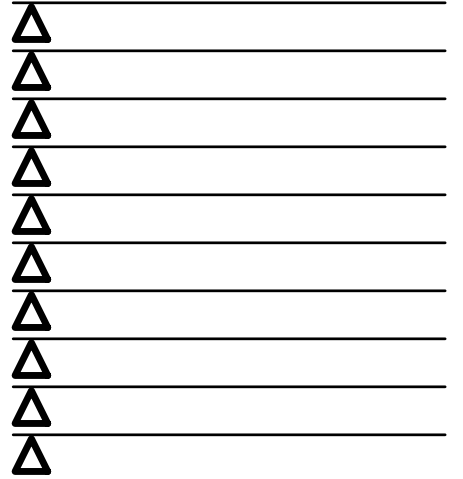
THE MISS DIG MEMBER UTILITIES WILL MARK THE APPROXIMATE LOCATION OF THEIR UNDERGROUND PUBLIC UTILITY LINES AT NO CHARGE.

**SITE BENCHMARK #1:**  
ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.  
ELEVATION = 664.67' (NAVD88)

**SITE BENCHMARK #2:**  
SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.  
ELEVATION = 666.18' (NAVD88)

**SITE BENCHMARK #3:**  
SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.  
ELEVATION = 663.88' (NAVD88)

ISSUED FOR CONSTRUCTION 09/17/18



CONTRACT DATE: XX.XX.XX  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: JAN 18  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**TACO BELL**

20779 13 MILE RD.  
WESTLAND, MI



**MODERN EXPLORER**  
T40 - OPEN KITCHEN

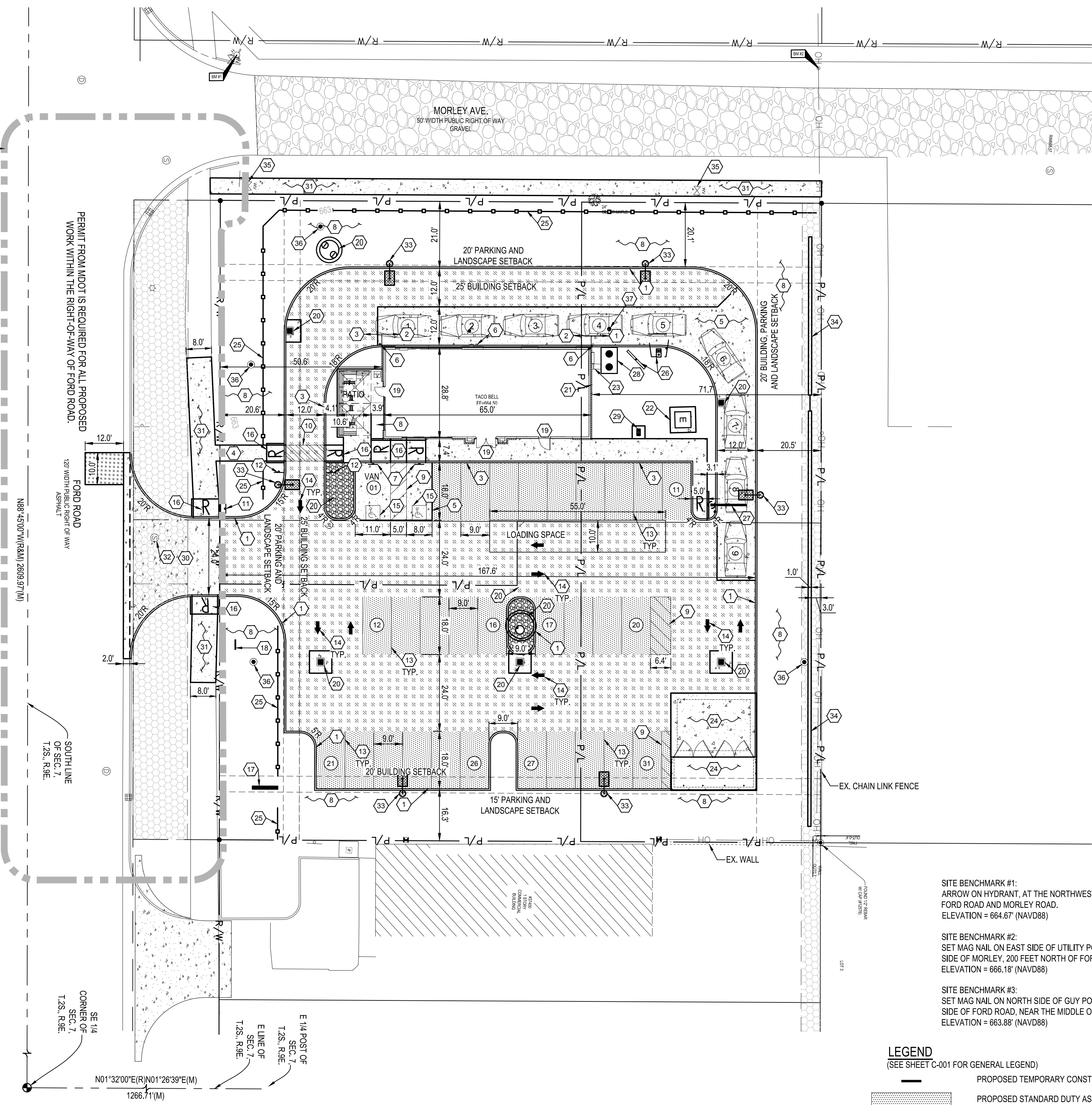
**DEMOLITION PLAN**

**C-101**

NOTE:  
SIDEWALK AND LANE CLOSURE TO BE STRICTLY COORDINATED BETWEEN CONTRACTORS FOR ONGOING MDOT PROJECT ALONG M-153 (FORD RD) AND TACO BELL DEVELOPMENT.

A SINGLE LANE CLOSURE ALONG WB M-153 (FORD RD) WILL BE PERMITTED MONDAY - FRIDAY 8:00 PM TO 5:00 AM AND SATURDAY - SUNDAY 8:00 PM TO 6:00 PM. DOUBLE LANE CLOSURE IS NOT PERMITTED, PER MDOT REVIEW.

THE ONGOING MDOT PROJECT WILL REQUIRE A CURB CUT (BY MDOT) AT THE CORNER OF M-153 (FORD RD) AND MORLEY AVENUE FOR PLACEMENT OF AN ADA RAMP. ANY DISTURBANCE TO THE NEWLY PLACED ADA RAMP CAUSED BY THE PRIVATE DEVELOPMENT WILL REQUIRE FULL RESTORATION TO MDOT STANDARDS TO MATCH ONGOING PROJECT.



SITE BENCHMARK #1:  
ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.  
ELEVATION = 664.57' (NAVD88)

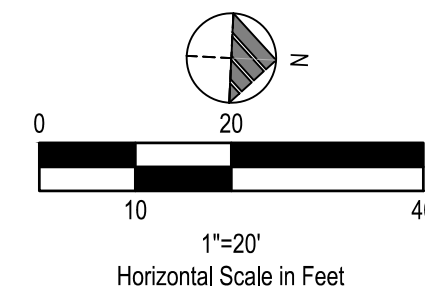
SITE BENCHMARK #2:  
SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.  
ELEVATION = 666.18' (NAVD88)

SITE BENCHMARK #3:  
SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.  
ELEVATION = 663.88' (NAVD88)

- LEGEND**  
(SEE SHEET C-001 FOR GENERAL LEGEND)
- PROPOSED TEMPORARY CONSTRUCTION SIGN
  - PROPOSED STANDARD DUTY ASPHALT PER ASPHALT PAVEMENT TABLE THIS SHEET AND SHEET C-503.
  - PROPOSED HEAVY DUTY ASPHALT PER ASPHALT PAVEMENT TABLE THIS SHEET AND SHEET C-503.
  - PROPOSED CONCRETE
  - EXISTING EASEMENT FOR WATER MAIN AND SEWER PURPOSES L.15672, P.223
  - CONSTRUCTION KEYNOTE
  - PROPOSED PARKING SPACE NUMBER
  - PROPOSED DRIVE THRU STACK CAR AND NUMBER

**GENERAL SHEET NOTES**

- SEE INDEX MAP, SHEET C-001 FOR LOCATION OF EXISTING BENCHMARKS.
- CONTRACTOR SHALL HAVE PROFESSIONAL SURVEYOR RELOCATE BENCHMARK #3 PRIOR TO SITE DISTURBANCE.
- ALL UTILITY PROVIDERS/CONTRACTORS (I.E. GAS, ELECTRIC, TELECOMMUNICATION) MUST OBTAIN SEPARATE PERMITS FROM MDOT FOR THE WORK INDICATED WITHIN THIS PLAN SET AND LOCATED IN MDOT RIGHT-OF-WAY.
- PAVEMENT REPAIRS INDICATED ON M-153 (FORD RD) FOR UTILITY WORK SHALL BE ONE FULL LANE WIDTH.



- PLAN KEYNOTES (#)**
- PROPOSED P.C.C. CURB, SEE SHEET C-501.
  - PROPOSED CURB AT DRIVE THRU, SEE SHEET C-501.
  - PROPOSED P.C.C. CURBED WALK, SEE SHEET C-501.
  - PROPOSED P.C.C. WALK, SEE SHEET C-501.
  - PROPOSED 6" P.C.C. PAVEMENT W/ W.W.F. 6" x 6"-W2.9 x W2.9 (CONTROL JTS. 12'-0" O.C.) OVER 6" CRUSHED AGGREGATE OR GRAVEL BASE. APPLY LIQUID ASPHALT AT ALL JOINTS BETWEEN CONCRETE AND ASPHALT.
  - PROPOSED BOLLARD IN CURB, SEE SHEET C-501.
  - PROPOSED ADA PARKING SIGN, SEE SHEET C-502.
  - PROPOSED LANDSCAPING AREA. SOD ALL DISTURBED AREAS EXCEPT WHERE PLANTING BEDS ARE INDICATED. SEE SHEET L-101.
  - PROPOSED PAINTED TRANSVERSE STRIPING, SEE SHEET C-501.
  - PROPOSED PAINTED CROSSWALK STRIPING, SEE SHEET C-501.
  - PROPOSED 'STOP' SIGN PER MDOT STANDARDS. SEE SHEET C-502.
  - PROPOSED 'DO NOT ENTER' SIGN PER MDOT STANDARDS. SEE SHEET C-502.
  - PROPOSED PAINTED 4" WIDE SOLID STRIPE - WHITE ON ASPHALT, YELLOW ON CONCRETE.
  - PROPOSED DIRECTIONAL PAVEMENT MARKINGS - WHITE ON ASPHALT, YELLOW ON CONCRETE - SEE SHEET C-501.
  - PROPOSED PAINTED INTERNATIONAL ADA SYMBOL PER ADA SPECIFICATIONS AND SHEET C-501.
  - PROPOSED ADA ACCESSIBLE RAMP PER ADA SPECIFICATIONS AND SHEET C-501.
  - PROPOSED MONUMENT SIGN PER SIGN SUPPLIER SPECIFICATIONS. CONTRACTOR TO COORDINATE WITH OWNER FOR INSTALLATION.
  - PROPOSED TEMPORARY CONSTRUCTION SIGN TO BE CONSTRUCTED AND INSTALLED BY SIGN COMPANY. GC SHALL COORDINATE EXACT LOCATION WITH CONSTRUCTION/PROJECT MANAGER.
  - PROPOSED FROST SLAB AT DOOR. SEE SHEET STRUCTURAL PLANS.
  - PROPOSED STORM STRUCTURE, SEE SHEET C-141 FOR DESIGN INFORMATION.
  - PROPOSED GAS METER PER GAS COMPANY SPECIFICATIONS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
  - PROPOSED ELECTRICAL TRANSFORMER PER ELECTRICAL COMPANY SPECIFICATIONS. G.C. TO VERIFY EXACT LOCATION AND SIZE WITH UTILITY ENGINEER.
  - PROPOSED ELECTRIC METER PER ELECTRIC COMPANY SPECIFICATIONS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
  - PROPOSED DUMPSTER ENCLOSURE AND PAD, SEE SHEET G2.0.
  - PROPOSED DECORATIVE PERIMETER FENCE PER CITY OF WESTLAND STANDARDS AND SPECIFICATIONS.
  - PROPOSED MENU BOARD AND ORDER CONFIRMATION BOARD PER SIGN SUPPLIER SPECIFICATIONS AND SHEET C-502. SIGN SUPPLIER TO PROVIDE A TEMPLATE FOR G.C. G.C. TO COORDINATE A MEETING WITH THE CONSTRUCTION/PROJECT MANAGER AND OPERATIONS TO VERIFY LOCATION AND PLACEMENT OF MENU BOARD AND ORDER CONFIRMATION BOARD PRIOR TO ANY CONSTRUCTION. SIGN SUPPLIER SHALL PROVIDE G.C. WITH FOUNDATION DETAILS. G.C. RESPONSIBLE FOR SIGN FOUNDATIONS/ELECTRICAL.
  - PROPOSED EVOLUTION PORTAL CLEARANCE BAR, SEE SHEET C-502.
  - PROPOSED 1,000 GALLON EXTERIOR GREASE INTERCEPTOR, SEE SHEET C-141 FOR UTILITY INFORMATION.
  - PROPOSED BIKE RACK, SEE SHEET C-501.
  - PROPOSED COMMERCIAL DRIVE APRON PER MDOT STANDARDS AND SPECIFICATIONS. SEE SHEET C-112.
  - PROPOSED WALK PER WAYNE COUNTY STANDARDS AND SPECIFICATIONS (UTILIZE MDOT DETAILS FOR WORK ALONG FORD ROAD AND WAYNE COUNTY STANDARDS FOR WORK ALONG MORLEY AVE). SEE SHEET C-112.
  - EXISTING SANITARY MANHOLE TO BE ADJUSTED TO PROPOSED GRADES PER WAYNE COUNTY STANDARDS AND SPECIFICATIONS. SEE SHEET C-503.
  - PROPOSED LIGHT POLE BASE, SEE SHEET C-502.
  - PROPOSED 6' TALL MASONRY SCREENING WALL, REFERENCE STRUCTURAL DRAWINGS. COORDINATE WITH OWNER OF EASTERN PROPERTY FOR CONNECTION TO EXISTING WALL (IF FEASIBLE).
  - ADJUST VALVES TO FINISHED SIDEWALK GRADE.
  - PROPOSED YARD DRAIN, SEE SHEET C-503.
  - PROPOSED SANITARY MANHOLE.

**ASPHALT PAVEMENT**

MATERIAL	DEPTH (HVY. DUTY)	DEPTH (STD. DUTY)	MDOT SPECIFICATIONS ITEM
A.C. SURFACE COURSE	2"	1-1/2"	5E03
A.C. INTERMEDIATE COURSE	3"	2"	4E03
AGG. BASE COURSE	8"	8"	21AA
SUBGRADE COMPACTION	12"	12"	PER SOILS REPORT

SOILS REPORT GOVERNS IF ANY DISCREPANCIES OCCUR.  
SEE TYPICAL SECTION SHEET C-501.

BUILDING SETBACKS	REQUIRED		PROVIDED		PARKING SPACES	REQUIRED		PROVIDED	
	FRONT	REAR	FRONT	REAR		NUMBER OF SPACES	PER 100 SQ. FT.	PER 100 SQ. FT.	PER 100 SQ. FT.
FRONT: SOUTH	25.0'	20.0'	50.6'	20.1'	29	100%	31	100%	
REAR: NORTH	20.0'	20.0'	71.9'	20.1'	29	100%	31	100%	
SIDE: WEST	25.0'	20.0'	45.0'	20.1'	29	100%	31	100%	
SIDE: EAST	20.0'	20.0'	125.8'	15.8'	29	100%	31	100%	

LANDSCAPE SETBACKS	REQUIRED		PROVIDED		LAND USE DATA	% OF SITE AREA		AREA PROVIDED	
	FRONT	REAR	FRONT	REAR		PAVEMENT/IMPERVIOUS	LANDSCAPING	PAVEMENT/IMPERVIOUS	LANDSCAPING
FRONT: SOUTH	20.0'	20.0'	20.1'	20.1'	58.7%	36.3%	0.043 AC.	0.507 AC.	
REAR: NORTH	20.0'	20.0'	20.1'	20.1'	58.7%	36.3%	0.043 AC.	0.507 AC.	
SIDE: WEST	20.0'	20.0'	20.1'	20.1'	58.7%	36.3%	0.043 AC.	0.507 AC.	
SIDE: EAST	15.0'	15.0'	15.8'	15.8'	100%	100%	0.863 AC.	0.863 AC.	



ISSUED FOR CONSTRUCTION 09/17/18

CONTRACT DATE: XX.XX.XX  
BUILDING TYPE: T40M-O  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
20779 13 MILE RD.  
WESTLAND, MI



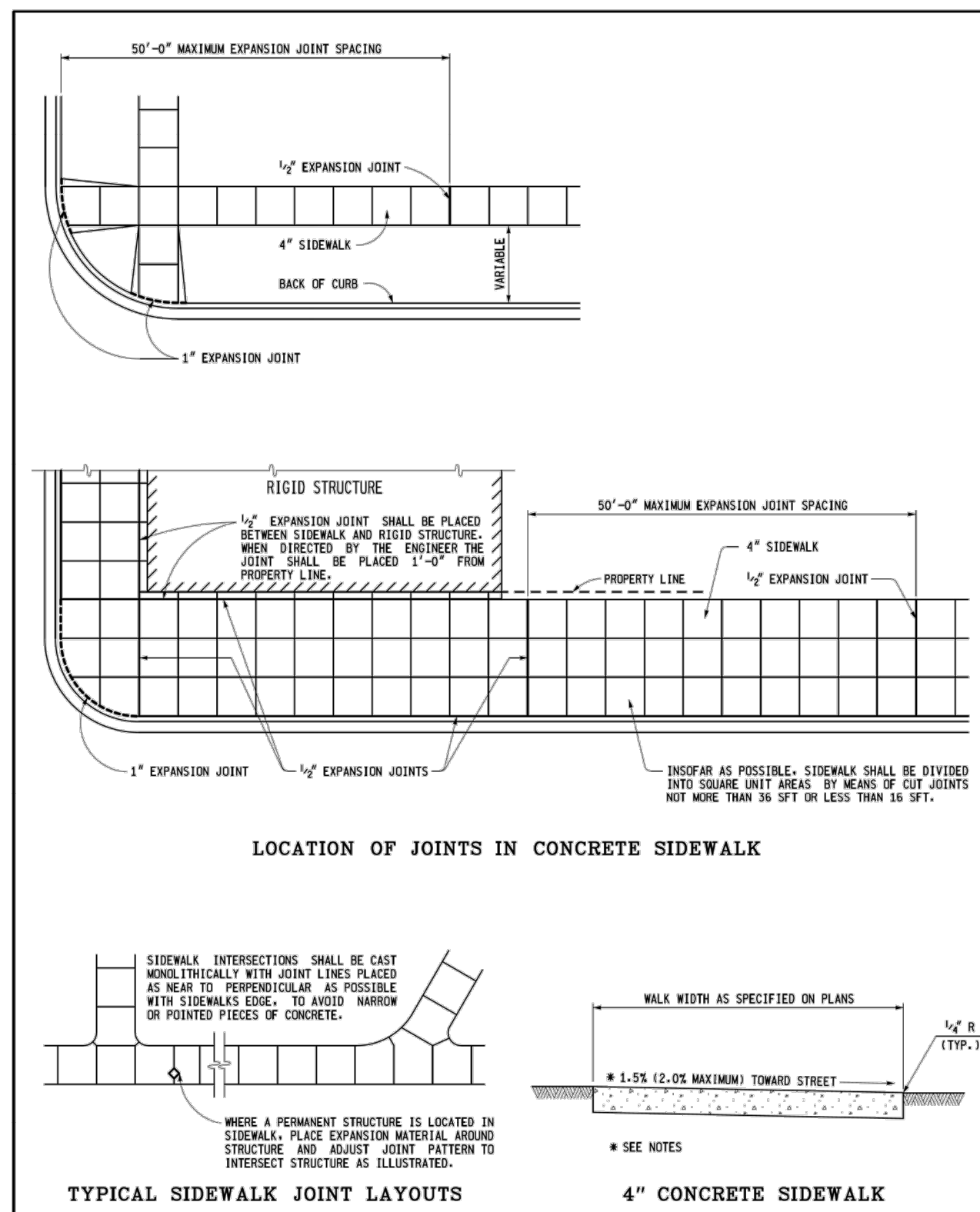
**MODERN EXPLORER**  
T40 - OPEN KITCHEN

**SITE PLAN**

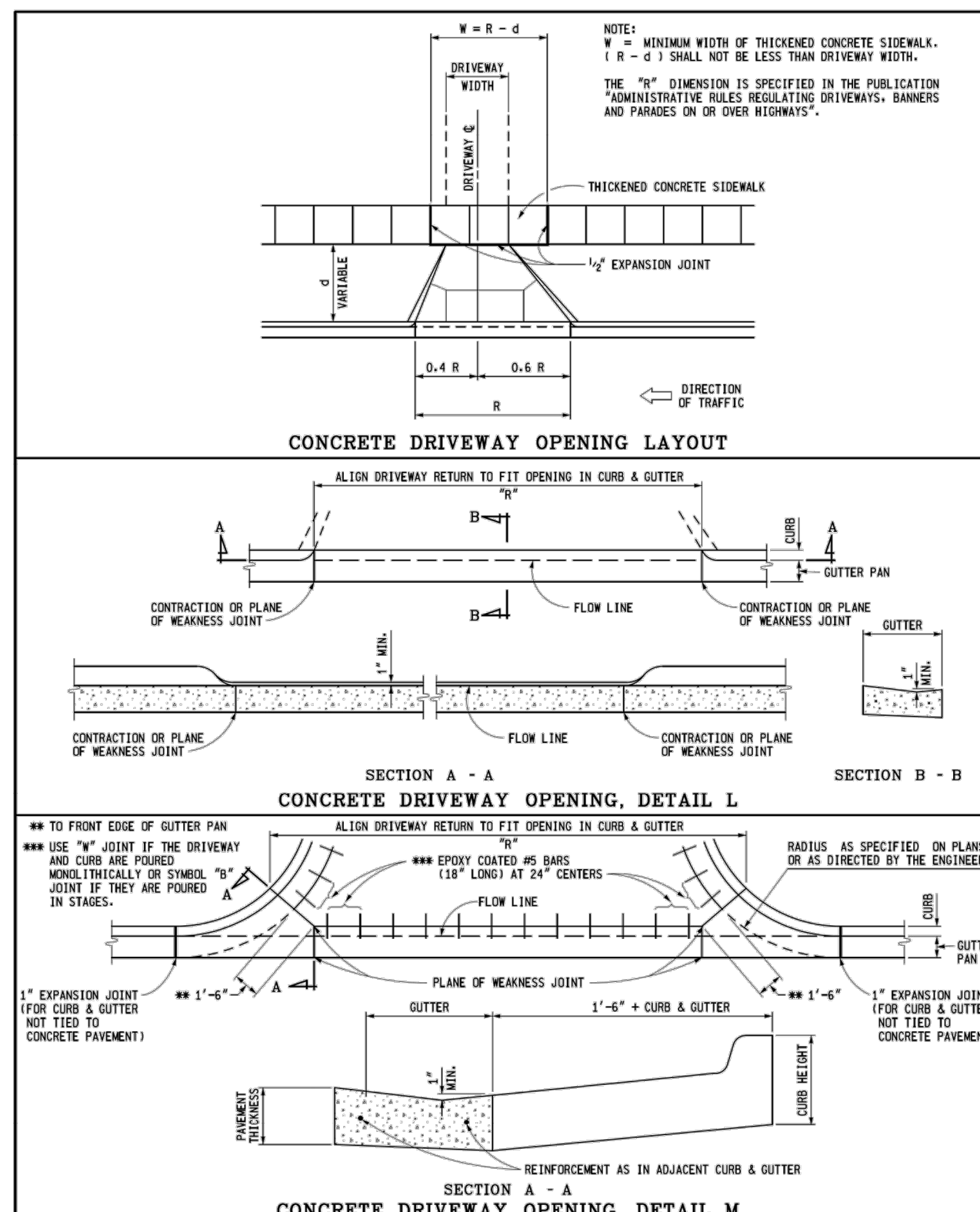
**C-111**

**A1** SITE PLAN  
1" = 20'

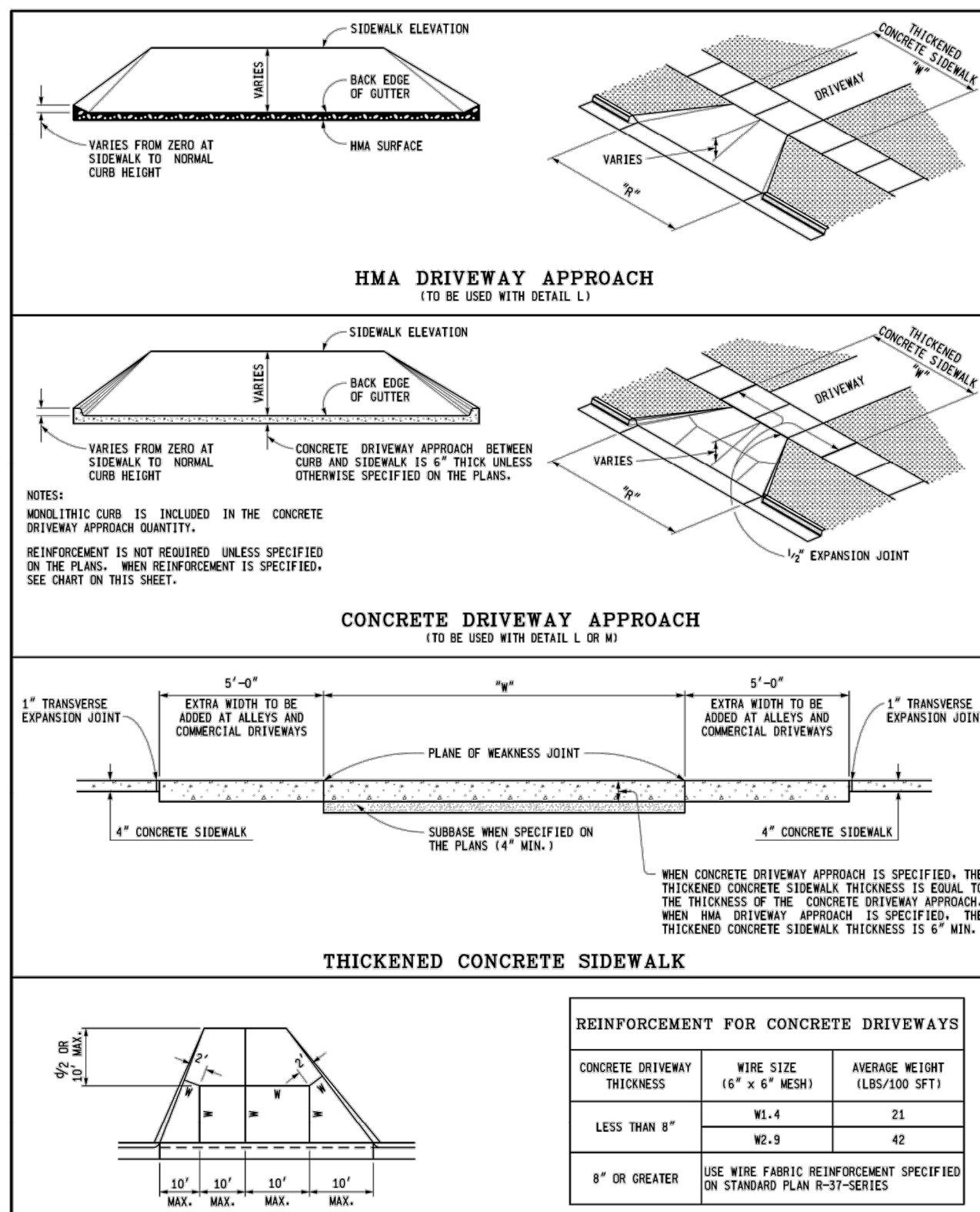




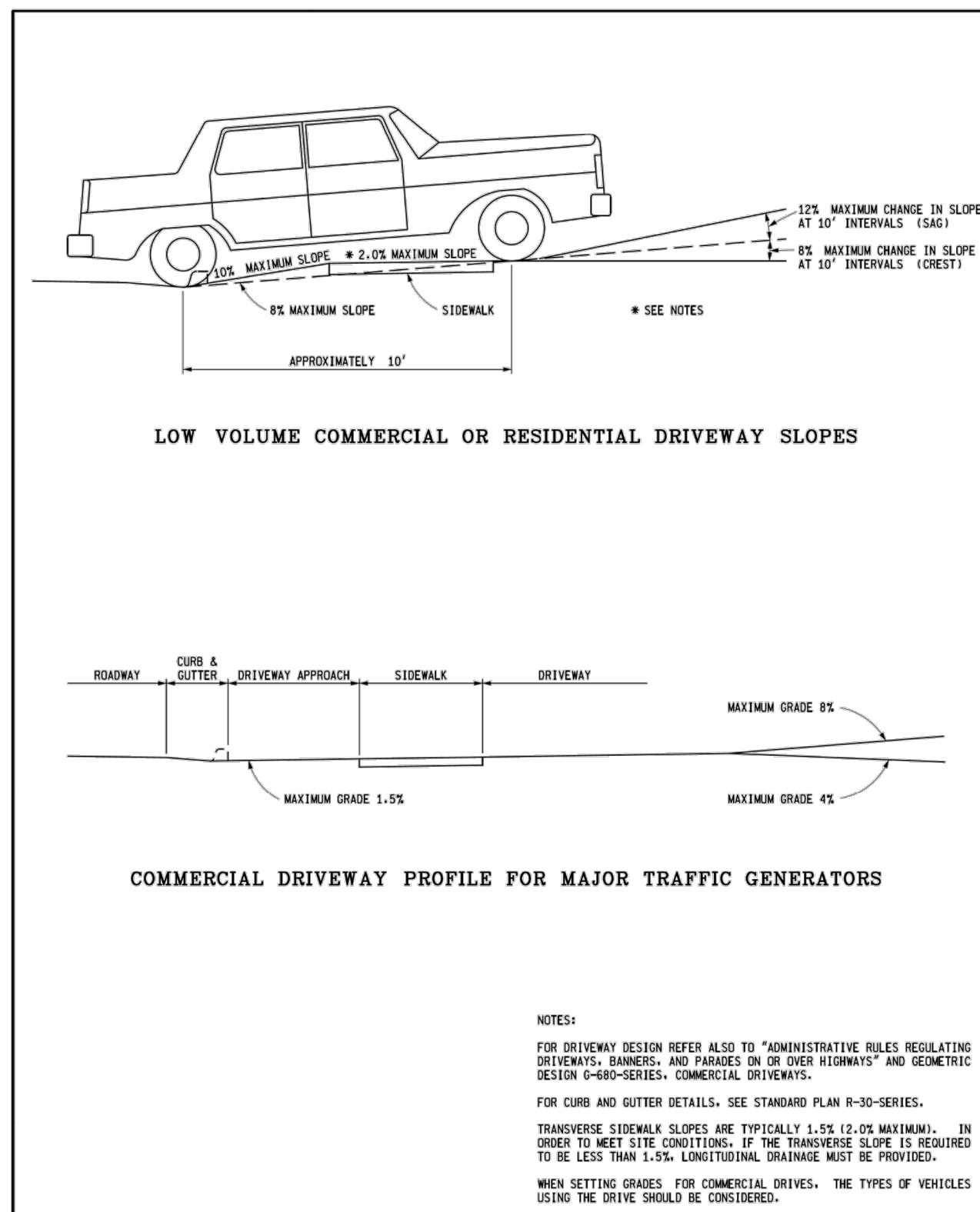
DEPARTMENT DIRECTOR 906 T. Boudin <b>MDOT</b>		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR <b>DRIVEWAY OPENINGS &amp; APPROACHES, AND CONCRETE SIDEWALK</b>	
PREPARED BY DESIGN DIVISION DRAWN BY: B.L.T. CHECKED BY: W.A.P.	APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES <i>Randy U. Roth</i>	9-30-2014 F.I.R.A. APPROVAL	7-1-2014 PLAN DATE <b>R-29-I</b>
		SHEET <b>1 OF 4</b>	



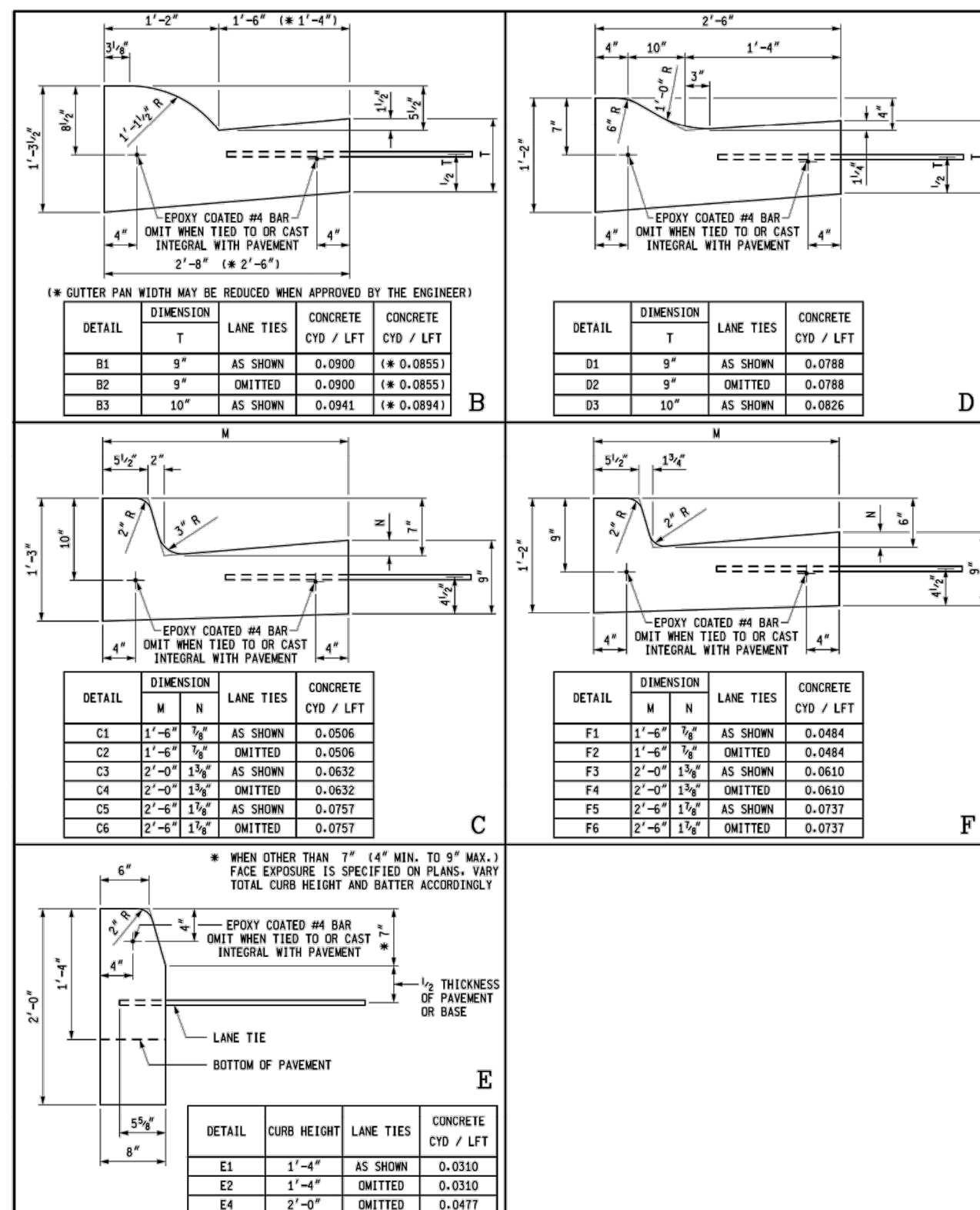
DEPARTMENT DIRECTOR 906 T. Boudin <b>MDOT</b>		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR <b>DRIVEWAY OPENINGS &amp; APPROACHES, AND CONCRETE SIDEWALK</b>	
PREPARED BY DESIGN DIVISION DRAWN BY: B.L.T. CHECKED BY: W.A.P.	APPROVED BY: DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT <i>Randy U. Roth</i>	9-30-2014 F.I.R.A. APPROVAL	7-1-2014 PLAN DATE <b>R-29-I</b>
		SHEET <b>2 OF 4</b>	



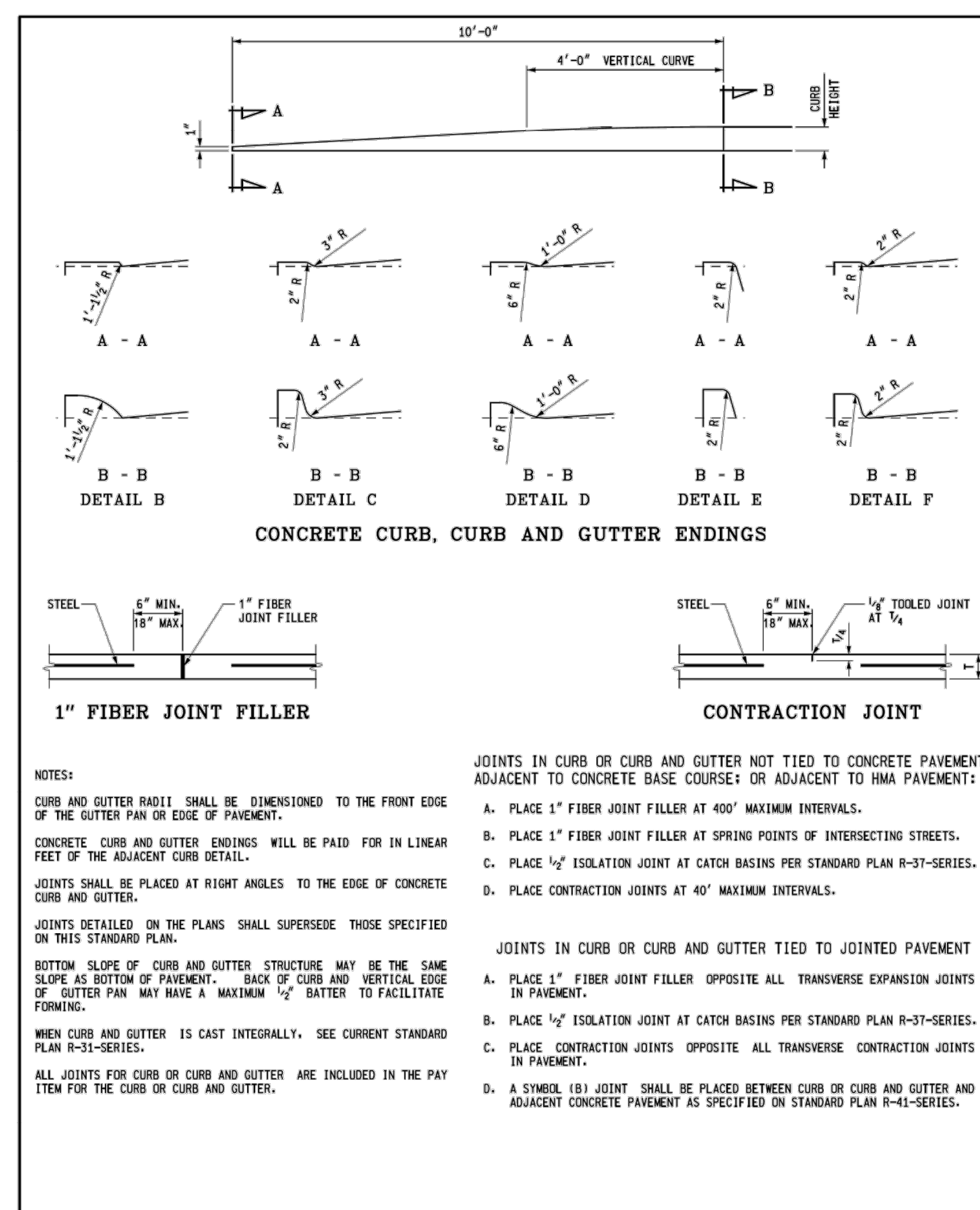
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		SHEET <b>3 OF 4</b>	



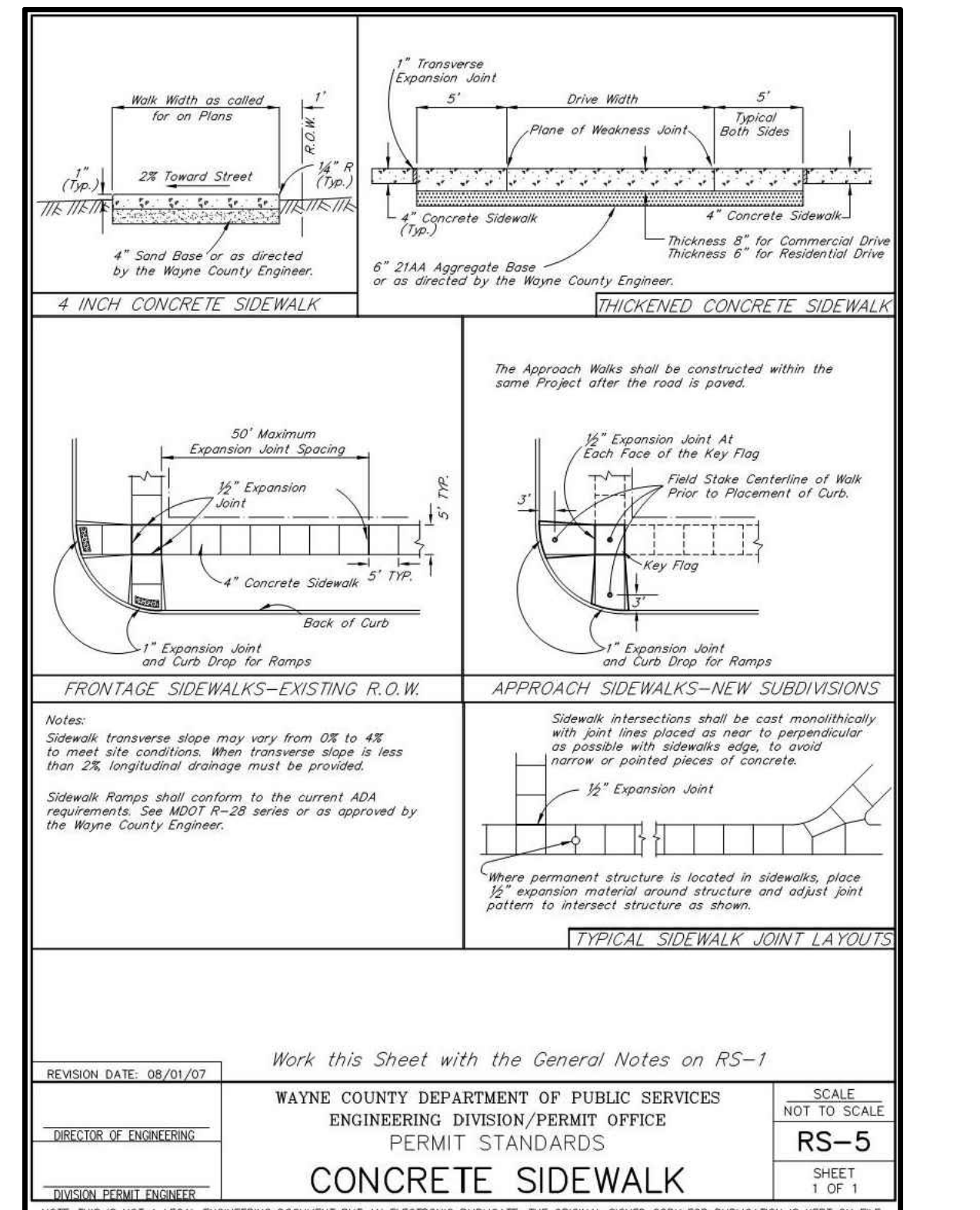
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		SHEET <b>4 OF 4</b>	



DEPARTMENT DIRECTOR 906 T. Boudin <b>MDOT</b>		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR <b>CONCRETE CURB AND CONCRETE CURB &amp; GUTTER</b>	
PREPARED BY DESIGN DIVISION DRAWN BY: B.L.T. CHECKED BY: W.A.P.	APPROVED BY: DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT <i>Randy U. Roth</i>	9-30-2014 F.I.R.A. APPROVAL	2-6-2014 PLAN DATE <b>R-30-G</b>
		SHEET <b>1 OF 2</b>	



DEPARTMENT DIRECTOR 906 T. Boudin <b>MDOT</b>		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR <b>CONCRETE CURB AND CONCRETE CURB &amp; GUTTER</b>	
PREPARED BY DESIGN DIVISION DRAWN BY: B.L.T. CHECKED BY: W.A.P.	APPROVED BY: DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT <i>Randy U. Roth</i>	9-30-2014 F.I.R.A. APPROVAL	2-6-2014 PLAN DATE <b>R-30-G</b>
		SHEET <b>2 OF 2</b>	



DEPARTMENT DIRECTOR 906 T. Boudin <b>MDOT</b>		MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR <b>CONCRETE CURB AND CONCRETE CURB &amp; GUTTER</b>	
PREPARED BY DESIGN DIVISION DRAWN BY: B.L.T. CHECKED BY: W.A.P.	APPROVED BY: DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT <i>Randy U. Roth</i>	9-30-2014 F.I.R.A. APPROVAL	2-6-2014 PLAN DATE <b>R-30-G</b>
		SHEET <b>2 OF 2</b>	

ISSUED FOR CONSTRUCTION 09/17/18

CONTRACT DATE: XX.XX.XX

BUILDING TYPE: T40M-O

PLAN VERSION: JAN 18

SITE NUMBER: 312720/446548

STORE NUMBER: 2017088.72

TACO BELL  
 20779 13 MILE RD.  
 WESTLAND, MI

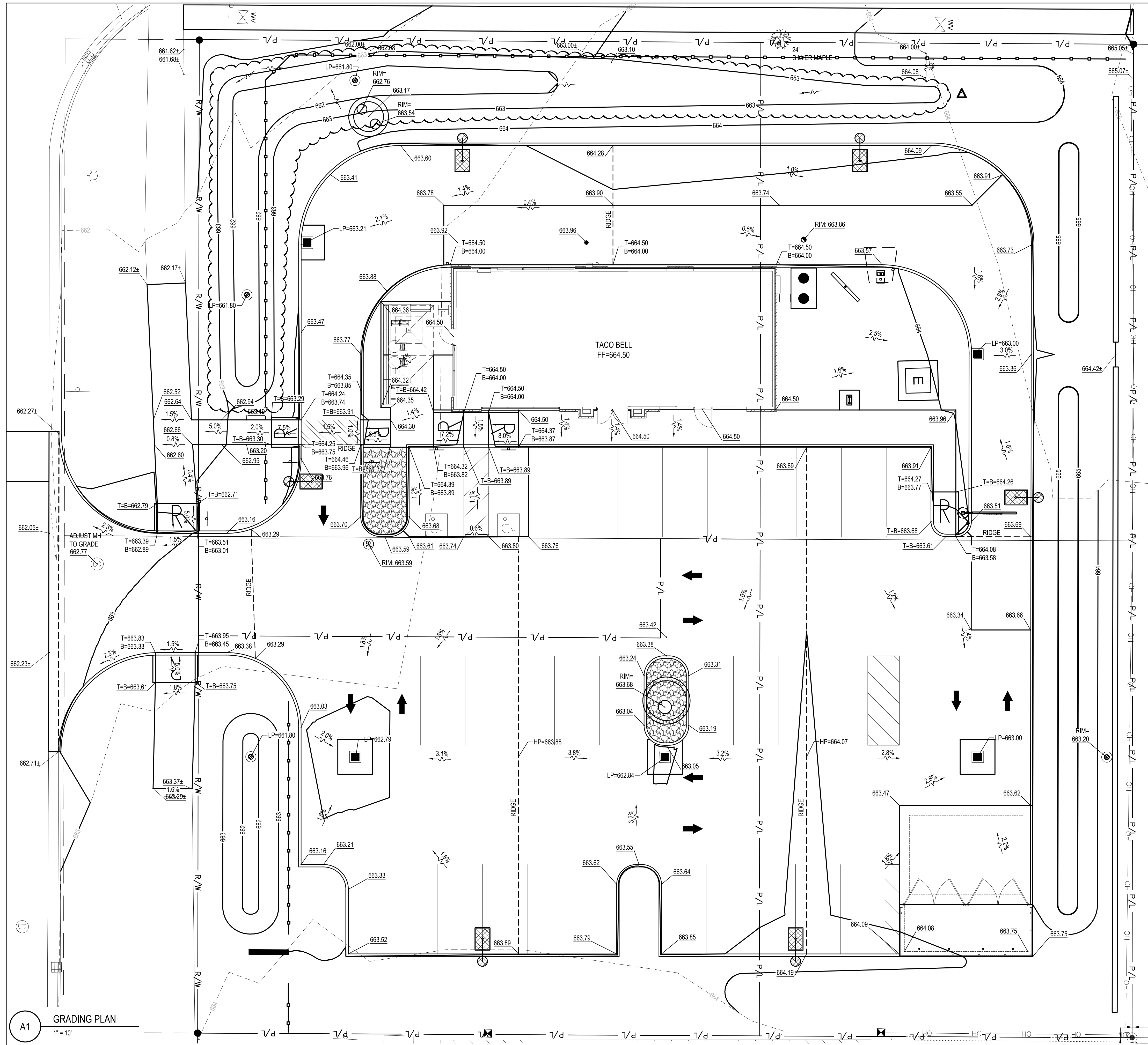


MODERN EXPLORER  
 T40 - OPEN KITCHEN

**WAYNE COUNTY AND MDOT DETAILS**

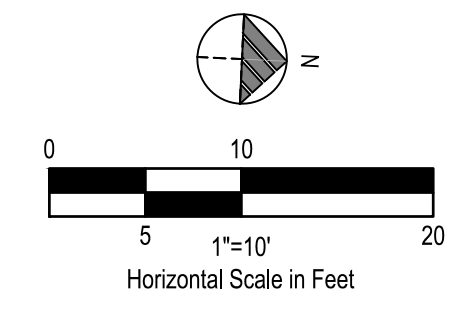
**C-112**





**GENERAL SHEET NOTES**

- GRADES SHOWN ON PLAN AT CURB LINES REFER TO BOTTOM OF CURB ELEVATIONS.
- CONTRACTOR TO RE-ESTABLISH BENCHMARK #3 PRIOR TO RELOCATION / REMOVAL OF EXISTING GUY POLE.



**LEGEND**

(SEE SHEET C-001 FOR GENERAL LEGEND)

- PROPOSED CONTOUR
- PROPOSED RIDGE
- EXISTING SPOT ELEVATION
- PROPOSED ELEVATION @ FINISHED PAVEMENT ELEVATION
- TOP OF CURB ELEVATION  
BOTTOM OF CURB/FINISHED PAVEMENT ELEVATION
- MATCH EXISTING ELEVATION
- LOW POINT
- PROPOSED DRAINAGE SLOPE & DIRECTION

ISSUED FOR CONSTRUCTION	09/17/18
BULLETIN #1	09/17/18

CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

**TACO BELL**  
20779 13 MILE RD.  
WESTLAND, MI



**MODERN EXPLORER**  
T40 - OPEN KITCHEN

**GRADING PLAN**

**C-121**

NOTE: EMERGENCY OVERLAND OVERFLOW FROM UNDERGROUND DETENTION SYSTEM FLOWS TO APRONS AND OUT TO PUBLIC ROADS.

SITE BENCHMARK #1:  
ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.  
ELEVATION = 664.67' (NAVD88)

SITE BENCHMARK #2:  
SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.  
ELEVATION = 666.18' (NAVD88)

SITE BENCHMARK #3:  
SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.  
ELEVATION = 663.88' (NAVD88)

A1 GRADING PLAN  
1" = 10'

**STORM WATER POLLUTION PREVENTION NOTES**

- ALL WORK SPECIFIED AS AN DEPARTMENT OF TRANSPORTATION ITEM SHALL BE GOVERNED BY THE CURRENT STATE OF DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AS WELL AS THE CURRENT EDITION OF THE LOCAL JURISDICTION STORM WATER MANAGEMENT MANUAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POSSESS AND TO BE FAMILIAR WITH APPLICABLE SECTIONS.
- THESE CONTRACT DRAWING SHALL BE MADE AVAILABLE ON SITE AT ALL TIMES AND PRESENTED UPON REQUEST. IF UNFORESEEN STORM WATER POLLUTION IS ENCOUNTERED, ADDITIONAL STORM WATER POLLUTION PREVENTION (SWPP) MEASURES SHALL BE IMPLEMENTED TO MANAGE THE CURRENT SITE CONDITIONS WHICH MAY BE REQUESTED BY THE OWNER, COUNTY ENGINEER, PROJECT ENGINEER OR SOIL AND WATER CONSERVATION SERVICE REPRESENTATIVE AT ANYTIME. SUCH REQUESTS AND CHANGE IN SITE CONDITIONS SHALL BE IMPLEMENTED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
- ALL STORM WATER POLLUTION PREVENTION PRACTICES WILL BE INSTALLED BEFORE ANY OTHER EARTH MOVING OCCURS.
- ALL STORM WATER POLLUTION PREVENTION ITEMS SHALL BE INSTALLED AS SHOWN OR NOTED IN THESE PLANS.
- PLANT TEMPORARY SEEDING AND MULCHING IN ALL AREAS THAT SHALL BE INACTIVE FOR 14 DAYS OR MORE. ALL DISTURBED AND ERODED EARTH SHALL BE REGRADED AND SEEDED WITHIN 7 DAYS WITH SEEDING, AS DEFINED ON THE TEMPORARY SEEDING TABLE WITHIN THESE PLANS, TO ESTABLISH STABILITY AND PROVIDE SEDIMENT CONTROL. WHERE POSSIBLE, TEMPORARY SEEDING GROWTH SHALL NOT BE MOVED UNTIL IT HAS GONE TO SEED FOR 1 YEAR.
- PERMANENT VEGETATION SHALL BE INSTALLED WITHIN 7 DAYS AT THE COMPLETION OF ANY GRADED AREAS, WEATHER PERMITTING.
- PRIOR TO THE TIME THAT DRAINAGE DIVERTS TO INLETS, INLET SEDIMENT FILTERS SHALL BE INSTALLED AT ALL INLET STRUCTURES TO KEEP PIPING SYSTEMS FREE OF SILTATION.
- SILT BARRIERS SHALL BE INSTALLED AROUND ALL EXISTING AND NEW STORM INLETS, CATCH BASINS, YARD DRAINS. INSTALL ROCK CHECK DAMS FOR HEADWALL INLETS FOR STORM WATER POLLUTION PREVENTION.
- STORM WATER POLLUTION PREVENTION MEASURES SHALL BE INSTALLED AROUND ALL DIRT OR TOPSOIL STOCKPILES AND OTHER TEMPORARILY DISTURBED AREAS AS SHOWN ON THESE PLANS AND AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL INSPECT ALL SWPP MEASURES DAILY AND LOGGED BY THE CONTRACTOR FOR INSPECTION. LOGGING SHALL BE WEEKLY AND AFTER EVERY 1/2" RAINFALL EVENT. REPAIR AS NECESSARY TO PREVENT EROSION. SILTATION SHALL BE REMOVED FROM AREAS WHERE FAILURES HAVE OCCURRED AND CORRECTIVE ACTION TAKEN WITHIN 24 HOURS TO MAINTAIN ALL SWPP.
- SILT BARRIERS, CONSTRUCTION ENTRANCES, AND SILT PERIMETER CONTROLS SHALL REMAIN IN PLACE UNTIL A GOOD STAND OF GRASS HAS BEEN OBTAINED AND/OR PAVING OPERATIONS ARE COMPLETE. CONTRACTOR SHALL KEEP SILT FROM ENTERING ANY STORM DRAINAGE SYSTEM. ONCE SITE HAS BEEN COMPLETELY STABILIZED, ANY SILT IN PIPES AND DRAINAGE SWALES SHALL BE REMOVED WITHIN 10 DAYS.
- TEMPORARY SEDIMENTATION AND STORM WATER POLLUTION PREVENTION MEASURES MUST BE INSPECTED AND AFTER 1/2" RAIN EVENTS.
- UTILITY COMPANIES MUST COMPLY WITH ALL STORM WATER POLLUTION PREVENTION MEASURES AS DEFINED ON THE STORM WATER POLLUTION PREVENTION PLANS, DETAILS AND NOTES.
- ALL EXISTING WATER COURSES WITHIN THE PROJECT LIMITS SHALL BE TEMPORARILY PROTECTED DURING LAND CLEARING AND GRADING OPERATIONS. SOILS WITHIN 50 FEET OF SAID WATER COURSES SHALL BE STABILIZED WITHIN 2 DAYS OF THE INITIAL CLEARING / GRADING OPERATION AS SHOWN ON PLANS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL SEDIMENTATION AND STORM WATER POLLUTION PREVENTION ITEMS AT ALL TIMES.
- DUST CONTROL SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. IF POSSIBLE GRADING SHALL BE DONE BY PHASING. IF PHASING IS NOT AN OPTION, DUST SHALL BE CONTROLLED WITH WATER DURING EARTHWORK. AFTER EARTHWORK OPERATIONS, THE EXPOSED SOILS SHALL BE COVERED WITH STRAW OR MULCH UNTIL SEEDED. SEE DETAIL WITHIN THESE PLANS. OIL IS NOT TO BE USED AS A DUST SUPPRESSANT.
- ANY DISCHARGE OF PETROLEUM OR PETROLEUM PRODUCTS OF LESS THAN 25 GALLONS ONTO A PERVIOUS SURFACE SHALL BE LEGALLY REMOVED AND PROPERLY TREATED OR PROPERLY DISPOSED OF, OR OTHERWISE REMEDIATED, SO THAT NO CONTAMINATION FROM THE DISCHARGE REMAINS ON-SITE.
- IN THE EVENT OF A LARGE PETROLEUM SPILL (25 OR MORE GALLONS) CONTRACTOR MUST CONTACT THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.
- CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT FACILITY SHALL BE UTILIZED, IF CONDITIONS ARE SUCH THAT MUD IS COLLECTING ON VEHICLE TIRES, THE TIRES MUST BE CLEANED BEFORE THE VEHICLES ENTER THE PUBLIC ROADWAY. THE SITE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING OR FLOW OF MUD ONTO THE PUBLIC RIGHT-OF-WAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE ROADWAY MUST BE REMOVED PROMPTLY.
- IF NECESSARY, THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- IF NECESSARY, ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT OF WAY DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING CONSTRUCTION FENCE, SIGNS, ETC. TO WARN AND KEEP PEOPLE OFF SITE FOR THE DURATION OF THE PROJECT.
- IF ENCOUNTERED DURING SITE REDEVELOPMENT, ANY OIL/GAS WELLS OR MINE SHAFTS MUST BE PROPERLY ABANDONED, VAULTED AND VENTED IN ACCORDANCE WITH CURRENT REGULATIONS AND SPECIFICATIONS OF ALL GOVERNING AUTHORITIES
- IF, FOR ANY REASON, THE PROJECT IS SUSPENDED, THE CONTRACTOR SHALL INSURE THAT ALL INSTALLED EROSION MEASURES ARE FUNCTIONING AND PROPERLY MAINTAINED DURING THIS PERIOD, AND THAT ALL BARE SOILS ARE SEEDED AND MULCHED WITH TEMPORARY SEED MIXTURE.
- THE FOLLOWING STORM WATER POLLUTION PREVENTION AND SEDIMENT CONTROL MEASURES WHICH WILL BE USED ON THIS SITE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING :
  - SILT FENCE
  - SILT BARRIERS
  - CONSTRUCTION ENTRANCE
  - CONCRETE WASHOUT FACILITY

**ADDITIONAL CONSTRUCTION SITE POLLUTION CONTROLS**

- CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES REGARDING DISPOSAL AND HANDLING OF HAZARDOUS AND CONSTRUCTION WASTES:
  - PREVENT SPILLS
  - USE PRODUCTS UP
  - FOLLOW LABEL DIRECTIONS FOR DISPOSAL
  - REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH
  - RECYCLE WASTES WHENEVER POSSIBLE
  - DONT POUR INTO WATERWAYS, STORM DRAINS OR ONTO THE GROUND
  - DONT POUR DOWN THE SINK, DOOR DRAIN OR SEPTIC TANKS
  - DONT BURY CHEMICALS OR CONTAINERS
  - DONT BURN CHEMICALS OR CONTAINERS
  - DONT MIX CHEMICALS TOGETHER
- CONTAINERS SHALL BE PROVIDED FOR THE PROPER COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS USED ON-SITE. CONTAINERS SHALL BE COVERED AND NOT LEAKING. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL. CONSTRUCTION DEMOLITION AND DEBRIS (CD&D) WASTE MUST BE DISPOSED OF AT THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY APPROVED CD&D LAND FILL.
- NO CONSTRUCTION RELATED WASTE MATERIALS ARE TO BE BURIED ON-SITE. BY EXCEPTION, CLEAN FILL (BRICKS, HARDENED CONCRETE, SOIL) MAY BE UTILIZED IN A WAY WHICH DOES NOT ENCRGOACH UPON NATURAL WETLANDS, STREAMS OR PLAINS OR RESULT IN THE CONTAMINATION OF WATERS OF THE STATE.
- HANDLING CONSTRUCTION CHEMICALS : MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.
- EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS. IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREAS MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HRS. OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED FOR SITES WITH ONE SINGLE ABOVE GROUND TANK OF 680 GALLONS OR MORE, ACCUMULATIVE ABOVE GROUND STORAGE OF 1330 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE. CONTAMINATED SOILS MUST BE DISPOSED OF IN ACCORDANCE WITH ITEM 8.
- CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS, TRUCK CHUTES MAY BE RINSED AWAY FROM ANY WATER CONVEYANCES.
- SPILL REPORTING REQUIREMENTS : SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LAND FILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. SPILLS SHALL BE REPORTED TO THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY. SPILLS OF 25 GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE DISCOVERY OF THE RELEASE. ALL SPILLS WHICH CONTACT WATERS OF THE STATE MUST BE REPORTED TO THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY.
- CONTAMINATED SOILS : IF SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF AT LICENSED SANITARY LAND FILL OR OTHER APPROVED PETROLEUM CONTAMINATED SOIL REMEDIATION FACILITY (NOT A CONSTRUCTION/DEMOLITION DEBRIS LAND FILL). NOTE: THOSE STORM WATER RUNOFFS ASSOCIATED WITH CONTAMINATED SOILS ARE NOT BE AUTHORIZED UNDER THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY GENERAL STORM WATER PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- OPEN BURNING : NO OPEN BURNING.
- DUST CONTROL OR DUST SUPPRESSANTS SHALL BE USED TO PREVENT NUISANCE CONDITIONS. IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND IN A MANNER WHICH PREVENT A DISCHARGE TO WATERS OF THE STATE. SUFFICIENT DISTANCE MUST BE PROVIDED BETWEEN APPLICATIONS AND NEARBY BRIDGES, CATCH BASINS, AND OTHER WATERWAYS. APPLICATION (EXCLUDING WATER) MAY NOT OCCUR WHEN RAIN IS IMMINENT AS NOTED IN THE SHORT TERM FORECAST. USED OIL MAY NOT BE APPLIED FOR DUST CONTROL.
- OTHER AIR PERMITTING REQUIREMENTS : CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION WILL REQUIRE AIR PERMITS INCLUDING BUT NOT LIMITED TO: MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC. THESE ACTIVITIES WILL REQUIRE SPECIFIC THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR PERMITS FOR INSTALLATION AND OPERATION. OPERATORS MUST SEEK AUTHORIZATION FROM THE CORRESPONDING DISTRICT OF THE EPA. FOR DEMOLITION OF ALL COMMERCIAL SITES, A NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.
- PROCESS WASTE WATER/LEACHATE MANAGEMENT : EPA'S CONSTRUCTION GENERAL PERMIT ONLY ALLOWS THE DISCHARGE OF STORM WATER AND DOES NOT INCLUDE OTHER WASTE STREAMS/DISCHARGES SUCH AS VEHICLE AND/OR EQUIPMENT WASHING, ON-SITE SEPTIC LEACHATE CONCRETE WASH OUTS, WHICH ARE CONSIDERED PROCESS WASTEWATERS. ALL PROCESS WASTEWATERS MUST BE COLLECTED AND PROPERLY DISPOSED AT AN APPROVED DISPOSAL FACILITY. IN THE EVENT, LEACHATE OR SEPTAGE IS DISCHARGED, IT MUST BE ISOLATED FOR COLLECTION AND PROPER DISPOSAL AND CORRECTIVE ACTIONS TAKEN TO ELIMINATE THE SOURCE OF WASTE WATER.
- A PERMIT TO INSTALL (PTI) IS REQUIRED PRIOR TO THE CONSTRUCTION OF ALL CENTRALIZED SANITARY SYSTEMS, INCLUDING SEWER EXTENSIONS, AND SEWERAGE SYSTEMS (EXCEPT THOSE SERVING ONE, TWO, AND THREE FAMILY DWELLINGS) AND POTABLE WATER LINES. PLANS MUST BE SUBMITTED AND APPROVED BY THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY. ISSUANCE OF THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY CONSTRUCTION GENERAL STORM WATER PERMIT DOES NOT AUTHORIZE THE INSTALLATION OF ANY SEWERAGE SYSTEM WHERE THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY HAS NOT APPROVED A PTI.
- PLEASE REFER TO THE LOCAL JURISDICTION STORM WATER MANAGEMENT MANUAL, CURRENT EDITION, FOR ADDITIONAL INFORMATION.
- WASTES GENERATED BY CONSTRUCTION ACTIVITIES (I.E. CONSTRUCTION MATERIALS SUCH AS PAINTS, SOLVENTS, FUELS, CONCRETE, WOOD, ETC) MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS. HAZARDOUS AND TOXIC SUBSTANCES ARE USED ON VIRTUALLY ALL CONSTRUCTION SITES. GOOD MANAGEMENT OF THESE SUBSTANCES IS ALWAYS NEEDED.

**CONSTRUCTION SEQUENCE**

DURING PRECONSTRUCTION MEETING ALL EROSION & SEDIMENT CONTROL FACILITIES & PROCEDURES SHALL BE DISCUSSED.

- INSTALL CONSTRUCTION ENTRANCE AS DETAILED ON PLANS. TEMPORARY CONSTRUCTION FENCING SHALL BE INSTALLED AROUND PERIMETER OF CONSTRUCTION SITE. WHERE THERE IS EXISTING FENCE ALONG THE PERIMETER OF THE SITE, IT CAN BE UTILIZED. FENCING SHALL BE USED TO RESTRICT OUTSIDE TRAFFIC TO SITE.
- DELIVER CONSTRUCTION TRAILER TO SITE AND INSTALL TEMPORARY POWER AND TELEPHONE, IF REQUIRED. TEMPORARY UTILITY SERVICES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- STAKE AND/OR FLAG LIMITS OF CLEARING.
- CLEARING & GRUBBING, AS NECESSARY, FOR INSTALLATION OF PERIMETER CONTROLS. INSTALL SILT PERIMETER CONTROLS AS SHOWN ON PLANS. SILT PERIMETER CONTROLS SHALL BE INSTALLED LEVEL, ALONG THE CONTOURS, WITH ENDS TURNED UPSLOPE TO PREVENT CONCENTRATED FLOW AT THE SILT PERIMETER CONTROLS.
- INSTALL TEMPORARY SILT INLET PROTECTION ON ALL EXISTING CATCH BASINS AND INLETS, AS DESIGNATED IN THE PLANS. REMOVAL OF SILT INLET PROTECTION FROM DESIGNATED INLETS CAN ONLY OCCUR WHEN A STRUCTURE IS REMOVED, AND AS REQUIRED BY THE PROGRESSION OF THE DEMOLITION AND CONSTRUCTION.
- CLEARING & GRUBBING THE SITE AS NECESSARY. TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR REUSE, OR REMOVED TO AN APPROVED OFFSITE SPOIL AREA.
- BEGIN FILLING & GRADING AS REQUIRED TO REACH SUBGRADE.
- UTILIZE DUST CONTROL MEASURES AS REQUIRED TO MINIMIZE AIR-BORNE POLLUTION BY METHODS APPROVED BY THE AUTHORIZING EPA OFFICE.
- ONCE PAVEMENT GRADES HAVE BEEN ESTABLISHED, AS DESIGNATED ON THE PLANS, THE CONTRACTOR SHALL UTILIZE THESE AREAS FOR STRUCTURE CONSTRUCTION.
- IN PROPOSED GRASS AREAS, REPLACE TOPSOIL, FINE GRADE AND SEED, AS REQUIRED. STABILIZE ALL DISTURBED AREAS WITH PERMANENT SEED AND MULCHING OR TEMPORARY SEEDING IMMEDIATELY UPON REACHING FINAL GRADE.
- CONSTRUCT UNDERGROUND UTILITY WORK INCLUDING STORM DRAINAGE FACILITIES. UPON INSTALLATION OF STORM DRAINAGE CATCH BASINS, YARD DRAINS AND INLETS, INSTALL REQUIRED INLET PROTECTION.
- DO NOT REPLACE ANY TOPSOIL, SEED OR INSTALL FINAL PAVEMENT PRIOR TO COMPLETION OF BUILDING SHELL. SHOULD SITEWORK BE COMPLETED PRIOR TO THIS DATE, MULCH DISTURBED AREAS TO BE PLANTED AND INSTALL STONE SUBBASE IN DISTURBED AREAS TO BE PAVED.
- FOLLOWING COMPLETION OF BUILDING SHELL AND PAVEMENT INSTALLATION. BEGIN LANDSCAPE INSTALLATION.
- COMPLETE SITEWORK, PAVEMENT MARKINGS AND FINAL CLEAN-UP. RESEED ANY AREAS THAT MAY REQUIRE ATTENTION IMMEDIATELY. NOTE THAT LAWN AREAS WILL NOT BE DEEMED STABLE UNTIL A MINIMUM 80% VEGETATIVE DENSITY HAS BEEN ACHIEVED.
- MAINTAIN EROSION & SEDIMENTATION CONTROL MEASURES UNTIL THE SITE HAS BEEN COMPLETELY STABILIZED. ALL AREAS OF VEGETATIVE SURFACE, WHETHER PERMANENT OR TEMPORARY, SHALL BE CONSIDERED TO BE IN PLACE AND FUNCTIONAL WHEN THE REQUIRED UNIFORM RATE OF COVERAGE (80%) IS OBTAINED.
- REMOVE SEDIMENT CONTROLS.
- THE FOLLOWING ITEMS MUST BE COMPLETED IN ORDER BY THE CONTRACTOR, ONCE THE SITE HAS BEEN DEEMED STABLE:
  - REMOVE CONSTRUCTION ENTRANCE PRIOR TO COMPLETION OF PAVING
  - SITE CLEAN UP
  - RESEED ANY AREAS THAT REQUIRE ADDITIONAL SEED
  - SILT FENCE SHOULD BE CLEANED, REMOVED, BACKFILLED AND SEEDED WITH PERMANENT SEEDING.
  - VERIFY POSITIVE DRAINAGE FLOW IN ALL DRAINAGE STRUCTURES, REPAIR AS NECESSARY.

\*\* YEARLY INSPECTIONS, COMPLETED BY MAY 31ST OF EACH YEAR, MUST BE DOCUMENTED. COPIES SHOULD BE SENT TO THE LOCAL CITY AS WELL AS THE THE LOCAL COUNTY SOIL AND WATER CONSERVATION DISTRICT.

ONLY APPROVED SIGNED PLANS BY THE LOCAL SWCD ARE TO BE USED FOR CONSTRUCTION.

CONTRACTORS INSPECTOR SHALL BE A QUALIFIED INDIVIDUAL. SITE INSPECTIONS SHALL BE DONE WEEKLY AND WITHIN 24 HRS AFTER EVERY RAINFALL EVENT EXCEEDING 1/2" OF RAINFALL. ALL NECESSARY REPAIRS SHOULD BE IMPLEMENTED IMMEDIATELY AFTER SUCH INSPECTIONS.

CONTRACTOR'S INSPECTOR SHALL BE RESPONSIBLE FOR PREPARING AND SIGNING WEEKLY AND ALL INTERMEDIATE EROSION CONTROL INSPECTION REPORTS AFTER EVERY INSPECTION. SUCH REPORTS SHALL BE MADE AVAILABLE TO OWNER, ENGINEER AND CITY / STATE OFFICIALS UPON THEIR REQUEST.

REPORTS SHALL BE KEPT FOR 3 YEARS AFTER TERMINATION OF THE CONSTRUCTION ACTIVITIES.

CONTRACTOR MAY SUBMIT A WAIVER REQUEST TO THE STATE EPA FOR A REDUCTION TO MONTHLY INSPECTIONS IF THE SITE WILL BE STABILIZED DORMANT SITE FOR A LONG PERIOD.

ONLY A QUALIFIED INSPECTION PERSONNEL IS TO PERFORM THE INSPECTIONS.

FOR BMPS THAT REQUIRE REPAIR OR MAINTENANCE - NON SEDIMENT POND BMPS ARE TO BE REPAIRED WITHIN 3 DAYS OF INSPECTION AND SEDIMENT PONDS ARE TO BE REPAIRED OR CLEANED OUT WITHIN 10 DAYS OF INSPECTION.

FOR BMPS THAT DO NOT MEET THE INTENDED FUNCTION, A NEW BMP SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

FOR MISSING BMPS REQUIRED, THE MISSING BMPS SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

**STORM WATER POLLUTION PREVENTION PLAN NARRATIVE**

**PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE CONSTRUCTION OF A NEW TACO BELL RESTAURANT. THE CURRENT SITE IS VACANT AND GRASS COVERED WITH A MILD SLOPE FROM NORTH TO SOUTH. STORM WATER QUALITY AND QUANTITY WILL BE MANAGED VIA MANUFACTURED PRETREATMENT AND UNDERGROUND DETENTION, RESPECTIVELY.

**PROJECT COMPLETION STATISTICS**

PARCEL SIZE (AFTER LOT SPLIT):	0.86 ACRES
TOTAL DISTURBED AREA:	APPROX. 0.91 ACRES

EXISTING LAND USE FOR THE SITE IS VACANT.	
ESTIMATED PRE-CONSTRUCTION IMPERVIOUS AREA:	0.00 ACRES
ESTIMATED PRE-CONSTRUCTION IMPERVIOUS PERCENT:	0%
PRE-CONSTRUCTION RUN-OFF COEFFICIENT:	0.15

PROPOSED LAND USE WILL BE APARTMENT BUILDING WITH PARKING LOT AND AMENITY IMPROVEMENTS	
ESTIMATED POST-CONSTRUCTION IMPERVIOUS AREA:	0.55 ACRES
ESTIMATED POST-CONSTRUCTION IMPERVIOUS PERCENT:	64%
POST-CONSTRUCTION RUN-OFF COEFFICIENT:	0.66

**PROJECT LOCATION:**

<u>LATITUDE</u>	<u>LONGITUDE</u>
42.324366°	-83.409982°

**EXISTING SITE SOIL TYPES:**

O&B: OAKVILLE FINE SAND, 0 TO 6 PERCENT SLOPES.  
T&A: TEDROW LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES.

REFERENCE: USDA NATIONAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY.

THE INFILTRATION RATE FOR THIS SITE HAS NOT BEEN DETERMINED VIA SOILS REPORT OR TESTING.

**WETLAND INFORMATION:**

THERE ARE NO WETLANDS ON THIS SITE.

**FIRST AND SUBSEQUENT RECEIVING STREAM:**

INITIAL RECEIVING WATER IS WILLOW CREEK AND THE SUBSEQUENT RECEIVING WATER IS TONGUISH CREEK.

**CONTROL RATIONAL AND DESCRIPTION**

IN ORDER TO MEET THE STORMWATER RUNOFF REQUIREMENTS SET FOR BY WAYNE COUNTY, A SINGLE UNDERGROUND DETENTION SYSTEM CONSISTING OF 55 STORMTECH CHAMBERS (SC-740) WILL BE INSTALLED UNDER THE PROPOSED PARKING LOT. THE STORMWATER RUNOFF WILL COLLECT INTO A SERIES OF CATCH BASINS AND ROUTE TO A PRECAST PRETREATMENT STRUCTURE AND ULTIMATELY ROUTED TO THE DETENTION BASIN.

**LESSEE CONTACT:**

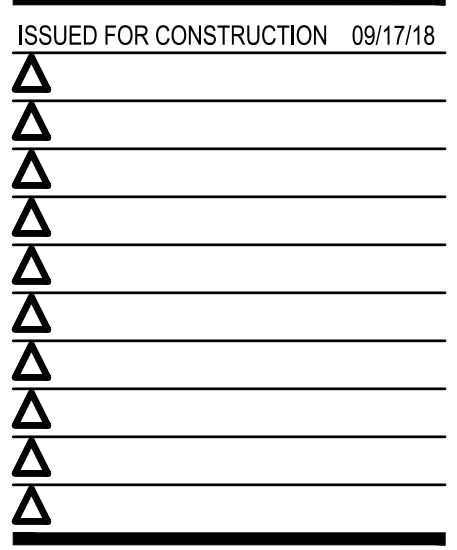
TACO BELL OF AMERICA, LLC  
1900 COLONEL SANDERS LANE  
LOUISVILLE, KY 40213  
502.874.8300

**ANTICIPATED TIMING:**

CONSTRUCTION BEGIN:	APRIL, 2018
CONSTRUCTION COMPLETE:	AUGUST, 2018

CONTRACTOR: T.B.D.	_____
CONTACT:	_____
PHONE NUMBER:	_____

CONTRACTOR SHALL MAINTAIN A CONSTRUCTION LOG DOCUMENTING ALL GRADING AND STABILIZATION ACTIVITIES.



CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

**TACO BELL**  
20779 13 MILE RD.  
WESTLAND, MI

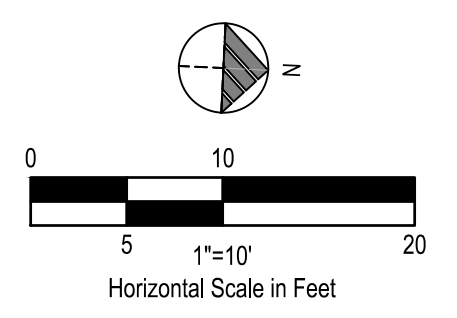
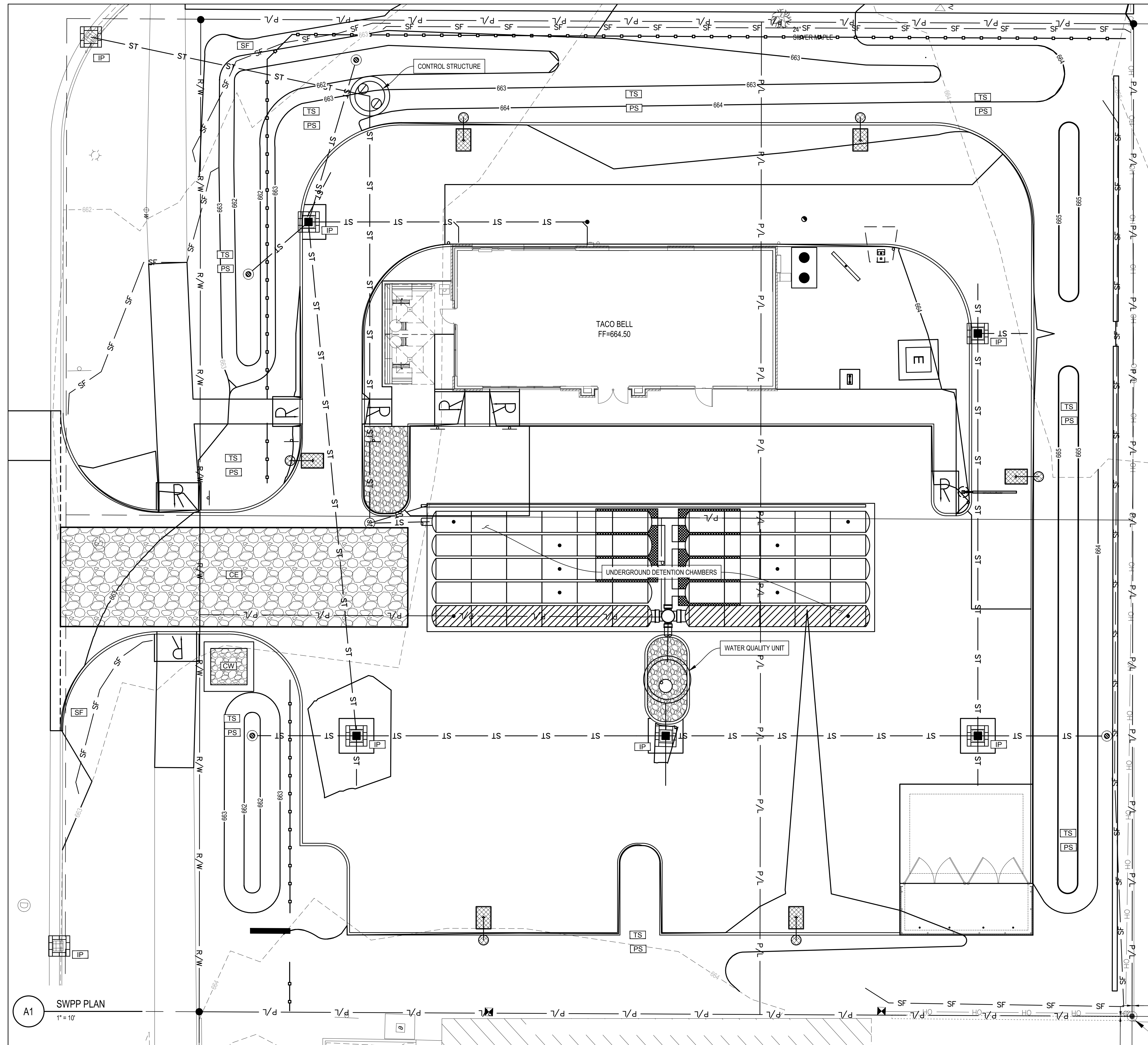


**MODERN EXPLORER**  
T40 - OPEN KITCHEN

**SWPP NOTES**

**C-131**





**SWPP KEYNOTES**

- TS** TEMPORARY SEEDING
- PS** PERMANENT SEEDING
- CW** CONCRETE WASHOUT AREA
- SF** SILT FENCE
- CE** CONSTRUCTION ENTRANCE
- IP** INLET PROTECTION

**LEGEND**  
(SEE SHEET C-001 FOR GENERAL LEGEND)

- PROPOSED SILT BARRIER  
REFER TO SWPP DETAILS
- PROPOSED SILT FENCE  
REFER TO SWPP DETAILS
- PROPOSED CONSTRUCTION ENTRANCE  
REFER TO SWPP DETAILS
- PROPOSED CONCRETE WASHOUT FACILITY  
REFER TO SWPP DETAILS



ISSUED FOR CONSTRUCTION	09/17/18

CONTRACT DATE: XX.XX.XX  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: JAN 18  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**TACO BELL**  
 20779 13 MILE RD.  
 WESTLAND, MI



**MODERN EXPLORER**  
 T40 - OPEN KITCHEN  
**SWPP PLAN**

**C-132**

SITE BENCHMARK #1:  
 ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF  
 FORD ROAD AND MORLEY ROAD.  
 ELEVATION = 664.67' (NAVD88)

SITE BENCHMARK #2:  
 SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST  
 SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.  
 ELEVATION = 666.18' (NAVD88)

SITE BENCHMARK #3:  
 SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH  
 SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.  
 ELEVATION = 663.88' (NAVD88)

**A1 SWPP PLAN**  
 1" = 10'



**MULCHING**

1) MULCH AND OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 21 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.

2) MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:

-STRAW SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC, OR 90 LB./1,000 SQ. FT. (TWO TO THREE BALES) THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND PLACE TWO 45-LB BALES OF STRAW IN EACH SECTION.

-WOOD CELLULOSE FIBER SHOULD BE USED AT 2,000 LB./AC, OR 46 LB/1,000 SQ. FT.

-ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS AND ROLLED EROSION CONTROL PRODUCTS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD MULCH/CHIPS APPLIED AT 10-20 TONS/AC.

3) MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH.

-USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 INCHES.

-USE MULCH NETTINGS ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING REQUIREMENTS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.

-FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. ALL APPLICATIONS OF SYNTHETIC BINDERS MUST BE CONDUCTED IN SUCH A MANNER WHERE THERE IS NO CONTACT WITH WATERS OF THE STATE.

-WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB/AC. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB/100 GAL. OF WOOD CELLULOSE FIBER.

**DUST CONTROL**

**NOTES:**

CONSTRUCTION SEQUENCING AND DISTURBING ONLY SMALL AREAS AT A TIME CAN GREATLY REDUCE PROBLEMATIC DUST FROM THE SITE. IF LAND MUST BE DISTURBED, ADDITIONAL TEMPORARY STABILIZATION MEASURES SHOULD BE CONSIDERED PRIOR TO DISTURBANCES.

1) APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 14 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS.

2) SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS SHALL BE UTILIZED ACCORDING TO MANUFACTURERS INSTRUCTIONS.

3) GRADED ROADWAYS AND OTHER SUITABLE AREAS WILL BE STABILIZED USING CRUSHED STONE OR COARSE GRAVEL AS SOON AS PRACTICABLE AFTER REACHING AN INTERIM OR FINAL GRADE. CRUSHED STONE OR COARSE GRAVEL CAN BE USED AS A PERMANENT COVER TO PROVIDE CONTROL OF SOIL EMISSIONS.

4) EXISTING WINDBREAK VEGETATION SHALL BE MARKED AND PRESERVED. SNOW FENCING OR OTHER SUITABLE BARRIER MAY BE PLACED PERPENDICULAR TO PREVAILING AIR CURRENTS AT INTERVALS OF ABOUT 15 TIMES THE BARRIER HEIGHTS TO CONTROL AIR CURRENTS AND BLOWING SOIL.

5) CALCIUM CHLORIDE MAY BE APPLIED BY MECHANICAL SPREADER AS LOOSE, DRY GRANULES OR FLAKES AT A RATE THAT KEEPS THE SURFACE MOIST BUT NOT SO HIGH AS TO CAUSE WATER POLLUTION OR PLANT DAMAGE. APPLICATION RATES SHOULD BE STRICTLY IN ACCORDANCE WITH SUPPLIERS' SPECIFIED RATES.

6) WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHOULD BE APPLIED AS NEED TO ACCOMPLISH CONTROL.

7) PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SHOULD BE CLEANED DAILY, OR AS NEEDED, UTILIZING A STREET SWEEPER OR BUCKET-TYPE ENDLOADER OR SCRAPER.

**TEMPORARY SEEDING**

1) STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

2) TEMPORARY SEEDING / STABILIZATION SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDDED WITHIN 7 DAYS AFTER GRADING.

3) THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

4) TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE USE OF SOIL AMENDMENTS, BASE RATES FOR LIME AND FERTILIZER SHALL BE USED.

5) SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER, SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

**NOTE:**

APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH, WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES ON FAVORABLE, VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION. IF MULCH SHALL BE USED, FOLLOW THE REQUIREMENTS AND INSTRUCTIONS IN THE MULCH APPLICATION.

ANY DISTURBED AREAS THAT ARE NOT GOING TO BE WORKED FOR 14 DAYS DURING WINTER MUST BE SEEDED AND MULCHED BY NOVEMBER 1.

Table with 2 columns: AREA REQUIRING TEMPORARY STABILIZATION, TIME FRAME TO APPLY EROSION CONTROLS. Includes rows for disturbed areas within 50 feet of a watercourse, all construction activities, and disturbed areas during winter.

**PERMANENT SEEDING**

**NOTES:**

1) SUBSOILER, PLOW, OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMUM INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.

2) THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.

3) TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

4) AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 POUNDS PER 1,000 SQ. FT. OR 2 TONS PER ACRE.

5) FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN PLACE OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 POUNDS PER 1,000 SQ. FT. OR 1,000 POUNDS PER ACRE OF A 10-10-10 OR 12-12-12 ANALYSES.

6) THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

7) SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE-SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

8) SEEDING SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 20. DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER.

9) THE FOLLOWING METHODS MAY BE USED FOR 'DORMANT SEEDING':

- FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20, AND BEFORE MARCH 15, BROADCAST THE SELECTED SEED MIXTURE. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
- FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
- APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO-SEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED.
- WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHERE FEASIBLE.

10) PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY WEATHER OR ON ADVERSE SITE CONDITIONS, WHICH REQUIRE ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH. IRRIGATION SHALL BE MONITORED TO PREVENT EROSION AND DAMAGE TO SEEDED AREAS FROM EXCESSIVE RUNOFF.

Table with 2 columns: AREA REQUIRING PERMANENT STABILIZATION, TIME FRAME TO APPLY EROSION CONTROLS. Includes rows for dormant areas, areas within 50 feet of a watercourse, and areas at final grade.

SITE INSPECTIONS SHALL BE DONE WEEKLY AND AFTER EVERY RAINFALL EVENT EXCEEDING 1/2" OF RAINFALL. ALL NECESSARY REPAIRS SHOULD BE IMPLEMENTED IMMEDIATELY AFTER SUCH INSPECTIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING WEEKLY EROSION CONTROL INSPECTION REPORTS. SUCH REPORTS SHALL BE MADE AVAILABLE TO OWNER, ENGINEER AND CITY / STATE OFFICIALS UPON THEIR REQUEST.

**SWPPP AMENDMENT LOG**

PROJECT NAME: \_\_\_\_\_

SWPPP CONTACT: \_\_\_\_\_

Table with 4 columns: AMENDMENT No., DATE OF AMENDMENT, AMENDMENT PREPARED BY (NAME(S) AND TITLE), DESCRIPTION OF THE AMENDMENT. Includes rows 1 through 6.

**GRADING AND STABILIZATION LOG**

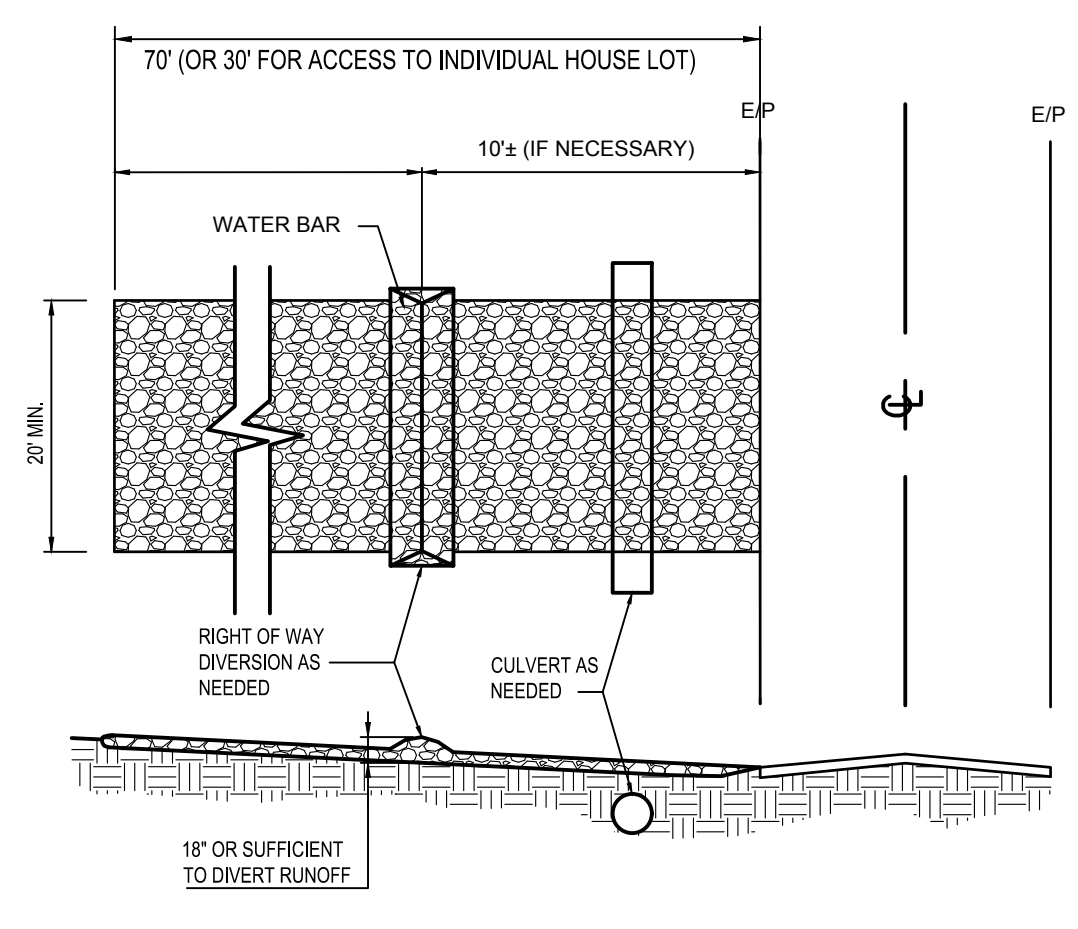
PROJECT NAME: \_\_\_\_\_

SWPPP CONTACT: \_\_\_\_\_

Table with 6 columns: DATE GRADING ACTIVITY INITIATED, TEMPORARY OR PERMANENT ACTIVITY, LOCATION AND DESCRIPTION OF THE GRADING ACTIVITY, DATE GRADING ACTIVITY CEASED, DATE OF STABILIZATION MEASURES INITIATED, DESCRIPTION OF THE STABILIZATION MEASURE AND LOCATION.

**PERMANENT SEEDING**

Table with 3 columns: SEED MIX, SEEDING RATE (LB./AC., LB./1,000 SQ FT), NOTES. Includes sections for GENERAL USE, STEEP BANKS OR CUT SLOPES, ROAD DITCHES AND SWALES, and LAWNS.



TEMPORARY STABILIZED CONSTRUCTION ENTRANCE N.T.S.

**NOTES**

- 1. STONE SIZE - NO. 2 STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
- 2. THE CONSTRUCTION ENTRANCE SHALL COINCIDE WITH THE PROPOSED DRIVE AS SHOWN ON THE PLAN.
- 3. PAVEMENT THICKNESS - STONE LAYER SHALL BE 6" THICK FOR STANDARD DUTY ACTIVITY AND 10" THICK FOR HEAVY DUTY ACTIVITY.
- 4. DRIVEWAY WIDTH - THE ENTRANCE SHALL BE AT LEAST 20' WIDE. CONTRACTOR SHALL ENSURE ALL VEHICLES UTILIZE THE CONSTRUCTION ENTRANCE UNTIL PAVEMENT IS IN PLACE.
- 5. BEDDING-A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE SPECIFICATIONS SHOWN BELOW.
- 6. CULVERT-A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
- 7. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
- 8. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
- 9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SHALL BE RESTRICTED FROM MUDDY AREAS.
- 10. THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

ISSUED FOR CONSTRUCTION 09/17/18. A series of downward-pointing triangles indicating construction status.

CONTRACT DATE: XX.XX.XX BUILDING TYPE: T40M-O PLAN VERSION: JAN 18 SITE NUMBER: 312720/446548 STORE NUMBER: 2017088.72

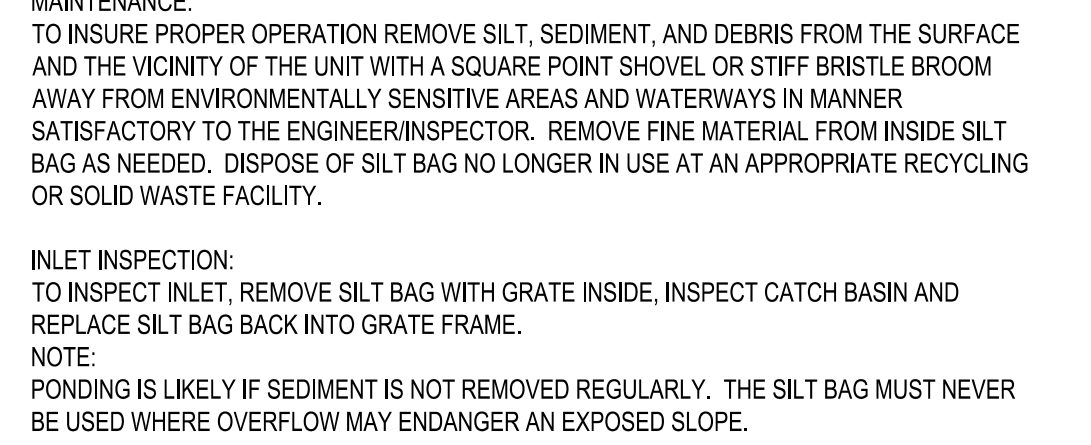
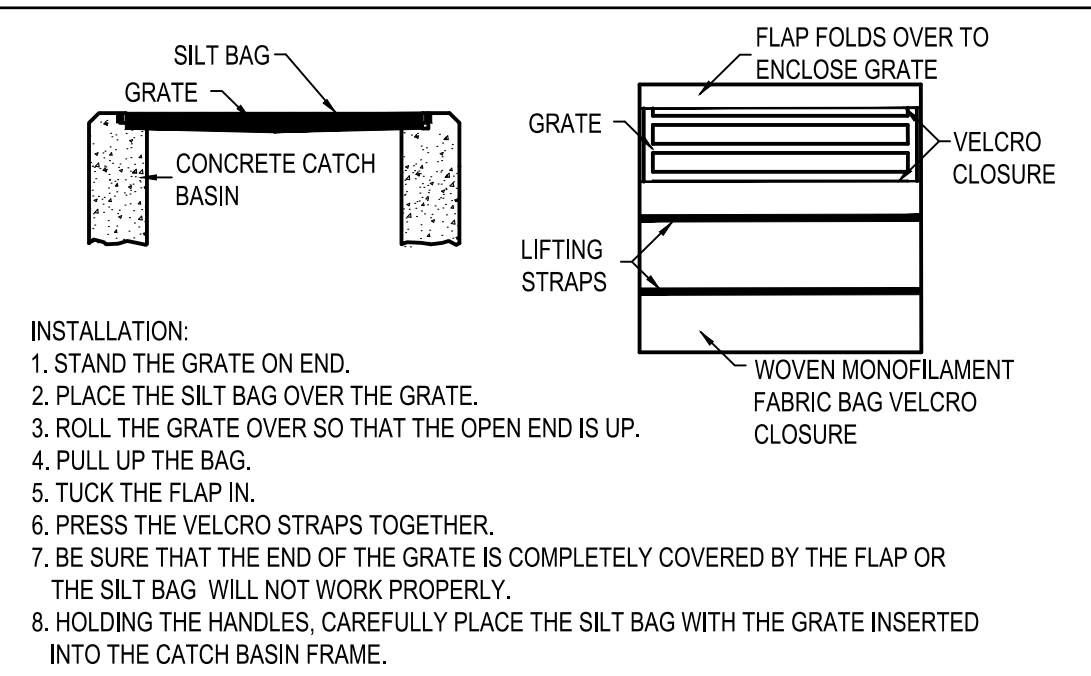
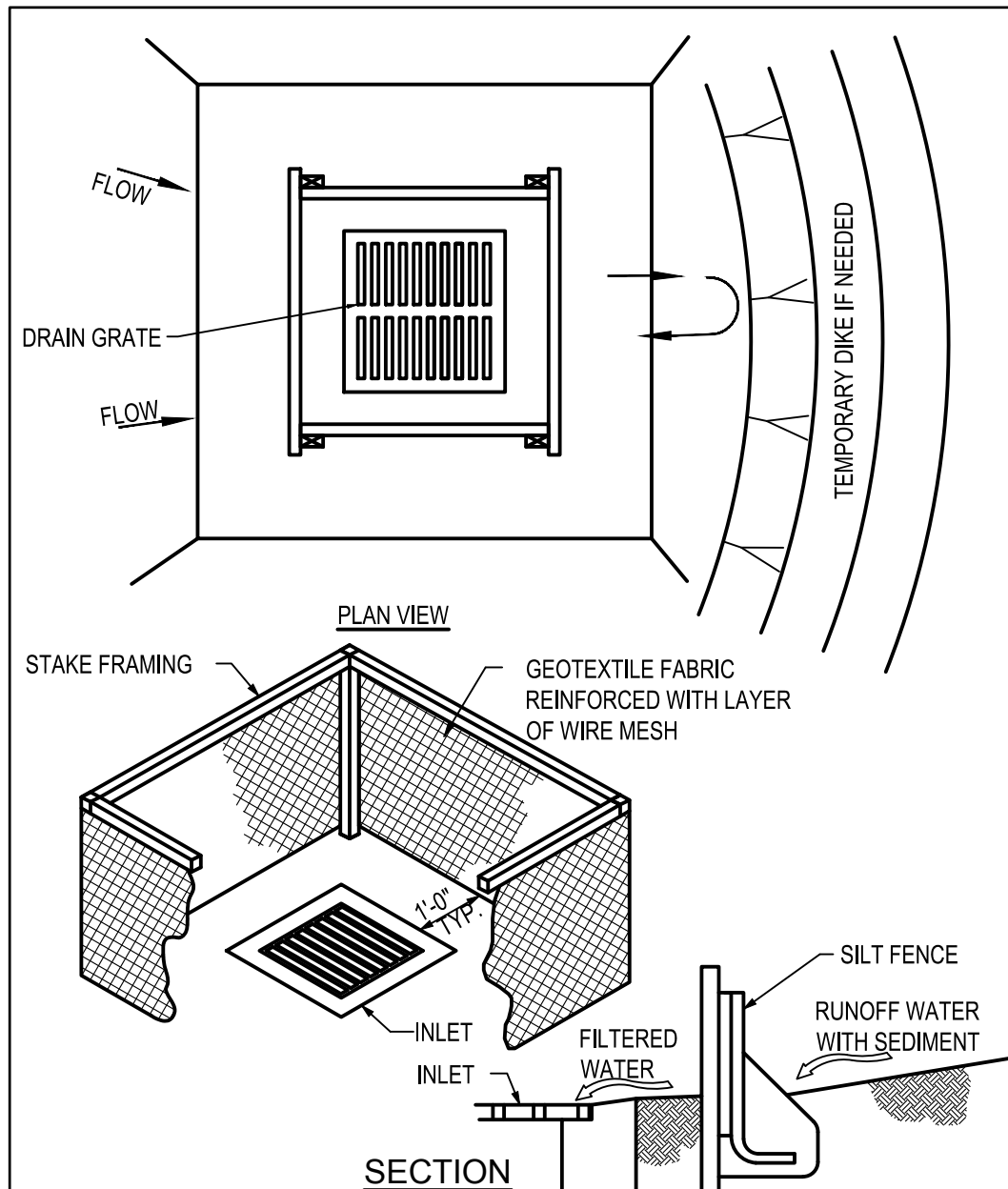
TACO BELL 20779 13 MILE RD. WESTLAND, MI



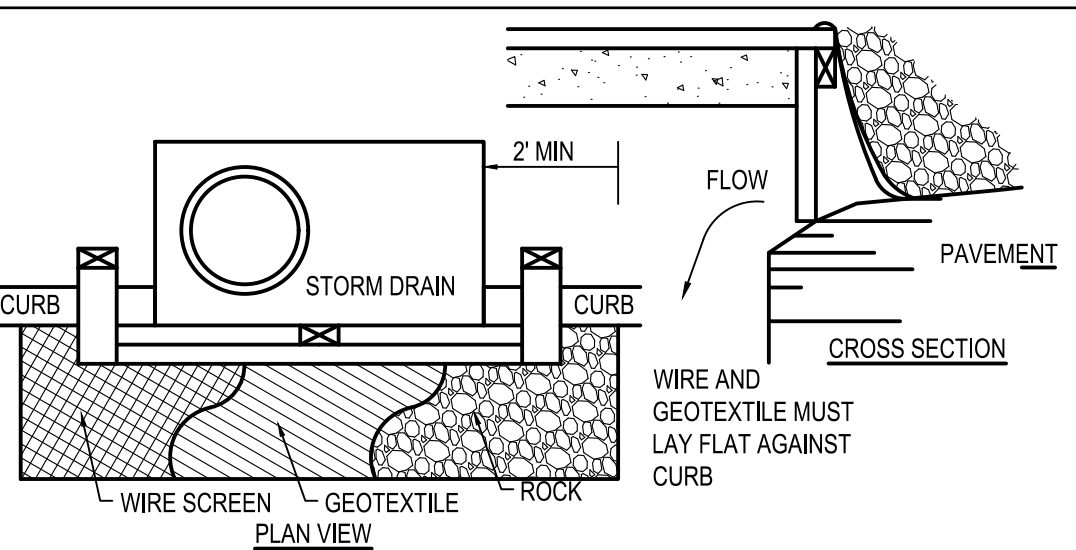
MODERN EXPLORER T40 - OPEN KITCHEN

**SWPP NOTES AND DETAILS**

**C-133**



**C2 SILT BAG INLET PROTECTION**  
N.T.S.



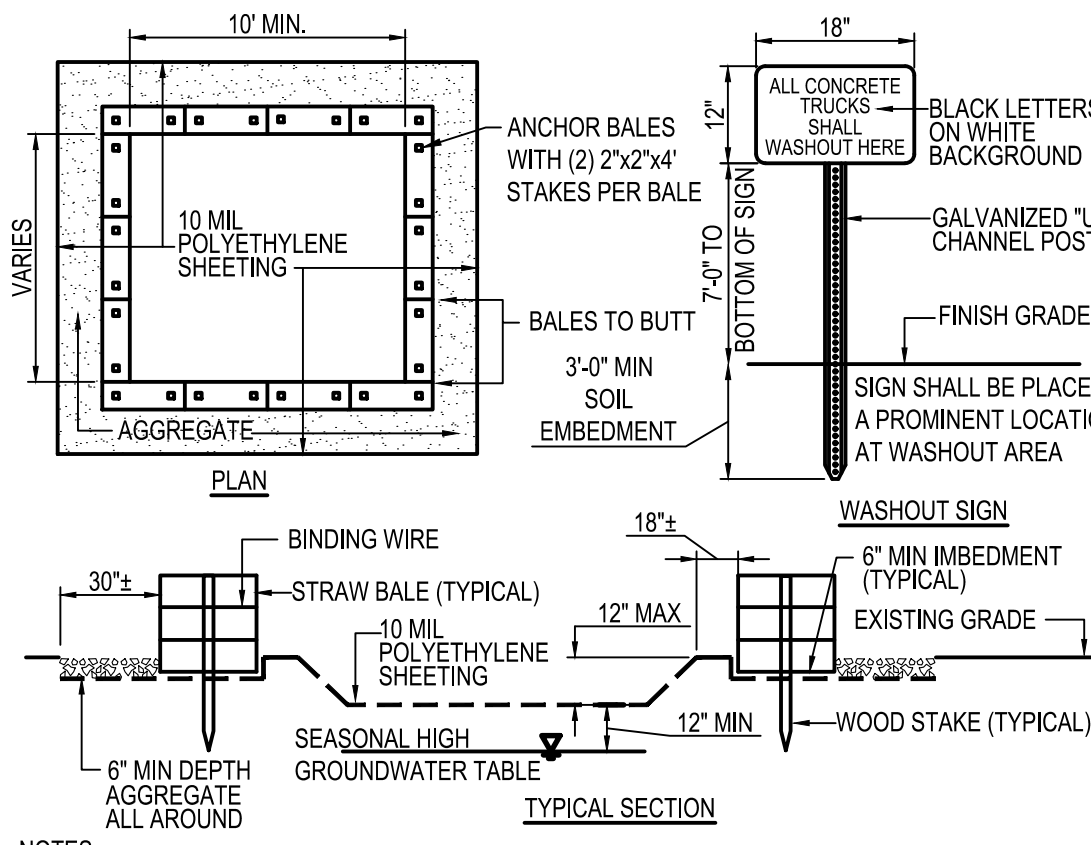
- INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE INLET BECOMES FUNCTIONAL.
- CONSTRUCT A WOODEN FRAME OF 2-BY-4-IN. CONSTRUCTION-GRADE LUMBER. THE END SPACERS SHALL BE A MINIMUM OF 1 FT. BEYOND BOTH ENDS OF THE THROAT OPENING. THE ANCHORS SHALL BE NAILED TO 2-BY-4-IN. STAKES DRIVEN ON THE OPPOSITE SIDE OF THE CURB.
- THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC AND STONE. IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM WIDTH OF 30 IN. AND 4 FT. LONGER THAN THE THROAT LENGTH OF THE INLET, 2 FT. ON EACH SIDE.
- GEOTEXTILE CLOTH SHALL HAVE AN EQUIVALENT OPENING SIZE (EOS) OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE AT LEAST THE SAME SIZE AS THE WIRE MESH.
- THE WIRE MESH AND GEOTEXTILE CLOTH SHALL BE FORMED TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET AND SECURELY FASTENED TO THE 2-BY-4-IN. FRAME.
- TWO-INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.
- THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE STONE AND/OR GEOTEXTILE REPLACED WHEN CLOGGED WITH SEDIMENT.

**C3 CURB INLET PROTECTION**  
N.T.S.

- NOTES:**
- INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
  - SILT FENCE SHALL BE GEOTEXTILE FABRIC, PER STATE'S DEPARTMENT OF TRANSPORTATION STANDARDS, AND SHOULD BE CUT FROM A CONTINUOUS ROLL TO AVOID JOINTS.
  - STAKES SHALL BE 1" x 2" WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET. STAKES SHALL BE SPACED AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART AND SECURELY DRIVEN INTO THE GROUND (MINIMUM OF 8 INCHES). THE TOP OF THE FRAME SHALL BE AT LEAST 6 IN. BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
  - WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
  - THE SILT FENCE SHALL BE STAPLED WITH HEAVY DUTY WIRE STAPLES AT LEAST 1/2 INCH LONG, TO THE WOODEN STAKES, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH, THE HEIGHT OF THE FILTER BARRIER SHALL BE A MINIMUM OF 15 INCHES AND SHALL NOT EXCEED 18 INCHES (PLATE 1.08B).
  - THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
  - A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP AROUND THE OUTSIDE PERIMETER OF THE STAKES.
  - BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 IN. LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
  - A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 IN. HIGHER THAN THE TOP OF THE FRAME.

**MAINTENANCE:**  
SILT FENCE SHOULD BE INSPECTED REGULARLY AND FREQUENTLY AS WELL AS AFTER EACH RAINFALL EVENT TO INSURE THAT THEY ARE INTACT AND THERE ARE NO GAPS AT THE FENCE-GROUND INTERFACE OR TEARS ALONG THE LENGTH OF THE FENCE. IF GAPS OR TEARS ARE FOUND, THEY SHOULD BE REPAIRED OR THE FABRIC REPLACED IMMEDIATELY. ACCUMULATED SEDIMENTS SHOULD BE REMOVED FROM THE FENCE BASE WHEN THE SEDIMENT REACHES ONE-THIRD TO ONE-HALF THE HEIGHT OF THE FENCE. SEDIMENT REMOVAL SHOULD OCCUR MORE FREQUENTLY IF ACCUMULATED SEDIMENT IS CREATING NOTICEABLE STRAIN ON THE FABRIC AND THERE IS THE POSSIBILITY OF THE FENCE FAILING FROM A SUDDEN STORM EVENT. WHEN THE SILT FENCE IS REMOVED, THE ACCUMULATED SEDIMENT SHOULD BE REMOVED.

**B1 YARD INLET PROTECTION**  
N.T.S.



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

**B2 CONCRETE WASHOUT AREA**  
N.T.S.

**SILTSACK SPECIFICATION**  
Control of Sediment Entering Catch Basins (Stormwater Management)

**1.0 Description**  
1.1 This work shall consist of furnishing, installing, maintaining, and removing SILTSACK Sediment Control Device as directed by the engineer or as shown on the contract drawings. The SILTSACK Sediment Control Device is manufactured by:

ACF Environmental, Inc.  
1801 A-Willie Road  
Richmond, Virginia 23237  
Phone: 804-644-9223  
Fax: 804-743-7779

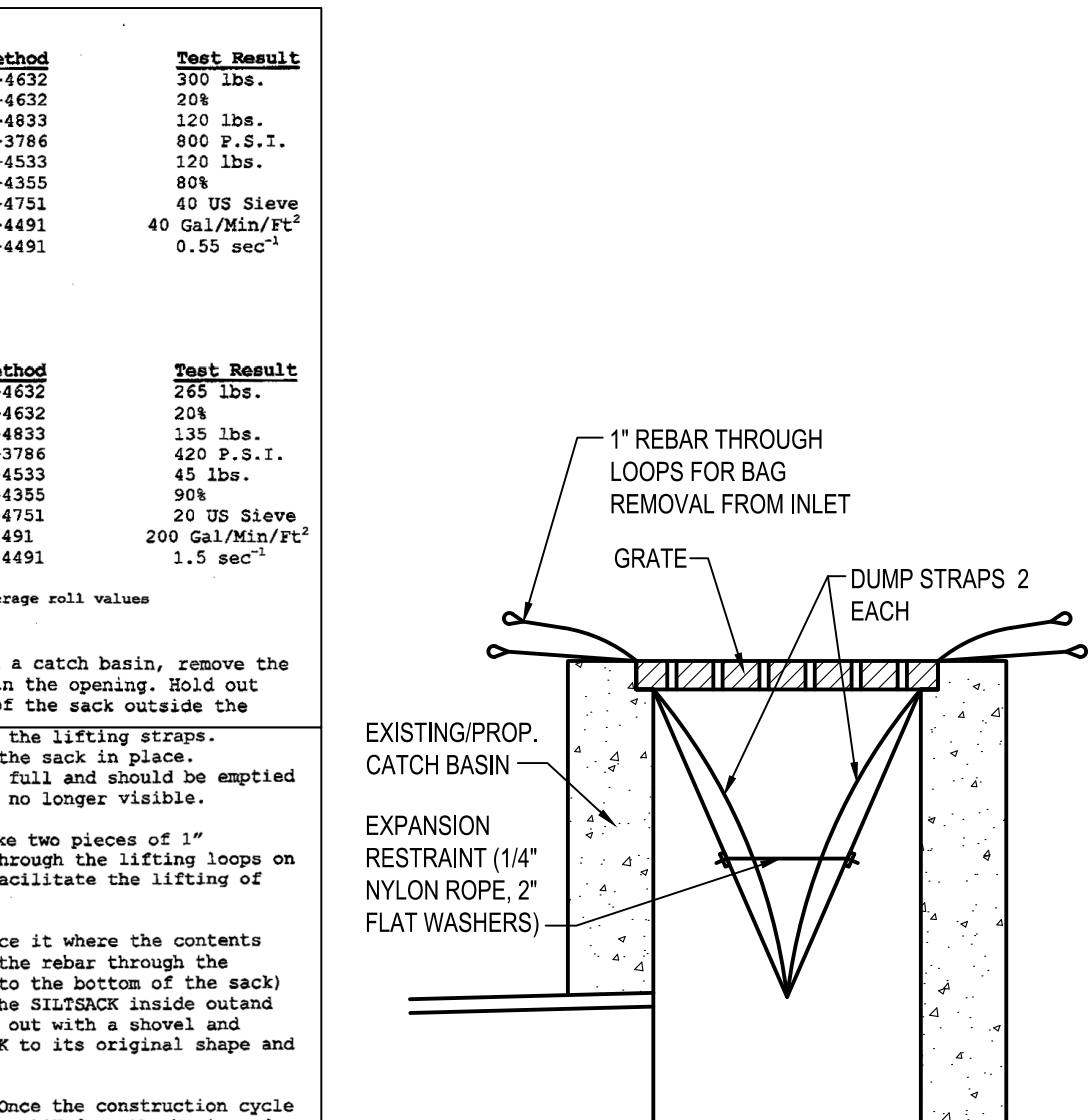
**2.0 Materials**  
2.0.1 The SILTSACK shall be manufactured from a woven polypropylene and sewn by a double needle machine, using a high strength nylon thread.  
2.0.2 The SILTSACK seams shall have a certified average wide width strength per ASTM D-4884 standards as follows:

SILTSACK Style	Test Method	Test Result
Regular Flow	ASTM D-4884	165.0 lbs./in
Hi-Flow	ASTM D-4884	114.6 lbs./in

2.0.3 The SILTSACK will be manufactured to fit the opening of the catch basin or drop inlet. The SILTSACK will have the following features: two dump straps attached at the bottom to facilitate the emptying of the SILTSACK; the SILTSACK shall have lifting loops as an integral part of the system to be used to lift the SILTSACK from the basin; the SILTSACK shall have a restraint cord approximately halfway up the sack to the SILTSACK.

2.0.4 The geotextile fabric shall be a woven polypropylene fabric with the following properties:

**3.0 Construction Sequence**  
3.0.1 To install the SILTSACK in a catch basin, remove the grate and place the sack in the opening. Hold out approximately six inches of the sack outside the frame. This is the area of the lifting straps.  
3.0.2 The SILTSACK is considered full and should be emptied when the restraint cord is no longer visible.  
3.0.3 To remove the SILTSACK, take two pieces of 1" diameter rebar and place through the lifting loops on each side of the sack to facilitate the lifting of the SILTSACK.  
3.0.4 To empty the SILTSACK, place it where the contents will be collected. Place the rebar through the lifting straps (connected to the bottom of the sack) and lift. This will turn the SILTSACK inside out and empty the contents. Clean out with a shovel and rinse. Return the SILTSACK to its original shape and place back in the basin.  
3.0.5 The SILTSACK is reusable. Once the construction cycle is complete, remove the SILTSACK from the basin and clean. The SILTSACK should be stored out of the sunlight until needed on another project.



**A1 SILTSACK DETAIL**  
N.T.S.

**COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS**

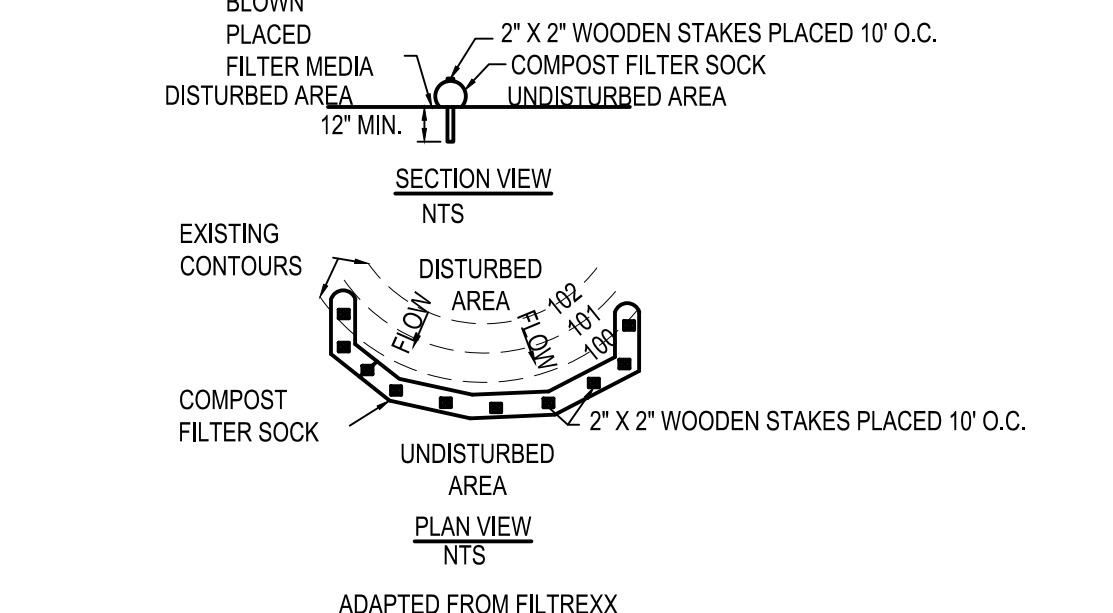
MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPF)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (MFPF)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 24" 32"	18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

**SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS**

INNER CONTAINMENT NETTING	OUTER FILTRATION MESH
HDPE BIAXIAL NET	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER & NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
CONTINUOUSLY WOUND	3/16" MAX. APERTURE SIZE
FUSION-WELDED JUNCTURES	3/16" MAX. APERTURE SIZE

**COMPOST SHALL MEET THE FOLLOWING STANDARDS:**

ORGANIC MATTER CONTENT	80% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.0
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS MAXIMUM



ADAPTED FROM FILTREXX  
COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT.  
TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.  
SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH 1/2 INCH STORM RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

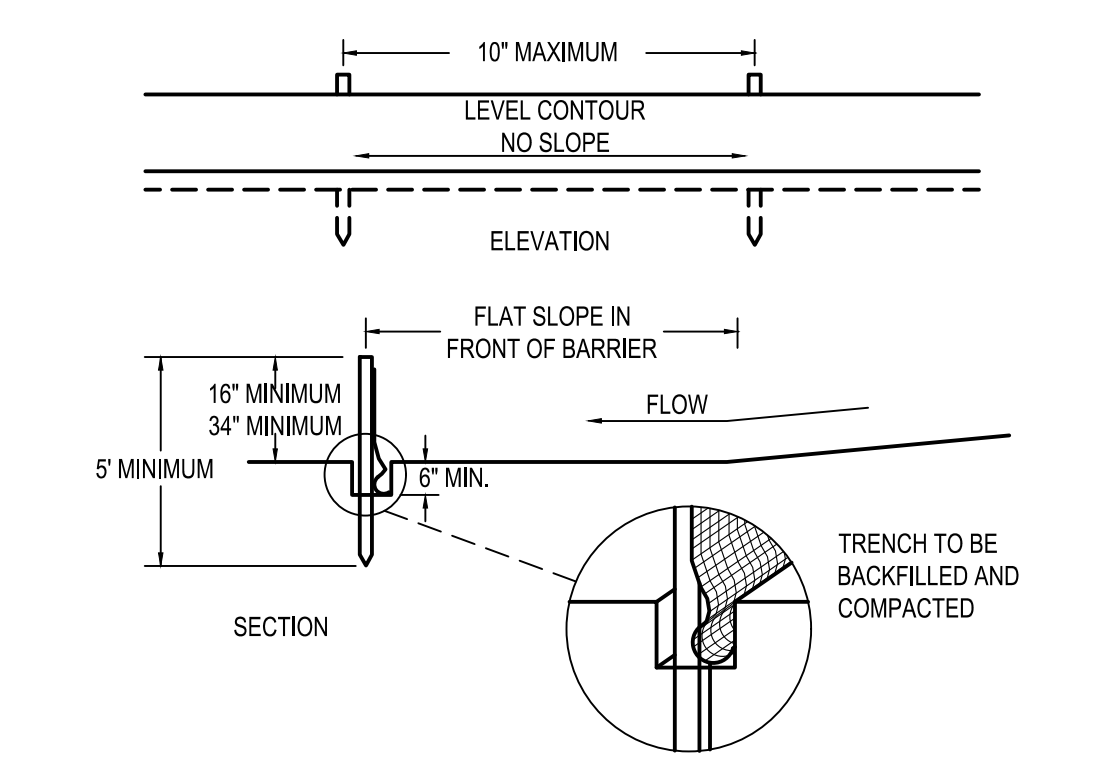
BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

**A4 COMPOST FILTER SOCK**  
N.T.S.

- NOTES:**
- SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
  - ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
  - TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
  - WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
  - WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
  - THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
  - THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND SECURELY SEALED.
  - POSTS SHALL BE A MINIMUM OF 5 FEET LONG, 2 INCHES IN DIAMETER AND SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
  - THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
  - THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN. OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
  - WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS.
  - THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
  - SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
  - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: A) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, B) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR C) OTHER PRACTICES SHALL BE INSTALLED.

**MAINTENANCE:**  
SILT FENCE SHOULD BE INSPECTED REGULARLY AND FREQUENTLY AS WELL AS AFTER EACH RAINFALL EVENT TO INSURE THAT THEY ARE INTACT AND THERE ARE NO GAPS AT THE FENCE-GROUND INTERFACE OR TEARS ALONG THE LENGTH OF THE FENCE. IF GAPS OR TEARS ARE FOUND, THEY SHOULD BE REPAIRED OR THE FABRIC REPLACED IMMEDIATELY. ACCUMULATED SEDIMENTS SHOULD BE REMOVED FROM THE FENCE BASE WHEN THE SEDIMENT REACHES ONE-THIRD TO ONE-HALF THE HEIGHT OF THE FENCE. SEDIMENT REMOVAL SHOULD OCCUR MORE FREQUENTLY IF ACCUMULATED SEDIMENT IS CREATING NOTICEABLE STRAIN ON THE FABRIC AND THERE IS THE POSSIBILITY OF THE FENCE FAILING FROM A SUDDEN STORM EVENT. WHEN THE SILT FENCE IS REMOVED, THE ACCUMULATED SEDIMENT SHOULD BE REMOVED.



**CRITERIA FOR GEOTEXTILE FABRIC SILT FENCE, PER CURRENT STATE'S DOT SPECIFICATIONS.**

FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	120 LB. MINIMUM	ASTM D 4832
MINIMUM BURST STRENGTH	200 PSI MINIMUM	
MINIMUM PERMITTIVITY	1x10 <sup>-2</sup> sec <sup>-1</sup>	ASTM D 4491
APPARENT OPENING SIZE	AOS ≤ 0.84 mm	ASTM D 4751
UV EXPOSURE STRENGTH RETENTION	70%	ASTM G 4335
MAXIMUM ELONGATION AT 60 LBS.	50%	ASTM D 4832
MINIMUM PUNCTURE STRENGTH	50 LBS (220N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS (180N)	ASTM D 4533

**A5 SILT FENCE**  
N.T.S.



ISSUED FOR CONSTRUCTION 09/17/18

CONTRACT DATE: XX.XX.XX  
PLANNING TYPE: T40M-0  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

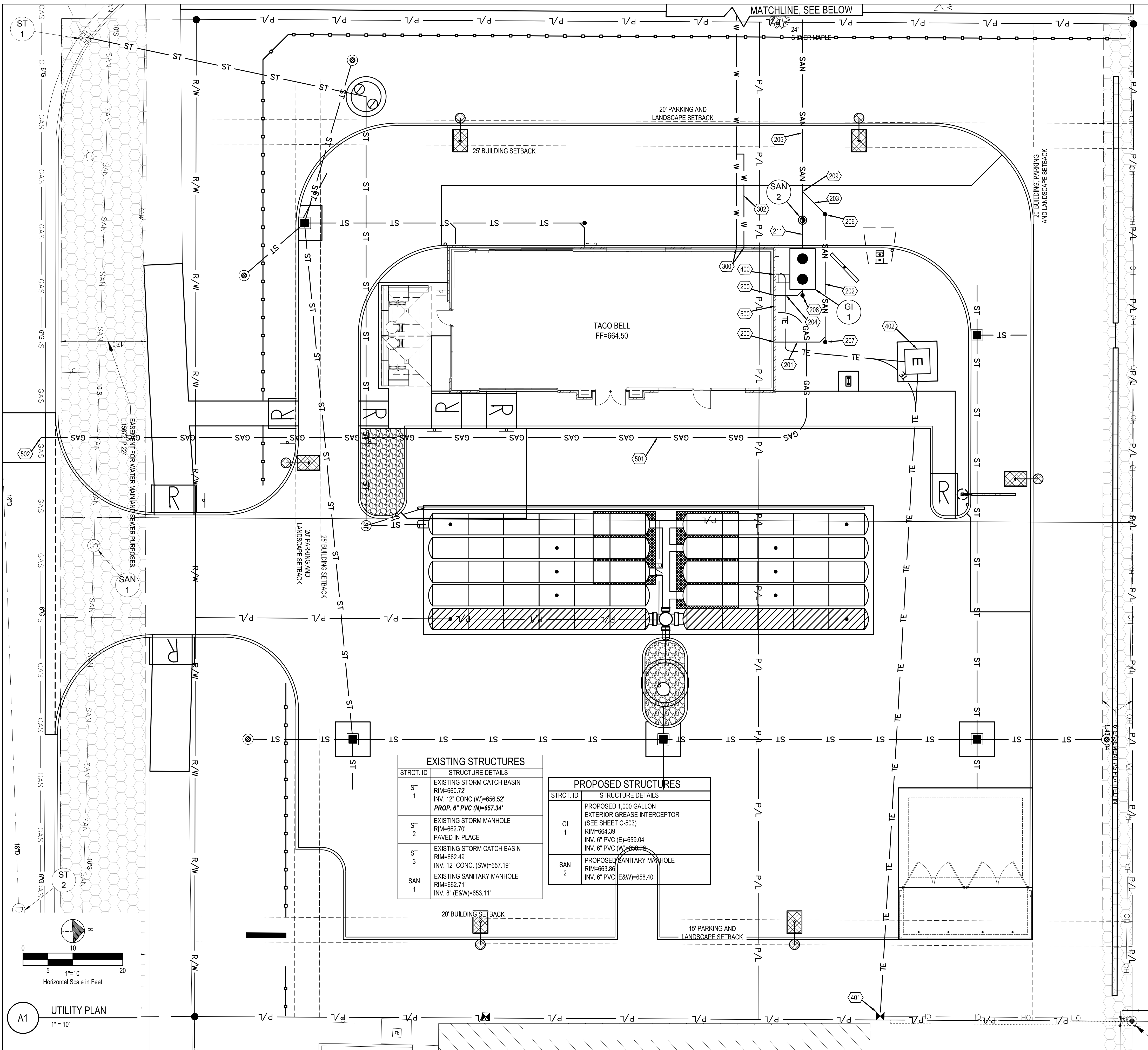


**MODERN EXPLORER**  
T40 - OPEN KITCHEN

**SWPP NOTES AND DETAILS**

**C-134**





- GENERAL SHEET NOTES**
- SEE SHEET C-001 FOR ADDITIONAL UTILITY NOTES.
  - UTILITY PLAN CONTINUED ON SHEET C-141 SPECIFIC TO STORM SYSTEM.
  - CONTRACTOR TO RE-ESTABLISH BENCHMARK #3 PRIOR TO DEMOLITION OF EXISTING GUY POLE.
  - SEE KEY PLAN, SHEET C-001 FOR LOCATION OF STRUCTURES INDICATED BUT NOT SHOWN ON SHEET C-140.
  - CONTRACTOR SHALL FIELD VERIFY THE INVERTS AND SLOPE OF THE EXISTING 12" SANITARY SEWER TO BE TAPPED.

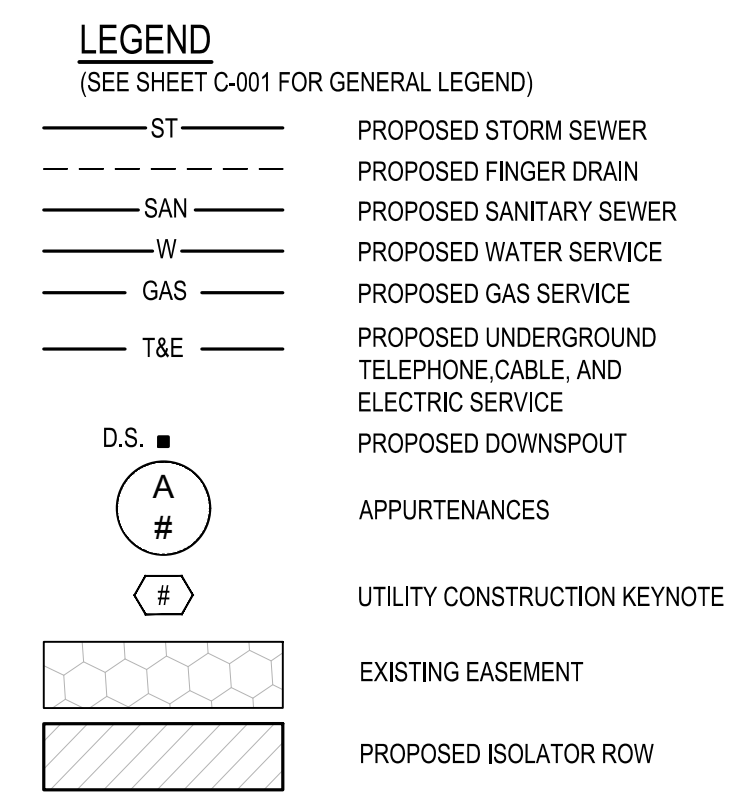
- SANITARY**
- PROPOSED SANITARY CONNECTION, INV.=658.50.
  - PROPOSED 10 L.F. OF 6" (PVC) SANITARY SEWER @ 3.60%.
  - PROPOSED 26 L.F. OF 6" (PVC) SANITARY SEWER @ 3.46%.
  - PROPOSED 6 L.F. OF 6" (PVC) SANITARY SEWER @ 3.83%.
  - PROPOSED 7 L.F. OF 6" (PVC) SANITARY SEWER @ 6.57%.
  - PROPOSED 51 L.F. OF 6" (PVC) SANITARY SEWER @ 6.79%.
  - PROPOSED SANITARY CLEANOUT SEE SHEET C-503 AND WYE CONNECTION SHEET C-503, INV.=658.24.
  - PROPOSED SANITARY CLEANOUT SEE SHEET C-503 AND WYE CONNECTION SHEET C-503, INV.=659.14.
  - PROPOSED SANITARY CLEANOUT SEE SHEET C-503 AND WYE CONNECTION SHEET C-503, INV.=659.04.
  - PROPOSED SANITARY WYE CONNECTION, SEE SHEET C-503, INV.=658.01.
  - PROPOSED SANITARY SEWER SERVICE CONNECTION, CONTRACTOR SHALL PROVIDE CONNECTION PER CITY OF WESTLAND DEPARTMENT OF PUBLIC WORKS WATER AND SEWER DIVISION STANDARDS. PROPOSED 6" INV.=654.92; EXISTING 12" INV.=654.42; SEE SHEET C-503.
  - PROPOSED 6 L.F. OF 6" (PVC) SANITARY SEWER @ 6.79%.

- WATER**
- PROPOSED WATER CONNECTION, COORDINATE WITH PLUMBING PLANS.
  - PROPOSED 89 L.F. OF 2" (COPPER TYPE "K") WATER SERVICE LINE.
  - PROPOSED 89 L.F. OF 1-1/2" (COPPER TYPE "K") WATER SERVICE LINE.
  - PROPOSED WATER SERVICE TAP AND WATER VALVE PER CITY OF WESTLAND DEPARTMENT OF PUBLIC WORKS DIVISION OF WATER AND SEWER STANDARDS AND SPECIFICATIONS, SEE SHEET C-503.

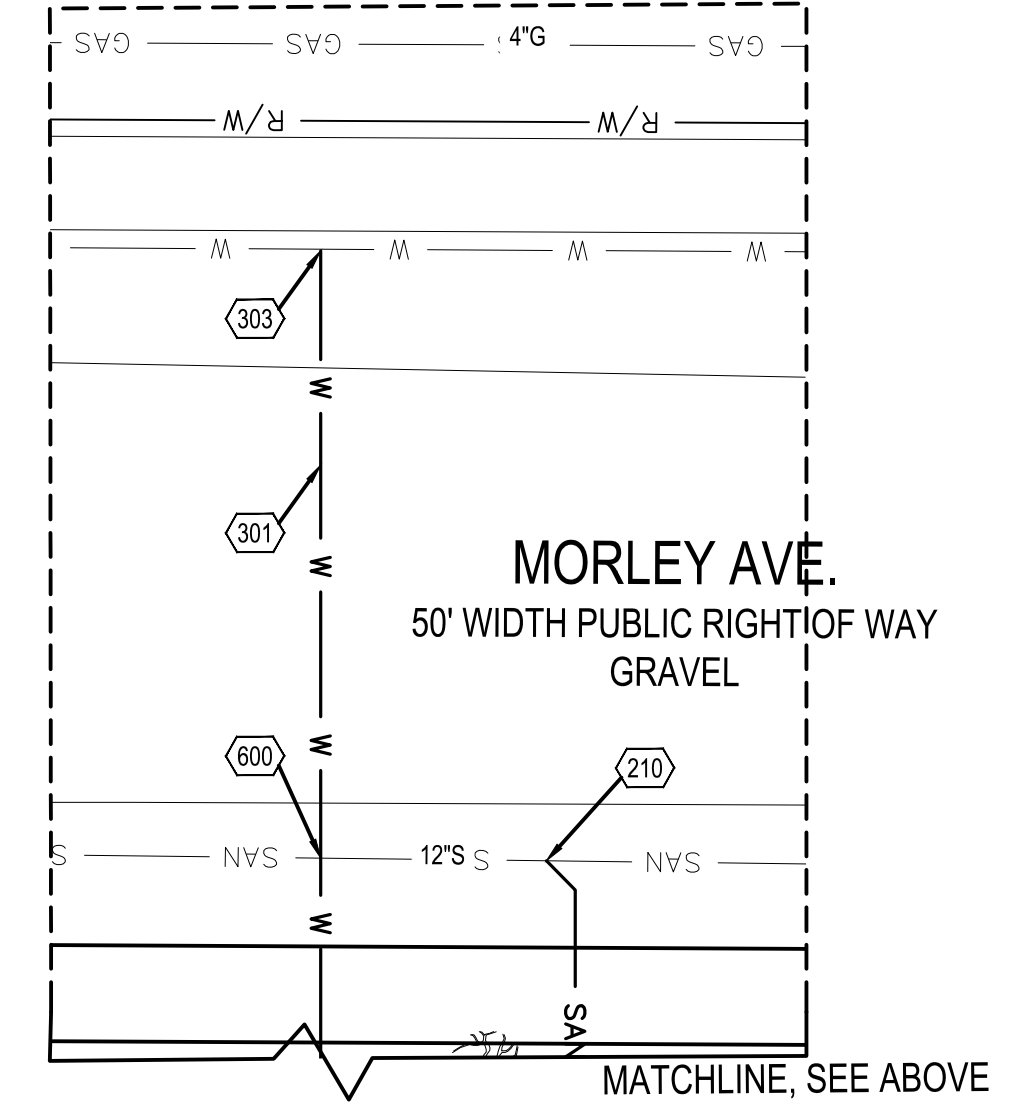
- ELECTRIC AND COMMUNICATIONS**
- PROPOSED ELECTRIC METER PER ELECTRIC COMPANY SPECIFICATIONS. SEE BUILDING DRAWINGS FOR EXACT LOCATION. ELECTRIC SERVICE LINE TO BE COORDINATED WITH THE ELECTRIC COMPANY.
  - PROPOSED ELECTRIC AND TELECOMMUNICATIONS SERVICE CONNECTION TO BE COORDINATED WITH THE UTILITY COMPANIES.
  - PROPOSED ELECTRICAL TRANSFORMER PER ELECTRICAL COMPANY SPECIFICATIONS. G.C. TO VERIFY EXACT LOCATION AND SIZE WITH UTILITY ENGINEER.

- GAS**
- PROPOSED GAS METER PER GAS COMPANY SPECIFICATIONS. SEE BUILDING DRAWINGS FOR EXACT LOCATION. GAS SERVICE LINE TO BE COORDINATED WITH THE GAS COMPANY.
  - PROPOSED 190 L.F. GAS SERVICE CONNECTION TO BE COORDINATED WITH THE GAS COMPANY.
  - PROPOSED CONNECTION TO EXISTING UTILITY. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR METHOD OF CONNECTION.

- UTILITY CROSSINGS**
- GENERAL CROSSING NOTES: CONTRACTOR SHALL COORDINATE ALL CROSSINGS WITH THE UTILITY COMPANY. PRESSURIZED AND SECONDARY UTILITIES SHALL DEFLECT TO MAINTAIN 18" CLEAR AT SANITARY OR STORM SEWER CROSSINGS.
- PROPOSED UTILITY CROSSING: 12" SANITARY INV.=654.25x; 2" WATER INV.=659.25x.



EXISTING STRUCTURES		PROPOSED STRUCTURES	
STRICT. ID	STRUCTURE DETAILS	STRICT. ID	STRUCTURE DETAILS
ST 1	EXISTING STORM CATCH BASIN RIM=660.72' INV. 12" CONC (W)=656.52' PROP. 6" PVC (N)=657.34'	GI 1	PROPOSED 1,000 GALLON EXTERIOR GREASE INTERCEPTOR (SEE SHEET C-503) RIM=664.39 INV. 6" PVC (E)=659.04 INV. 6" PVC (W)=658.75'
ST 2	EXISTING STORM MANHOLE RIM=662.70' PAVED IN PLACE	SAN 2	PROPOSED SANITARY MANHOLE RIM=663.88 INV. 6" PVC (E&W)=658.40
ST 3	EXISTING STORM CATCH BASIN RIM=662.49' INV. 12" CONC. (SW)=657.19'		
SAN 1	EXISTING SANITARY MANHOLE RIM=662.71' INV. 8" (E&W)=653.11'		



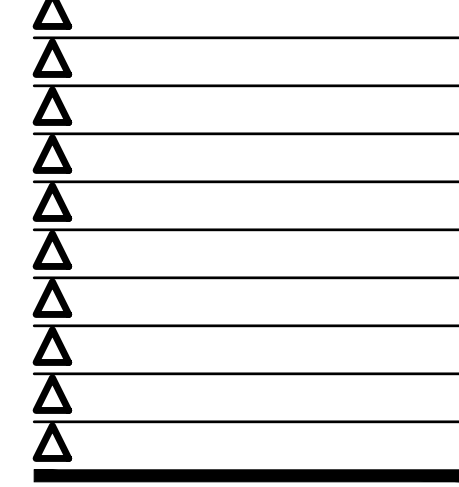
NOTE: EMERGENCY OVERLAND OVERTFLOW FROM UNDERGROUND DETENTION SYSTEM FLOWS TO APRONS AND OUT TO PUBLIC ROADS.



520 South Main Street, Suite 2531  
Akron, OH 44311  
330.572.2100 Fax: 330.572.2102

**SANITARY**

ISSUED FOR CONSTRUCTION 09/17/18



CONTRACT DATE: XX.XX.XX  
BUILDING TYPE: T40M-O  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

TACO BELL  
20779 13 MILE RD.  
WESTLAND, MI

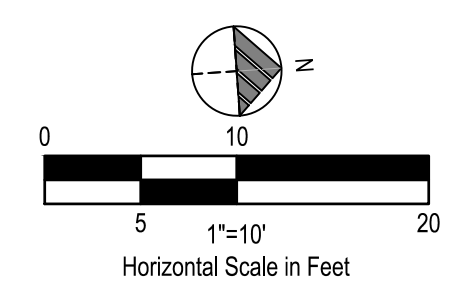


MODERN EXPLORER  
T40 - OPEN KITCHEN

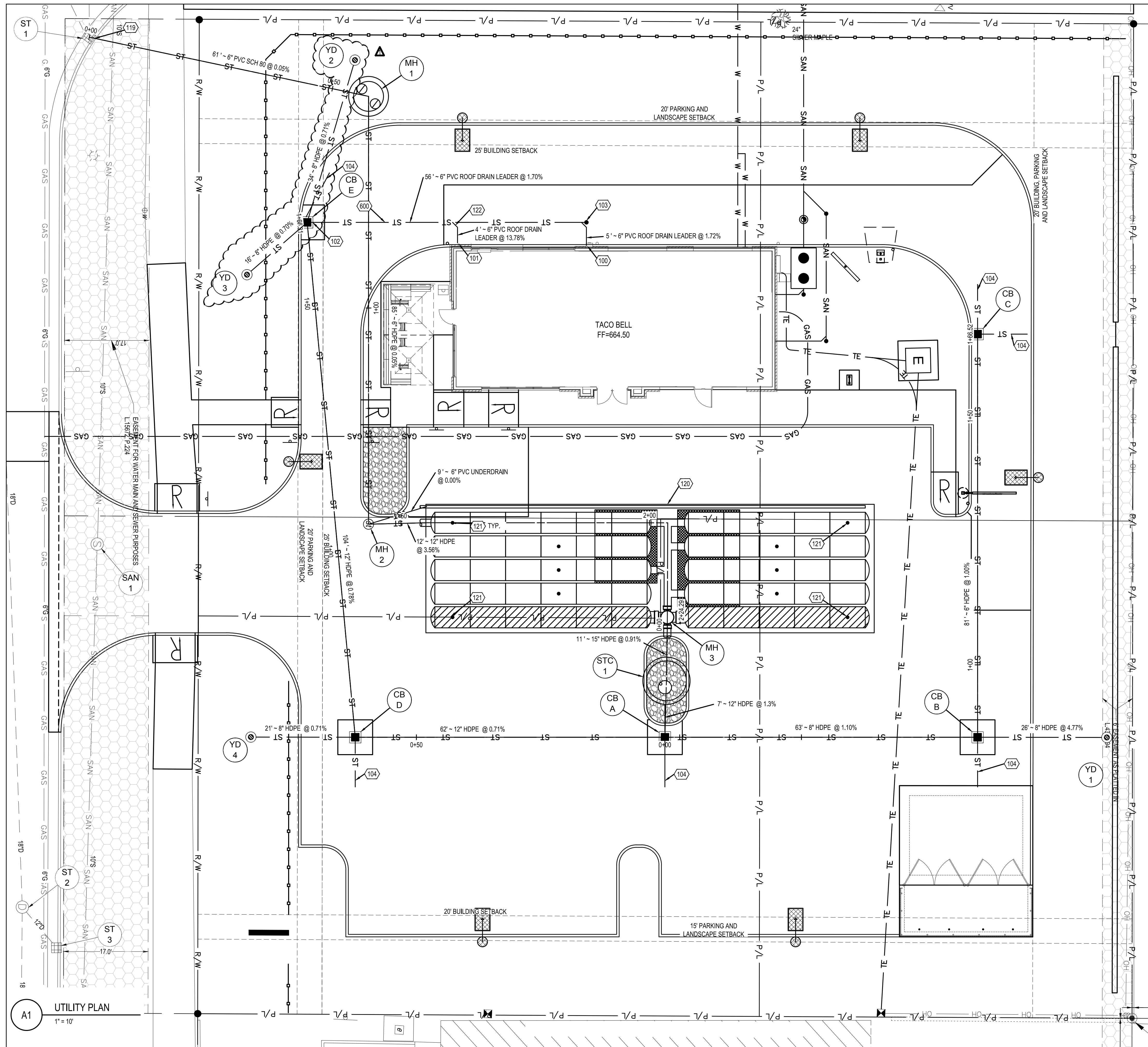
**UTILITY PLAN**

**C-140**

A1 UTILITY PLAN  
1" = 10'







**PLAN KEYNOTES**

**STORM**

- 100. DOWNSPOUT INVERT AT BUILDING = 661.15.
- 101. DOWNSPOUT INVERT AT BUILDING = 661.20.
- 102. CONTRACTOR SHALL INSTALL 6" SDR 35 PVC STORM PIPE AND SUPPLY FITTINGS AS REQUIRED TO CONNECT PROPOSED DOWNSPOUT CONNECTIONS TO PROPOSED CATCH BASIN CB E. ALL PIPES SHALL MAINTAIN A MINIMUM COVER OF TWO FEET. THE CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED PIPE LOCATIONS AND NOTIFY CONSTRUCTION MANAGER IMMEDIATELY IF THERE ARE ANY ISSUES MAINTAINING POSITIVE DRAINAGE. CONTRACTOR SHALL INSTALL CLEANOUTS AS SHOWN ON PLAN, FLUSH WITH FINISHED PAVEMENT GRADE, SEE SHEET C-503.
- 103. PROPOSED STORM CLEANOUT AND WYE CONNECTION, SEE SHEET C-503. INV.=661.06.
- 104. PROPOSED FINGER DRAIN, SEE SHEET C-503.
- 119. CONTRACTOR SHALL CONNECT INTO EXISTING STRUCTURE WITH A WATERTIGHT SEAL.
- 120. PROPOSED STORMTECH UNDERGROUND DETENTION SYSTEM, SEE SHEETS C-146 & C-147 FOR SPECIFICATIONS AND DETAIL INFORMATION.
- 121. PROPOSED SC-740 INSPECTION PORT, SEE SHEET C-147.
- 122. PROPOSED WYE CONNECTION, SEE SHEET C-503. INV.=660.62.

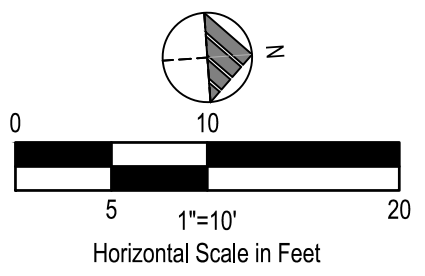
**UTILITY CROSSINGS**

GENERAL CROSSING NOTES: CONTRACTOR SHALL COORDINATE ALL CROSSINGS WITH THE UTILITY COMPANY. PRESSURIZED AND SECONDARY UTILITIES SHALL DEFLECT TO MAINTAIN 18" CLEAR AT SANITARY OR STORM SEWER CROSSINGS.

- 600. PROPOSED UTILITY CROSSING: 12" STORM INV.=657.38; 6" STORM INV.=660.39.

EXISTING STRUCTURES		PROPOSED STRUCTURES	
STRCT. ID	STRUCTURE DETAILS	STRCT. ID	STRUCTURE DETAILS
ST 1	EXISTING STORM CATCH BASIN RIM=660.72' INV. 12" CONC (W)=656.52' <b>PROP. 6" PVC (N)=657.34'</b>	CB A	4" DIA. CATCH BASIN, MDOT R-1-G RIM = 662.84 4" PVC UNDERDRAIN (E) 8" HDPE PIPE INV (N)=658.50 12" HDPE PIPE INV (S)=658.27 12" HDPE PIPE INV (W)=658.17
ST 2	EXISTING STORM MANHOLE RIM=662.70' PAVED IN PLACE	CB B	4" DIA. CATCH BASIN, MDOT R-1-G RIM = 663.00 4" PVC UNDERDRAIN (N&E) 6" HDPE PIPE INV (W)=659.36 8" HDPE PIPE INV (S)=659.19 8" HDPE PIPE INV (N)=659.29
ST 3	EXISTING STORM CATCH BASIN RIM=662.49' INV. 12" CONC. (SW)=657.19'	CB C	4" DIA. CATCH BASIN, MDOT R-1-G 4" PVC UNDERDRAIN (N&W) RIM = 663.00 6" HDPE PIPE INV (E)=660.17
SAN 1	EXISTING SANITARY MANHOLE RIM=662.71' INV. 8" (E&W)=653.11'	CB D	4" DIA. CATCH BASIN, MDOT R-1-G RIM = 662.79 4" PVC UNDERDRAIN (E&S) 12" HDPE PIPE INV (W)=658.81 12" HDPE PIPE INV (N)=658.71 8" HDPE PIPE INV (S)=659.04
		CB E	4" DIA. CATCH BASIN, MDOT R-1-G RIM = 663.21 4" PVC UNDERDRAIN (NW) 4" HDPE PIPE INV (N)=660.12 12" HDPE PIPE INV (E)=659.62 8" HDPE PIPE INV (S)=659.62 8" HDPE PIPE INV (W)=659.62
		MH 3	PROPOSED 4" DIA. STANDARD DIVERSION MANHOLE W/ 2' SUMP RIM = 663.42 15" HDPE PIPE INV (E)=657.90 12" HDPE PIPE INV (N&S)=657.74 12" HDPE PIPE INV (W)=658.65
		MH 2	4" DIA. MANHOLE, MDOT R-1-G RIM = 663.57 12" HDPE PIPE INV (N)=657.41 6" PVC SCH 80 INV (W)=657.41 6" PVC INV (NW)=657.23
		MH 1	PROPOSED FLOW RESTRICTOR STRUCTURE, FR-1, SEE SHEET C-145 RIM = 663.17 6" HDPE PIPE INV (S)=657.37 6" HDPE PIPE INV (E)=657.37
		STC 1	STORMCEPTOR - STC 2400 RIM = 663.68 12" HDPE PIPE INV (E)=658.08 15" HDPE PIPE INV (W)=658.00
		YD 1	YARD DRAIN, SEE SHEET C-502 RIM = 663.20 8" HDPE PIPE INV (S)=660.53
		YD 2	YARD DRAIN, SEE SHEET C-502 RIM = 661.80 8" HDPE PIPE INV (E)=659.86
		YD 3	YARD DRAIN, SEE SHEET C-502 RIM = 661.80 8" HDPE PIPE INV (N)=659.73
		YD 4	YARD DRAIN, SEE SHEET C-502 RIM = 661.80 8" HDPE PIPE INV (N)=659.19

\*INVERT(S) TO BE SET BASED ON PAVEMENT SECTION DESIGNED IN SOILS REPORT WHEN COMPLETED.



ISSUED FOR CONSTRUCTION	09/17/18
BULLETIN #1	09/17/18
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CONTRACT DATE: XX.XX.XX  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: JAN 18  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**TACO BELL**  
 20779 13 MILE RD.  
 WESTLAND, MI

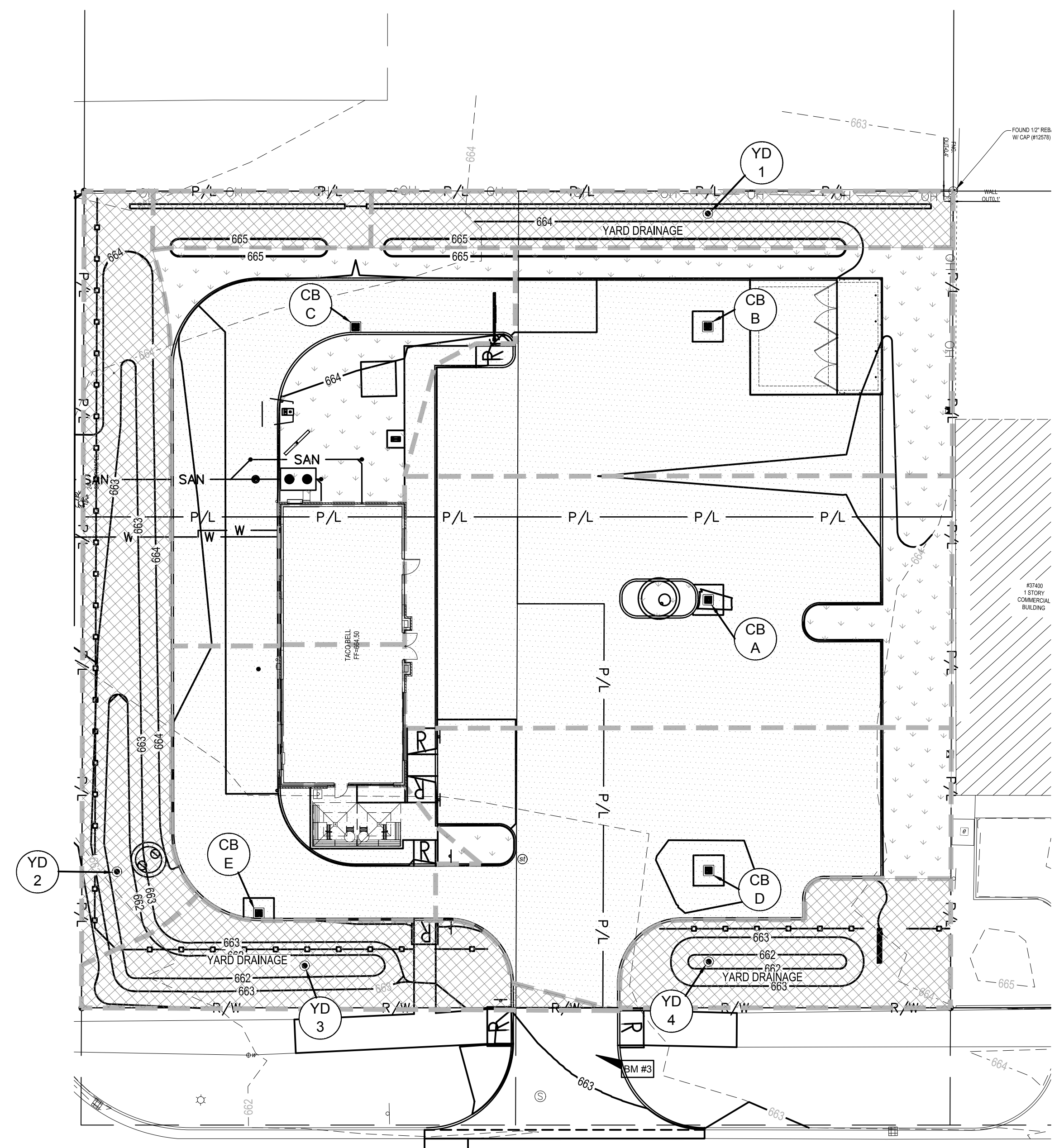
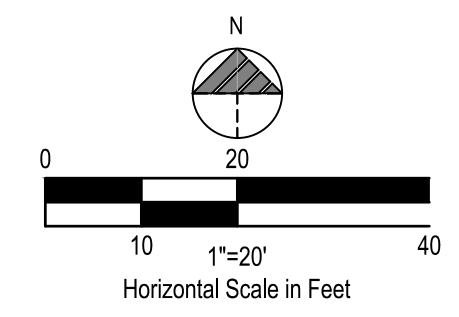
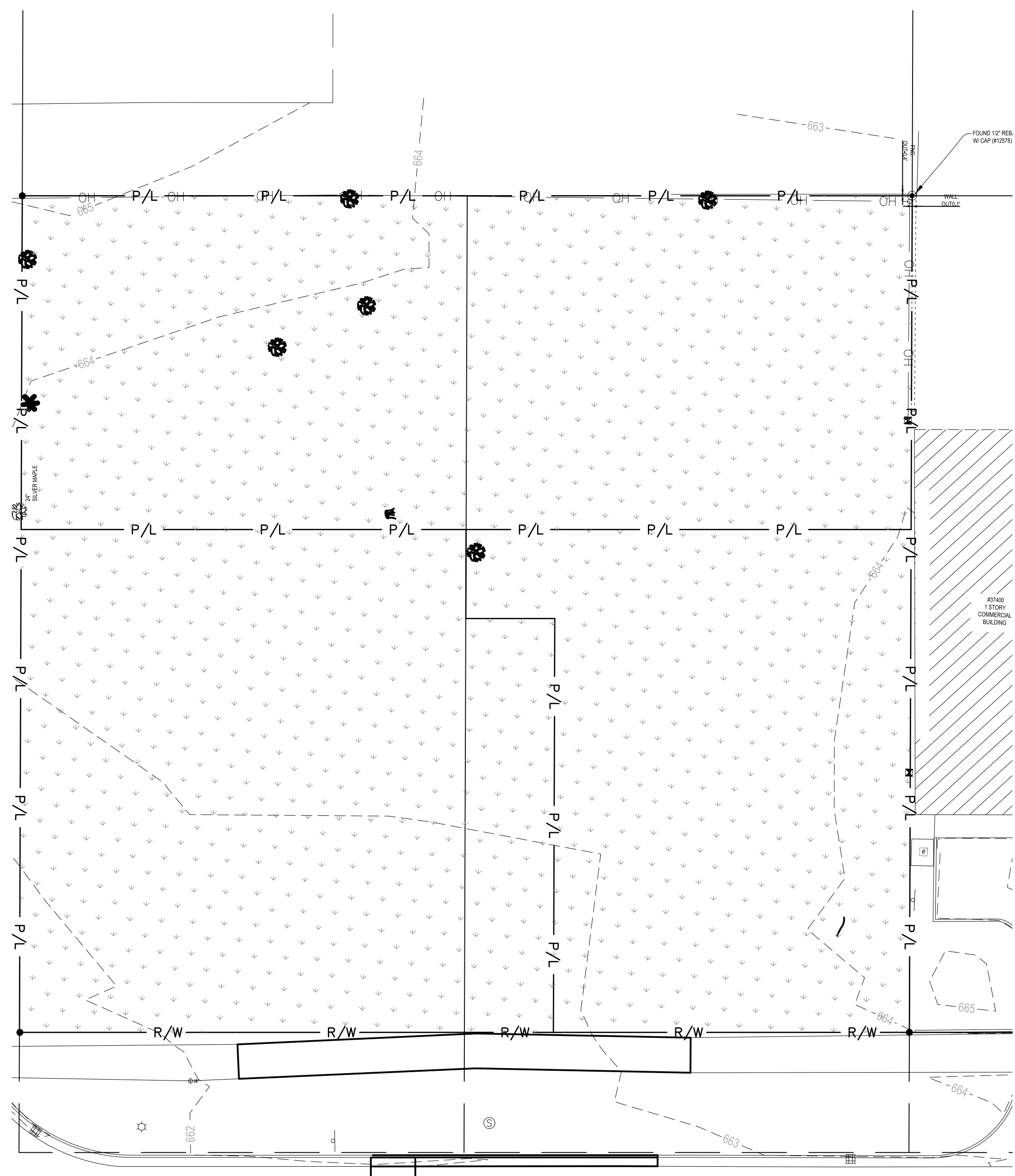


**MODERN EXPLORER**  
 T40 - OPEN KITCHEN

**UTILITY PLAN (CONT.)**

**C-141**

**A1 UTILITY PLAN**  
 1" = 10'



PERMIT FROM MDOT IS REQUIRED FOR ALL PROPOSED WORK WITHIN THE RIGHT-OF-WAY OF FORD ROAD.

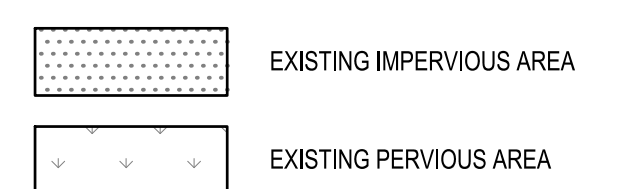
FORD ROAD  
120' WIDTH PUBLIC RIGHT OF WAY ASPHALT

PERMIT FROM MDOT IS REQUIRED FOR ALL PROPOSED WORK WITHIN THE RIGHT-OF-WAY OF FORD ROAD.

FORD ROAD  
120' WIDTH PUBLIC RIGHT OF WAY ASPHALT

NOTE: EMERGENCY OVERLAND OVERFLOW FROM UNDERGROUND DETENTION SYSTEM FLOWS TO APRONS AND OUT TO PUBLIC ROADS.

**IMPERVIOUS/PERVIOUS DELINEATION**



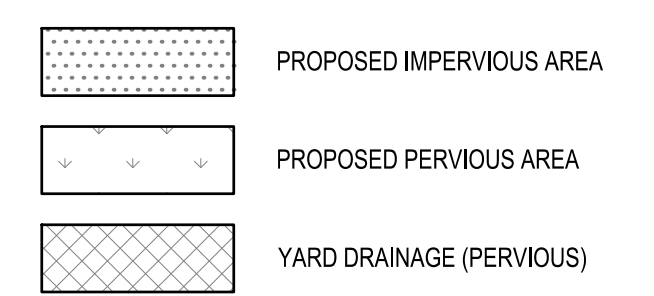
TOTAL IMPERVIOUS DRAINAGE AREA = 0.00 AC  
TOTAL PERVIOUS DRAINAGE AREA = 0.86 AC  
IMPERVIOUS RUNOFF COEFFICIENT = 0.95  
PERVIOUS RUNOFF COEFFICIENT = 0.25  
TOTAL WEIGHTED RUNOFF COEFFICIENT = 0.25

MDOT CALCULATION AREAS:  
TOTAL IMPERVIOUS DRAINAGE AREA = 0.00 AC  
TOTAL PERVIOUS DRAINAGE AREA = 0.86 AC  
IMPERVIOUS CURVE NUMBERS = 84  
PERVIOUS CURVE NUMBERS = 84  
TOTAL WEIGHTED CURVE NUMBER (CONTROLLED) = 84

MDOT PRE-POST TABLE		
	EXISTING	PROPOSED
	Q (CFS)	Q(CFS)
1-YR	1.172	0.035
2-YR	1.471	0.059
5-YR	2.020	0.105
10-YR	2.554	0.148
25-YR	3.380	0.164
50-YR	4.081	0.611
100-YR	4.825	3.540

NOTE: PRE TO POST COMPARISON VALUES WERE DETERMINED USING SCS SYNTHETIC HYDROGRAPH HYDRAULIC MODELING.

**IMPERVIOUS/PERVIOUS DELINEATION**



TOTAL IMPERVIOUS DRAINAGE AREA = 0.53 AC  
TOTAL PERVIOUS DRAINAGE AREA = 0.33 AC  
IMPERVIOUS RUNOFF COEFFICIENT = 0.95  
PERVIOUS RUNOFF COEFFICIENT = 0.25  
TOTAL WEIGHT RUNOFF COEFFICIENT = 0.68

MDOT CALCULATION AREAS:  
TOTAL IMPERVIOUS DRAINAGE AREA = 0.53 AC  
TOTAL PERVIOUS DRAINAGE AREA = 0.33 AC  
IMPERVIOUS CURVE NUMBERS = 98  
PERVIOUS CURVE NUMBERS = 84  
TOTAL WEIGHTED CURVE NUMBER (CONTROLLED) = 93

A2 EXISTING IMPERVIOUS/PERVIOUS MAP  
1" = 20'

A1 PROPOSED IMPERVIOUS/PERVIOUS MAP  
1" = 20'

SITE BENCHMARK #1:  
ARROW ON HYDRANT, AT THE NORTHWEST CORNER OF FORD ROAD AND MORLEY ROAD.  
ELEVATION = 664.67' (NAVD88)

SITE BENCHMARK #2:  
SET MAG NAIL ON EAST SIDE OF UTILITY POLE, ON WEST SIDE OF MORLEY, 200 FEET NORTH OF FORD ROAD.  
ELEVATION = 666.18' (NAVD88)

SITE BENCHMARK #3:  
SET MAG NAIL ON NORTH SIDE OF GUY POLE, ON NORTH SIDE OF FORD ROAD, NEAR THE MIDDLE OF SITE.  
ELEVATION = 663.88' (NAVD88)

ISSUED FOR CONSTRUCTION	09/17/18
BULLETIN #1	09/17/18

CONTRACT DATE: XX.XX.XX  
BUILDING TYPE: T40M-O  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

TACO BELL  
20779 13 MILE RD.  
WESTLAND, MI



MODERN EXPLORER  
T40 - OPEN KITCHEN

**DRAINAGE MAPS**

**C-142**







TACO BELL - WAYNE COUNTY, MI  
Underground Detention Storm System Calculations

Performed by: MPM  
Date: 1/3/2018  
Revise: 6/18/2018  
10-year Storm Calculations

	Area (Ac.)	C	A x C
Impervious	0.53	0.95	0.50
Pervious	0.33	0.25	0.08
<b>Total</b>	<b>0.86</b>		<b>0.59</b>
		<b>C<sub>AVG</sub></b>	<b>0.68</b>

A = 0.86 acres  
C = 0.68

Q<sub>A</sub> (allowable) = 0.15 \* A = **0.129 cfs**

Q<sub>0</sub> = Q<sub>A</sub> / (A \* C) = **0.22 cfs/acre impervious**  
 T<sub>10</sub> = -19.9 + (4530/Q<sub>0</sub>)<sup>0.5</sup> = **124 min**  
 V<sub>S10</sub> = (9108 \* T<sub>10</sub> / (T<sub>10</sub> + 19.9)) \* 40 \* Q<sub>0</sub> \* T<sub>10</sub> = **6.757 cf/acre impervious**  
 V<sub>T10</sub> = V<sub>S10</sub> \* A \* C = **3,959 cf**  
 V<sub>TR</sub> = 5,160 \* A \* C = **3,024 cf**

Storage Volume Calculations

Using StormTech Chamber

Size	cff/ft	lft provided	# Chambers	Volume (cf)
SC-740	10.06	391.38	55	3,936

Z<sub>0</sub> = 657.41 Pipe Invert at Detention Pipes  
 Z<sub>OUT</sub> = 657.37 Pipe Invert at Outlet Control Structure

First Flush Elevation

Z<sub>ff</sub> = First Flush Storage Elevation = **658.19**

Bank Full Elevation

Z<sub>bf</sub> = Bank Full Storage Elevation = **659.53**

Flood Control Storage Elevation

Z<sub>10</sub> = V<sub>T10</sub> Elevation = **660.73**

Control Outlet Structure Design

Sizing for First Flush  
 Discharge to be released within a 24-hour timeframe

Q<sub>avgff</sub> = V<sub>ff</sub> / (86400) = **0.012 cfs**  
 h<sub>avg</sub> = 0.5 \* (Z<sub>ff</sub> - Z<sub>OUT</sub>) + (Z<sub>0</sub> - Z<sub>OUT</sub>) = **0.405 ft**  
 A<sub>0</sub> = Q<sub>avgff</sub> / (0.62 \* (32.2 \* h<sub>avg</sub>)<sup>0.5</sup>) = **0.0039 sf**  
 Using one 1" hole @ elev. 657.37  
 A<sub>ACTUAL</sub> = **0.0055 sf**  
 Q<sub>avg ACTUAL</sub> = **0.028 cfs**  
 T<sub>ACTUAL</sub> = **29.51 hours**

Outlet Sizing for 10-Year Storm

Q<sub>MAX</sub> = Q<sub>A</sub> = **0.129 cfs**

Bank Full Orifice Contribution

h<sub>bf</sub> = Z<sub>10</sub> - Z<sub>OUT</sub> = **3.36 ft**  
 Q<sub>bf</sub> = 0.62 \* A<sub>ACTUAL</sub> \* (32.2 \* h<sub>bf</sub>)<sup>0.5</sup> = **0.050 cfs**

Additional holes required to release remainder of Q<sub>A</sub>

Q<sub>ADJ</sub> = Q<sub>MAX</sub> - Q<sub>bf</sub> = **0.079 cfs**  
 h<sub>MAX</sub> = Z<sub>10</sub> - Z<sub>bf</sub> = **1.20 ft**  
 A<sub>ADJ</sub> = Q<sub>ADJ</sub> / (0.62 \* (32.2 \* h<sub>MAX</sub>)<sup>0.5</sup>) = **0.0145 sf**  
 Hole Size (diameter) = **1.50 in**  
 Hole Size (area) = **0.0123 sf**  
 Number of Holes = **1.18**  
 Number of holes used = **1.00**  
 Use one 1.5" hole at Elev. 659.53

A<sub>10ACTUAL</sub> = **0.0123 sf**  
 Q<sub>10ACTUAL</sub> = 0.62 \* A<sub>10ACTUAL</sub> \* (32.2 \* h<sub>MAX</sub>)<sup>0.5</sup> = **0.067 cfs**

Q<sub>TOTAL</sub> = Q<sub>bf</sub> + Q<sub>10ACTUAL</sub> = **0.117 cfs < 0.129 cfs**

Outlet Pipe Design for 10-Year Event

Q<sub>A</sub> = **0.129 cfs**  
 (See closed conduit sizing for 10-year storm)

Pipe Size = **6.0 in**  
 Area = **0.1963 sf**  
 n = **0.012**  
 R = **0.125 ft**  
 Slope = ((Q<sub>PEAK</sub> \* n) / (1.486 \* A<sub>OUT</sub> \* R<sup>0.67</sup>))<sup>2</sup> = **0.0457 %** using 0.05%  
 V = Q<sub>PEAK10</sub> / A = **0.66 ft/s**

Project: Taco Bell - Westland, MI

Chamber Model -  
Units -

SC-740 Imperial	55
Voids in the stone (porosity) -	25 %
Base of STONE Elevation -	657.23 ft
Amount of Stone Above Chambers -	6 in
Amount of Stone Below Chambers -	6 in
Area of system -	2332 sf Min. Area - 1859 sf min. area



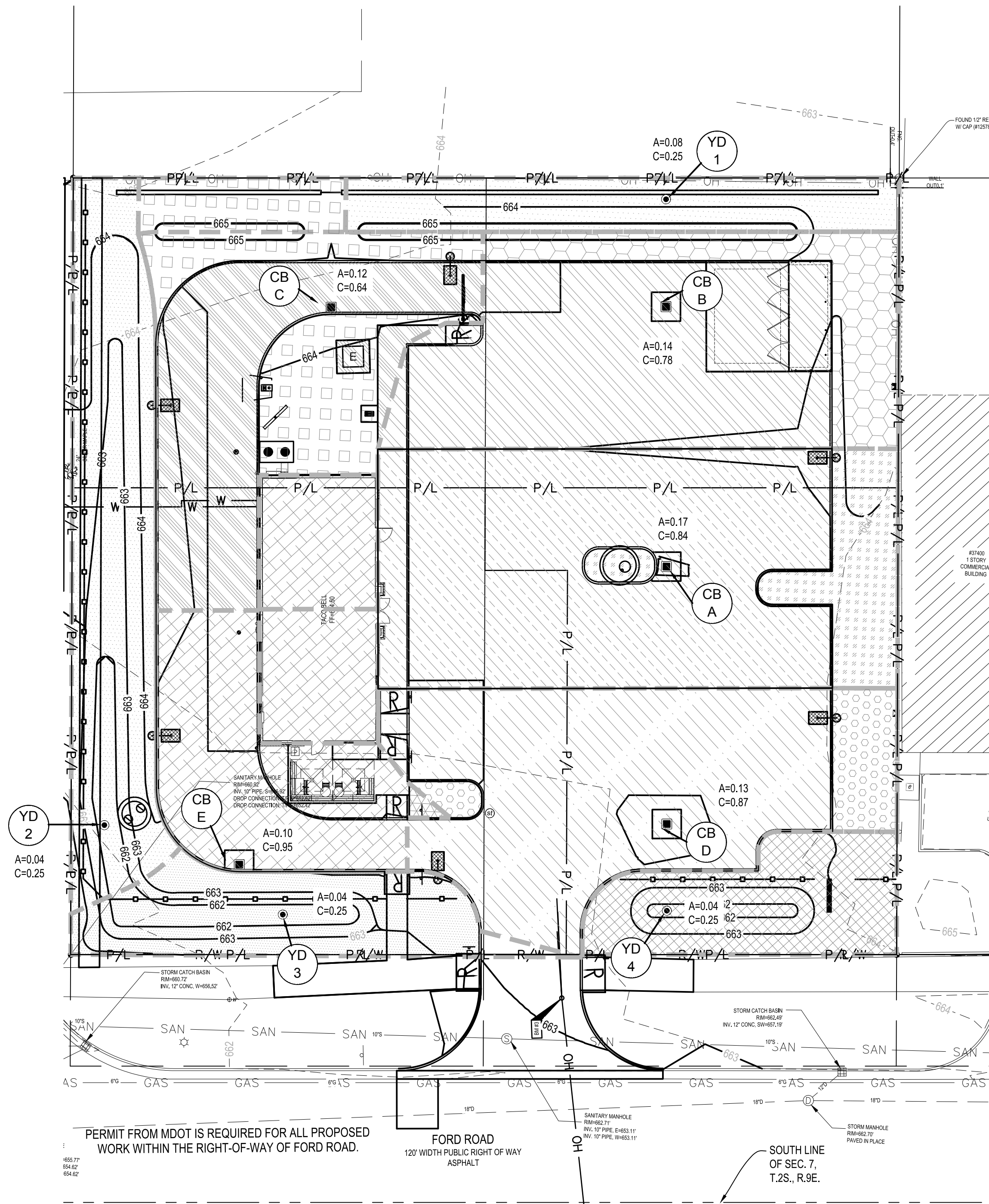
Include Perimeter Stone in Calculations

StormTech SC-740 Cumulative Storage Volumes

Height of System (inches)	Incremental Single Chamber (cubic feet)	Incremental Total Chamber (cubic feet)	Incremental Stone (cubic feet)	Incremental Ch & St (cubic feet)	Cumulative Chamber (cubic feet)	Elevation (feet)
41	0.00	0.00	48.58	48.58	3935.97	660.73
42	0.00	0.00	48.58	48.58	3887.39	660.65
40	0.00	0.00	48.58	48.58	3838.81	660.56
39	0.00	0.00	48.58	48.58	3790.22	660.48
38	0.00	0.00	48.58	48.58	3741.64	660.40
37	0.00	0.00	48.58	48.58	3693.06	660.31
36	0.05	3.02	47.83	50.85	3644.47	660.23
35	0.16	8.96	46.34	55.30	3595.82	660.15
34	0.28	15.51	44.71	60.21	3547.10	660.06
33	0.60	33.22	40.28	73.50	3498.40	659.98
32	0.80	44.09	37.56	81.65	3449.71	659.90
31	0.95	52.29	35.51	87.80	3401.02	659.81
30	1.07	59.10	33.81	92.91	3352.33	659.73
29	1.18	64.93	32.35	97.28	3303.64	659.65
28	1.27	69.61	31.18	100.79	3254.95	659.56
27	1.36	74.53	29.95	104.48	3206.26	659.48
26	1.45	79.98	28.59	108.56	3157.57	659.40
25	1.52	83.86	27.62	111.48	3108.88	659.31
24	1.58	87.03	26.83	113.85	3060.19	659.23
23	1.64	90.33	26.00	116.33	3011.50	659.15
22	1.70	93.47	25.22	118.69	2962.81	659.06
21	1.75	96.41	24.48	120.89	2914.12	658.98
20	1.80	99.15	23.79	122.95	2865.43	658.90
19	1.85	102.02	23.08	125.10	2816.74	658.81
18	1.89	104.12	22.55	126.67	2768.05	658.73
17	1.93	106.37	21.99	128.36	2719.36	658.65
16	1.97	108.62	21.43	130.05	2670.67	658.56
15	2.01	110.55	20.95	131.49	2621.98	658.48
14	2.04	112.47	20.46	132.94	2573.29	658.40
13	2.07	114.12	20.05	134.18	2524.60	658.31
12	2.10	115.77	19.64	135.41	2475.91	658.23
11	2.13	117.25	19.27	136.52	2427.22	658.15
10	2.15	118.46	18.97	137.43	2378.53	658.06
9	2.18	119.74	18.65	138.39	2329.84	657.98
8	2.20	120.91	18.36	139.27	2281.15	657.90
7	2.21	121.40	18.23	139.64	2232.46	657.81
6	0.00	0.00	48.58	48.58	2183.77	657.73
5	0.00	0.00	48.58	48.58	2135.08	657.65
4	0.00	0.00	48.58	48.58	2086.39	657.56
3	0.00	0.00	48.58	48.58	2037.70	657.48
2	0.00	0.00	48.58	48.58	1989.01	657.40
1	0.00	0.00	48.58	48.58	1940.32	657.31

Z<sub>10</sub>=660.73

Z<sub>BF</sub>=659.53



SITE DRAINAGE AREA DELINEATION

- PROPOSED DRAINAGE AREA TO CB A (IMPERVIOUS/PERVIOUS)
- PROPOSED DRAINAGE AREA TO CB B (IMPERVIOUS/PERVIOUS)
- PROPOSED DRAINAGE AREA TO CB C (IMPERVIOUS/PERVIOUS)
- PROPOSED DRAINAGE AREA TO CB D (IMPERVIOUS/PERVIOUS)
- PROPOSED DRAINAGE AREA TO CB E (IMPERVIOUS/PERVIOUS)
- PROPOSED DRAINAGE AREA TO YD 1 (PERVIOUS)
- PROPOSED DRAINAGE AREA TO YD 2 (PERVIOUS)
- PROPOSED DRAINAGE AREA TO YD 3 (PERVIOUS)
- PROPOSED DRAINAGE AREA TO YD 4 (PERVIOUS)

C1 PROPOSED DRAINAGE MAP  
1" = 20'

TEN (10) YEAR STORM CALCULATIONS FOR CLOSED CONDUIT SIZING

Line	Line Length (ft)	Incr. Area (ac)	Total Area (ac)	Runoff Coeff. (C)	Incr. C X A	Total C X A	Inlet Time (min)	Time Conc (min)	Rainfall Intensity (in/hr)	Total Runoff (cfs)	Total Flow (cfs)	Capacity Full (cfs)	Velocity Full (cfs)	Pipe Size (in)	Pipe Slope (%)	Inv Elev Dn (ft)	Inv Elev Up (ft)	HGL Dn (ft)	HGL Up (ft)	Grnd/Rim Dn (ft)	Grnd/Rim Up (ft)	Upper Rim-HGL (ft)
CB C TO CB B	81	0.12	0.12	0.64	0.08	0.08	15	15	4.35	0.33	0.33	0.61	3.09	6	1.00	659.36	660.17	659.68	660.51	663	663	2.49
CB B TO CB A	63	0.14	0.34	0.78	0.11	0.21	15	15.44	4.30	0.47	0.90	1.39	3.94	8	1.10	658.50	659.19	659.35	659.68	662.84	663	3.32
CB A TO STC 1	7	0.17	0.86	0.84	0.14	0.59	15	15.70	4.26	0.61	2.55	4.4	6.3	12	1.30	658.08	658.17	659.16	659.18	663.68	662.84	3.66
STC 1 TO SYSTEM	11	0	0.86	0	0.00	0.59	15	15.72	4.26	0.00	2.55	6.67	5.44	15	0.91	657.90	658.00	659.15	659.16	663.42	663.68	4.52
CB E TO CB D	104	0.1	0.18	0.95	0.10	0.12	15	15	4.35	0.41	0.50	3.41	4.34	12	0.78	658.81	659.62	659.44	659.95	662.79	663.21	3.26
CB D TO CB A	62	0.13	0.35	0.87	0.11	0.22	15	15.40	4.30	0.49	0.95	3.25	4.14	12	0.71	658.27	658.71	659.35	659.37	662.84	662.79	3.42
YD 1 TO CB B	26	0.08	0.08	0.25	0.02	0.02	15	15	4.35	0.09	0.09	2.90	8.21	8	4.77	659.29	660.53	659.68	660.71	663.00	663.20	2.49
YD 2 TO CB E	34	0.04	0.04	0.25	0.01	0.01	15	15	4.35	0.04	0.04	1.12	3.17	8	0.71	659.62	659.86	659.95	660	663.20	661.60	1.6
YD 3 TO CB E	16	0.04	0.04	0.25	0.01	0.01	15	15	4.35	0.04	0.04	1.11	3.15	8	0.70	659.62	659.73	659.95	659.87	663.20	661.60	1.73
YD 4 TO CB D	21	0.04	0.04	0.25	0.01	0.01	15	15	4.35	0.04	0.04	1.12	3.17	8	0.71	659.04	659.19	659.44	659.33	662.79	661.80	2.47

STORM CALCULATION FORMULAS:

Q = C \* I \* A  
 I = 151.8 / (t + 19.9)  
 n = 0.012  
 Q<sub>man</sub> = (1.486 \* A \* (R<sup>0.487</sup>) \* (S<sup>0.0457</sup>)) / n



520 South Main Street, Suite 2531  
Akron, OH 44311  
330.572.2100 Fax: 330.572.2102

ISSUED FOR CONSTRUCTION 09/17/18

CONTRACT DATE: XX.XX.XX  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: JAN 18  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

TACO BELL  
 20779 13 MILE RD.  
 WESTLAND, MI

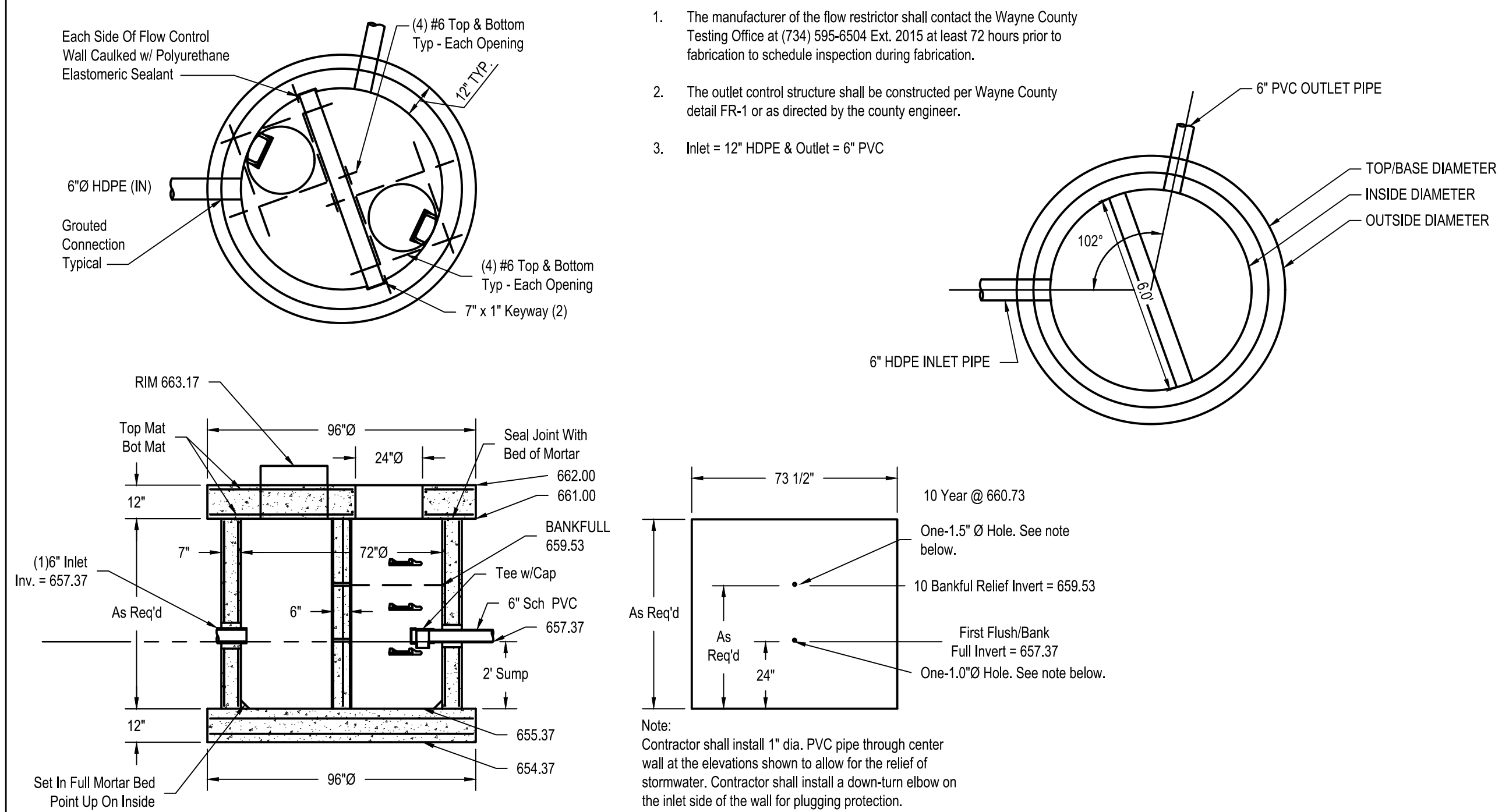


MODERN EXPLORER  
 T40 - OPEN KITCHEN

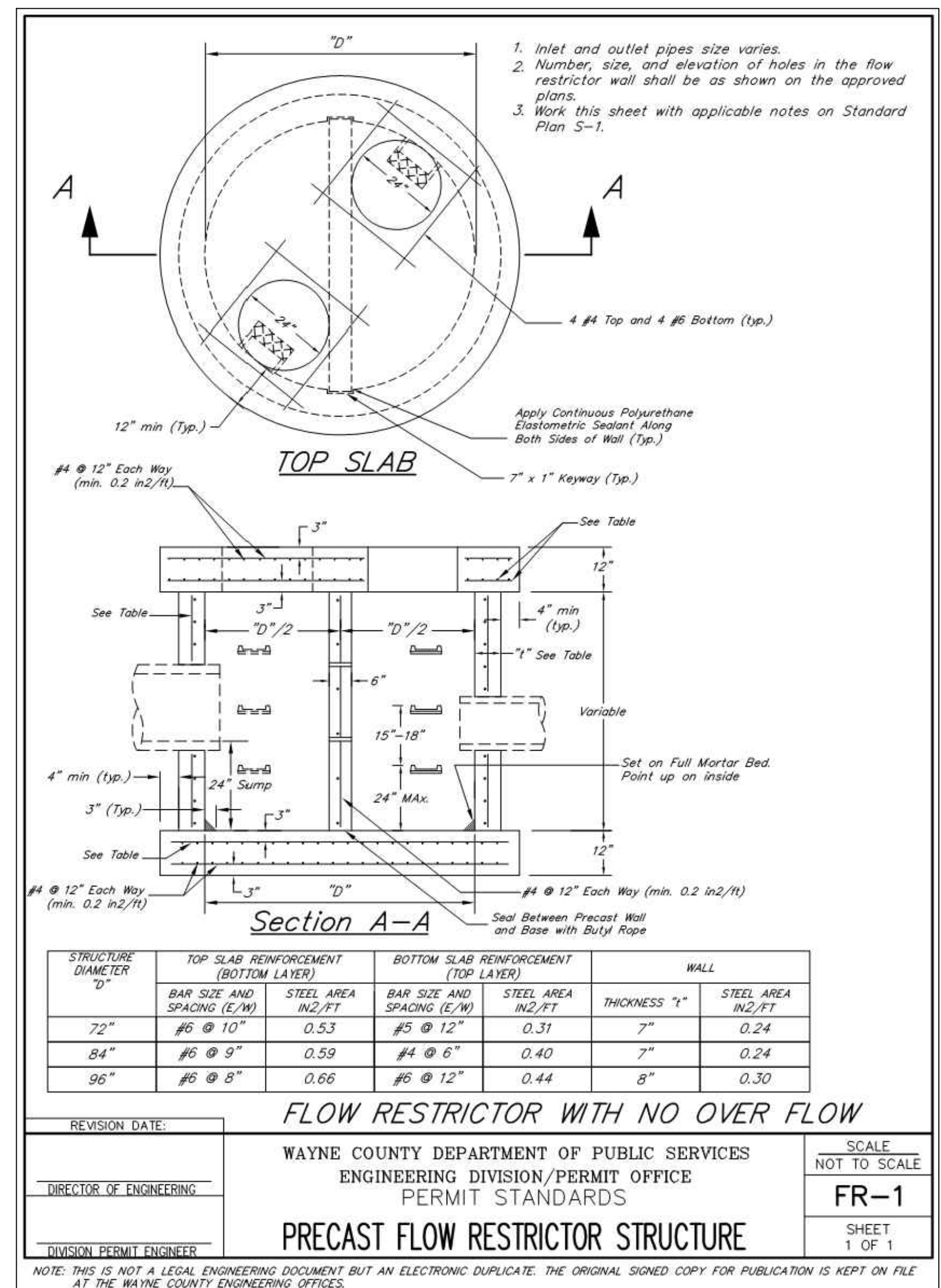
DESIGN CALCULATIONS

C-144





**OUTLET CONTROL STRUCTURE (MH 1)**  
N.T.S.



**FLOW RESTRICTOR WITH NO OVER FLOW**  
**PRECAST FLOW RESTRICTOR STRUCTURE**

REVISION DATE: \_\_\_\_\_

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES  
ENGINEERING DIVISION/PERMIT OFFICE  
PERMIT STANDARDS

SCALE: NOT TO SCALE

FR-1

SHEET 1 OF 1

NOTE: THIS IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL SIGNED COPY FOR PUBLICATION IS KEPT ON FILE AT THE WAYNE COUNTY ENGINEERING OFFICES.

- The manufacturer of the flow restrictor shall contact the Wayne County Testing Office at (734) 595-6504 Ext. 2015 at least 72 hours prior to fabrication to schedule inspection during fabrication.
- The outlet control structure shall be constructed per Wayne County detail FR-1 or as directed by the county engineer.
- Inlet = 12" HDPE & Outlet = 6" PVC

**10. Installation**

The installation of the concrete Stormceptor should conform in general to state highway, or local specifications for the installation of manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

**10.1. Excavation**

Excavation for the installation of the Stormceptor should conform to state highway, or local specifications. Topsoil removed during the excavation for the Stormceptor should be stockpiled in designated areas and should not be mixed with subsoil or other materials. Topsoil stockpiles and the general site preparation for the installation of the Stormceptor should conform to state highway or local specifications.

The Stormceptor should not be installed on frozen ground. Excavation should extend a minimum of 12 inches (300 mm) from the precast concrete surfaces plus an allowance for shoring and bracing where required. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required.

In areas with a high water table, continuous dewatering may be required to ensure that the excavation is stable and free of water.

**10.2. Backfilling**

Backfill material should conform to state highway or local specifications. Backfill material should be placed in uniform layers not exceeding 12 inches (300mm) in depth and compacted to state highway or local specifications.

**11. Stormceptor Construction Sequence**

- The concrete Stormceptor is installed in sections in the following sequence:
- Aggregate base
  - Base slab
  - Lower chamber sections
  - Upper chamber section with fiberglass insert
  - Connect inlet and outlet pipes
  - Assembly of fiberglass insert components (drop tee, riser pipe, oil cleanout port and orifice plate)
  - Remainder of upper chamber
  - Frame and access cover

The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.

Adjustment of the Stormceptor can be performed by lifting the upper sections free of the excavated area, re-leveling the base and re-installing the sections. Damaged sections and gaskets should be repaired or replaced as necessary. Once the Stormceptor has been constructed, any lift holes must be plugged with mortar.

**12. Maintenance**

**12.1. Health and Safety**

The Stormceptor System has been designed considering safety first. It is recommended that confined space entry protocols be followed if entry to the unit is required. In addition, the fiberglass insert has the following health and safety features:

- Designed to withstand the weight of personnel
- A safety grate is located over the 24 inch (600 mm) riser pipe opening
- Ladder rungs can be provided for entry into the unit, if required

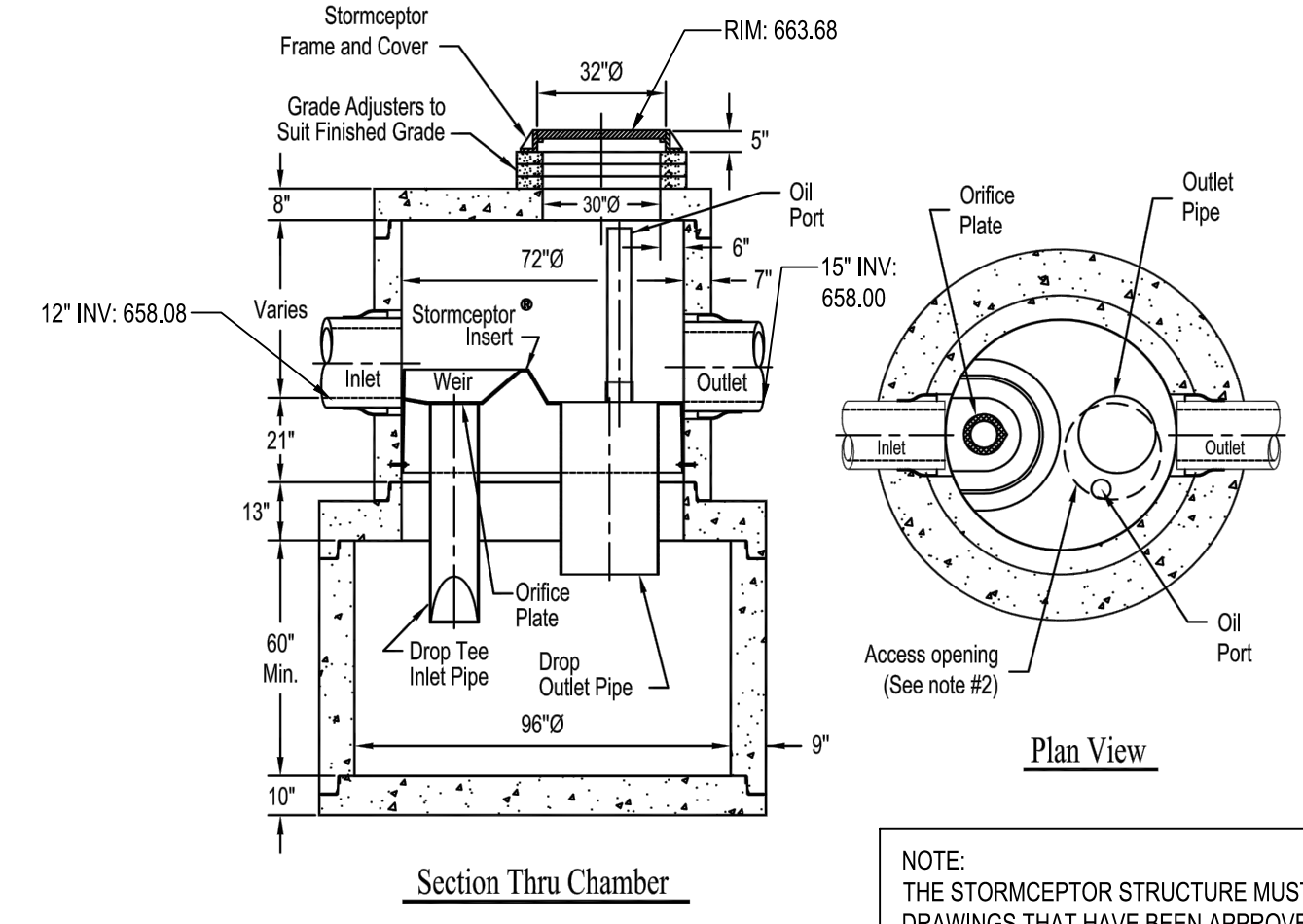
**12.2. Maintenance Procedures**

Maintenance of the Stormceptor system is performed using vacuum trucks. No entry into the unit is required for maintenance (in most cases). The vacuum service industry is a well-established sector of the service industry that cleans underground tanks, sewers and catch basins. Costs to clean a Stormceptor will vary based on the size of unit and transportation distances.

The need for maintenance can be determined easily by inspecting the unit from the surface. The depth of oil in the unit can be determined by inserting a dipstick in the oil inspection/cleanout port.

Similarly, the depth of sediment can be measured from the surface without entry into the Stormceptor via a dipstick tube equipped with a ball valve. This tube would be inserted through the riser pipe. Maintenance should be performed once the sediment depth exceeds the guideline values provided in the Table 4.

**STC 2400 Precast Concrete Stormceptor®**  
**(2400 U.S. Gallon Capacity)**



- Notes:
- The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
  - The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
  - The Stormceptor System is protected by one or more of the following U.S. Patents: #5753115, #5849181, #6068765, #6371690, #7582216, #7666303.
  - Contact a Concrete Pipe Division representative for further details not listed on this drawing.

NOTE:  
THE STORMCEPTOR STRUCTURE MUST BE FABRICATED AS PER SHOP DRAWINGS THAT HAVE BEEN APPROVED BY WAYNE COUNTY. THE MANUFACTURER MUST CONTACT WAYNE COUNTY TESTING OFFICE AT (734) 595-6504 x2015 AT LEAST 3 WORKING DAYS PRIOR TO FABRICATION TO SCHEDULE INSPECTION DURING FABRICATION.

**Table 4. Sediment Depths indicating required servicing.**

Model	Sediment Depth inches (mm)
450I	8 (200)
900	8 (200)
1200	10 (250)
1800	15 (381)
2400	12 (300)
3600	17 (430)
4800	15 (380)
6000	18 (460)
7200	15 (381)
11000	17 (380)
13000	20 (500)
16000	17 (380)

\* based on 15% of the Stormceptor unit's total storage

Although annual servicing is recommended, the frequency of maintenance may need to be increased or reduced based on local conditions (i.e. if the unit is filling up with sediment more quickly than projected, maintenance may be required semi-annually; conversely once the site has stabilized maintenance may only be required every two or three years).

Oil is removed through the oil inspection/cleanout port and sediment is removed through the riser pipe. Alternatively oil could be removed from the 24 inches (600 mm) opening if water is removed from the lower chamber to lower the oil level below the drop pipes.

**The following procedures should be taken when cleaning out Stormceptor:**

- Check for oil through the oil cleanout port
- Remove any oil separately using a small portable pump
- Decant the water from the unit to the sanitary sewer, if permitted by the local regulating authority, or into a separate containment tank
- Remove the sludge from the bottom of the unit using the vacuum truck
- Re-fill Stormceptor with water where required by the local jurisdiction

**12.3. Submerged Stormceptor**

Careful attention should be paid to maintenance of the Submerged Stormceptor System. In cases where the storm drain system is submerged, there is a requirement to plug both the inlet and outlet pipes to economically clean out the unit.

**12.4. Hydrocarbon Spills**

The Stormceptor is often installed in areas where the potential for spills is great. The Stormceptor System should be cleaned immediately after a spill occurs by a licensed liquid waste hauler.

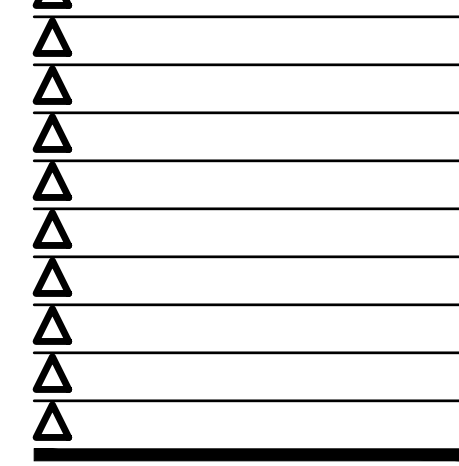
**12.5. Disposal**

Requirements for the disposal of material from the Stormceptor System are similar to that of any other stormwater Best Management Practice (BMP) where permitted. Disposal options for the sediment may range from disposal in a sanitary trunk sewer upstream of a sewage treatment plant, to disposal in a sanitary landfill site. Petroleum waste products collected in the Stormceptor (free oil/chemical/fuel spills) should be removed by a licensed waste management company.

**12.6. Oil Sheens**

With a steady influx of water with high concentrations of oil, a sheen may be noticeable at the Stormceptor outlet. This may occur because a rainbow or sheen can be seen at very small oil concentrations (<10 mg/L). Stormceptor will remove over 98% of all free oil spills from storm sewer systems for dry weather or frequently occurring runoff events.

The appearance of a sheen at the outlet with high influent oil concentrations does not mean the unit is not working to this level of removal. In addition, if the influent oil is emulsified the Stormceptor will not be able to remove it. The Stormceptor is designed for free oil removal and not emulsified conditions.





PROJECT INFORMATION	
ENGINEERED	CHRIS OWEN
PRODUCT	248-431-1381
MANAGER	CHRIS.OWEN@ADS-PIPE.COM
ADS SALES REP.	RANDY NOSEK
	810-248-8914
	RANDY.NOSEK@ADS-PIPE.COM
PROJECT NO.	S08845



## TACO BELL WESTLAND, MI

### STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740 OR SC-310.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418-18 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
  - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
  - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
  - STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY AND THEY SHALL BE TESTED AT A RATE OF ONE (1) TEST PER SHIFT, BUT NOT TO EXCEED 280 PIECES OF CHAMBER (7' LONG EACH PIECE) OR END CAPS BY WAYNE COUNTY OR AN INDEPENDENT THIRD PARTY.
- A WAYNE COUNTY OR AN INDEPENDENT THIRD PARTY CERTIFICATION SHALL BE PROVIDED WITH EACH TESTED SHIPMENT.

8/2019 ADS, INC.

### IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
  - STONESHOOTER LOCATED OFF THE CHAMBER BED.
  - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4" - 2" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

### NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
  - THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
    - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
    - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
    - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
  - FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.
- USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.
- CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

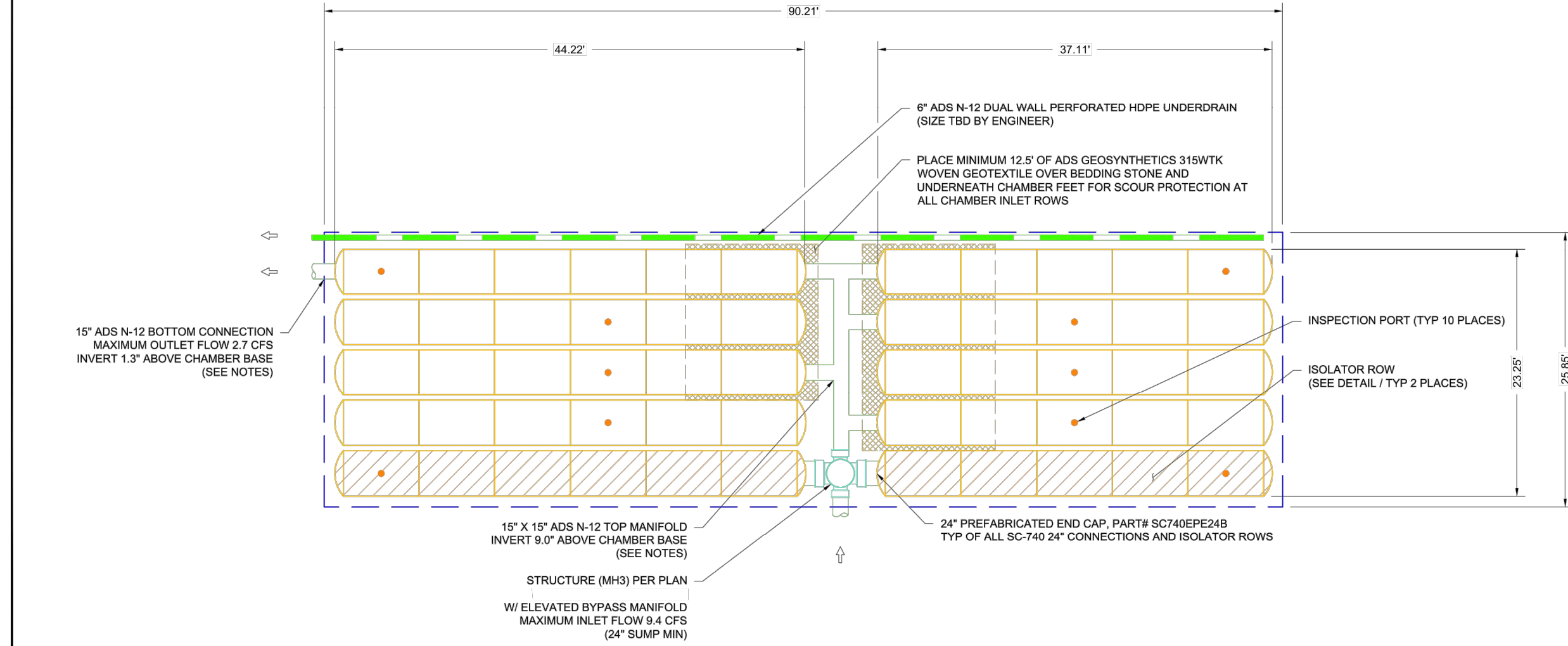
PROPOSED LAYOUT	
55	STORMTECH SC-740 CHAMBERS
20	STORMTECH SC-740 END CAPS
6	STONE ABOVE (in)
6	STONE BELOW (in)
25	1/4 STONE VOID
3936	INSTALL SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)
2332	SYSTEM AREA (sq ft)
232	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS	
688.23	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED)
692.23	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
681.73	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
681.73	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
681.73	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
660.73	TOP OF STONE
660.23	TOP OF SC-740 CHAMBER
658.48	15" TOP MANIFOLD INVERT
657.74	24" ISOLATOR ROW CONNECTION INVERT
657.73	BOTTOM OF SC-740 CHAMBER
657.23	UNDERDRAIN INVERT
657.23	BOTTOM OF STONE

### NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH SHEET #7 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSTALLED SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- WAYNE COUNTY OR THIRD INDEPENDENT PARTY CERTIFICATION SHALL BE PROVIDED WITH EACH TESTED SHIPMENT.



TACO BELL  
WESTLAND, MI

DATE: 05-18-18 DRAWN: SMQ  
PROJECT #: S08845 CHECKED: CLD

DESCRIPTION: STORMTECH SC-310/SC-740 CHAMBERS

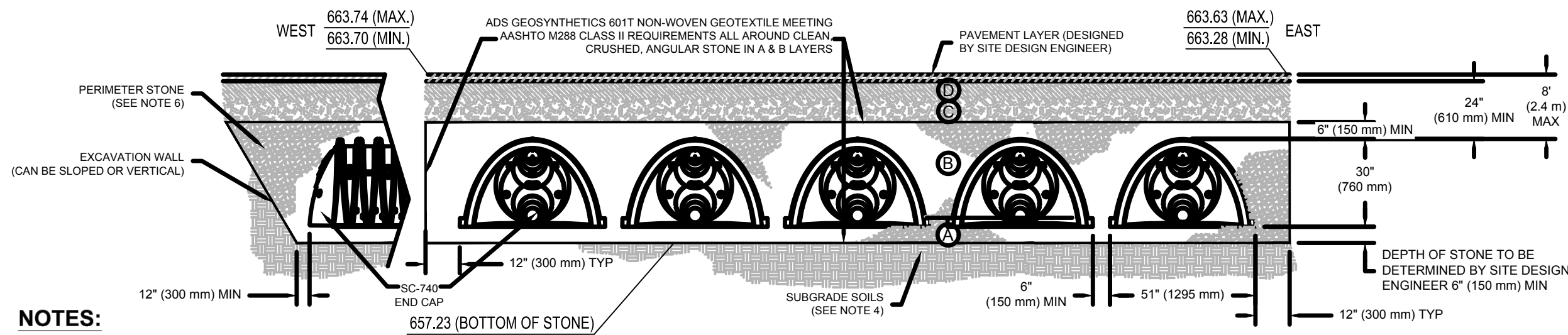
REV: 01/18/18

2 SHEET OF 5

### ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBGRADE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	N/A	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% MAX UNIT WEIGHT (SEE NOTES). ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL DISTRIBUTION SIZE 3/4" - 2" (19 mm - 51 mm)	4AA, 6A, 6AA, WAYNE COUNTY 3" X 1"	NO COMPACTION REQUIRED. THE MAXIMUM UNIT WEIGHT SHALL BE DETERMINED BY MICHIGAN CONE OR AASHTO T-180.
A FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL DISTRIBUTION SIZE 3/4" - 2" (19 mm - 51 mm)	4AA, 6A, 6AA, WAYNE COUNTY 3" X 1"	PLATE COMPACT OR ROLL TO ACHIEVE A 95% MAX UNIT WEIGHT (SEE NOTES).

- PLEASE NOTE:
- THE LISTED MDOT DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR 6A STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR MDOT 6A STONE".
  - AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR "A" LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (229 mm) (MAX.) LIFTS USING TWO FULL PASSES WITH AN APPROPRIATE COMPACTOR ONE TEST PER LIFT OF BACKFILL PER 200 LINEAL FEET OR LESS OF TRENCH.



### NOTES:

- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

TACO BELL  
WESTLAND, MI

DATE: 05-18-18 DRAWN: SMQ  
PROJECT #: S08845 CHECKED: CLD

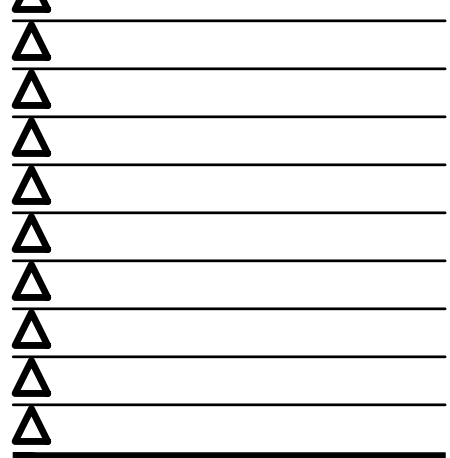
DESCRIPTION: STORMTECH SC-310/SC-740 CHAMBERS

REV: 01/18/18

3 SHEET OF 5



ISSUED FOR CONSTRUCTION 09/17/18



CONTRACT DATE: XX.XX.XX  
BUILDING TYPE: T40M-O  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

### TACO BELL

20779 13 MILE RD.  
WESTLAND, MI



MODERN EXPLORER  
T40 - OPEN KITCHEN

STORMTECH  
DETAILS

C-146



**SC-740 ISOLATOR ROW DETAIL**  
NTS

TACO BELL  
WESTLAND, MI

DATE: 05-18-18 DRAWN: SMO  
PROJECT #: 508645 CHECKED: CLD

**INSPECTION & MAINTENANCE**

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT

A. INSPECTION PORTS (IF PRESENT)

A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN

A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED

A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG

A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECT ON OF SEDIMENT LEVELS (OPTIONAL)

A.5. IF SEDIMENT IS AT OR ABOVE 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

B. ALL ISOLATOR ROWS

B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW

B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE

i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY

ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE

B.3. IF SEDIMENT IS AT OR ABOVE 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS

A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED

B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN

C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

**NOTES**

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.

2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

**SC-740 6" INSPECTION PORT DETAIL**  
NTS

TACO BELL  
WESTLAND, MI

DATE: 05-18-18 DRAWN: SMO  
PROJECT #: 508645 CHECKED: CLD

4 SHEET  
OF 5

**UNDERDRAIN DETAIL**  
NTS

TACO BELL  
WESTLAND, MI

DATE: 05-18-18 DRAWN: SMO  
PROJECT #: 508645 CHECKED: CLD

**SC-740 TECHNICAL SPECIFICATION**  
NTS

**NOMINAL CHAMBER SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4" (1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET (1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET (2.12 m³)
WEIGHT	75.0 lbs (33.6 kg)

\*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
PRE-CORED END CAPS END WITH "C"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	0.5" (13 mm)
SC740EPE08B / SC740EPE08BPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.6" (15 mm)
SC740EPE10B / SC740EPE10BPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	1.2" (30 mm)
SC740EPE15B / SC740EPE15BPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE24B	24" (600 mm)	18.5" (470 mm)	---	0.5" (13 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2894.

\* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

TACO BELL  
WESTLAND, MI

DATE: 05-18-18 DRAWN: SMO  
PROJECT #: 508645 CHECKED: CLD

5 SHEET  
OF 5

ISSUED FOR CONSTRUCTION 09/17/18

CONTRACT DATE: XX.XX.XX

BUILDING TYPE: T40M-O

PLAN VERSION: JAN 18

SITE NUMBER: 312720/446548

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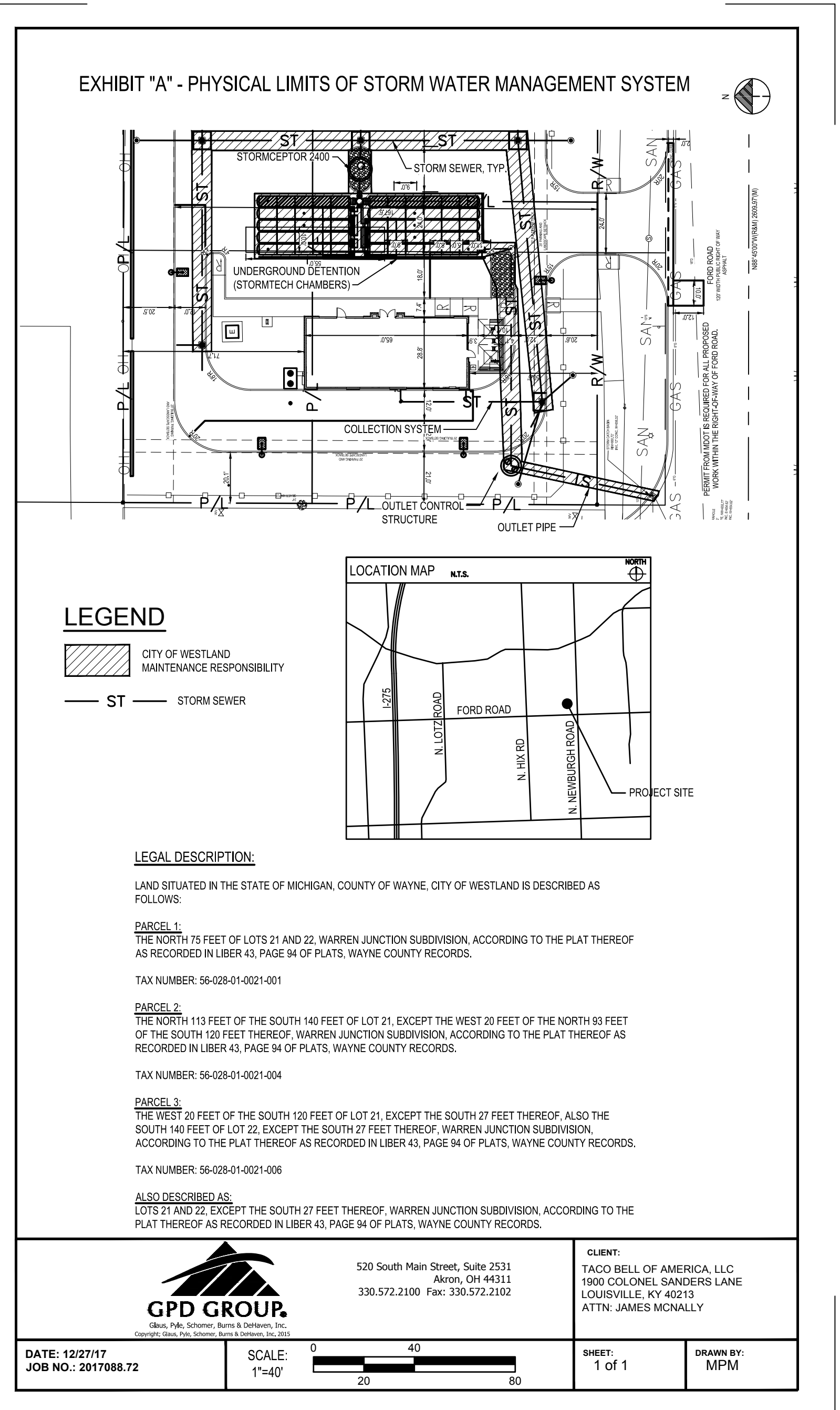
TACO BELL  
20779 13 MILE RD.  
WESTLAND, MI

MODERN EXPLORER  
T40 - OPEN KITCHEN

**STORMTECH**  
DETAILS

**C-147**





**EXHIBIT "B" - STORM WATER MANAGEMENT SYSTEM LONG-TERM MAINTENANCE PLAN**

Wayne County DPS Permit No.: M -  
Wayne County DPS Plan review No.: R18-061

**A. Physical Limits of the Storm Water Management System**

The storm water management system (SWMS) subject to this long-term maintenance plan (Plan) is depicted on Exhibit A to the permit and includes without limitation the storm sewers, swales, catch basins, manholes, inlets, manufactured treatment system, underground detention system, flow restrictor structure and outlet pipe that conveys flow from the underground detention system to an existing storm system within the public highway of Ford Road that outlets to a County Drain. For the purposes of this plan, this SWMS and all of its components as shown in Exhibit A is referred to as "Taco Bell's SWMS".

**B. Time Frame for Long-Term Maintenance Responsibility**

Taco Bell of America, LLC is responsible for maintaining the Taco Bell's SWMS including complying with applicable requirements of the local or Wayne County soil erosion and sedimentation control program until Wayne County releases the construction permit. Long-term maintenance responsibility for Taco Bell's SWMS commences when defined by the maintenance permit issued by the County. Long-term maintenance continues in perpetuity.

**C. Manner of Insuring Maintenance Responsibility**

The City of Westland has assumed responsibility for long-term maintenance of Taco Bell's SWMS. The resolution by which The City of Westland has assumed maintenance responsibility is attached to the permit as Exhibit C. Taco Bell of America, LLC, through a maintenance agreement with the City of Westland, has agreed to perform the maintenance activities required by this plan. The City of Westland retains the right to enter the property and perform the necessary maintenance of the Taco Bell's SWMS if Taco Bell of America, LLC, fails to perform the required maintenance activities.

To ensure that the Taco Bell's SWMS is maintained in perpetuity, the map of the physical limits of the storm water management system (Exhibit A), this plan (Exhibit B), the resolution attached as Exhibit C, and the maintenance agreement between the City of Westland and the property owner will be recorded with the Wayne County Register of Deeds. Upon recording, a copy of the recorded documents will be provided to the County.

**D. Long-Term Maintenance Plan and Schedule**

Table 1 identifies the maintenance activities to be performed, organized by category (monitoring/inspections, preventative maintenance and remedial actions). Table 1 also identifies site-specific work needed to ensure that the storm water management system functions properly as designed.

**TABLE 1**  
**STORM WATER MANAGEMENT SYSTEM LONG-TERM MAINTENANCE SCHEDULE**

MAINTENANCE ACTIVITIES	Storm Collection System (Sewers, Swales, Catch Basins, Manholes)	Manufactured Treatment System	Underground Detention System	Flow Restrictor Structure & Outlet Pipe	Pavement Areas	FREQUENCY
<b>Monitoring/Inspection</b>						
Inspect for Sediment Accumulation/Clogging	X	X	X	X	X	Annually
Inspect For Floatables, Dead Vegetation & Debris	X	X	X	X	X	Annually & After Major Events
Inspect For Erosion And Integrity of System	X			X		Annually & After Major Events
Inspect All Components During Wet Weather & Compare to As-Built Plans	X	X	X	X	X	Annually
Ensure Maintenance Access Remain Open/Clear	X	X	X	X	X	Annually
<b>Preventative Maintenance</b>						
Remove Accumulated sediments	X	X	X	X	X	As Needed (See Note Below)
Remove Floatables, Dead Vegetation & Debris	X			X		As Needed
Sweeping of Paved Surfaces				X		As Needed
<b>Remedial Actions</b>						
Repair/Stabilize Areas of Erosion	X			X		As Needed
Replace Dead Plantings & Reseed Bare Areas	X					As needed
Structural Repairs	X	X	X	X	X	As Needed
Make Adjustments/Repairs to Ensure Proper Functioning	X	X	X	X	X	As Needed
<b>NOTE:</b> Manufactured treatment system and underground detention system to be cleaned according to the manufacturer's recommendations; at a minimum, whenever sediments accumulate to a depth of 6-12 inches, or if sediment resuspension is observed.						
<b>PROJECT:</b> Taco Bell 37500 Ford Road Westland, MI, 48185	<b>LESSEE (RESPONSIBLE PARTY):</b> Taco Bell of America, LLC 1900 Colonel Sanders Lane Louisville, KY 40213 Attn: TBD Phone: (502) 874-8300		<b>ENGINEER:</b> GPD Group 520 South Main St, Suite 2531 Akron, OH 44311 Phone: (330) 572-2100		<b>DATE:</b> 5 / 9 / 2018  <b>SHEET</b> 1 OF 1	

ISSUED FOR CONSTRUCTION 09/17/18

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CONTRACT DATE: XX.XX.XX  
BUILDING TYPE: T40M-O  
PLAN VERSION: JAN 18  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
20779 13 MILE RD.  
WESTLAND, MI



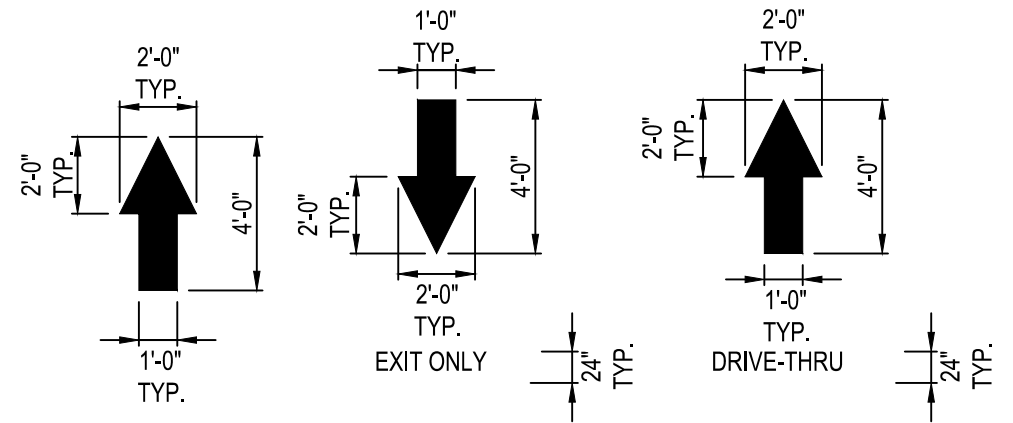
**MODERN EXPLORER**  
T40 - OPEN KITCHEN  
**STORMWATER EXHIBITS**

**C-148**

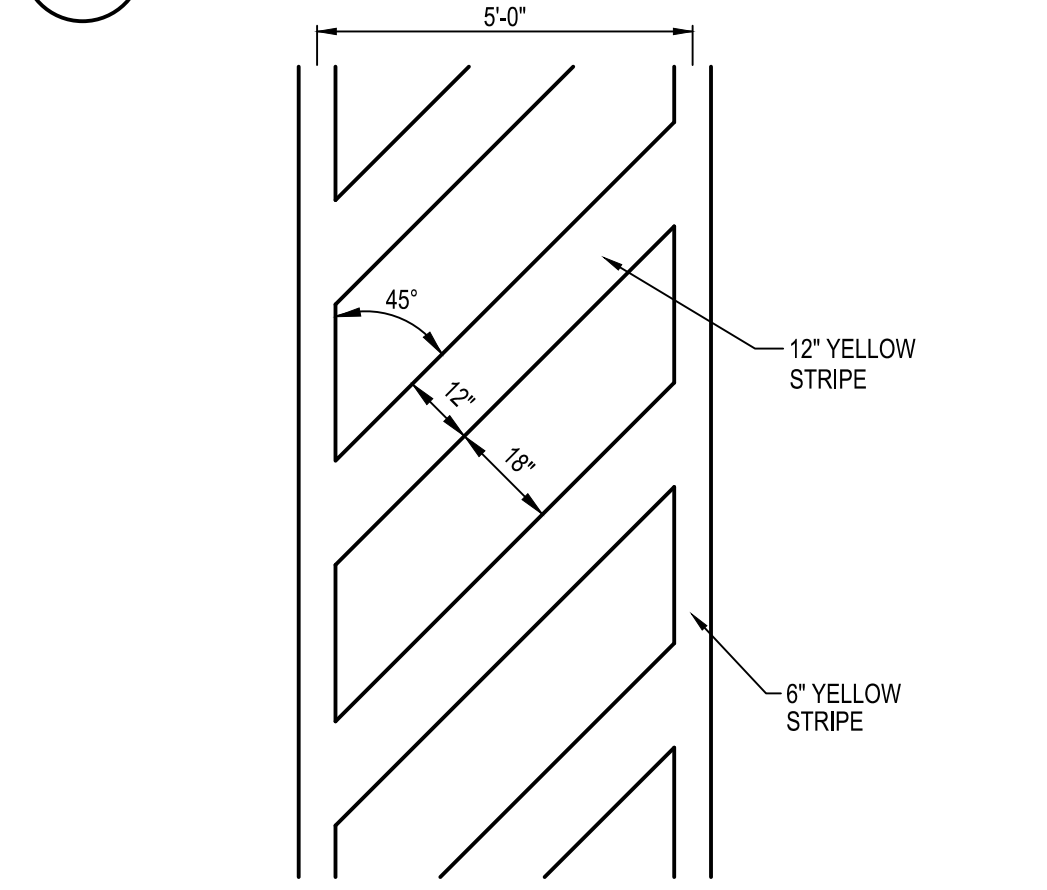
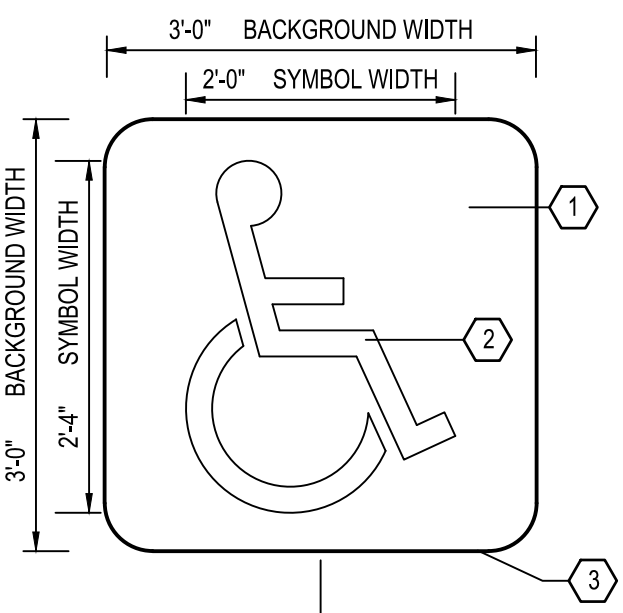


**KEYED NOTES**

- ① PAINT BACKGROUND BENJAMIN MOORE M58 SAFETY & ZONE MARKING LATEX M58-30 - BLUE
- ② PAINT SYMBOL BENJAMIN MOORE M58 SAFETY & ZONE MARKING LATEX M58-01 - WHITE 4" WIDTH
- ③ BOTTOM EDGE OF SYMBOL BOX SHALL MATCH END OF STALL STRIPE AT DRIVE AISLE END OF STALL.



**D2 INTERNATIONAL ADA SYMBOL**  
N.T.S.

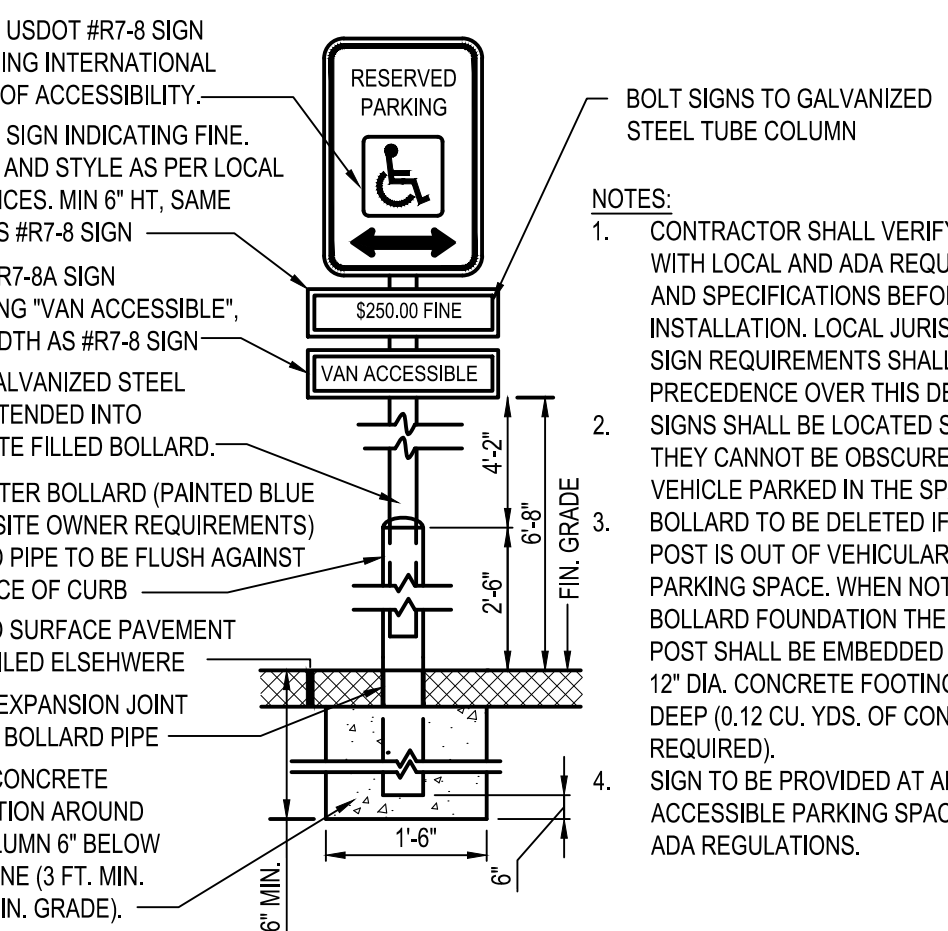
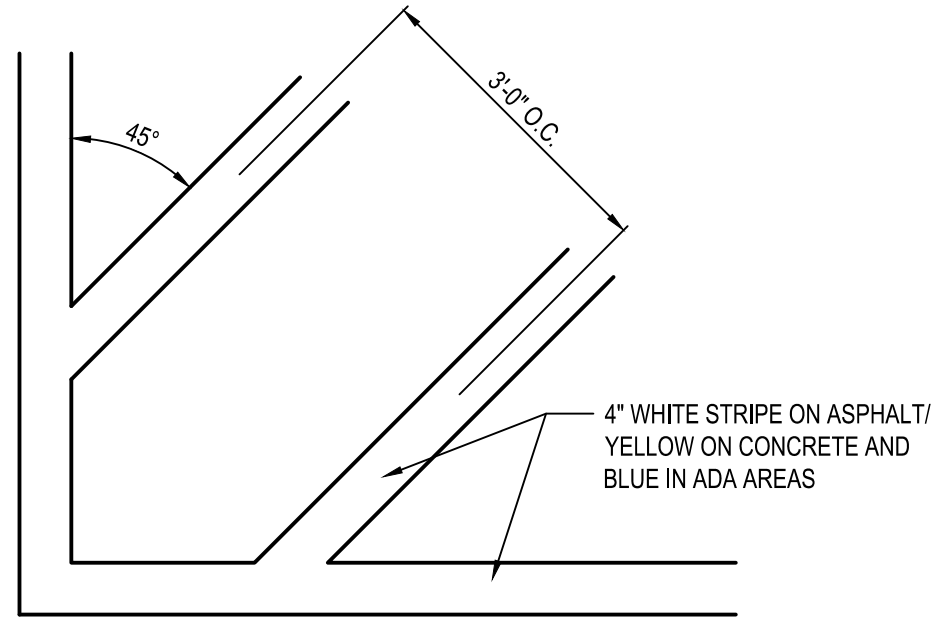


**C2 CROSSWALK STRIPING**  
N.T.S.

**NOTES:**  
ALL PAVEMENT MARKINGS TO BE WHITE PAVEMENT PAINT, UNLESS STATED OTHERWISE.  
MARKING (STRIPING) PAINT FOR PARKING SPACES, TRAFFIC ARROWS, ADA PARKING AND SYMBOLS, ETC., PER LOCAL REQUIREMENTS AND AS FOLLOWS:  
EXISTING SURFACES WITHOUT ANY SEAL COATING: OIL BASE (ALKYD RESIN TYPE TO MEET FEDERAL SPECIFICATION TTP-1952.  
NEW OR EXISTING SURFACES WITH A TOP COATING OR SEAL COATING (USUALLY WATER BASE FAST DRYING 100% ACRYLIC TYPE): WATER BASE TYPE TO MEET FEDERAL SPECIFICATION TTP-01952. FOR COLD WEATHER APPLICATION PAINT PRODUCT SHALL BE IN ACCORDANCE WITH ASTM-D2369, D1394, D3723, D1475, D562, AND D711  
PROVIDE A NON-SLIP AGGREGATE ADDITIVE TO MARKING PAINT USED AT ADA ACCESS RAMP.  
APPLY 2 COATS WITH STRAIGHT EDGES, YELLOW ON CONCRETE/WHITE ON ASPHALT EXCEPT WHEN MATCHING ADJACENT OR EXISTING COLOR WHEN THE PAVING IS AN EXPANSION OR SEGMENT OF A LARGER LOT.

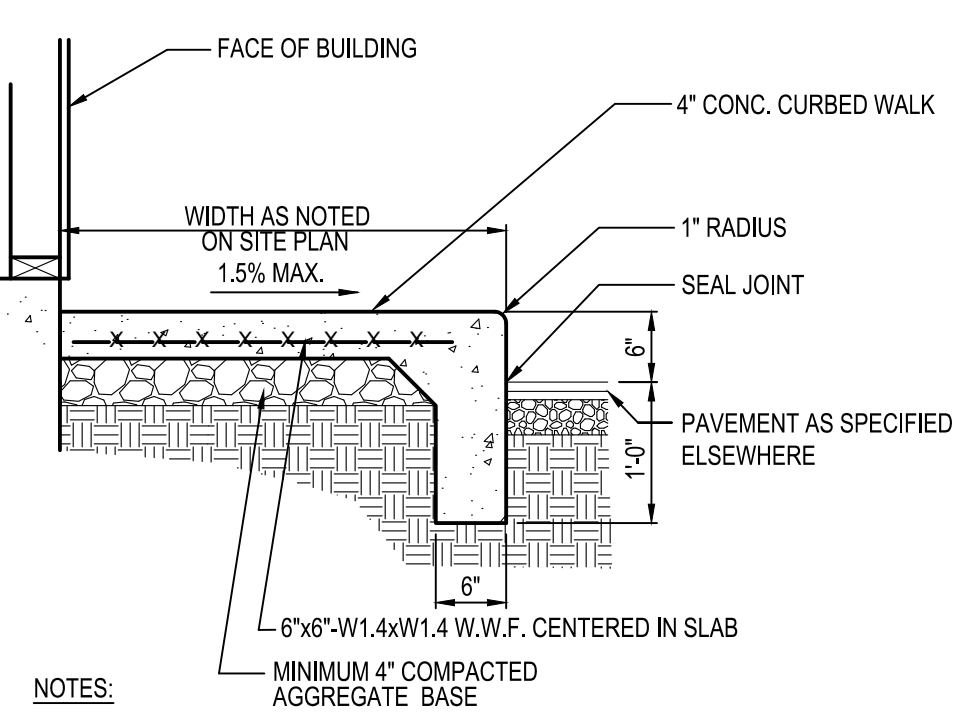
**C1 PAVEMENT MARKINGS & NOTES**  
N.T.S.

**D3 TRANSVERSE STRIPING**  
N.T.S.

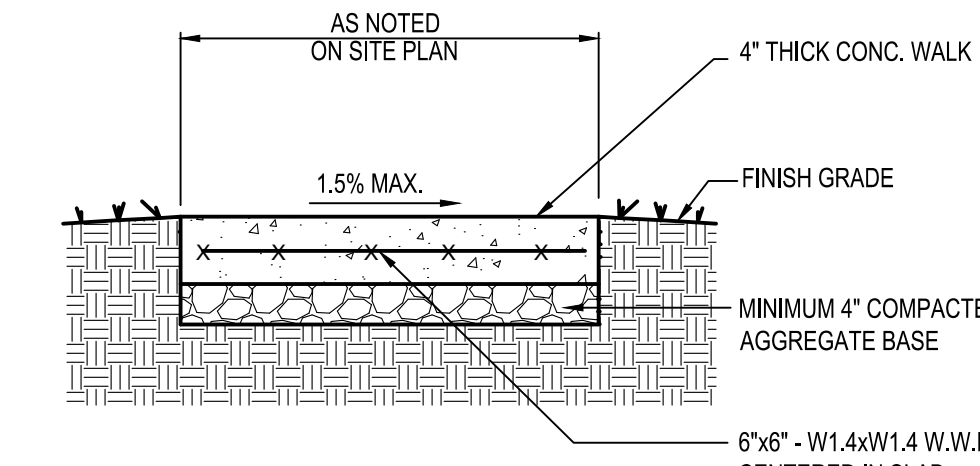


**C3 ADA PARKING SIGN**  
N.T.S.

**D4 6' CURB TAPER**  
N.T.S.

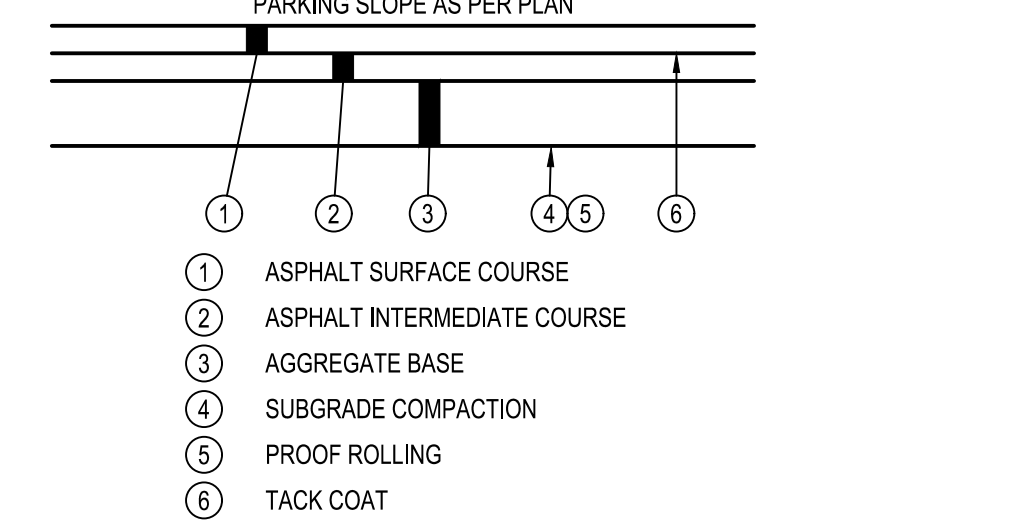


**C4 P.C.C. CURBED WALK**  
N.T.S.



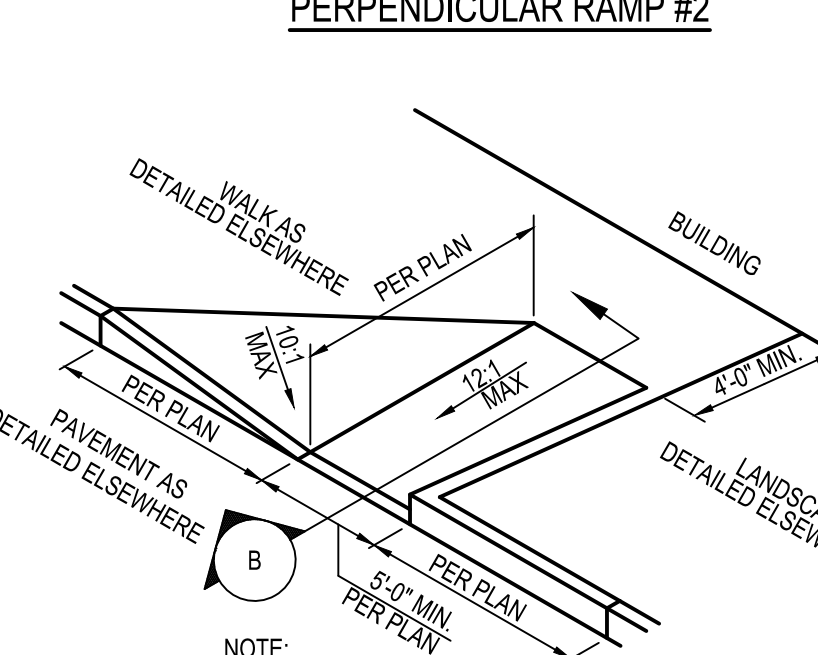
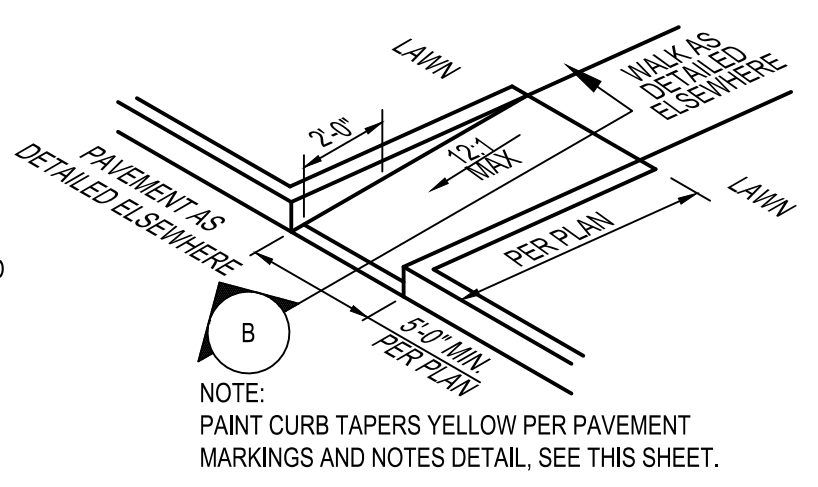
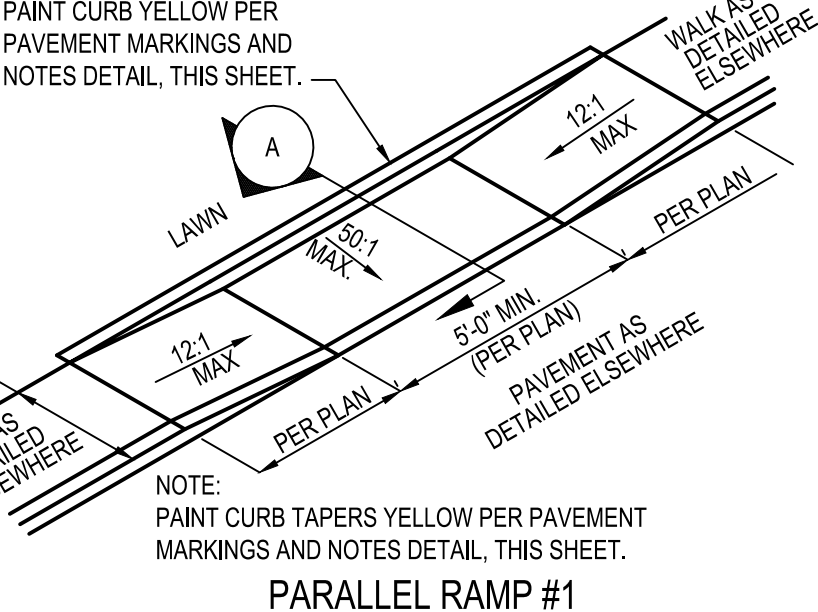
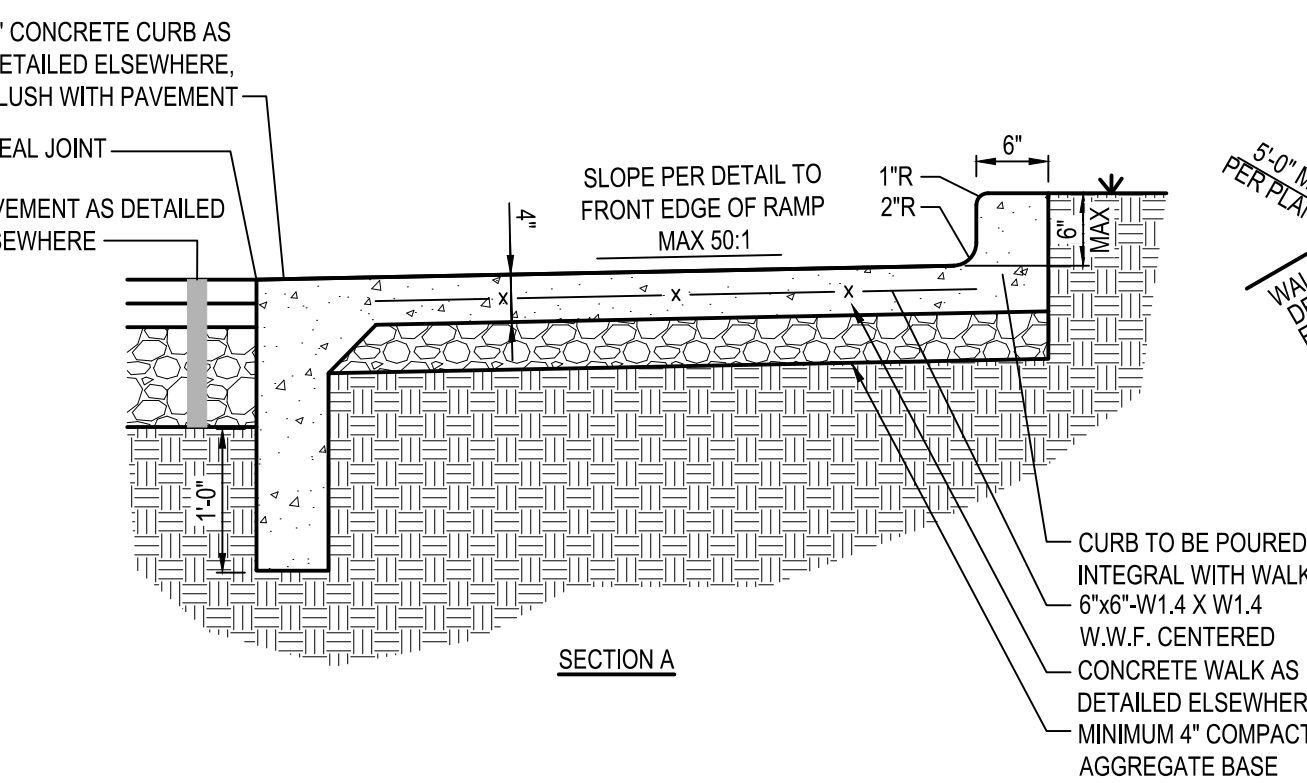
**B4 P.C.C. WALK**  
N.T.S.

**D5 P.C.C. CURB**  
N.T.S.



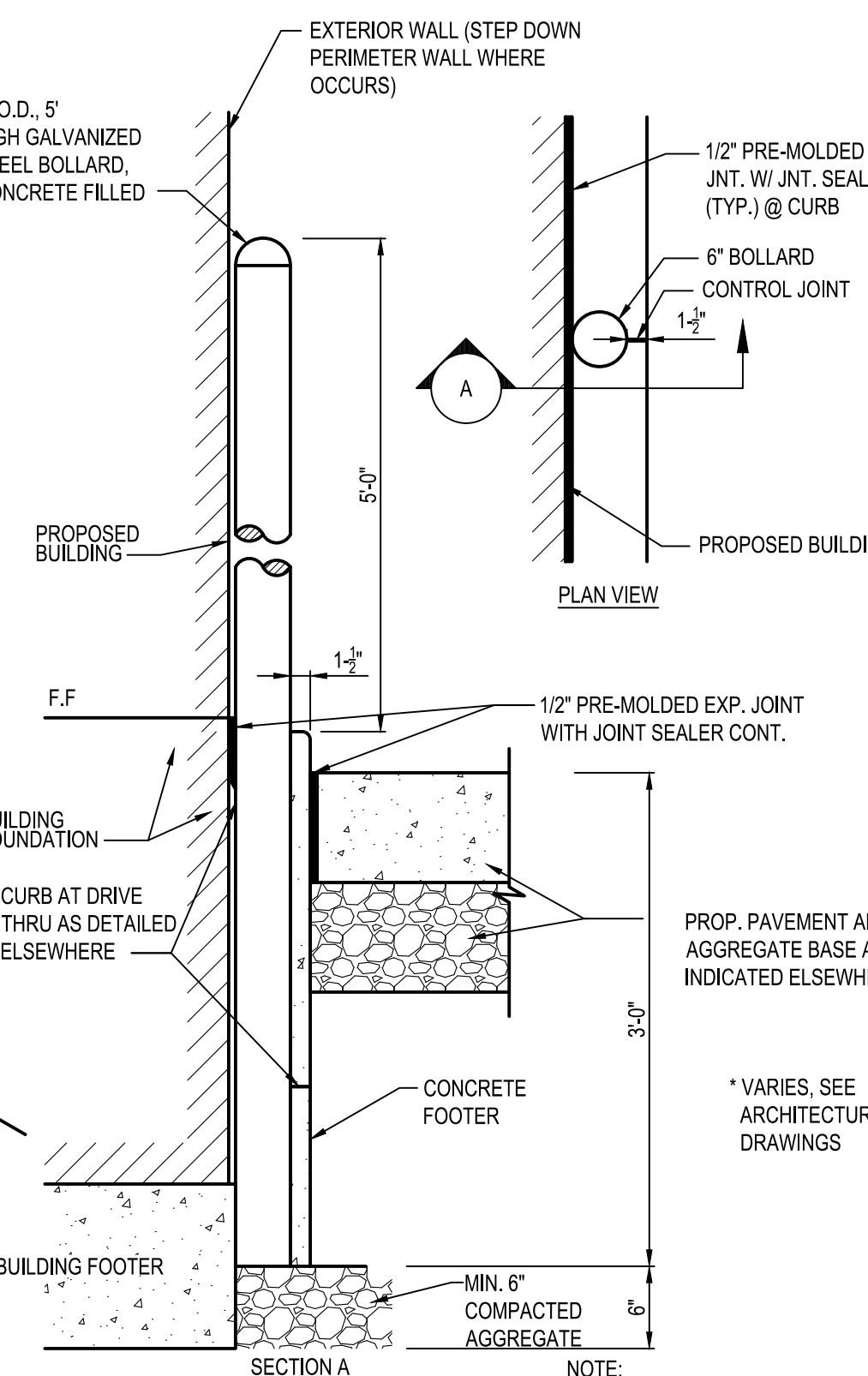
**D4 TYPICAL PAVEMENT SECTION**  
N.T.S.

- NOTES:**
- ① ASPHALT SURFACE COURSE
  - ② ASPHALT INTERMEDIATE COURSE
  - ③ AGGREGATE BASE
  - ④ SUBGRADE COMPACTION
  - ⑤ PROOF ROLLING
  - ⑥ TACK COAT
1. APPLY LIQUID ASPHALT AT ALL JOINTS BETWEEN CONCRETE AND ASPHALT AND WHERE PROPOSED ASPHALT MEETS EXISTING ASPHALT INCLUDING SAW CUT JOINTS.  
2. SEE SITE PLAN FOR PAVEMENT THICKNESSES.



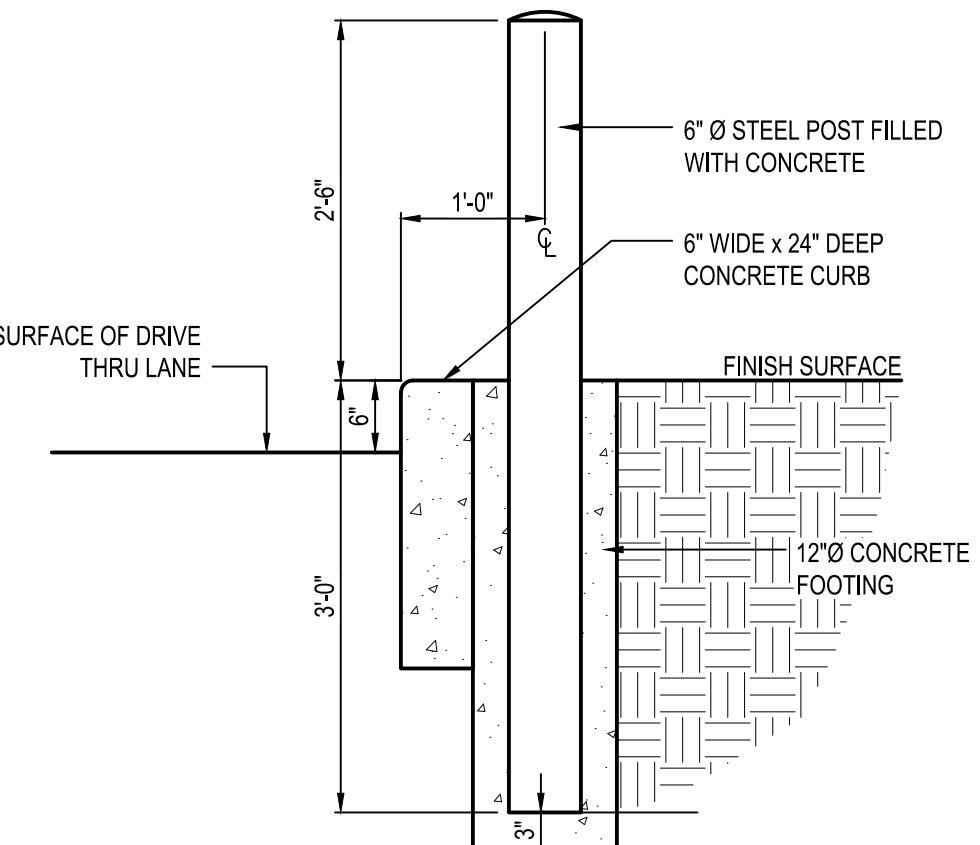
**A1 ADA ACCESSIBLE RAMP**  
N.T.S.

**A3 BOLLARD (IN CURB)**  
N.T.S.



**A4 BOLLARD DETAIL**  
N.T.S.

**B5 CURB AT DRIVE THRU**  
N.T.S.



**A5 BIKE RACK DETAIL**  
N.T.S.

**KEYED NOTES**

- ① FACE OF BUILDING
- ② CONCRETE CURB
- ③ 1" RADIUS
- ④ PAVEMENT AS SPECIFIED
- ⑤ 1/2" PRE MOLDED EXP. JNT. CUT BACK AND PROVIDE SEALANT, TYPICAL, AT ALL JOINTS WITH FILLER.
- ⑥ SEAL JOINT
- ⑦ 15LB BOND BREAK MATERIAL BELOW EXP. JNT. MATERIAL

\* SEE GRADING PLAN FOR ANY VARIATIONS TO EXPOSED CURB HEIGHT.

**PRODUCT:**

DERO HOOP RACK HEAVY DUTY  
DERO BIKE RACKS (OR APPROVED EQUAL)  
WWW.DERO.COM  
1-800-298-4915

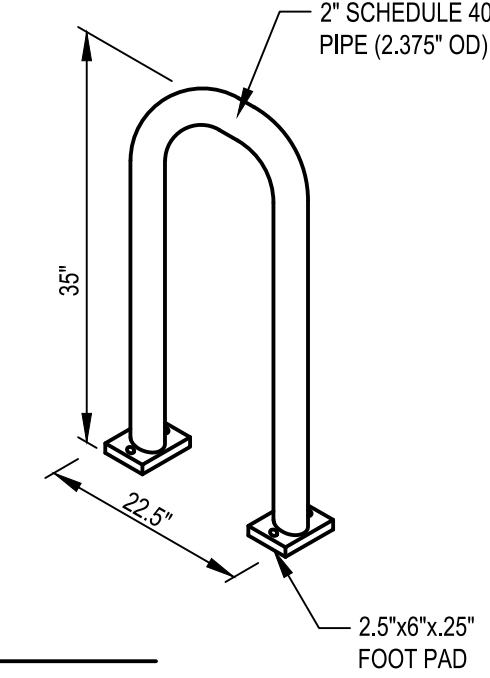
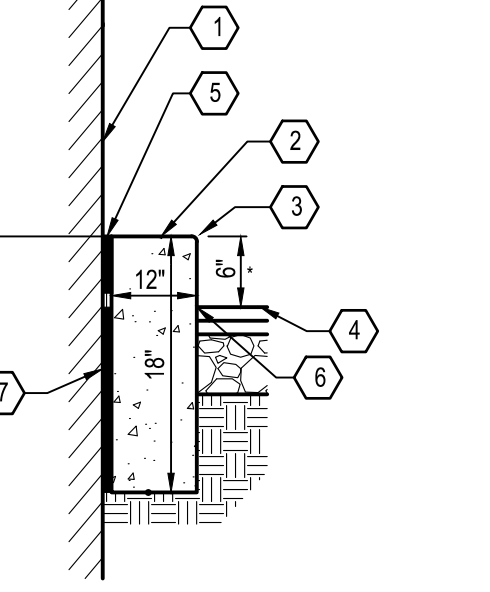
**CAPACITY:**

2 BIKES

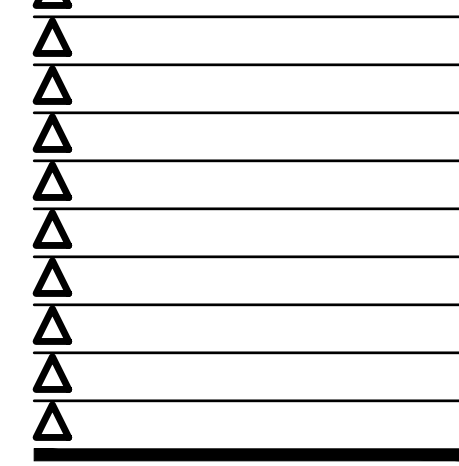
**MATERIALS:**

2" SCHEDULE 40 PIPE (2.375" OD)

CONTRACTOR SHALL COORDINATE FINISH AND PREFERRED INSTALLATION METHOD WITH CONSTRUCTION MANAGER.



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STORE NUMBER: 2017088.72

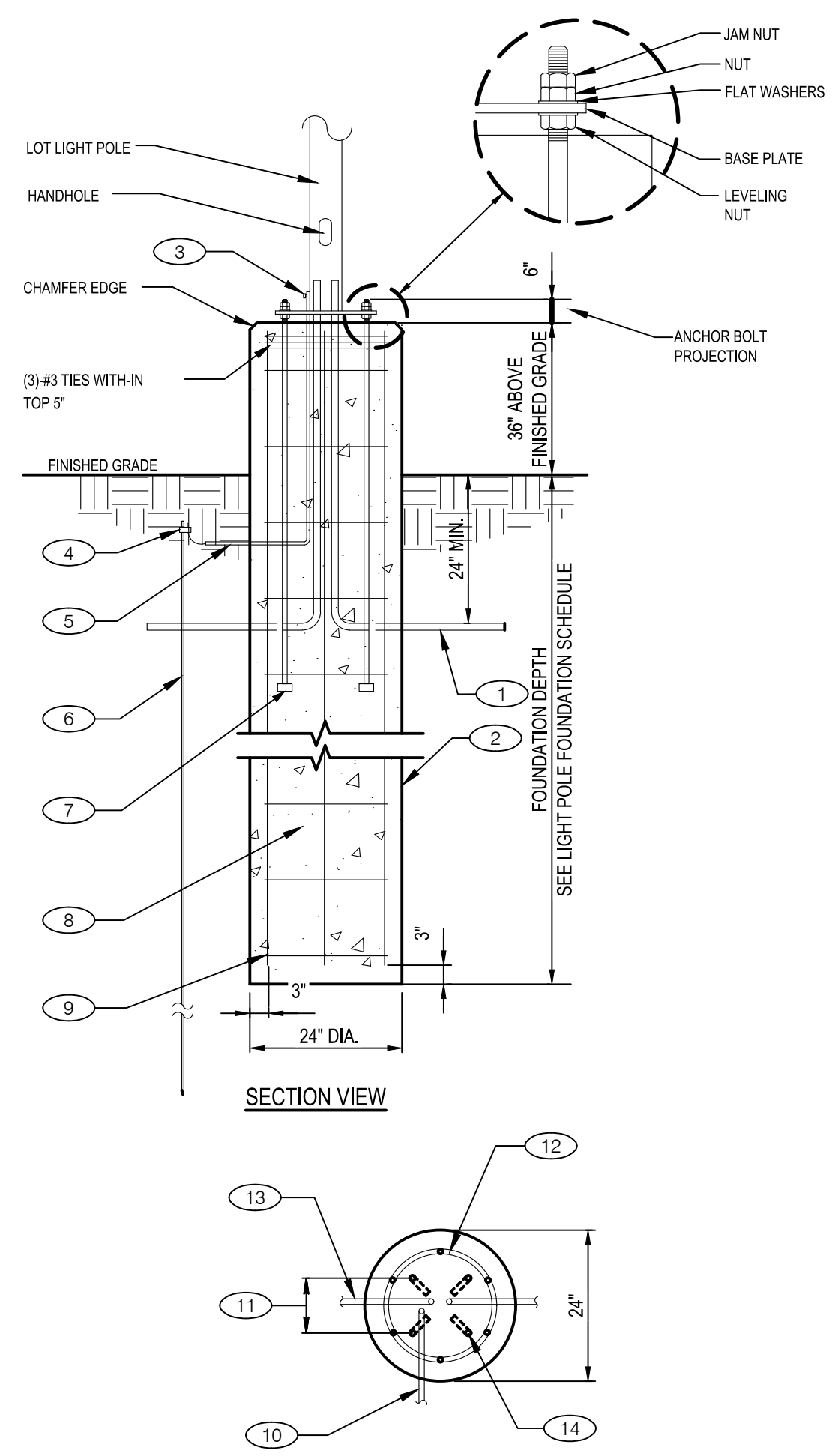
**TACO BELL**  
20779 13 MILE RD.  
WESTLAND, MI



**MODERN EXPLORER**  
T40 - OPEN KITCHEN

**DETAILS**

**C-501**



- KEY NOTES**
- 1" CONDUIT OR AS NOTED, EXTEND 3/4" MAX. ABOVE FOUNDATION. (INSTALL ON MIN. 6" SAND BED WITH MIN. 6" SAND COVER BEFORE BACKFILL. CONDUIT SHALL BE FULL WEIGHT SCHEDULE 40 PVC)
  - FOUNDED CONCRETE BASE BY G.C. (24" DIA.) (3,000 PSI, CLASS 1" CONCRETE)
  - PROVIDE GROUND LUG IN BASE BOLTED TO BASE PLATE. GROUND SHALL BE MIN. #6 BARE WIRE.
  - T & B #3 GND. CLAMP
  - 12" EMT OR PVC CONDUIT FOR GROUND WIRE
  - GROUNDING ROD.
  - (4) 4'-0" LONG HEADED ANCHOR RODS. COORDINATE ANCHOR ROD DIAMETER W/ POLE SUPPLIER. FURNISHED BY LOT LIGHTING SUPPLIER & INSTALLED BY G.C.
  - #3 TIES SPACED @ 12" O.C.
  - (6)#5 VERTICAL REBARS
  - CONDUIT STUB OUT FOR GROUND WIRE CONNECTION
  - BOLT PATTERN BY LOT LIGHTING SUPPLIER
  - REBAR CAGE
  - CONDUIT STUB OUT
  - ANCHOR BOLTS

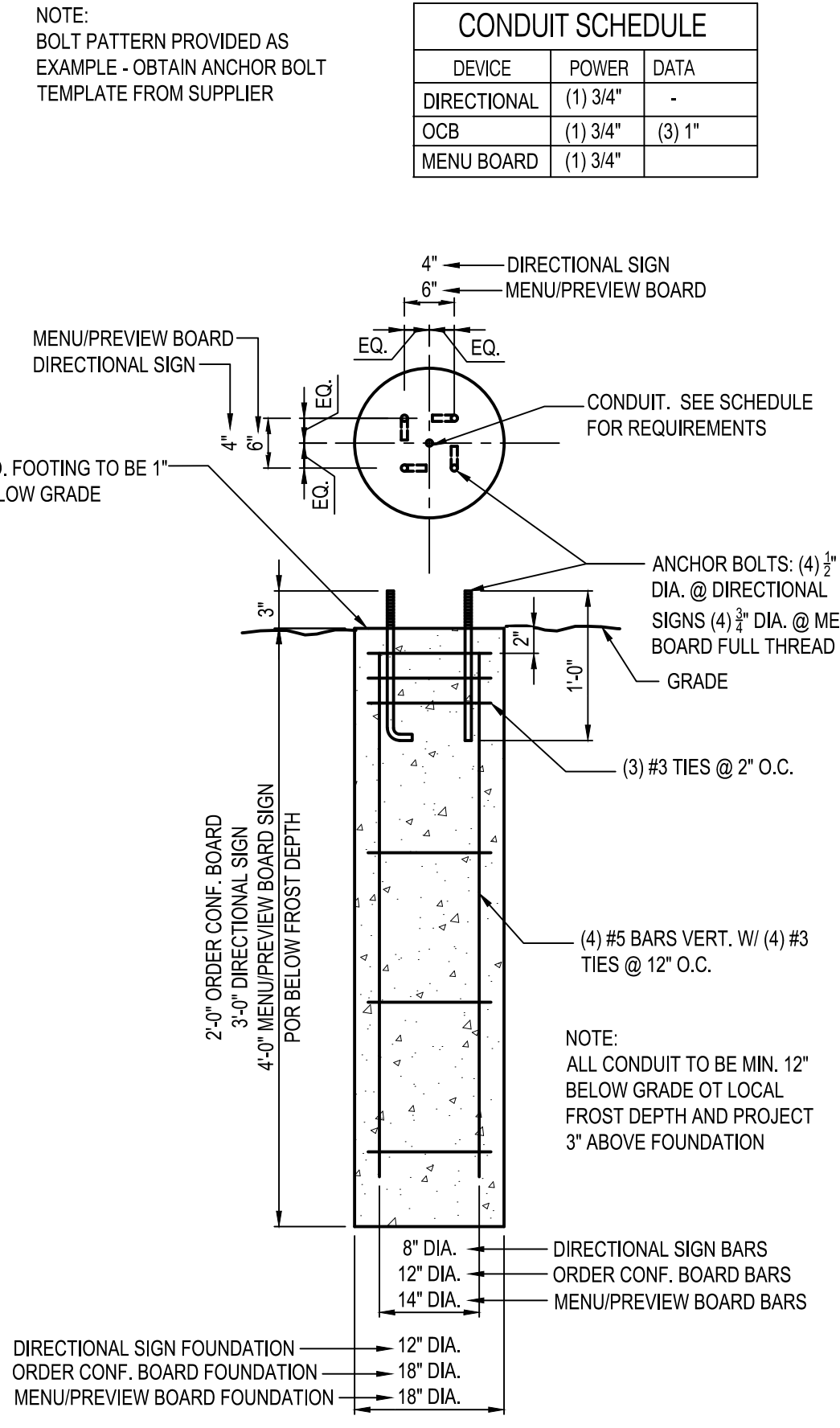
**LIGHT POLE FOUNDATION SCHEDULE**

BASIC WIND SPEED (MPH) (ASCE 7-05)	FOUNDATION DEPTH
90 - 100	6'-0"
101 - 120	7'-0"
121 - 140	8'-0"

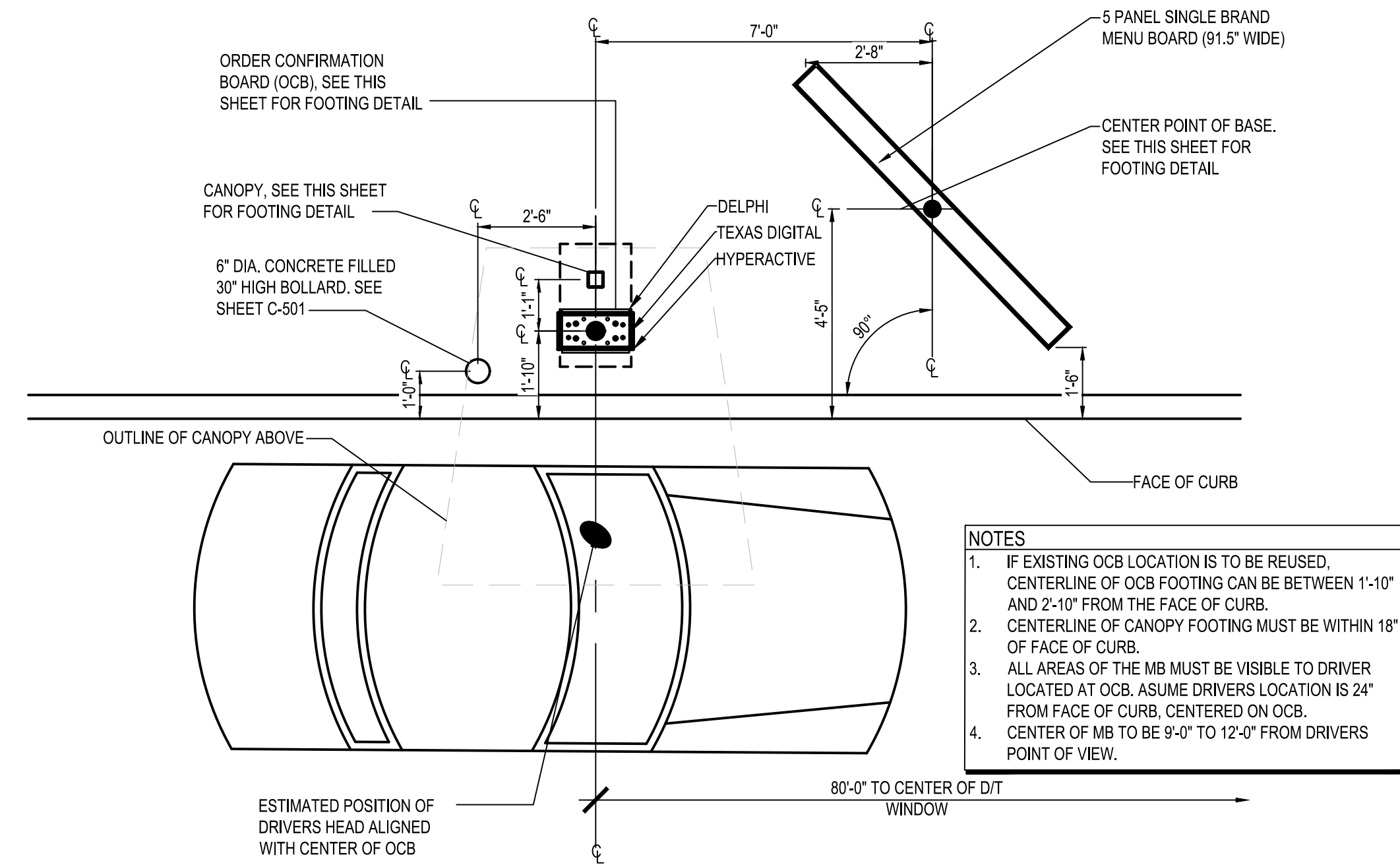
**NOTES**

- WIND LOADS ARE BASED ON EXPOSURE C.
- MAX. POLE HEIGHT = 25' MAX (POLE LENGTH) + 3' (FOUNDATION HEIGHT ABOVE GRADE) = 28' MAX.
- FOUNDATION DESIGN IS BASED ON A MAX. LUMINARY EFFECTIVE PROJECTED AREA (EPA) OF 4.0 S.F.
- LIGHT POLES SHALL MEET FOR ASCE 7-05 ASD DESIGN WIND SPEEDS PROVIDED IN STRUCTURAL PLANS.
- ALL REINFORCING STEEL SHALL DEFORMED BARS CONFORMING TO ASTM A-615 GRADE 60.
- CONCRETE ABOVE FINISH GRADE TO BE SMOOTH WITH RUBBED FINISH.
- MINIMUM REQUIRED SOIL PARAMETERS:
- ALLOWABLE LATERAL PASSIVE PRESSURE = 250 PL/FT
- 6" MAX. DEPTH OF DISTURBED TOP SOIL
- WATER TABLE SHALL BE LOCATED BELOW THE BOTTOM OF FOUNDATION.

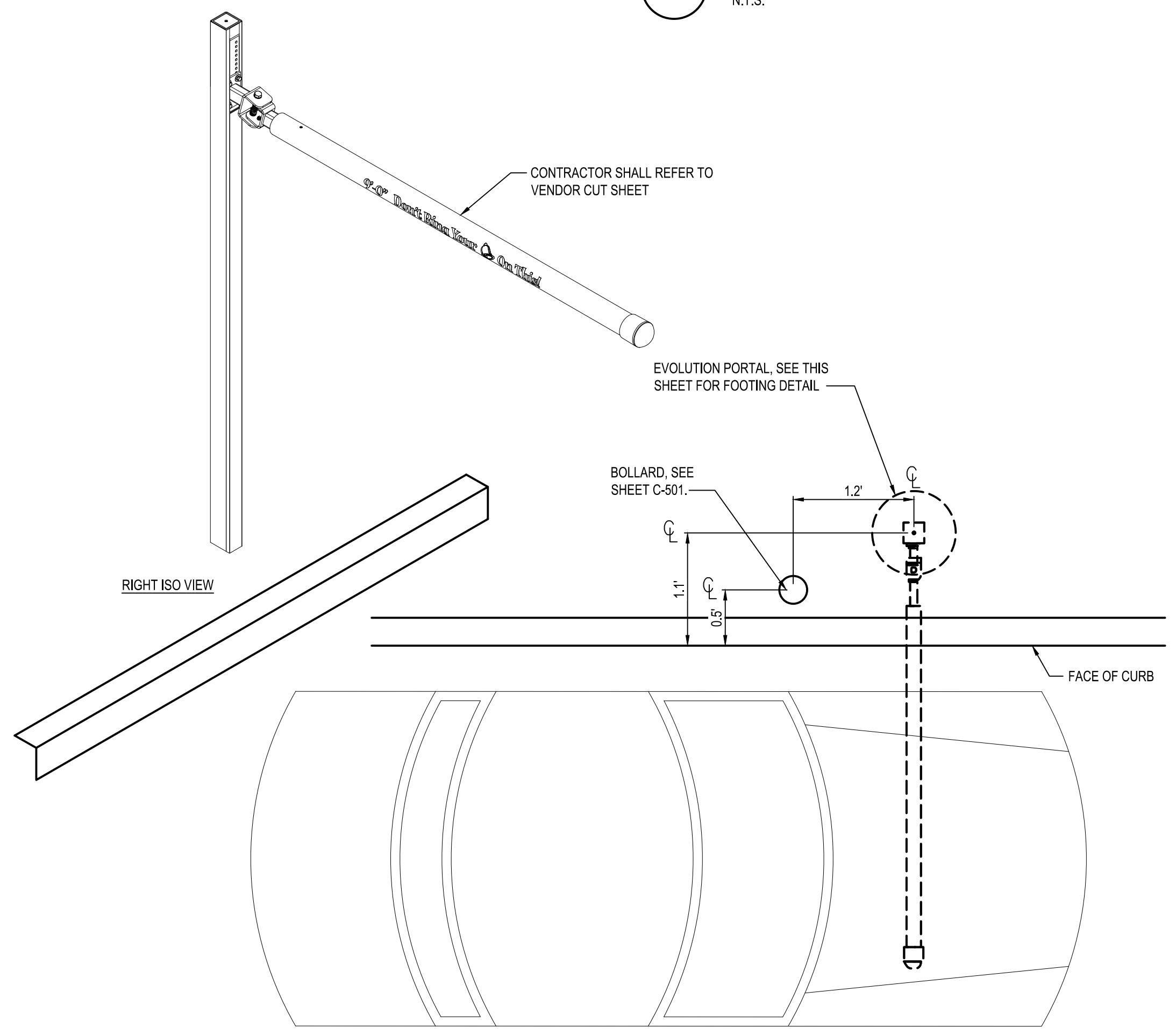
**A1 LIGHT POLE FOUNDATION DETAIL**  
N.T.S.



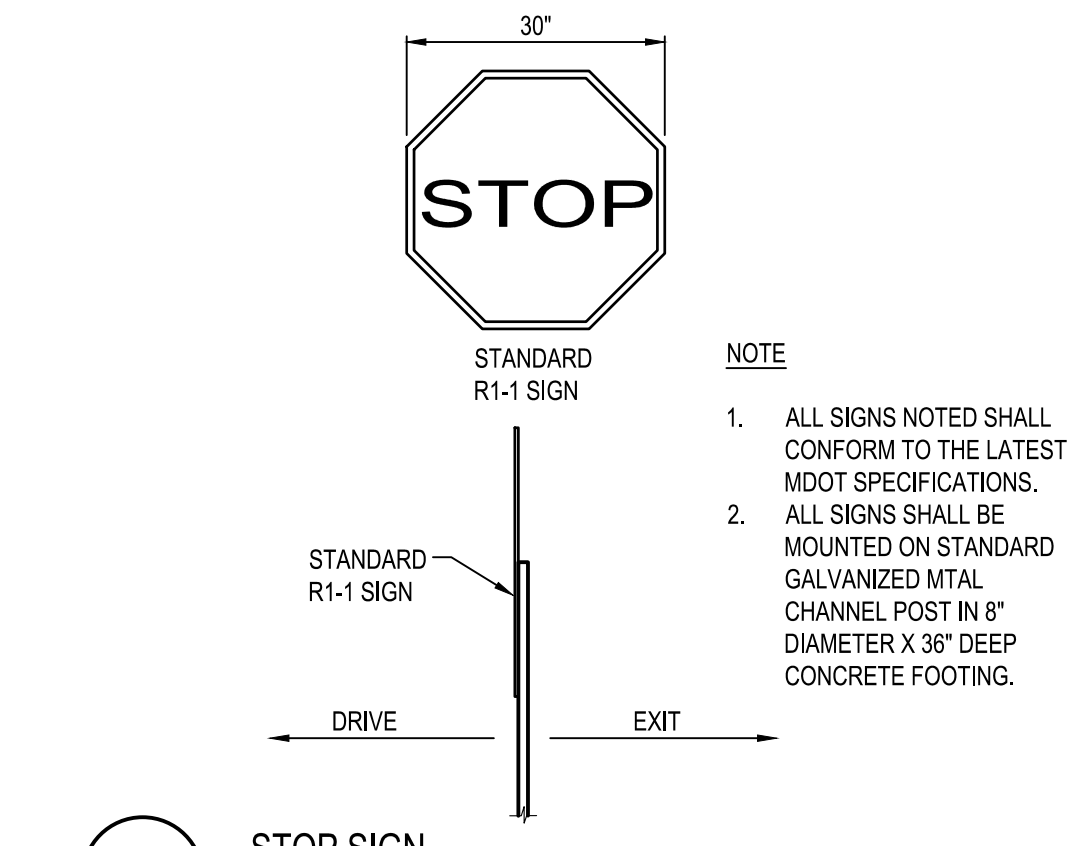
**C3 MENU BOARD FOOTING DETAIL**  
N.T.S.



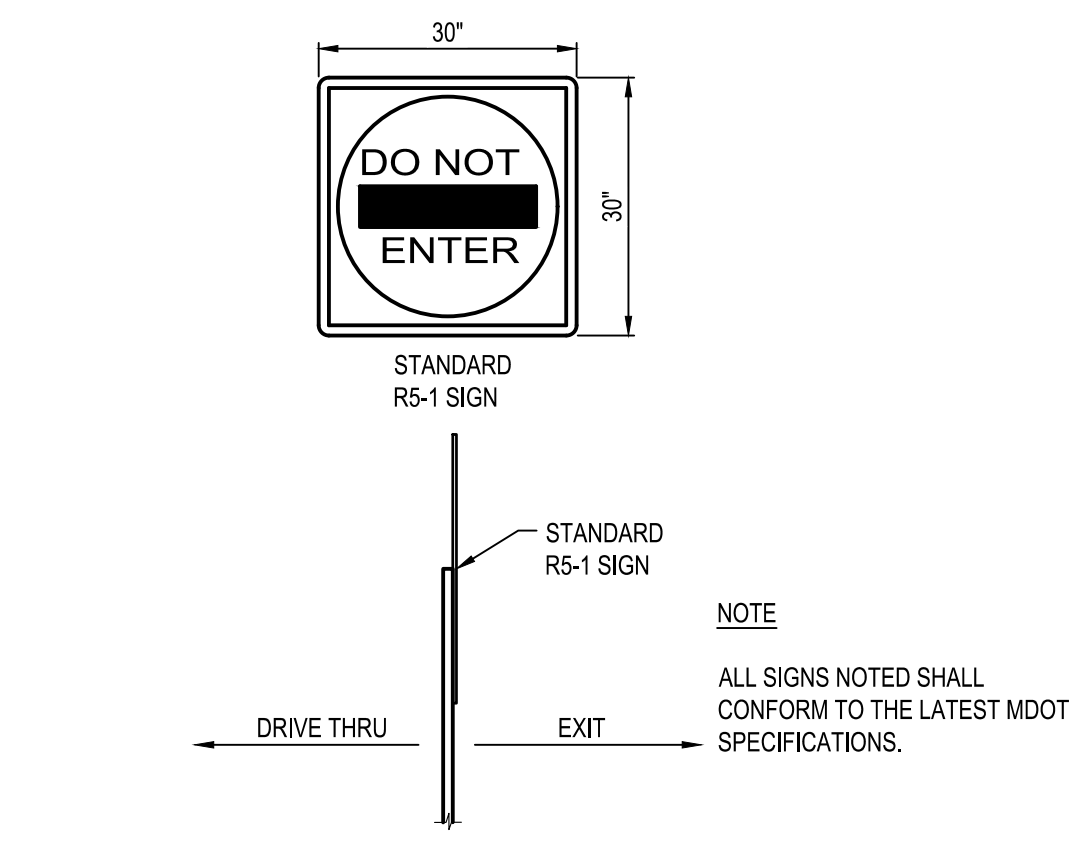
**C4 ENLARGED MENU BOARD DETAIL @ STRAIGHT CURB**  
N.T.S.



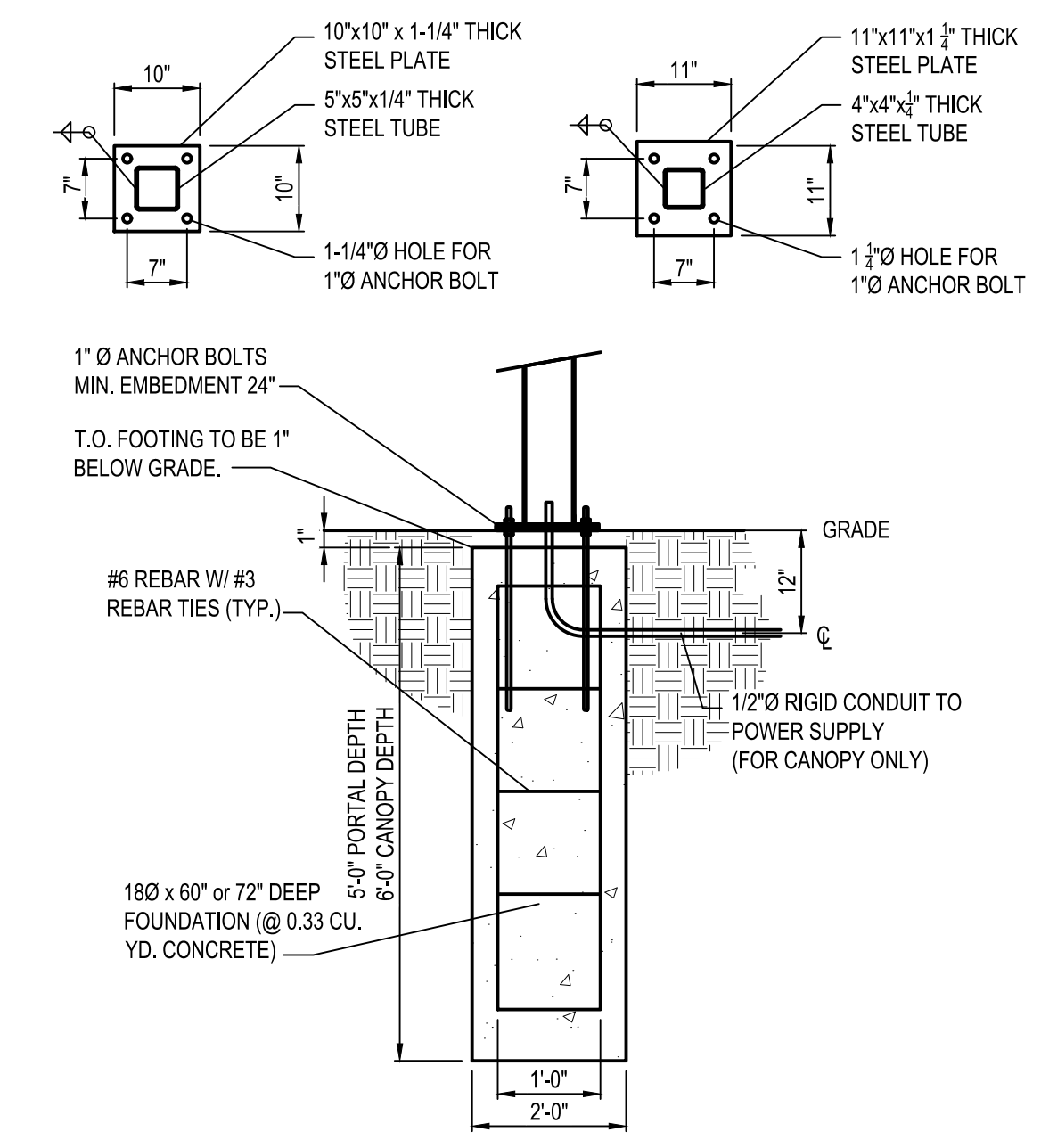
**A2 PORTAL PLACEMENT DETAIL**  
N.T.S.



**B4 STOP SIGN**  
N.T.S.



**A4 DO NOT ENTER SIGN**  
N.T.S.



**A5 EVOLUTION FOUNDATION DETAIL**  
N.T.S.

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**TACO BELL**  
20779 13 MILE RD.  
WESTLAND, MI

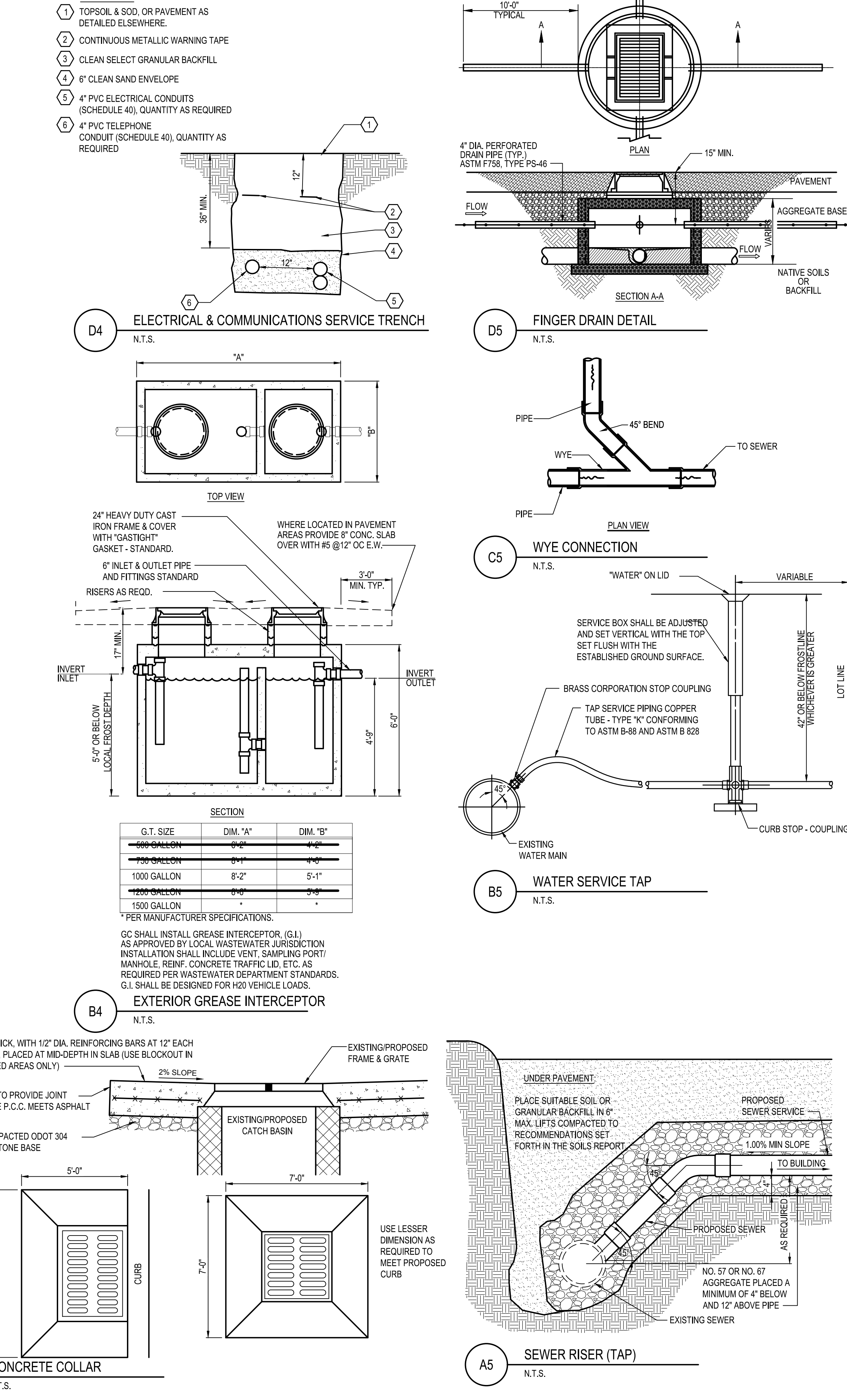
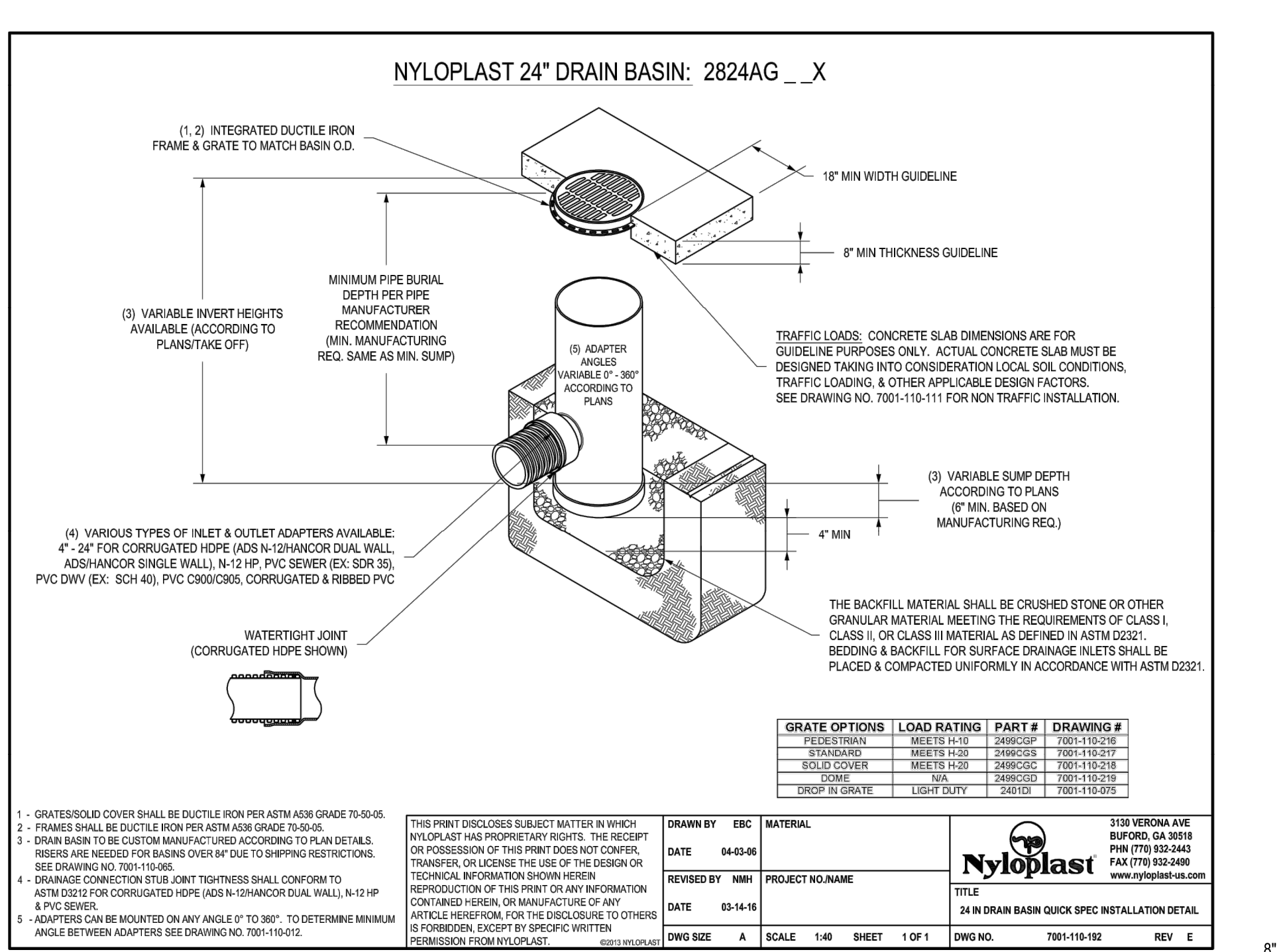
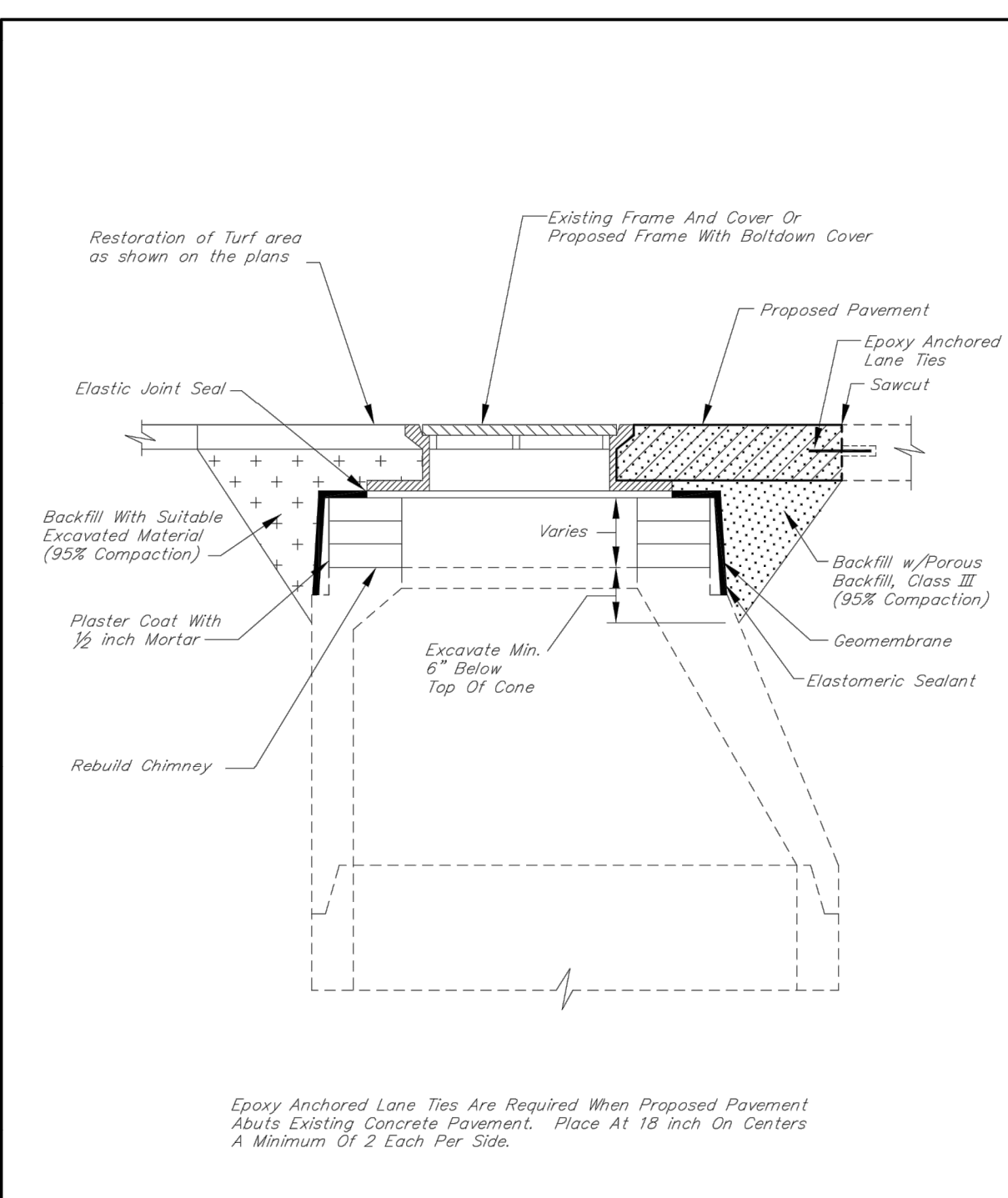
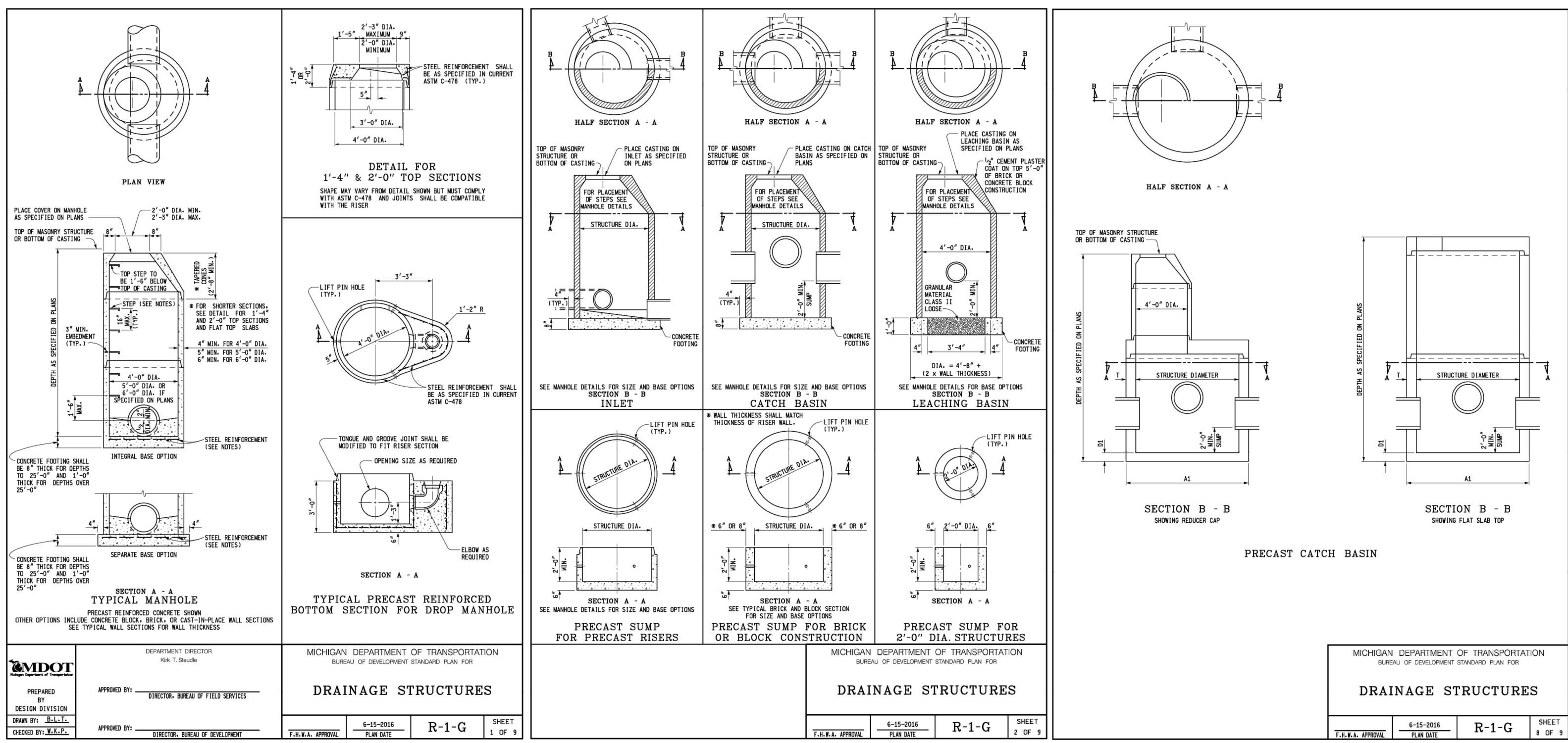


**MODERN EXPLORER**  
T40 - OPEN KITCHEN

**DETAILS**

**C-502**





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**TACO BELL**

20779 13 MILE RD.  
WESTLAND, MI

**TACO BELL**

**MODERN EXPLORER**  
T40 - OPEN KITCHEN

**DETAILS**

**C-503**

**LANDSCAPE NOTES & PLANTING SPECIFICATIONS**

**SCOPE OF WORK**

- THIS WORK SHALL CONSIST OF PERFORMING CLEARING AND GRUBBING, SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
- QUANTITY TAKEOFF IS SUPPLIED FOR CONTRACTOR'S ASSISTANCE ONLY. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL PLANT MATERIALS AS PER PLAN.
- NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR WITHIN EASEMENT OR RIGHT-OF-WAY LIMITS.

**PRESERVATION/PROTECTION (IF APPLICABLE)**

- CONTRACTOR SHALL MAINTAIN AND PRESERVE TREES AND SHRUBS NOT BEING REMOVED, INCLUDING THEIR ROOTS. TREE PROTECTION FENCING SHALL BE USED AT THE DRIP LINE OF ALL TREES AND SHRUBS WITHIN 50 FEET OF CONSTRUCTION EXCEPT AS SHOWN ON PLAN. FENCING SHALL REMAIN IN PLACE UNTIL FINAL PLANT INSPECTION FOLLOWING CONSTRUCTION. MATERIALS SHALL NOT BE STOCKPILED WITHIN THIS DEFINED AREA AND VEHICLES AND OTHER EQUIPMENT SHALL BE OPERATED TO AVOID SOIL COMPACTION.
- FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA EQUAL TO TWICE THE TREE CIRCUMFERENCE (MEASURED 6" ABOVE THE GROUND LINE IN INCHES) EXPRESSED IN FEET. (EXAMPLE: A CIRCUMFERENCE OF 10" WOULD HAVE A 'NO CUT' ZONE OF 20 FEET IN ALL DIRECTIONS FROM THE TREE). THIS SHOULD APPLY TO UTILITY SERVICES, IF FEASIBLE. THE ONLY EXCEPTION TO THIS REQUIREMENT WILL BE THOSE SPECIFICALLY ALLOWED BY THE LANDSCAPE ARCHITECT, SPECIFICATIONS OR AS INDICATION ON THE PLANS.
- TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING EQUIPMENT OPERATIONS SHALL BE TREATED IN ACCORDANCE WITH THE ARBOR CULTURAL STANDARDS OF THE CITY.

**PLANT MATERIALS**

- GENERAL - ALL MATERIALS SHALL BE OF ITS KIND AVAILABLE AND SHALL HAVE BEEN GROWN IN A CLIMATE SIMILAR TO THAT ON SITE.
- PLANTS - ALL PLANTS SHALL BE HEALTHY, OF NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS. QUALITY AND SIZE OF PLANT MATERIAL SHALL CONFORM TO ANSI Z60.1 "AMERICAN STANDARDS FOR NURSERY STOCK".
- VARIETIES AND SIZES OF PLANTS SHALL BE AS SHOWN ON DRAWINGS.
- PLANTS SHALL BE IN A HEALTHY, VIGOROUS CONDITION, FREE OF DEAD OR BROKEN BRANCHES, SCARS THAT ARE NOT COMPLETELY HEALED, FROST CRACKS, DISFIGURING KNOTS, BROKEN OR ABRADED BARK, REDUNDANT LEADERS OR BRANCHES, OR ABERRATIONS OF ANY KIND. PLANTS SHALL NOT HAVE MULTIPLE LEADERS, UNLESS THIS IS THE NATURAL FORM.
- BALLED AND BURLAPPED (B&B) PLANTS SHALL BE DUG WITH A FIRM ROOT BALL OF NATURAL EARTH, OF A SIZE IN PROPORTION TO THE PLANT'S SIZE, AS MEASURED BY CALIPER, HEIGHT, OR SPREAD. BALLED AND BURLAPPED PLANTS SHALL BE HANDLED ONLY BY THE ROOT BALL, NOT BY THE TRUNK OR BRANCHES, AS THIS MAY BREAK OR LOOSEN THE ROOT BALL AND DAMAGE THE ROOT SYSTEM. CONTAINER PLANTS SHALL HAVE BEEN ESTABLISHED FOR A MINIMUM OF ONE FULL GROWING SEASON IN THEIR CONTAINERS BEFORE INSTALLATION. CONTAINER PLANTS SHALL BE HANDLED ONLY BY THE CONTAINER, NOT BY THE STEMS OR BRANCHES, AS THIS MAY PULL THE PLANT OUT OF THE CONTAINER AND BREAK OR LOOSEN THE ROOT BALL AND DAMAGE THE ROOT SYSTEM.
- PLANTS SHALL BE PROTECTED FROM DRYING OUT DURING SHIPPING WITH TARPULINS OR OTHER COVERINGS. PLANTS SHALL BE PROTECTED FROM DRYING OUT AFTER DELIVERY BY PLANTING IMMEDIATELY; IF THIS IS NOT POSSIBLE, THE ROOT BALL SHALL BE COVERED WITH PEAT MOSS OR EARTH, AND WATERED FREQUENTLY TO KEEP IT MOIST UNTIL PLANTING.
- DO NOT HANDLE, MOVE, BIND, TIE OR OTHERWISE TREAT PLANTS SO AS TO DAMAGE THE ROOT BALL, ROOTS, TRUNK, OR BRANCHES IN ANY WAY.

**TOPSOIL**

- TOPSOIL HAS BEEN (OR WILL BE) STOCKPILED FOR REUSE IN LANDSCAPE WORK. IF QUANTITY OF STOCKPILED TOPSOIL IS INSUFFICIENT, PROVIDE ADDITIONAL TOPSOIL AS REQUIRED TO COMPLETE LANDSCAPE WORK. IMPORTED TOPSOIL SHALL CONSIST OF LOOSE, FRIABLE, LOAMY TOPSOIL WITHOUT ADMIXTURE OF SUBSOIL OR REFUSE. ACCEPTABLE TOPSOIL SHALL CONTAIN NOT LESS THAN 3 PERCENT NOR MORE THAN 20 PERCENT ORGANIC MATTER.
- PLANTING BACKFILL FOR PARKING LOT ISLANDS SHALL CONSIST OF A HOMOGENEOUS MIXTURE OF 3 PARTS TOPSOIL TO ONE PART SPHAGNUM PEAT INSTALLED OVER A 6" THICKNESS OF NO. 57 AGGREGATE.

**SOIL CONDITIONING**

- OBTAIN LABORATORY ANALYSIS OF STOCKPILED AND IMPORTED TOPSOIL COMPLETE WITH RECOMMENDATIONS FOR SOIL AMENDMENT.
- BEFORE MIXING, CLEAN TOPSOIL OF ROOTS, PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH.
- MIX SPECIFIED SOIL AMENDMENTS AND FERTILIZERS WITH TOPSOIL AT RATES SPECIFIED BY THE LAB REPORT. DELAY MIXING OF FERTILIZER IF PLANTING WILL NOT FOLLOW PLACING OF PLANTING SOIL WITHIN A FEW DAYS.
- FOR PLANTING BEDS AND LAWNS, MIX PLANTING SOIL EITHER PRIOR TO PLANTING OR APPLY ON SURFACE OF TOPSOIL AND MIX THOROUGHLY BEFORE PLANTING. MIX LIME WITH DRY SOIL PRIOR TO MIXING OF FERTILIZER.
- PREVENT LIME FROM CONTACTING ROOTS OF ACID-LOVING PLANTS.
- APPLY PHOSPHORIC ACID FERTILIZER (OTHER THAN THAT CONSTITUTING A PORTION OF COMPLETE FERTILIZERS) DIRECTLY TO SUBGRADE BEFORE APPLYING PLANTING SOIL AND TILLING.

**PLANTING SOIL**

- PLANTING SOIL MIX SHALL BE CLEAR OF ALL STONES AND DEBRIS 1" OR LARGER, AND CONSIST OF THE FOLLOWING: 25% ORGANIC COMPOST, 75% ACCEPTABLE TOPSOIL.

**OTHER MATERIALS**

- BED EDGING - EDGING SHALL BE 4" STEEL EDGING WITH THREE (3) METAL ANCHOR STAKES PER 20 FOOT SECTION. ALL MASS PLANTING BEDS SHALL HAVE EDGING PLACED BETWEEN MULCH AREA AND ANY ADJACENT TURF AREA.
- MULCH:
  - A. RIVER ROCK MULCH AREA: MEXICAN BEACH AGGREGATE MULCH, 3" IN SIZE, GRAY IN COLOR, WASHED AND ROUNDED, SHALL BE INSTALLED WITHIN THE RIVER ROCK MULCH AREA PER PLAN. RIVER ROCK SHALL BE INSTALLED AT 6" DEPTH.
  - B. NON-DRYED, DOUBLE SHREDDED HARDWOOD MULCH SHALL BE INSTALLED IN ALL OTHER LANDSCAPE BEDS OUTSIDE OF THE RIVER ROCK MULCH AREA, AT A 3" DEPTH.

**GENERAL WORK PROCEDURES**

- LANDSCAPE WORK SHALL BE ACCORDING TO THE WORKMANLIKE STANDARDS ESTABLISHED FOR LANDSCAPE CONSTRUCTION AND PLANTING IN THE MICHIGAN STANDARDIZED LANDSCAPE SPECIFICATIONS (ASLA) AND ANY LOCAL LANDSCAPE ORDINANCES.
- CONTRACTOR SHALL OBTAIN A COPY OF LOCAL ORDINANCES REGARDING ACCEPTABLE PLANT AND PLANTING DETAILS AND ABIDE BY THOSE ORDINANCES AND DETAILS.
- ENGINEER RESERVES THE RIGHT TO REJECT ALL PLANT MATERIAL DEEMED NOT ACCEPTABLE.
- ANY PROPOSED PLANT SUBSTITUTIONS SHALL BE EQUIVALENT IN FORM, HABIT, STRUCTURE, BRANCHING AND LEAF TYPE AND MUST BE ISSUED TO THE LANDSCAPE ARCHITECT FOR APPROVAL, IN WRITING, PRIOR TO INSTALLATION.

**WEEDING**

- BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

**PLANTING**

- POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE OWNER BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.
- PLANTING PITS SHALL BE AS PER DETAILS.
- PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL WITH PLANTING SOIL AROUND BALL OF PLANT. COMPLETE BACKFILLING AND WATER THOROUGHLY.
- EACH TREE AND SHRUB SHALL RECEIVE THE LANDSCAPER'S BIONUTRITION (3-0-3) GRANULAR WITH MYCORRHIZAL TECHNOLOGY FERTILIZER OR APPROVED OTHER. APPLY FERTILIZER PER MANUFACTURER'S SPECIFICATIONS.
- WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
- INSTALL BED EDGING AND MULCH PER MATERIALS SPECIFICATION AND DETAILS.
- REMOVE ALL SALES TAGS, STRINGS, STRAPS, WIRE, ROPE OR OTHER MATERIALS THAT MAY INHIBIT PLANT GROWTH BOTH ABOVE AND BELOW THE SURFACE OF THE SOIL.
- REMOVE ANY BROKEN, SUCKERING, DISEASED, CRISSCROSSED OR AESTHETICALLY DISPLEASING BRANCHES BACK TO LIVE LEADER OR SIDE LATERAL WITH A FLUSH CUT.

**FINISH GRADING**

- ALL AREAS WILL BE GRADED BY THE CONTRACTOR TO SUBSTANTIALLY PLUS/MINUS 0.1 FOOT OF FINISH GRADE.
- ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN, UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS.
- ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
- PARKING LOT ISLAND SHALL BE BACKFILLED AS PART OF THIS CONTRACT.

**GROUND COVER**

- SPACING AND VARIETY OF GROUND COVER SHALL BE AS SHOWN ON DRAWINGS.
- MULCH GROUND COVER WITH 2" THICKNESS OF SPHAGNUM PEAT.
- IMMEDIATELY AFTER PLANTING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
- ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE-EMERGENT. PRE-EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION.

**GUARANTEE**

- CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF PROJECT ACCEPTANCE BY THE OWNER.

**CLEANUP**

- UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. AN 'ACCEPTABLE CONDITION' SHALL BE AS DEFINED AND APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

**MAINTENANCE**

(MAINTENANCE PERIOD TO COMMENCE AFTER FINAL INSPECTION.)

- MAINTENANCE PERIOD FOR THIS CONTRACT SHALL BE 90 CALENDAR DAYS COMMENCING AFTER FINAL INSPECTION OF CONSTRUCTION.
- MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS, RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED.
- MAINTAIN LAWNS BY WATERING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGRADING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
- MAINTAIN THE LANDSCAPING BY KEEPING ALL PLANTS DISEASE-FREE AND PLANTING BEDS GROOMED, EXCEPT IN NATURALLY OCCURRING VEGETATION AREAS.
- REPLACE ANY REQUIRED PLANTING(S), WHICH SEVERELY DECLINE OR DIE AFTER THE DATE OF PLANTING. SUCH REPLACEMENT SHALL OCCUR DURING THE NEXT APPROPRIATE PLANTING SEASON.

**SODDING**

- SOD SHALL BE FIRST GRADE CERTIFIED BLENDS OF THE FOLLOWING SPECIES PER HARDINESS ZONE CONTAINING NOT MORE THAN 30 PERCENT OF OTHER GRASSES AND CLOVERS, AND FREE FROM ALL NOXIOUS WEEDS.
  - ZONES 3, 4 & 5: APPROVED BLUE GRASS BLEND
  - ZONE 6: APPROVED FESCUE BLEND
  - ZONES 7 & 8: APPROVED BERMUDA BLEND
  - ZONES 9 & 10: APPROVED ST AUGUSTINE FLORATAM BLEND
- SOD SHALL BE RECENTLY MOWED TO A HEIGHT OF NOT LESS THAN 3 INCHES. IT SHALL BE CUT INTO STRIPS OF NOT LESS THAN 3 FEET AND NOT OVER 6 FT. WITH A UNIFORM WIDTH OF NOT OVER 24 INCHES.
- SOD SHALL BE CUT TO A DEPTH EQUAL TO THE GROWTH OF THE FIBROUS ROOTS BUT IN NO CASE LESS THAN 1 INCH.
- SOD SHALL BE DELIVERED TO THE JOB WITHIN 24 HOURS AFTER BEING CUT AND SHALL BE INSTALLED WITHIN 48 HOURS AFTER BEING CUT.
- BEFORE SOD IS PLACED, THE SOD BED WILL HAVE BEEN EXCAVATED TO SUCH A DEPTH THAT WHEN THE SOD IS IN PLACE THE TOP OF THE SOD WILL BE FLUSH WITH THE SURROUNDING GRADE.
- NO SOD SHALL BE PLACED WHEN THE TEMPERATURE IS BELOW 32 DEGREES F. NO FROZEN SOD SHALL BE PLACED NOR SHALL ANY SOD BE PLACED ON FROZEN SOIL. WHEN SOD IS PLACED BETWEEN THE DATES OF JUNE 1ST AND OCTOBER 15TH, IT SHALL BE COVERED IMMEDIATELY WITH A STRAW MULCH 1 INCH THICK (LOOSE MEASUREMENT).
- AFTER LAYING, THE SOD SHALL BE WATERED THOROUGHLY AND TAMPED WITH APPROVED SOD TAMPERS SUFFICIENTLY TO BRING THE SOD INTO CLOSE CONTACT WITH THE SOD BED AND INSURE TIGHT JOINTS BETWEEN THE SECTIONS OR STRIPS.
- THE CONTRACTOR SHALL KEEP ALL SODDED AREAS INCLUDING SUBGRADE, THOROUGHLY MOIST FOR 30 DAYS AFTER SODDING.
- THE CONTRACTOR SHALL REPAIR ANY AREAS DAMAGED FOLLOWING INSTALLATION AS DIRECTED BY THE ENGINEER. SOD SHALL BE IN PLACE AT LEAST 30 DAYS BEFORE FINAL ACCEPTANCE.

**SEEDING**

- GRASS SEED SHALL BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH THE ASSOCIATION OF OFFICIAL SEED ANALYSTS "RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.
- ALL AREAS TO BE SEEDED SHALL RECEIVE NO LESS THAN FIVE POUNDS OF SEED PER ONE THOUSAND SQUARE FEET. APPLY SEED AND PROTECT WITH STRAW MULCH AS REQUIRED FOR NEW LAWNS. GRASS SEED MIX SHALL CONSIST OF THE FOLLOWING:

PROPORTION	NAME	MIN. % MAX. %		
		MIN. % GERM.	PURE SEED	WEED SEED
30%	KENTUCKY BLUEGRASS (POA PRATENSIS)	80	85	0.50
30%	CREEPING RED FESCUE (FESTUCA RUBRA)	85	98	0.50
20%	PERENNIAL RYE GRASS (LOLIUM PERENNE)	90	98	0.50
20%	ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	85	92	1.00

**PLANTING SCHEDULE**

- ALL PLANTING IS RECOMMENDED TO BE DONE WITHIN THE FOLLOWING DATES. WHEN PLANTING OUTSIDE THESE DATES, WRITTEN DOCUMENTATION SHALL BE PROVIDED THAT SURVIVAL OR REPLACEMENT WILL BE ENSURED. NO PLANTING SHALL BE DONE IN FROZEN SOIL.

NORMAL PLANTING SEASONS	SPRING	FALL
ALL TREES AND SHRUBS	MARCH 15-MAY 15	OCTOBER 1-DECEMBER 1
EVERGREENS	APRIL 1-MAY 15	OCTOBER 1-NOVEMBER 15
GROUNDCOVERS	APRIL 1-JUNE 1	WHEN SOD IS WORKABLE
SEED AND MULCH	APRIL 1-MAY 15	OCTOBER 1-NOVEMBER 15

**GENERAL NOTE**

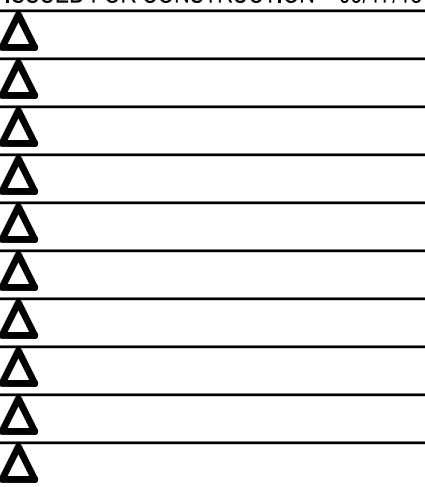
- ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE WITHIN THE RIGHT-OF-WAY SHALL BE FINE GRADED TO MAINTAIN POSITIVE DRAINAGE. HAVE A 4" LAYER OF TOPSOIL APPLIED AND BE SEEDED ACCORDING TO SPECIFICATIONS ON THIS SHEET.

**PLANT LIST**

Symbol	Botanical Name	Common Name	Qty.	Min. Size	Condition	Remarks
Ar	Acer rubrum 'Northwood'	Northwood Red Maple	2	2.5" Cal.	B&B	Matching
Bx	Buxus x 'Green Gem'	Green Gem Boxwood	45	18" H, No. 3	Cont.	3' o/c
Gt	Gleditsia triacanthos f. inermis 'Skycole'	Skyline Honeylocust	7	2.5" Cal.	B&B	Specimen
Hh	Hemerocallis 'Happy Returns'	Happy Returns Daylily	41	No. 1	Cont.	1.5' o/c
Jh	Juniperus horizontalis 'Wilton'	Blue Rug Juniper	2	No. 3	Cont.	Per Plan
Js	Juniperus scopulorum 'Sky Rocket'	Sky Rocket Juniper	3	5' H	B&B	Matching
Mj	Malus 'Jewelcole'	Red Jewel Crabapple	4	10-12' H	B&B	Multi-stem, matching
Pa	Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	11	No. 2	Cont.	Per Plan
Pg	Picea glauca	White Spruce	13	8' H	B&B	Specimen
Po	Picea omorika	Serbian Spruce	12	8' H	B&B	Specimen
Pv	Prunus virginiana 'Canada Red'	Canada Red Chokecherry	1	2" Cal.	B&B	Matching
Rm	Rosa 'Meicoublan'	White Meidiland Rose	51	24" H, No. 3	Cont.	3' o/c
Sb	Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Spirea	65	24" H, No. 3	Cont.	3' o/c
To	Thuja occidentalis 'Emerald'	Emerald Arborvitae	9	5' H	B&B	4' o/c
Vo	Viburnum opulus 'Compactum'	Compact Cranberry Bush Viburnum	3	36" H, No. 5	Cont.	Per Plan
Yf	Yucca flaccida	Adam's Needle	5	No. 3	Cont.	Per Plan



ISSUED FOR CONSTRUCTION 09/17/18



CONTRACT DATE: XX.XX.XX  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: JAN 18  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**TACO BELL**  
 20779 13 MILE RD.  
 WESTLAND, MI

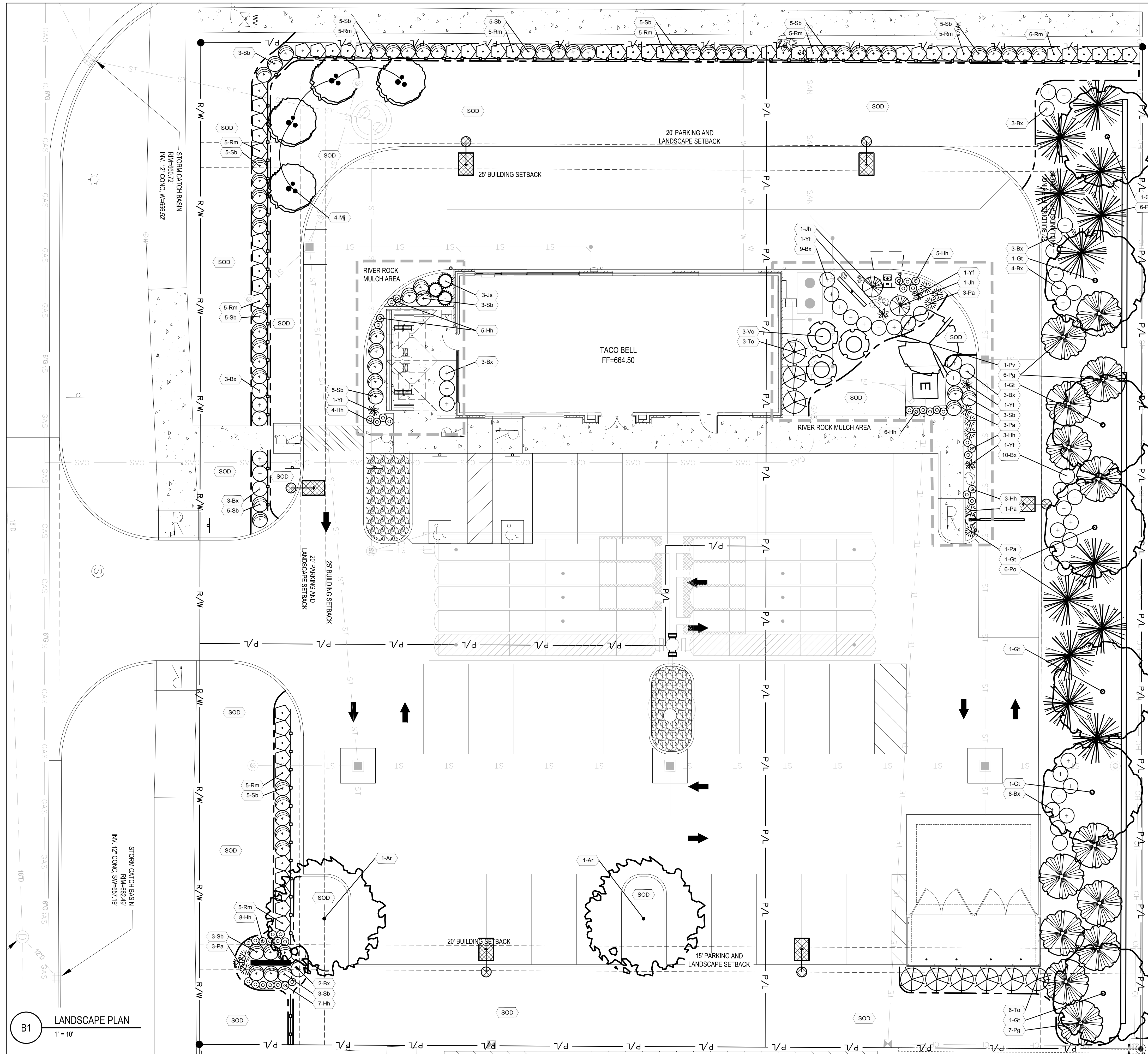


MODERN EXPLORER  
 T40 - OPEN KITCHEN

**LANDSCAPE NOTES**

**L-001**

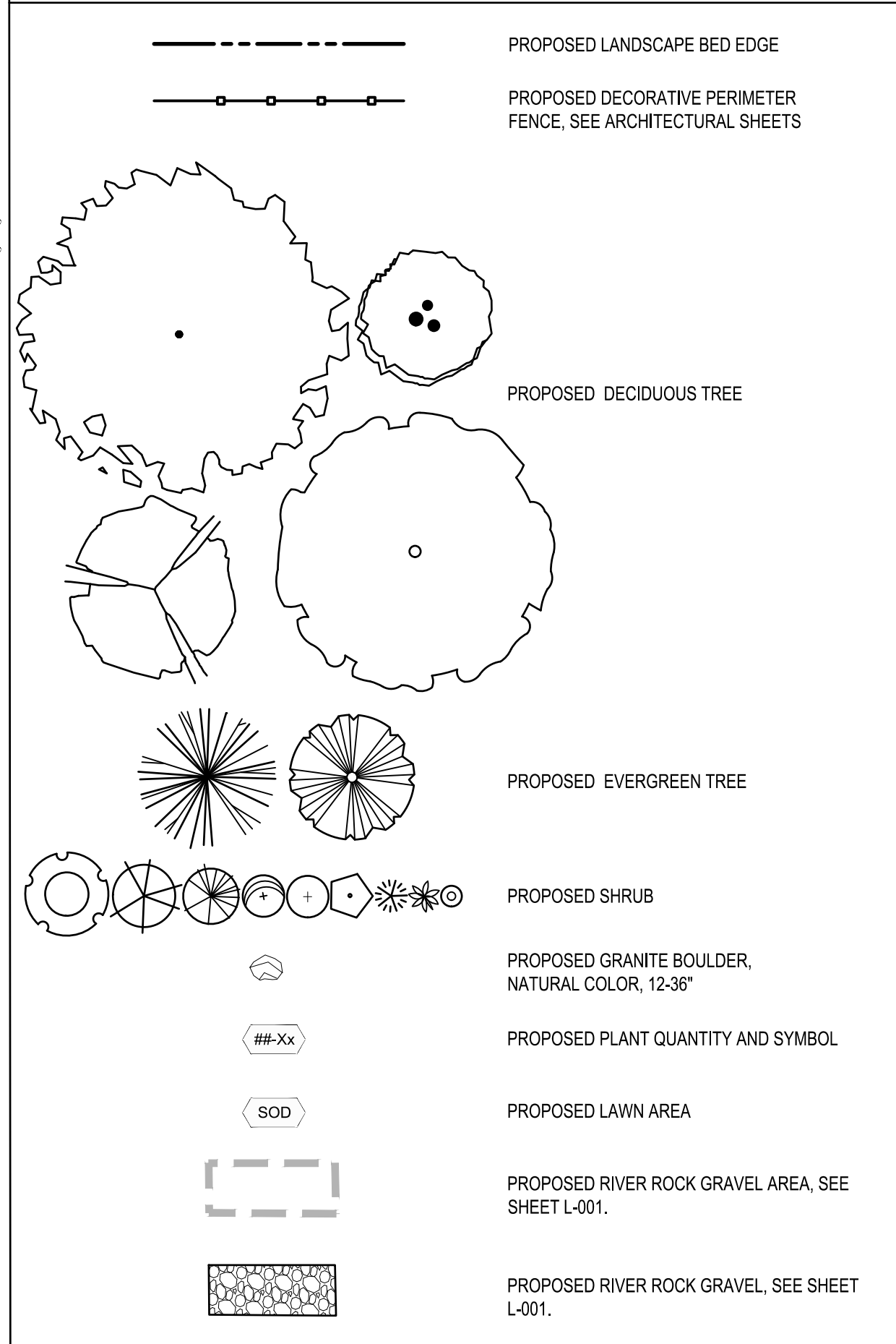




**LANDSCAPE NOTES**

- SEE SHEET L-001 FOR COMPLETE PLANT LIST.
- MULCH PER LANDSCAPE SPECIFICATIONS.
- ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE WITHIN THE RIGHT-OF-WAY SHALL BE FINE GRADED TO MAINTAIN POSITIVE DRAINAGE, HAVE A 4" LAYER OF TOPSOIL APPLIED AND BE SEEDED ACCORDING TO SPECIFICATIONS ON THIS SHEET.

**LANDSCAPE LEGEND**



**LANDSCAPE CALCULATION, BY PARKING**

REQUIRED: 30 PARKING SPACES = 3 TREES
PROVIDED: 31 PARKING SPACES = 3 TREES
PROPOSED INTERIOR TREES: 3

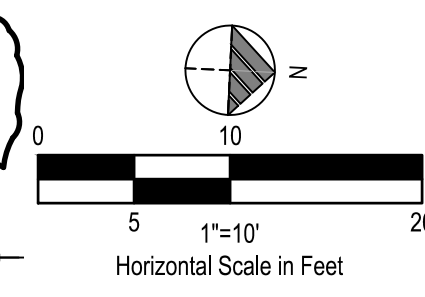
**ADJACENT RESIDENTIAL BUFFER**

REQUIRED: 1 DECIDUOUS TREE PER 30 LINEAL FEET, 1 EVERGREEN TREE AND SHRUB PER 8 LINEAL FEET
NORTH PROPERTY = 200 LINEAL FEET
REQUIRED: 6.6 DECIDUOUS TREES, 25 EVERGREEN TREES & SHRUBS
PROPOSED: 7 DECIDUOUS TREES, 25 EVERGREEN TREES & SHRUBS

**EXISTING TREE REMOVAL & REPLACEMENT**

EXISTING TREES TO BE REMOVED	
15" AUSTRIAN PINE	
12" JUNIPER	
15" RED MAPLE	
20" SCARLET OAK	
10" WALNUT	
20" MULBERRY	
10" BOXELDER	
EXISTING TREES TO BE REMAIN	
24" SILVER MAPLE	
REPLACEMENT TREES	
14 PROPOSED DECIDUOUS TREES	
25 PROPOSED EVERGREEN TREES	

NOTE: SEE SHEET C-101 FOR LOCATIONS OF REMOVED TREES.



**B1 LANDSCAPE PLAN**  
1" = 10'

ISSUED FOR CONSTRUCTION 09/17/18

CONTRACT DATE: XX.XX.XX  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: JAN 18  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

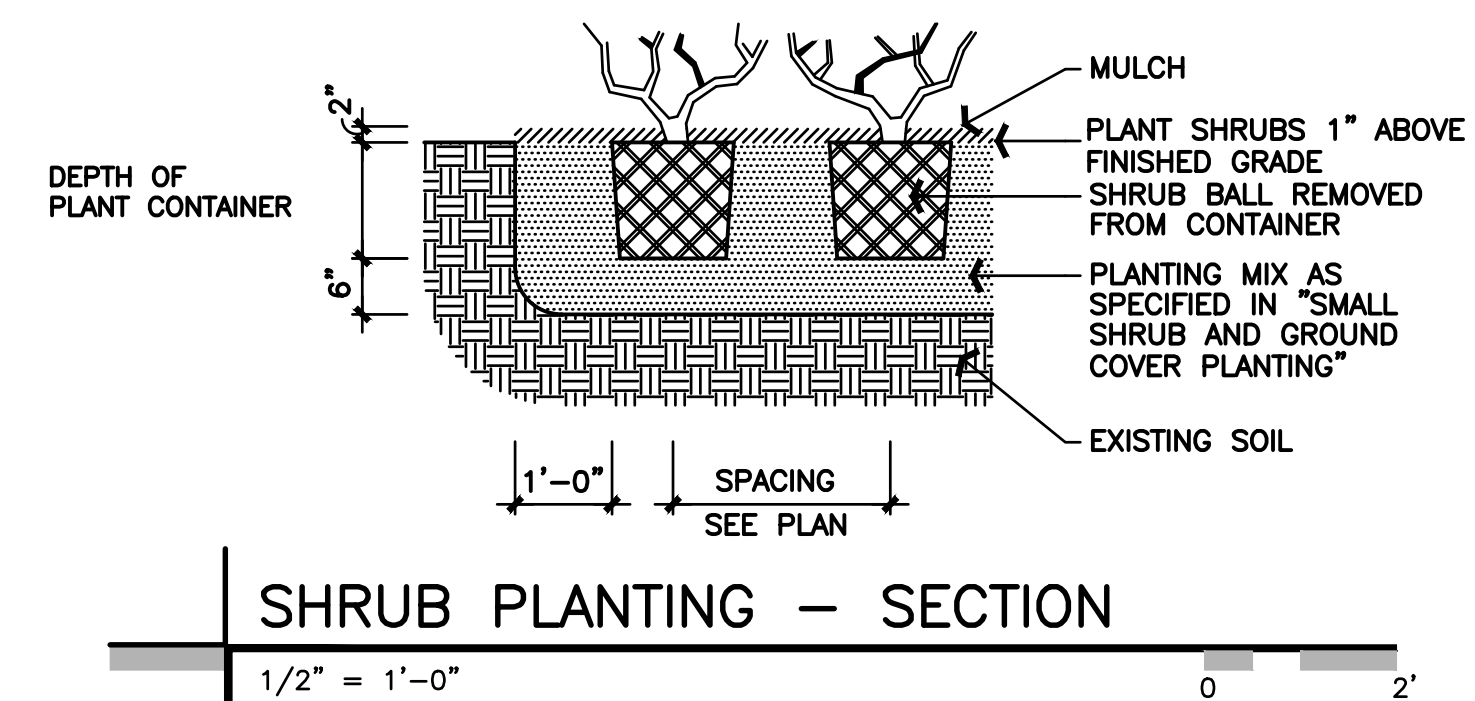
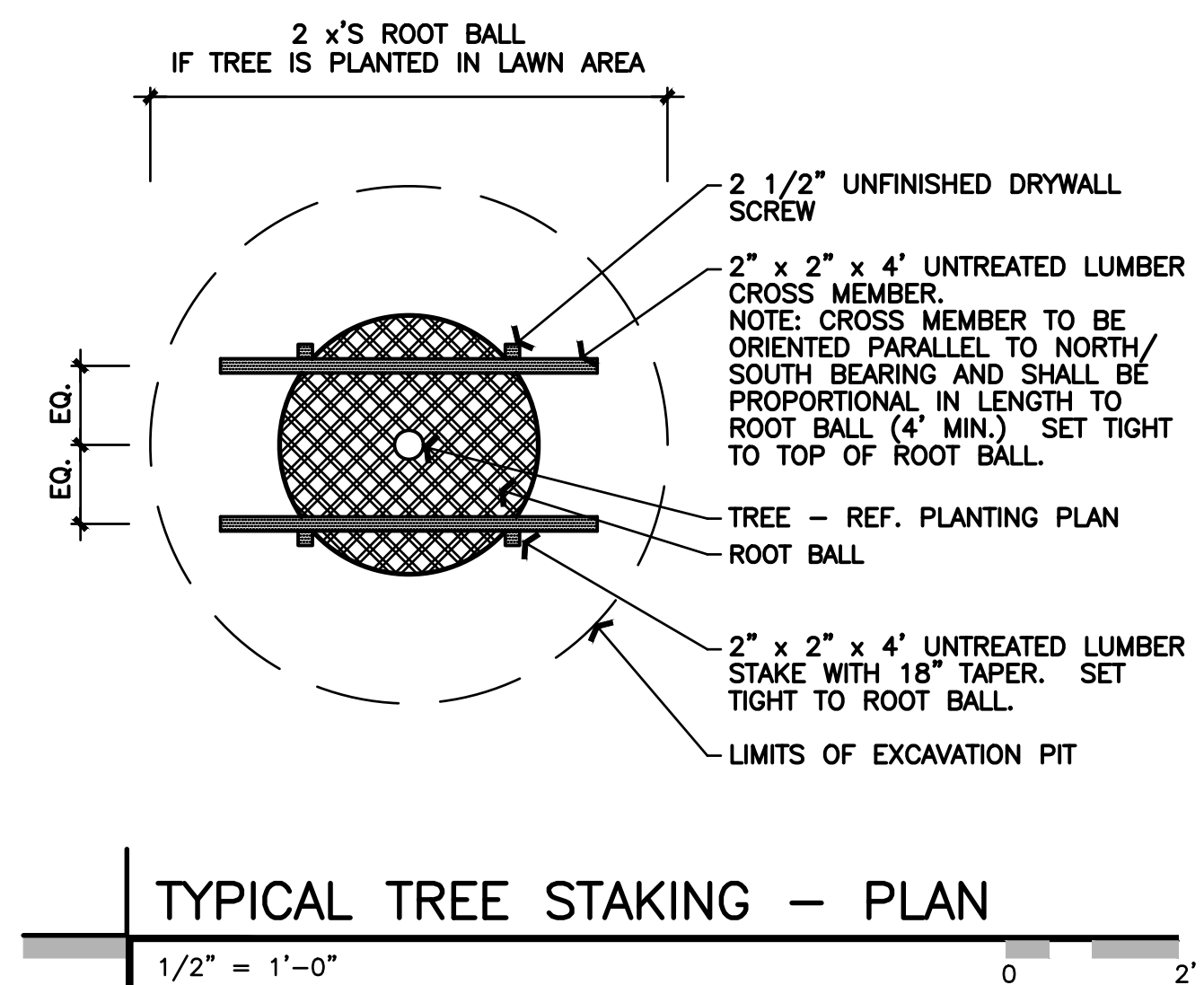
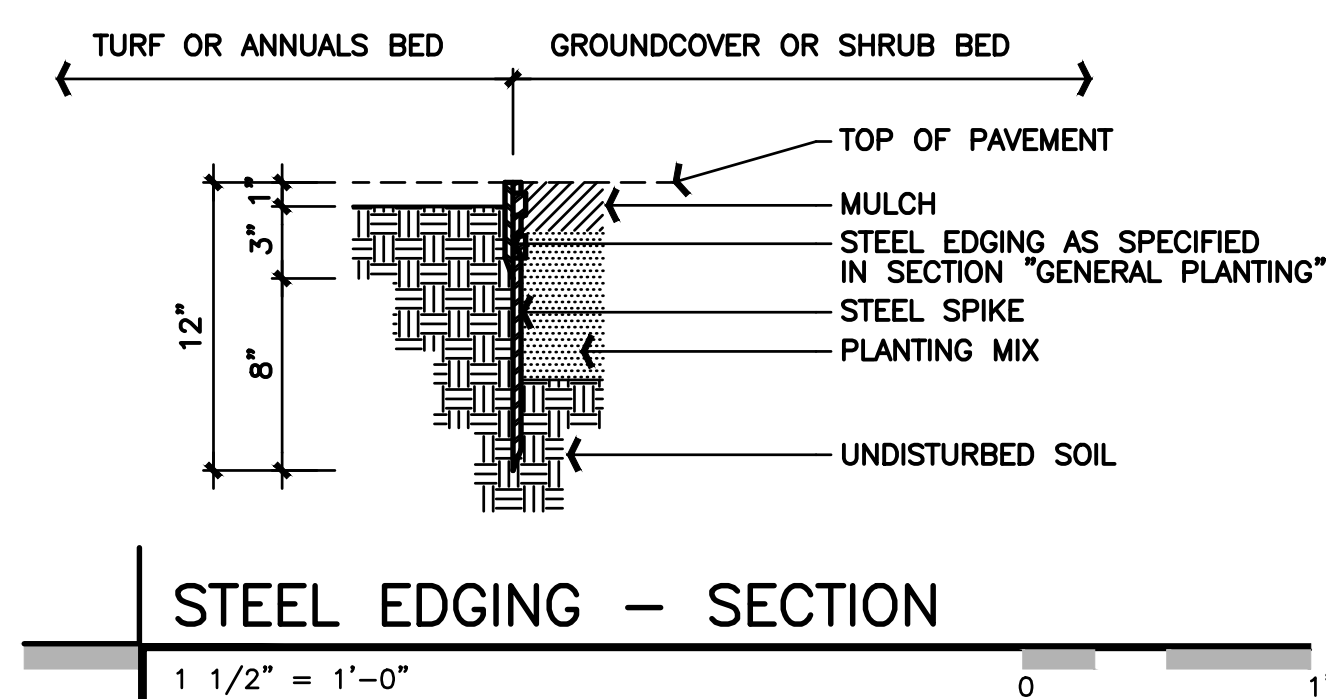
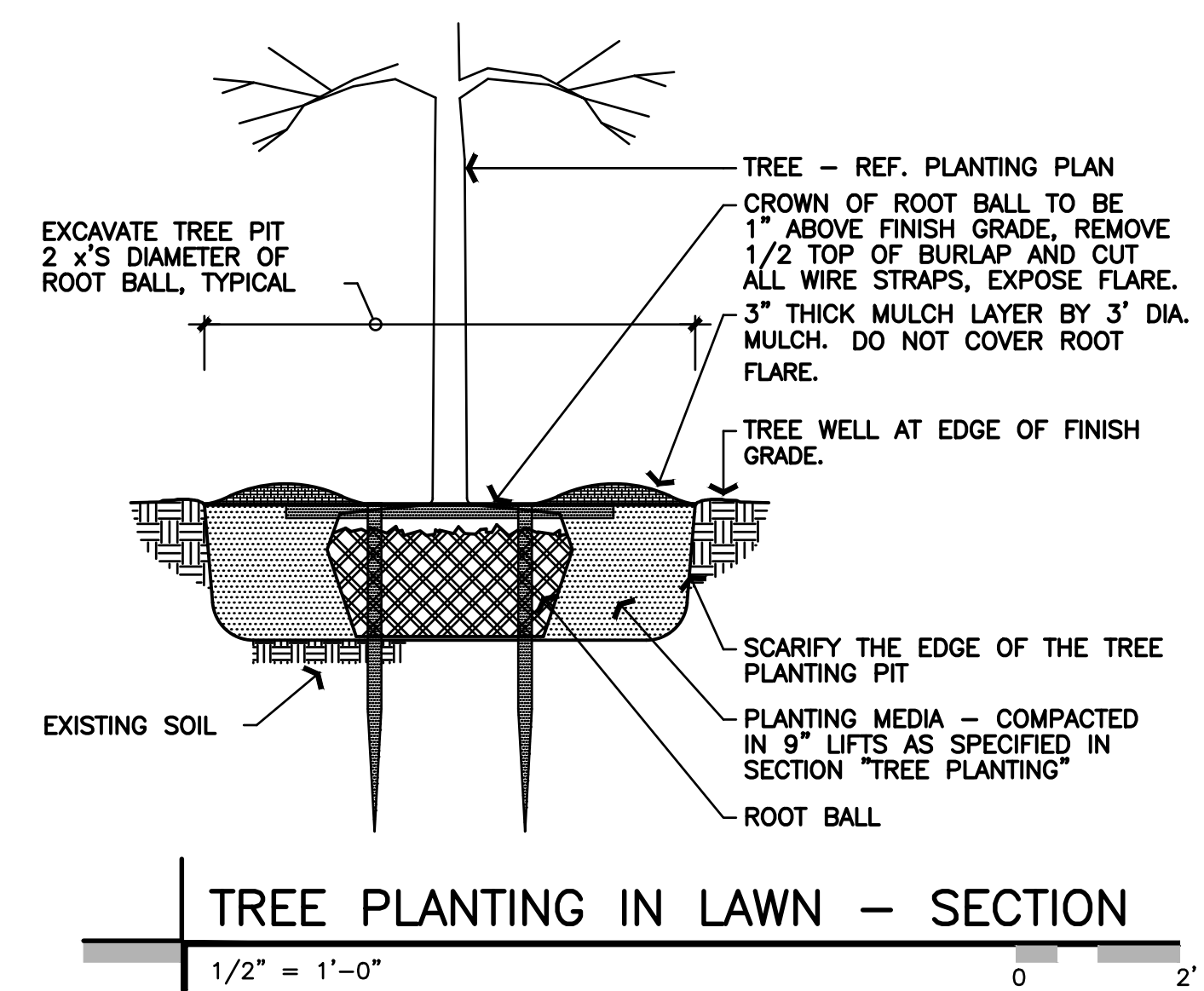
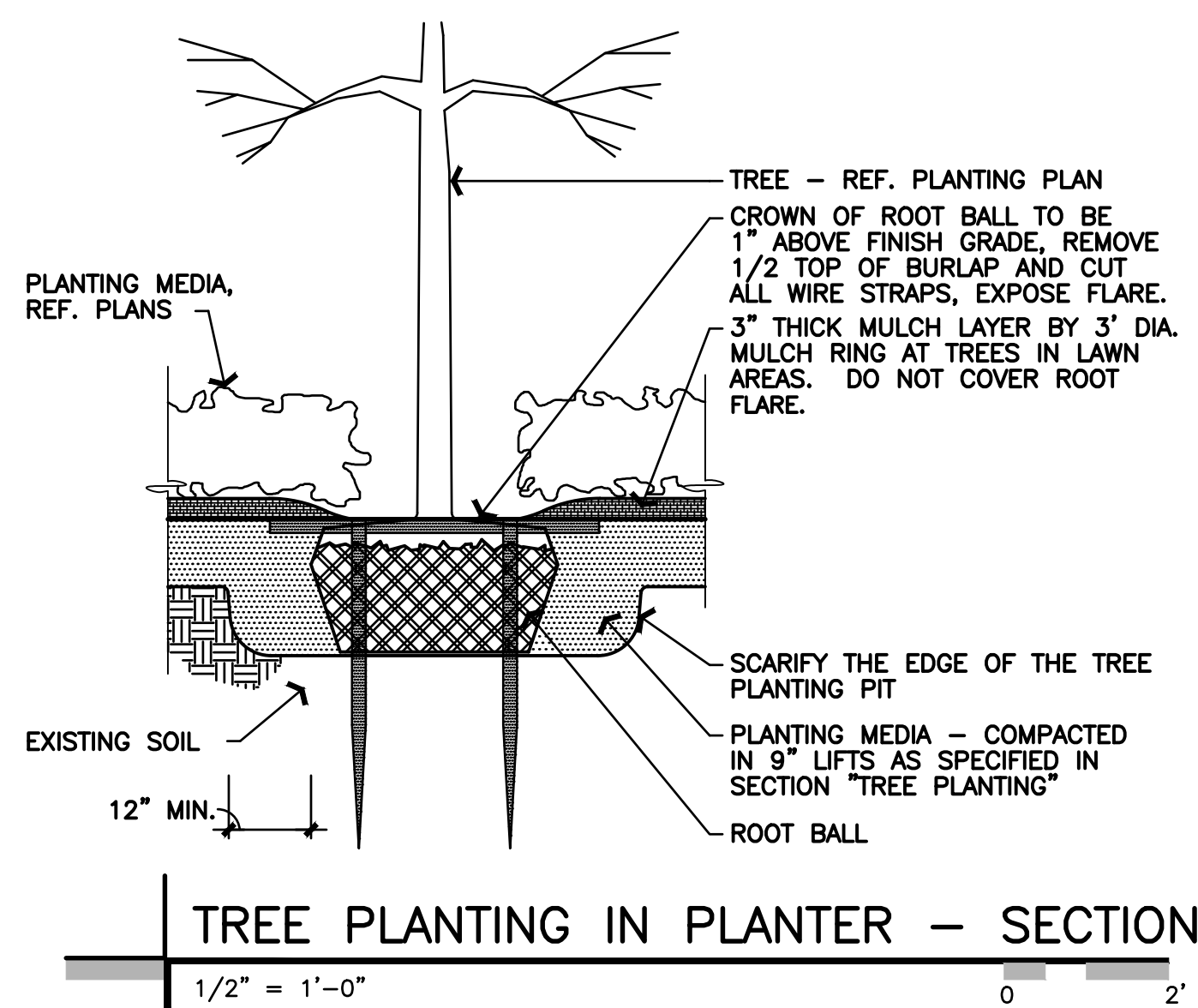
**TACO BELL**  
20779 13 MILE RD.  
WESTLAND, MI



MODERN EXPLORER  
T40 - OPEN KITCHEN

**LANDSCAPE PLAN**

**L-101**



ISSUED FOR CONSTRUCTION	09/17/18

CONTRACT DATE:	XX.XX.XX
BUILDING TYPE:	T40M-O
PLAN VERSION:	JAN 18
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

TACO BELL  
20779 13 MILE RD.  
WESTLAND, MI

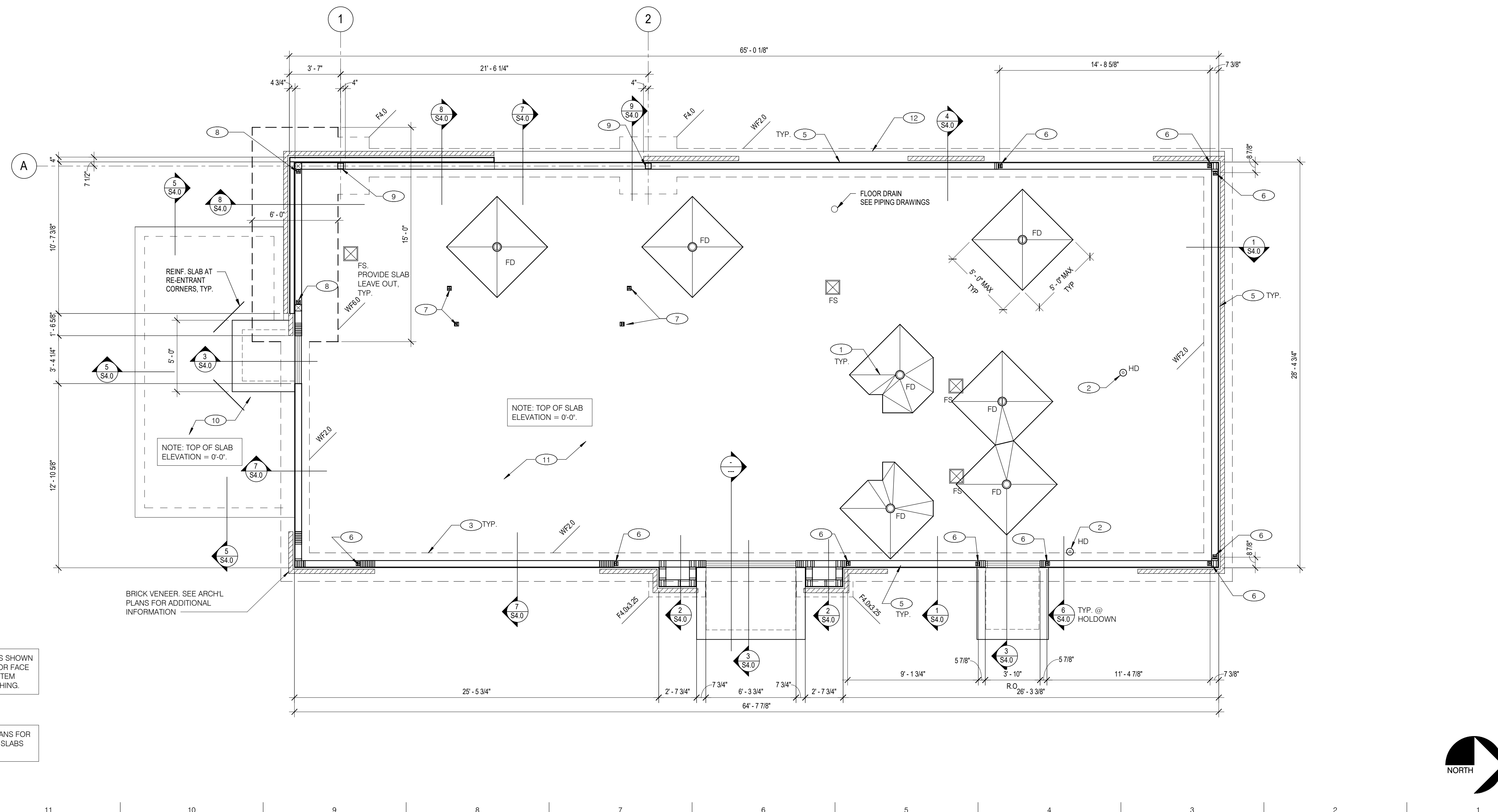


MODERN EXPLORER  
T40 - OPEN KITCHEN

**LANDSCAPE  
DETAILS**

**L-501**





NOTE: DIMENSIONS SHOWN ARE FROM EXTERIOR FACE OF FOUNDATION STEM WALL/WALL SHEATHING.

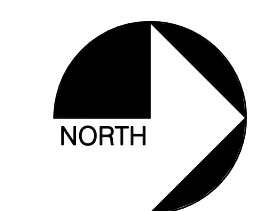
REFER TO CIVIL PLANS FOR EXTENT OF FROST SLABS AND PATIO SLAB

NOTE: TOP OF SLAB ELEVATION = 0'-0".

NOTE: TOP OF SLAB ELEVATION = 0'-0".

BRICK VENEER. SEE ARCHL PLANS FOR ADDITIONAL INFORMATION

FLOOR DRAIN SEE PIPING DRAWINGS



**FOUNDATION PLAN** 1/4" = 1'-0" **A**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185



MODERN EXPLORER

**FOUNDATION PLAN**

**S1.0**

PLOT DATE: 9/18/2018 8:20:32 AM

DESIGN CRITERIA	SEISMIC LOADS
2015 MICHIGAN BUILDING CODE	RISK CATEGORY: II
2015 INTERNATIONAL BUILDING CODE	SEISMIC IMPORTANCE FACTOR: 1.0
	SITE CLASS: D
<b>ROOF SNOW LOADS:</b>	MAPPED SPECTRAL RESPONSE ACCEL:
GROUND SNOW LOAD (Pg): 20 PSF	Ss: 0.095
EXPOSURE FACTOR (Ce): 1.0	S1: 0.047
IMPORTANCE FACTOR (I): 1.0	
THERMAL FACTOR (Ct): 1.0	
FLAT ROOF SNOW LOAD (Pf): 20 PSF	SPECTRAL RESPONSE COEFF.: 0.100
	SHORT PERIODS (SDS): 0.075
	1 SEC. PERIODS (SD1): B
<b>ROOF LOADS:</b>	SEISMIC DESIGN CATEGORY: B
LIVE LOAD: 20 PSF	
DEAD LOAD: 20 PSF	WOOD SHEAR WALLS
	RESPONSE MOD. FACTOR (R): 6.5
<b>WIND LOADS:</b>	
RISK CATEGORY: II	DESIGN BASE SHEAR (V): 0.0154W
3 SECOND GUST (ULTIMATE): 115 MPH	
IMPORTANCE FACTOR: 1.0	ANALYSIS BY SIMPLIFIED PROCEDURE
EXPOSURE CATEGORY (MMFRS): B	
INTERNAL PRESSURE COEFF.: +/- 0.18	

PROVIDE SHOP DRAWINGS AND CALCULATIONS PREPARED BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF MICHIGAN FOR SIGNS AND ROOF TRUSSES.

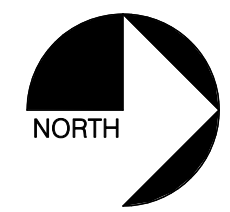
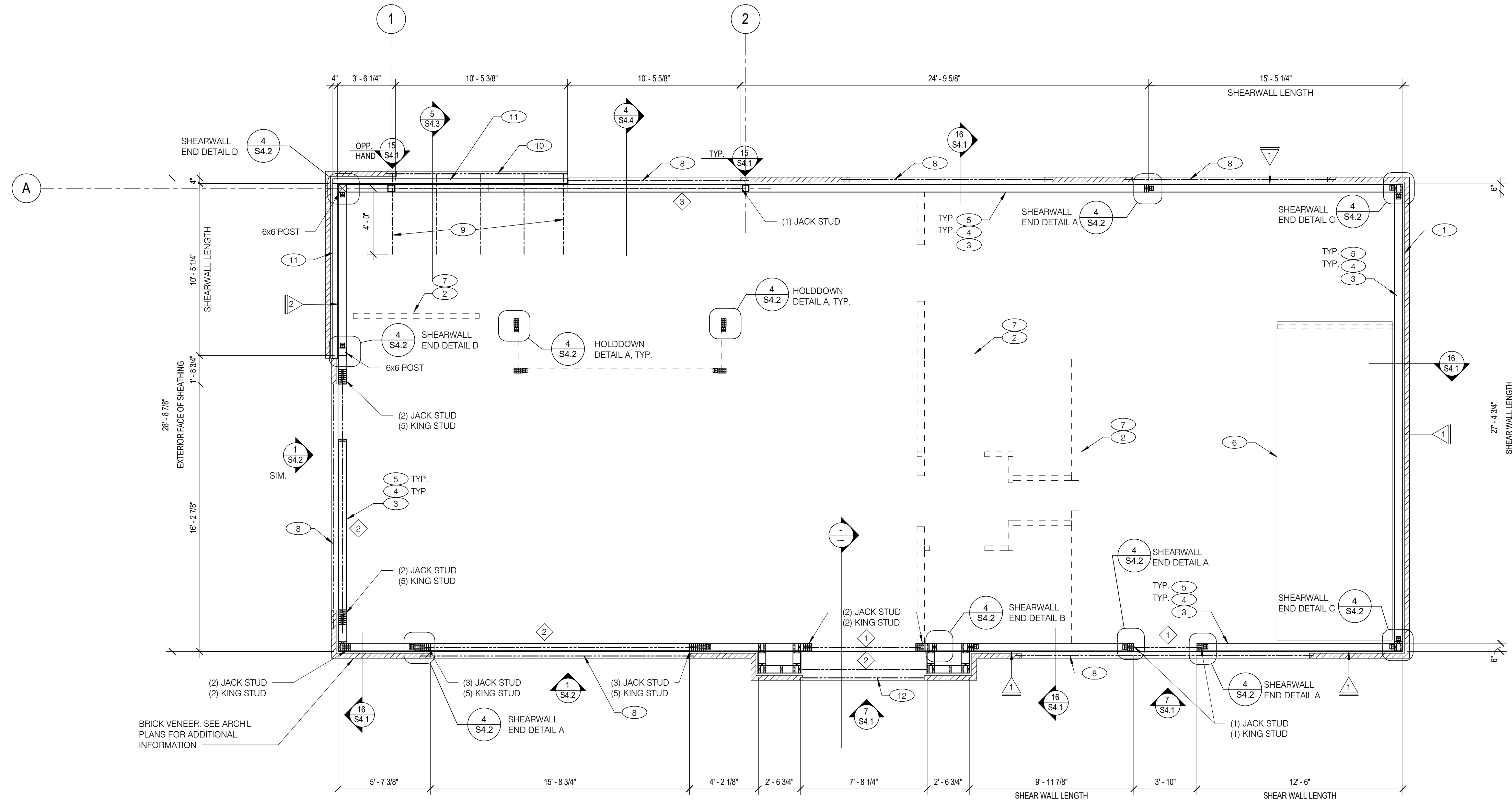
- FOUNDATION**
- FOUNDATION DESIGN IS BASED UPON THE GEOTECHNICAL ENGINEERING REPORT BY INTERTEK-PSI DATED JANUARY 26, 2018. PROJECT NO. 03811039.
  - CONTRACTOR TO PROVIDE FOUNDATION & FOOTING AS REQUIRED FOR PYLON OR MONUMENTAL SIGN. SEE ELECTRICAL DRAWINGS FOR DETAIL.
  - COORDINATE STRUCTURAL PLANS AND DETAILS WITH REQUIREMENTS OF GEOTECHNICAL REPORT. FOUNDATION DESIGN IS BASED ON 2,500 PSF ALLOWABLE BEARING CAPACITY AFTER REMOVAL AND REPLACEMENT OF NATIVE SOILS WITH ORGANICS PER THE GEOTECHNICAL REPORT. GROUND WATER WAS ENCOUNTERED AT 3.5 FEET TO 11 FEET BELOW EXISTING GROUND SURFACE. AT THE BUILDING PAD LOCATION. REFER TO SECTION 4.4 GROUNDWATER CONDITIONS IN THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
  - CONTRACTOR SHALL TREAT SOIL BELOW SLAB FOR TERMITES.
  - REFER TO THE GEOTECHNICAL REPORT FOR GENERAL REQUIREMENTS OF EARTHWORK, OVEREXCAVATION, SUBGRADE PREPARATION, FILL AND COMPACTION, WATERPROOFING AND OTHER PERTINENT REQUIREMENTS AND INFORMATION.
  - PROTECT PIPES AND CONDUITS RUNNING THROUGH WALLS AND SLABS WITH 1/2 INCH EXPANSION MATERIAL. LOWER CONTINUOUS FOOTINGS PERPENDICULAR TO PIPE RUNS TO ALLOW PIPES TO PASS ABOVE THE FOOTINGS OR THROUGH THE GRADE BEAMS. ALTERNATIVELY, PROVIDE A CONCRETE JACKET IF PIPES ARE LOW ENOUGH TO BE PLACED BELOW THE FOOTINGS. LOWER FOOTINGS AND GRADE BEAMS PARALLEL TO PIPE RUNS TO AVOID SURCHARGE ONTO ADJACENT TRENCH EXCAVATIONS.
  - MAINTAIN SUBGRADE AND FILL MOISTURE CONTENT UNTIL FOUNDATIONS ARE PLACED.
  - ARRANGE FOR OWNER'S INDEPENDENT TESTING AGENCY TO MONITOR CUT AND FILL OPERATIONS AND PERFORM FIELD DENSITY AND MOISTURE CONTENT TESTS TO VERIFY COMPACTION AND APPROVE FOOTING SUBGRADERS PRIOR TO PLACING CONCRETE.
  - DO NOT PLACE FOOTINGS OR SLABS AGAINST SUBGRADE CONTAINING FREE WATER, FROST, OR ICE.
  - MAINTAIN PROPER SITE DRAINAGE DURING CONSTRUCTION TO ENSURE SURFACE RUNOFF AWAY FROM STRUCTURES AND TO PREVENT PONDING OF SURFACE RUNOFF NEAR THE STRUCTURES.

- CONCRETE:**
- A. CONCRETE SHALL BE HARD ROCK CONCRETE (6 SACK CEMENT PER CU YD. MIN.) AND MEET THE FOLLOWING MIN. ULTIMATE COMPRESSIVE STRENGTHS AT 28 DAYS:
- | LOCATION      | MIN. STRENGTH             | AGGREGATE     | SLUMP  | TOLERANCE |
|---------------|---------------------------|---------------|--------|-----------|
| SLAB ON GRADE | 28 DAYS PSI (4000 DESIGN) | SIZE - INCHES | INCHES | ±1/2"     |
| FOUNDATIONS   | (4000 DESIGN)             | 1" x #4       | 3-1/2" | ±1/2"     |
- B. CONCRETE MIX DESIGN AND TESTING SHALL MEET WITH THESE SPECS. CEMENT SHALL BE IN ACCORDANCE WITH ASTM C 150 TYPE II. VERIFY MIN. CONCRETE STRENGTH AND CEMENT TYPE.
- C. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60. STEEL SHALL BE KEPT CLEAN AND FREE OF RUST.
- D. CONCRETE CURING SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF ACI-318-14. AND STANDARD PRACTICE FOR CURING CONCRETE REPORTED BY COMMITTEE 308.
- E. ANCHOR BOLTS - A36 OR A307, USE 5/8" DIAMETER x 12" LONG ANCHOR BOLTS (A.B.) AT 48" O.C. U.O.N. ANCHOR BOLTS SHALL BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.
- F. ALL WWF SHALL CONFORM TO ASTM 1064.
- SLAB:**
- A. DESIGN IS BASED UPON 4" THICK CONCRETE SLAB REINFORCED W/ WWF 6x6-W1.4x1.4 W.W.F. (ASTM A1064) CENTERED IN SLAB OVER 10 MIL VISQUEEN MEMBRANE, OVER 4" AGGREGATE BASE, OVER ENGINEERED SUBGRADE.
- B. PROVIDE CONTROL JOINTS AS FOLLOWS: 1/8" x 1/4" DEEP SAWCUTS @ 12'-0" O.C. SQ. MAX. w/ AN ASPECT RATIO OF NO MORE THAN 2:1.
- MISCELLANEOUS:**
- A. DIMENSIONS NOTED ARE TO FACE OF CONCRETE. REFER TO DWG. A1.0 FOR DIMENSIONS TO FACE OF STUD AND OTHER DIMENSIONS NOT OTHERWISE NOTED.
- B. DRAWINGS SHALL NOT BE SCALED. ALL DIMENSIONS AND FIT SHALL BE DETERMINED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.
- C. DETAILS NOT FULLY OR SPECIFICALLY SHOWN SHALL BE OF SAME NATURE AS OTHER SIMILAR CONDITIONS.
- D. SEE PLUMB. DWGS. FOR PLUMB. LAYOUT DIMENSIONS, U.O.N.
- E. SEE ELECT. DWGS. FOR ELECT. LAYOUT DIMENSIONS, U.O.N.
- F. COORD. FOUNDATION AND SLAB LAYOUT WITH OTHER TRADES PRIOR TO POURING SLAB.

MARK	WIDTHxLENGTHxTHICKNESS	REINFORCING
WF2.0	2'-0"xCONT.x2'-10"	(3)#5 CONT. T&B
WF6.0	6'-0"xCONT.x2'-10"	LONG: (9)#6 CONT. T&B TRANS: #6 @ 12" O.C. T&B
F4.0x25	3'-3"x4'-0"x2'-10"	LONG: (4)#5 CONT. T&B TRANS: #5 @ 12" O.C. T&B
F4.0	4'-0"x4'-0"x2'-10"	(7)#5 BARS EACH WAY T&B

- NOTES:**
- "WFx" DENOTES WALL FOOTING.
  - "Fx" DENOTES COLUMN FOOTING.
  - COLUMN FOOTING TO BE CENTERED WITH COLUMN.
  - TOP OF ALL FOOTINGS TO BE 8" BELOW TOP OF SLAB U.O.N.
  - LONGITUDINAL WALL FOOTING REINFORCING SHALL BE CONTINUOUS THROUGH ALL COLUMN FOOTINGS.

- FLOOR DRAINS LOCATED 12" BELOW T.O. SLAB. SLOPE SLAB AS INDICATED ON PLAN TO PROVIDE POSITIVE DRAINAGE.
- PROVIDE HUB DRAIN (HD) UNLESS REQUIRED BY LOCAL CODE TO HAVE FLOOR SINK (FS). PROVIDE SLEEVE IN CONCRETE AT THESE AND HOSE BIB LOCATIONS. COORDINATE LOCATIONS WITH PLUMBING DRAWINGS.
- INDICATES INSIDE SURFACE OF FOOTING. SEE SHEET S4.0. BOTTOM OF FOOTING (B.O.F.) ELEVATION = -3'-6" BELOW FINISHED EXTERIOR GRADE (MIN. FOR FROST PROTECTION). ALL TOP OF FOOTING (T.O.F) ELEVATIONS = -0'-8".
- NOT USED.
- ANCHOR RODS LOCATED THROUGHOUT PERIMETER OF BUILDING SHALL BE PROVIDED AS REQUIRED PER THE "PLATE/ANCHOR ROD" COLUMN OF THE "WALL SHEATHING AND SHEARWALL SCHEDULE." SEE D/S2.0.
- HD19 HOLDDOWN ANCHOR AT EACH END OF SHEARWALL. SEE 6/S4.0 FOR HOLDDOWN EMBEDMENT DETAIL.
- DTTZ-SDS2.5 ANCHOR FOR SUPPORT OF HALF WALL.
- HD19 HOLDDOWN ANCHOR AT EACH END OF INTERIOR SHEARWALL. SEE 6/S4.0 FOR HOLDDOWN EMBEDMENT DETAIL.
- HSS5x5x1/8" STEEL COLUMN.
- 4" EXTERIOR CONCRETE SLAB REINFORCED W/ WWF 6x6-W1.4x1.4 OVER 4" AGGREGATE BASE OVER SUBGRADE. SEE SLAB NOTES THIS SHEET FOR ADDITIONAL INFORMATION.
- 4" CONCRETE SLAB PER SLAB NOTES THIS SHEET.
- CONCRETE CURB. SEE CIVIL PLAN



09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**WALL FRAMING PLAN** 1/4" = 1'-0" **A**

**MATERIAL PROPERTIES:**  
W SHAPES: ASTM A992 (Fy = 50 KSI)  
M.S.C SHAPES: ASTM A36 UNO  
PLATE, ANGLES: ASTM A36 UNO  
PIPE: ASTM A53, TYPE E OR S, GRADE B  
TUBE: ASTM A500 GRADE B (Fy = 46 KSI)

**DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE 2010 AISC SPECIFICATIONS.**

FIELD CONNECTIONS SHALL BE BOLTED, BEARING TYPE UNLESS NOTED OTHERWISE USING 3/4" HIGH STRENGTH BOLTS CONFORMING TO ASTM A325. ONE SIDED CONNECTIONS ARE NOT PERMITTED UNLESS DETAILED ON DRAWINGS. ALL CONNECTIONS TO TUBES AND PIPES SHALL USE THRU PLATES UNLESS NOTED OTHERWISE.

ALL WELDING SHALL BE DONE USING E-70XX ELECTRODES IN ACCORDANCE WITH THE LATEST AWS SPECIFICATIONS.

STEEL EXPOSED TO THE EXTERIOR SHALL BE HOT DIPPED GALVANIZED ACCORDING TO ASTM A123. PRIME ALL STEEL NOT IN CONTACT WITH CONCRETE. DO NOT PRIME STEEL IN AREAS TO RECEIVE SLIP CRITICAL BOLTS (FRICTION BOLTS). DO NOT PRIME STEEL THAT IS TO RECEIVE FIREPROOFING.

SUBMIT SHOP DRAWINGS PREPARED UNDER SUPERVISION OF A REGISTERED STRUCTURAL ENGINEER, INCLUDING COMPLETE DETAILS AND SCHEDULES FOR FABRICATION AND ASSEMBLY OF STRUCTURAL STEEL MEMBERS, PROCEDURES AND DIAGRAMS. INCLUDE DETAILS OF CUTS, CONNECTIONS, CAMBER, HOLES AND OTHER PERTINENT DATA. INDICATE WELDS BY STANDARD AWS SYMBOLS AND SHOW SIZE, LENGTH, AND TYPE OF EACH WELD. PROVIDE SETTING DRAWINGS, TEMPLATES AND DIRECTIONS FOR INSTALLATION OF ANCHOR BOLTS AND OTHER ANCHORAGES TO BE INSTALLED BY OTHERS.

MARK	BUILT-UP SECTION	MANUF. MEMBER	STEEL BEAM
1	(3) 2x10		--
2	--	5 1/4x18 2.0E PSL	--
3	--	--	W16x57

**NOTES:**

- BUILT-UP HEADER SECTION SHALL HAVE 1/2" PLYWOOD SANDWICHED BETWEEN THE PLYS OFF WOOD. REF 8/S4.1.
- PSL BEAMS TO HAVE FOLLOWING MIN. PROPERTIES:  
Fb=2900 PSI  
Fop=750 PSI  
Fy=290 KSI  
E=29000 KSI
- ALL HEADERS SHALL HAVE TWO JAMB STUDS AND TWO FULL HEIGHT KING STUDS AT BEARING. U.O.N.
- SEE STRUCTURAL STEEL NOTES FOR ADDITIONAL INFORMATION

SW	SHEATHING	EDGE	FIELD	PLATE / ANCHOR ROD	REMARKS
1	1/2" CDX PLYWD (32/16), PS1 RATING	10d @ 6" O.C.	10d @ 12" O.C.	5/8" DIA. A307 (12' HEADED) @ 32" O.C. W/ WASHER	PLYWOOD ON EXTERIOR FACE OF STUDS
2	1/2" CDX PLYWD (32/16), PS1 RATING	10d @ 4" O.C.	10d @ 12" O.C.	5/8" DIA. F1554, (12' HEADED) @ 16" O.C. W/ WASHER	PLYWOOD ON BOTH SIDES OF WALL
***	1/2" CDX PLYWD (32/16), PS1 RATING	10d @ 6" O.C.	10d @ 12" O.C.	5/8" DIA. A307, (12' HEADED) @ 48" O.C. W/ WASHER	NAILING @ HEADERS PER 14/S4.1

\*\*\* REQUIREMENTS FOR EXTERIOR NON-SHEARWALL WALLS

- OSB OF COMPARABLE THICKNESS MAY BE USED IN LIEU OF PLYWOOD WHEN APPROVED IN WRITING BY THE PROJECT ENGINEER AND THE LOCAL JURISDICTION OF COMPARABLE THICKNESS MAY BE USED IN LIEU OF PLYWOOD WHEN APPROVED IN WRITING BY THE PROJECT ENGINEER AND THE LOCAL JURISDICTION.
- BLOCK ALL UNSUPPORTED EDGES WITH 2x MATERIAL U.O.N. BLOCK EDGES WITH 3x MATERIAL WHERE 10d NAILING IS 3" O.C. OR LESS AND 8d NAILING IS 2" O.C. OR LESS. ALL UNSUPPORTED EDGES WITH 2x MATERIAL U.O.N. BLOCK EDGES WITH 3x MATERIAL WHERE 10d NAILING IS 3" O.C. OR LESS AND 8d NAILING IS 2" O.C. OR LESS.
- ALL PLYWOOD NAILS SHALL BE COMMON WIRE. SEE SPECIFICATIONS FOR OTHER NAIL REQUIREMENTS.
- EXTERIOR WALLS NOT DESIGNATED AS SHEARWALLS IN THE WALL FRAMING PLAN SHALL MEET REQUIREMENTS INDICATED FOR NON-SHEARWALL WALLS IN THE SCHEDULE ABOVE. EXTERIOR WALLS NOT DESIGNATED AS SHEARWALLS IN THE WALL FRAMING PLAN SHALL MEET REQUIREMENTS INDICATED FOR NON-SHEARWALL WALLS IN THE SCHEDULE ABOVE.
- SHEARWALL LENGTHS WHERE NOTED ARE MINIMUM. DO NOT LOCATE HOLDDOWNS FROM THESE DIMENSIONS. SEE ARCH DWGS FOR ACTUAL WALL LENGTHS. SHEARWALL LENGTHS WHERE NOTED ARE MINIMUM.
- HD REFERS TO SIMPSON STRONGTIE CO. HOLDDOWNS. INSTALL PER 6/S4.0. POST WIDTH SHALL MATCH STUD WALL WIDTH. SEE FOUNDATION PLAN FOR OTHER REQ'S.
- EDGE NAIL WALL PLY TO STUDS OR POSTS WITH HOLD-DOWNS.
- WHERE PANELS ARE APPLIED TO BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO WALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3x OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
- ALL ANCHOR RODS SHALL BE EMBEDDED A MINIMUM OF 8" BELOW TOP OF CONCRETE.

**WALL FRAMING:**

- EXTERIOR WALL NON-BEARING & BEARING STUDS SHALL BE NO. 2 SPRUCE-PINE-FIR. 6x6 POSTS TO BE NO. 2 SOUTHERN PINE. INTERIOR WALL STUDS MAY BE STUD GRADE. SEE ARCH. DWGS FOR METAL STUDS AT HOODS.
- ALL BEAMS AND JOISTS SHALL BE SEAT CUT FOR FULL UNIFORM BEARING AT SUPPORTS. BEAM SEATS AND COLUMN CAPS.
- SEE SHEET A1.0 FOR DIMENSIONS.
- EXTERIOR STUD WALLS ARE 2x6 AT 16" O.C. U.O.N.
- ALL WOOD IN CONTACT WITH CONCRETE, STEEL OR GRADE SHALL BE PRESSURE TREATED.
- ALL BOLTED OR NAILED STRAP CONNECTIONS SHALL HAVE AN EQUAL NUMBER OF BOLTS OR NAILS EACH SIDE OF THE SPLICE JOINT. THE FIRST BOLT OR NAIL FROM EACH SIDE OF THE SPLICED OR TREATED MEMBER SHALL BE EQUAL DISTANCE FROM THE SPLICE. STRAPS USING 16d NAILS ON 2x MATERIAL SHALL BE INSTALLED ON THE 1-1/2" EDGE OF THE MEMBER. THE CONTRACTOR SHALL VERIFY THAT THE MOISTURE CONTENT OF ALL FRAMING LUMBER AND PLYWOOD MEET THE REQUIREMENTS OF THE SPECS. AT THE TIME OF INSTALLATION AND AT CLOSE-IN.
- USE PRESSURE TREATED LUMBER AT WINDOW JAMBS, SILLS AND STUDS UNDER SILL AS WELL AS ALL TOILET PLUMBING WALLS.

**STUD LAYOUT:**

- LAYOUT STUDS ON SIDEWALLS (LONG WALLS) STARTING AT REAR OF BUILDING TOWARDS FRONT.
- LAYOUT STUDS ON ENDWALLS (SHORT WALLS) STARTING AT EACH END AND WORKING TOWARDS CENTER.

- COORDINATE WITH ELECTRICAL POWER PLAN SHEET E3.0.
- INTERIOR NON-BEARING STUD WALL FRAMING; REFER TO SHEET A1.0 FOR DIMENSIONS AND STUD SIZES. SEE DETAIL 10 & 11/S4.1 AND WALL FRAMING NOTES.
- (2) 2x6 TOP PLATES - SPLICE PER 12/S4.1. U.O.N. REF. 1/S4.3 FOR CAP DETAIL.
- TOP OF TRUSS BEARING PLATE. SEE DETAIL 1 & 2/S4.1.
- TOP OF PARAPET. SEE DETAIL 1/S4.3.
- FREEZER/COOLER BY MANUFACTURER.
- COORDINATE WITH PLUMBING ROUGH IN SHEET P4.0.
- L6x4x3/8 (LLV) GALV. STEEL ANGLE BRICK LEDGER. ANCHOR TO FRAMING PER 7/S4.3.
- HSS4x4x3/8" x 4'-8" LG. OUTRIGGER @ 2'-8" O.C.
- ANGLE AND TUBE STEEL OUTRIGGER FRAMING SUPPORTING BRICK VENEER. SEE DETAIL 5/S4.3 FOR ADDITIONAL INFORMATION.
- 2x4 STUD @ 16" O.C. FURRING AT TOWER. SEE DETAIL 4 & 5 ON SHEET S4.4 FOR ADDITIONAL INFORMATION.
- L8x4x7/16 (LLV) GALV. STEEL ANGLE BRICK LEDGER. ANCHOR TO FRAMING PER 2/S4.5.

**STRUCTURAL STEEL NOTES** **F**

**HEADER/BEAM SCHEDULE** **E**

**WALL SHEATHING AND SHEARWALL SCHEDULE** **D**

**FRAMING PLAN NOTES** **C**

**KEY NOTES** **B**

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185



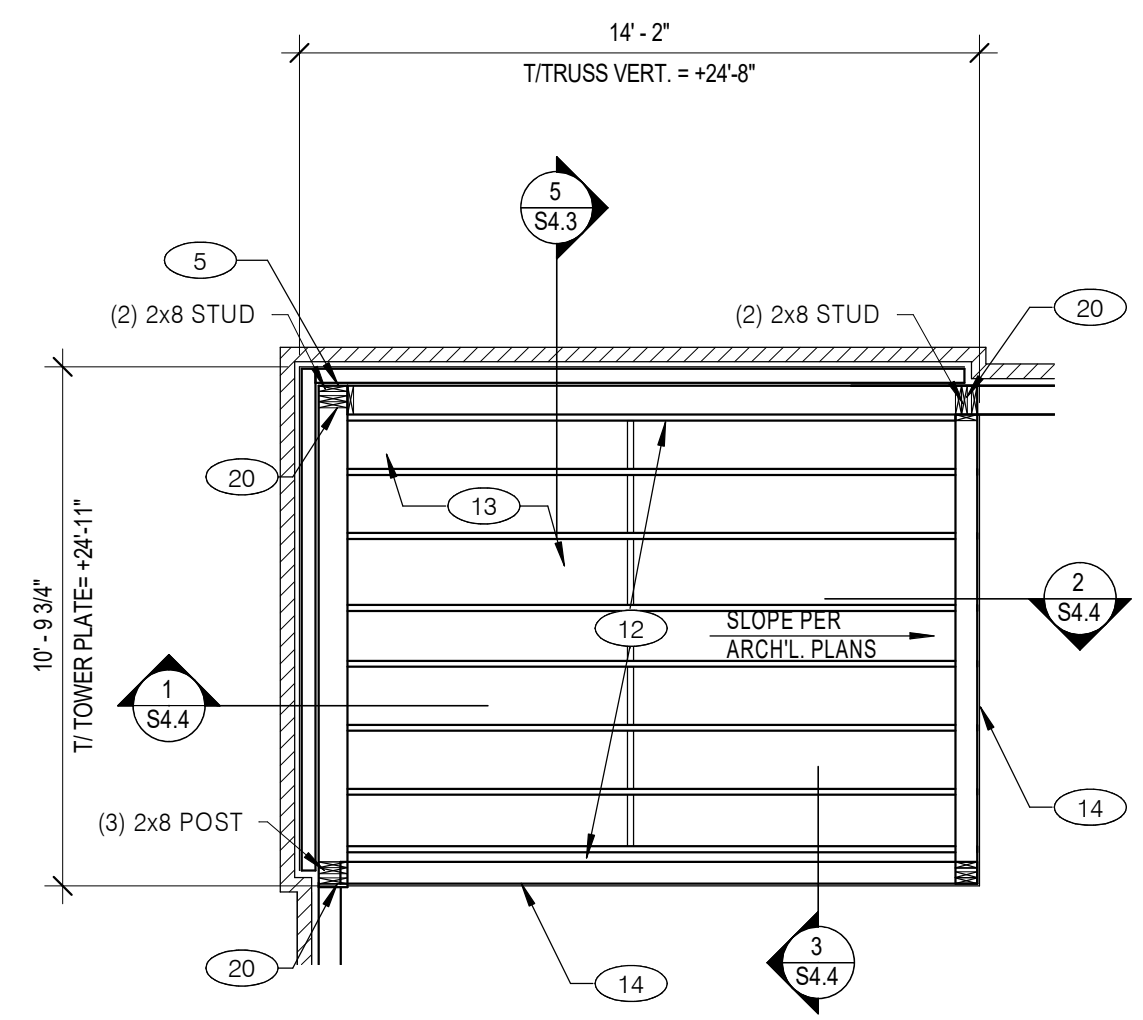
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**WALL FRAMING PLAN**

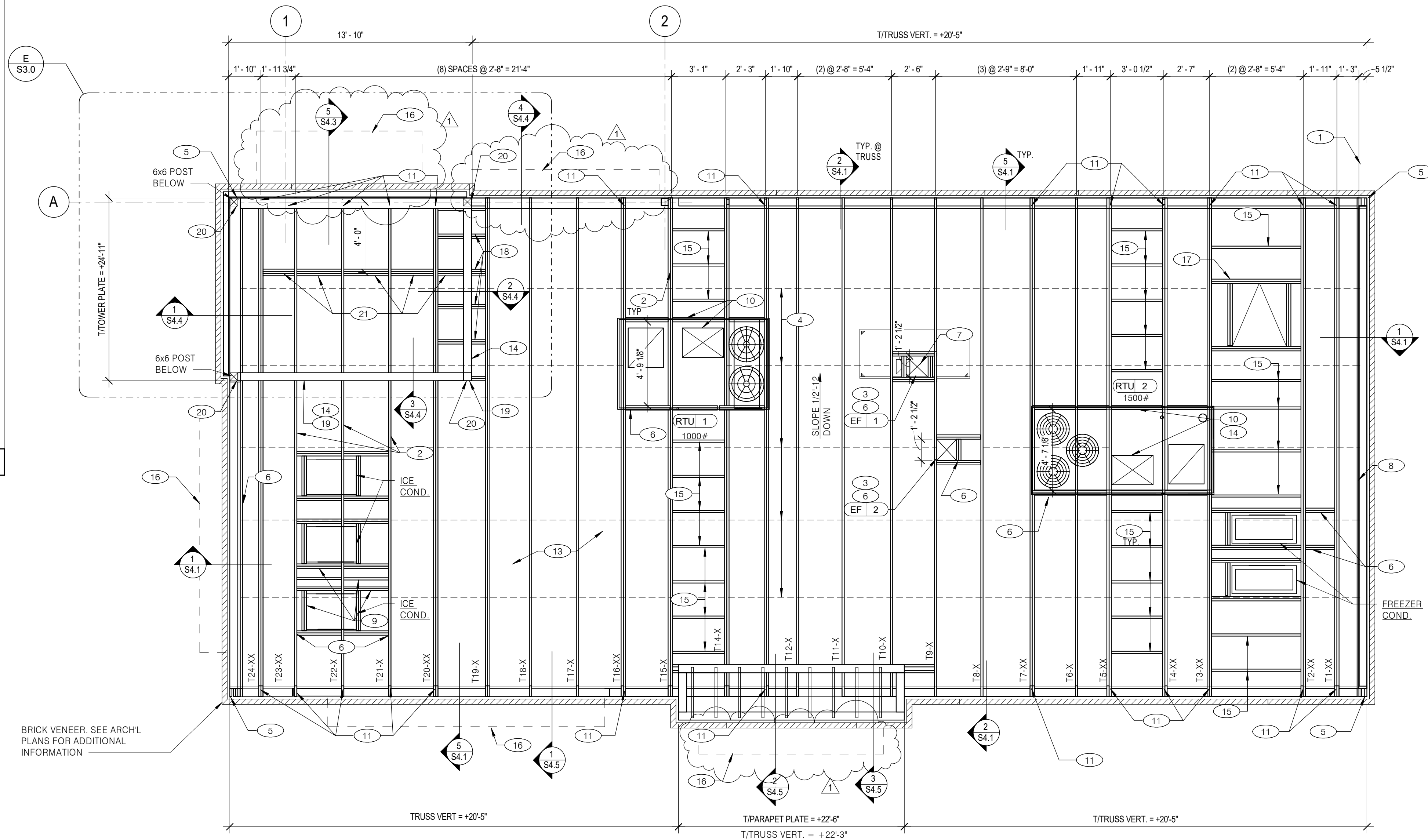
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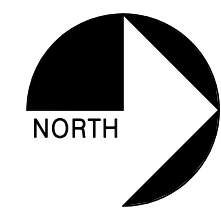




**TOWER ROOF FRAMING PLAN** 1/4" = 1'-0" **E**



BRICK VENEER. SEE ARCHL. PLANS FOR ADDITIONAL INFORMATION



**ROOF FRAMING PLAN** 1/4" = 1'-0" **A**

09.17.18	ISSUED FOR CONSTRUCTION
09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE:	XX.XX.18
BUILDING TYPE:	T40M-O
PLAN VERSION:	DEC 2017
BRAND DESIGNER:	
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

TYPE	NAILING / SHEATHING	REMARKS
BN	10d @ 6" O.C.	
EN	10d @ 6" O.C.	
FN	10d @ 12" O.C.	
ROOF SHEATHING	5/8" CDX PLYWOOD (40/20), PS1 RATING	

NOTE:  
SEE 8/S4.2 FOR DEFINITIONS.

**NAILING SCHEDULE - ROOF** **D**

**ROOF FRAMING NOTES:**

- A. ALL UNSUPPORTED EDGES OF PLYWOOD SHEATHING SHALL BE SUPPORTED WITH SIMPSON PSC1 CLIPS. PROVIDE (2) CLIPS EQUALLY SPACED BETWEEN EACH TRUSS SUPPORT. SEE DETAIL 9/S4.2. OSB OF COMPARABLE THICKNESS MAY BE USED IN LIEU OF PLYWOOD WHEN APPROVED IN WRITING BY THE PROJECT ENGINEER AND THE LOCAL JURISDICTION.
- B. ALL MECHANICAL SUPPLY AND RETURN OPENINGS SHALL BE BETWEEN FRAMING U.O.N.
- MANUFACTURED ROOF TRUSS NOTES:**
- A. MFR'D ROOF TRUSSES ARE AT 2'-8" O.C. U.O.N.
- B. "T" DENOTES ROOF TRUSS TYPE. REFER TO SCHEDULE 7/S4.2.
- C. TRUSS DWGS ARE PROVIDED FOR CONCEPTUAL DESIGN ONLY. MFR SHALL SUBMIT SHOP DWGS AND CALCS. BOTH SIGNED BY A LICENSED STRUCTURAL ENGINEER (STATE OF MICHIGAN). SUBMIT SHOP DWGS AND CALCS TO THE ARCHITECT AND ENGINEER FOR REVIEW AND SUBMITTAL AND, IF REQUIRED, TO BLDG. OFFICIAL FOR APPROVAL PRIOR TO FABRICATION. SHOP DWGS SHALL INCLUDE LAYOUT PLAN AND CONNECTORS. CALCS SHALL BE BASED ON THE SPECIFIED LOADING CONDITIONS SHOWN HEREIN. MFR SHALL PROVIDE HANGERS AND CONNECTIONS BETWEEN TRUSSES. REVIEW AND APPROVE DIMENSIONS, SHAPES AND DETAILS SHOWN ON SHOP DWGS PRIOR TO SUBMITTAL TO THE ARCHITECT / ENGINEER FOR REVIEW AND COMMENT.
- D. TRUSS MFR SHALL PROVIDE HANGERS AND CONNECTORS ADEQUATE FOR LOADS. ROOF CONNECTORS ARE BASED UPON SIMPSON "STRONG TIE" OR APPROVED EQUAL.
- E. TRUSS CHORDS AND PARAPET VERTICALS SHALL BE 2x8 MIN AND CONSISTENTLY SIZED THROUGHOUT PROJECT.

**ROOF FRAMING NOTES** **C**

- F. REFER TO TRUSS ELEVATIONS FOR SHAPE, OVERHANG, SLOPES, SPAN, ETC. LOCATION OF BEARING POINTS ARE AS INDICATED ON THE DRAWINGS. SEE 3/S4.2.
- G. MFR'D ROOF TRUSS DESIGN LOADS: SEE TRUSS DESIGN CRITERIA 3/S4.2. **PROVIDE ADD'L POINT LOAD FROM KEYNOTE 19 THIS SHEET.**
- H. THE POSITIONS, WEIGHTS, AND METHODS OF ATTACHMENT OF ALL MECHANICAL UNITS, ELECT FIXTURES, PLUMBING, ETC. SHALL BE INCLUDED IN THE DESIGN OF THE TRUSSES BY THE TRUSS MFR.
- I. DESIGN ROOF TRUSSES TO SUPPORT ALL IMPOSED LOADS, INCLUDING WIND & LATERAL LOADS. COORDINATE SIZE, LOCATION AND WEIGHT OF EQUIPMENT WITH MECHANICAL WORK. PROVIDE MULTIPLE TRUSSES WHERE ONE TRUSS CANNOT SUPPORT THE LOAD. PROVIDE BRIDGING BETWEEN TRUSSES AS SPECIFIED AS MINIMUM STANDARD.
- J. INSTALLATION OF ALL TRUSSES SHALL BE DONE USING A SPREADER BAR WITH A THREE POINT VERTICAL PICK. CARE SHALL BE USED IN LIFTING TO PREVENT HORIZONTAL BENDING.
- K. IMPROPER HANDLING OF THE TRUSSES AS NOTED ABOVE AND IN THE SPECS SHALL MEAN REMOVAL OF THE TRUSSES FROM THE JOBSITE AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
- L. REFERENCE MANUFACTURED TRUSS DRAWINGS FOR DETAILS ON TRUSS MANUFACTURING AND NAILING.

- (1) STARTING POINT OF TRUSS LAYOUT - CENTERLINE OF TRUSS.
- (2) VERIFY NECESSITY OF DOUBLE TRUSSES WITH TRUSS MFR. DUE TO POINT LOADING AND ADDITIONAL UNIFORM LOADING, TYPICAL.
- (3) COORDINATE BLOCKING WITH EXHAUST AND SUPPLY DUCT.
- (4) CONT 2x4 WD BRIDGING ON TOP OF BOTTOM CHORD. ADJUST AS REQUIRED FOR DUCT PLENUMS, MAX SPACING AT 5'-0" O.C. OR TIGHTER SPACING AS REQUIRED BY TRUSS DESIGN. SEE 13/S4.1 FOR BRIDGING LAP DETAIL.
- (5) SIMPSON MSTA 24 AT CORNER DBL TOP PLATE. CENTER STRAP ON CORNER.
- (6) (2) 2x6 BLOCKING W/ U26-2 HANGERS. TYP. EDGES OF ALL ROOF TOP EQUIPMENT AND ALL ROOF OPENINGS - SEE DET. 6 & 10/S4.2.
- (7) LOCATION OF HOOD. SEE HOOD DRAWINGS FOR HOOD ATTACHMENT DETAIL 6/S4.1.
- (8) (2) 2x6 LEDGER REF. 1/S4.1.
- (9) 2x6 @ 48" OC. W/ U26 EACH END.
- (10) HVAC ROOF OPENING FOR DUCT. VERIFY SIZE WITH HVAC MFR. & MECHANICAL DWGS.
- (11) (2) 2x6 BUILT-UP COLUMN AT TRUSS BEARING, TYP. @ GIRDER. TRUSS ONLY. REF. DETAIL 12/S4.2.

- (12) 2x8 ROOF JOIST @ 16" O.C. WITH MID-SPAN BLOCKING.
- (13) PLYWOOD ROOF DECK. SEE NAILING SCHEDULE, THIS SHEET.
- (14) 2x6 @ 16" O.C. STUD TOWER WALL.
- (15) 2x6 @ 24" O.C. WITH SIMPSON U-26 EA. END.
- (16) CANOPY BY MANUFACTURER.
- (17) ROOF HATCH.
- (18) (2) 2x6 @ 24" O.C. BLOCKING PERPENDICULAR TO TOWER WALL WITH SIMPSON U-26 EA. END.
- (19) PROVIDE (3) 2x6 BLOCKING AT CORNER AND ALONG TOWER WALL W/ HUS26-2 HANGERS, EA. END. **DESIGN TRUSSES T-19X AND T-20XX FOR ADD'L 1.8 KIP UPLIFT AND 1.8 KIP DOWN FORCE.**
- (20) PROVIDE (2) 2x6 WALL STUDS AT EA. CORNER WITHOUT A 6x6 POST. PROVIDE DTT22 TENSION TIES FROM BLOCKING TO STUDS WITH 1/2" DIA. ANCHOR. INSTALL PER MANUF. RECOMMENDATIONS. WHERE STEEL BEAM OCCURS ANCHOR DTT22 TENSION TIE TO TOP FLANGE OF STEEL BEAM W/ 1/2" DIA. THRU BOLT.
- (21) PROVIDE (3) 2x6 BLOCKING BETWEEN TRUSSES AT OUTRIGGER SUPPORT. SEE DETAIL 5/S4.3. DESIGN TRUSSES T-23XX TO T-19X WITH A UPLIFT DEAD LOAD FORCE OF 500 LBS. AT A LOCATION OF 4'-0" FROM BEARING.

**KEY NOTES** **B**

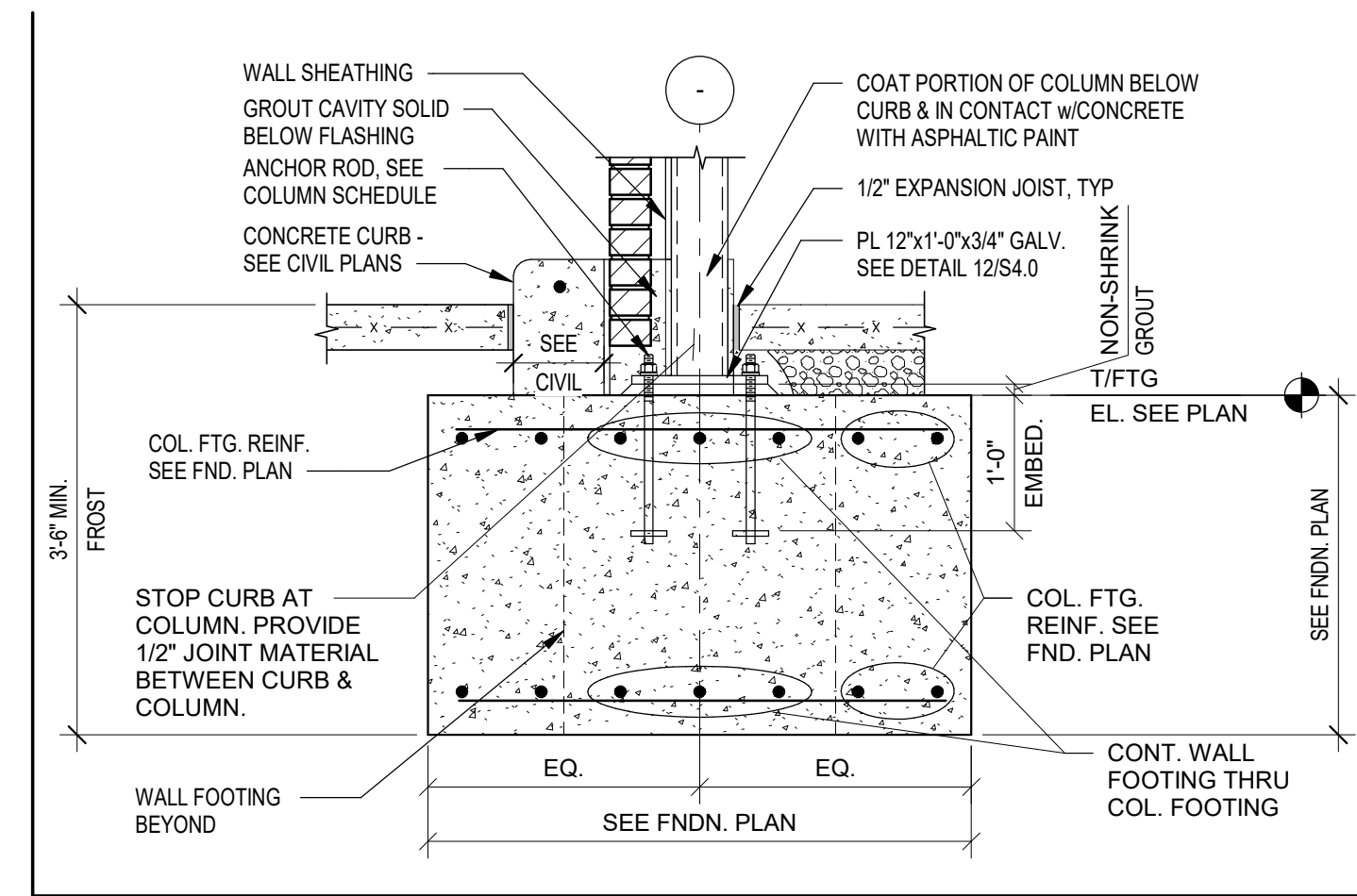
**TACO BELL**  
 37500 FORD ROAD  
 WESTLAND, MI 48185



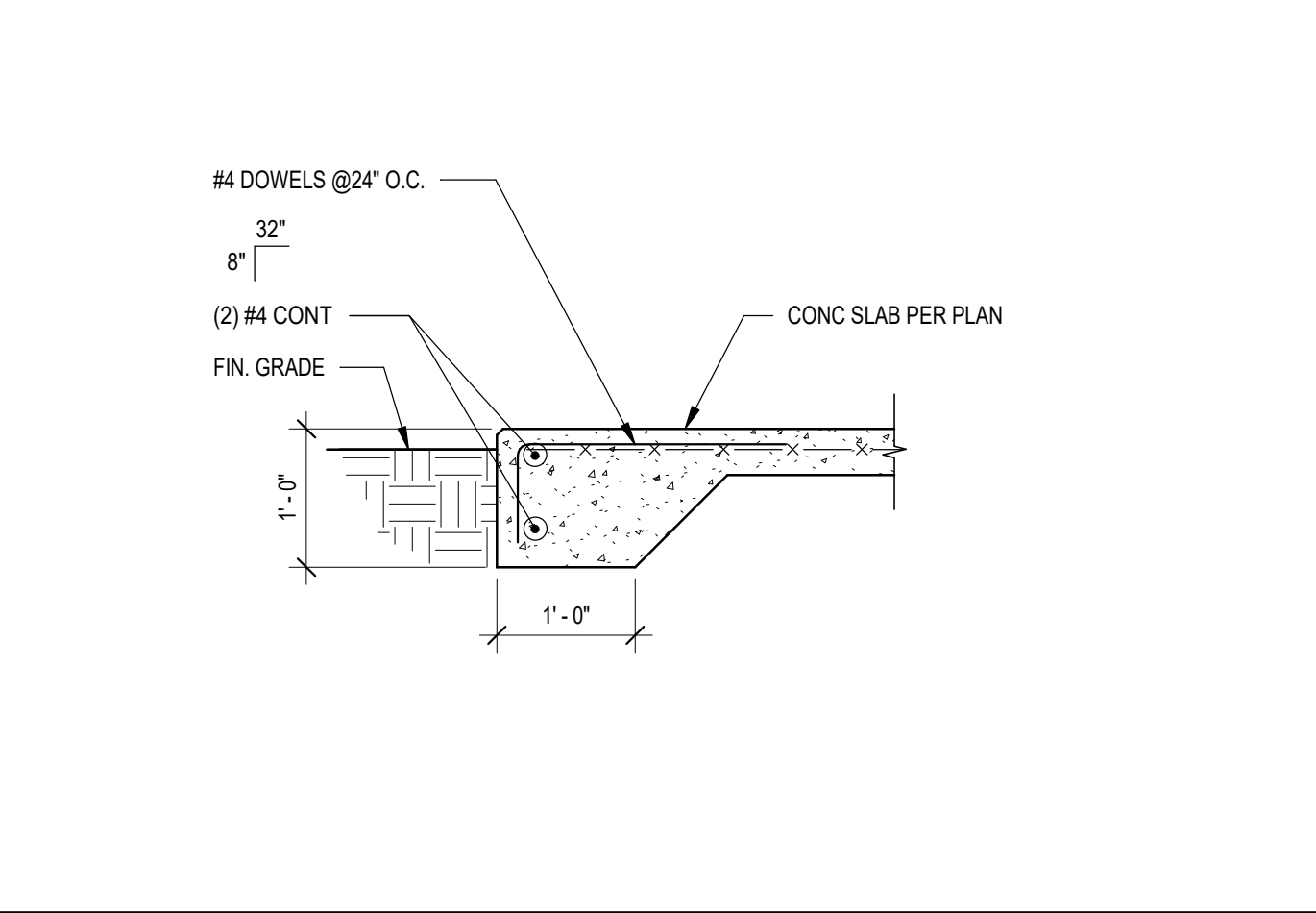
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**ROOF FRAMING PLAN**

**S3.0**

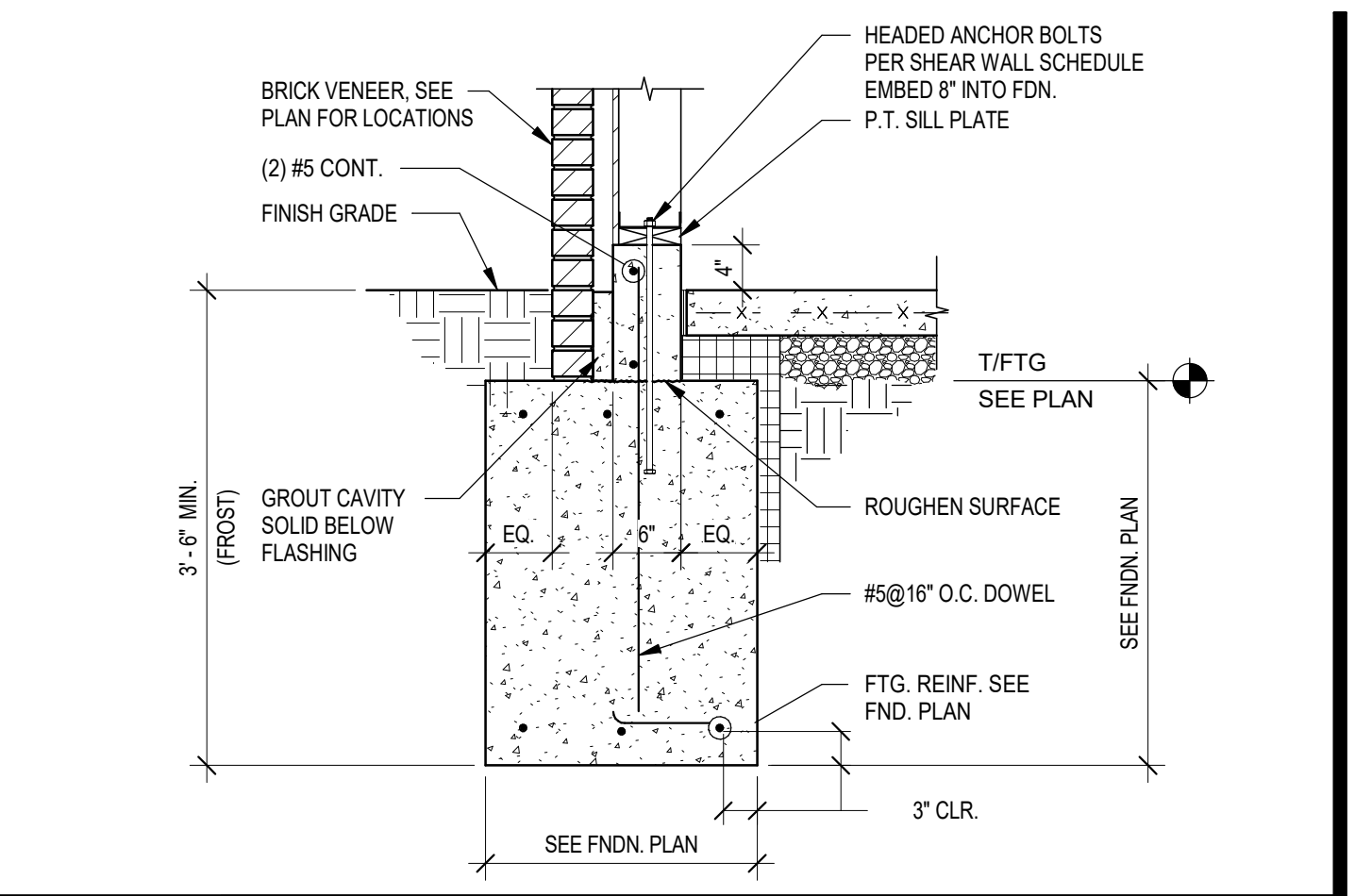
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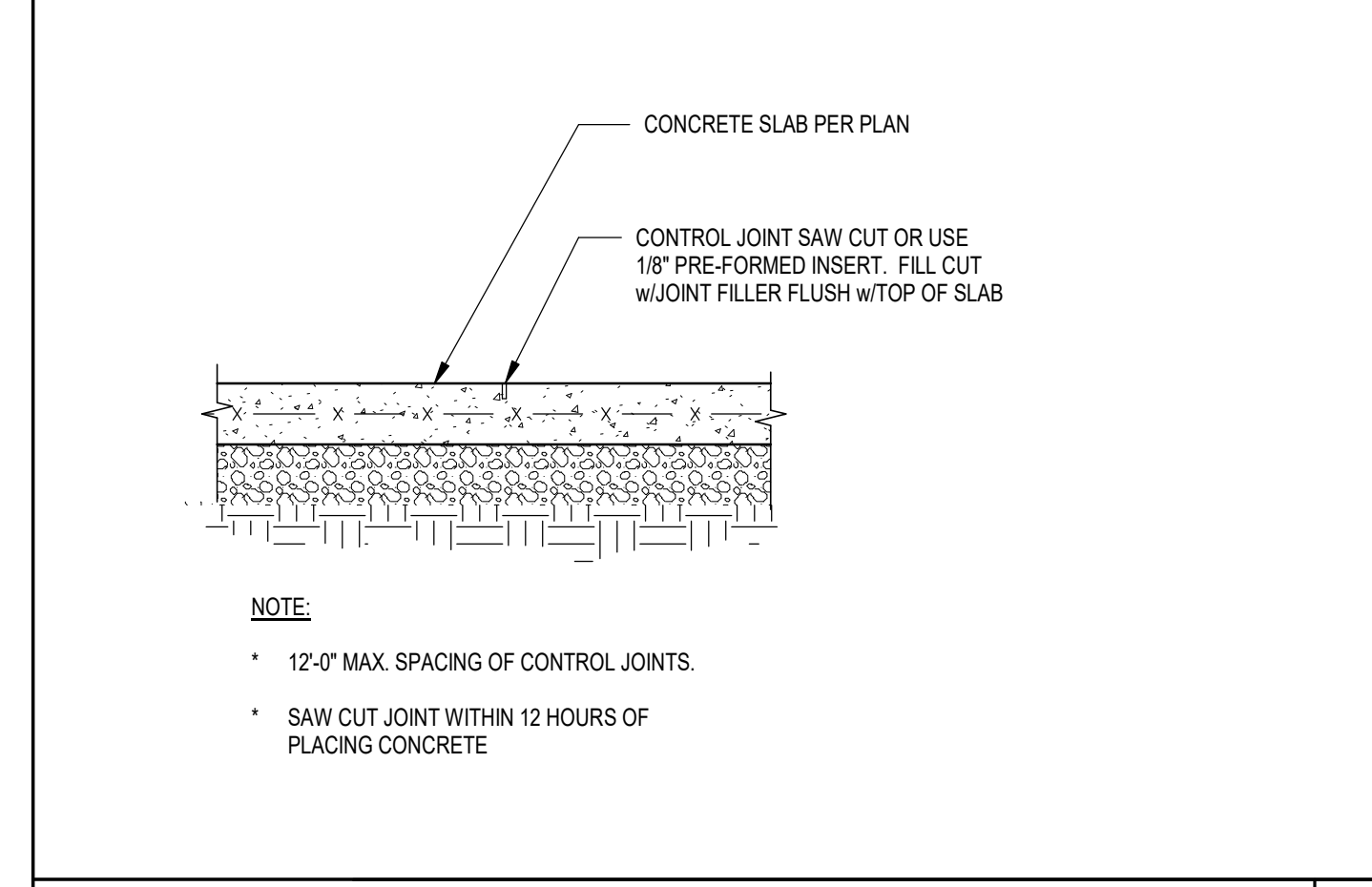
**COLUMN FOOTING DETAIL** 3/4' = 1'-0" **9**



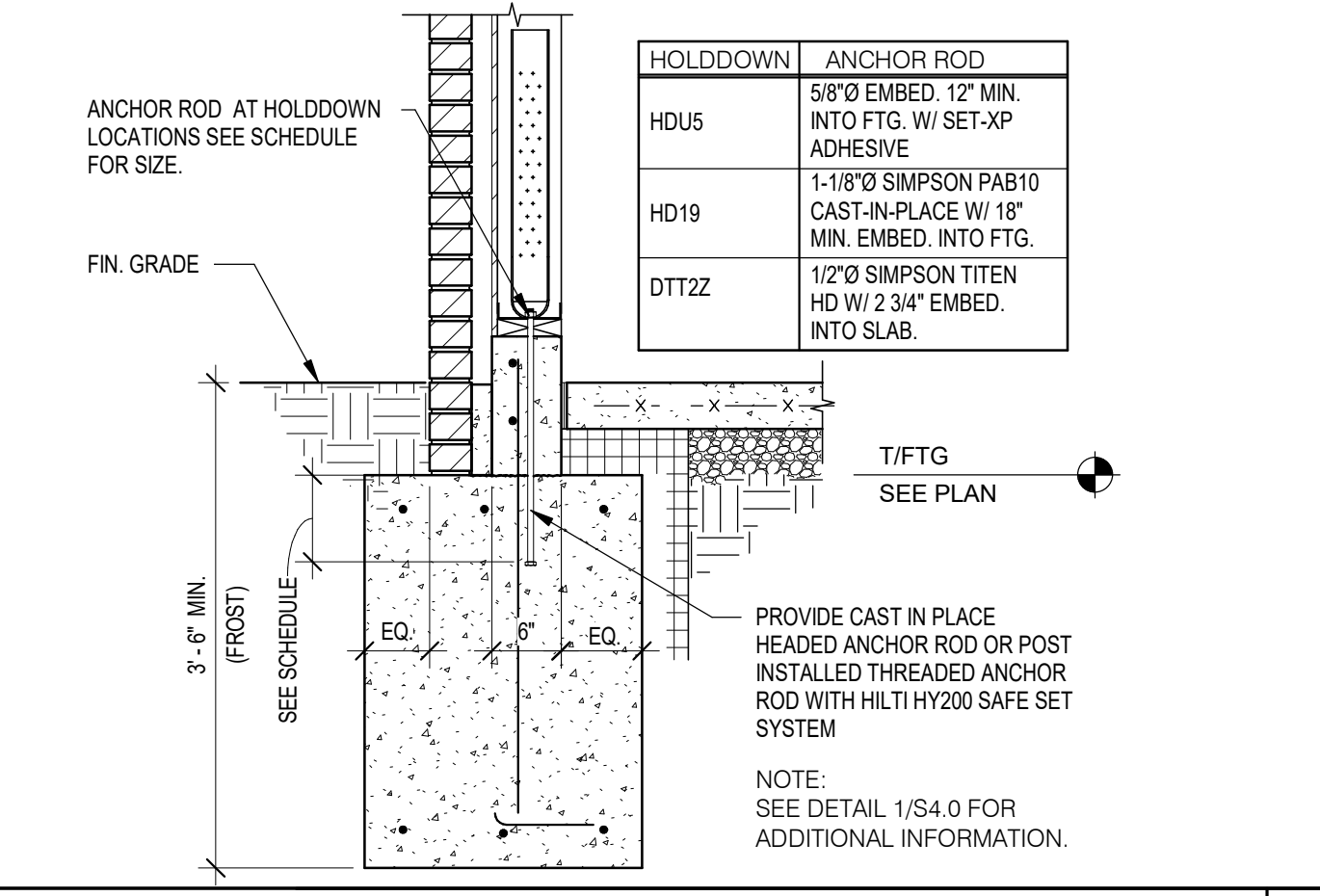
**PATIO SLAB EDGE DETAIL** 3/4' = 1'-0" **5**



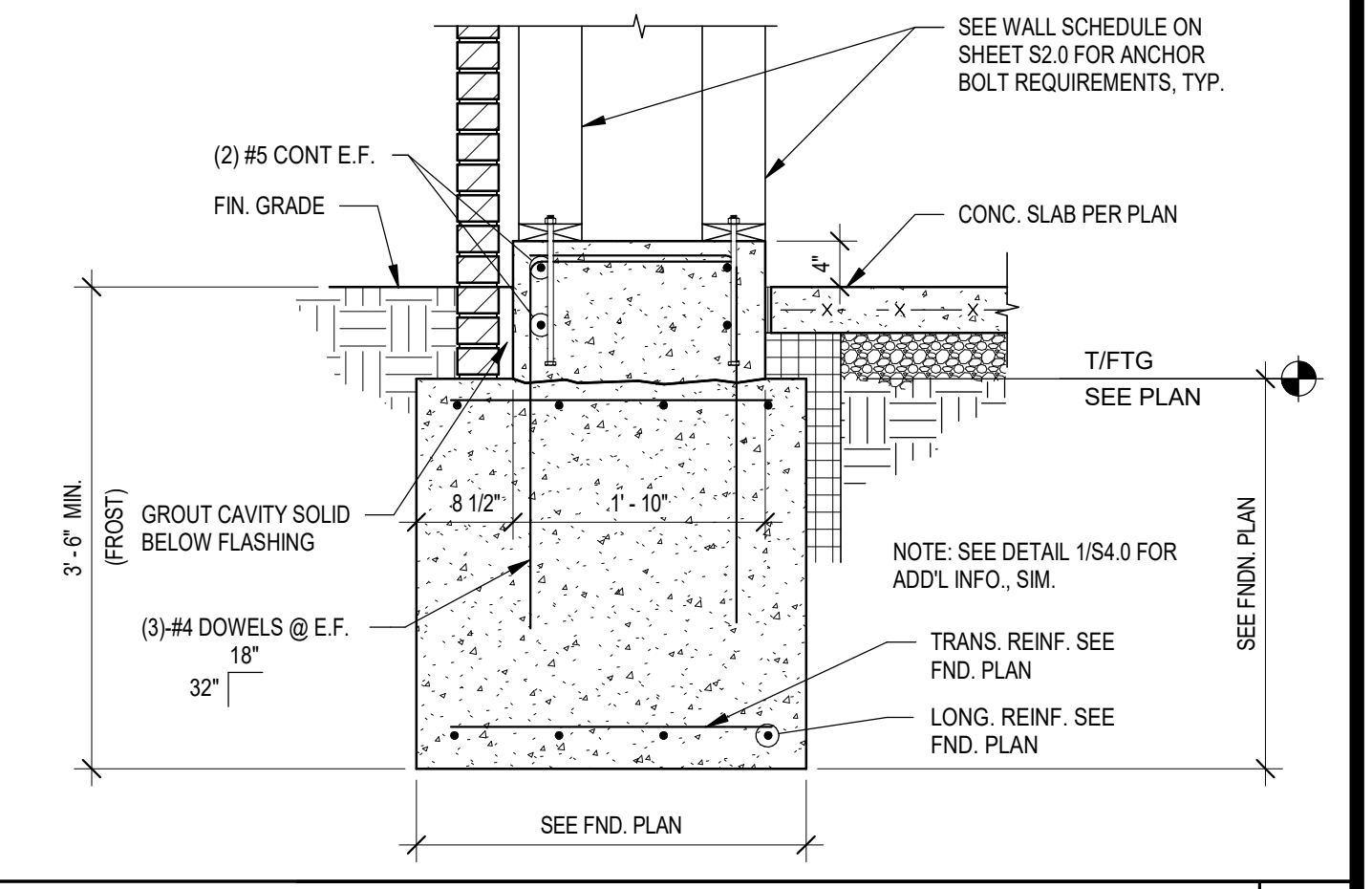
**FOOTING AT SIDE AND REAR WALLS** 3/4' = 1'-0" **1**



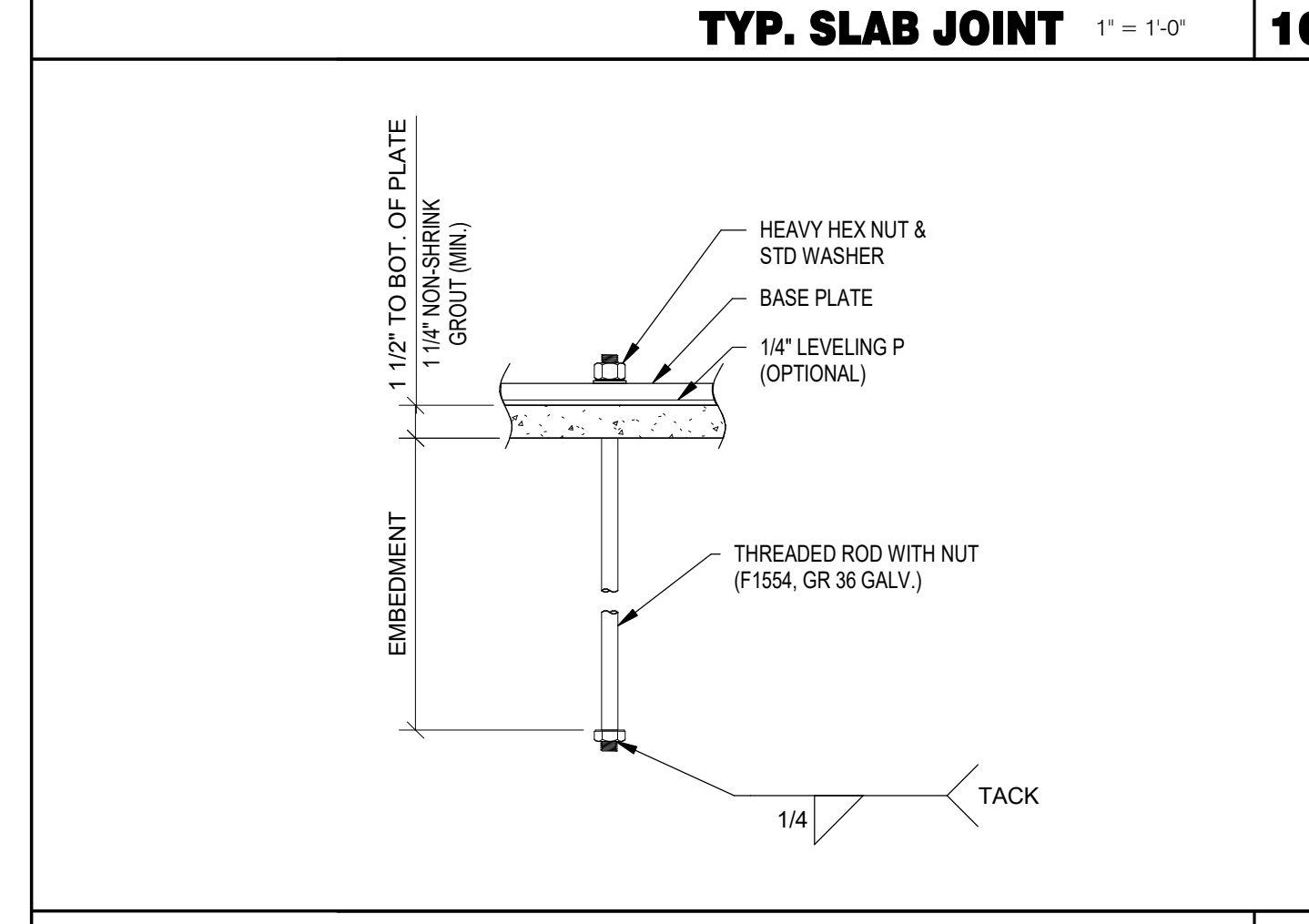
**TYP. SLAB JOINT** 1' = 1'-0" **10**



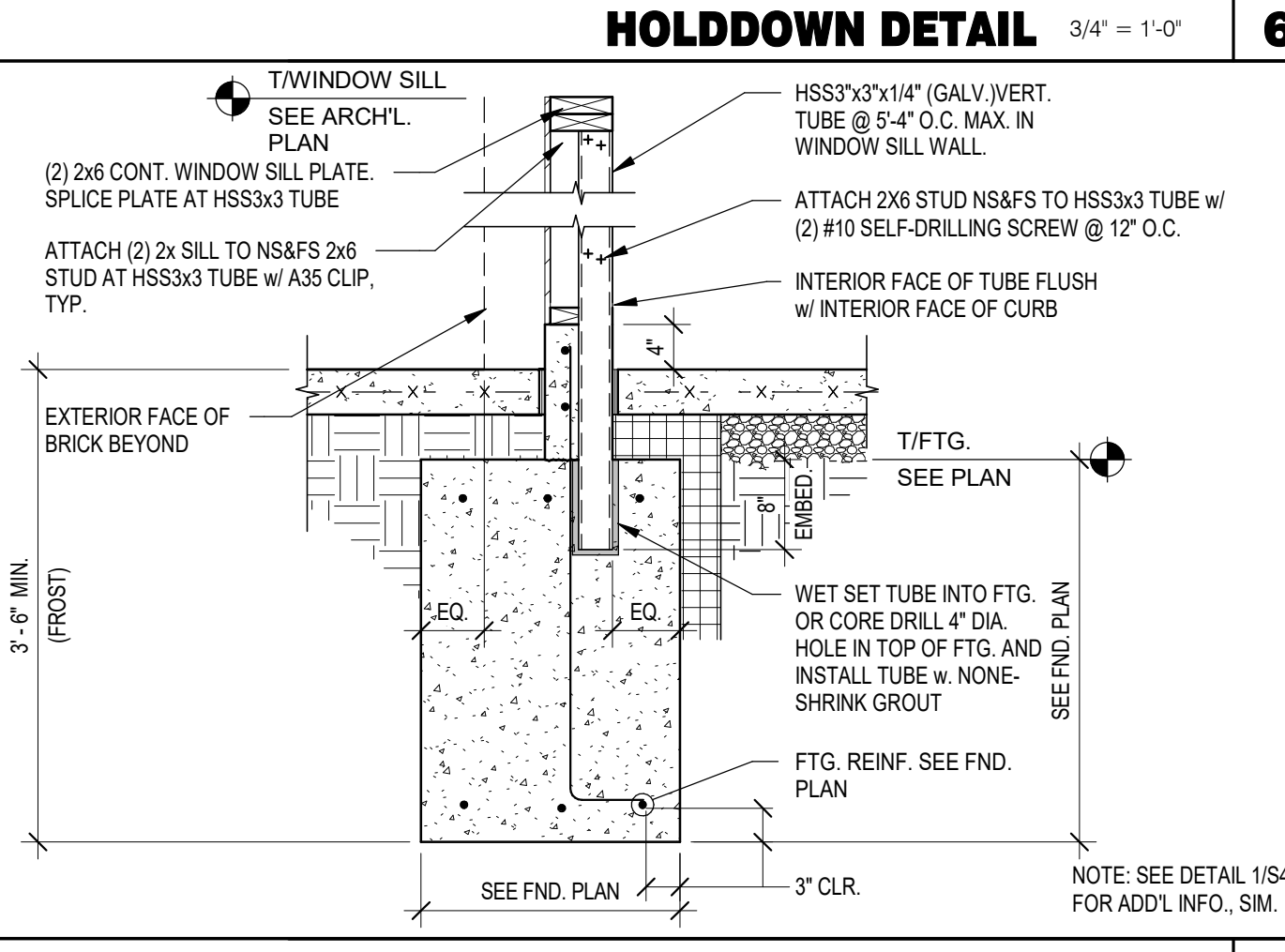
**HOLDDOWN DETAIL** 3/4' = 1'-0" **6**



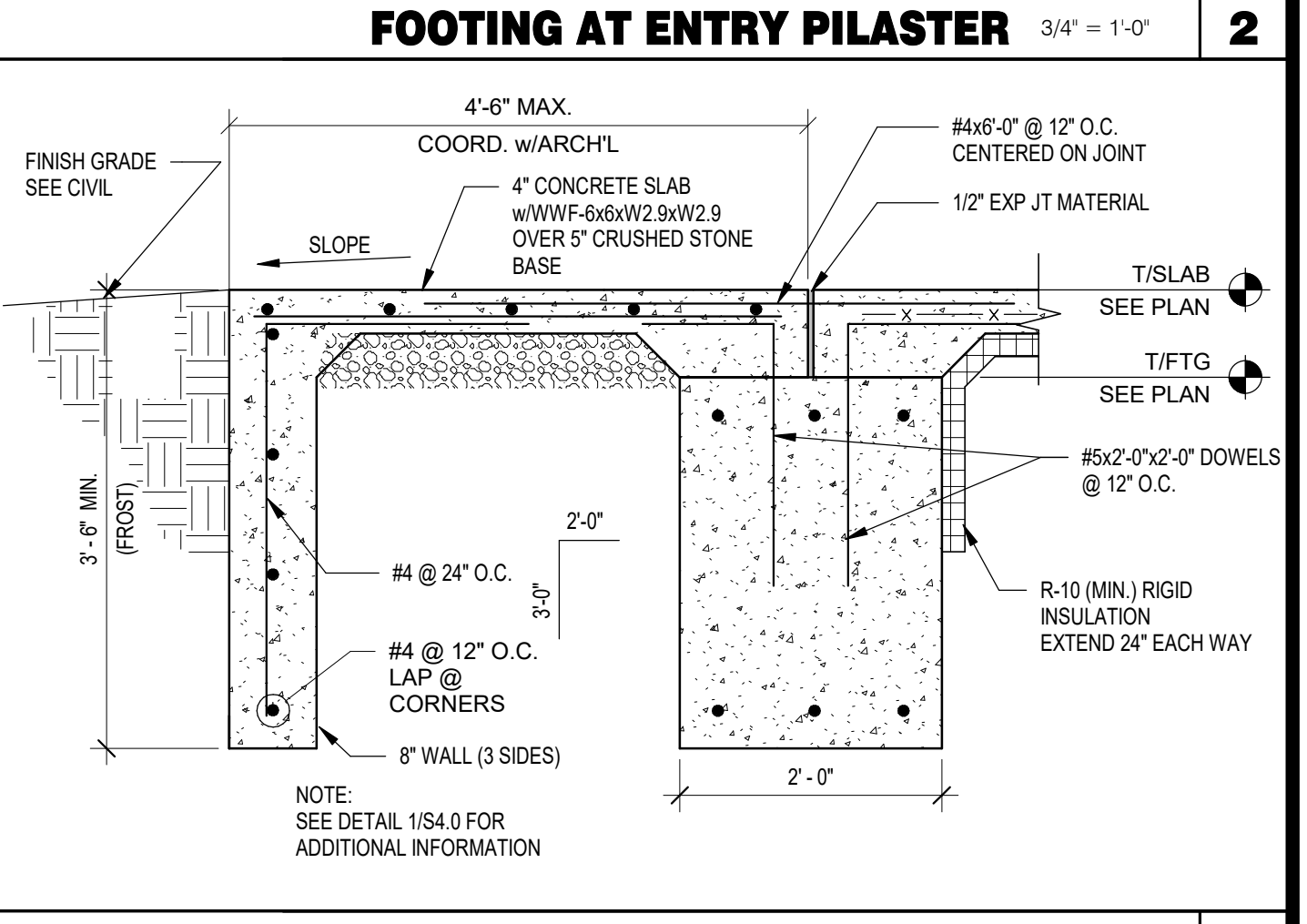
**FOOTING AT ENTRY PILASTER** 3/4' = 1'-0" **2**



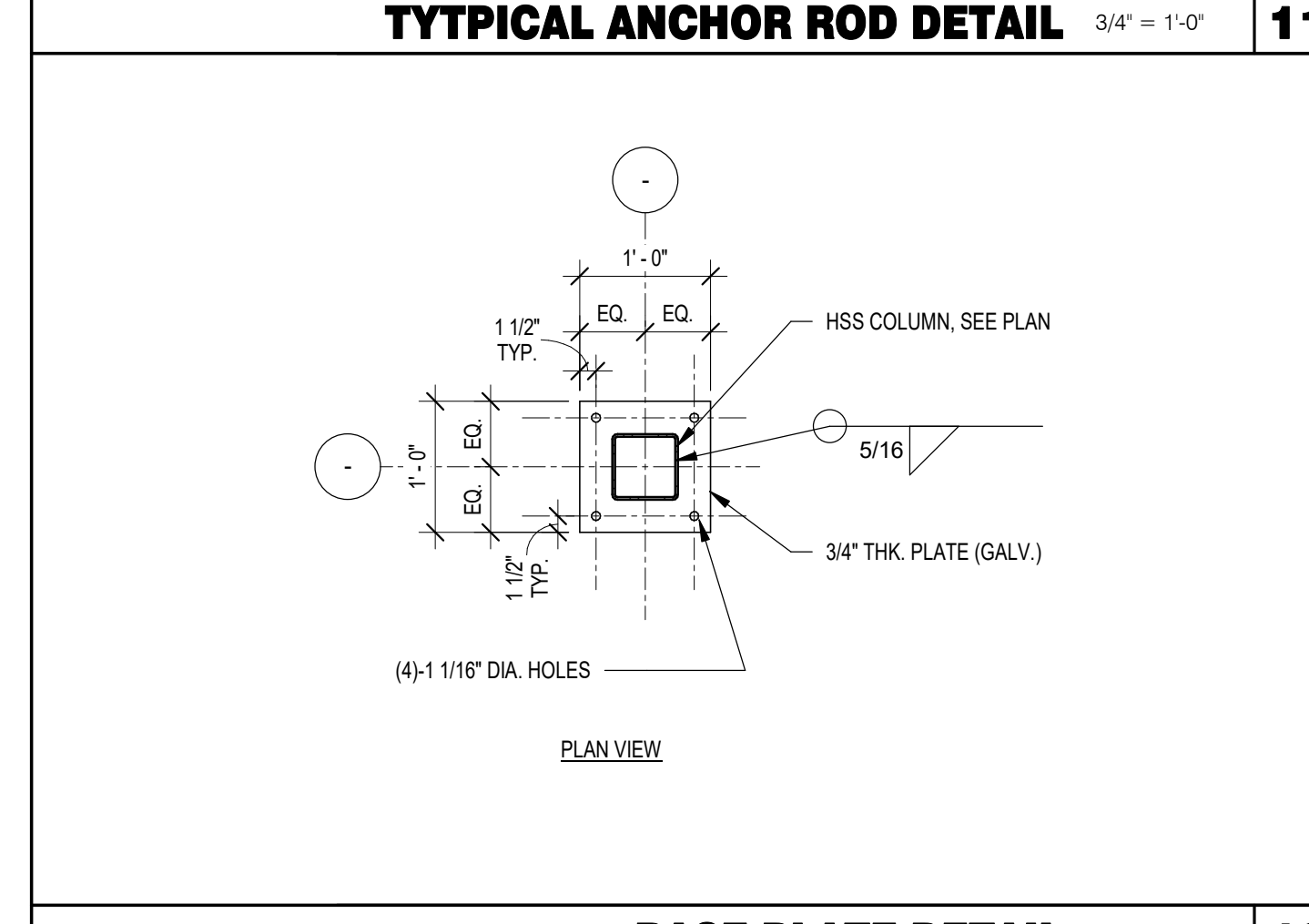
**TYPICAL ANCHOR ROD DETAIL** 3/4' = 1'-0" **11**



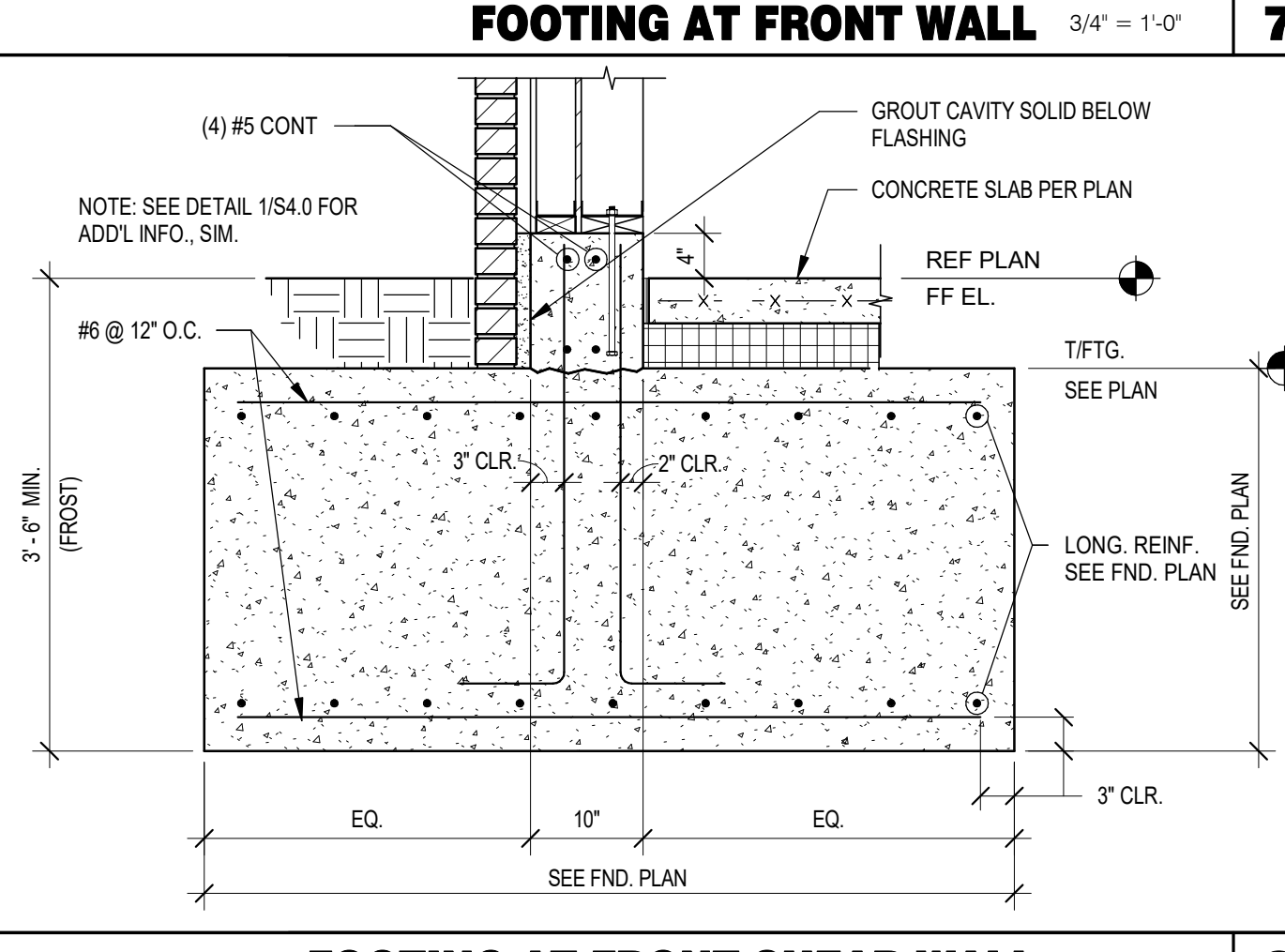
**FOOTING AT FRONT WALL** 3/4' = 1'-0" **7**



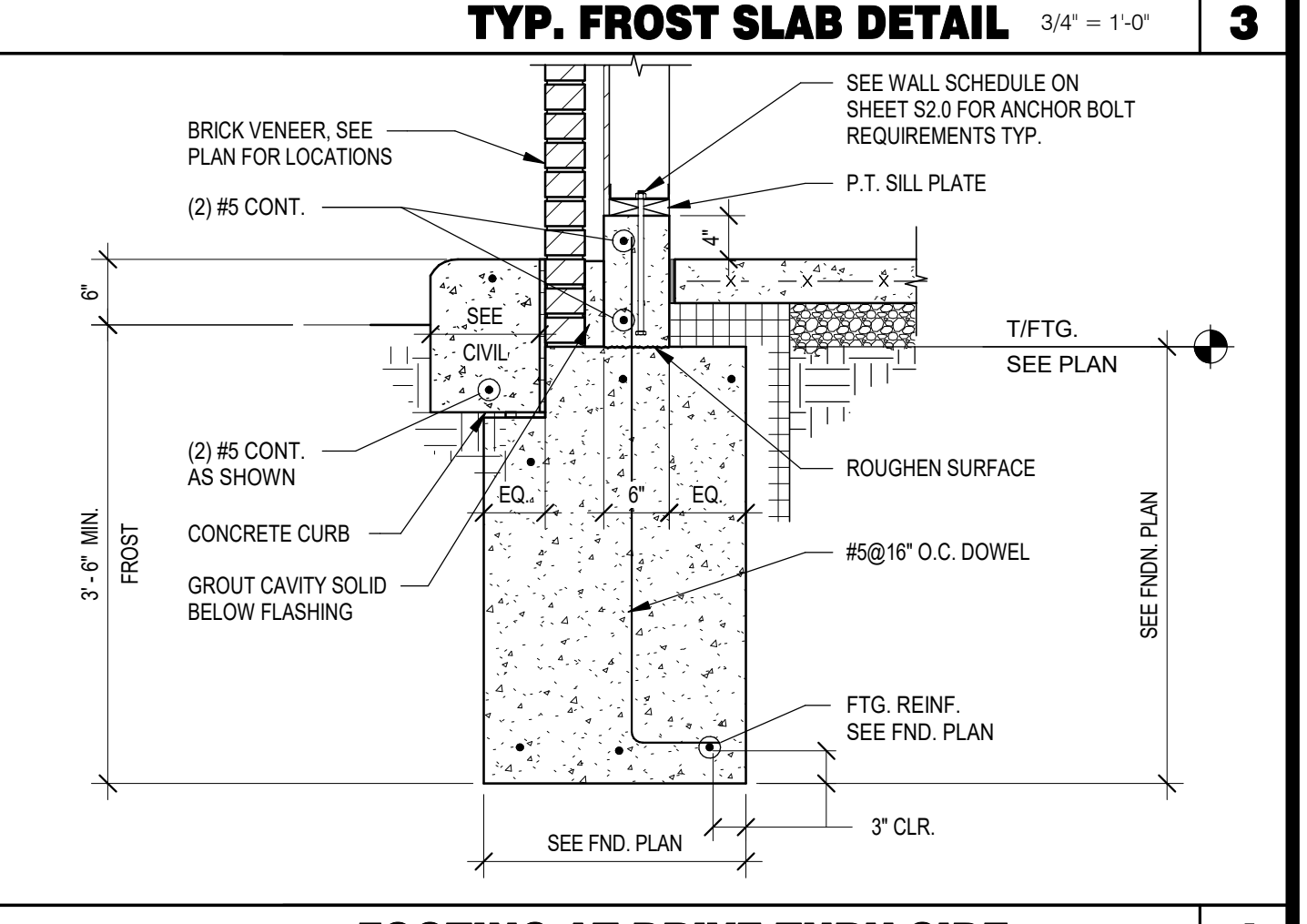
**TYP. FROST SLAB DETAIL** 3/4' = 1'-0" **3**



**BASE PLATE DETAIL** 3/4' = 1'-0" **12**



**FOOTING AT FRONT SHEAR WALL** 3/4' = 1'-0" **8**



**FOOTING AT DRIVE THRU SIDE** 3/4' = 1'-0" **4**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

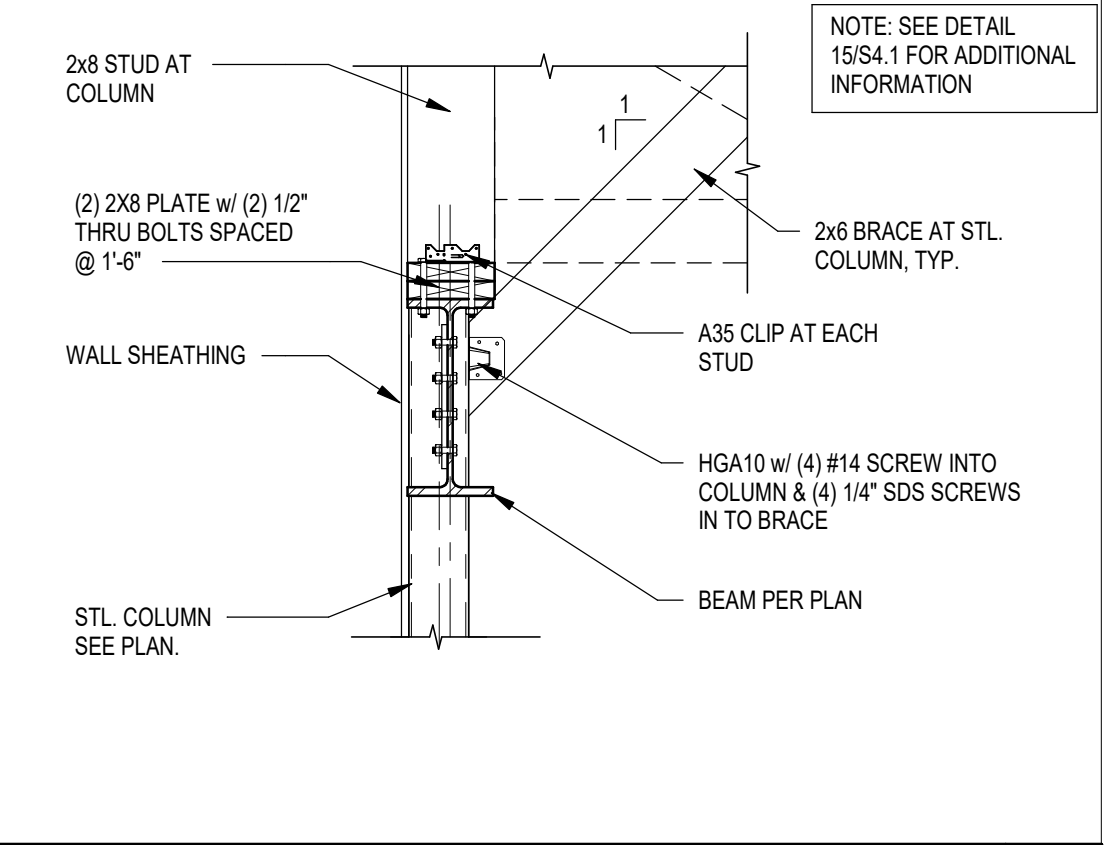


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**STRUCTURAL DETAILS FOUNDATION**

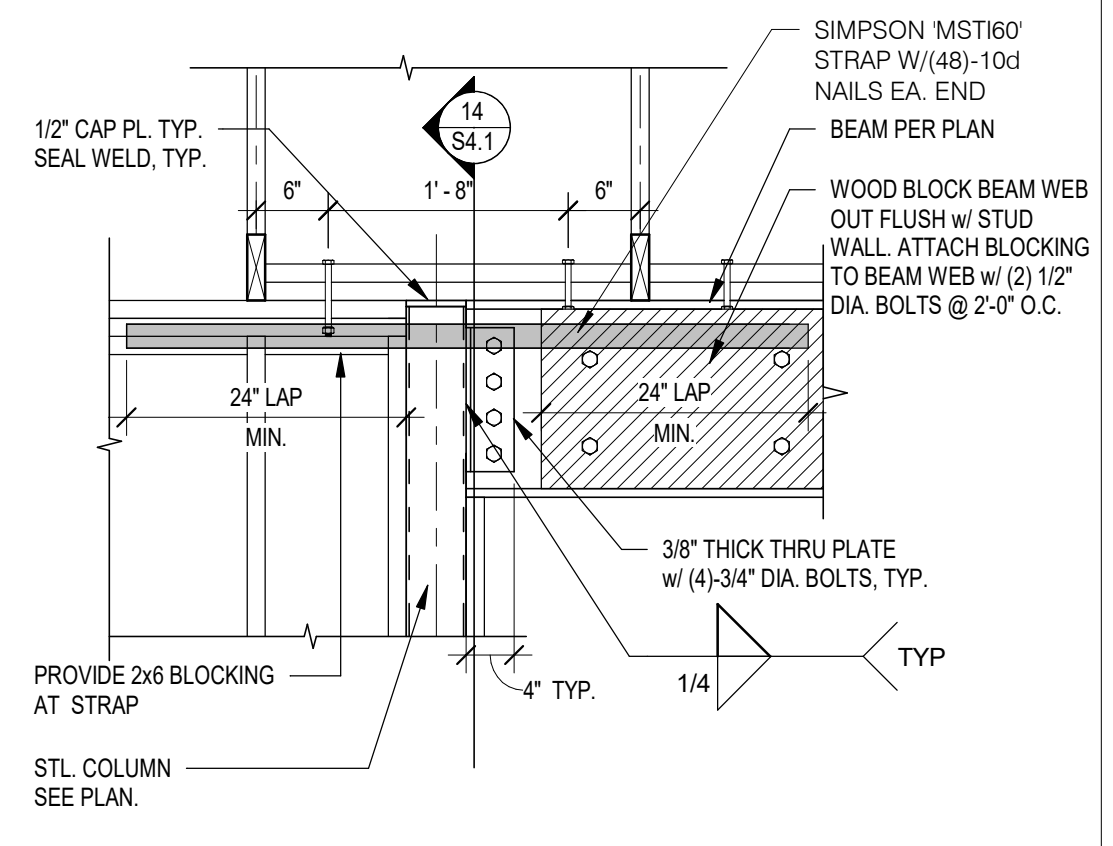
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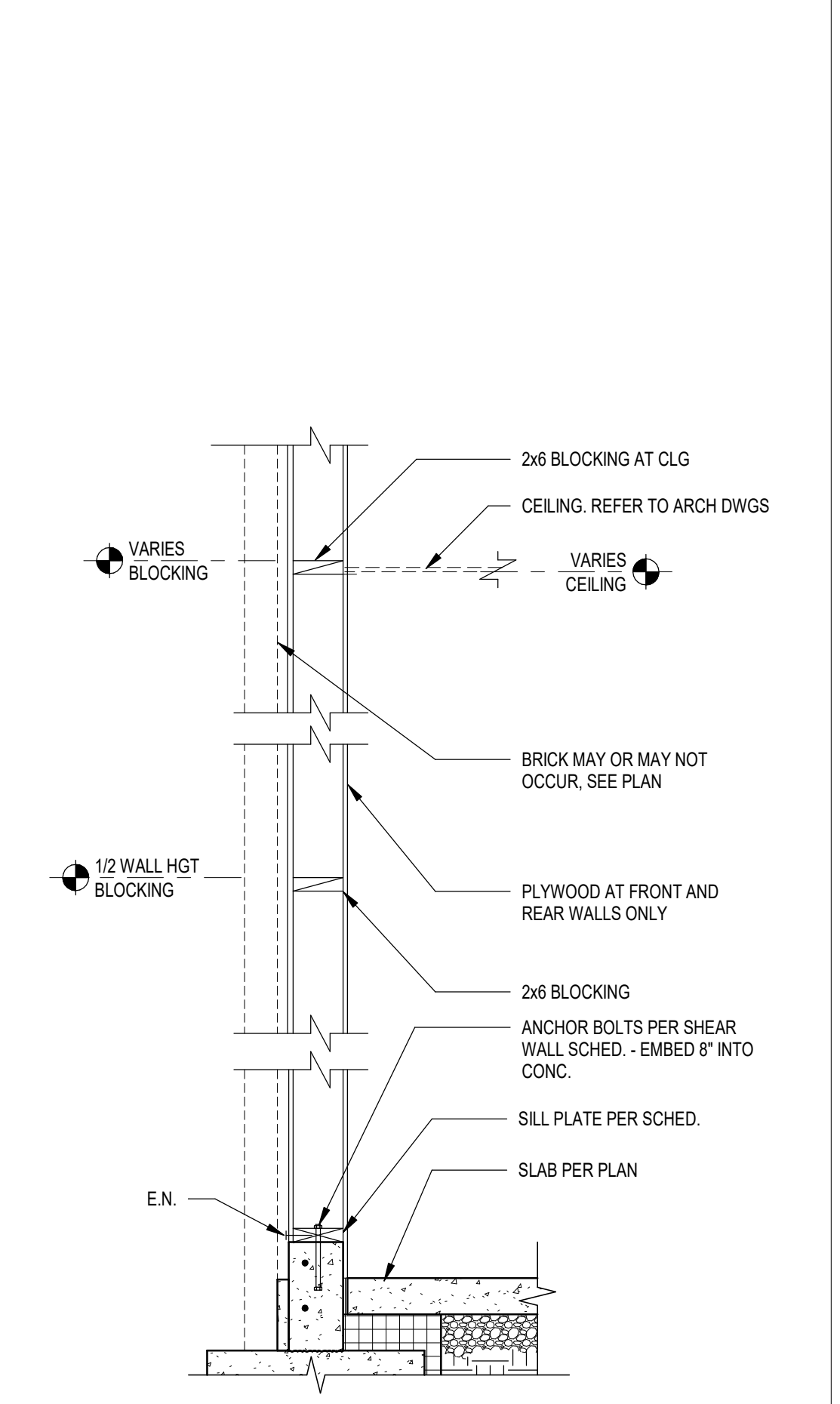




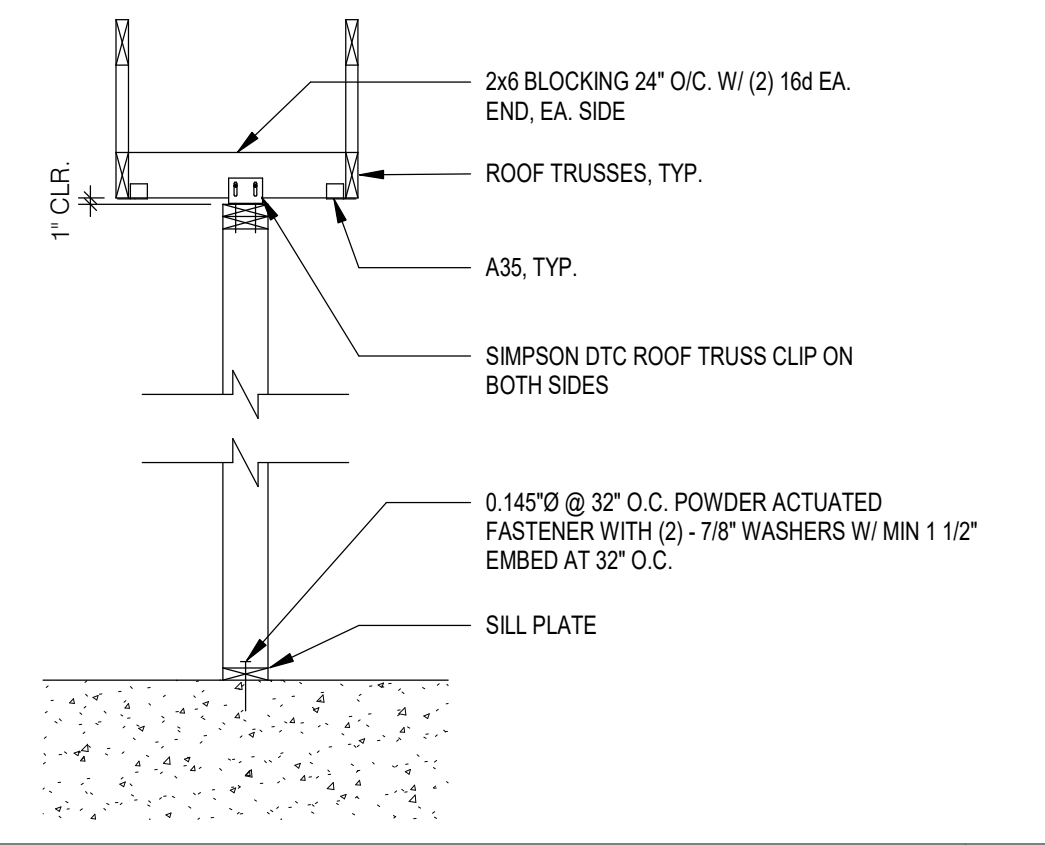
**TYP. BEAM TO COLUMN DETAIL** 3/4" = 1'-0" **14**



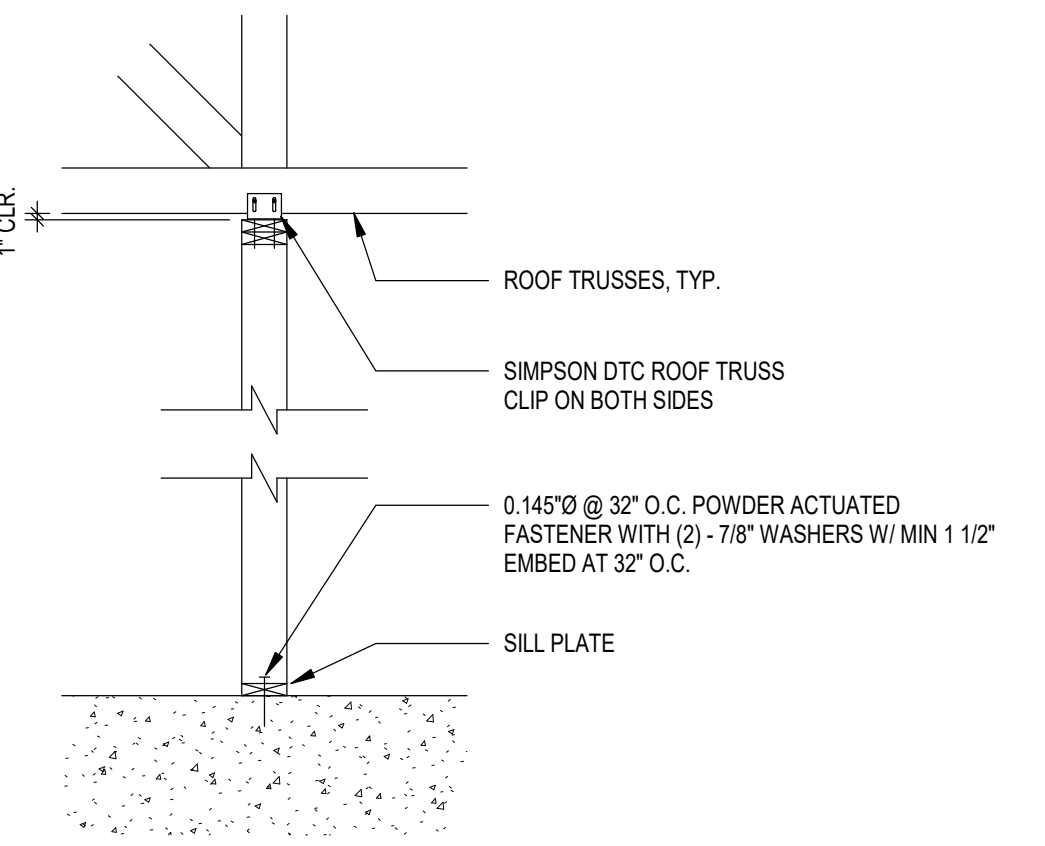
**TYP. BEAM TO COLUMN DETAIL** 3/4" = 1'-0" **15**



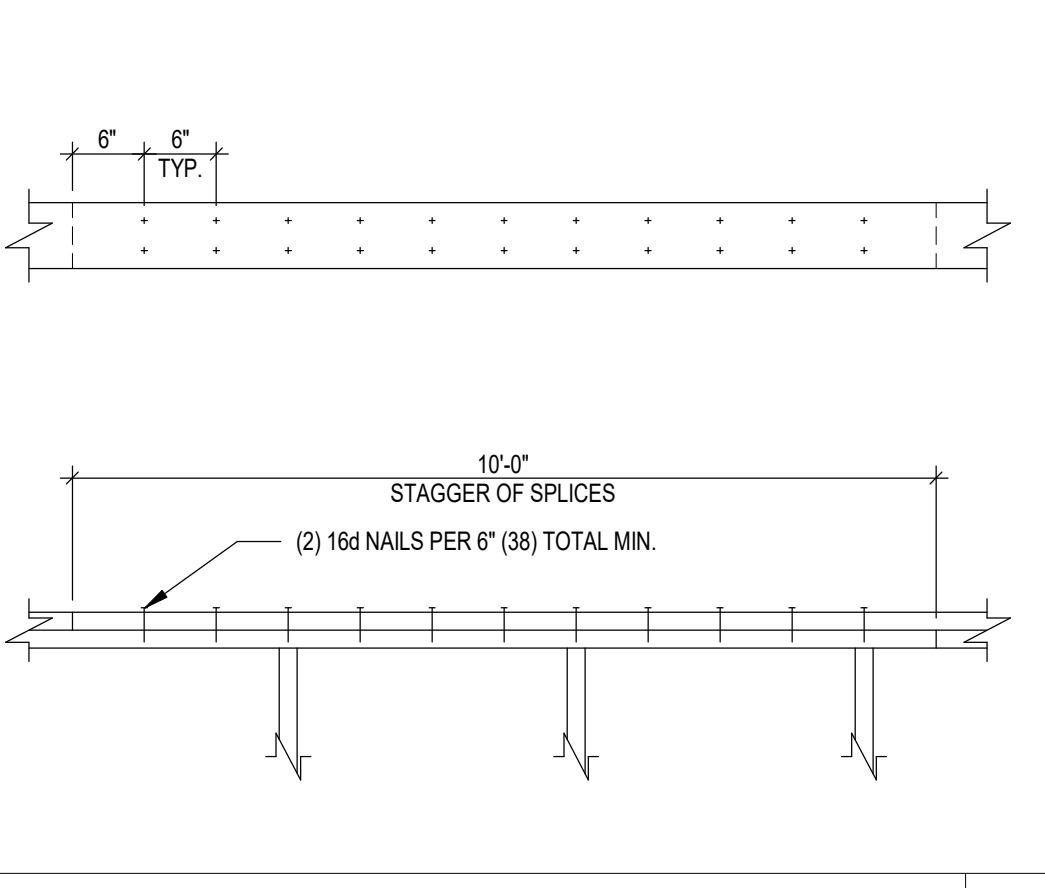
**TYPICAL WALL BELOW TRUSS** 3/4" = 1'-0" **16**



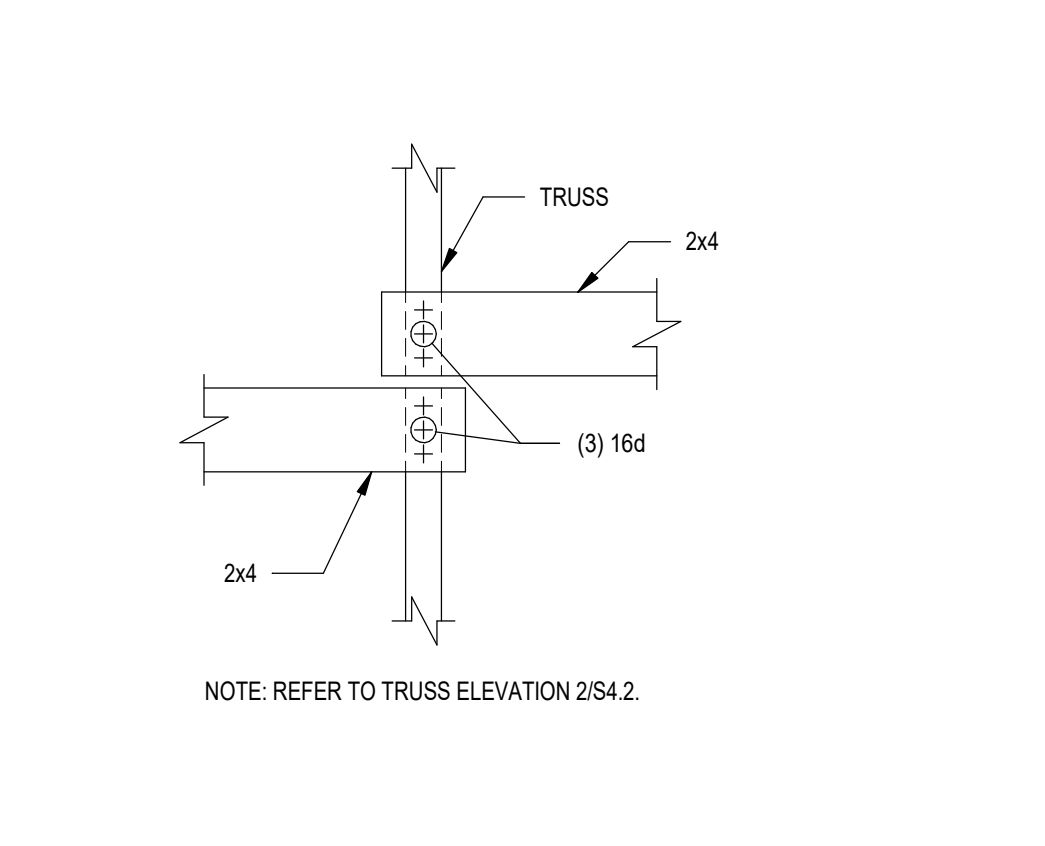
**SUPPORT - PARALLEL TO TRUSS** 1/2" = 1'-0" **10**



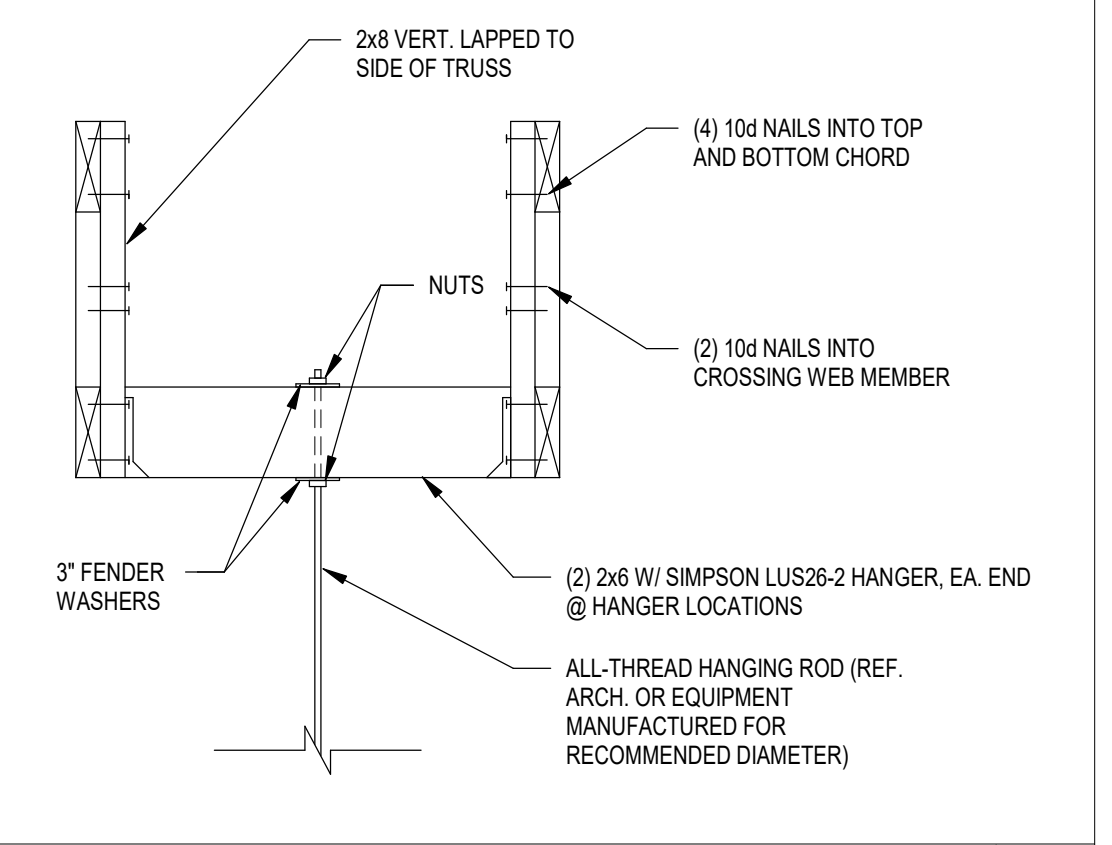
**SUPPORT PERP. TO TRUSS** 1/2" = 1'-0" **11**



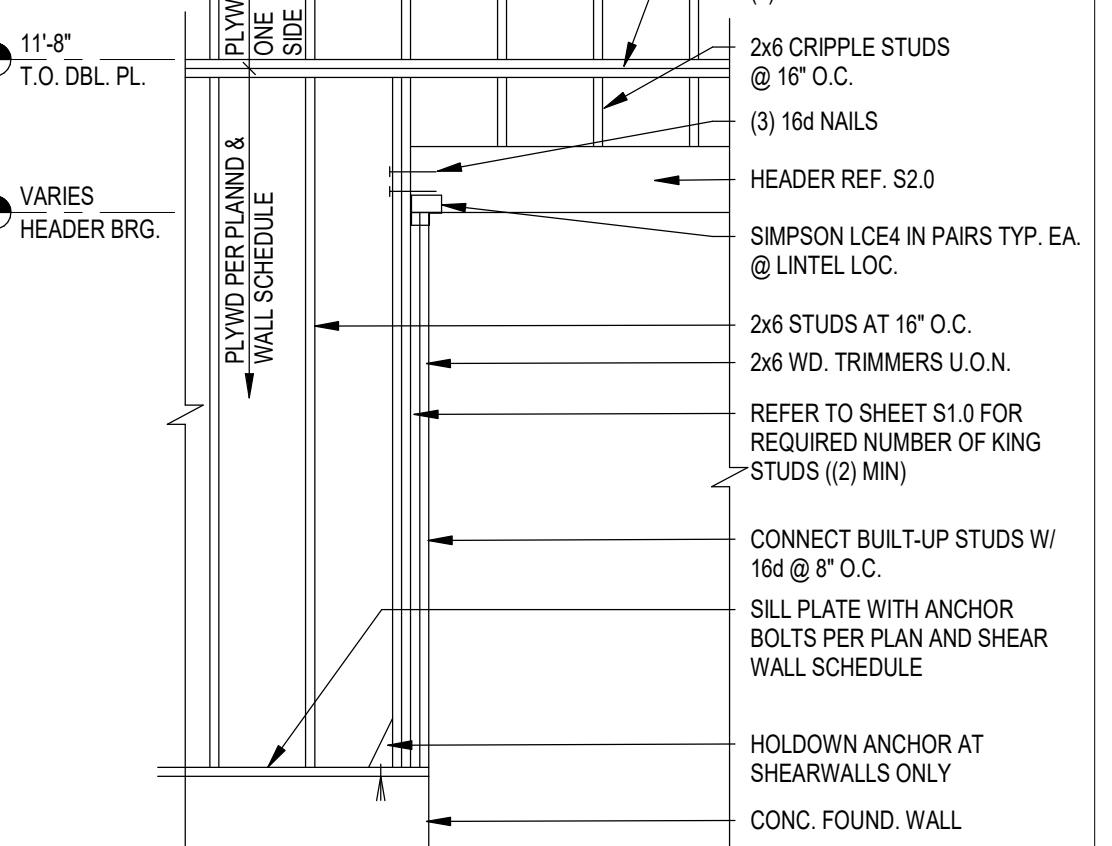
**PLATE LAP DETAIL** 1" = 1'-0" **12**



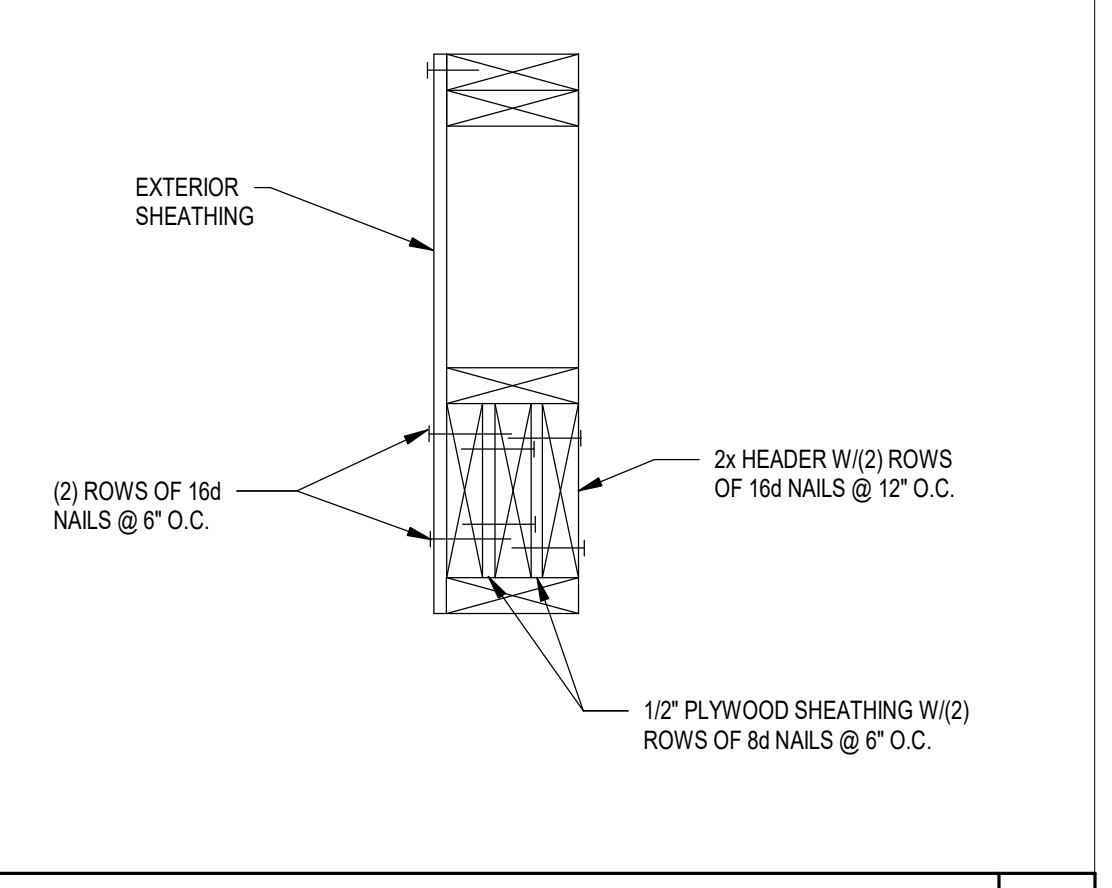
**BRIDING LAP DETAIL** N.T.S. **13**



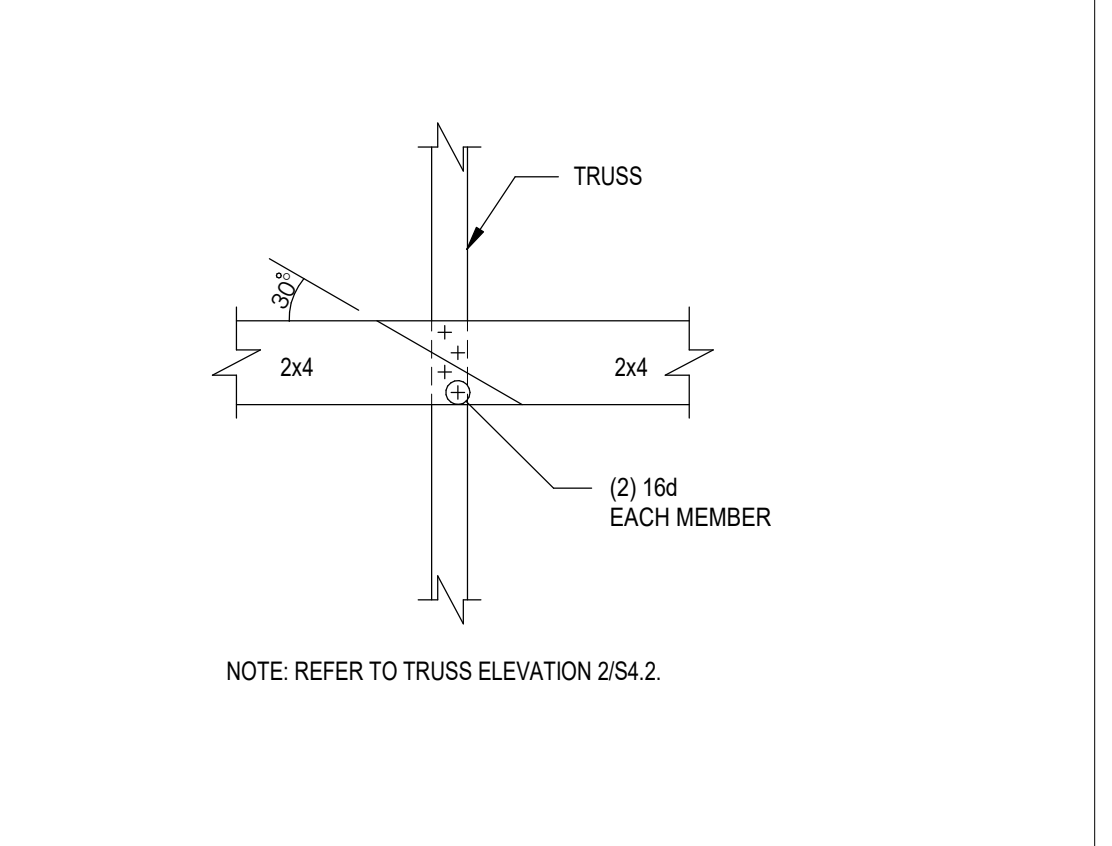
**HANGING BULKHD. OR HOOD DETL.** N.T.S. **6**



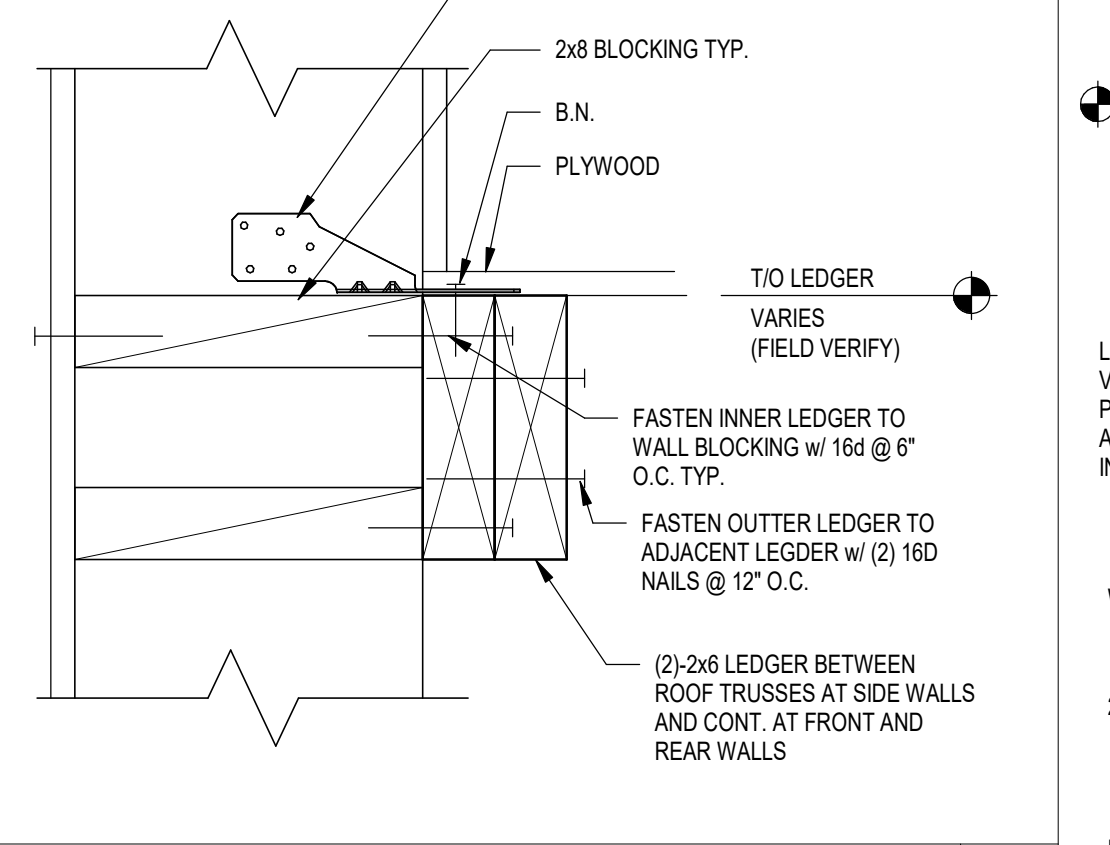
**FRAMING ELEVATION @ OPENING** 3/8" = 1'-0" **7**



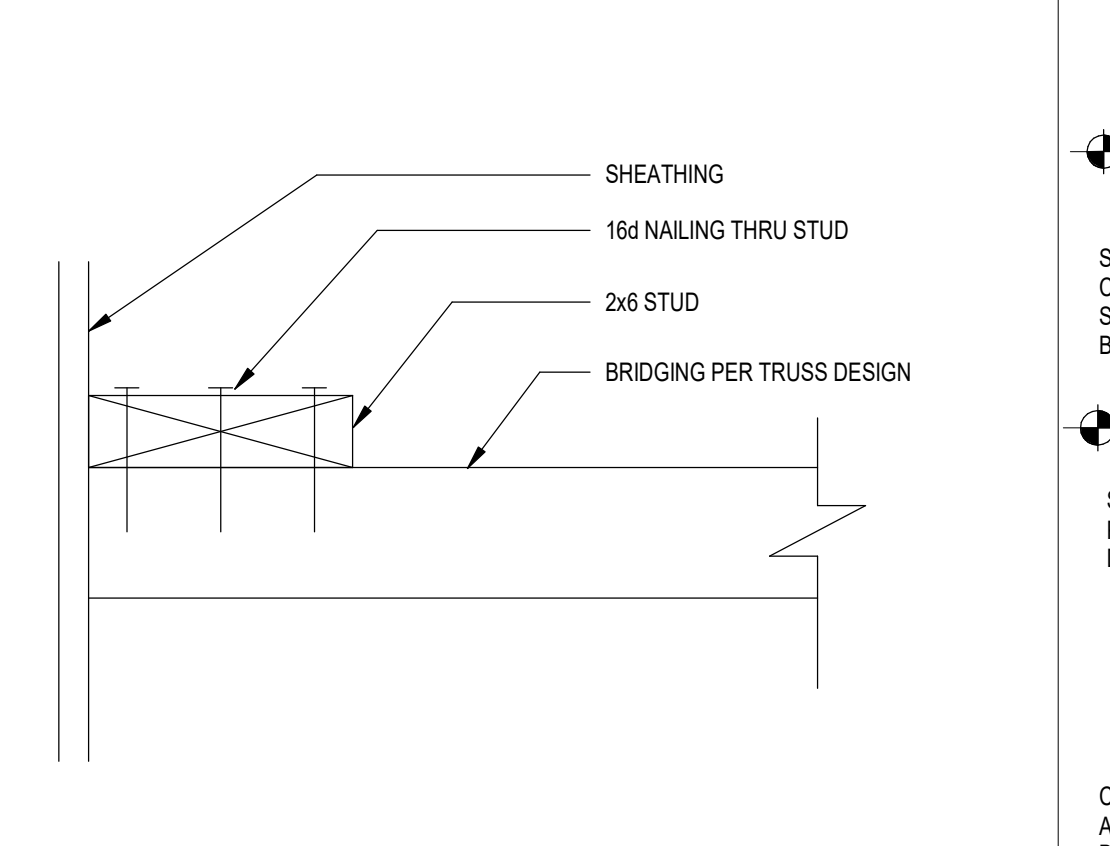
**TYP. MULTIPLE HEADER** 3/4" = 1'-0" **8**



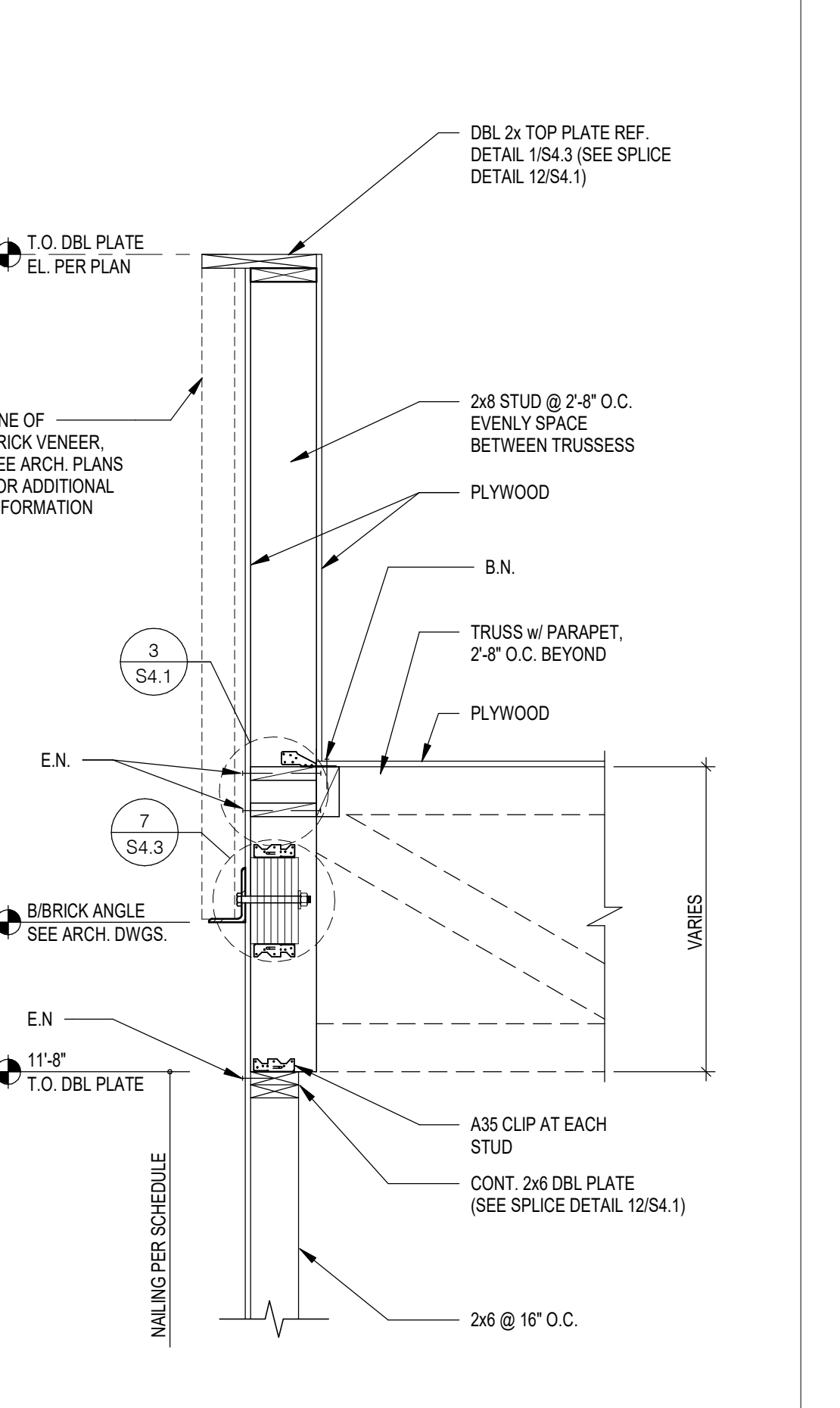
**BRIDGING LAP DETAIL @ OPEN CLG.** N.T.S. **9**



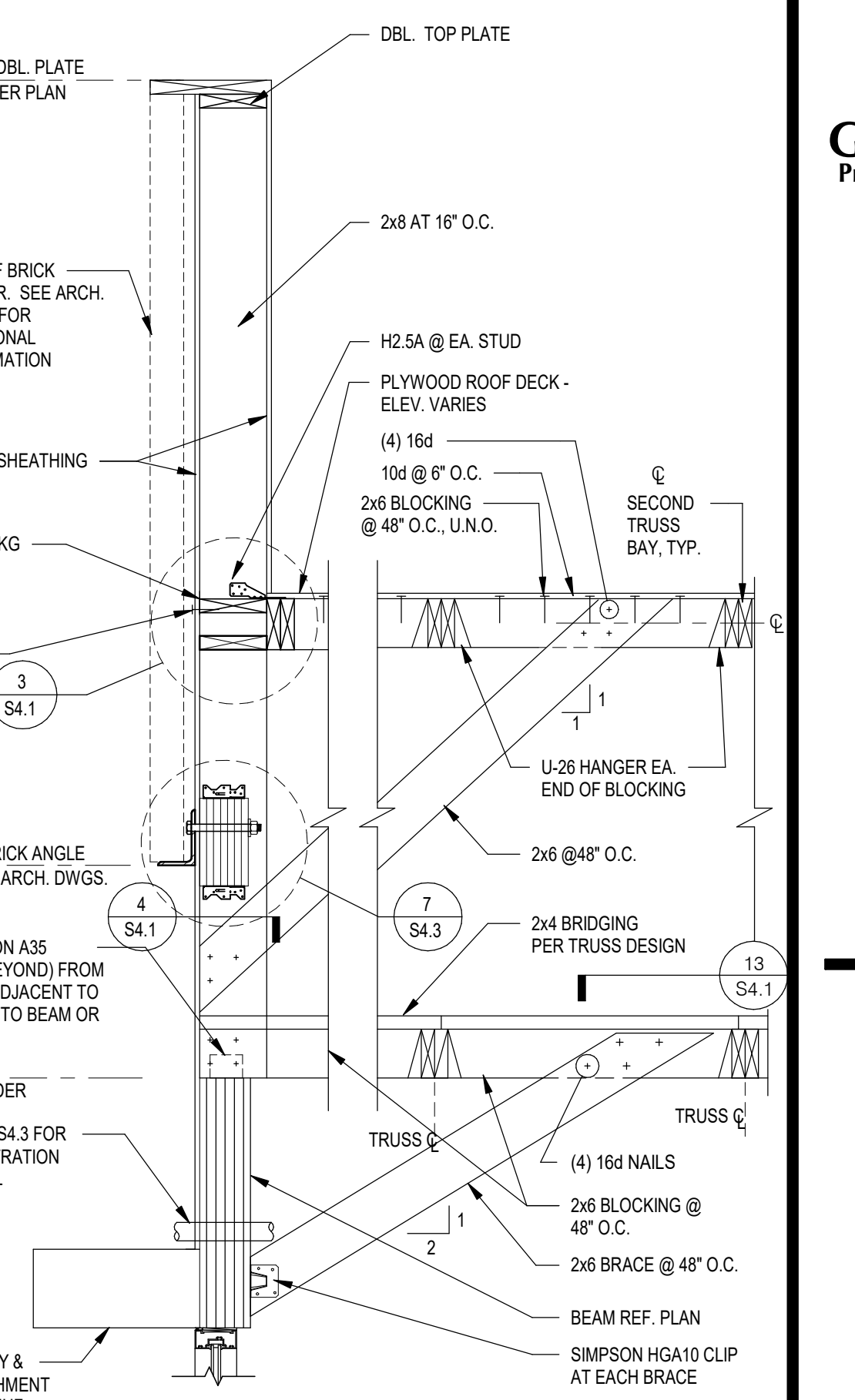
**LEDGER DETAIL** 3" = 1'-0" **3**



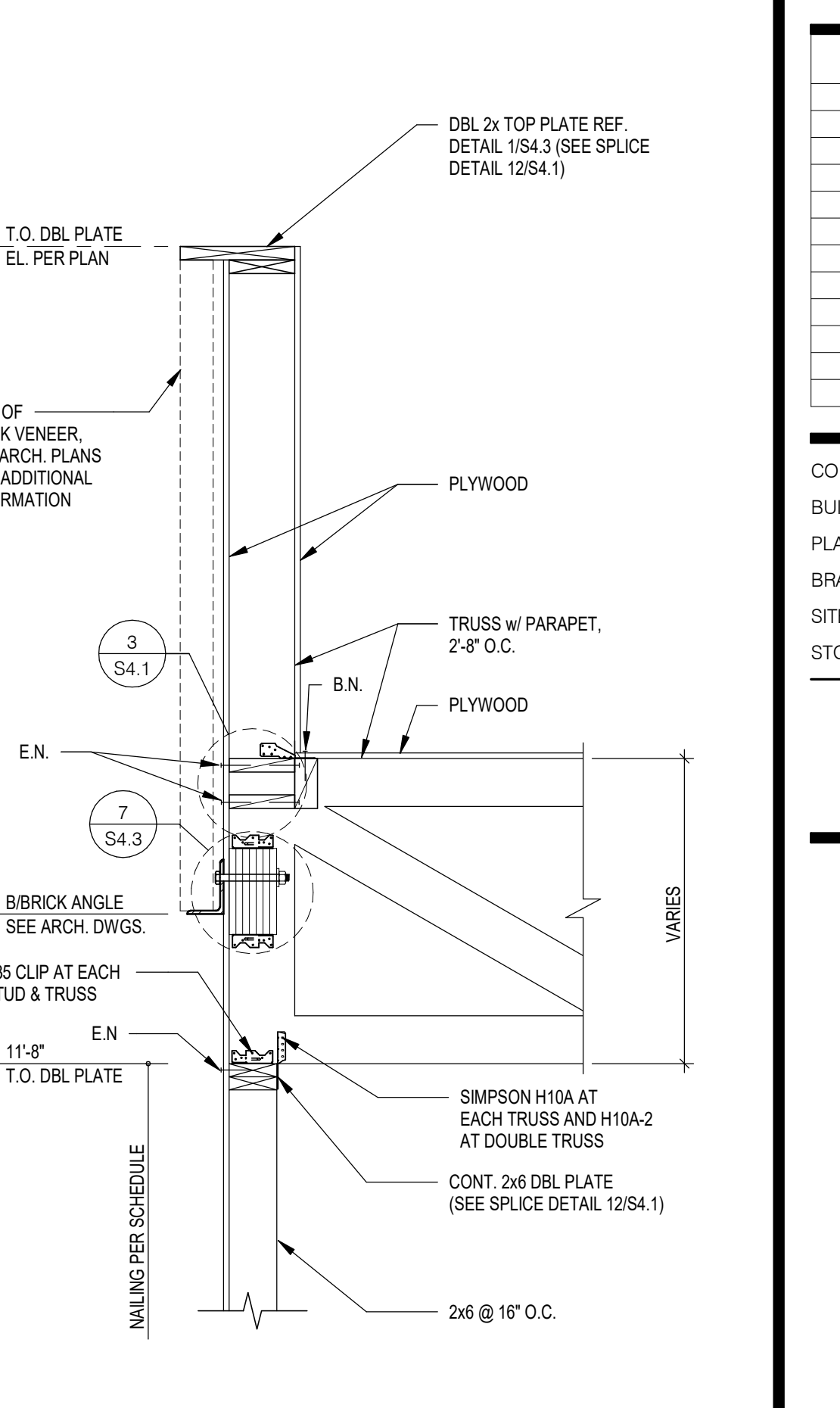
**BRIDGING DETAIL** 3" = 1'-0" **4**



**SIDE WALL @ PARAPET STUD** N.T.S. **5**



**FRONT WALL** N.T.S. **1**



**SIDE WALL @ TRUSS** N.T.S. **2**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185



MODERN EXPLORER

**STRUCTURAL DETAILS FRAMING**

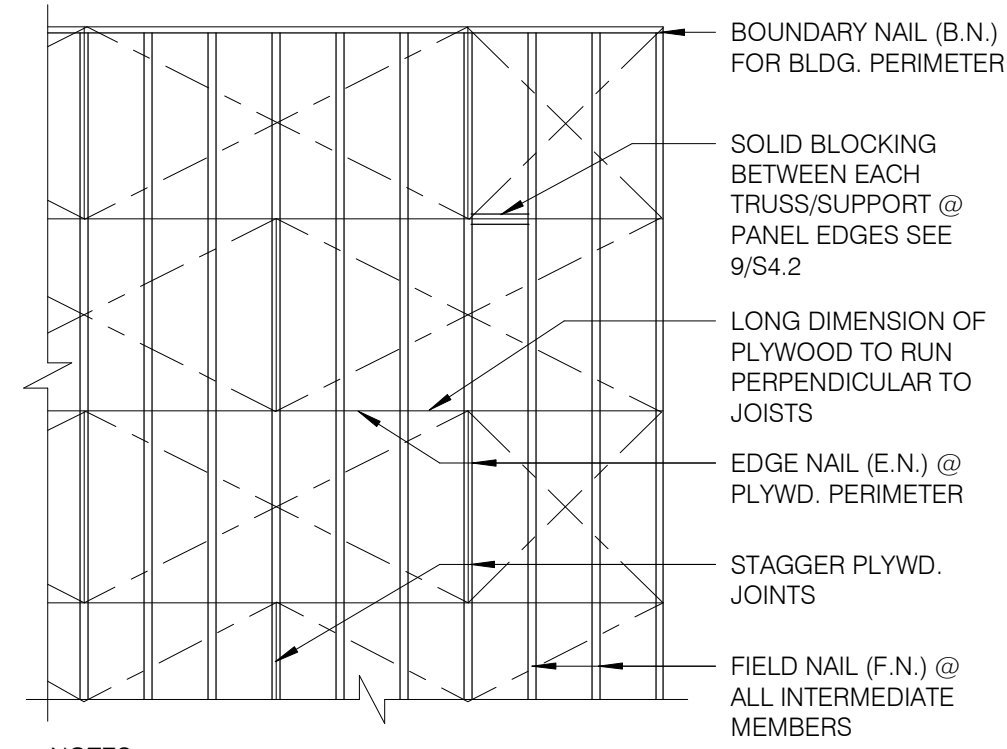
**S4.1**

PLOT DATE: 9/18/2018 8:20:37 AM

**CONNECTION TYPE:**

1. JOIST TO SILL OR GIRDER, TOENAIL (3-8d)
2. BRIDGING TO JOIST, TOENAIL EACH END (2-8d)
3. 1"x6" (25MMx152MM) SUBFLOOR OR LESS TO JOIST, FACE NAIL (2-8d)
4. WIDER THAN 1" X 6" (25MMx152MM) SUBFLOOR TO JOIST, FACE NAIL (3-8d)
5. 2" (52MM) SUBFLOOR TO GIRDER, BLIND AND FACE NAIL (2-16d)
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL (16d @ 16" O.C.)
7. SOLE PLATE TO JOIST OR BLOCKING, AT BRACED W. PANELS (3-16d PER 16")
8. TOP PLATE TO STUD, END NAIL (2-16d)
9. STUD TO SOLE PLATE (2-16d END NAIL)
10. DOUBLE STUDS, FACE NAIL (16d @ 24", O.C.)
11. DOUBLE TOP PLATES, TYPICAL FACE NAIL (16d @ 16" O.C.)
12. DOUBLE TOP PLATES, LAP SPLICE (8-16d)
13. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL (3-8d)
14. RIM JOIST TO TOP PLATE, TOENAIL (8d @ 6" O.C.)
15. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL (2-16d)
16. CONTINUOUS HEADER, TWO PIECES (16d @ 16" O.C. ALONG EDGE)
17. CEILING JOISTS TO PLATE, TOENAIL (3-8d)
18. CONTINUOUS HEADER TO STUD, TOENAIL (4-8d)
19. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL (3-16d)
20. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL (3-16d)
21. RAFTER TO PLATE, TOENAIL (3-8d)
22. 1" (25MM) BRACE TO EACH STUD AND PLATE, FACE NAIL (2-8d)
23. 1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL (2-8d)
24. WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL (3-8d)
25. BUILT-UP CORNER STUDS (16d @ 24" O.C.)
26. 2" PLANKS (2-16d AT EACH SPLICE)
27. 2x6 BOX BEAM / HEADER (12d @ 12" O.C.)
28. BUILT-UP GIRDER AND BEAMS (20d @ 32" O.C. AT TOP & BOTTOM AND STAGGERED 2-20d AT ENDS AND AT EACH SPLICE)

**NAILING:**



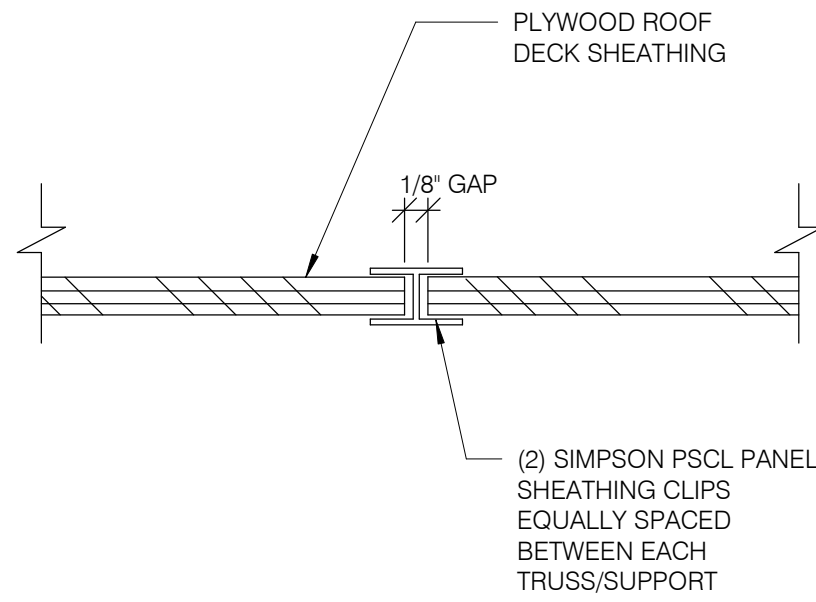
NOTES:  
 1. MIN. PLYWD. SHT. SIZE SHALL BE 2'-0" X 4'-0".  
 2. MIN. 3/8" NAILING EDGE DISTANCE.  
 3. EDGE NAIL (E.N.) O/ BEAMS AND AROUND ALL OPENINGS.

**ROOF NAILING PLAN** N.T.S. **8**

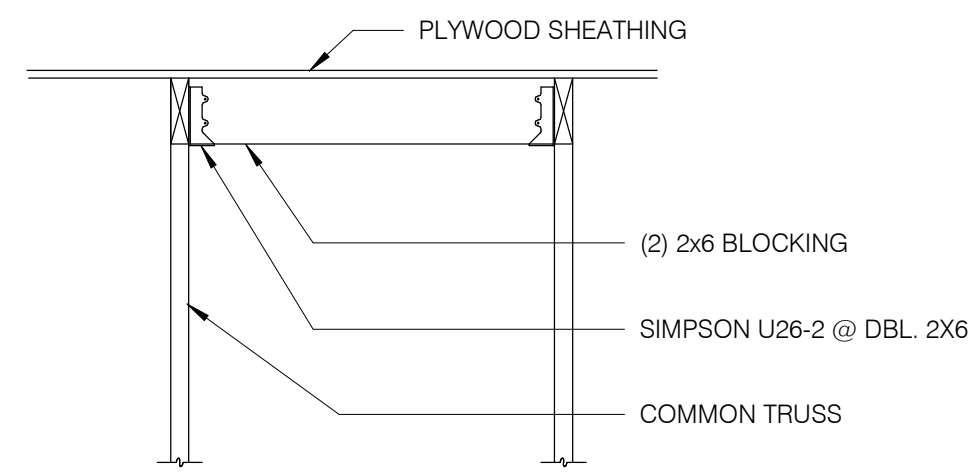
EQUIPMENT	DESIGN WEIGHT
HVAC UNIT - RTU-1	* 1000 lbs.
HVAC UNIT - RTU-2	* 1500 lbs.
EXHAUST FAN - EF-1	* 200 lbs.
EXHAUST FAN - EF-2	* 70 lbs.
HOOD #1 - TACO BELL	400 lbs.
ICE CONDENSERS	200 lbs.
FREEZER CONDENSER	300 lbs.
COOLER CONDENSER	300 lbs.

\* A. ALL DESIGN WEIGHTS INCLUDE CURB.  
 B. COORDINATE WEIGHTS WITH HVAC UNIT SCHEDULE 1/M1.0 PRIOR TO ENLISTING TRUSS ENGINEER.

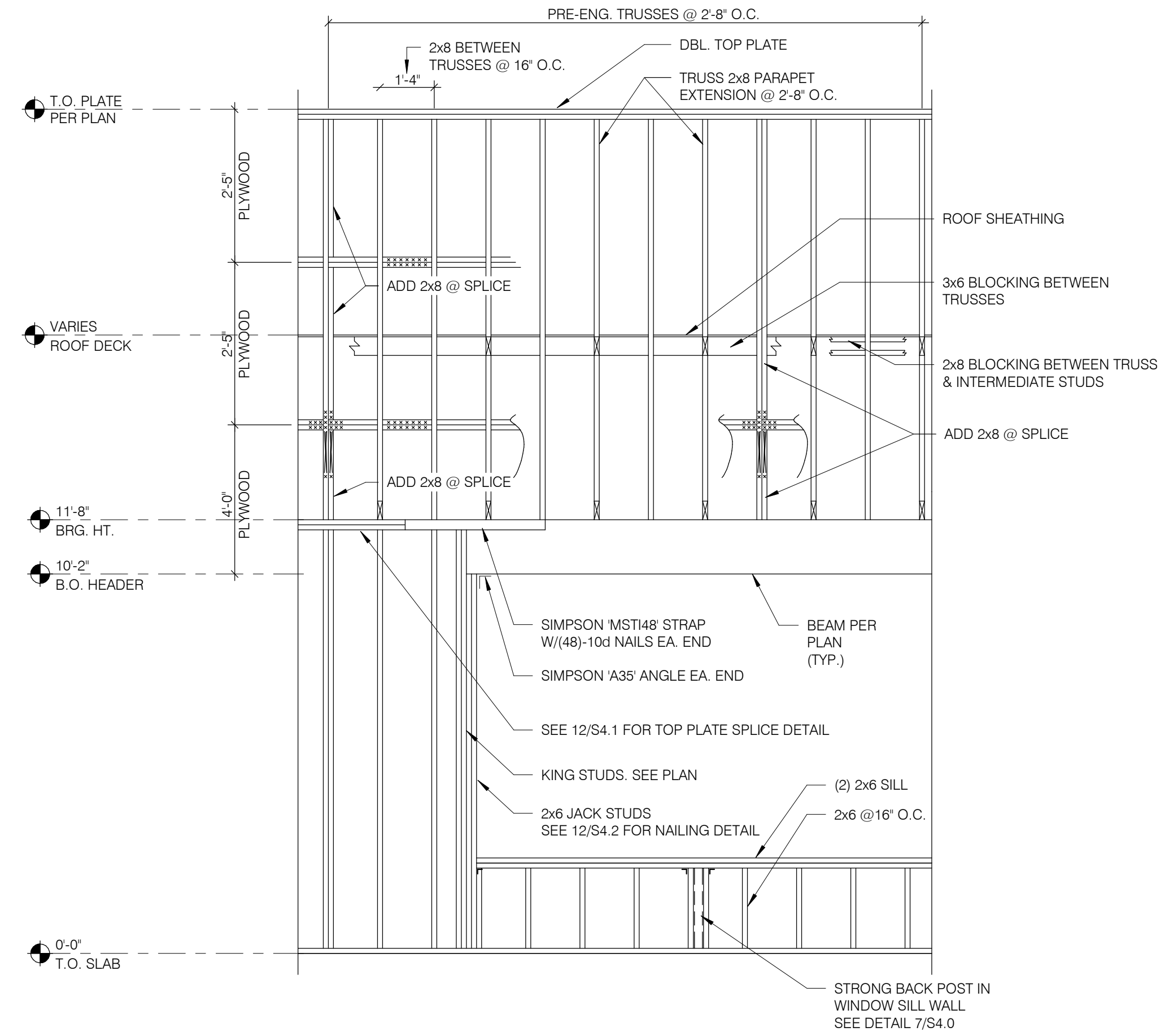
**ROOF TOP EQUIPMENT WEIGHTS** N.T.S. **5**



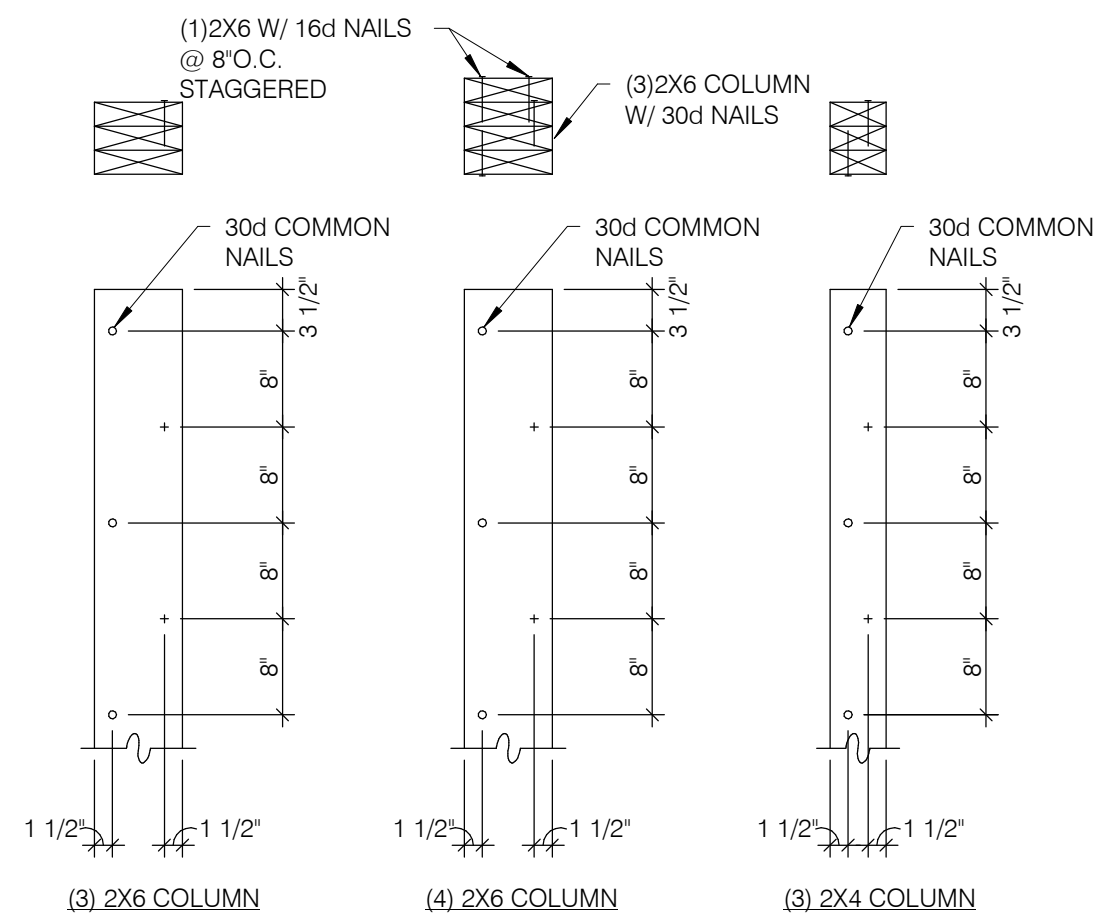
**PLYWOOD EDGE BLOCKING** N.T.S. **9**



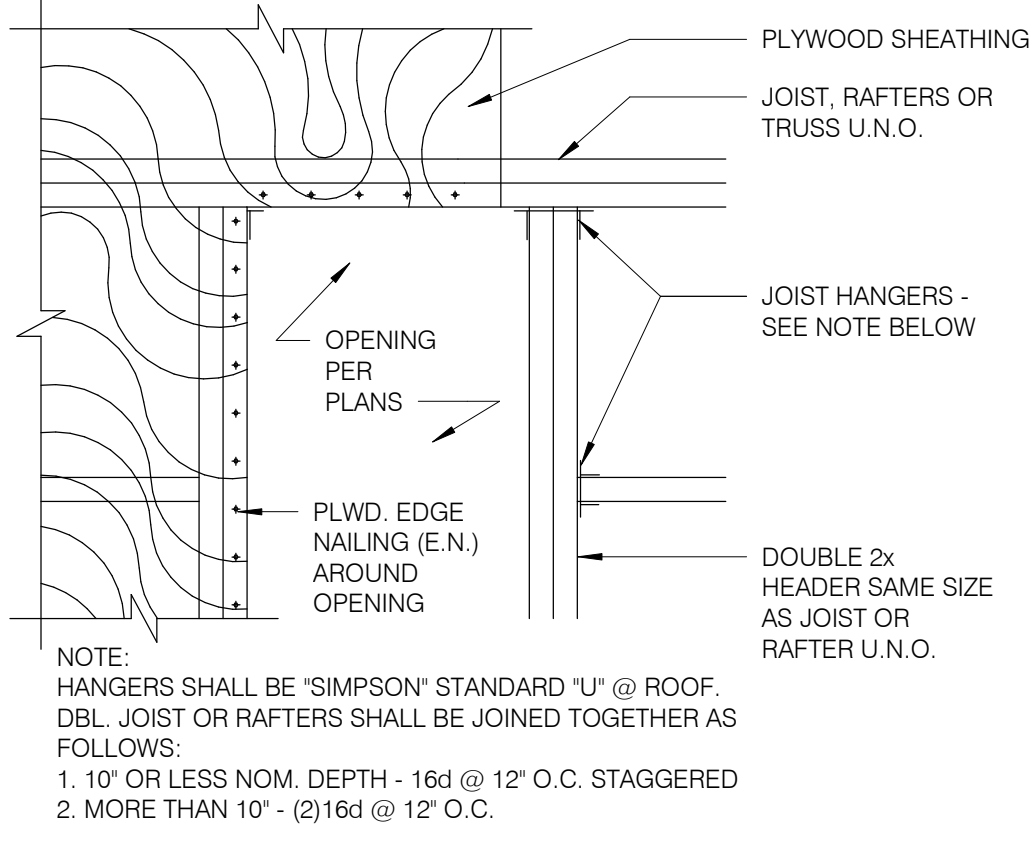
**ROOF OPENING DETAIL** N.T.S. **6**



**WALL FRAMING DETAIL** 3/8" = 1'-0" **1**



**BUILT-UP 2X COLUMNS** N.T.S. **12**

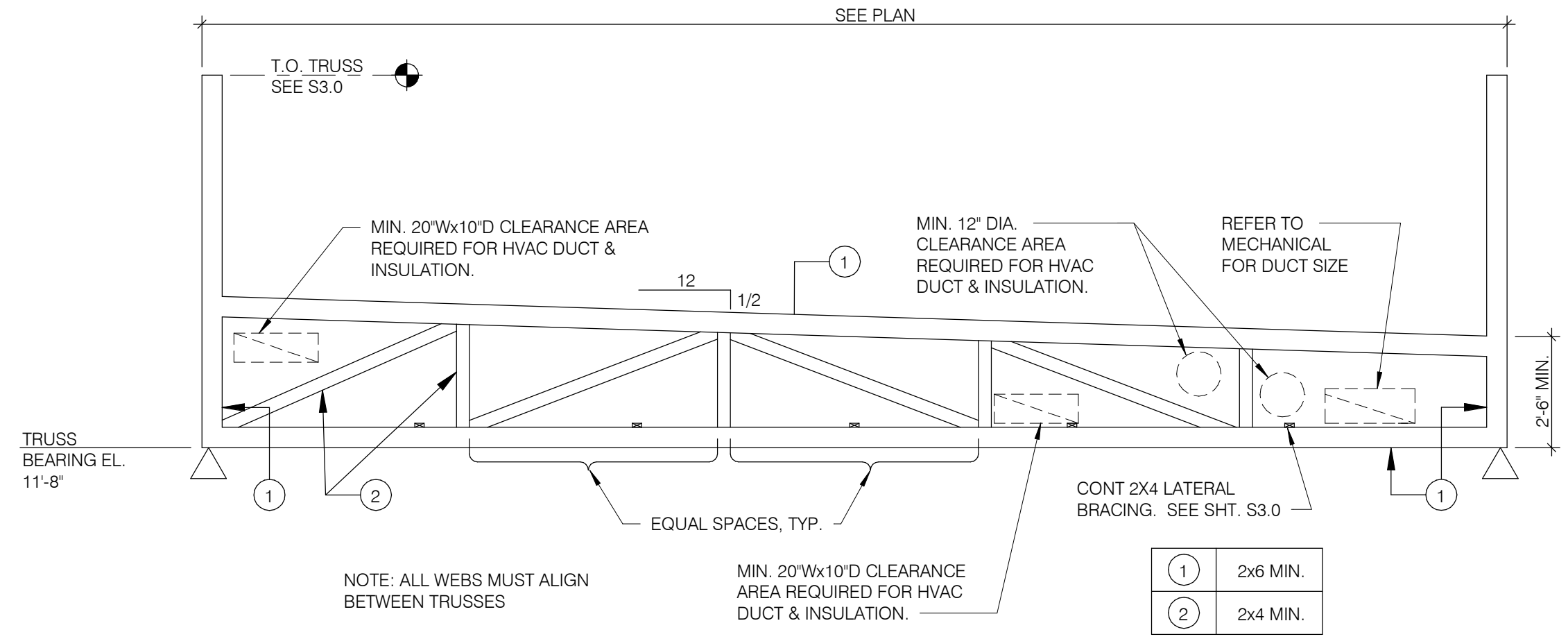


**TYPICAL ROOF OPENING** 1' = 1'-0" **10**

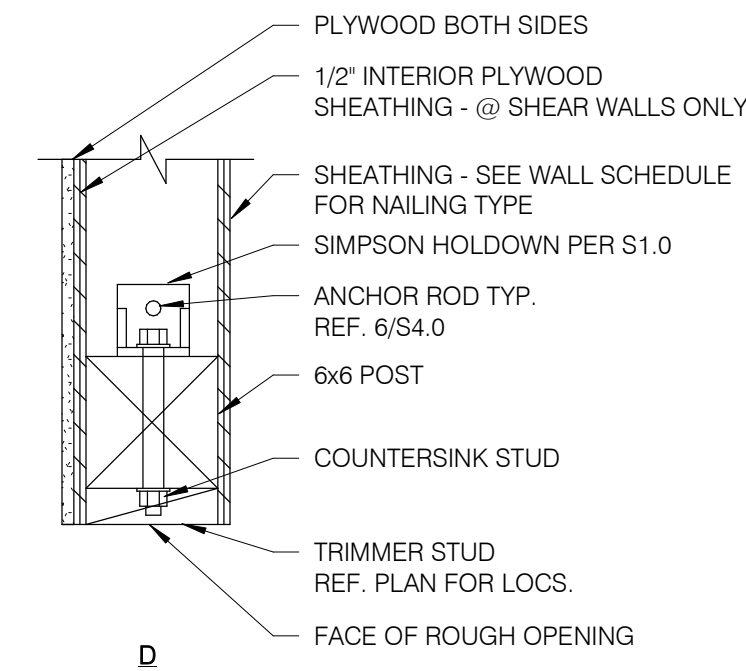
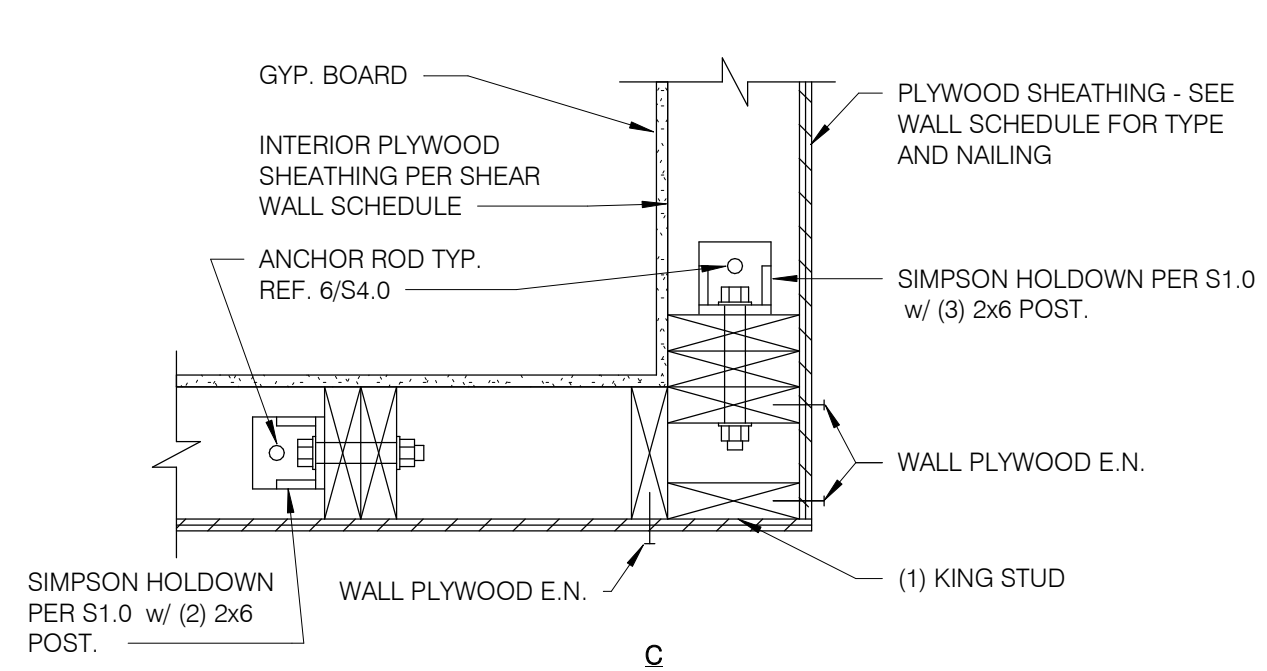
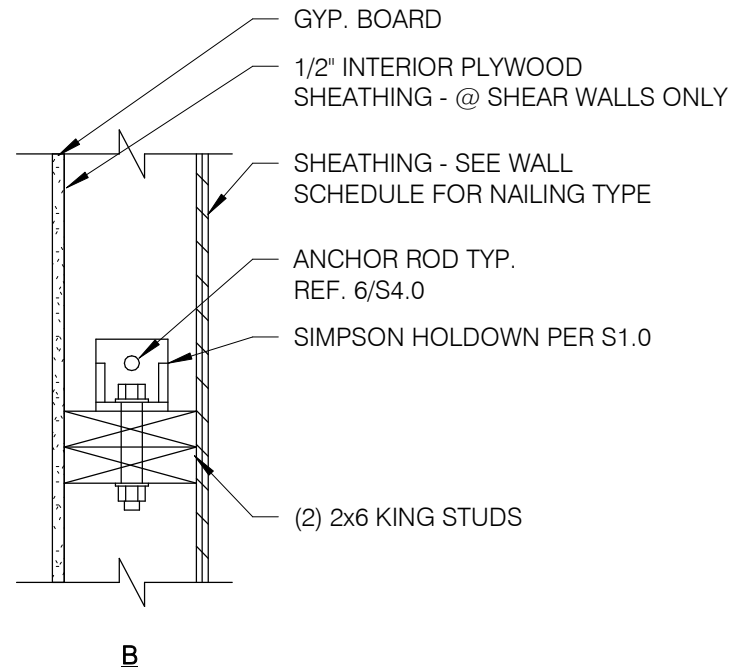
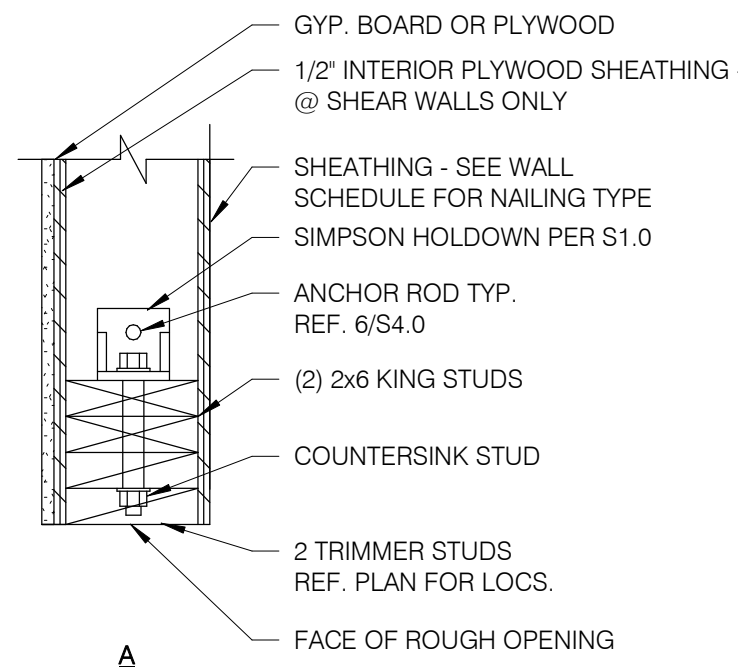
TRUSS TYPES	SINGLE TRUSS DESIGNATION	DOUBLE TRUSS DESIGNATION	BEARING POINT	COMMENTS
T1-T24	X	XX	△	SEE NOTE 1.

NOTES:  
 1. HOLDOWN CONNECTORS SHALL BE SPECIFIED BY SITE SPECIFIC ARCHITECT/ ENGINEER BASED UPON LOADING DATA PROVIDED BY TRUSS DESIGNER.  
 2. PROVIDE SHOP DRAWINGS PRIOR TO FABRICATION.  
 3. TRUSS MEMBER SIZES ARE FOR REFERENCE ONLY. ACTUAL SIZE SHALL BE DETERMINED BY TRUSS MANUFACTURER BASED ON ACTUAL LOAD CONDITIONS AND CODES.

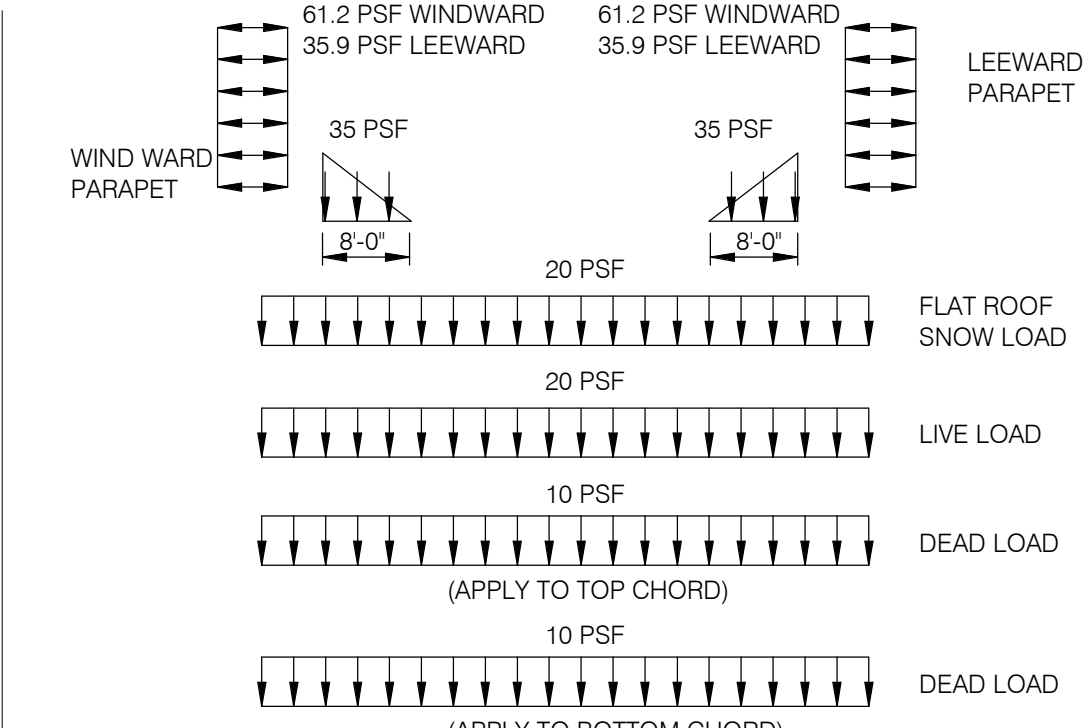
**TRUSS SCHEDULE** N.T.S. **7**



**TRUSS ELEVATION** N.T.S. **2**



**HOLDOWN DETAILS** 1 1/2" = 1'-0" **4**



NOTE:  
 ALSO, APPLY ROOF TOP AND SUSPENDED POINT LOADS. WEIGHT AND LOCATION OF UNITS AS NOTED ARE SHOWN ON THIS SHEET AND ARE NOT INCLUDED IN THE ABOVE LOADING DIAGRAM. VERIFY THESE LOADS WITH MECHANICAL SUPPLIER BEFORE DESIGNING TRUSS.

**TRUSS LOAD DIAGRAMS** N.T.S. **3**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**TACO BELL**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

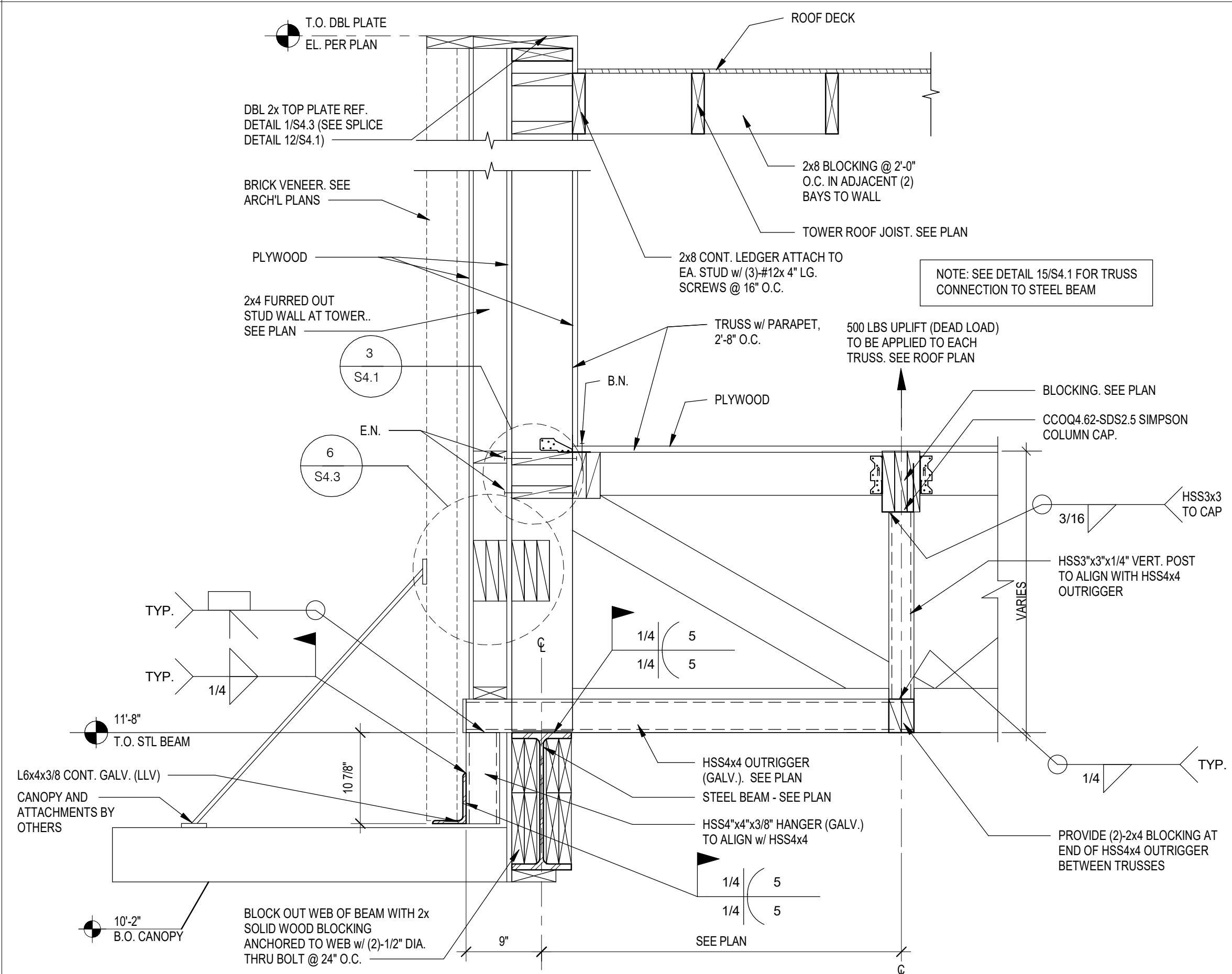


MODERN EXPLORER

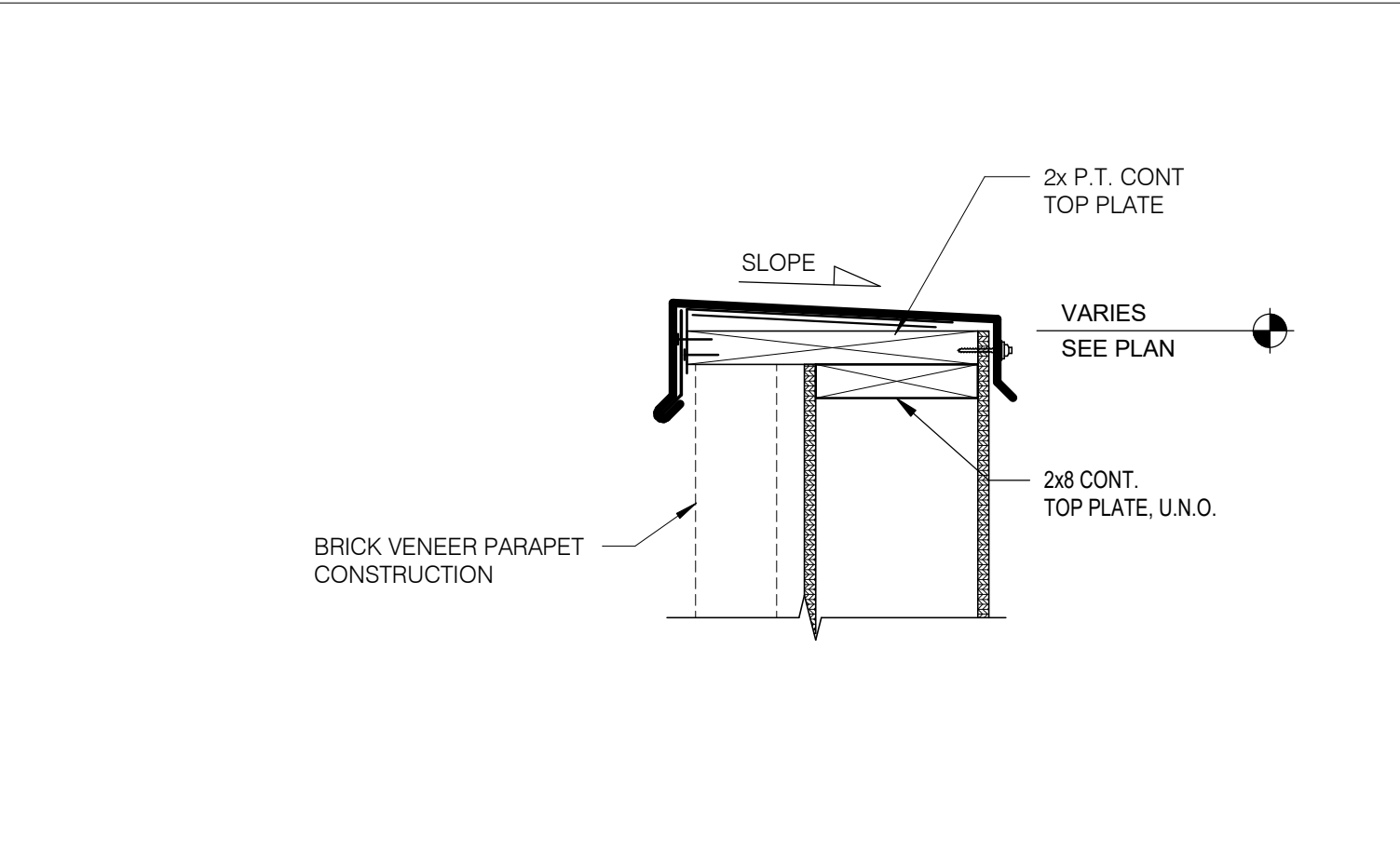
**STRUCTURAL DETAILS ROOF**

**S4.2**

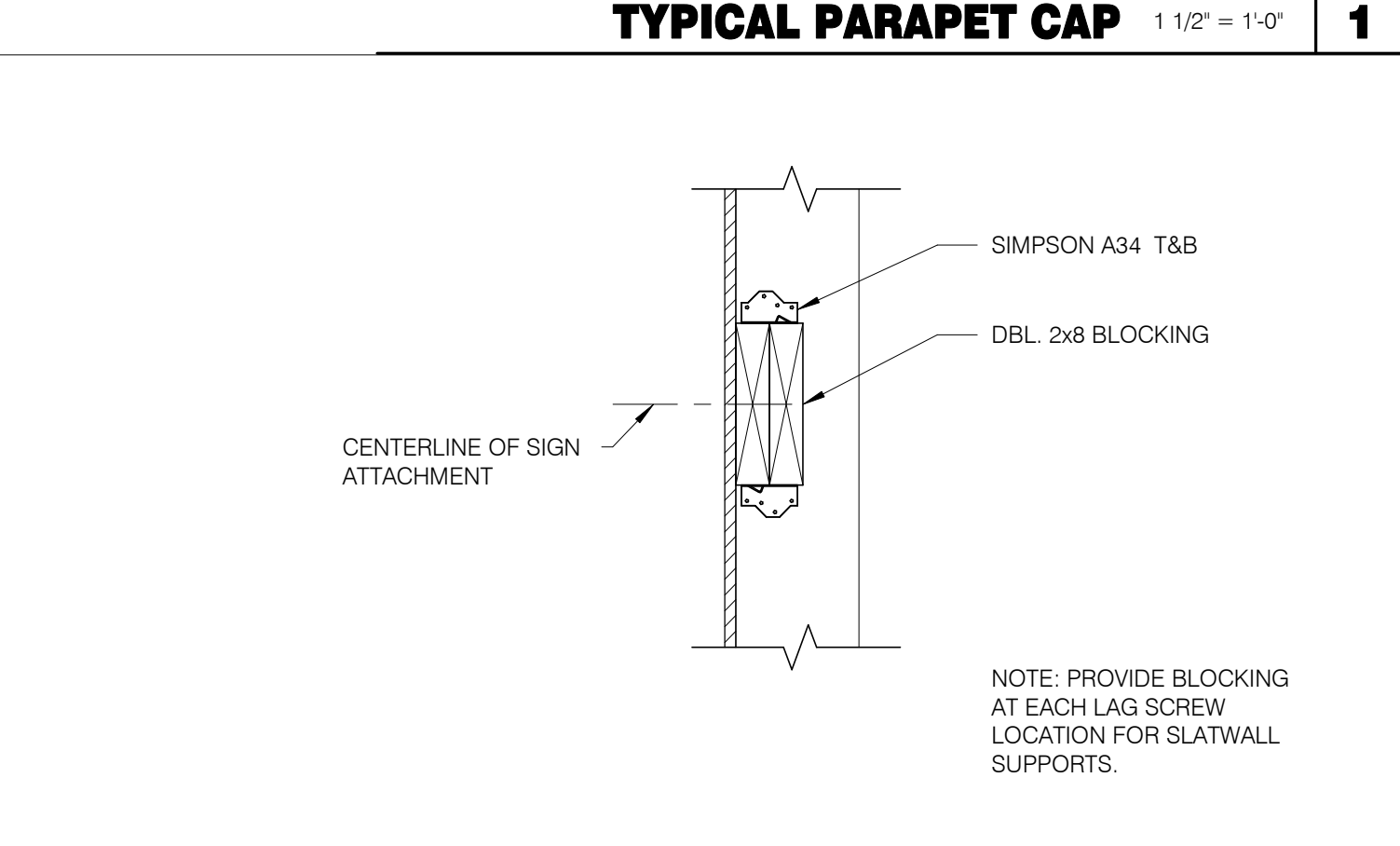




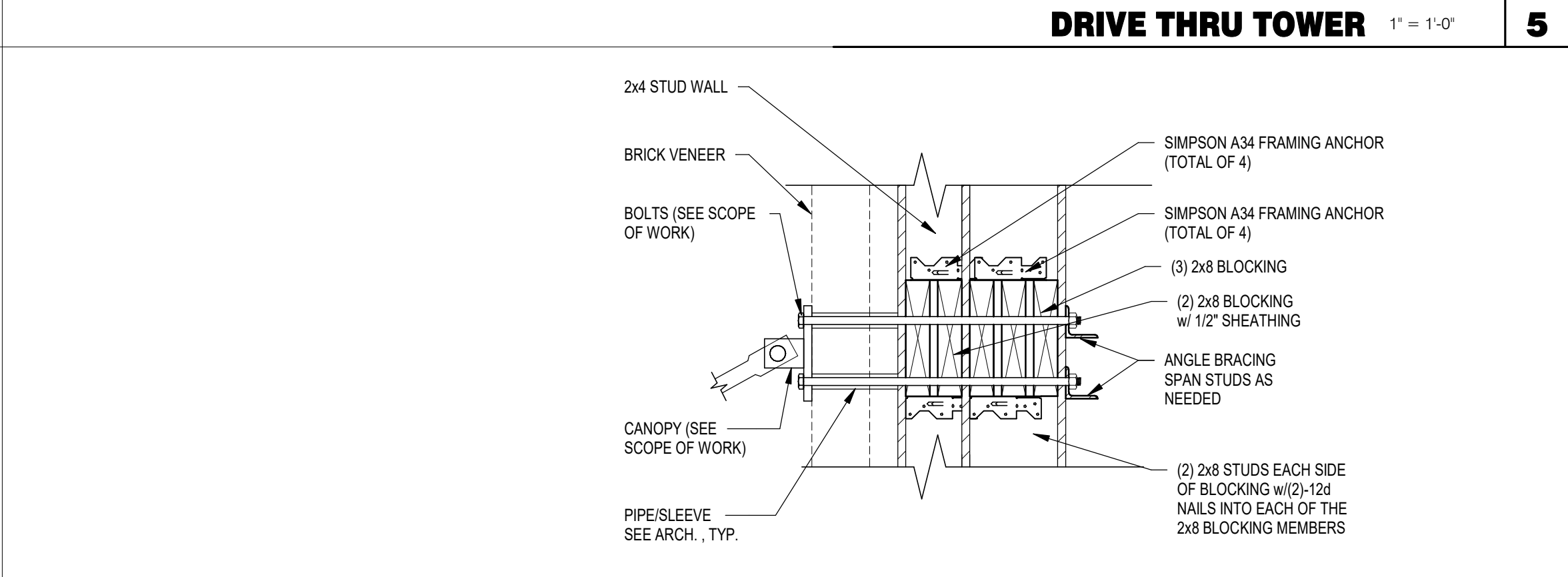
**DRIVE THRU TOWER** 1" = 1'-0" **5**



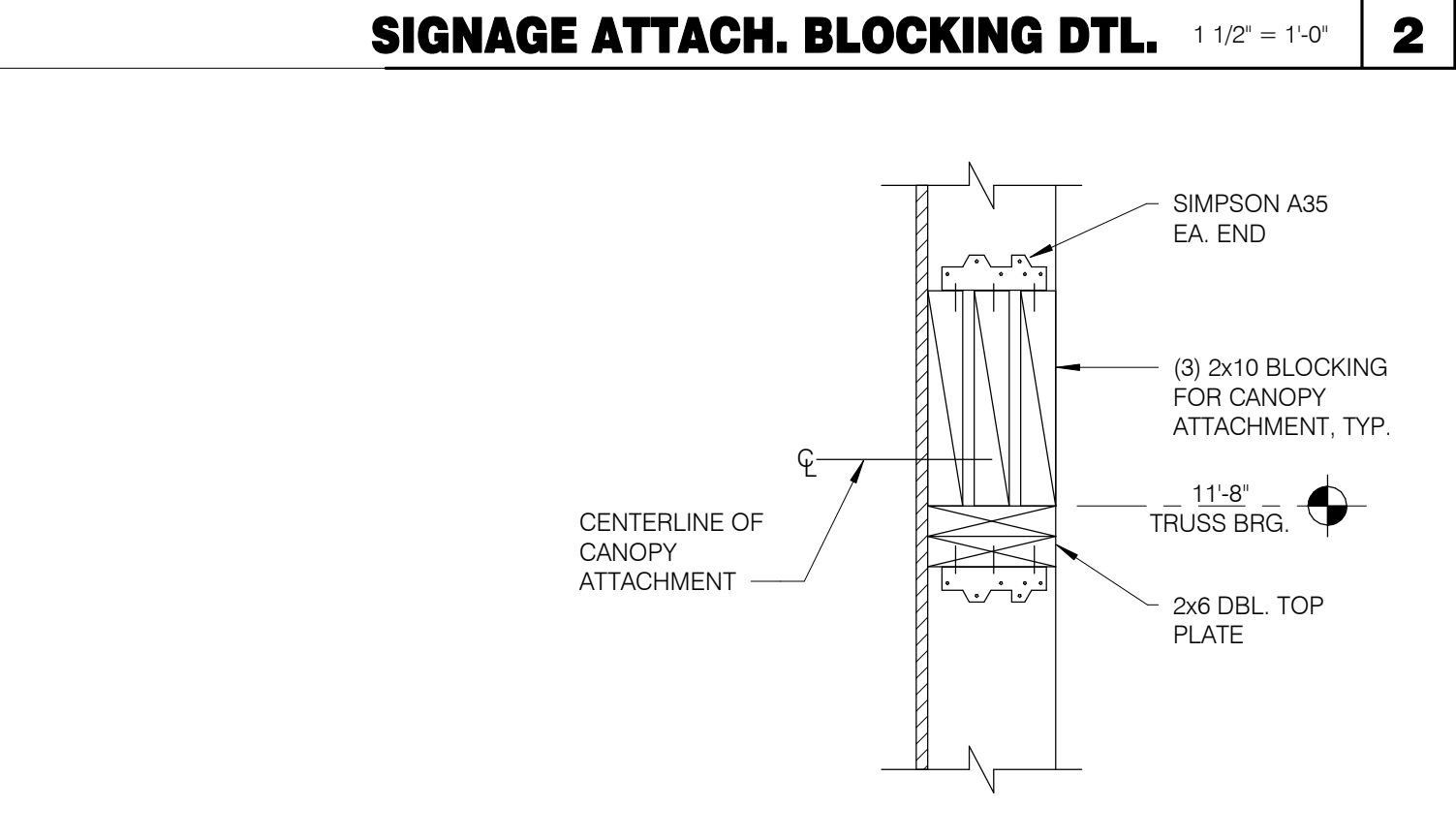
**TYPICAL PARAPET CAP** 1 1/2" = 1'-0" **1**



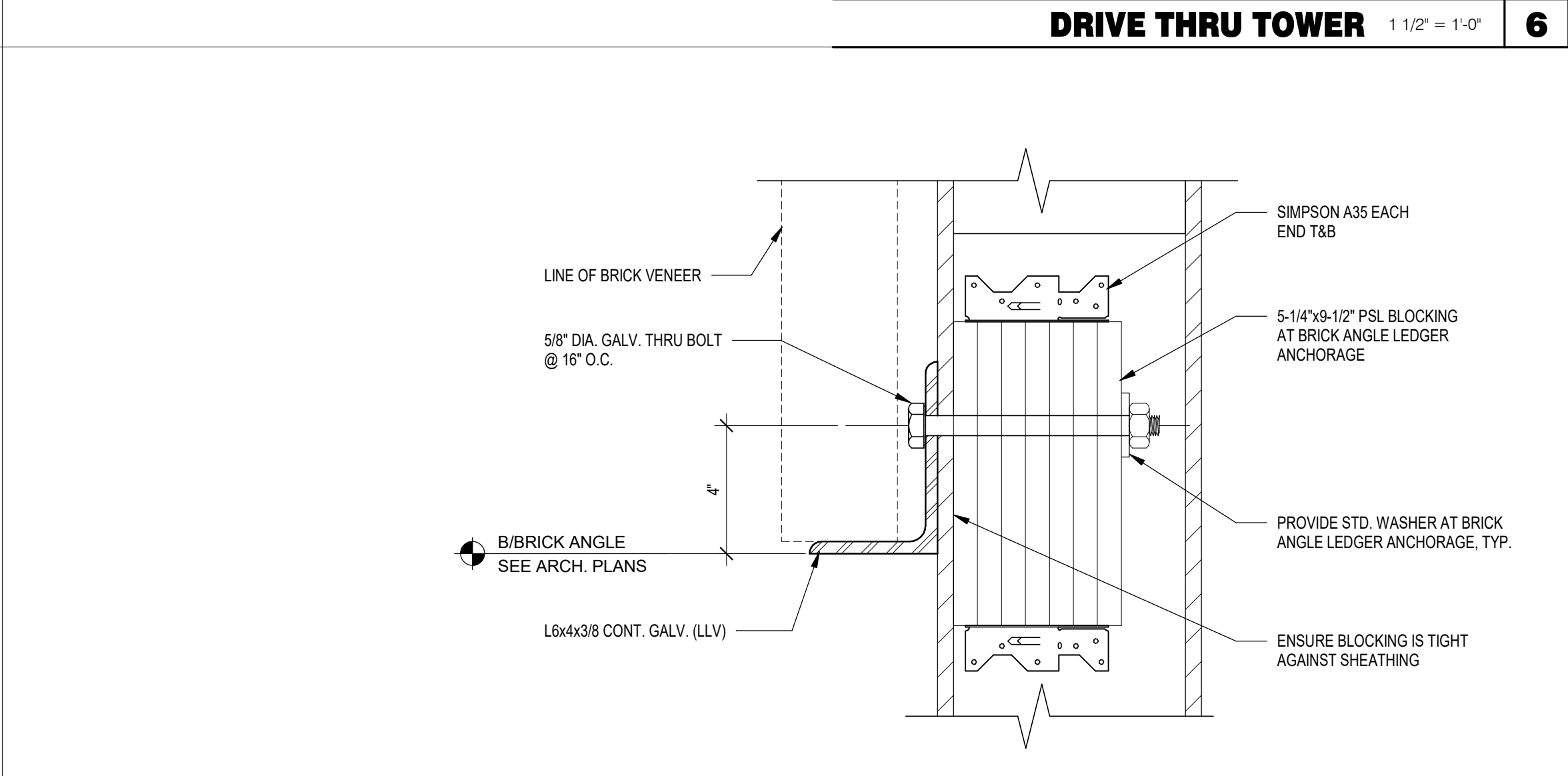
**SIGNAGE ATTACH. BLOCKING DTL.** 1 1/2" = 1'-0" **2**



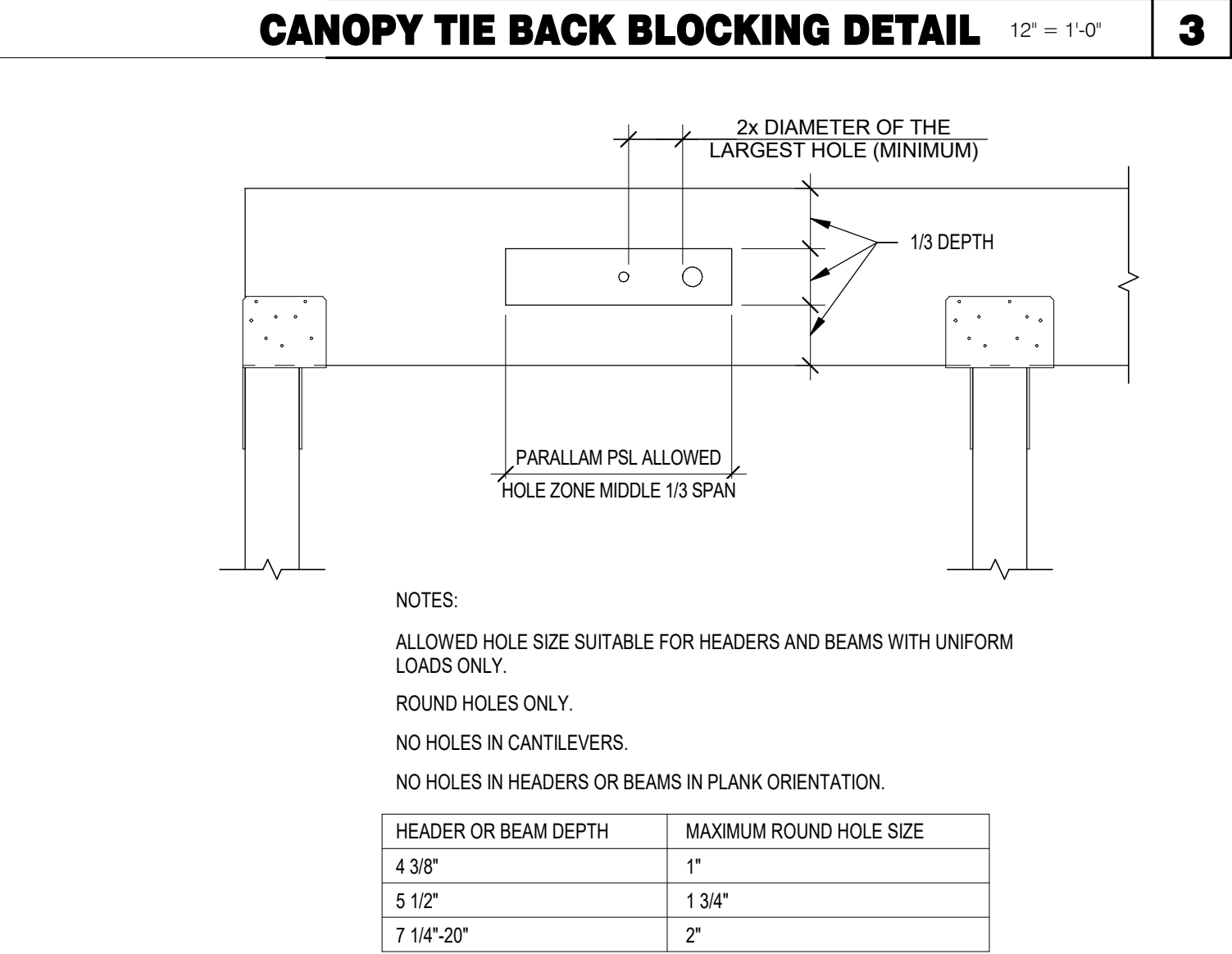
**DRIVE THRU TOWER** 1 1/2" = 1'-0" **6**



**CANOPY TIE BACK BLOCKING DETAIL** 12" = 1'-0" **3**



**BRICK LEDGER DETAIL** 3" = 1'-0" **7**



**PSL BEAM PENETRATION DETAIL** 3/4" = 1'-0" **4**

**NOT USED** N.T.S. **8**

**NOT USED** N.T.S. **9**

**NOT USED** N.T.S. **10**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40M-O  
MODERN EXPLORER

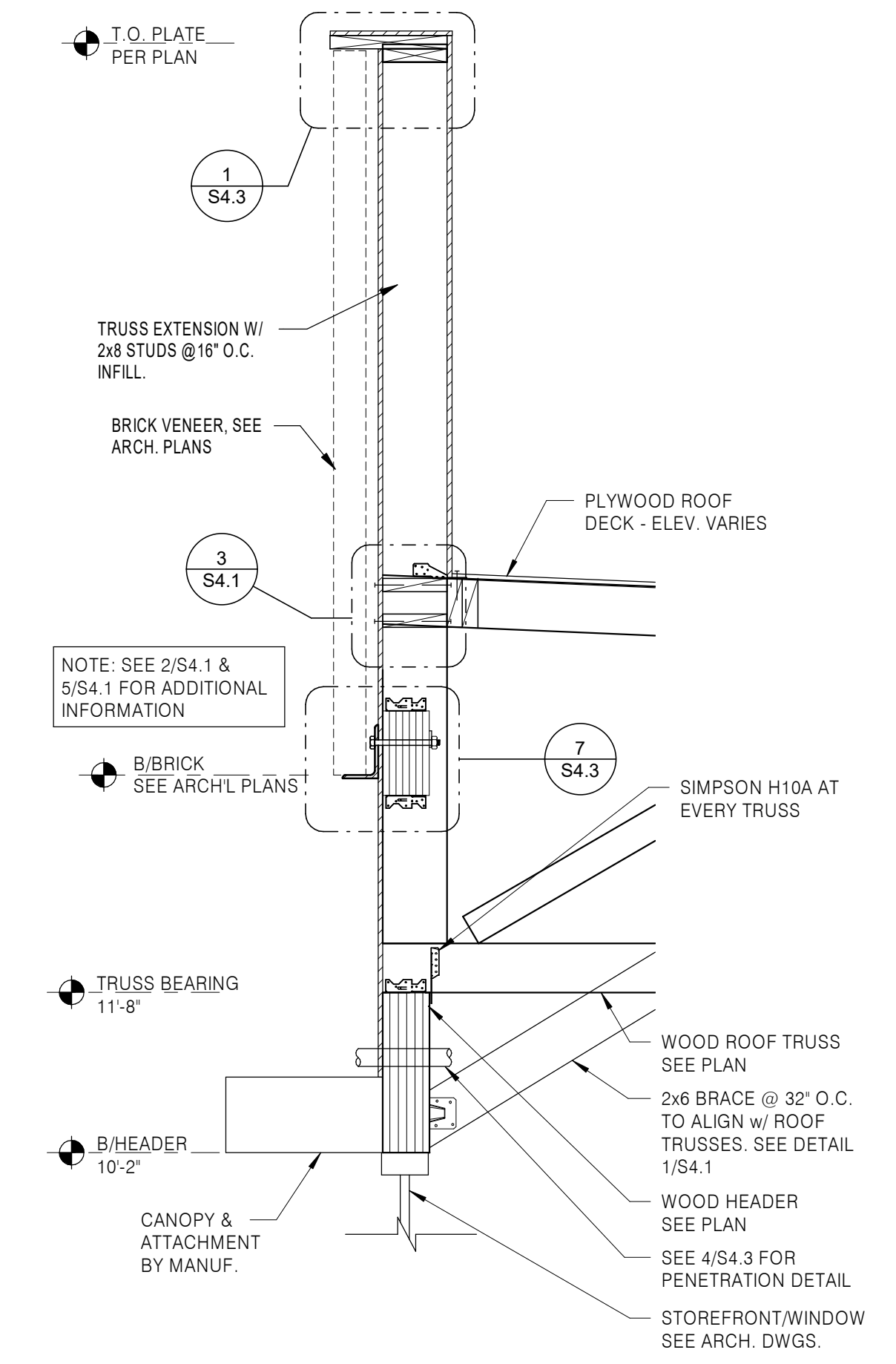
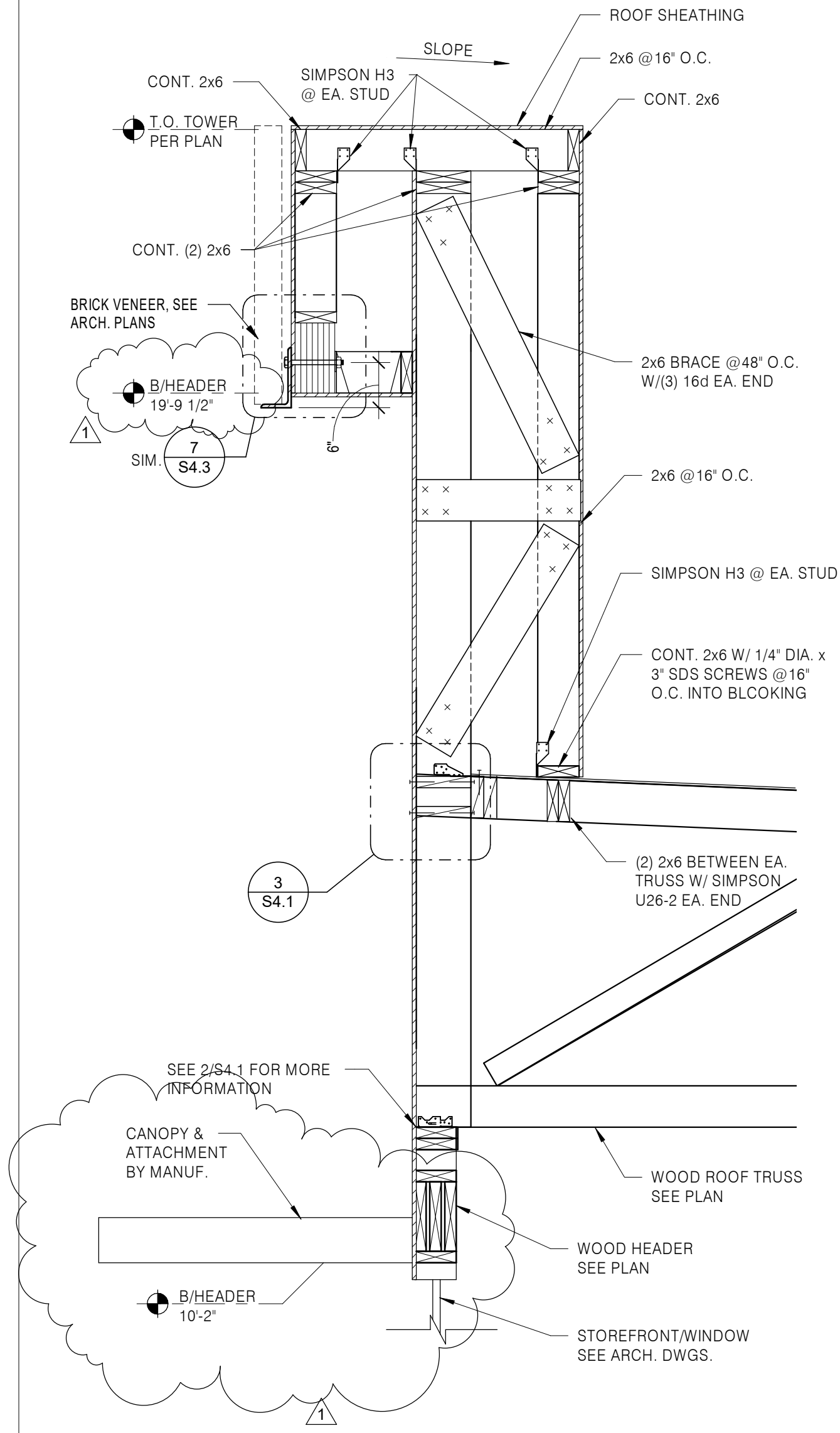
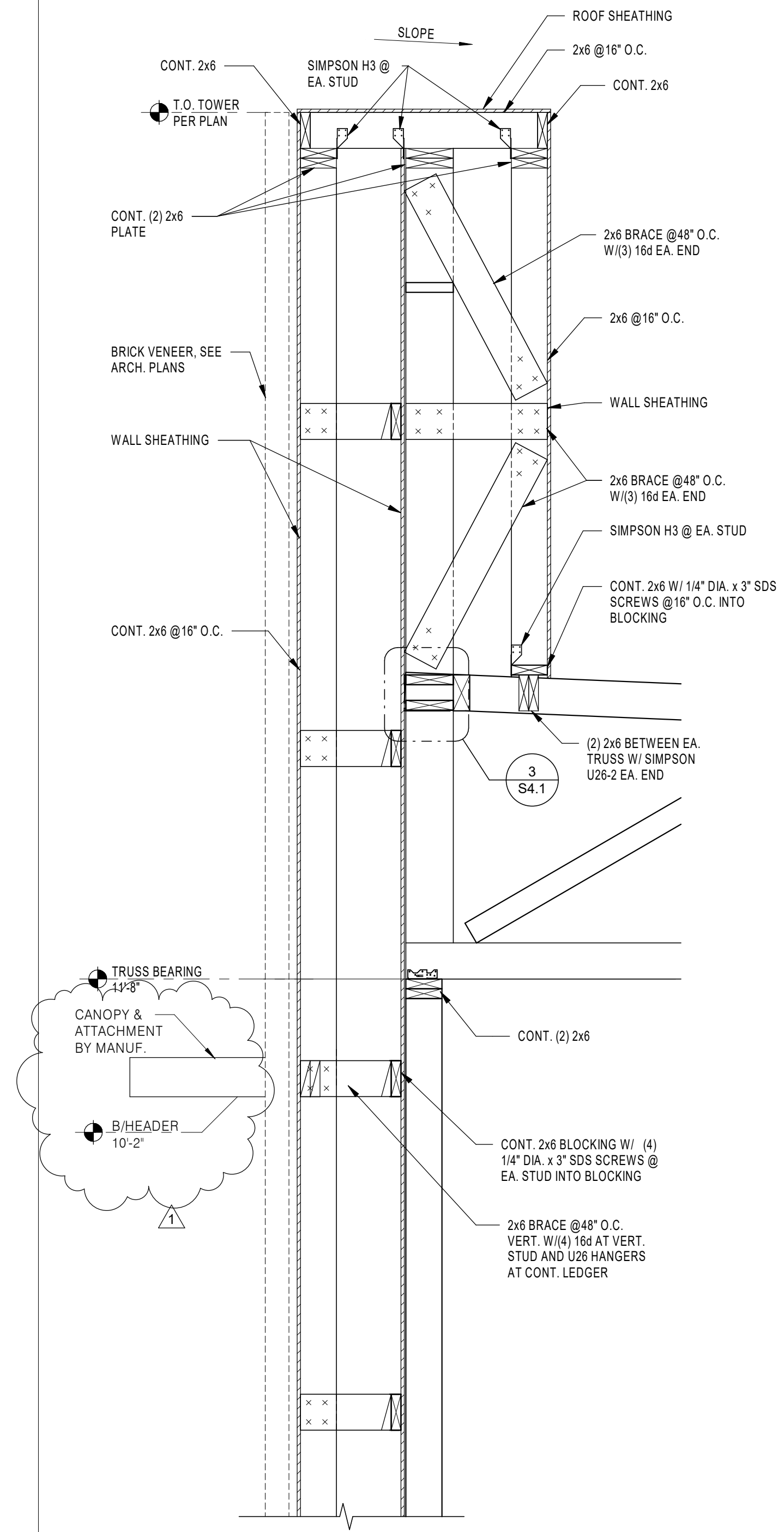
**STRUCTURAL DETAILS TACO BELL TOWER**

**S4.3**

PLOT DATE: 9/18/2018 8:20:40 AM







09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

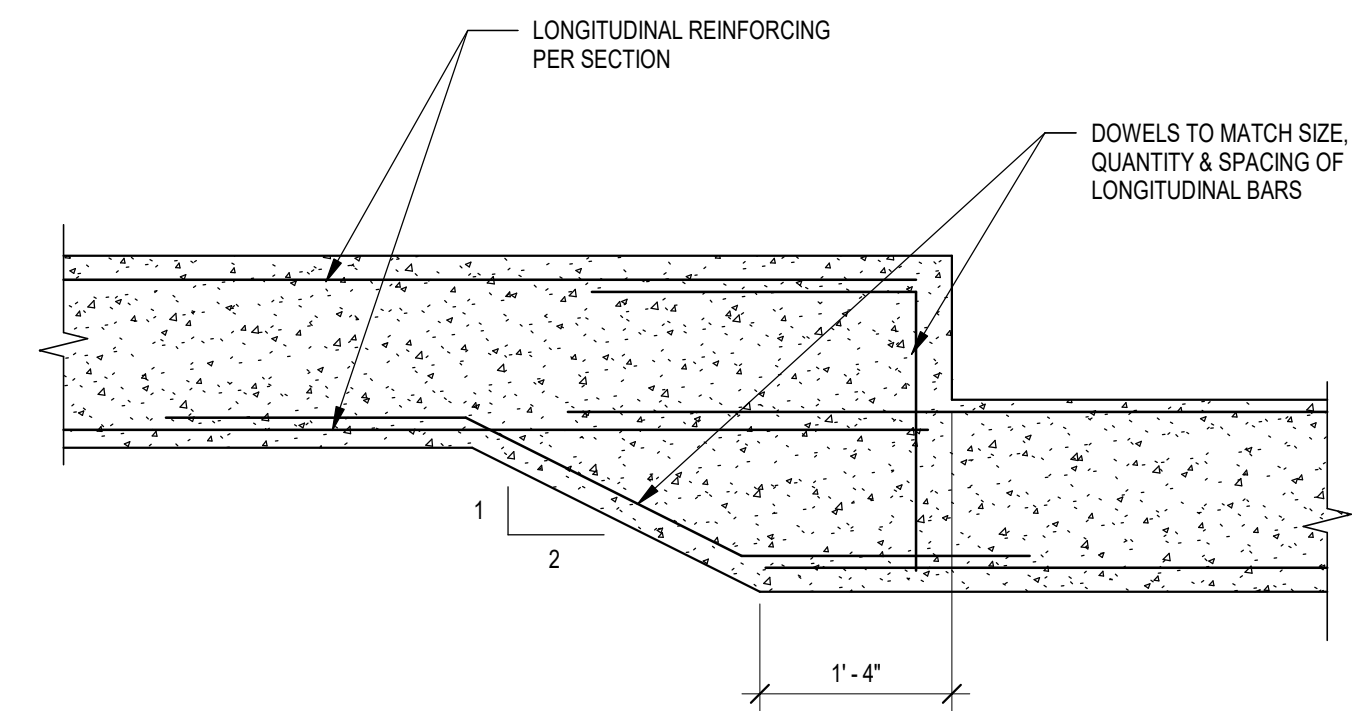
**TACO BELL**  
 37500 FORD ROAD  
 WESTLAND, MI 48185



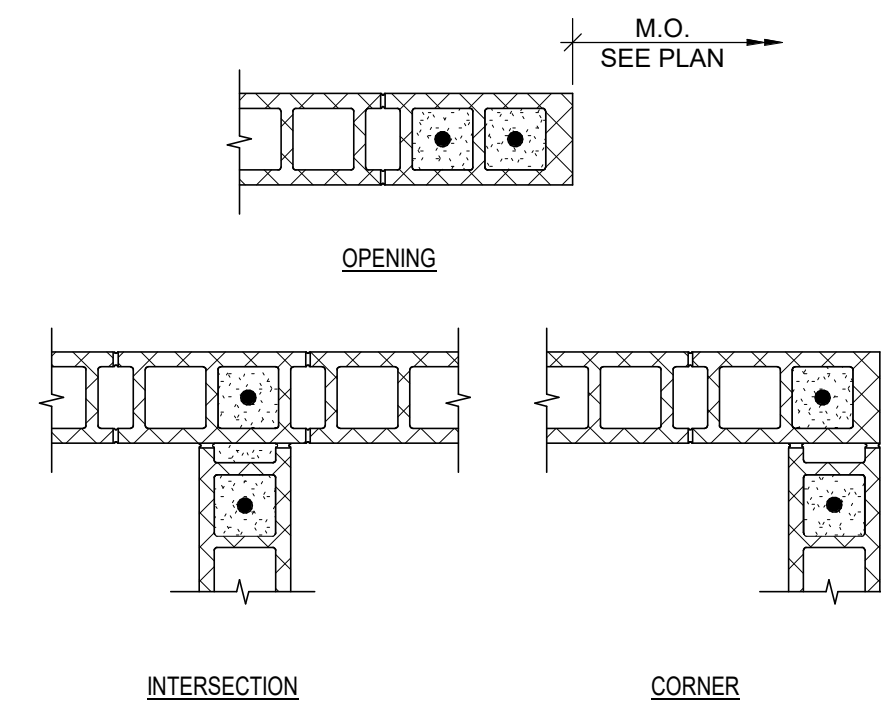
MODERN EXPLORER  
**STRUCTURAL SECTIONS**

**S4.5**

PLOT DATE: 9/17/2018 4:18:08 PM

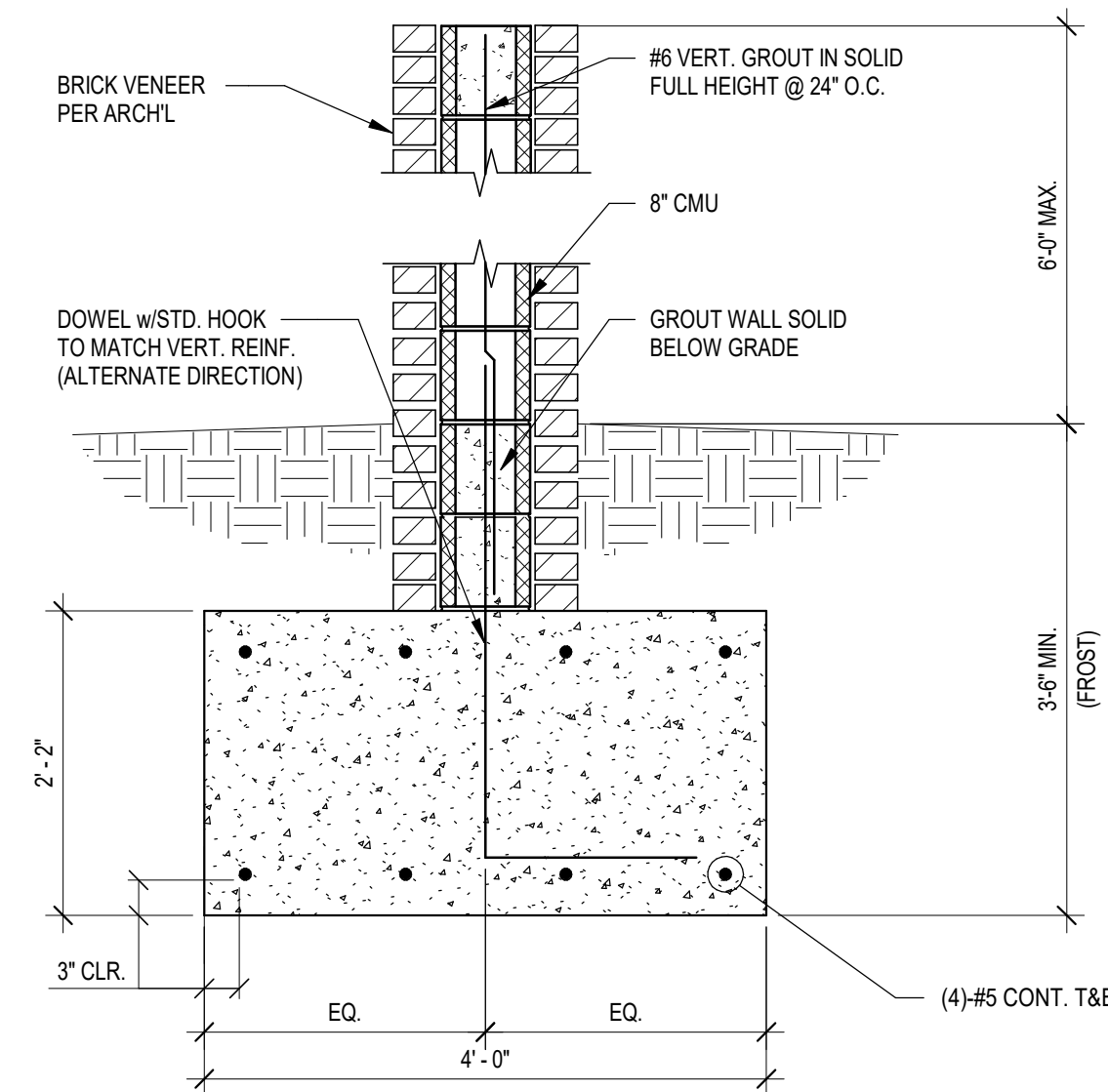


**TYPICAL FOOTING STEP DETAIL** 3/4"=1'-0" **4**



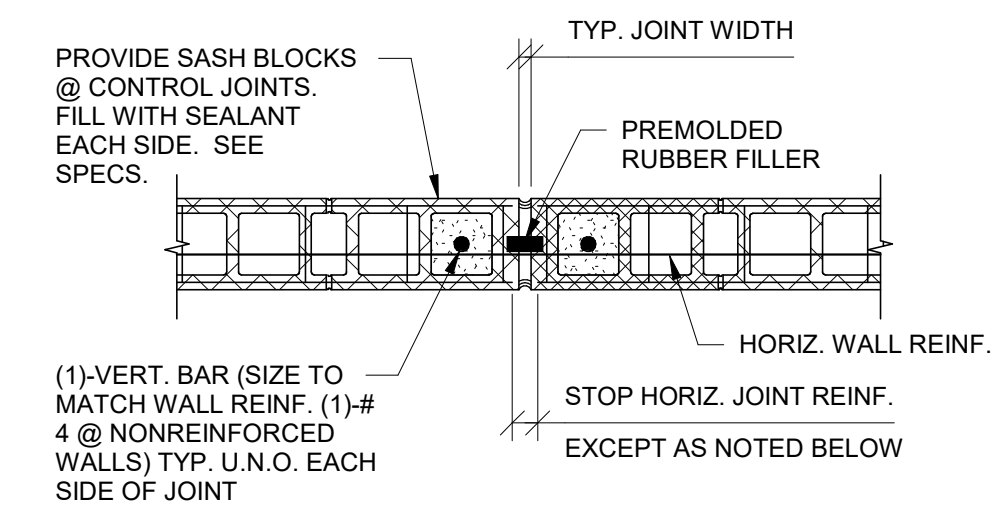
**NOTES:**  
- PROVIDE (2) - VERTICAL BARS AT ALL CORNERS.  
- ALL INTERSECTING MASONRY CORNERS SHALL BE TIED BY MASONRY BOND BEAM.

**TYP. MASONRY REINFORCING DETAIL** 3/4"=1'-0" **1**



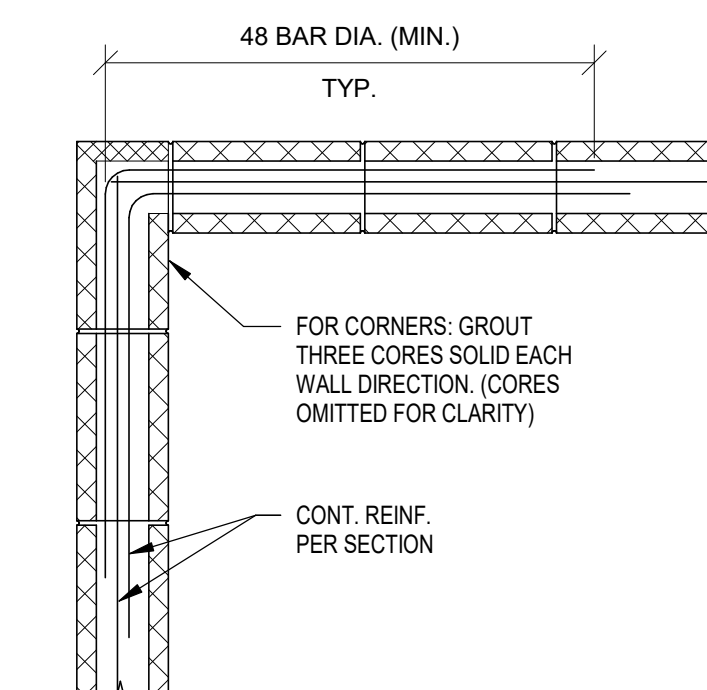
**SECTION** 3/4"=1'-0" **5**

THESE SECTIONS AND DETAILS SHALL BE USED IN CONJUNCTION WITH THE CIVIL DRAWINGS FOR THE PRIVACY WALL. COORDINATE ALL DIMENSIONS AND THE LOCATIONS WITH THESE DRAWINGS.  
FOR OTHER INFORMATION NTO SHOWN, SEE THE ARCHL DWGS.



**NOTES:**  
1. OBTAIN ARCHITECT'S APPROVAL OF JOINT LOCATIONS.  
2. DO NOT LOCATE JOINT WITHIN REINFORCED ELEMENTS SUCH AS COLUMNS, LINTELS, PIERS, PILASTERS OR OPENING JAMBS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.  
3. MAX. SPACING OF JOINTS: PANEL LENGTH/HEIGHT = 1.5 MAX., 20'-0" MAX.  
4. HORIZONTAL BOND BEAM WALL REINFORCING CONTINUES THROUGH JOINT.

**TYP. MASONRY CONTROL JOINT DETAIL** 3/4"=1'-0" **2**



**TYP. BOND BEAM AT CORNER DETAIL** 3/4"=1'-0" **3**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185



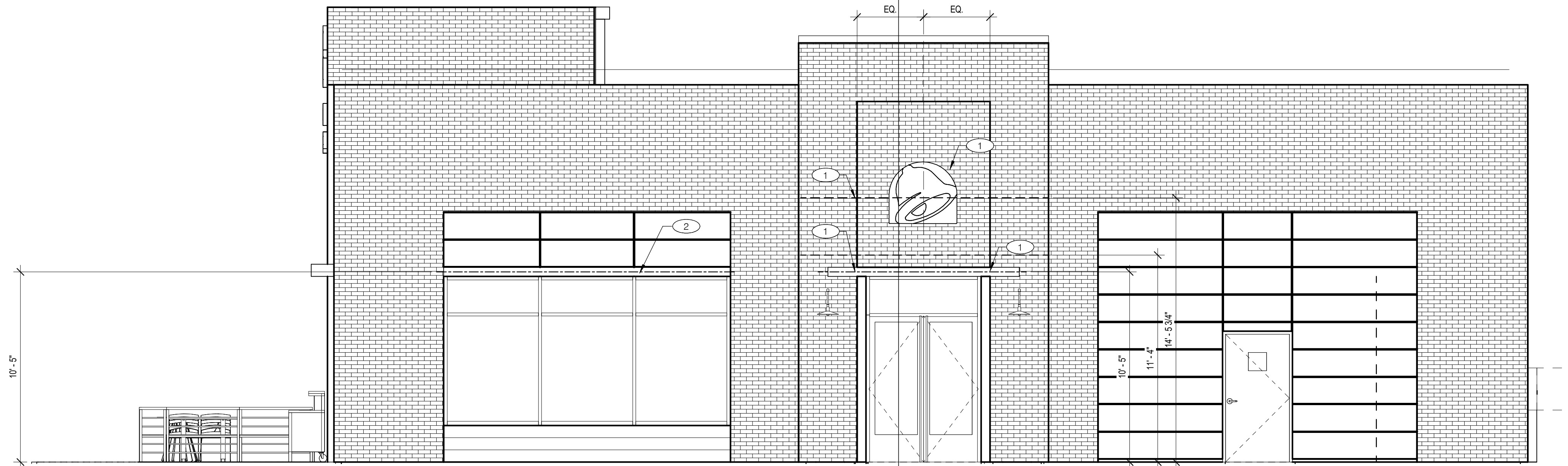
MODERN EXPLORER

**PRIVACY WALL SECTIONS AND DETAILS**

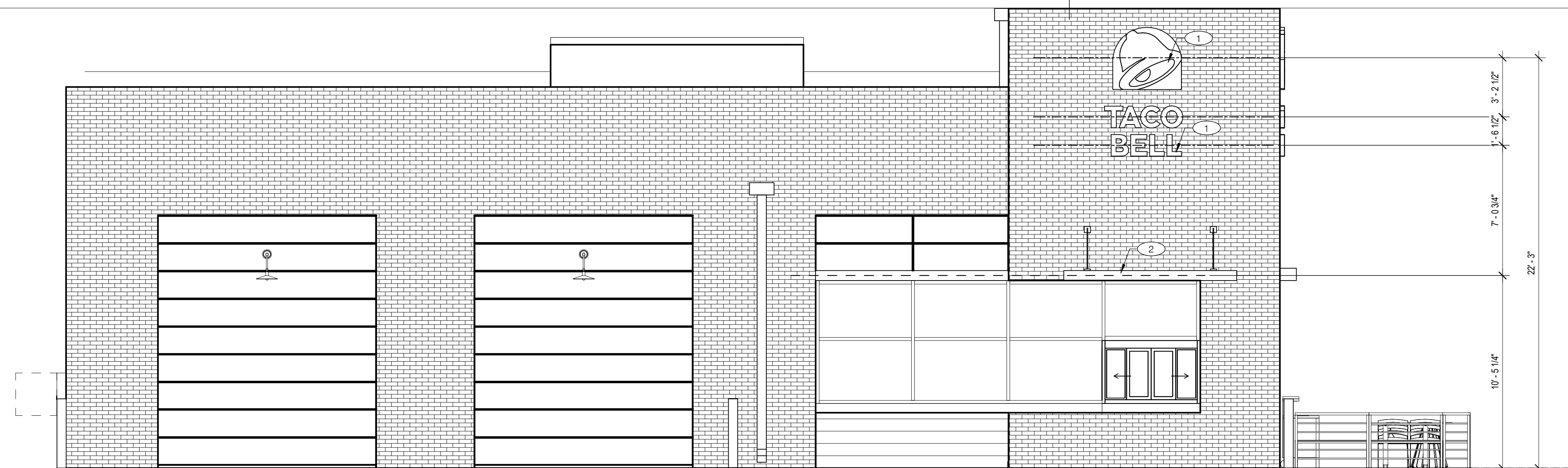
**S4.6**

PLOT DATE: 9/18/2018 8:20:43 AM

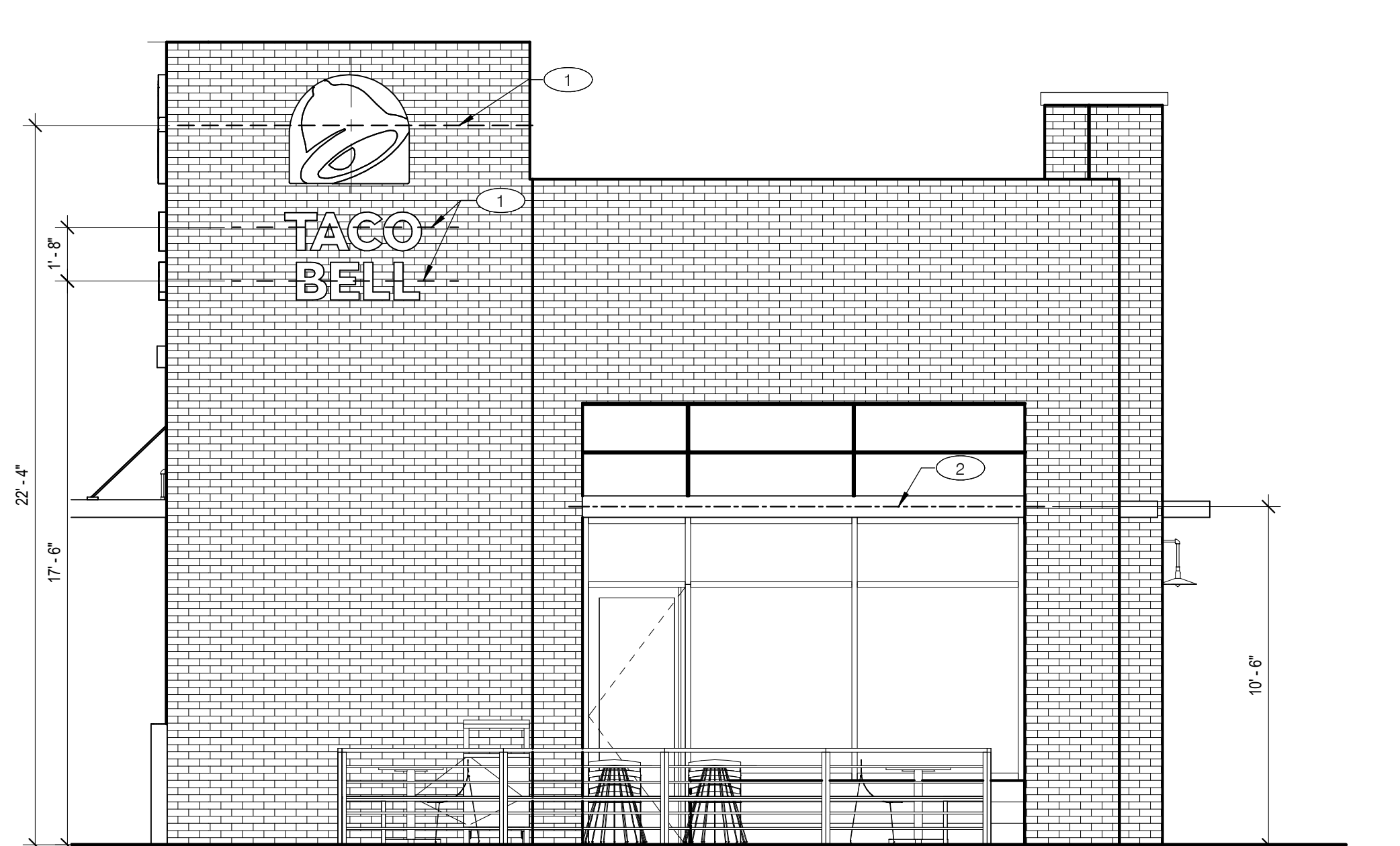




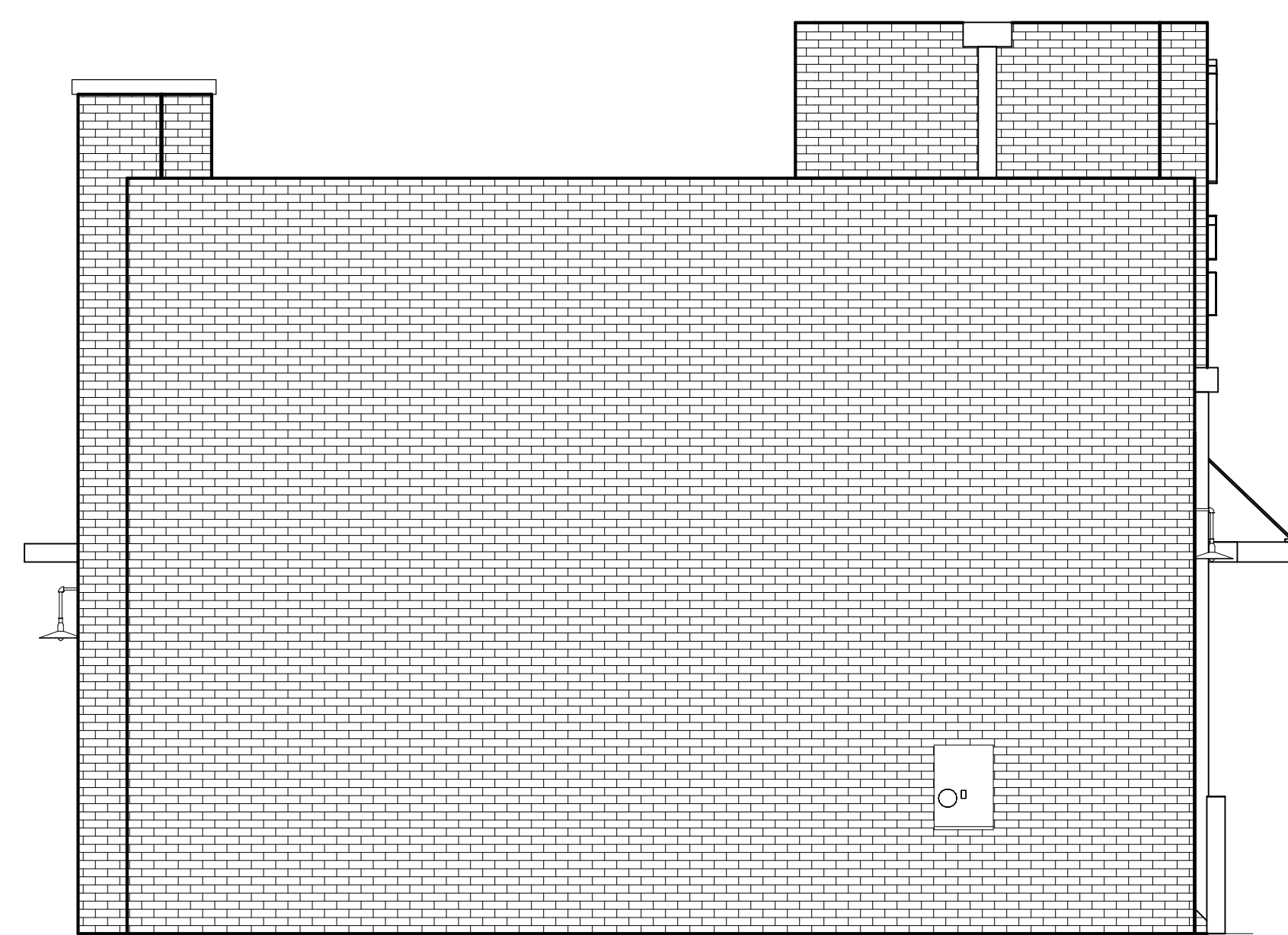
**RIGHT SIDE ELEVATION** 1/4" = 1'-0" **A**



**LEFT SIDE ELEVATION** 1/4" = 1'-0" **B**



**FRONT ELEVATION** 1/4" = 1'-0" **F**



**REAR ELEVATION** 1/4" = 1'-0" **E**

- 1 SOLID BLOCKING FOR FASTENERS AS REQUIRED FOR SIGN MOUNTING. REF. 2/S4.3
- 2 PROVIDE BLOCKING FOR CANOPY TIE BACK. SEE DETAIL 3/S4.3

**KEY NOTES** **C**

1. EXTEND BLOCKING AS REQUIRED TO FIT BETWEEN STUDS.
2. ELEVATION AT BOTTOM OF CANOPIES SHALL BE 10'-2" A.F.F. (U.N.O.).
3. COORDINATE SIGNAGE ELEMENTS AND BLOCKING REQUIREMENTS WITH SIGNAGE VENDOR; SEE SCOPE OF WORK.
4. THIS SHEET IS TO INDICATE BLOCKING REQUIREMENTS FOR AWNINGS & CANOPIES. ADDITIONAL BLOCKING IS REQUIRED FOR OTHER ITEMS AS SHOWN ON OTHER DRAWINGS.
5. COORDINATE ALL LOCATIONS AND ELEVATIONS WITH THE ARCHITECTURAL DWGS.

**GENERAL NOTES** **D**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

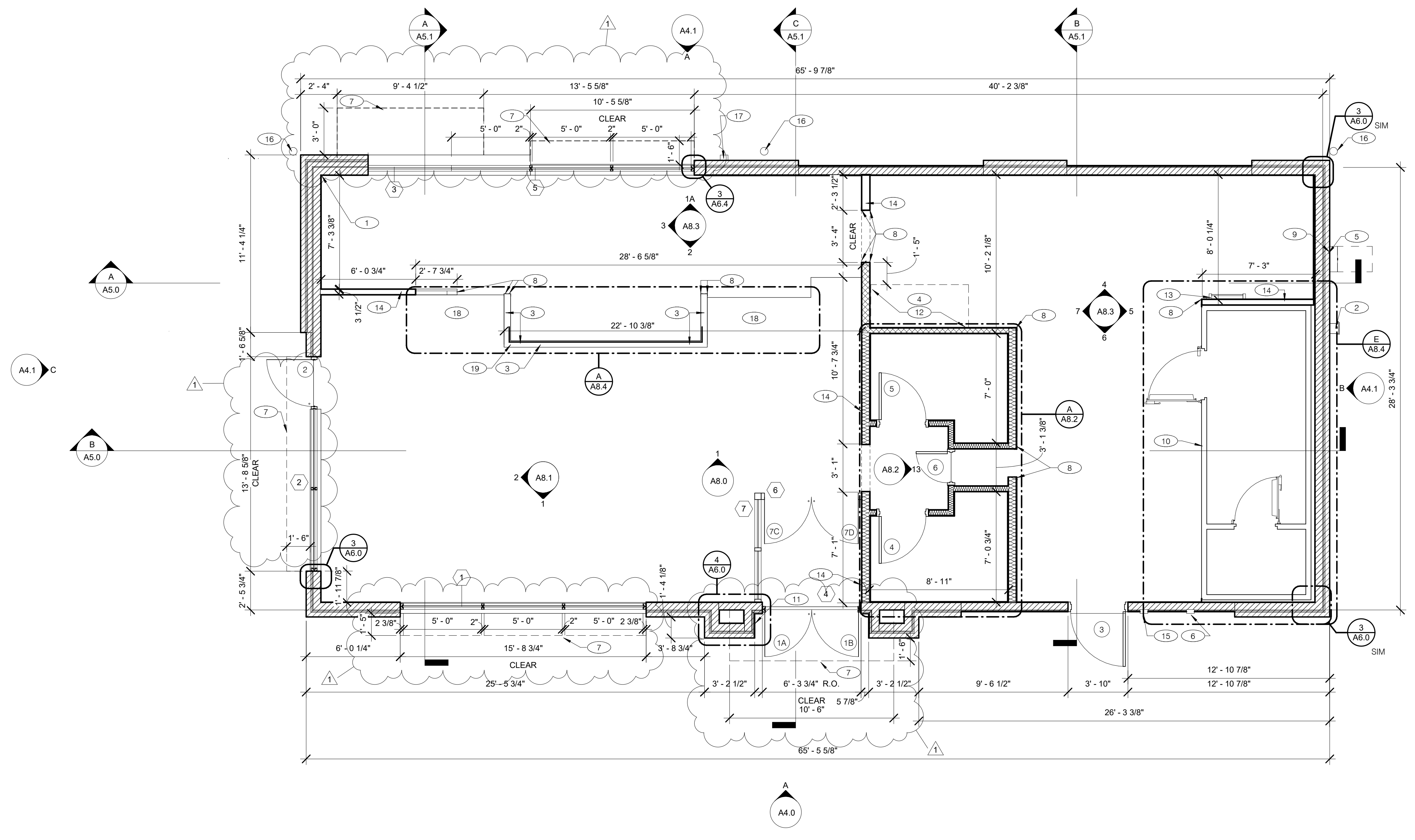


MODERN EXPLORER

**CANOPY/AWNING  
BLOCKING  
ELEVATIONS**

**\$5.0**

PLOT DATE: 9/18/2018 8:20:48 AM



**FLOOR PLAN** 1/4" = 1'-0" **A**

09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
B 06.07.18	CLIENT COMMENTS
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**FLOOR PLAN**

**A1.0**

PLOT DATE: 9/19/2018 8:57:20 AM

**WALL LEGEND**

**TYPICAL EXTERIOR WALL:**  
2x6 WD STUDS AT 16" O.C. W/ SHEATHING AS SCHEDULED (SEE STRUCT. DWGS.) AND R-19 KRAFT-FACED FIBERGLASS BATT INSULATION U.O.N. GC SHALL PROVIDE BLUESKIN VP SELF ADHERED AIR BARRIER

**TYPICAL INTERIOR WALL:**  
2x4 WD STUDS AT 16" O.C. (2x6 OR 2x8 WHERE NOTED) INTERIOR WALLS AND GYP. BD. SEPARATING DINING SPACE WITH OTHER AREAS TO EXTEND TO UNDERSIDE OF TRUSSES U.O.N.

**INTERIOR SOUND-RATED WALL:**  
TYPICAL INTERIOR WALL W/ 3-1/2" UNFACED FIBERGLASS BATT INSULATION.

**HOODWALL:**  
600S162-33 METAL STUD WALL WITH 20 GA. S.S. PANEL BEHIND HOOD. REFER TO DETAIL 1/M3.0 FOR EXTENT OF S.S. PANEL. PROVIDE 3-1/2" UNFACED FIBERGLASS BATT INSULATION.

**WALL SUBSTRATES:**  
- DINING ROOM:  
1/2" GYPSUM WALLBOARD TO 6" ABOVE CEILING OR TO UNDERSIDE OF DECK WHERE EXPOSED SEE 8 & 15 / A6.5. (NOTE: THE CEMENT BOARD SPECIFICATION IS DESIGNED TO ALLOW THE G.C. FLEXIBILITY.)  
- KITCHEN WALLS AND DINING ROOM CLOSET:  
1/2" CEMENT WALLBOARD FROM T.O. SLAB WITH 1/2" CDX PLYWOOD W/FRP SURFACE FINISH TO 6" ABOVE CEILING HEIGHT U.O.N. IF DOUBLE SIDED SHEAR WALL PLYWD IS SPECIFIED THE PLYWOOD SHALL BE CONTINUOUS FROM SILL PLATE TO TOP PLATE. SEE 4 & 11 / A6.5.  
- RESTROOM WALLS:  
5/8" CEMENT WALLBOARD FROM T.O. SLAB TO 48" A.F.F. WITH 5/8" HI-IMPACT BRAND XP WALLBOARD, MOISTURE RESISTANT GYPSUM WALLBOARD FROM T.O. CEMENT BOARD TO 6" ABOVE CEILING HEIGHT U.O.N.. NO SUBSTITUTIONS ALLOWED. FINISH AS SCHEDULED. SEE 12 / A6.5.  
- ALL OTHER FRAME WALL CONDITIONS:  
1/2" CEMENT WALLBOARD FROM T.O. SLAB TO 48" A.F.F., WITH 1/2" GYPSUM WALLBOARD FROM T.O. CEMENT BOARD TO 6" ABOVE CEILING HEIGHT U.O.N. FINISH AS SCHEDULED.

**FLOOR PLAN NOTES**

**DIMENSIONS:**  
A. ALL DIMENSIONS ARE TO FACE OF STUD U.O.N. REFER TO FOUNDATION PLAN FOR FACE OF CONC. DIMENSIONS.  
B. DIMENSIONS NOTED AS 'CLEAR' OR 'HOLD' ARE MIN. RECD. NET CLEARANCE FROM FACE OF WALL / WAINGSCOT FINISH. VERIFY FINAL EQUIPMENT SIZES W/ VENDOR PRIOR TO INT. WALL FRAMING.

**WINDOWS / DOORS:**  
A. SEE SHT. A1.1 FOR WINDOW TYPES AND DOOR SCHEDULE.  
B. ALL DOOR AND WINDOW OPENING DIMENSIONS ARE TO ROUGH OPENING.

**FINISH SUBSTRATES:**  
A. PROVIDE 1/2" THICK CEMENTITIOUS BD. FROM FLOOR SLAB TO 48" A.F.F. MIN. IN LIEU OF GYP. BD. AT ALL WALLS EXCEPT SHEARWALL SURFACES, U.O.N.  
B. ALL JOINTS, GAPS OR SPACES LEADING TO ALL HOLLOW OR INACCESSIBLE SPACES SHALL BE SEALED WITH 'NSF INTERNATIONAL' APPROVED SEALANTS.  
C. ALL BACK OF HOUSE AND OFFICE WALLS SHALL HAVE 1/2" CDX PLYWOOD SUBSTRATE, U.O.N.

**GENERAL:**  
A. PROVIDE THREE FIRE EXTINGUISHERS - (2) 10 lb. BC and (1) 10 lb. ABC - TO COMPLY WITH LOCAL FIRE CODE. LOCATE PER DIRECTION OF FIRE MARSHALL OR LOCAL AUTHORIZING AGENT.  
B. DRAWINGS ARE BASED UPON WOOD FRAMING. UTILIZATION OF METAL STUDS ON NON-BEARING INTERIOR PARTITIONS, BULKHEADS AND SOFFITS IS ACCEPTABLE. MAINTAIN DIMENSIONS

- PLAN KEYNOTES** N.T.S. **B**
- 1 STARTING POINT. ALL SUB-TRADES SHALL USE THIS POINT AS A BEGINNING LAY-OUT (INSIDE FACE OF EXT. WALL STUDS).
  - 2 GAS SERVICE.
  - 3 LOW WALL BY G.C., SEE DETAILS ON A8.3. COORDINATE WITH STRUCTURAL DRAWINGS.
  - 4 HOOD WALL. SEE EQUIPMENT PLAN A2.0 AND SCHEDULE A2.1
  - 5 ELECTRICAL MAIN SWITCH BOARD. REFER TO ELECT. DWGS.
  - 6 CO2 FILL BOX LOCATION. SEE DETAIL 5/A6.1
  - 7 LINE OF AWNING ABOVE (BY SIGNAGE VENDOR)
  - 8 S.S. CORNER GUARD / WALL CAP. TYP. ALL CORNERS IN BACK-OF-HOUSE FROM REAR WALL TO THE KITCHEN SIDE OF THE SERVICE COUNTER. SEE DETAIL 13&14/A6.5
  - 9 SWITCHGEAR / ELECTRIC PANELS. SEE ELECTRICAL DRAWINGS.
  - 10 PRE-ENGINEERED MODULAR PANEL WALK-IN BOX (COOLER AND FREEZER). SITE ASSEMBLED. SEE EQUIPMENT PLAN A2.0
  - 11 KNOX BOX ON SIDE WALL @ 5'-0" A.F.F.
  - 12 NON-COMBUSTIBLE METAL STUD CONSTRUCTION WITH TYPE 'X' GYP BOARD BEHIND HOOD. EXTEND MIN. 18" PAST HOOD ON EACH SIDE
  - 13 ROOF LADDER. SEE DETAIL E/8.3
  - 14 FULL HEIGHT WALL TO EXTEND TO BOTTOM OF THE ROOF DECK
  - 15 HOSE BIB BOX AT 18" A.F.F. SEE DETAIL 7/A6.1
  - 16 PIPE BOLLARD, SEE CIVIL DRAWINGS
  - 17 4"x6" ALUMINUM DOWN SPOUT
  - 18 POS COUNTER / V-LINE HALF-WALL AND HAND-OFF PLANE BY GC
  - 19 ROUTE 1 1/2" CONDUIT IN LOW WALL FROM CHEESE MELTER LOCATION TO CUSTOMER DRINK STATION FOR FILTERED WATER CONNECTION.

**WALL LEGEND**

**FLOOR PLAN NOTES** **C**

**PLAN KEYNOTES** N.T.S. **B**



- DIMENSIONS ON THIS DWG. ARE TO FRAME EDGE. REFER TO SHEETS A1.0 AND A5.0- A5.3 SHEETS FOR ROUGH OPENING DIMENSIONS.
- ALL STOREFRONT AND DRIVE-THRU WINDOW FRAMES SHALL BE DARK BRONZE. DRIVE THRU WINDOW <B-140> SHALL BE DARK BRONZE.
- ALL STOREFRONT GLAZING TO BE THERMALLY BROKEN.
- SEE SCHEDULE FOR GLASS TYPES.
- REFER TO FLOOR PLAN, ELEVATIONS AND WALL SECTIONS FOR ROUGH OPENING DIMENSIONS.
- ALL STOREFRONT MATERIAL AND GLAZING SHALL BE SUPPLIED AND INSTALLED BY G.C. U.O.N.
- ALL TEMPERED GLAZING SHALL BE IDENTIFIED BY A LABEL SPECIFYING THE LABELER, WHETHER THE MANUFACTURER OR INSTALLER, AND THE SAFETY GLAZING STANDARD WITH WHICH IT COMPLIES. THE LABEL SHALL BE ACID ETCHED, SAND BLASTED, CERAMIC FIRED, OR AN EMBOSSED MARK, WHICH ONCE APPLIED CANNOT BE REMOVED WITHOUT BEING DESTROYED.

- LAMINATE DOORS 4, 5, & 6 AND PAINT FRAMES 4, 5, & 6. SEE FINISH SCHEDULE. SHEET A7.2.
- ALL HARDWARE SHALL BE US32D U.O.N.
- ALL HM FRAMES SHALL BE 16 GA STEEL U.O.N.
- ALL LOCKS SHALL BE FALCON 6 PIN INTERCHANGEABLE CORE SUPPLIED AND INSTALLED BY THE G.C. ALL EXTERIOR LOCKS SHALL BE PROVIDED WITH CONSTRUCTION CORES. ALL PERMANENT CORES SHALL BE KEVED ALIKE. PERMANENT CORES SHALL BE SHIPPED TO THE RESTAURANT GENERAL MANAGER.
- MOUNT DOOR CLOSERS ON RESTROOM OR KITCHEN SIDE ONLY. COMPLETE DOOR, FRAME AND HARDWARE PACKAGE INCLUDING: VISION PANEL (WITH 18 GA. HOLLOW METAL FRAME), CONTINUOUS HINGE, HEAVY DUTY CLOSER, RAIN DRIP, DOOR BOTTOM/ SWEEP, WEATHERSTRIP, KICKPLATE AND PANIC HARDWARE. PROVIDED BY RSCS FACILITIES CONNECTIONS.
- PROVIDE PUSH/ PULL PLATES. IF REQUIRED BY LOCAL CODE, STOREFRONT DOOR PANIC HARDWARE SHALL BE : DOR-O-MATIC 2092 RIM PANIC HARDWARE AND EXTERIOR PULLS WITH QUALITY #520 DOOR PULL.
- MOUNT KICKPLATE ON PUSH SIDE ONLY.
- MAXIMUM DOOR OPERATING PRESSURE : 5 LBS INTERIOR : 15 LBS EXTERIOR.
- ADA COMPLIANT ACCESSIBILITY SIGNAGE WHERE REQUIRED (OR AS REQUIRED BY LOCAL JURISDICTION) - (1) MEN; (1) WOMEN; (3) EXIT
- INSTALL WITH REMOVABLE DOOR STOPS AND WEATHER STRIPS.
- PROVIDE LATCH AND STRIKE PLATE HARDWARE BY DOOR MFR. TO BE COMPATIBLE WITH LOCKS.
- PROVIDE MANUFACTURER'S INTEGRAL ASTRAGAL GC TO TRIM DOOR SWEEP TO FIT DOOR

**NATIONAL ACCOUNT SUPPLIER**

INTERIOR DOORS, FRAMES & HARDWARE

LOCKNET  
CONSTRUCTION@LOCKNET.COM  
800 JOHN C WATTS DRIVE  
NICHOLASVILLE, KY 40356  
800-887-4307 FAX : 859-887-4958

**GLASS SCHEDULE**

- (A) 1" INSULATED GLASS
- (B) 1" INSULATED TEMPERED GLASS
- (C) 1/4" TEMPERED GLASS
- (D) SAFETY GLASS BY MFR.
- (E) 1" TINTED GLASS - 3M WINDOW FILM PRESTIGE PR70

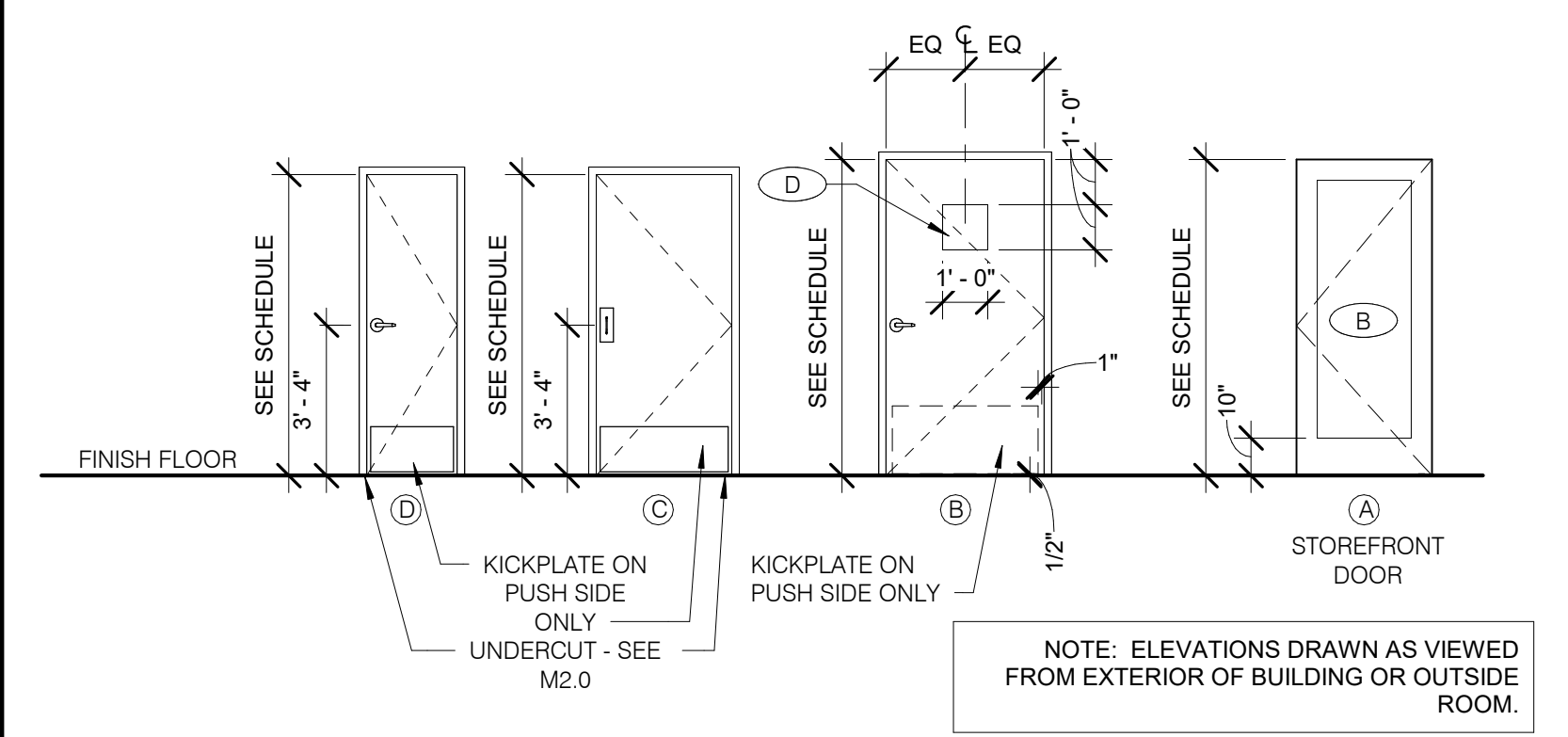
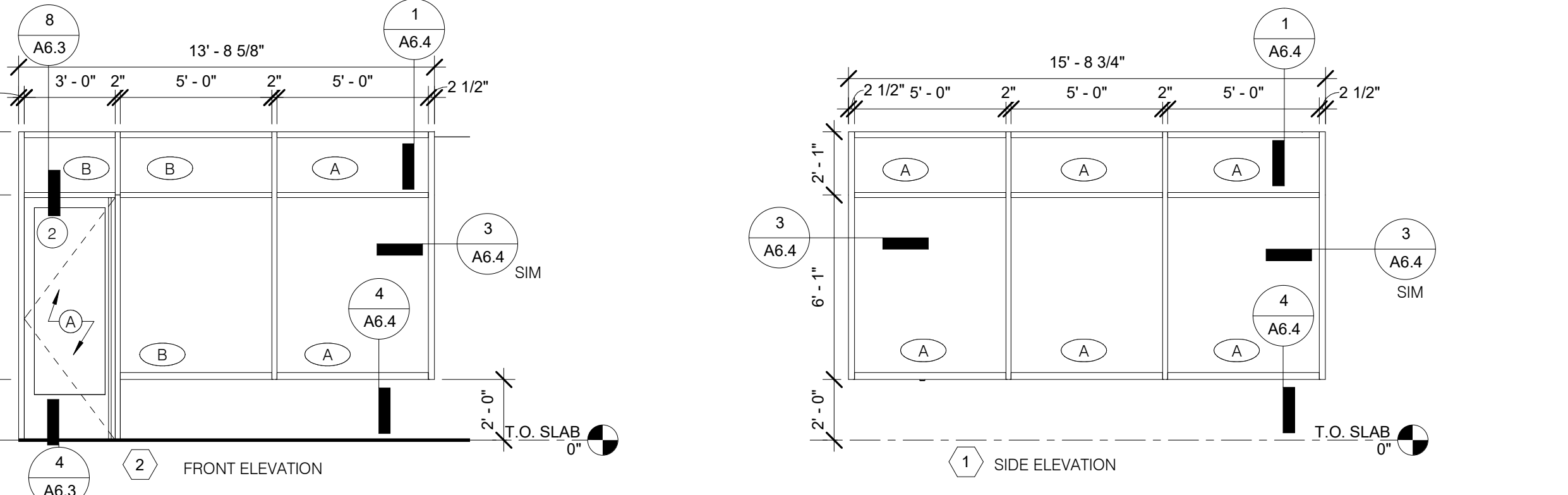
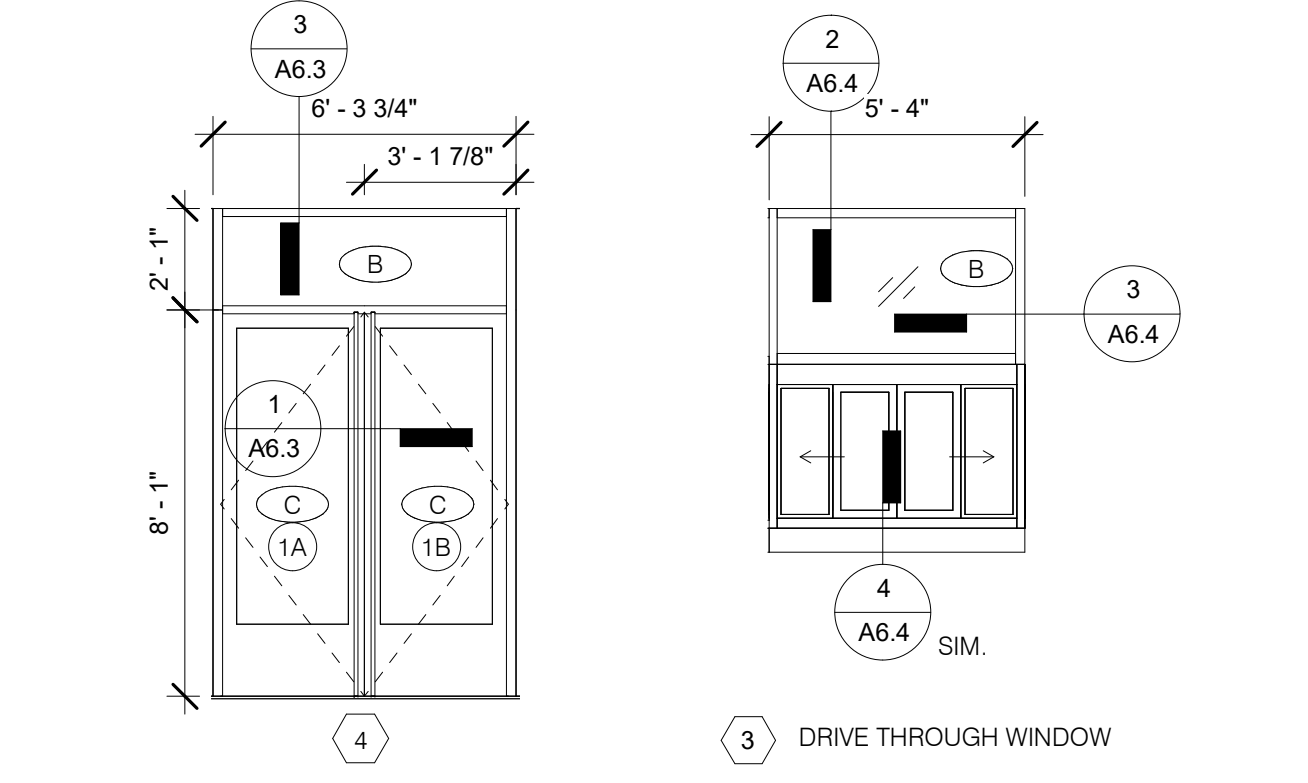
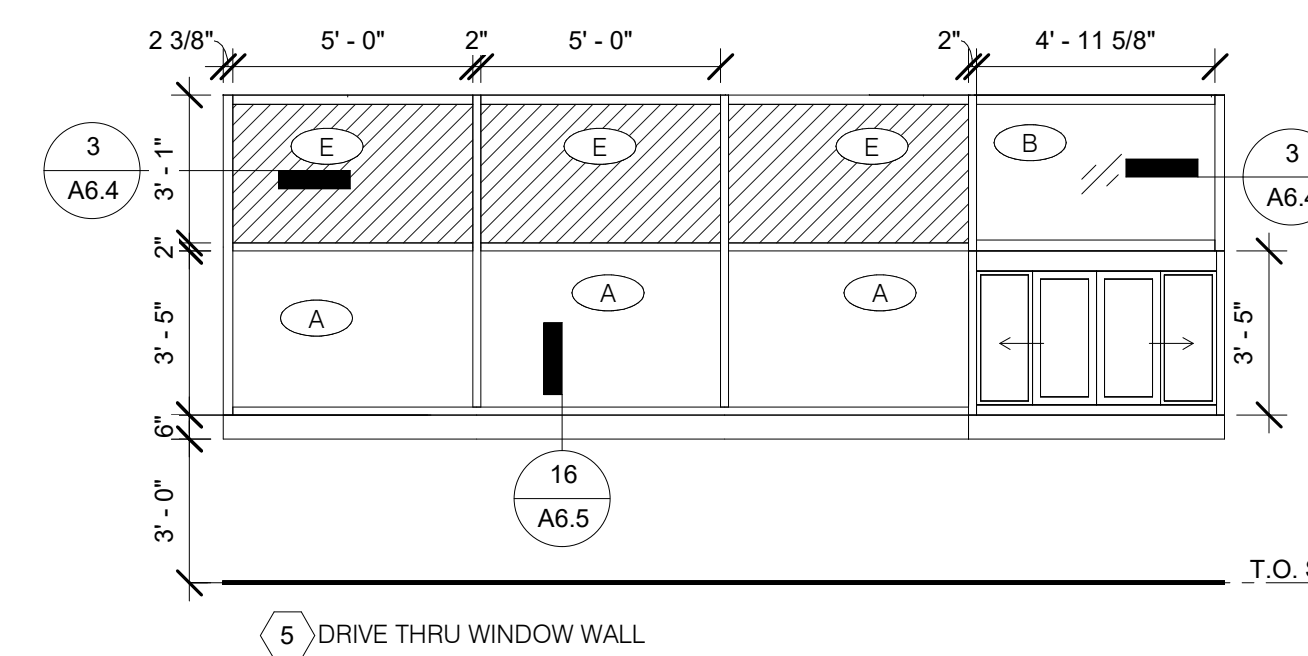
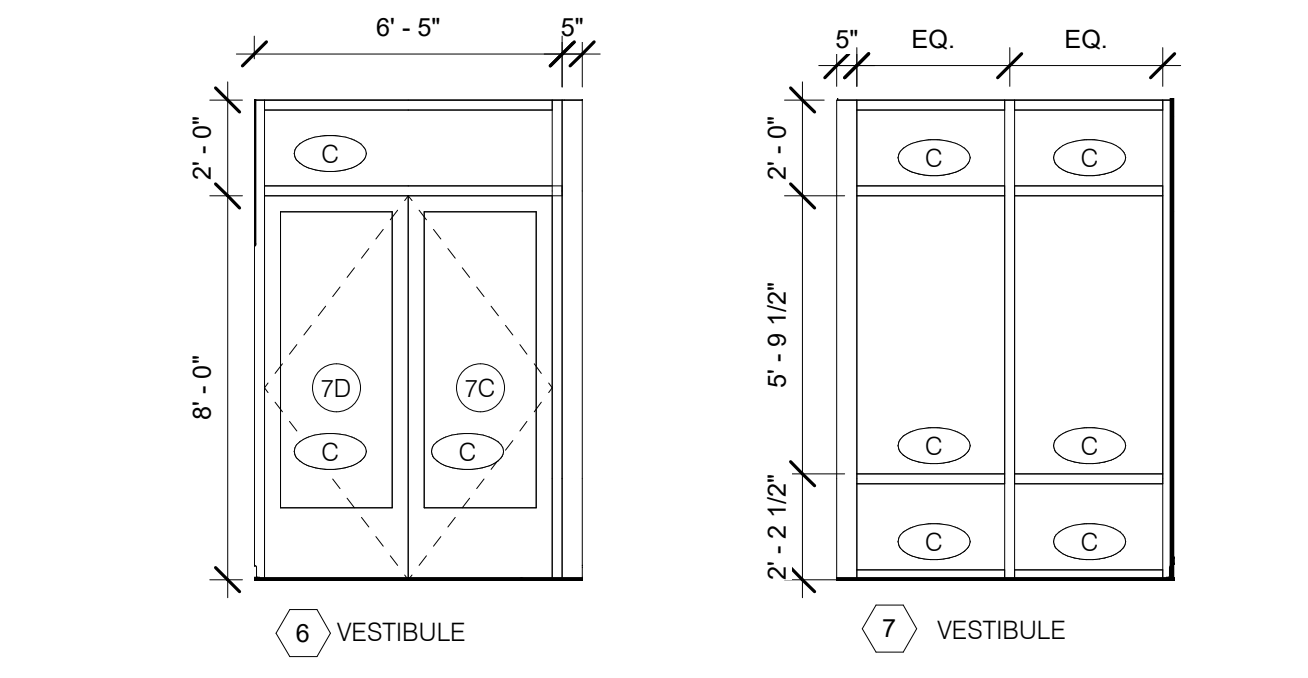
NOTE:  
SHADING COEFFICIENT SPECIFICATION PER LOCAL CODE REQUIREMENTS. DAYTIME VISIBILITY INTO DINING ROOM SHALL BE MAINTAINED.



\*\*\*\* ALL STOREFRONT GLAZING SHALL BE LOW 'E' SOLAR GLASS \*\*\*\*

**DOOR SCHEDULE NOTES** N.T.S. **1**

DOOR NO.	NAME	WIDTH	HEIGHT	THICKNESS	TYPE	DOOR	FRAME	BUTTS	LOCKS	CLOSERS	KICKPLATE	THRESHOLD	DOOR STOP	MISCELLANEOUS			DETAIL LOCATIONS			DOOR NOTES		
														X	X	X	HEAD	JAMB	SILL			
1A	ENTRY	3'-0"	8'-0"	1 3/4"	A	AL	AL	X						X	X	X						DOOR AND FRAME - DARK BRONZE FINISH - 4, 5, 7, 8, 10, 13, 15
1B	ENTRY	3'-0"	8'-0"	1 3/4"	A	AL	AL	X	X	X				X	X	X						DOOR AND FRAME - DARK BRONZE FINISH - 4, 5, 8, 10, 13, 15
2	DINING	3'-0"	8'-0"	1 3/4"	A	AL		X						X		X						DOOR AND FRAME - DARK BRONZE FINISH - 4, 5, 7, 8, 10, 13, 15
3	BOH	3'-6"	7'-0"	1 3/4"	B	HM	HM	X	X					X	X							DL-1 LAMINATE FINISH - 1, 2, 3, 4, 6, 9, 10, 11, 14
4	MENS RESTROOM	3'-0"	6'-8"	1 3/4"	C	WD	HM	X						X	X							DL-1 LAMINATE FINISH - 1, 2, 3, 4, 6, 9, 10, 11, 14
5	WOMENS RESTROOM	3'-0"	6'-8"	1 3/4"	C	WD	HM	X	X					X	X							DL-1 LAMINATE FINISH - 1, 2, 3, 4, 6, 9, 10, 11, 14
6	CLOSET	2'-0"	6'-8"	1 3/4"	D	WD	HM	X						X								DL-1 LAMINATE FINISH - 1, 2, 3, 10, 14
7C	VESTIBULE	3'-0"	8'-0"	1 3/4"	A	AL		X						X								DOOR AND FRAME - DARK BRONZE FINISH - 4, 5, 7, 8, 10, 13, 15
7D	VESTIBULE	3'-0"	8'-0"	1 3/4"	A	AL		X						X								DOOR AND FRAME - DARK BRONZE FINISH - 4, 5, 7, 8, 10, 13, 15



**WINDOW TYPES** 1/4" = 1'-0" **5**

**DOOR TYPES** **3**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

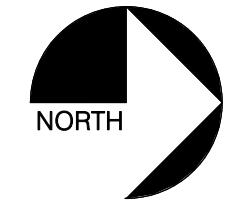
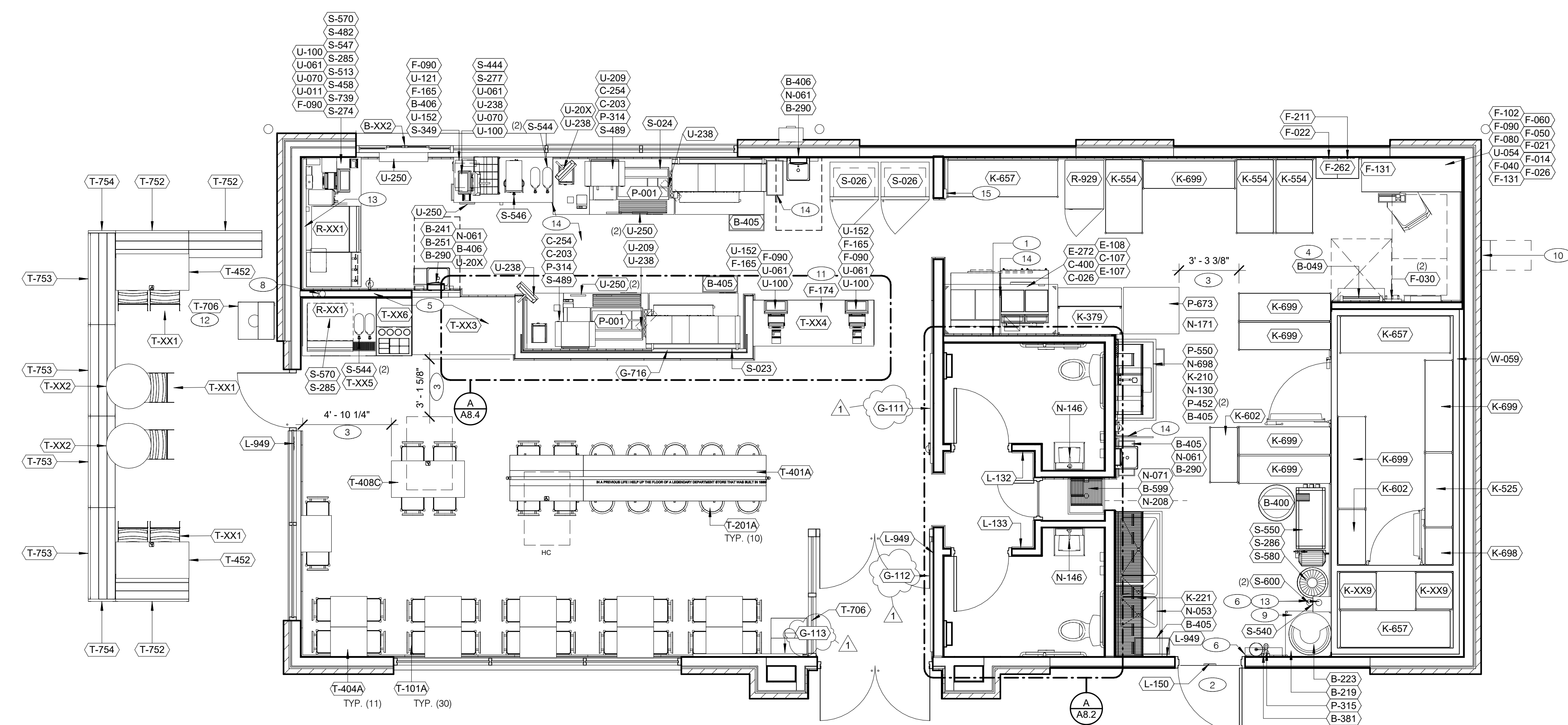
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**DOOR AND WINDOW ELEVATIONS & SCHEDULES**

**A1.1**

PLOT DATE: 9/17/2018 2:28:15 PM



09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
B 06.07.18	CLIENT COMMENTS
A 05.24.18	HEALTH COMMENTS

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**EQUIPMENT/ SEATING PLAN** 1/4" = 1'-0" **A**

SYM.	QTY.	ITEM
T-101A	30	CHAIR - WOOD SEAT/ METAL BACK
T-201A	10	29" BARREL BARSTOOL
T-401A	1	HUB TABLE VENEER (WHITE INLAY)
T-404A	11	24" X 20" TABLE TOP AND ROUND BASE
T-408C	1	24" X 48" TABLE TOP AND DOUBLE BASE - ADA (CENTER)
T-706	1	SINGLE TRASH ENCLOSURE
T-XX3	1	55" HAND OFF PLANE
T-XX4	1	POS COUNTER BY IDX
T-XX5	1	SAUCE AND SODA TABLE BY IDX
T-XX6	1	CONDIMENT CONSOLE

**FURNITURE PACKAGE E**

EQ#	QOUNT	DESCRIPTION	ORDERING NO.
G-111	1	SQUARE PATTERN	G-112-X-01-28X40
G-112	1	SQUARE PATTERN	G-113-X-00-12X54
G-113	1	SQUARE PATTERN	G-111-X01-72X72
G-716	1	V-LINE ARTWORK - CRUNCH WRAP	G-716-1-N/A.62:375X39.5

**ARTWORK SCHEDULE D**

SQUARE FOOTAGES:		SEATING:	
FOH	732 SF	INTERIOR	40
BOH	937 SF	*EXTERIOR	12
<b>TOTAL</b>	<b>1,669 SF</b>	<b>*TOTAL</b>	<b>52</b>

\* SEATING COUNTS MAY VARY DEPENDING ON THE PATIO OPTION SELECTED.

SHELVING QUANTITIES		
STORAGE TYPE	REQUIRED	PROVIDED
DRY	46 LF	46 LF
COLD	25 LF	25 LF
FROZEN	10 LF	10 LF

**GENERAL INFORMATION N.T.S. C**

- 1 HOOD FIRE SUPPRESSION SYSTEM (ANSUL R-102 OR EQUAL)
- 2 SEE SHEET A1.1 FOR SECURITY DOOR PACKAGE
- 3 MAINTAIN 36" MIN CLEAR AISLE EGRESS PATHS TO EXIT DOORS
- 4 ROOF LADDER
- 5 COORDINATE WATER LINE THROUGH LOW COUNTER TO V-LINE
- 6 BACKFLOW PREVENTER, SEE PLUMBING DRAWINGS
- 7 NOT USED.
- 8 COORDINATE LOCATION OF HORIZ PVC SYRUP CHASE THROUGH WALL TO COUNTER
- 9 6" HIGH WATER HEATER PLATFORM
- 10 STANDARD SWITCHGEAR / ELECTRIC PANELS
- 11 SAFE
- 12 GC TO ENSURE EXTERIOR TRASH CAN ENCLOSURES ARE BOLTED TO FLOOR
- 13 6" PVC THRU CEILING FOR SYRUP LINES
- 14 SPLASH GUARD (REF. DETAIL 9/A6.5)
- 15 ALERT LIGHT BOX FOR 3-COMP POWER SOAK

**EQUIP SEATING KEYNOTES N.T.S. B**

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185



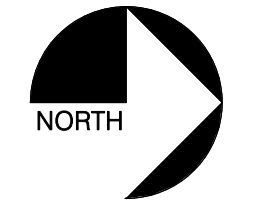
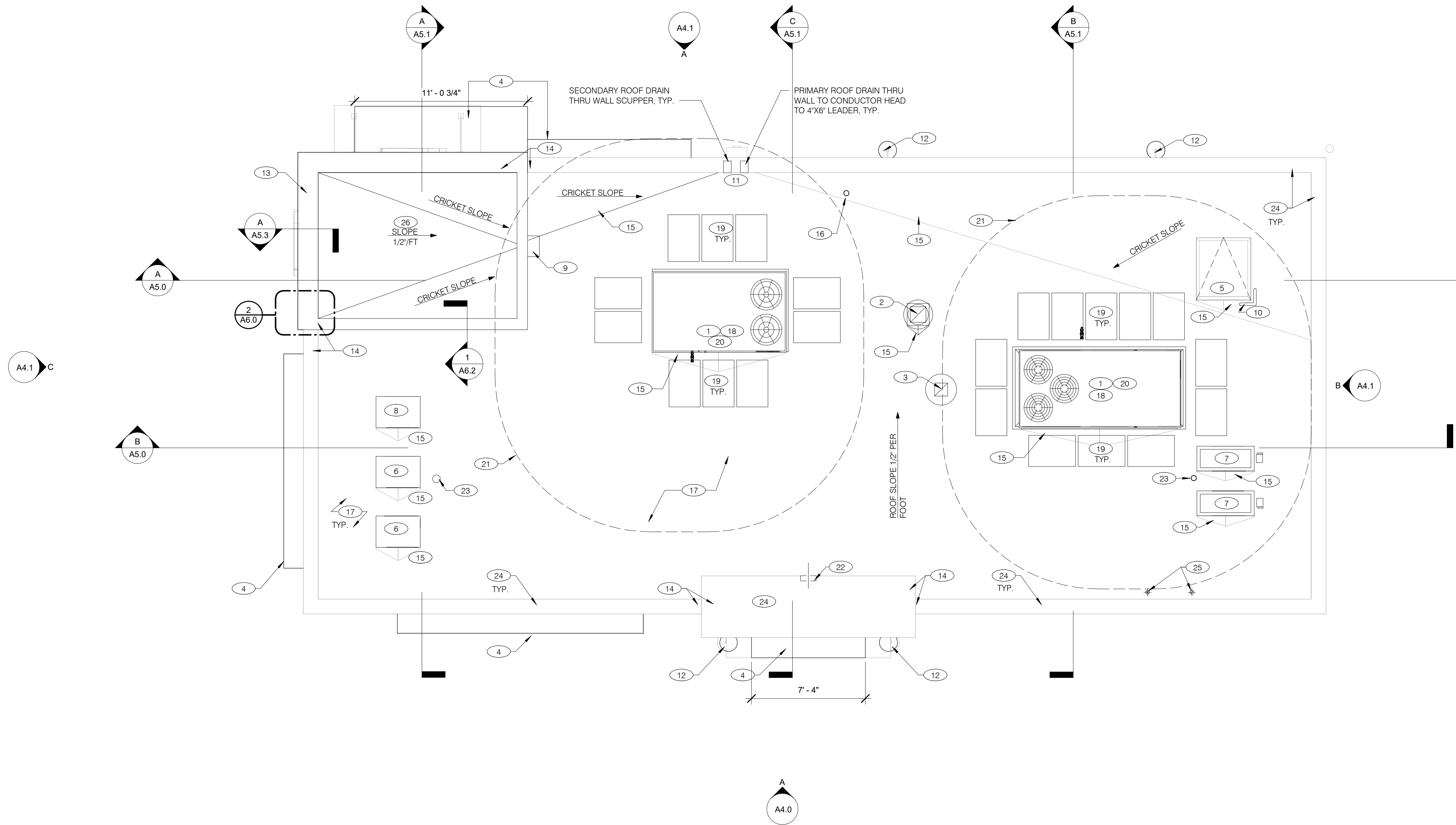
**EQUIPMENT/ SEATING PLAN**

**A2.0**

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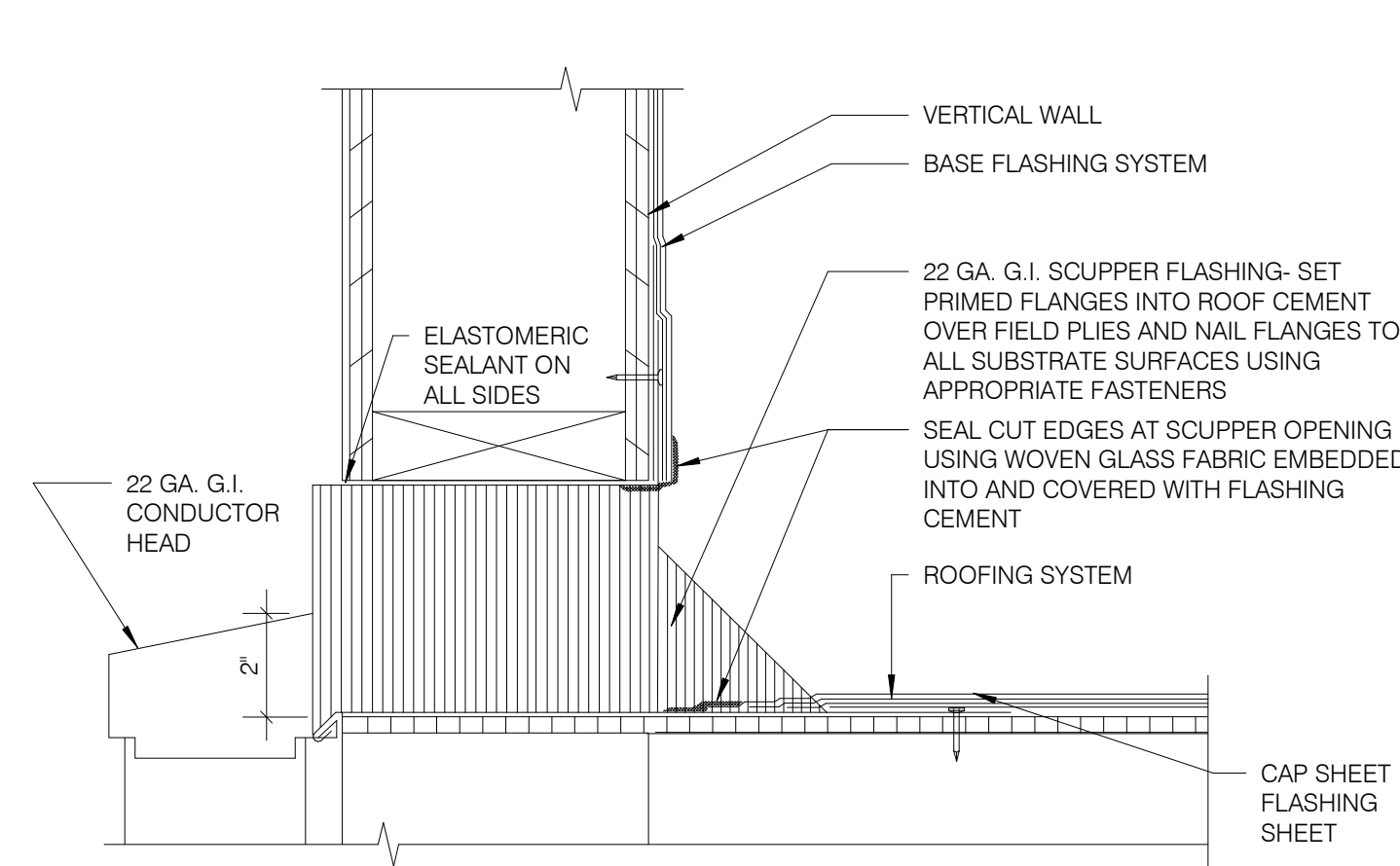




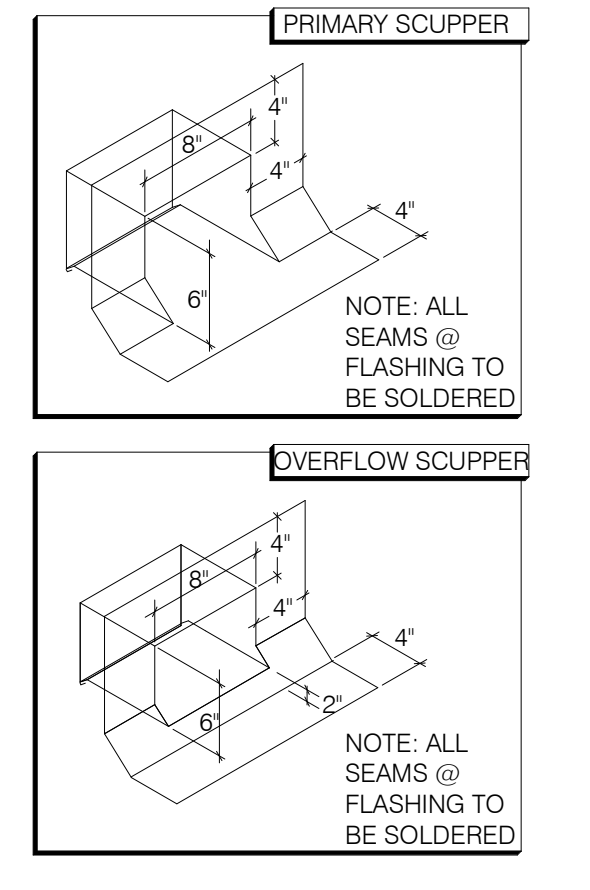
09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

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



**SCUPPER FLASHING** N.T.S. **D**



**ROOF PLAN NOTES** **C**

**WATERPROOFING:**  
A. PAINT UNDERSIDE OF PARAPET CAP FLASHING WITH FACTORY BONDED PAINT GRIP OR PRIMER.  
B. TOP NAILING AT PARAPET CAP FLASHING WILL NOT BE ACCEPTED.  
C. PENETRATIONS IN ROOFING MEMBRANE AND FLASHING SHALL ONLY BE MADE AS INDICATED ON THE DRAWINGS OR SPECS.  
D. SEE SPECIFICATIONS FOR SEALANT SPECS.  
E. ALL SHEET METAL FLASHING SHALL BE 22 GA MIN.

**MISCELLANEOUS:**  
A. ROOF PENETRATIONS CLOSER THAN 12" FROM ANOTHER WILL NOT BE ALLOWED.  
B. EXHAUST FANS MIN. 10'-0" AWAY FROM ALL AIR INTAKE / SUPPLY.  
C. LOCATE WALK-IN CONDENSERS ON ROOF ONLY IF REQUIRED BY CODE.

**ROOF PLAN KEY NOTES** N.T.S. **B**

- (1) ROOFTOP UNIT. INSTALL PLUMB AND LEVEL
- (2) KITCHEN HOOD EXHAUST FAN. SEE SHEETS M3.0 & DETAIL 7/A6.2
- (3) RESTROOM EXHAUST FAN. SEE DETAIL M2.1
- (4) CANOPY BELOW
- (5) ROOF HATCH. SEE DETAIL 4/A6.2
- (6) ICE MACHINE CONDENSERS ON EQUIPMENT PLATFORM. REF. 10/A6.2
- (7) WALK-IN COOLER / FREEZER CONDENSERS. SEE SCOPE OF WORK SHEET
- (8) FROZEN BEVERAGE MACHINE CONDENSER ON EQUIPMENT PLATFORM. REF. 10/A6.2
- (9) SCUPPER AND DOWNSPOUT TO ROOF BELOW. SEE DETAIL D/A3.0
- (10) ROOF LADDER EXTENSION HANDLE BY MANUFACTURER OF ROOF HATCH
- (11) SCUPPER AND DOWNSPOUT. SEE DETAIL D/A3.0
- (12) EXTERIOR LIGHT FIXTURES
- (13) BRICK TOWER
- (14) CHANGE IN PARAPET ELEVATION SEE DETAIL 2/A6.1
- (15) ROOF CRICKET. SEE DETAIL 11/A6.2
- (16) WASTE VENT THROUGH ROOF. THE TOP OF THE WASTE VENTS SHALL BE 12" HIGHER THAN THE CLOSEST PARAPET CAP U.N.O. OR NOT ALLOWED BY LOCAL JURISDICTION. SEE 5/A6.2 FOR FLASHING ASSEMBLY.
- (17) 'DURO-LAST' SINGLE PLY ROOF MEMBRANE OVER R-30 MIN. RIGID INSULATION BOARD ON 5/8" EXTERIOR GRADE PLYWOOD OVER TRUSSES. INSTALL PER MANUFACTURER'S SPECIFICATIONS
- (18) POWER / GAS / CONDENSATE ENTRY UNDER HVAC UNIT (PER HVAC MFR. SPECS.) REFER TO MECH. AND PLUMB DWGS. UTILITY ACCESS FROM WITHIN CURB - NO ROOF PENETRATIONS. DO NOT RUN ON ROOF SURFACE. SEE PLUMBING DRAWINGS.
- (19) 24X36 WALK MATS. SEE ROOF SPECS.
- (20) MAINTAIN MANUFACTURER'S ROOFTOP MAINTENANCE CLEARANCES
- (21) OUTSIDE AIR INTAKE FOR ROOFTOP UNIT. MAINTAIN MIN 10'-0" SEPARATION FROM PLUMBING VENTS, FLUES, AND BUILDING EXHAUST
- (22) 12" X 12" WHITE ALUMINUM LOUVER STYLE GABLE VENT WITH FIBERGLASS INSECT SCREEN. MOUNT HIGH
- (23) PIPE HOOD. SEE DETAIL 6/A6.2
- (24) FACTORY PAINTED METAL PARAPET CAP. SEE DETAIL 3/A6.2. GC TO ENSURE PARAPET CAP IS WEATHER PROTECTED
- (25) WATER HEATER EXHAUST/INTAKE COMBO. SEE DETAIL 8/A6.2 FOR BRACING. MAINTAIN MIN. 10'-0" FROM NEAREST POINT OF RTU INTAKE
- (26) COORDINATE ROOF CRICKETS AND DRAINAGE WITH SCUPPER AND DRAIN TO MAIN ROOF

**TACO BELL**  
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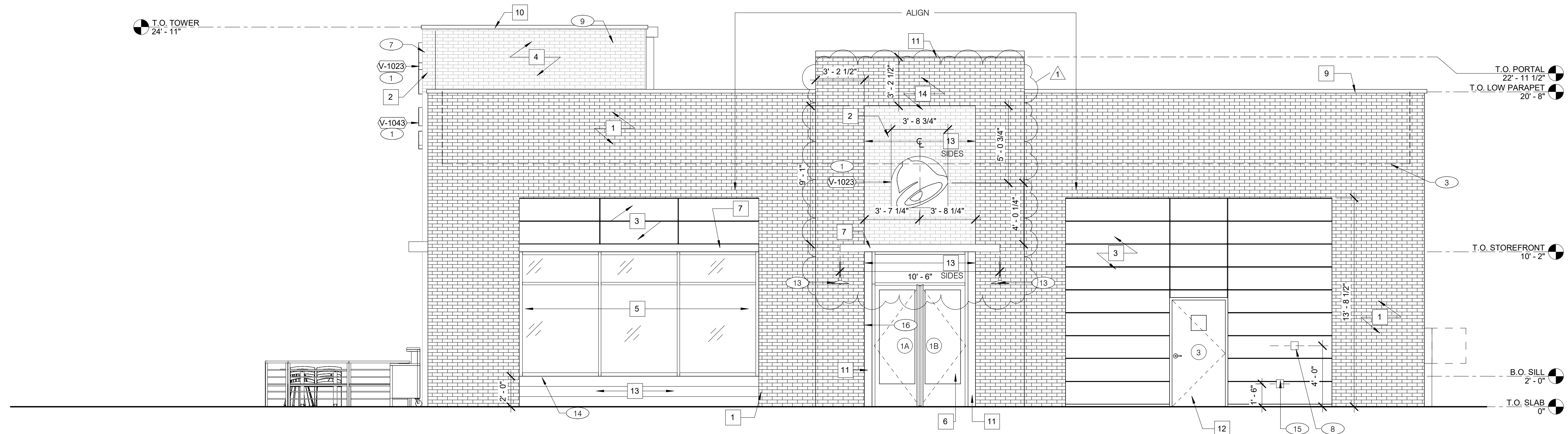
**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**ROOF PLAN**

**A3.0**

PLOT DATE: 9/17/2018 2:28:19 PM





**EAST ELEVATION** 1/4" = 1'-0" **A**

NO.	QTY	ITEM DESCRIPTION
V-1023	3	SWINGING BELL - (2) PURPLE LOGO - FACE LIT - 3' 6" X 3' 10" - (1) WHITE CUT METAL W/ LED STRIP
V-1043	2	TB 12" CHANNEL LETTER WHITE - (2) STACKED - SURFACE MOUNTED FACE LIT

**MISCELLANEOUS:**  
A. SEE SHT A1.1 "WINDOW TYPES" FOR WINDOW ELEVATIONS.  
**SEALERS (REFER TO SPECS):**  
A. SEALANT AT ALL WALL AND ROOF PENETRATIONS.  
B. SEALANT AT ALL WINDOW AND DOOR FRAMES AT HEAD AND JAMB. DO NOT SEAL SILL @ WINDOWS.  
C. APPLY NEOPRENE GASKET (CONT.) BETWEEN BUILDING & CANOPY.  
**CRITICAL - DIMENSIONS:**  
A. REQUIRED CLEAR OPENING WIDTH TO ENSURE COORDINATION WITH STANDARD SIGNAGE/ BUILDING ELEMENTS DIMENSIONS.  
  
NOTE: NO EXTERIOR SIGNS ARE WITHIN THE SCOPE OF WORK COVERED BY THE BUILDING PERMIT APPLICATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL EXTERIOR SIGNS AND INSTALLATION OF REQUIRED BLOCKING AND ELECTRICAL CONNECTIONS FOR FINAL APPROVED SIGNS.

- ① BUILDING SIGN, BY SIGN VENDOR. REQUIRES ELECTRICAL. SEE ELECTRICAL PLANS
- ② DRIVE THRU WINDOW. SEE SHEET A1.0 AND A1.1.
- ③ DASHED LINE INDICATES ROOF LINE BEYOND.
- ④ 4" DIA. BOLLARD. SEE CIVIL DRAWINGS.
- ⑤ GAS METER
- ⑥ SWITCH GEAR. PAINT TO MATCH WALL.
- ⑦ INTEGRAL SIGNAGE BY SIGN VENDOR. GC TO COORDINATE BLOCKING LOCATIONS.
- ⑧ CO2 FILLER VALVE & COVER. SEE DETAIL 5/A6.1
- ⑨ THIN BRICK
- ⑩ WALL SHALL BE FINISHED PRIOR TO INSTALLATION OF SWITCHGEAR.
- ⑪ CONCRETE CURB.
- ⑫ SCUPPER, COLLECTOR, AND VERTICAL DOWNSPOUT 6" MIN. PAINT TO MATCH ①
- ⑬ EXTERIOR LIGHT FIXTURE. COORDINATE WITH ELECTRICAL DRAWINGS
- ⑭ FLASHING AT STOREFRONT PER G.C. TO MATCH STOREFRONT FINISH. SEE 8/A6.4
- ⑮ HOSE BIB BOX AT 18" A.F.F. SEE DETAIL 7/A6.1
- ⑯ KNOX BOX. FINAL LOCATION TO BE APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION
- ⑰ BRICK COLOR TRANSITION LINE
- ⑱ SCUPPER, COLLECTOR, AND VERTICAL DOWNSPOUT 6" MIN. PAINT TO MATCH ④

**SIGNAGE** N.T.S. **E** **GENERAL NOTES** N.T.S. **C**

SYMBOL	AREA	MANUFACTURER	MATERIAL SPEC	COLOR	ALTERNATE MFR.	ALTERNATE MATERIAL SPEC	ALTERNATE MATERIAL COLOR	CONTACT INFORMATION
①	MAIN BUILDING BRICK	INTERSTATE BRICK	2-1/4" MODULAR BRICK	CUSTOM BLEND (RANDOM INSTALL) 70% PEWTER - 30% PLATINUM	-	-	-	HARDIE: LEVI STAUFFER 562-243-8974 - LEVI.STAUFFER@JAMESHARDIE.COM  BY SIGN VENDOR
②	TOWER / ENTRY PORTAL RECESS BRICK	INTERSTATE BRICK	2-1/4" MODULAR BRICK	COPPERSTONE	-	-	-	
③	EXTERIOR FIBER CEMENT PANELS	JAMES HARDIE	REVEAL PANEL SYSTEM	PAINTED SW7048 URBANE BRONZE	-	-	-	
④	UPPER TOWER	INTERSTATE BRICK	THIN BRICK	COPPERSTONE	-	-	-	
⑤	STOREFRONT WINDOWS	OLD CASTLE	SERIES 3000 - CENTER SET	DK BRONZE	-	-	-	
⑥	STOREFRONT DOORS	OLD CASTLE	SERIES 500 - WIDE STILE	DK BRONZE	-	-	-	
⑦	METAL CANOPIES	BY SIGNAGE VENDOR		DARK BRONZE TO MATCH STOREFRONT	-	RAL	RAL	
⑧	LOWER ENTRANCE	CORTEN	STEEL FLAT SHEETS	STANDARD	-	-	-	
⑨	EXTERIOR METAL TRIM - BUILDING	AEP SPAN	VINTAGE	VINTAGE	-	-	-	
⑩	EXTERIOR METAL TRIM - TOWER	AEP SPAN	TBD	TBD	-	-	-	
⑪	EXTERIOR METAL TRIM - ENTRY	AEP SPAN	TBD	DARK BRONZE TO MATCH STOREFRONT	-	-	-	
⑫	EXTERIOR HOLLOW METAL SERVICE DOOR	-		SW7048 URBANE BRONZE	-	-	-	
⑬	LOCAL RECLAIMED WOOD	BY GC	BARNWOOD	AS-IS / GRAY	-	-	-	
⑭	FRONT ENTRANCE BRICK	INTERSTATE BRICK	2-1/4" MODULAR BRICK	MIDNIGHT BLACK	-	-	-	

**EXTERIOR FINISH SCHEDULE** N.T.S. **D**

**ELEVATION KEYNOTES** N.T.S. **B**

09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

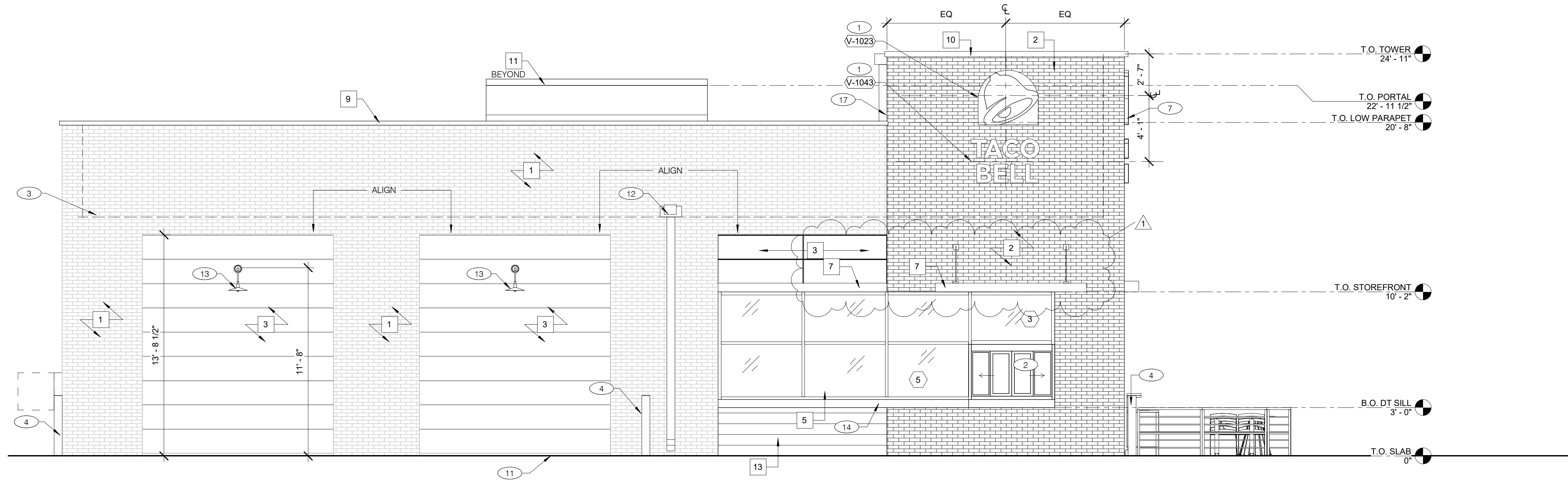
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

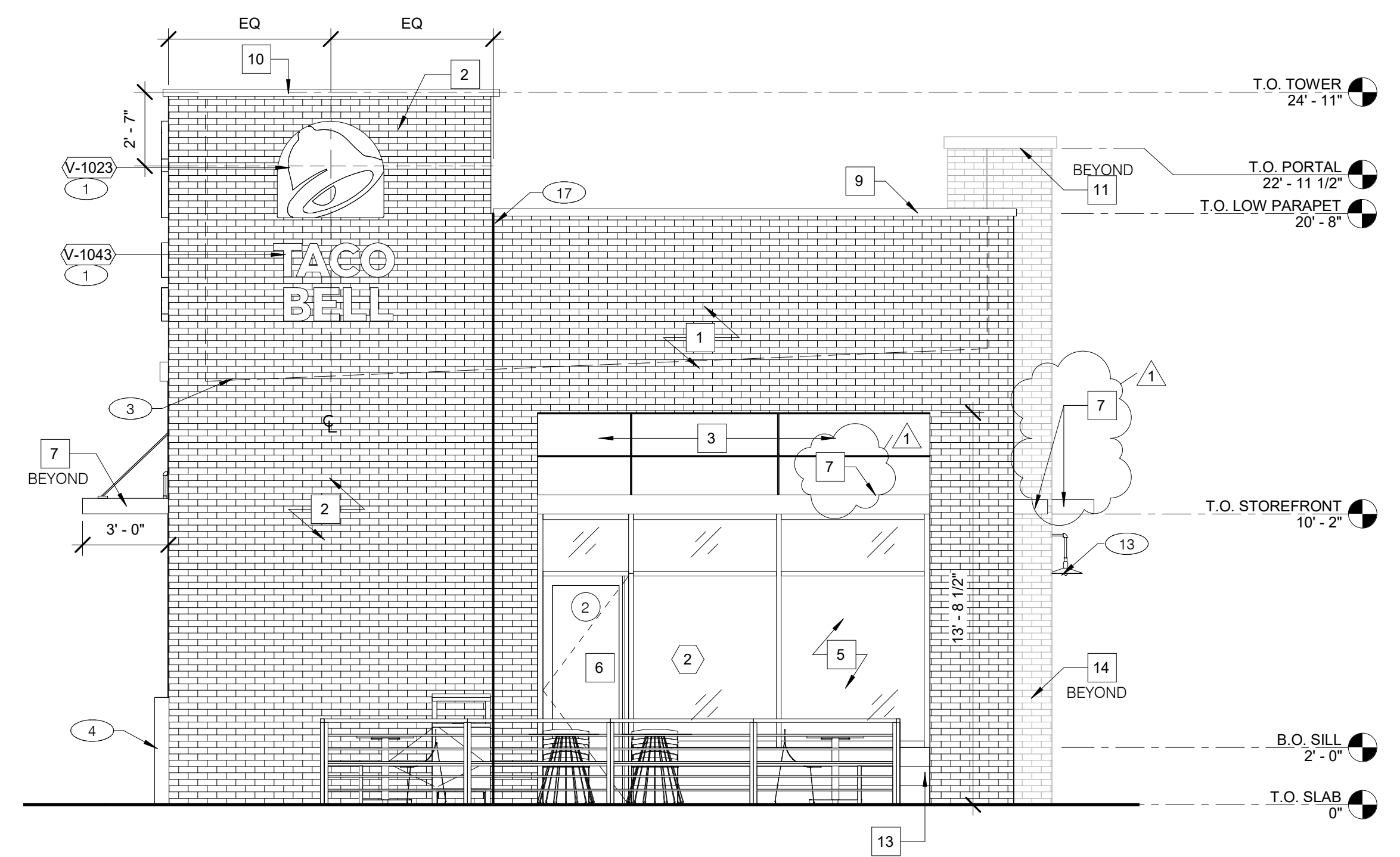
**EXTERIOR ELEVATIONS**

**A4.0**

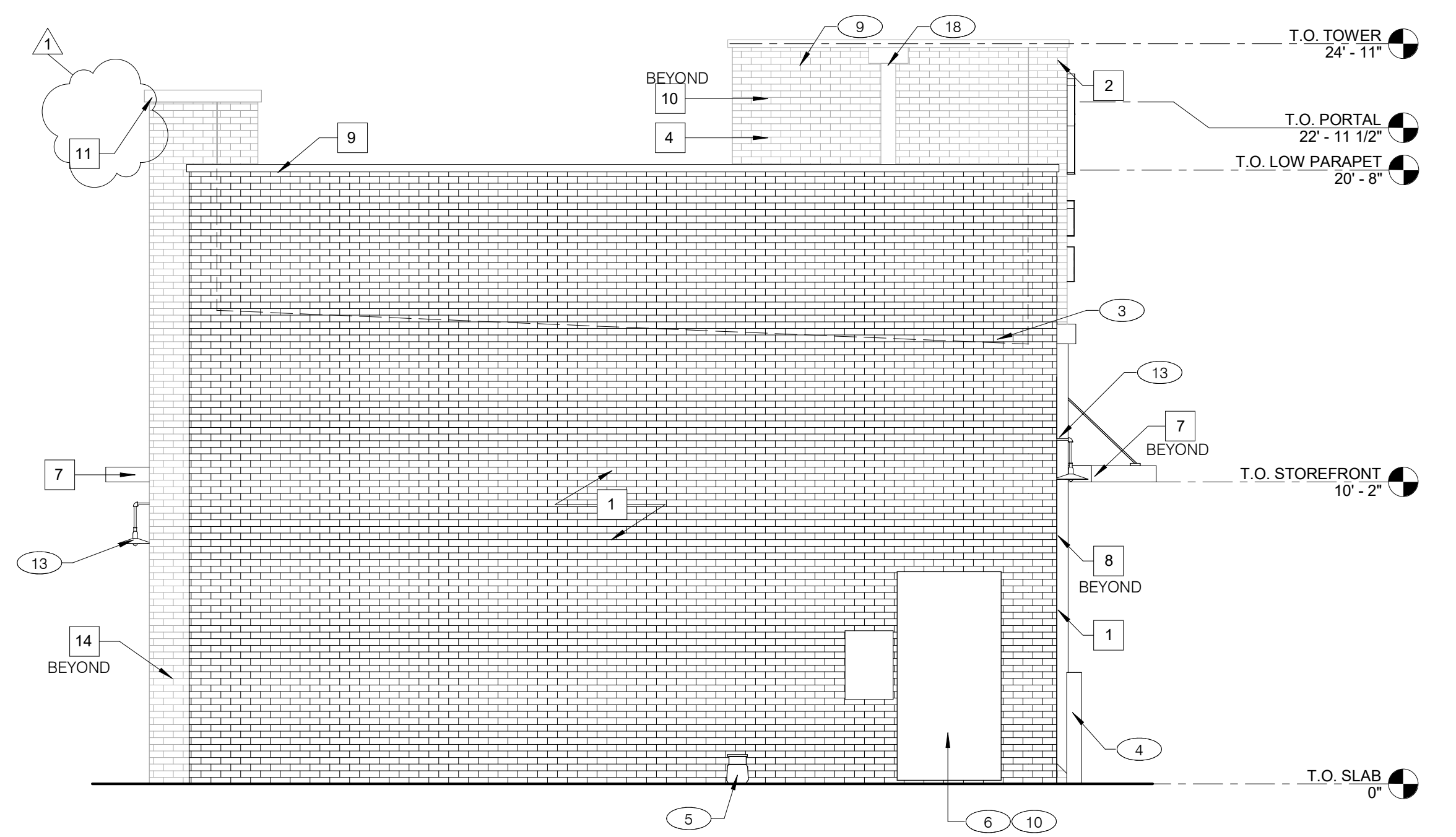
PLOT DATE: 9/19/2018 8:57:29 AM



**WEST ELEVATION** 1/4" = 1'-0" **A**



**SOUTH ELEVATION** 1/4" = 1'-0" **C**



**NORTH ELEVATION** 1/4" = 1'-0" **B**

09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
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04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

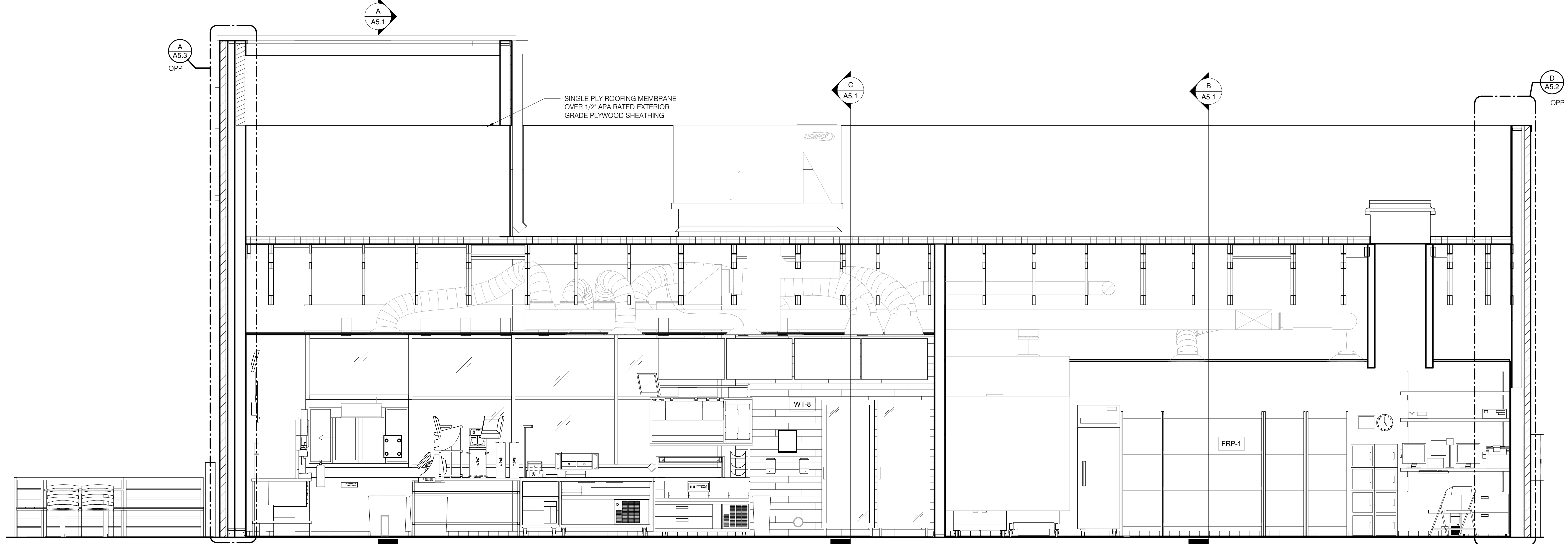
**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**EXTERIOR ELEVATIONS**

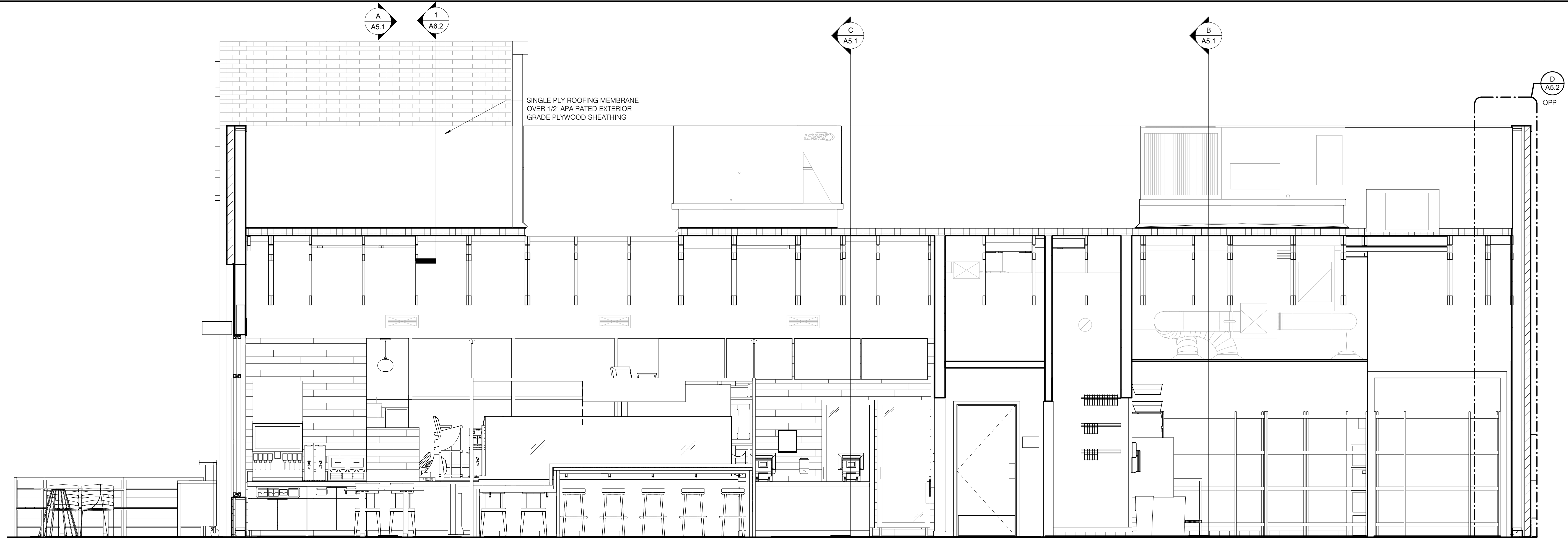
**A4.1**

PLOT DATE: 9/19/2018 8:57:34 AM





**NORTH/SOUTH BUILDING SECTION 2** 3/8" = 1'-0" **A**



**NORTH/SOUTH BUILDING SECTION 1** 3/8" = 1'-0" **B**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

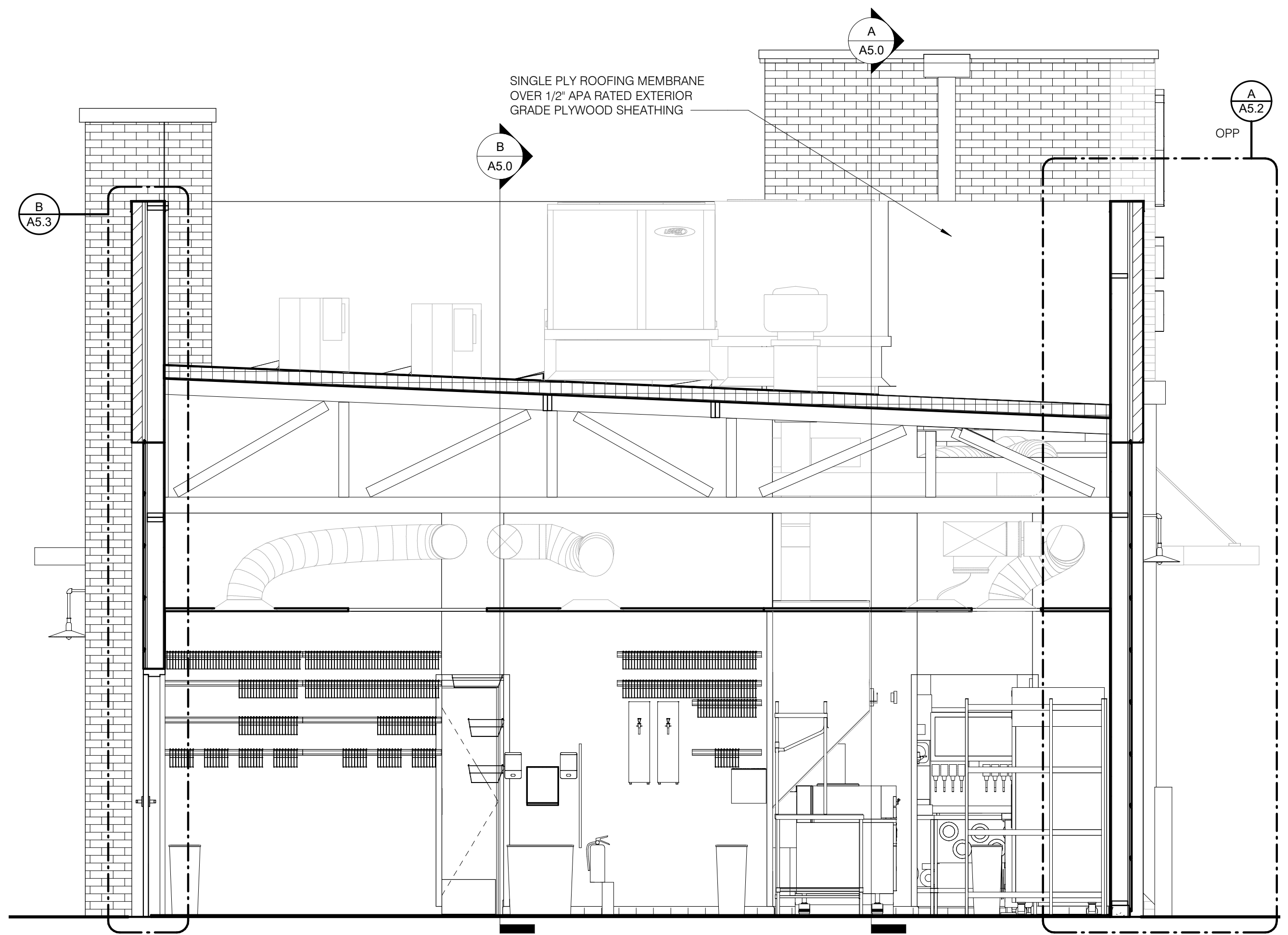
**TACO BELL**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40  
 OPEN KITCHEN  
 MODERN EXPLORER

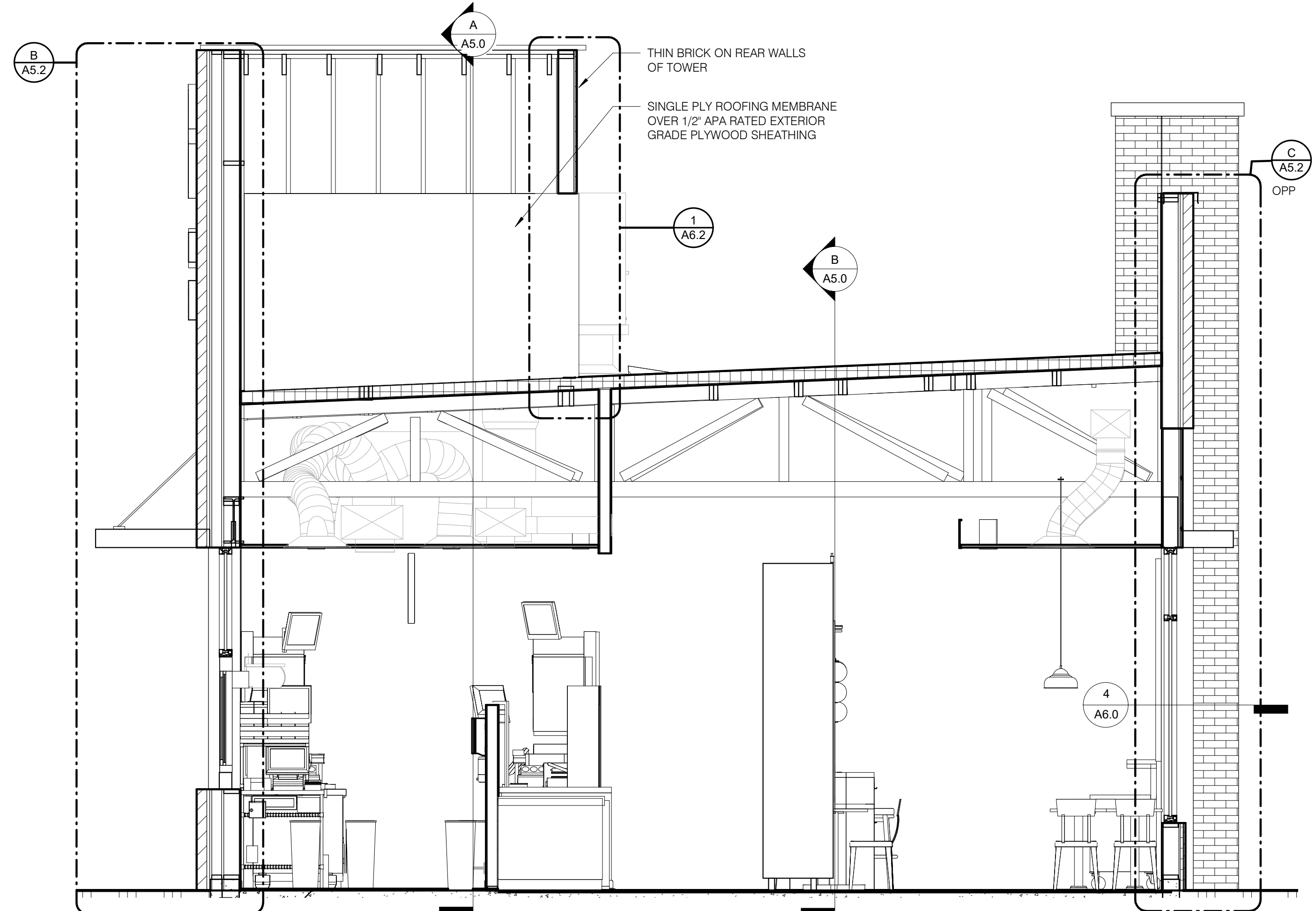
**BUILDING SECTIONS**

**A5.0**

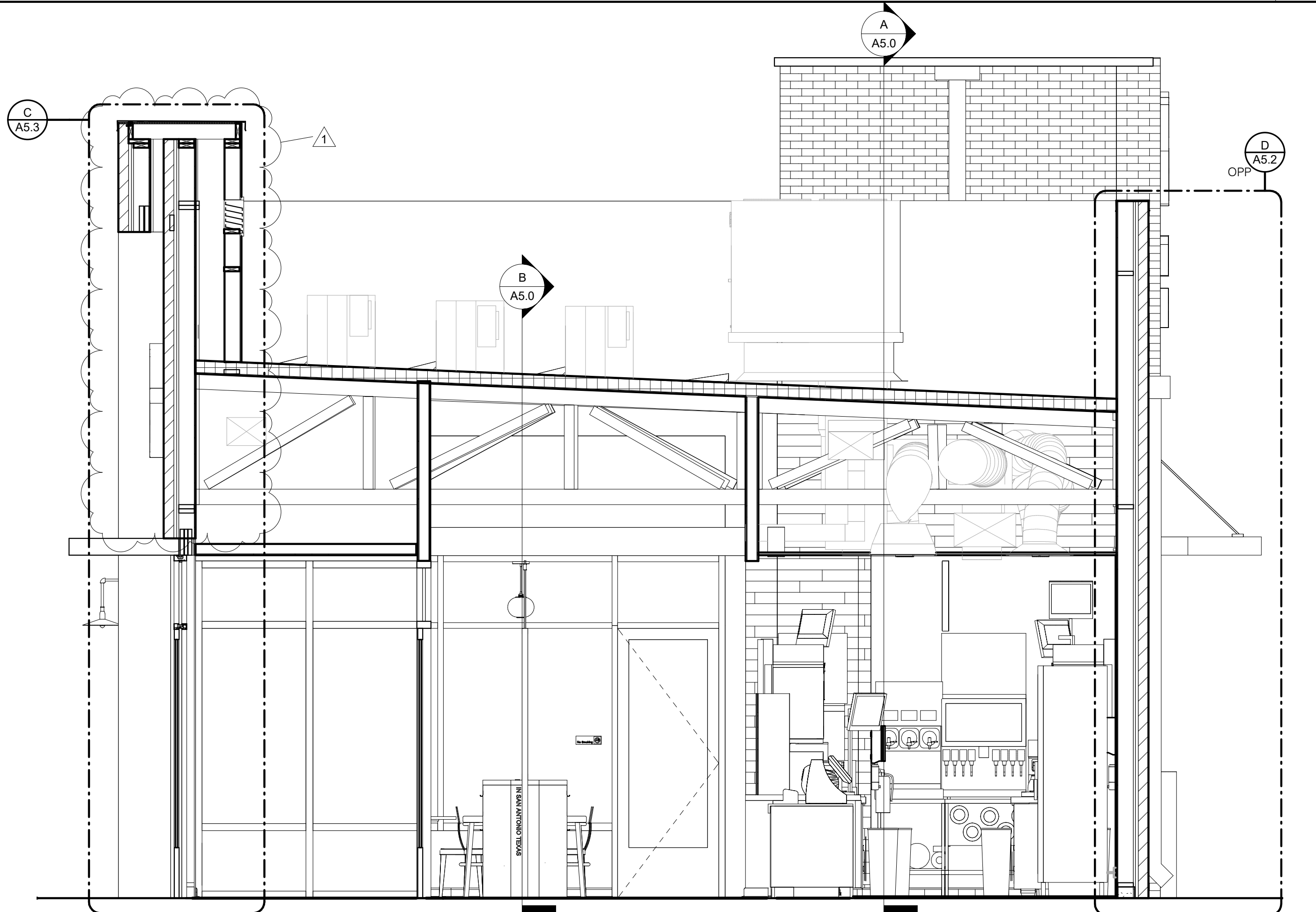
PLOT DATE: 9/17/2018 2:28:30 PM



**EAST/WEST BUILDING SECTION 3** 3/8" = 1'-0" **B**



**EAST/WEST BUILDING SECTION 5** 3/8" = 1'-0" **A**



**EAST/WEST BUILDING SECTION 4** 3/8" = 1'-0" **C**

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1 09.17.18	BULLETIN 1
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PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

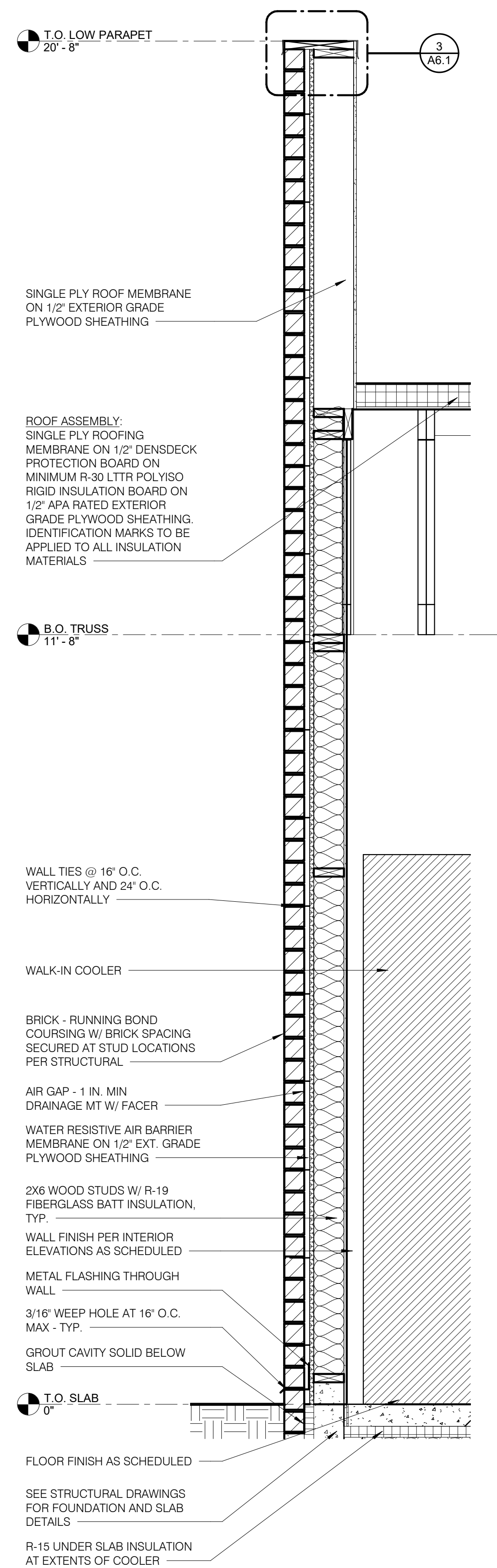
**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**BUILDING SECTIONS**

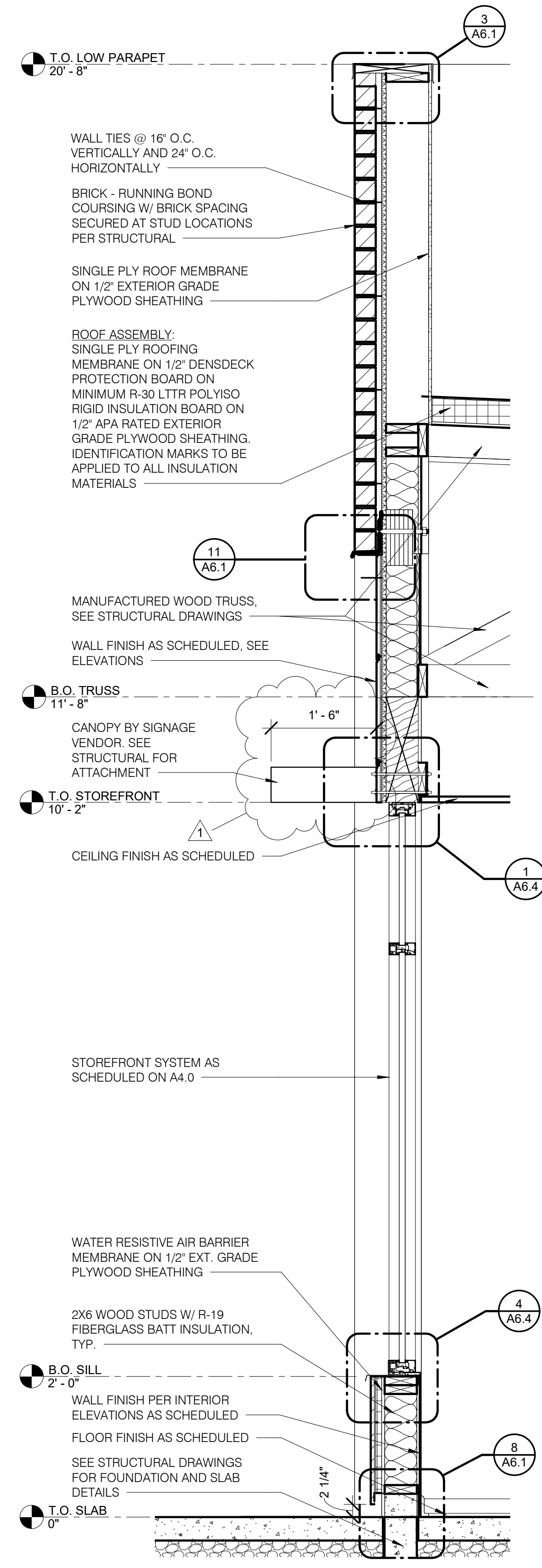
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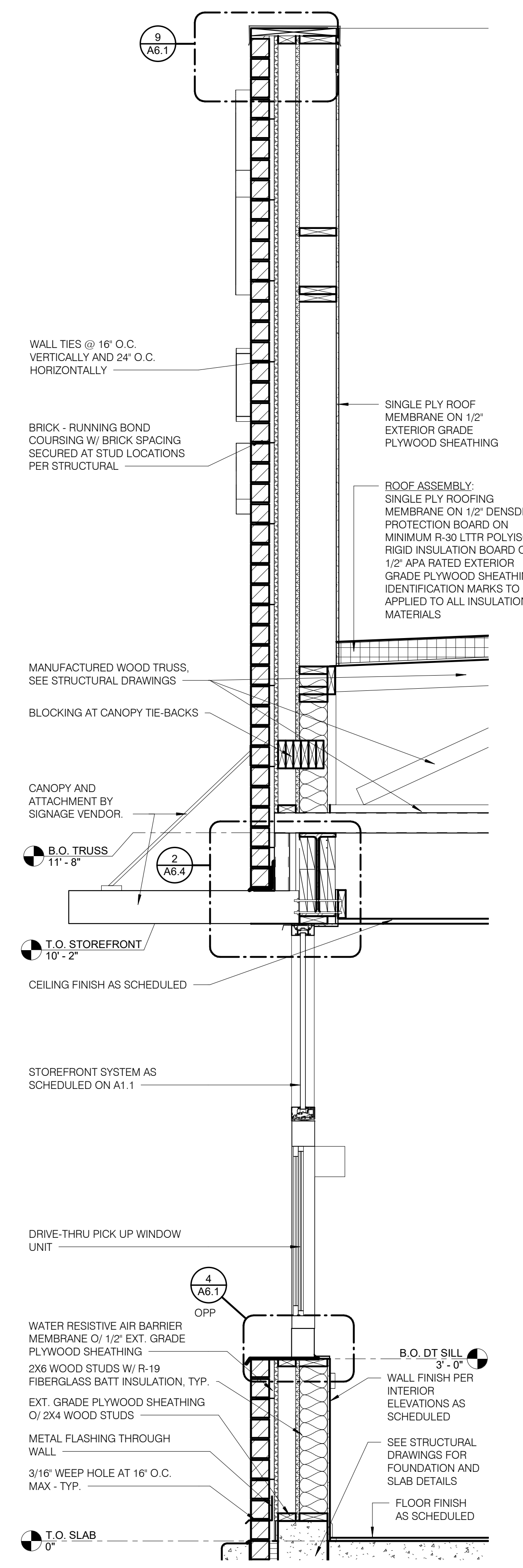




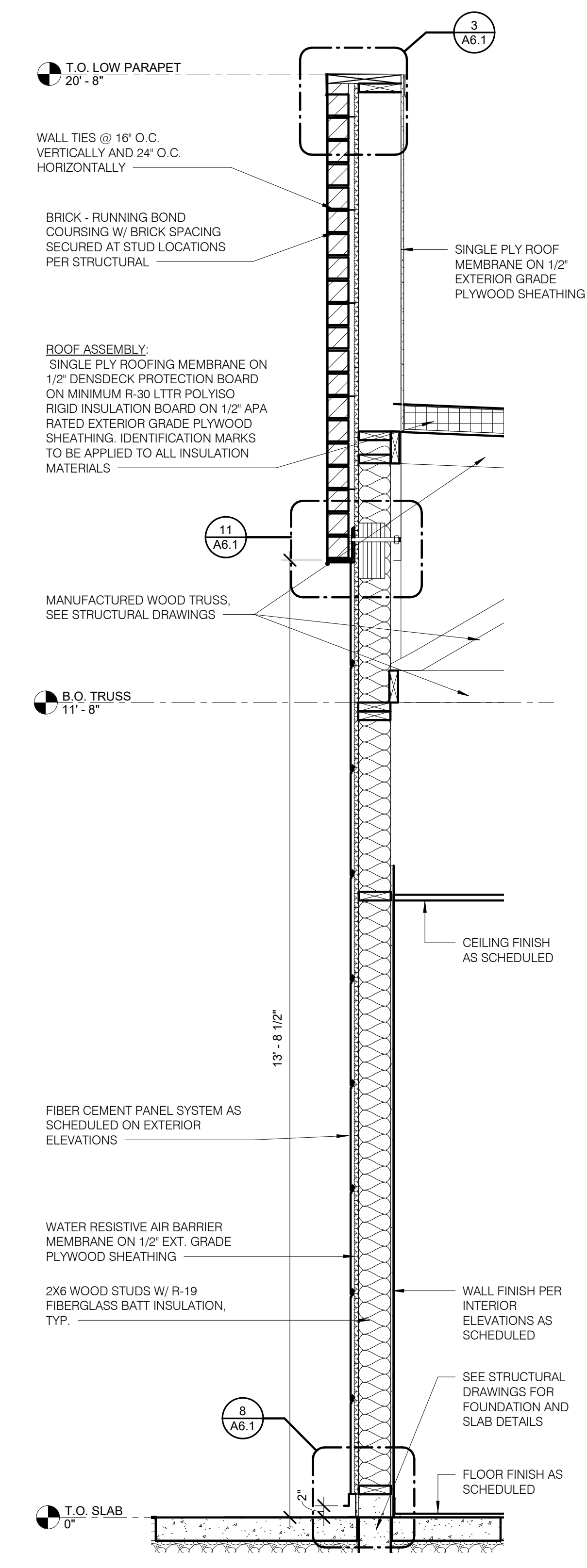
**WALL SECTION AT COOLER WALL** 3/4" = 1'-0" **D**



**WALL SECTION AT DINING WINDOWS** 3/4" = 1'-0" **C**



**WALL SECTION AT DRIVE THRU WINDOW** 3/4" = 1'-0" **B**



**TYPICAL WALL SECTION** 3/4" = 1'-0" **A**

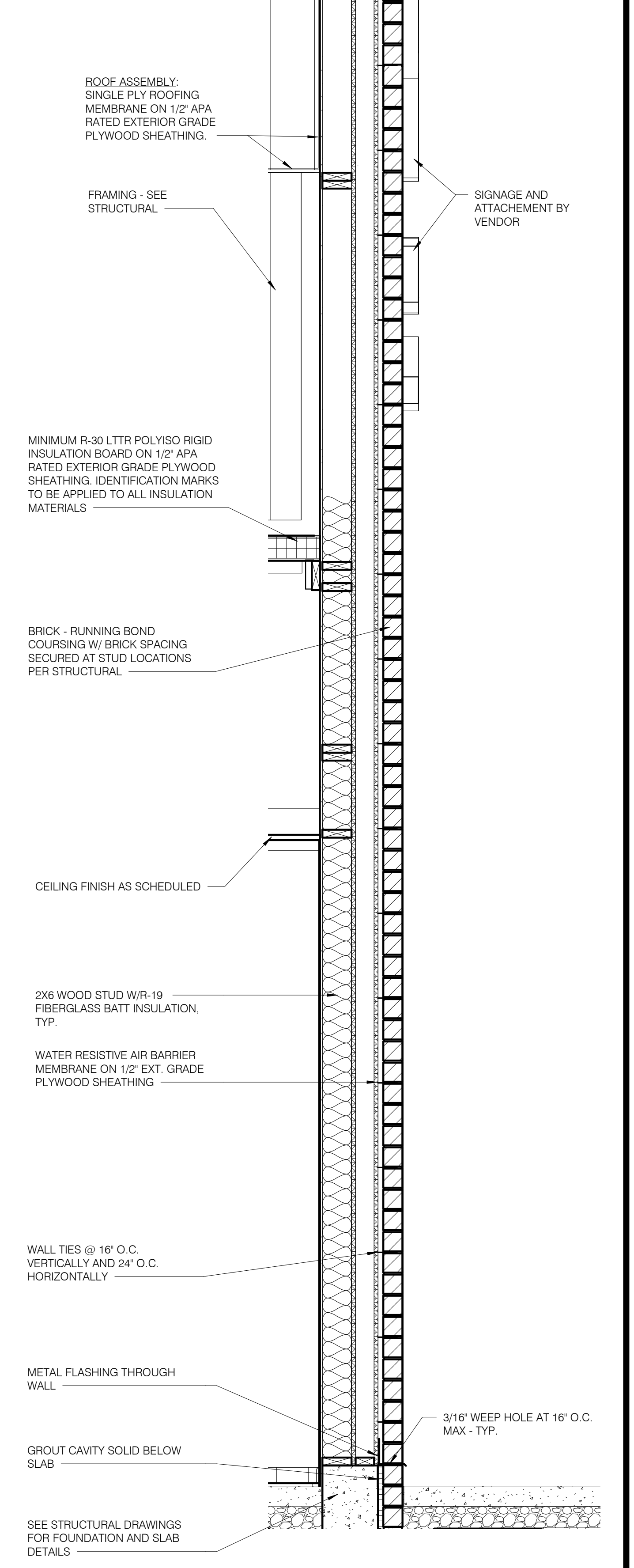
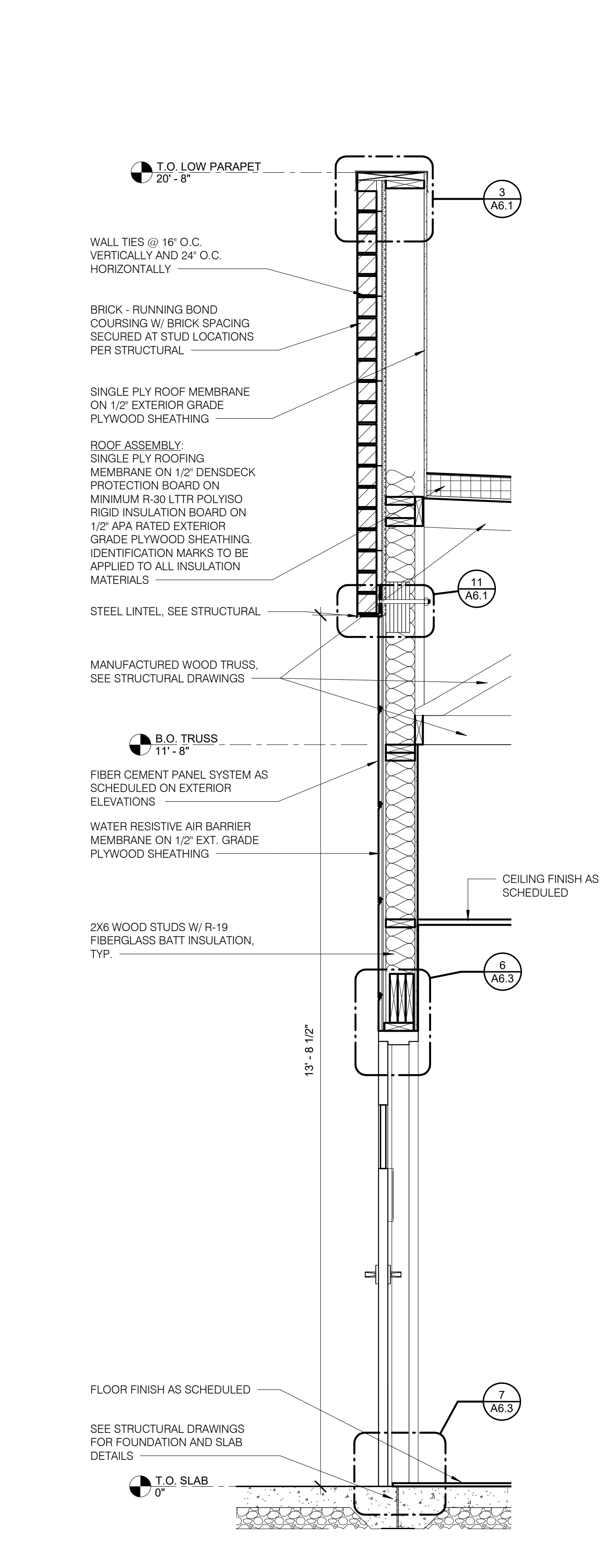
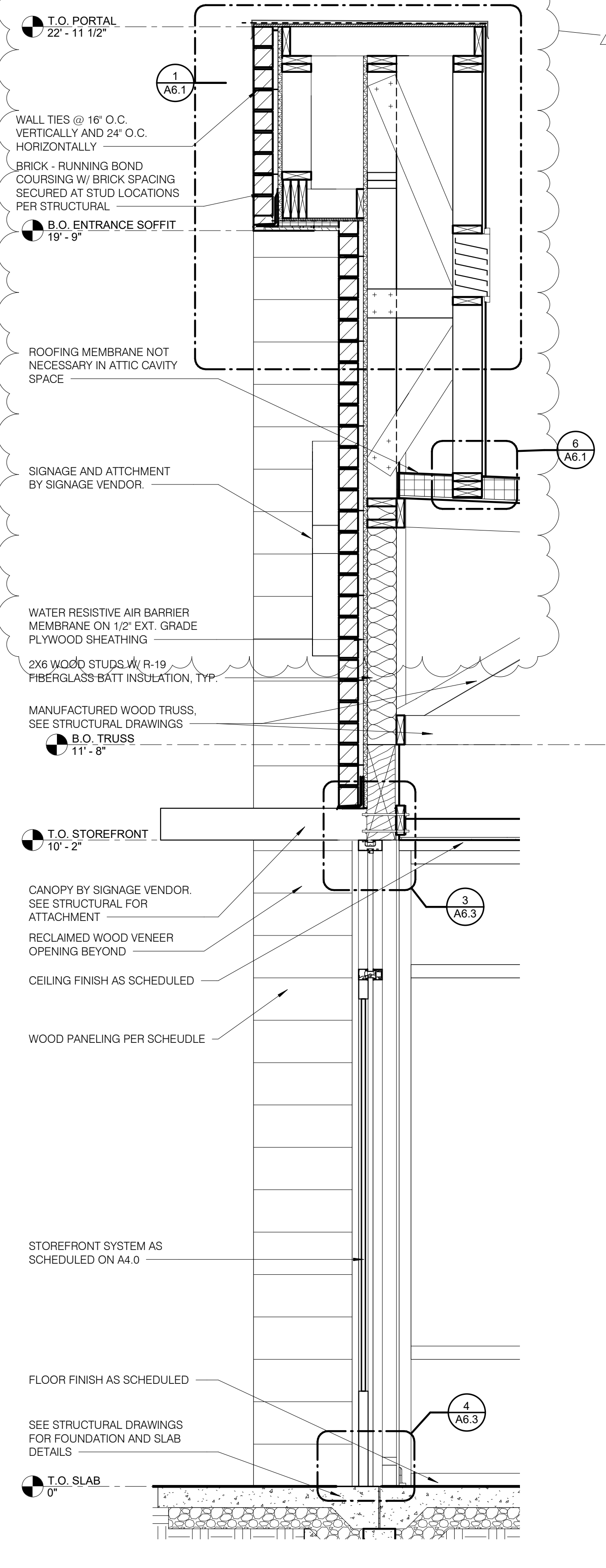
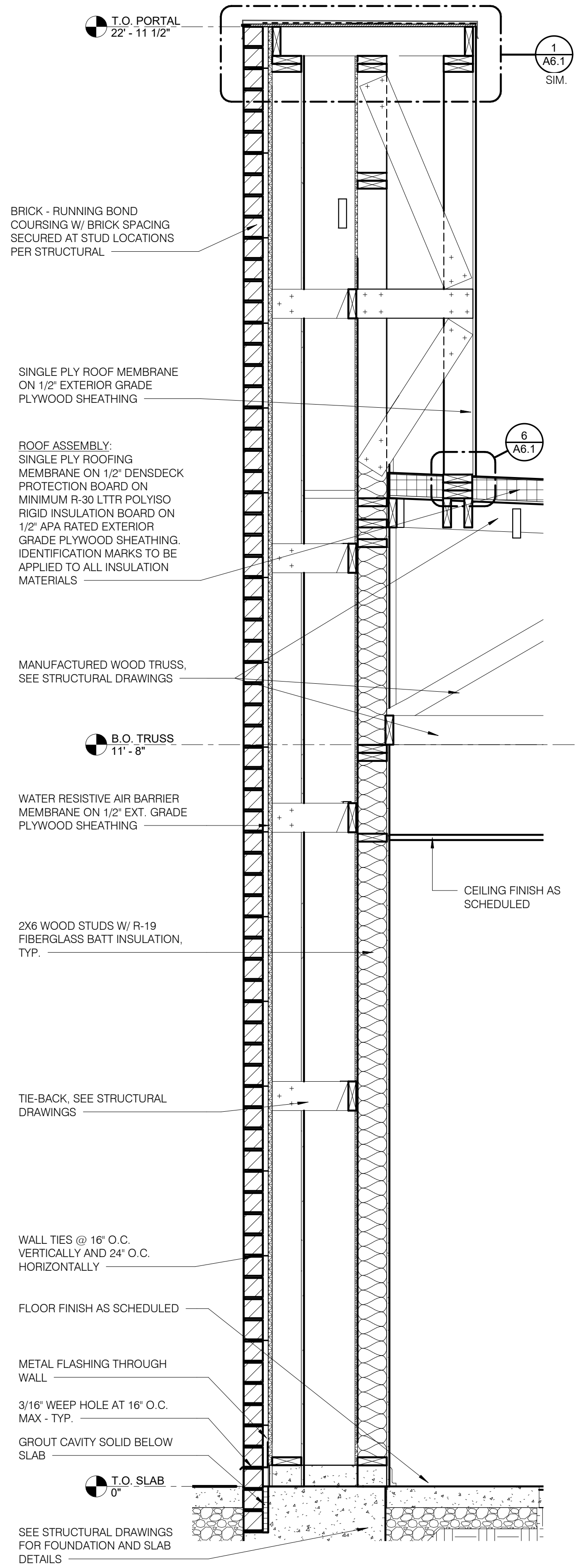
09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

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 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
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 OPEN KITCHEN  
 MODERN EXPLORER

**WALL SECTIONS**



**WALL SECTION AT ENTRANCE PORTAL** 3/4" = 1'-0" **D**

**WALL SECTION AT ENTRANCE DOORS** 3/4" = 1'-0" **C**

**WALL SECTION AT SERVICE DOOR** 3/4" = 1'-0" **B**

**WALL SECTION @ TOWER** 3/4" = 1'-0" **A**

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1 09.17.18	BULLETIN 1
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04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40-M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

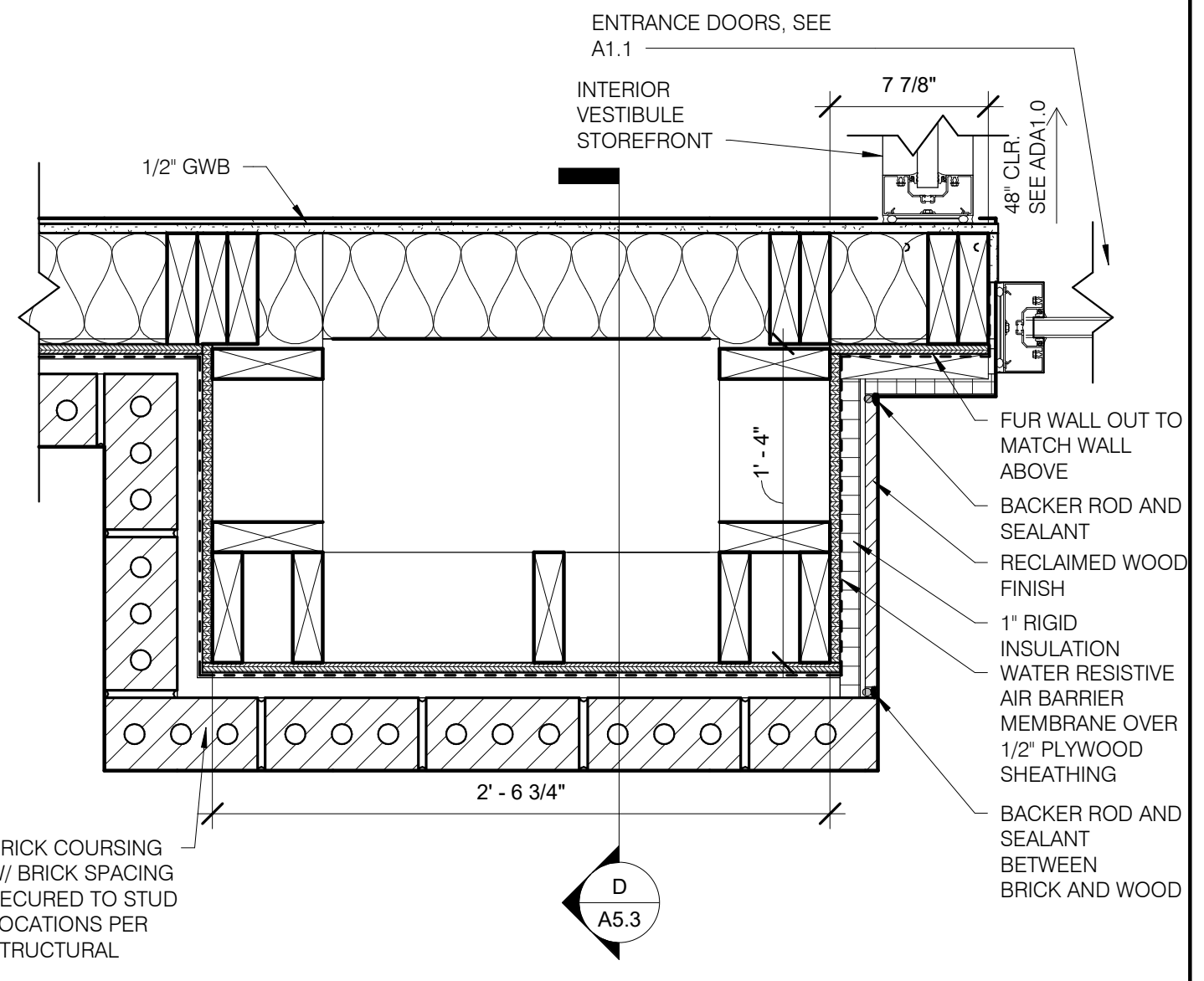
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

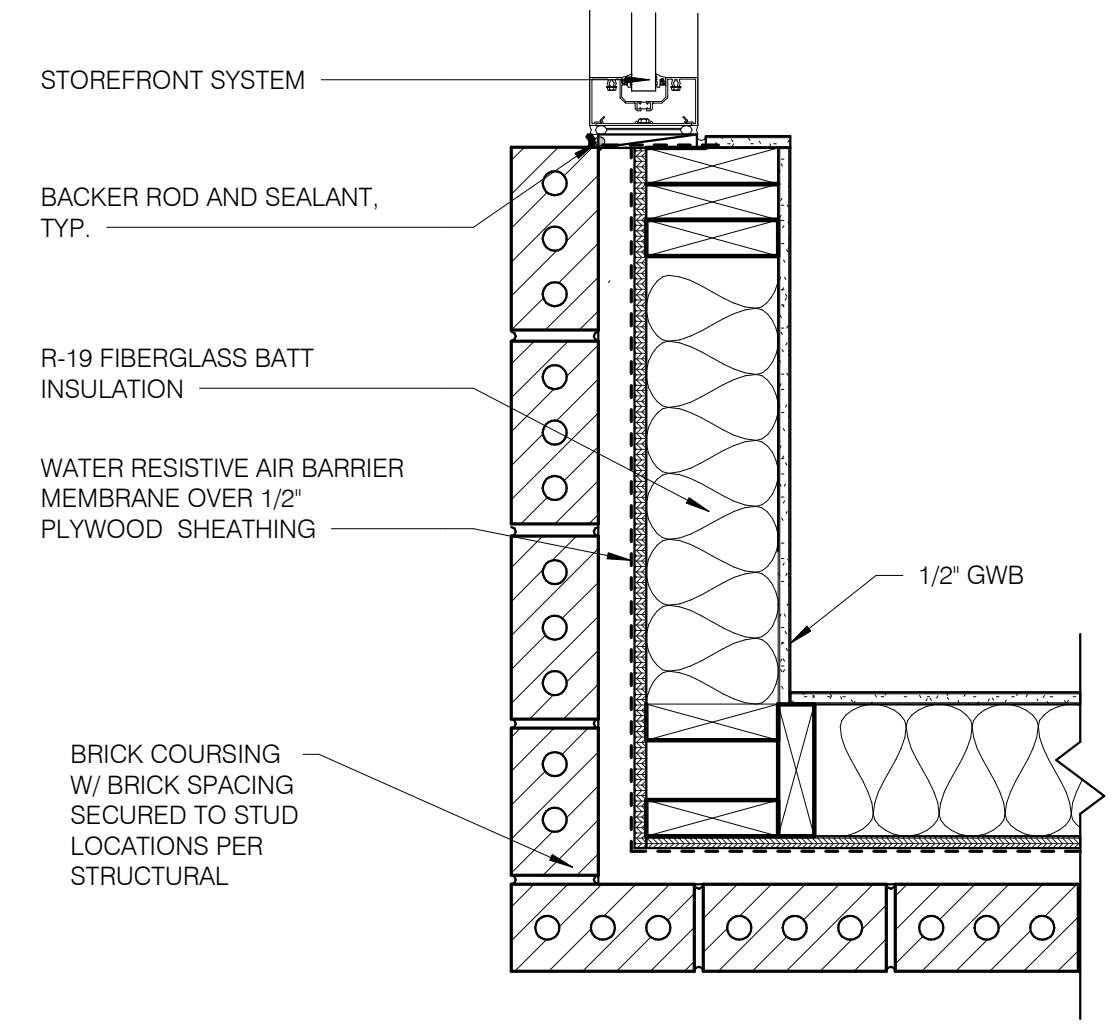
**WALL SECTIONS**

**A5.3**

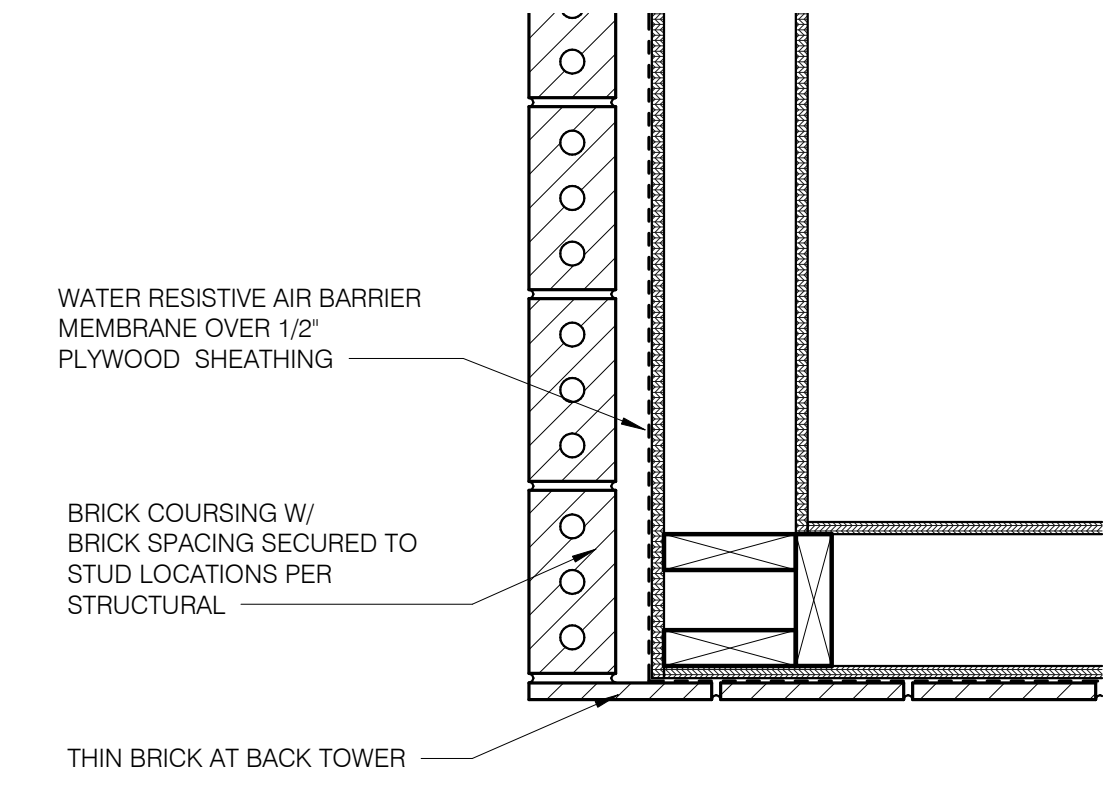




**ENTRANCE PORTAL DETAIL** 1 1/2" = 1'-0" **4**



**CORNER DETAIL** 1 1/2" = 1'-0" **3**



**TOWER CORNER AT THIN BRICK** N.T.S. **2**

09.17.18	ISSUED FOR CONSTRUCTION
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04.12.18	ISSUED FOR PERMIT

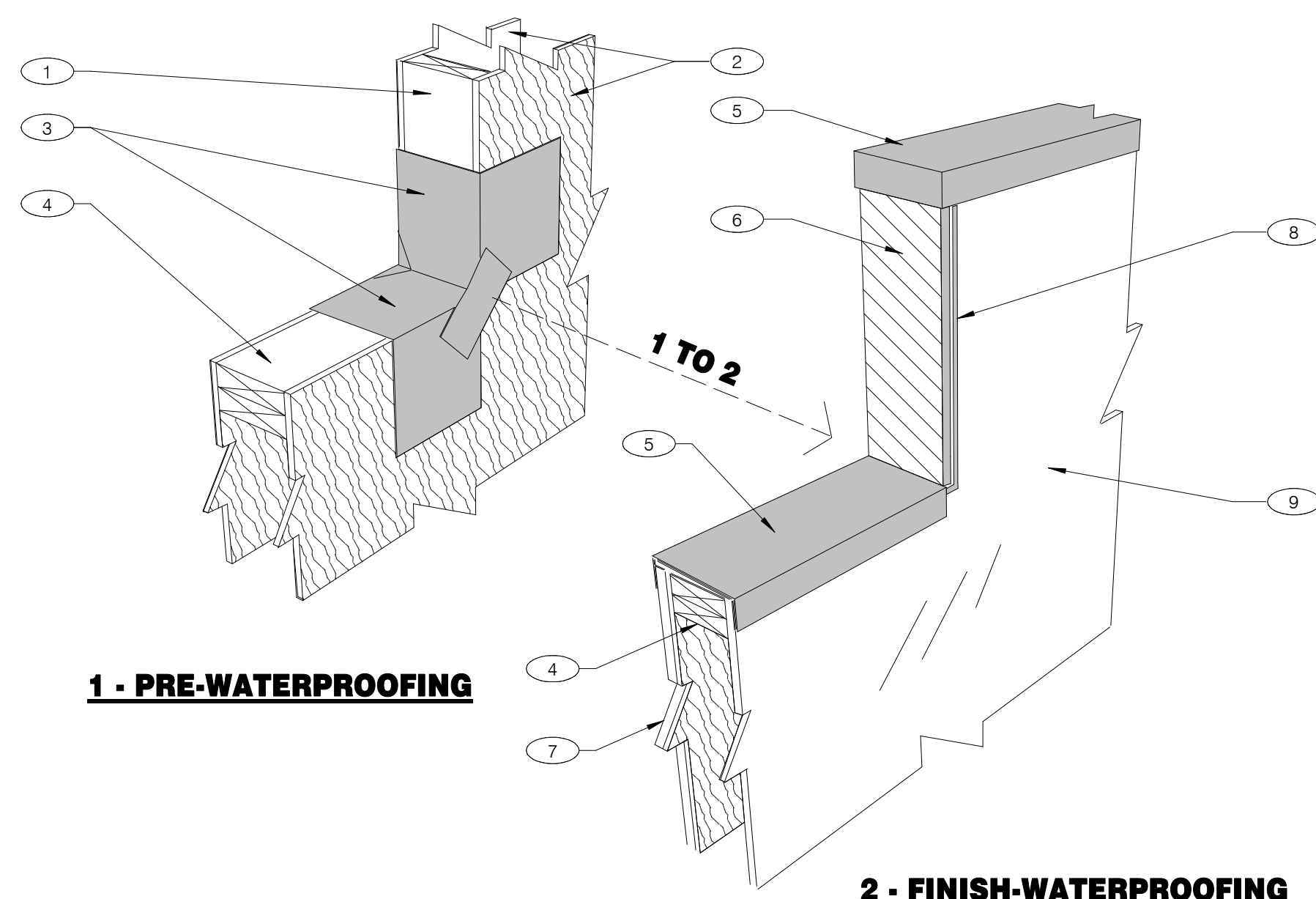
CONTRACT DATE: 01.08.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
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 MODERN EXPLORER

**CONSTRUCTION PLAN DETAILS**

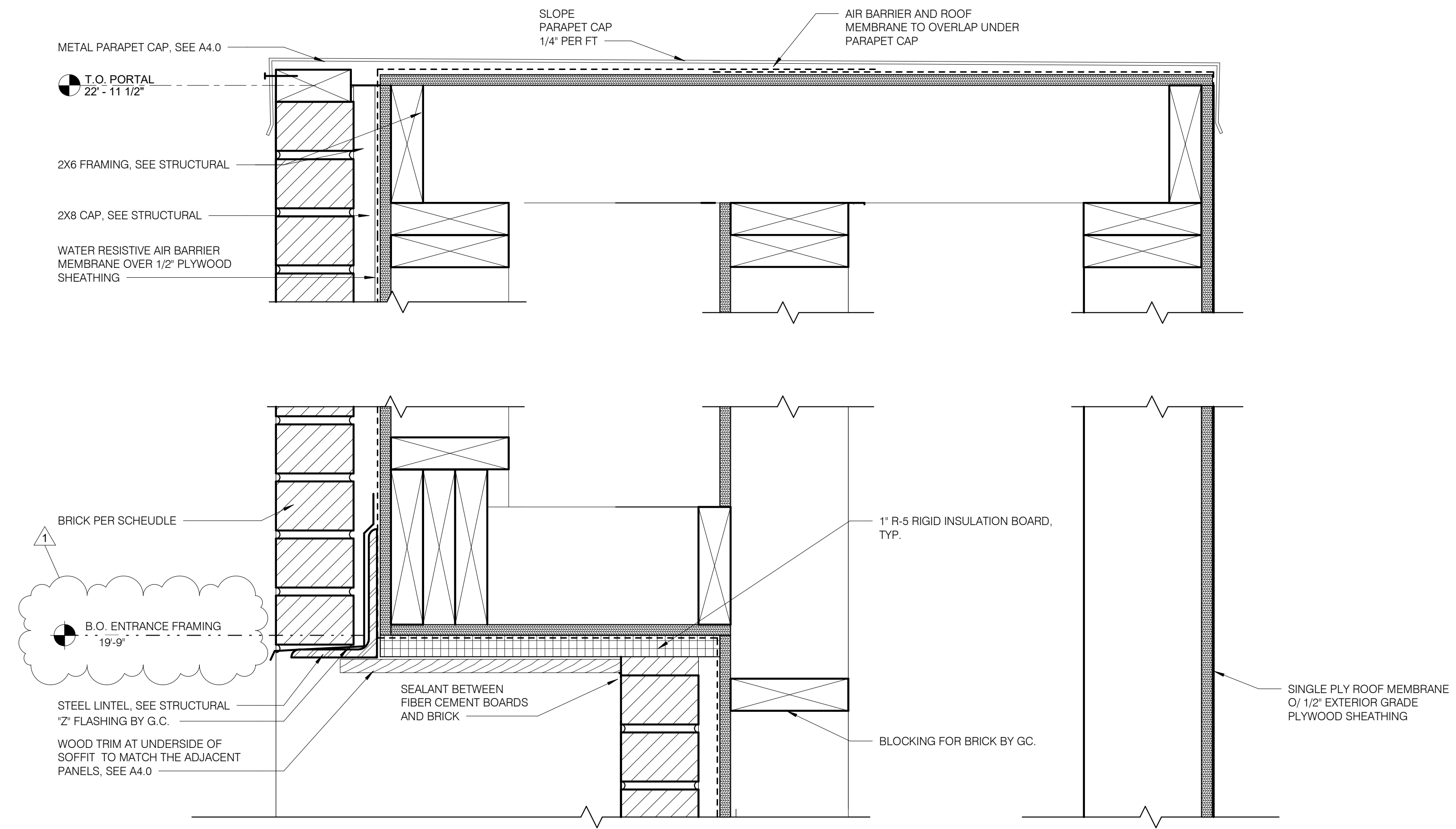
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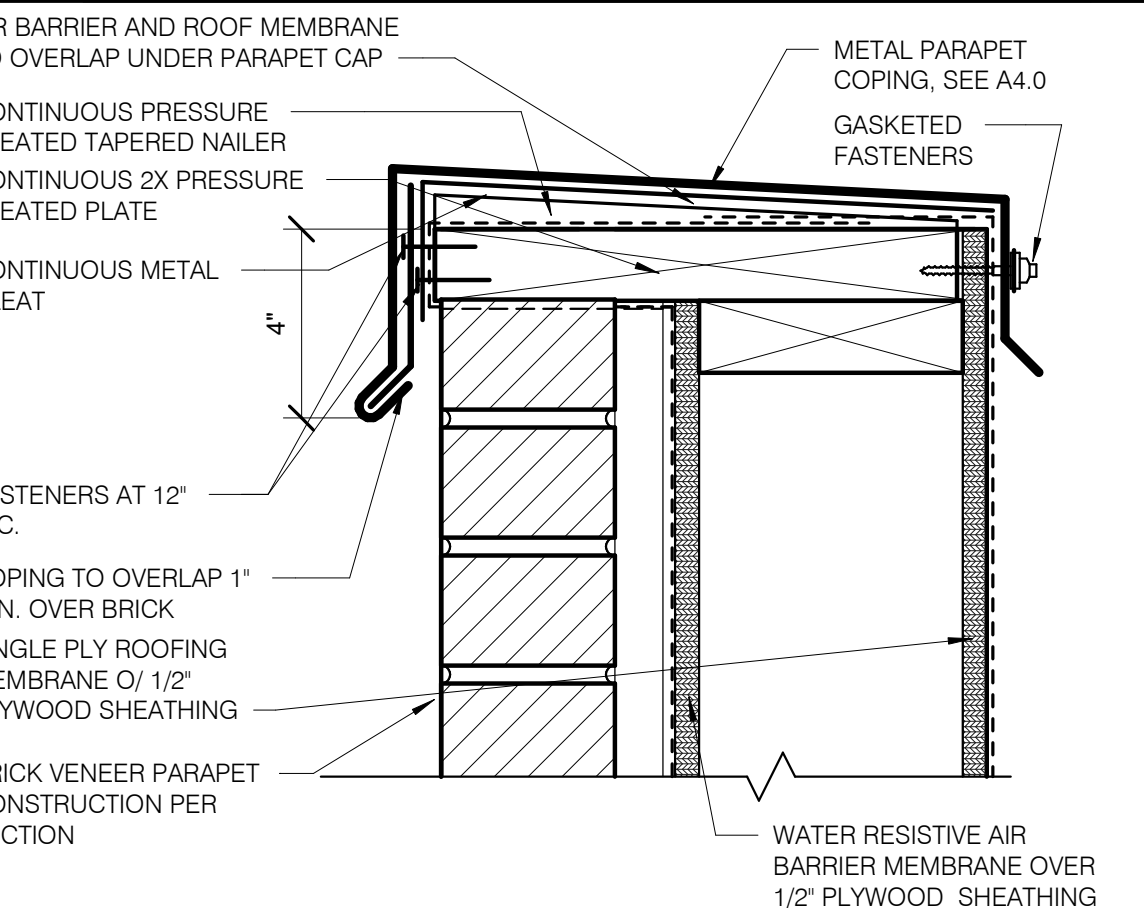
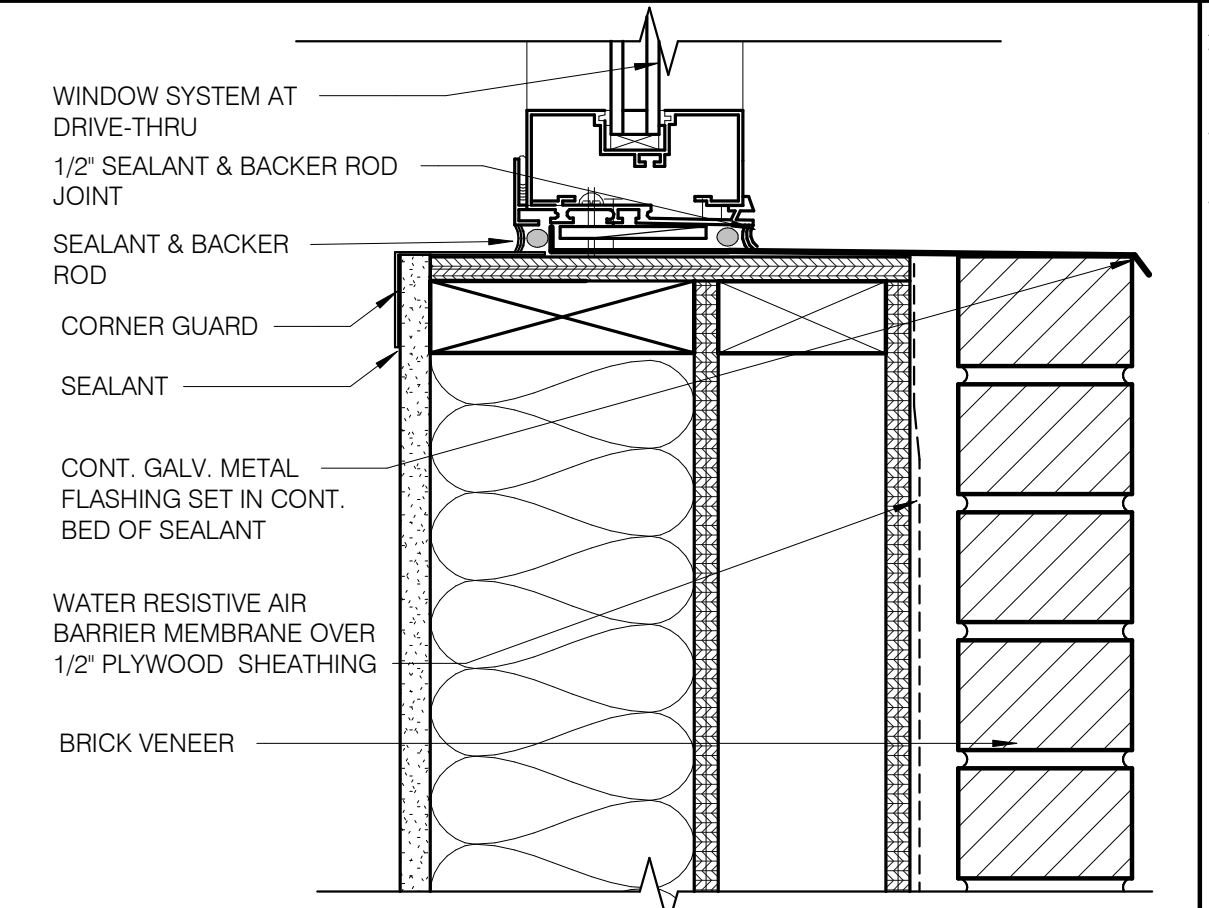
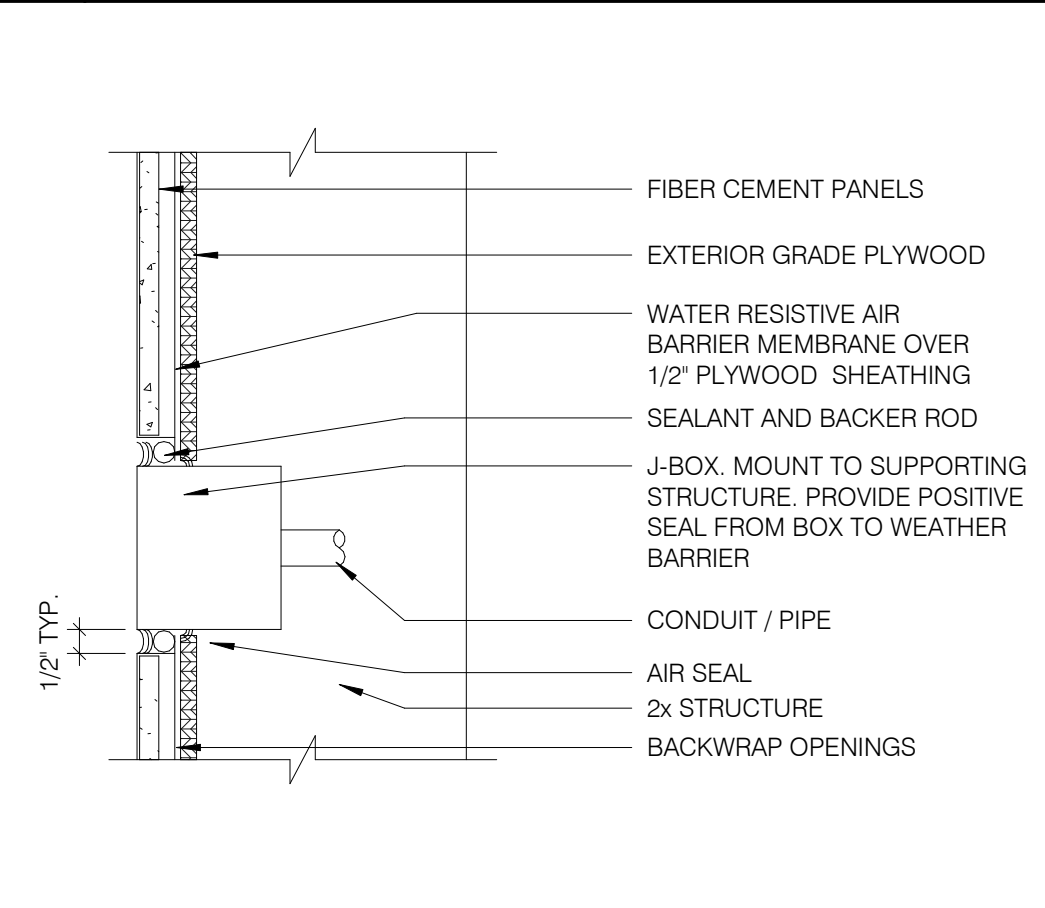
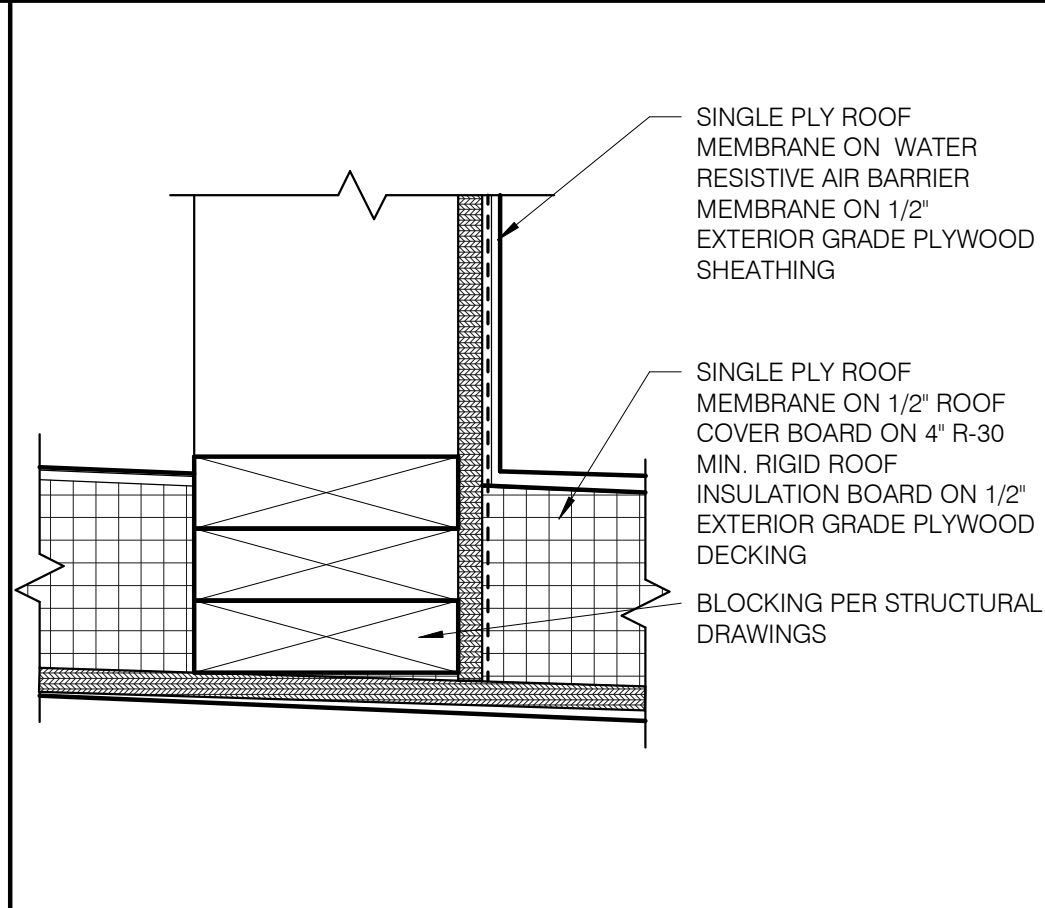
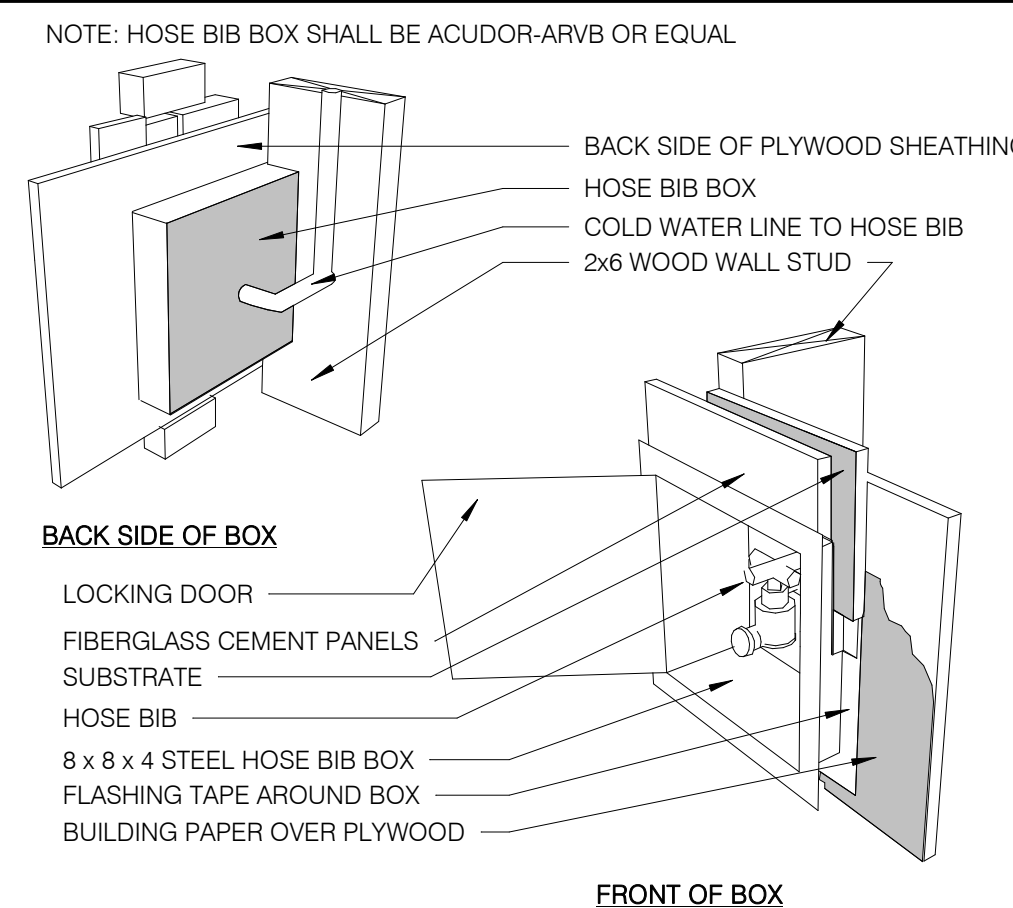
**NOTES**

- 1 2X WOOD STUDS
- 2 PLYWOOD SUBSTRATE FOR EXTERIOR WALLS
- 3 FLASHING TAPE AT ALL VERTICAL PARAPET TRANSITIONS. EXTEND TAPE 12" OUTWARD AND UPWARD FROM CORNER AS SHOWN. LAP CORNERS WITH ANGLED TAPE AS SHOWN TO INSURE FULL COVERAGE AT CORNERS
- 4 DOUBLE 2X TOP PLATE.
- 5 PAINTED 24 GAUGE PARAPET COPING. SLOPE 1/4:1 TOWARDS ROOF WITH FIBER CANT STRIPS UNDER COPING. LAP FRONT AND BACK EDGE 2" DOWN VERTICAL FACE. LAP EXPOSED COPING EDGE EXPOSED ENDS AT VERTICAL PARAPET TRANSITION.
- 6 WRAP 1" THICK EIFS ONTO VERTICAL FACE OF PARAPET TRANSITION
- 7 BRICK FINISH ON OUTER SURFACE OF EXTERIOR WALL. THICKNESS PER THE EXTERIOR ELEVATIONS ON SHEET A4.0
- 8 TERMINATION BAR AT VERTICAL TRANSITION OF EIFS AND MEMBRANE ROOFING. SEAL VERTICAL GAP BETWEEN TERMINATION BAR AND EIFS PER ROOFING MANUFACTURER SPECIFICATIONS.
- 9 PVC ROOFING MEMBRANE ON BACKSIDE OF PARAPET.

**IMPORTANT:** ONLY FASTEN PARAPET COPING ALONG THE FRONT AND BACK VERTICAL EDGE. NEVER ON TOP OF COPING.



**PARAPET CAP & TRANSITION** N.T.S. **2**



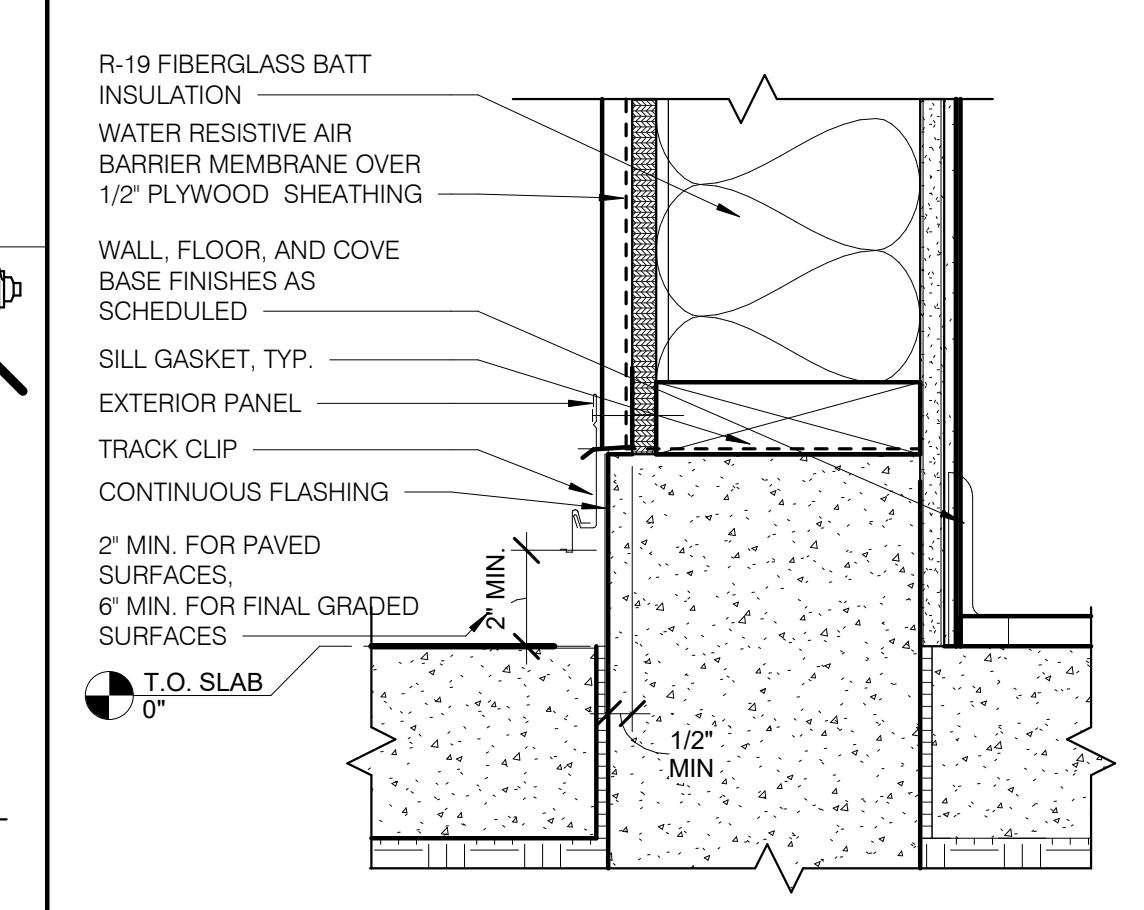
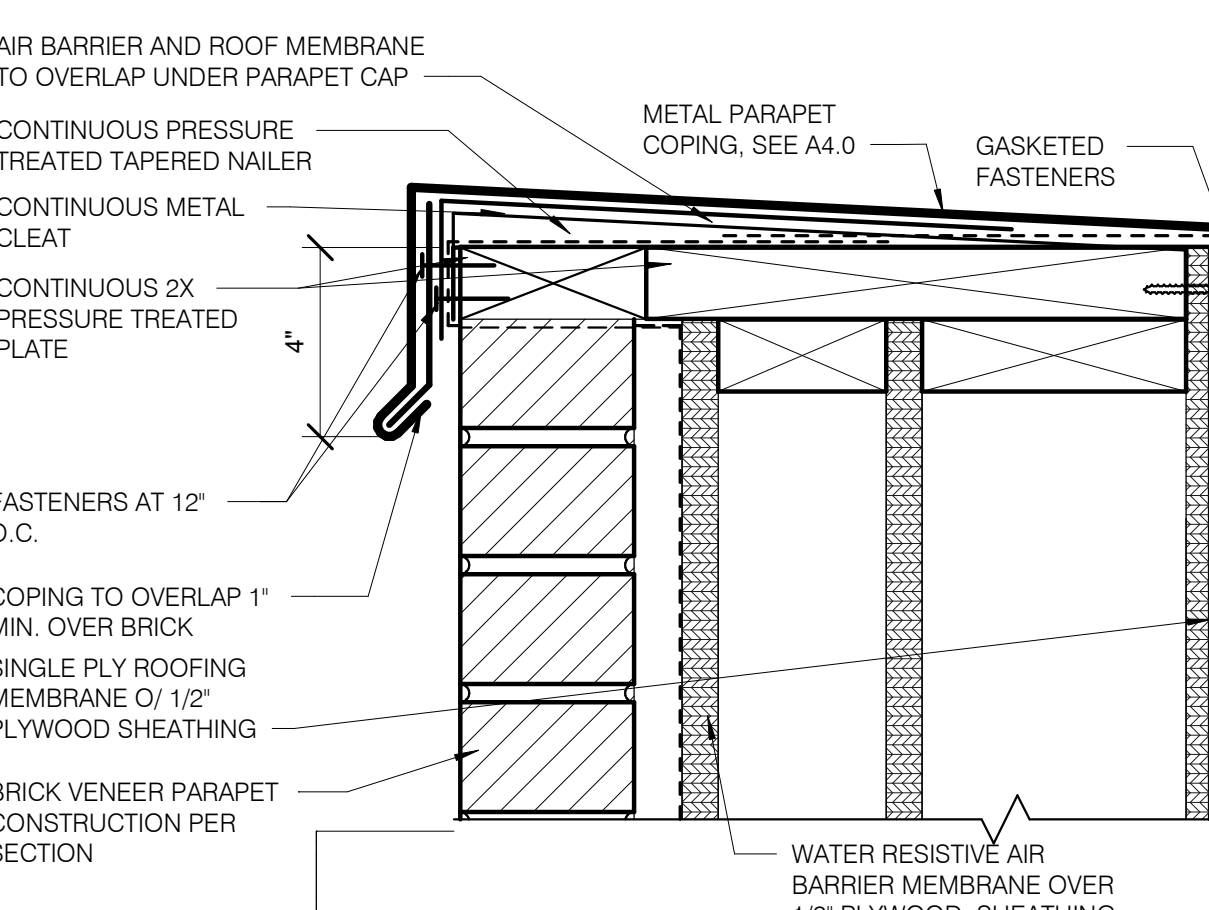
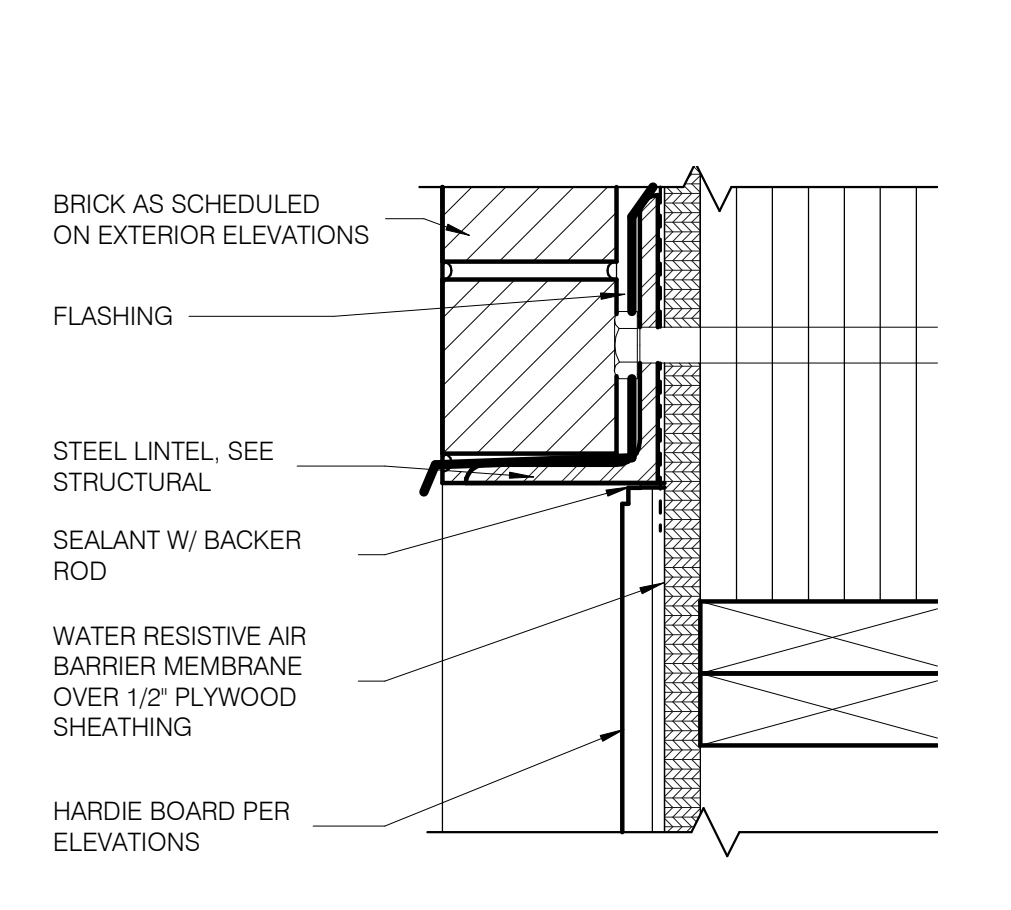
**HOSE BIB BOX** N.T.S. **7**

**ENTRANCE PORTAL ROOF** 3" = 1'-0" **6**

**CO2 FILL / J-BOX** N.T.S. **5**

**STOREFRONT SILL AT DRIVE-THRU** 3" = 1'-0" **4**

**HEAD AT BRICK SIDING** 3" = 1'-0" **3**



**BRICK TO HARDIE TRANSITION** 3" = 1'-0" **11**

**HEAD AT TOWER BRICK** N.T.S. **9**

**BASE AT WOOD SIDING** 3" = 1'-0" **8**

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BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

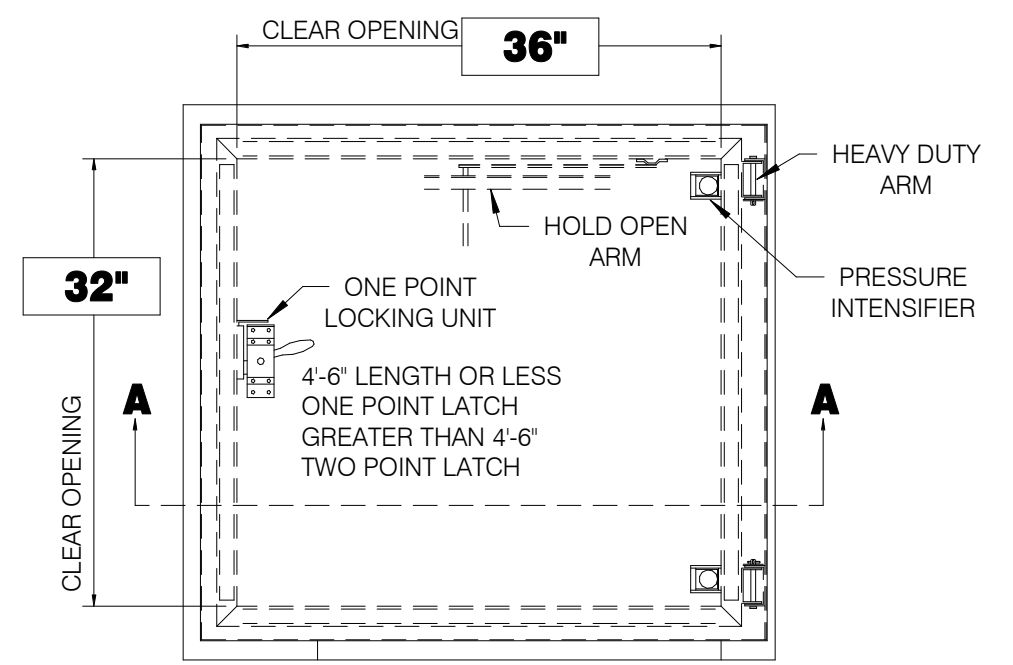
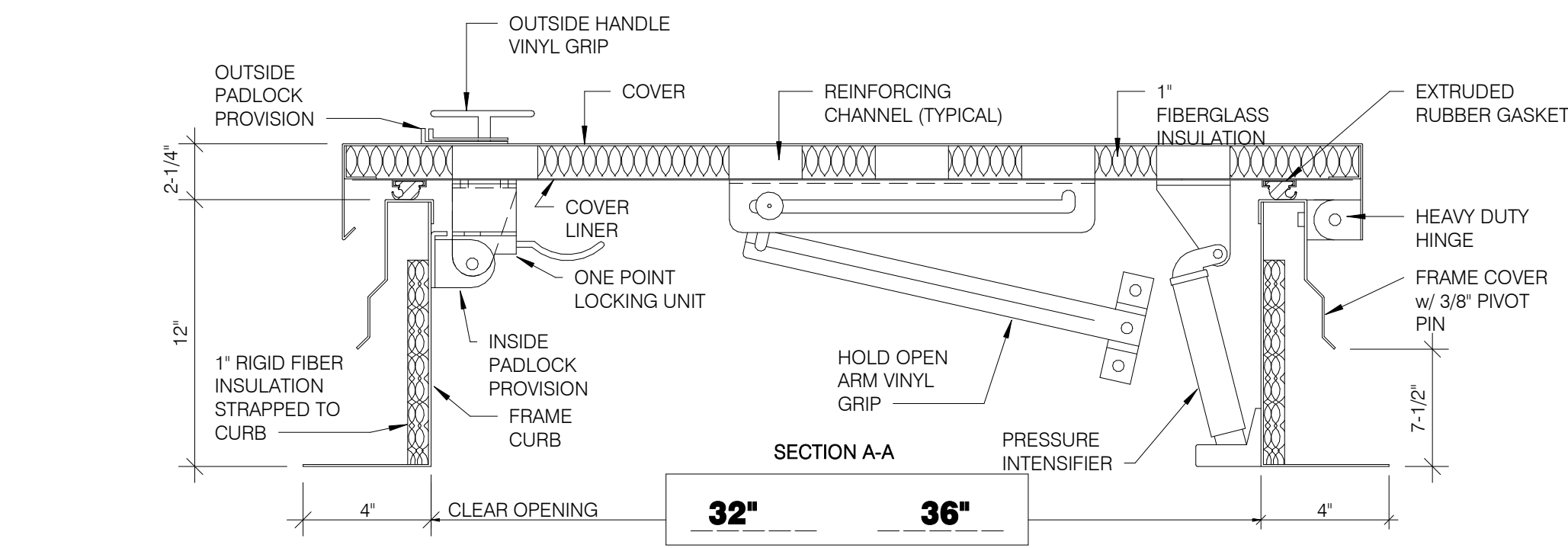
**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**CONSTRUCTION DETAILS WALL**

**A6.1**

PLOT DATE: 9/19/2018 8:57:45 AM





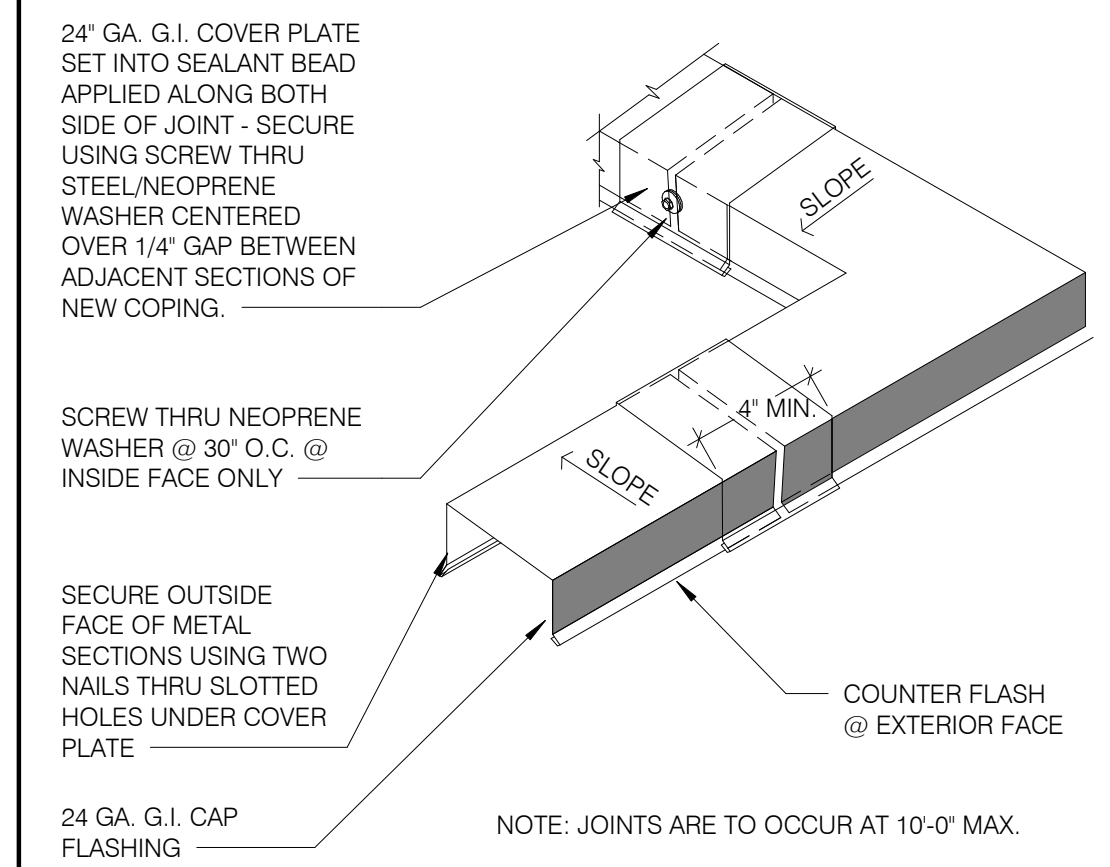
**HATCH MATERIAL:**  
GALVANIZED STEEL (PRIME PAINTED)  
COVER - 14 GA. GALV STEEL  
FRAME COVER - 14 GA. GALV STEEL  
FRAME CURB - 14 GA. GALV STEEL  
COVER LINER - 22 GA. GALV STEEL

**HATCH FINISH:**  
GALV - PRIME PAINTED

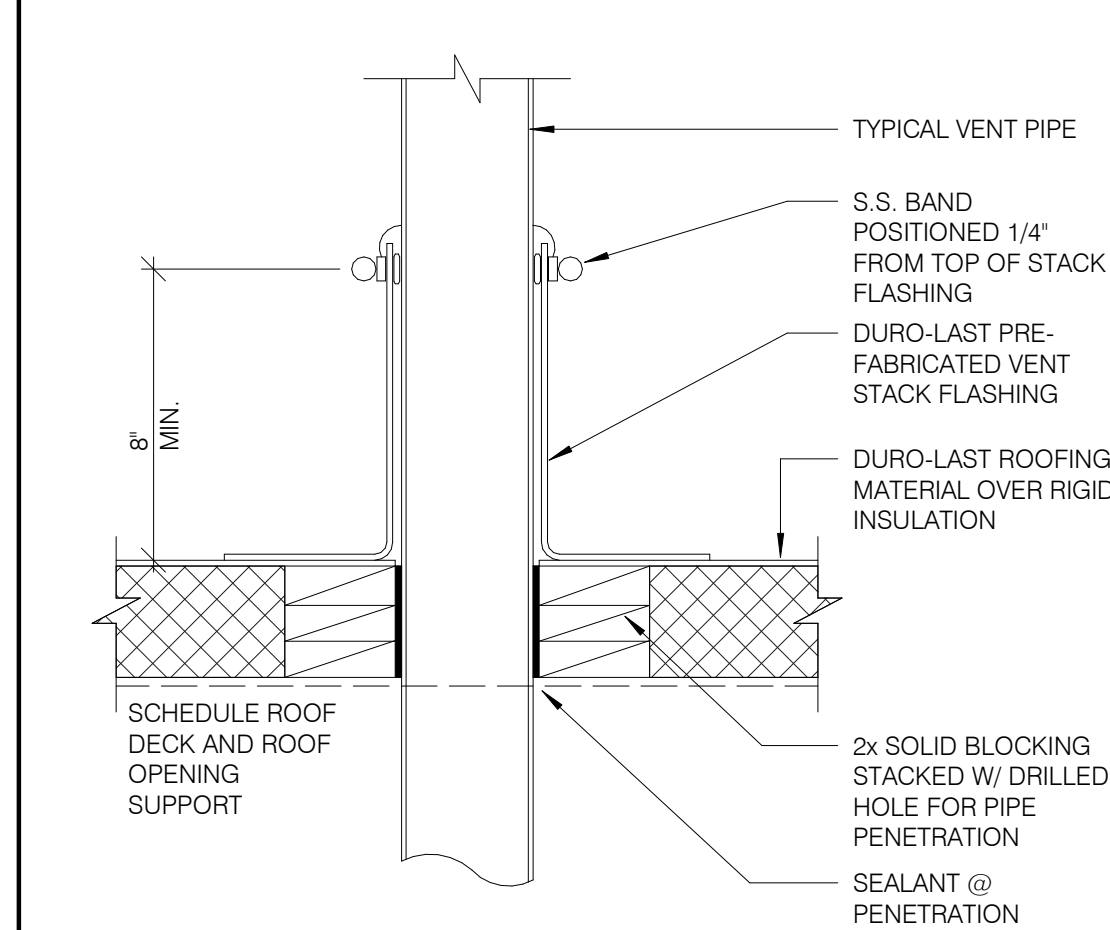
**MANUFACTURER:**  
PRECISION LADDERS, LLC OR EQUAL

**NOTES:**  
(1) ALL MOUNTING HARDWARE TO BE SUPPLIED BY OTHERS.  
(2) FOR OPERATING EFFICIENCY, HATCH HARDWARE VARIES BY SIZE.  
EXAMPLE MODEL #: PH- A/G OPENING SIZE IN FEET-INCHES (PH-G2630)

**ROOF LADDER AND HATCH** 3' = 1'-0" **4**

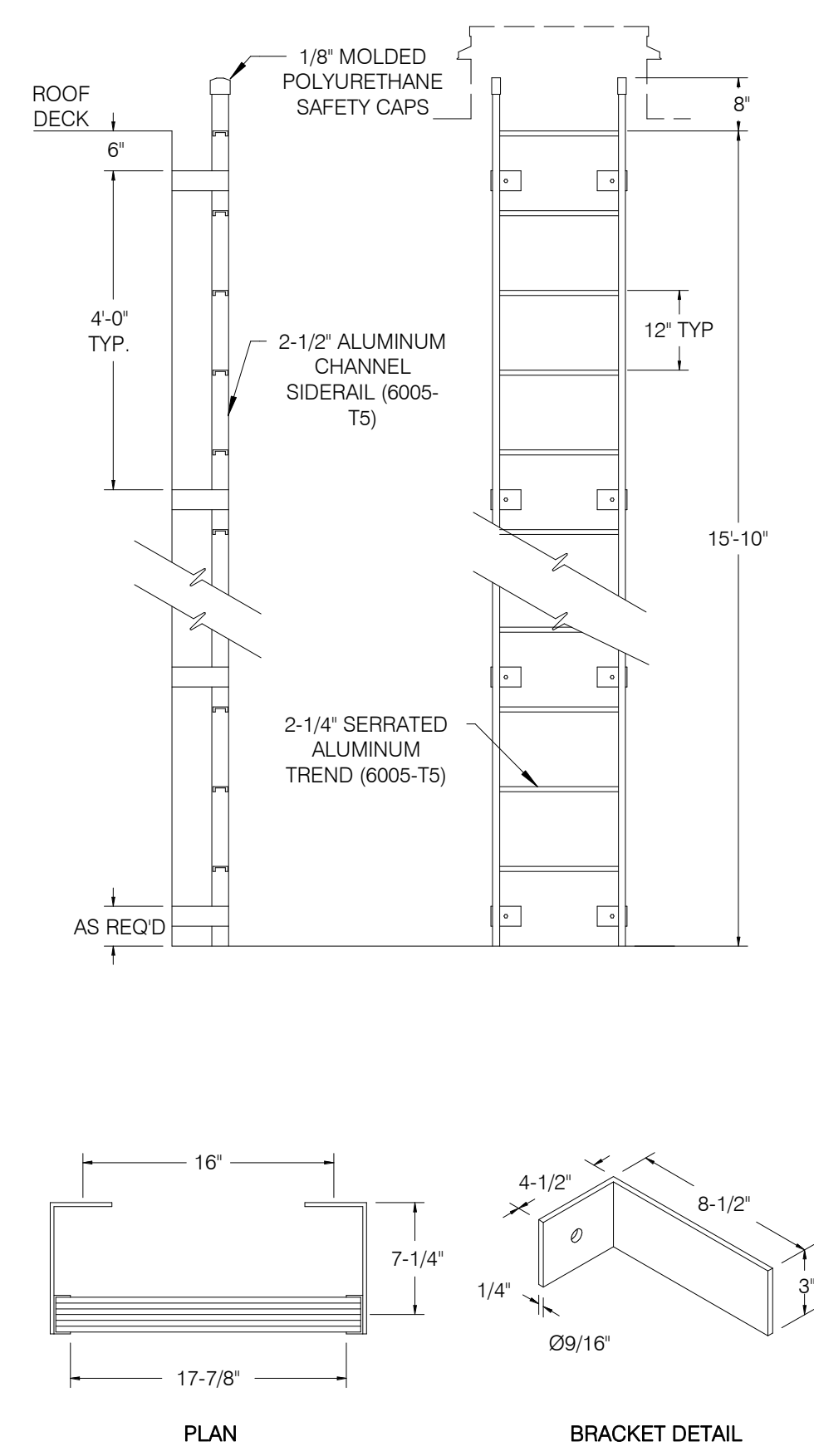


**COPING JOINT** N.T.S. **3**

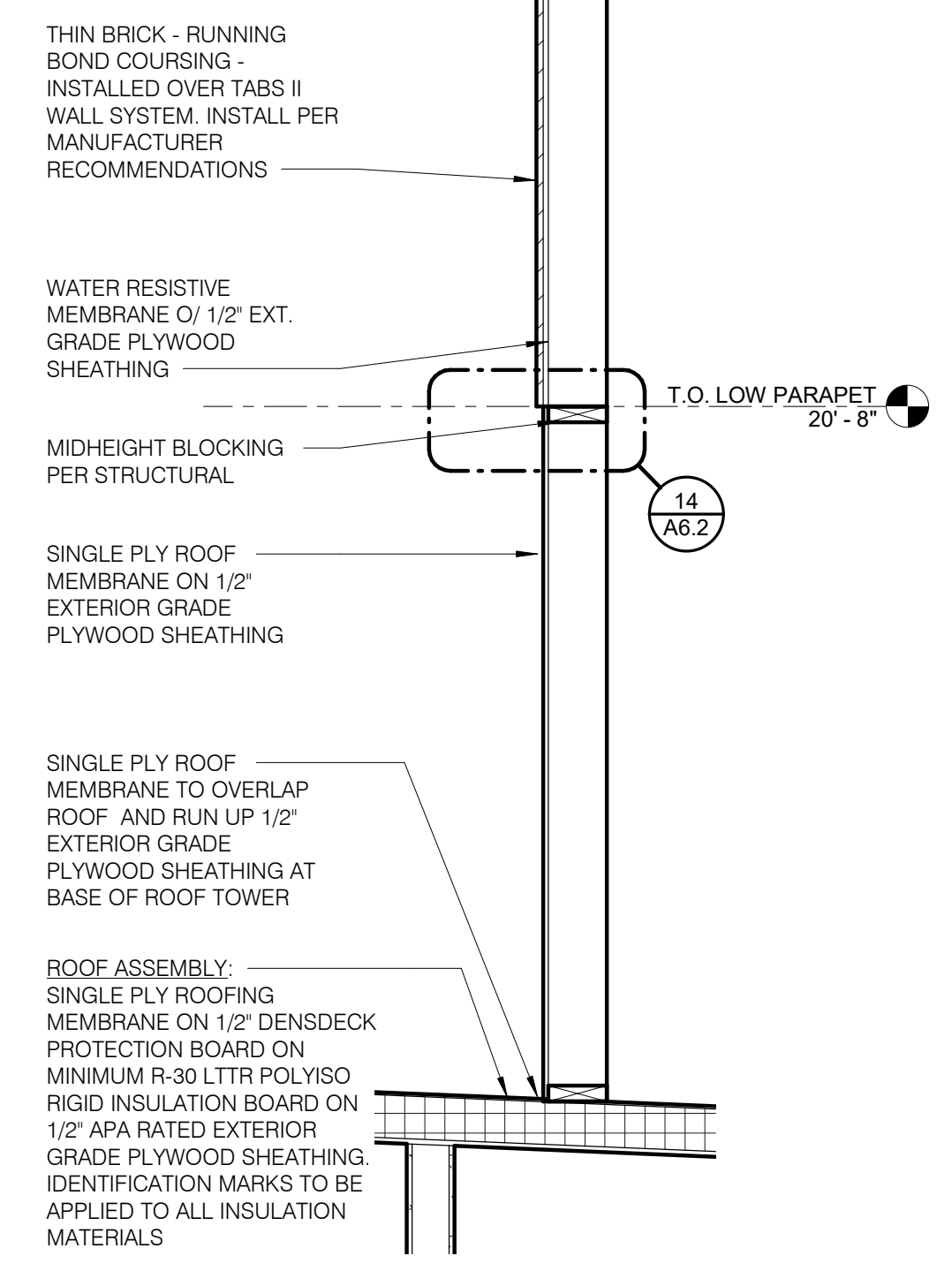


**SEALED PIPE FLASHING** N.T.S. **5**

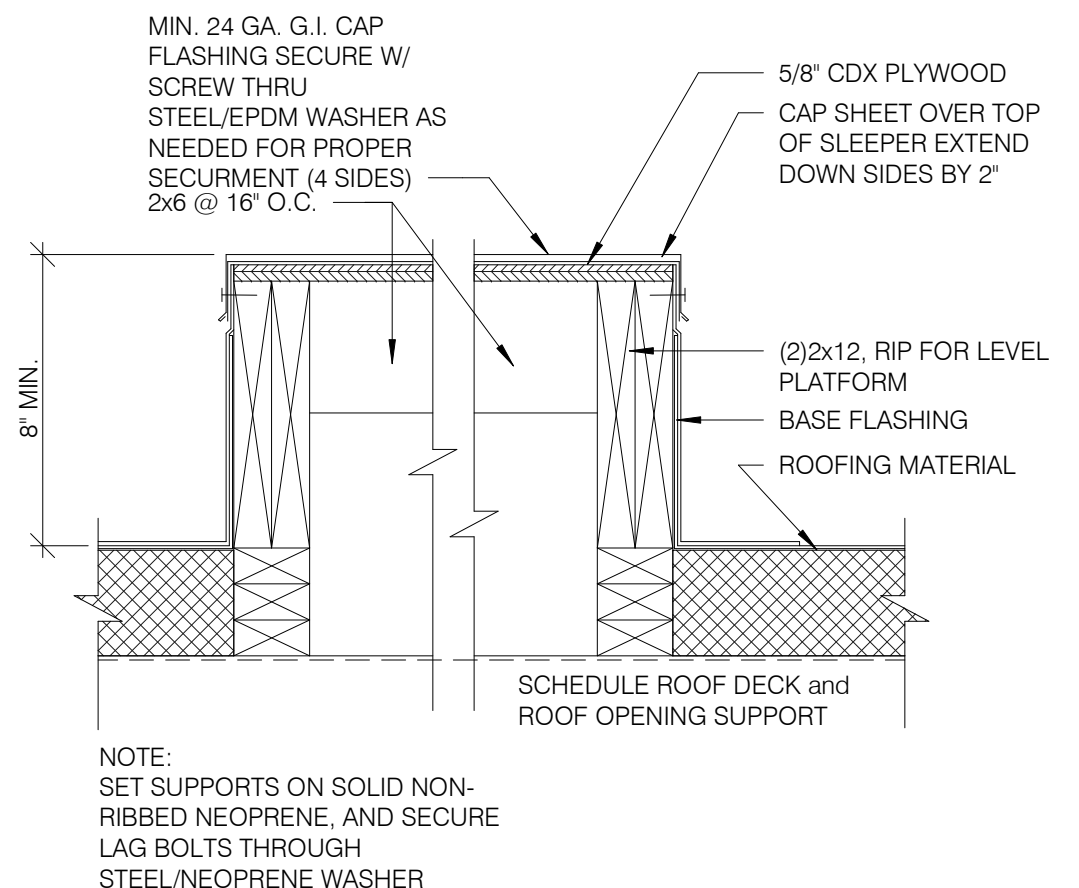
NOTE: G.C. TO PROVIDE BLOCKING AND INSTALL THE LADDER.



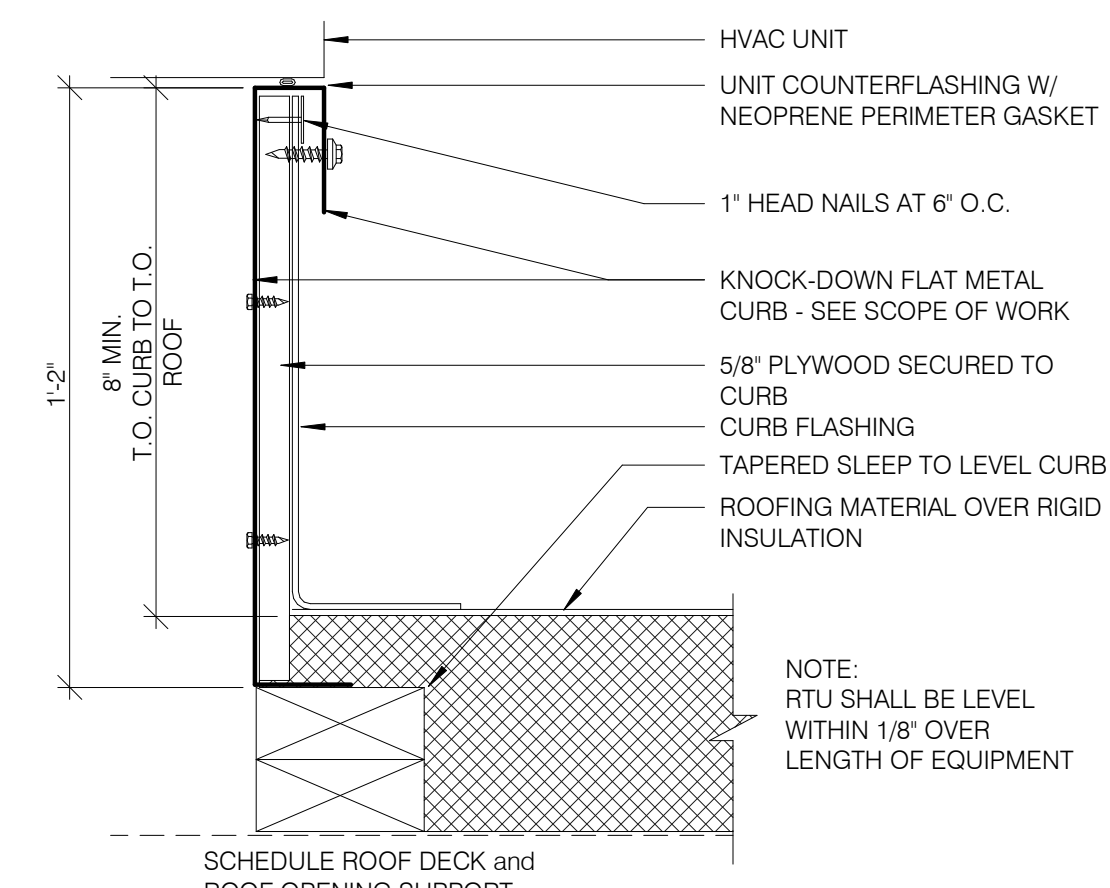
**ROOF LADDER** N.T.S. **2**



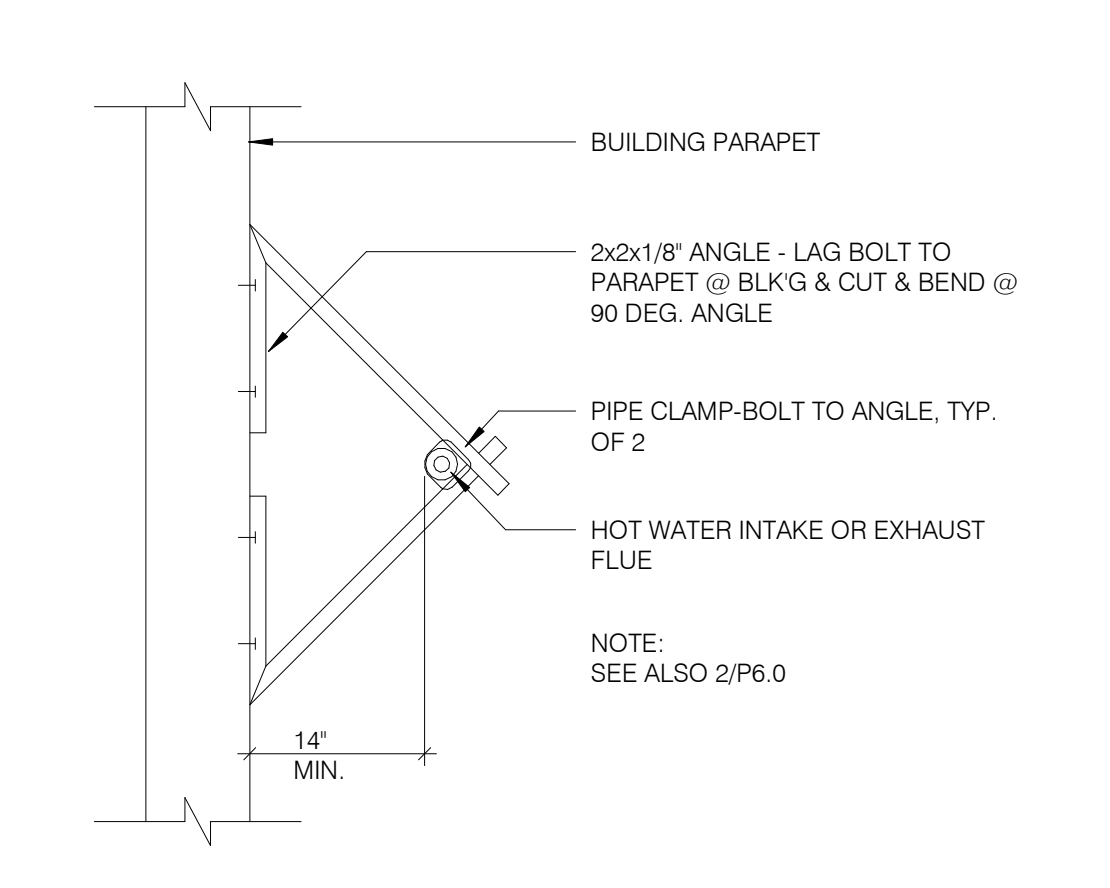
**TOWER TO ROOF** N.T.S. **1**



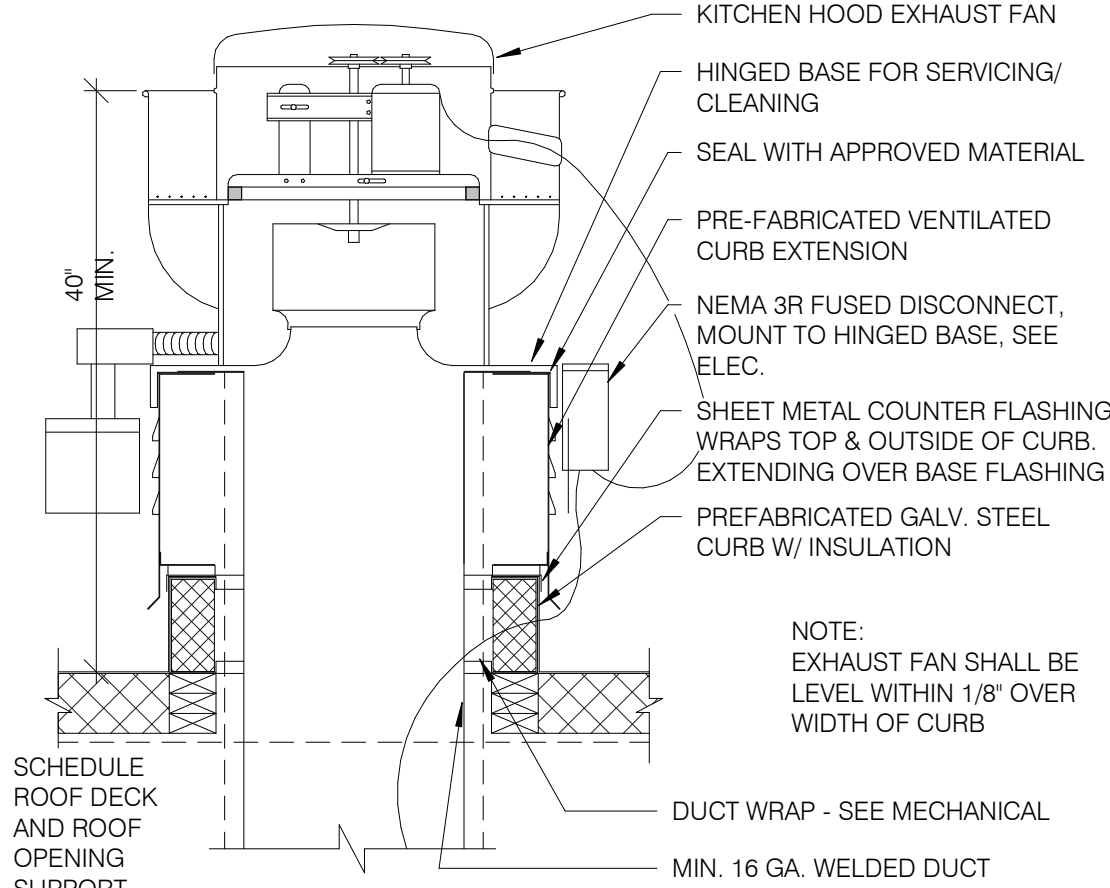
**EQUIPMENT PLATFORM SUPPORT** 3' = 1'-0" **10**



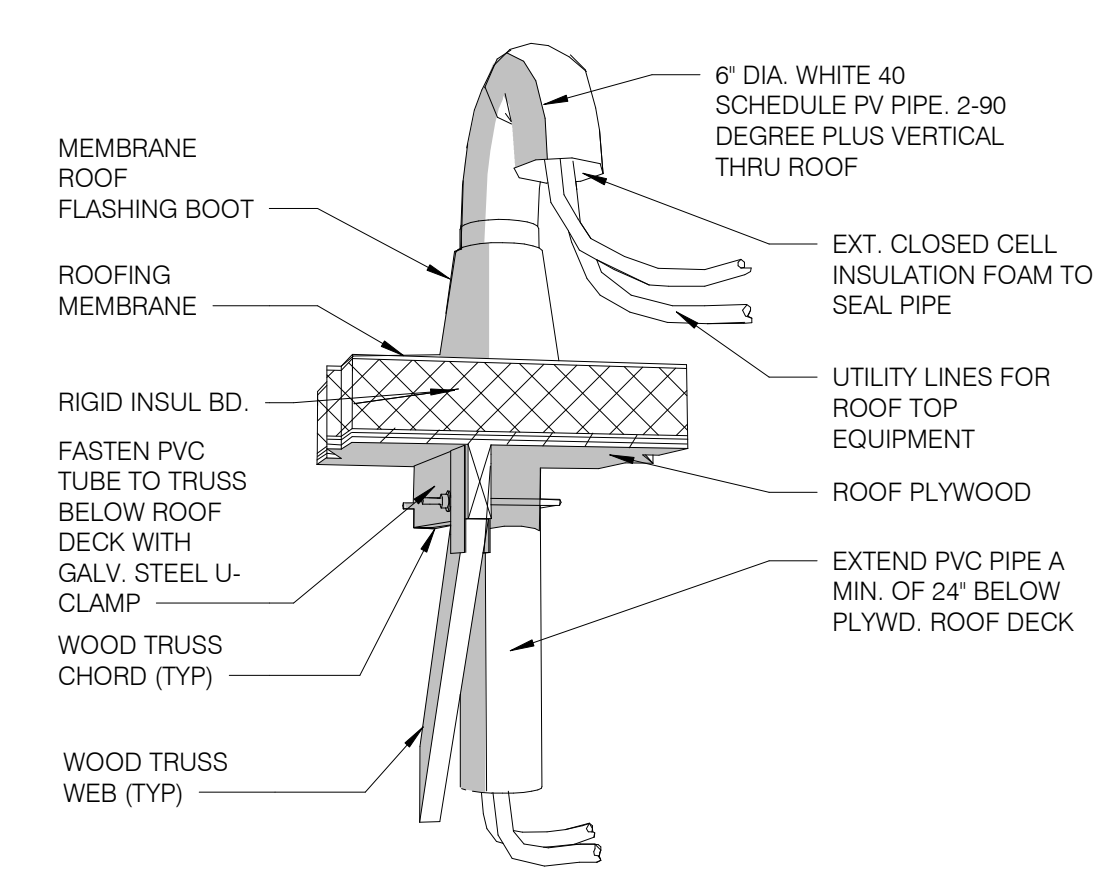
**HVAC CURB** 3' = 1'-0" **9**



**W.H. FLUE / INTAKE PIPE SUPPORT** N.T.S. **8**



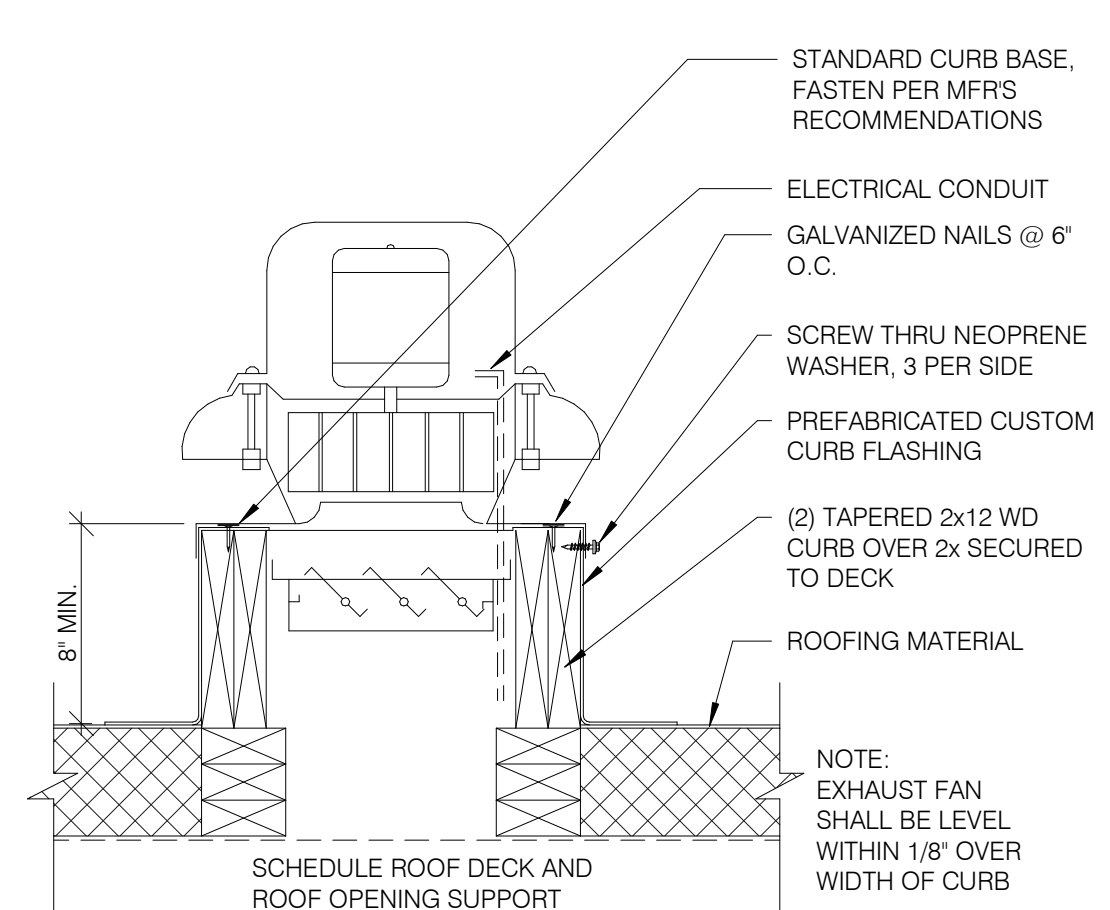
**EXHAUST FAN CURB** N.T.S. **7**



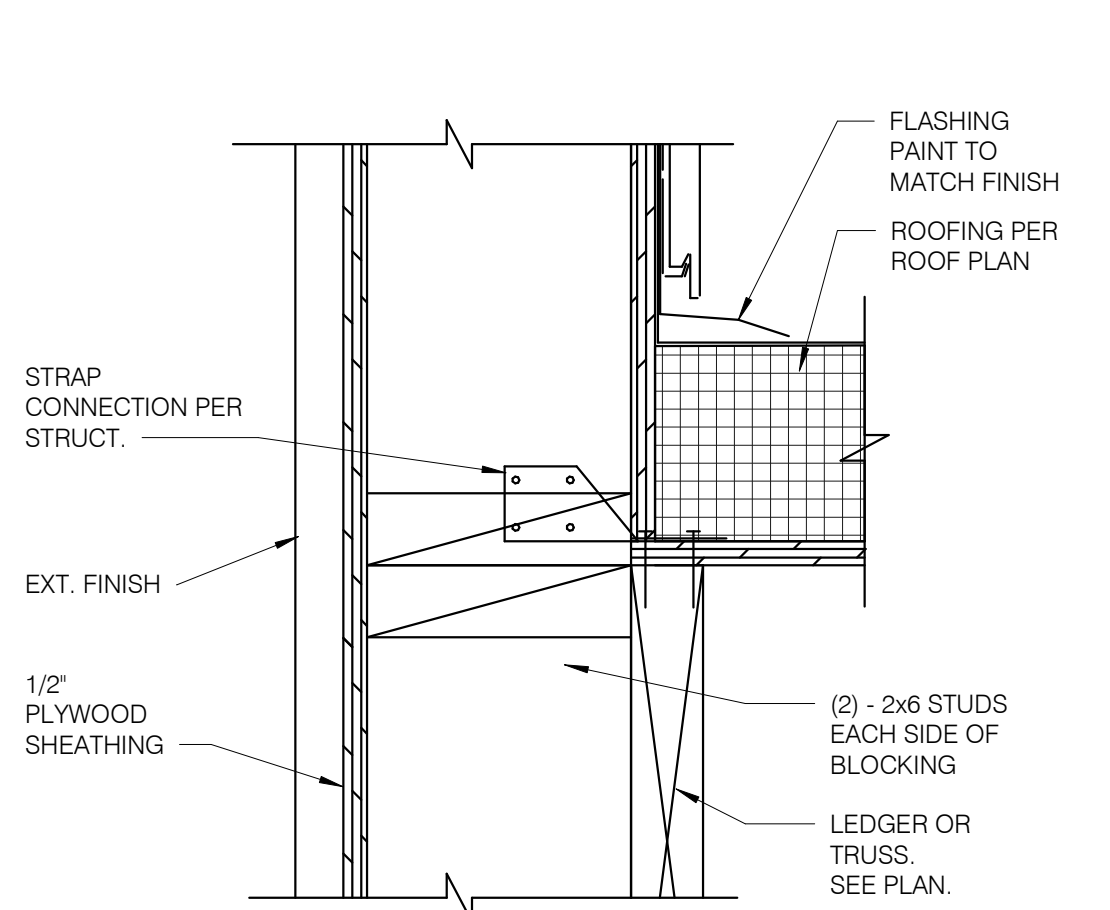
**PIPE HOOD** N.T.S. **6**



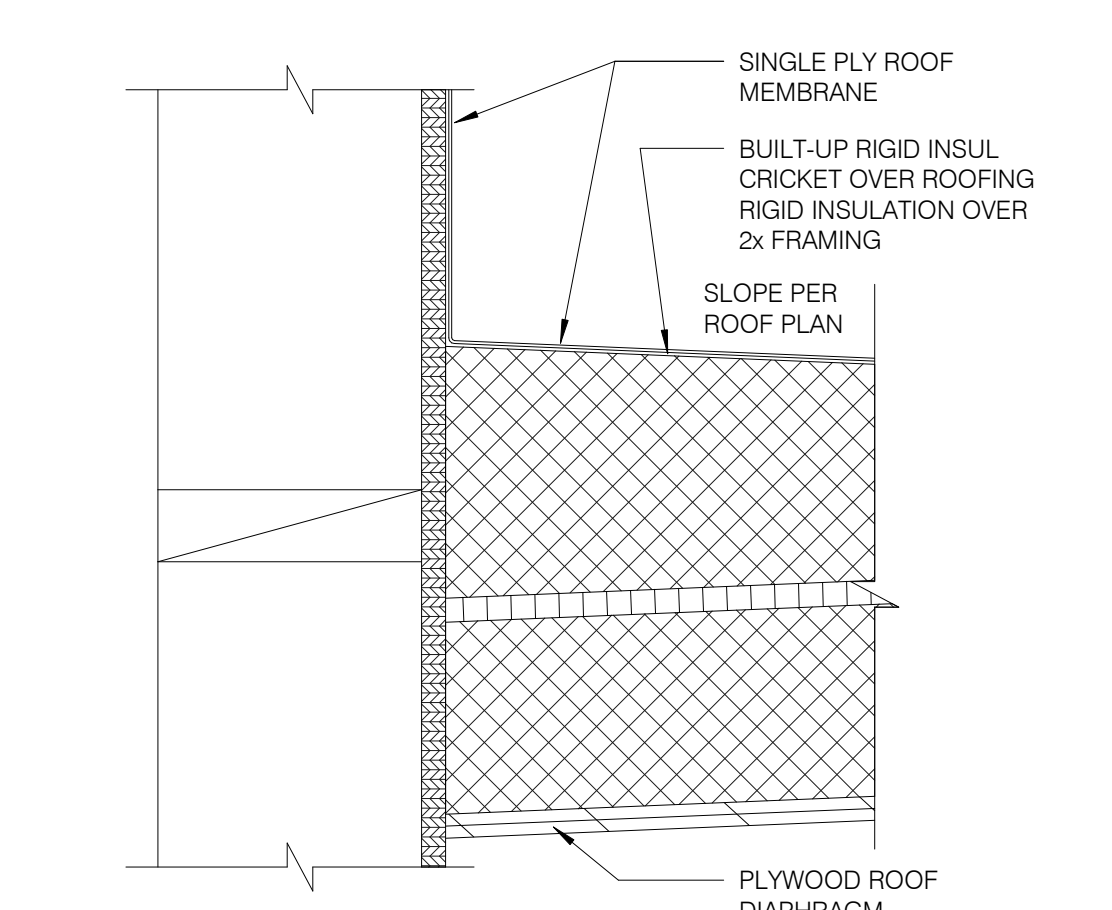
**TOWER THIN BRICK TRANSITION** N.T.S. **14**



**EXHAUST FAN CURB** N.T.S. **13**



**CON. @ STUD AND @ BLOCKING** 12\"/>



**CRICKET** 3' = 1'-0" **11**

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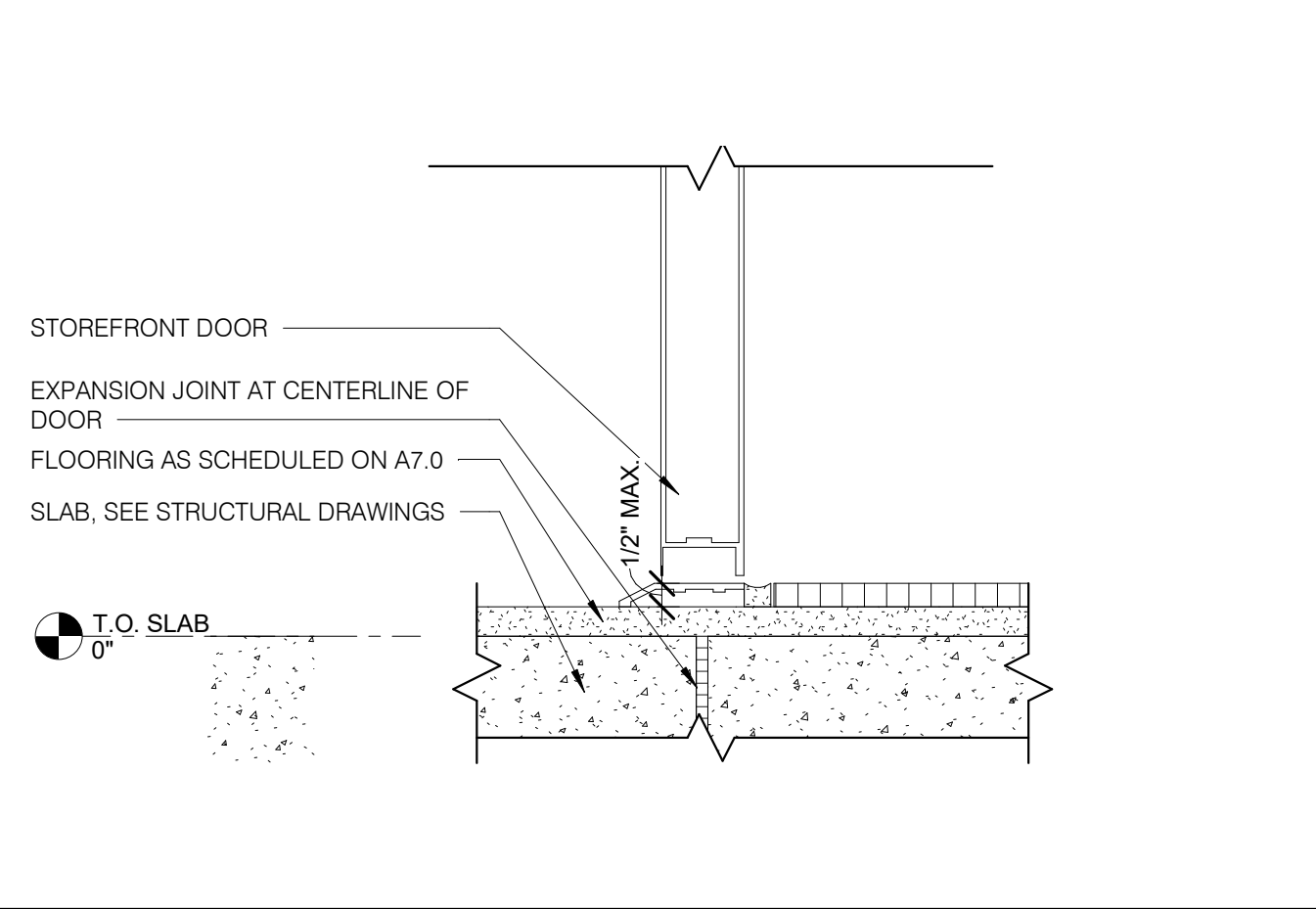
**TACO BELL**  
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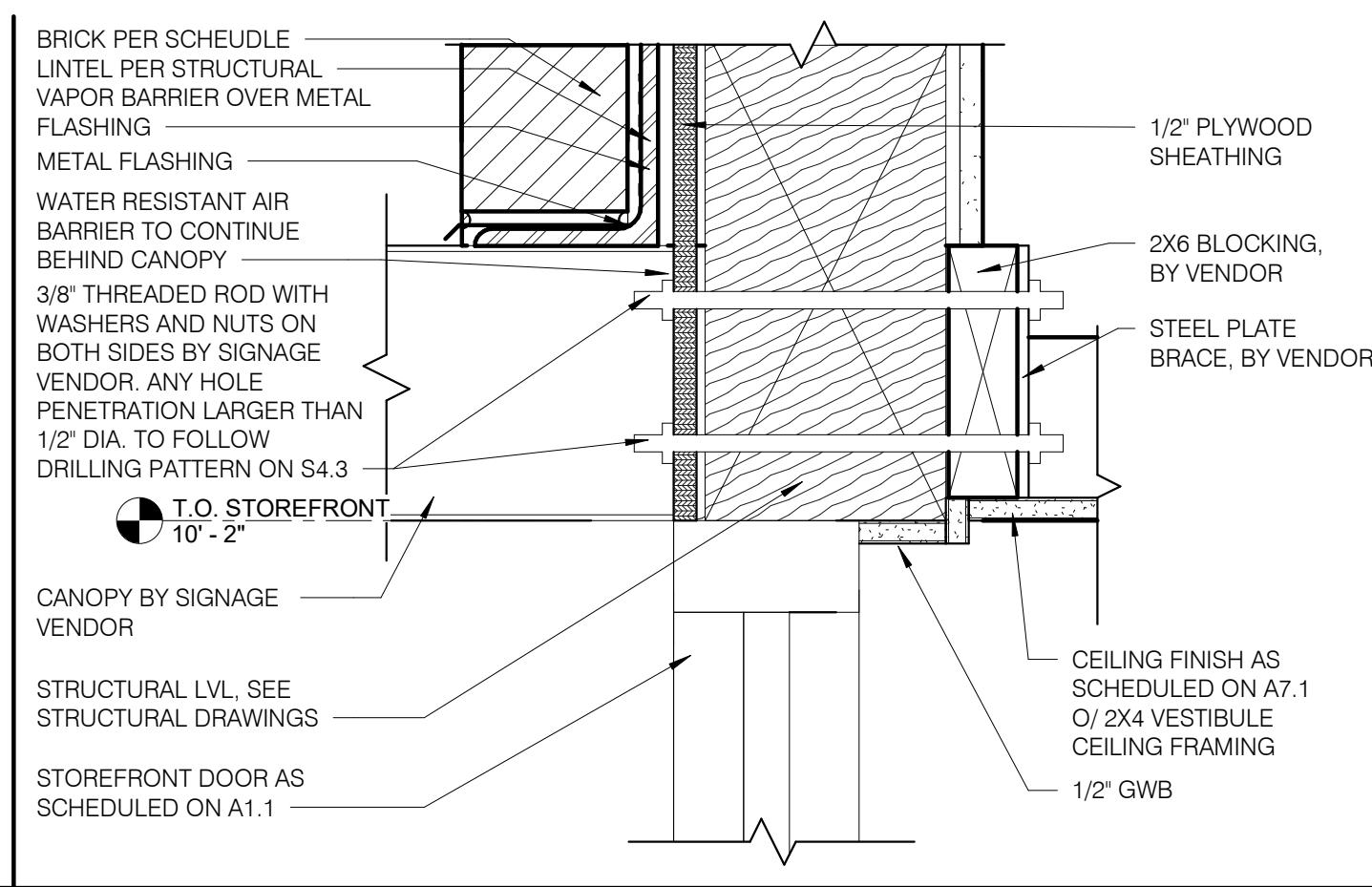
**CONSTRUCTION DETAILS ROOF**

**A6.2**

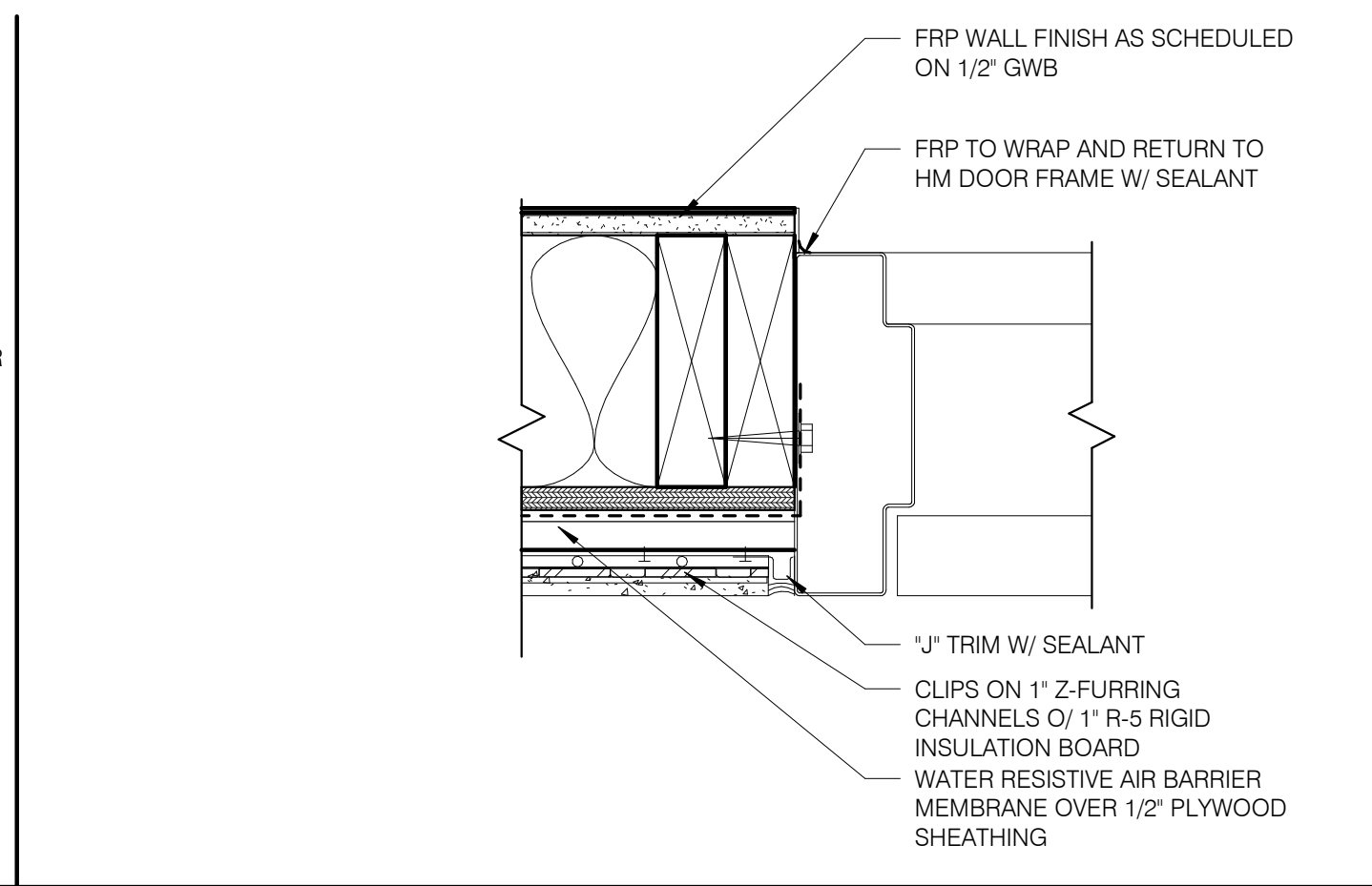
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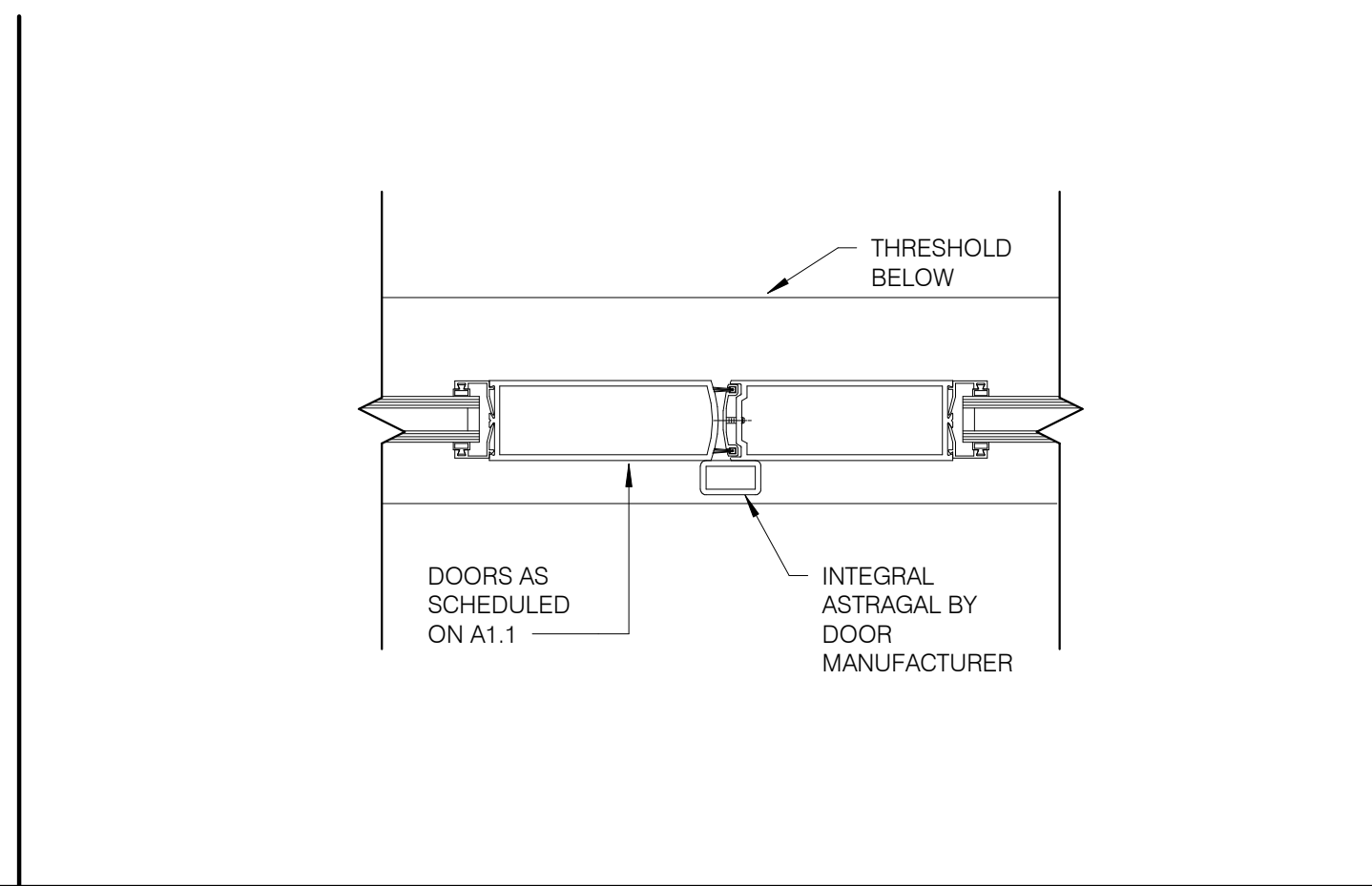
**STOREFRONT DOOR THRESHOLD** 3' - 1'-0" **4**



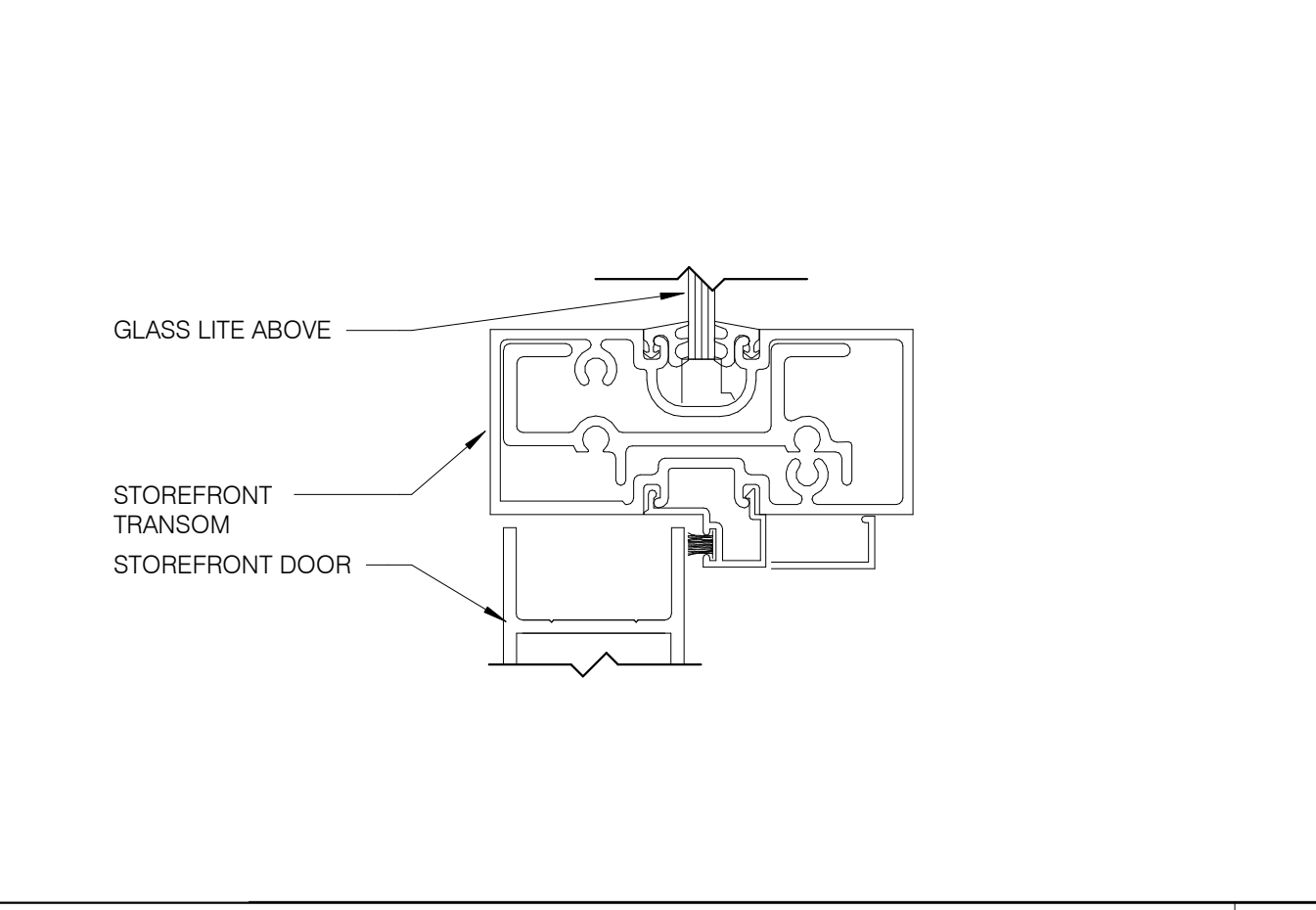
**STOREFRONT DOOR HEAD** 3' - 1'-0" **3**



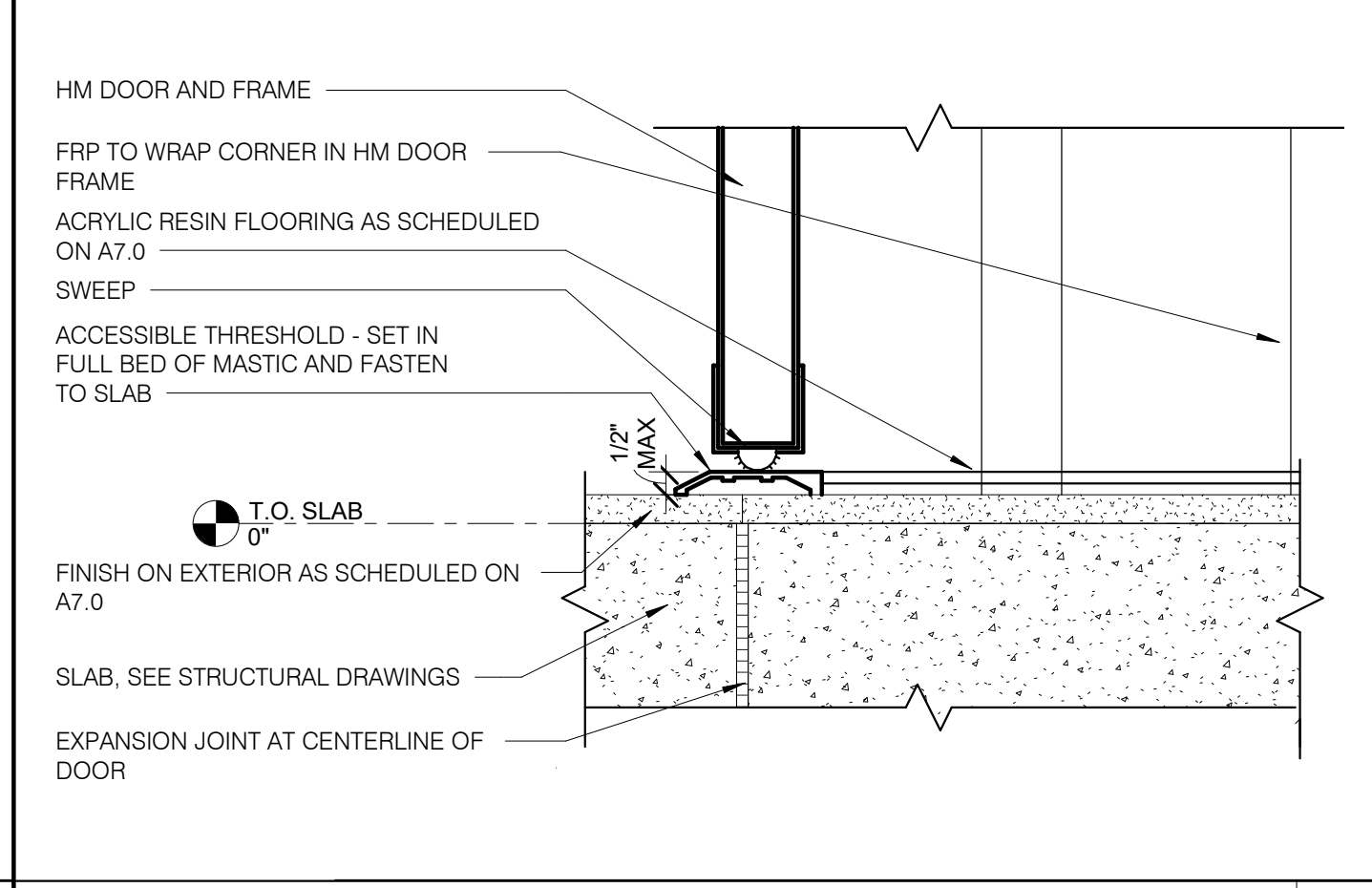
**JAMB AT SERVICE DOOR** 3' - 1'-0" **2**



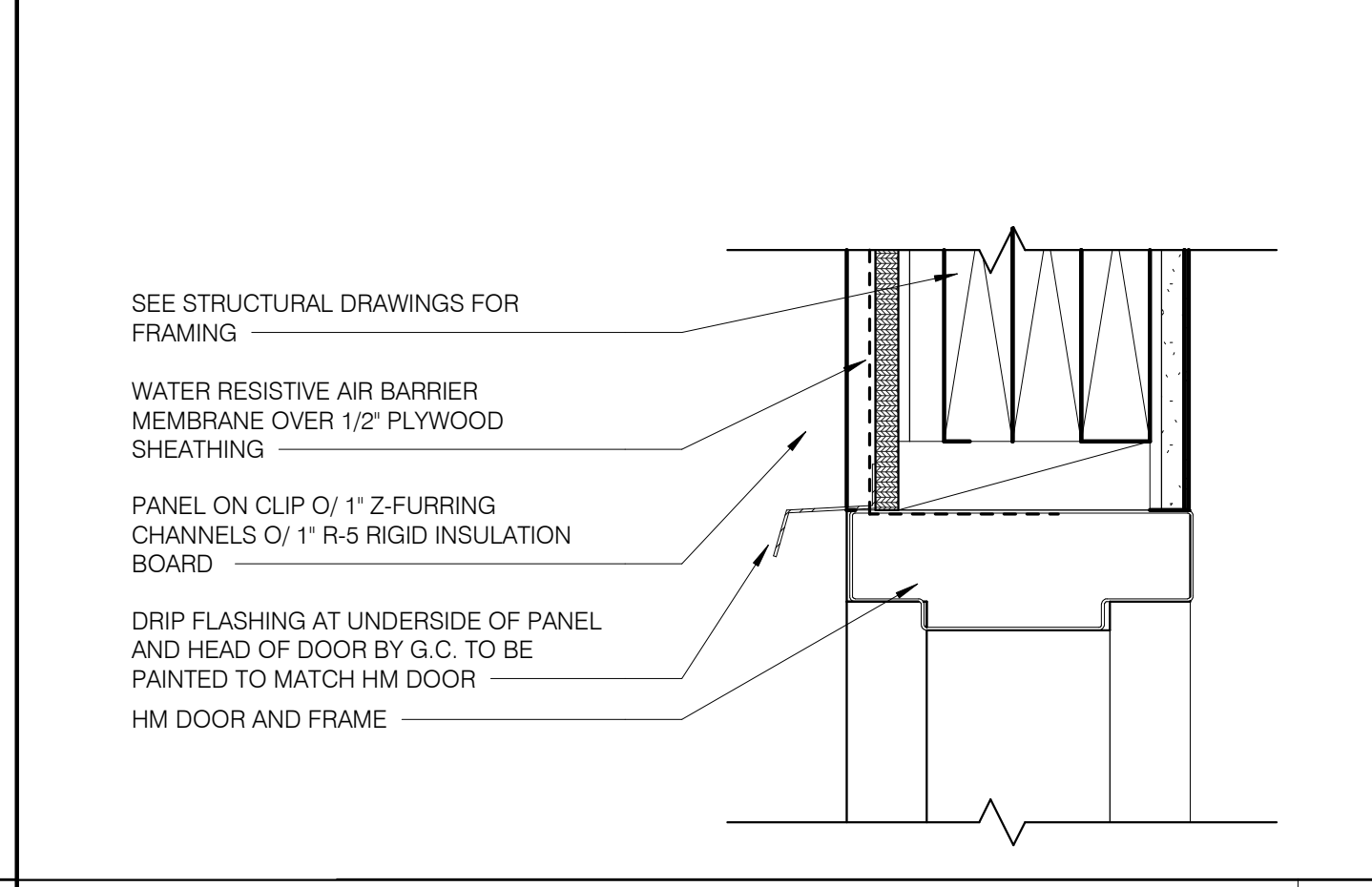
**STOREFRONT JAMB AT ENTRANCE** 3' - 1'-0" **1**



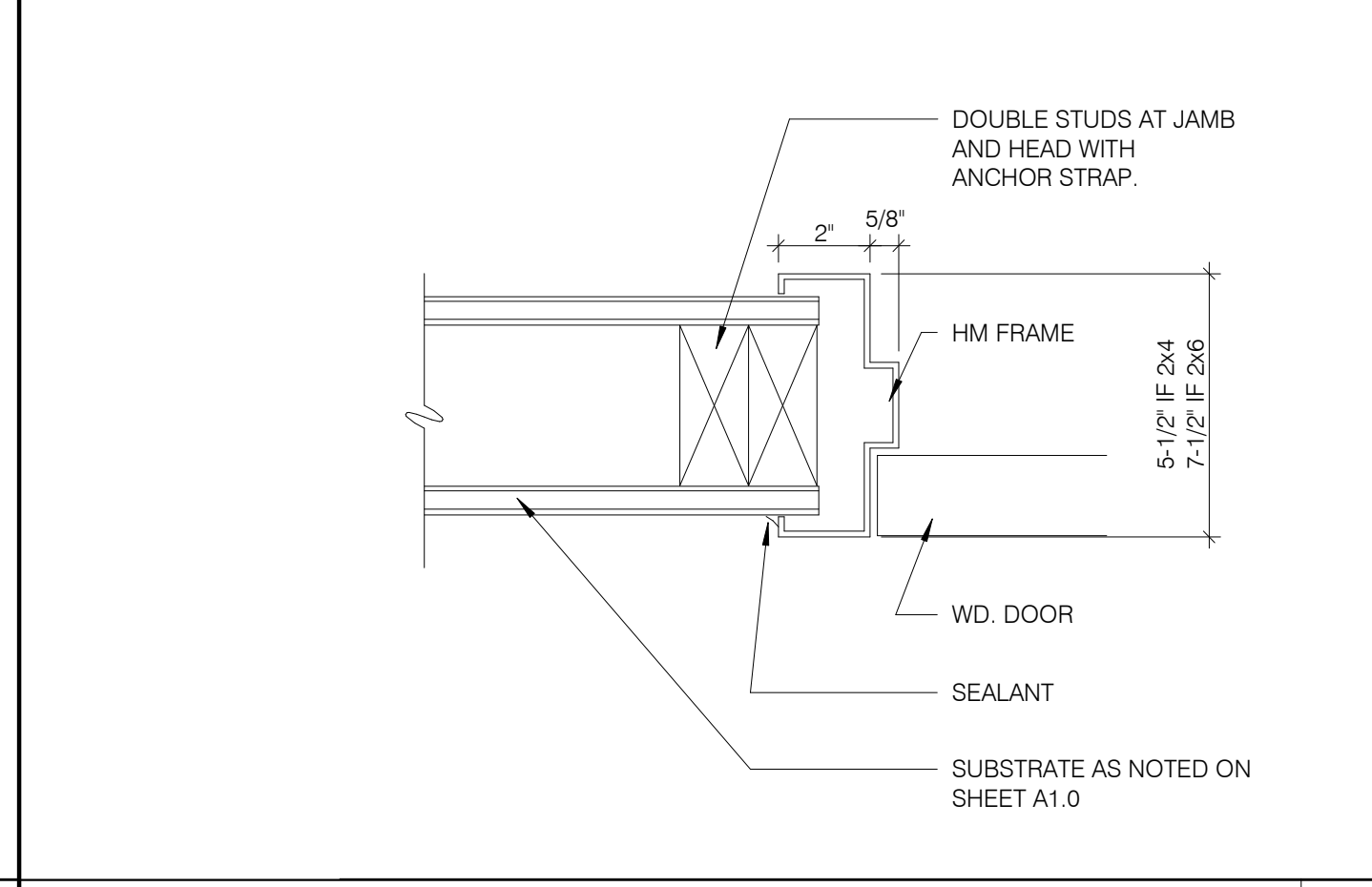
**STOREFRONT DOOR HEAD AT TRANSOM** 6' - 1'-0" **8**



**SERVICE DOOR THRESHOLD** 3' - 1'-0" **7**



**SERVICE DOOR HEAD** 3' - 1'-0" **6**



**JAMB @ H.M. DOOR** N.T.S. **5**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

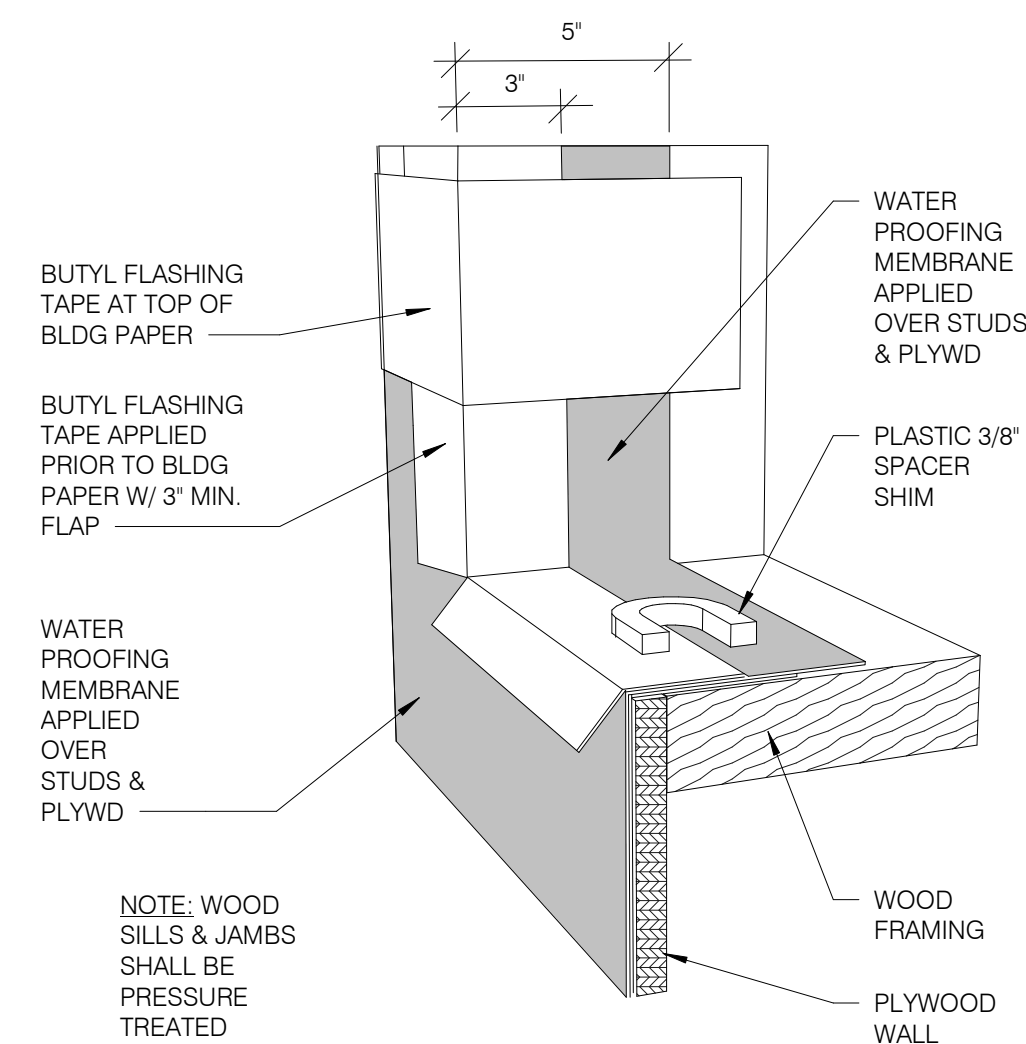
**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**CONSTRUCTION  
DETAILS DOOR**

**A6.3**

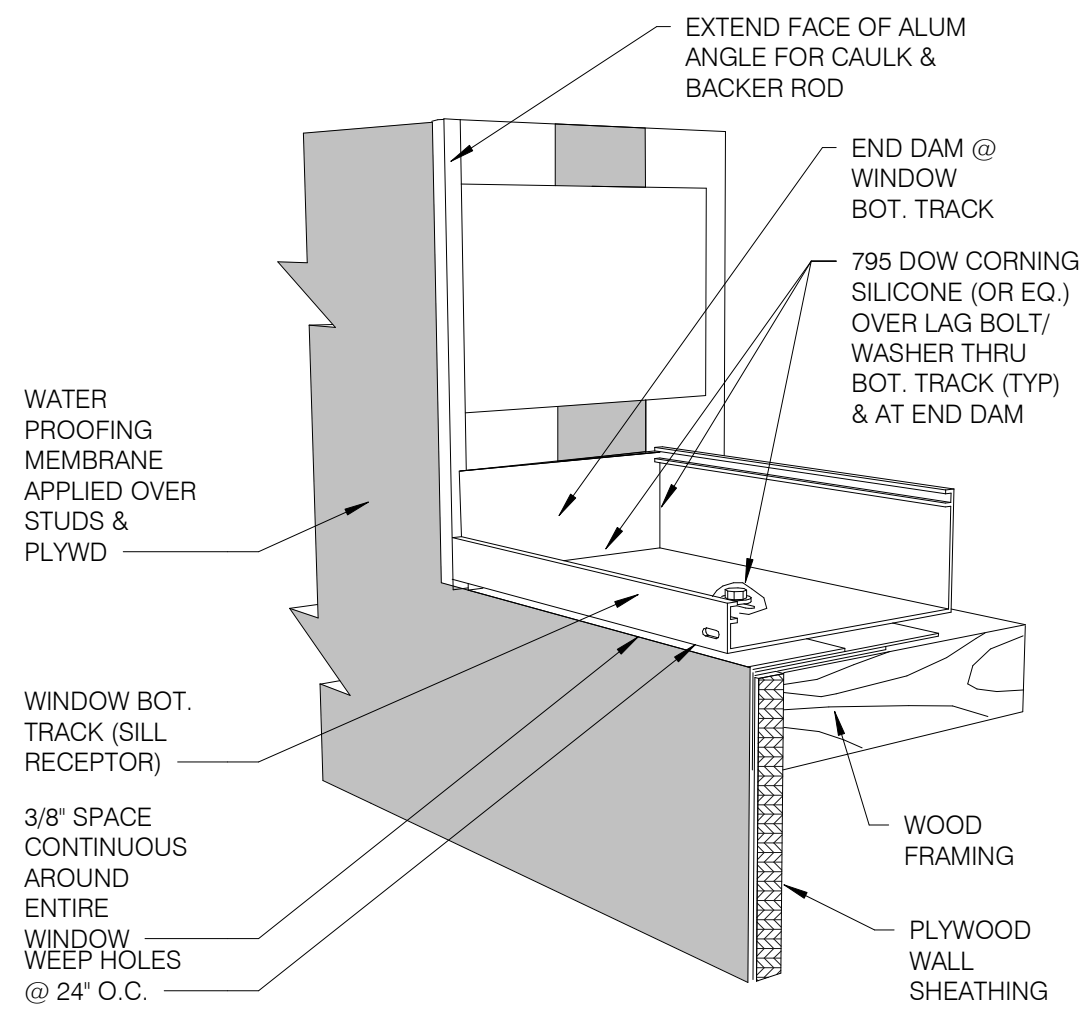
PLOT DATE: 9/17/2018 2:28:37 PM





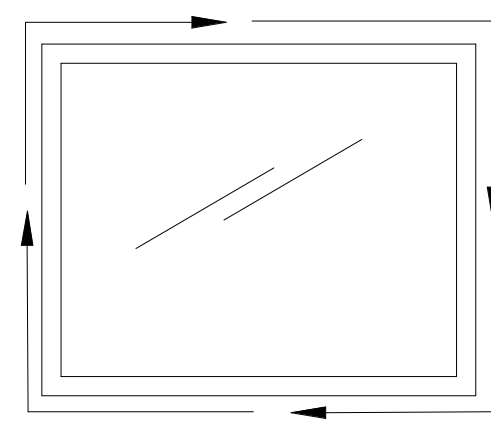
**WATER PROOFING ROUGH OPENING**

AFTER FRAMING WATER PROOFING MEMBRANE PER FIBER CEMENT PANEL MANUFACTURER RECOMMENDATIONS. ADD FLASHING TAPE AROUND THE ROUGH OPENING FOR THE WINDOW AND DOOR OPENING.



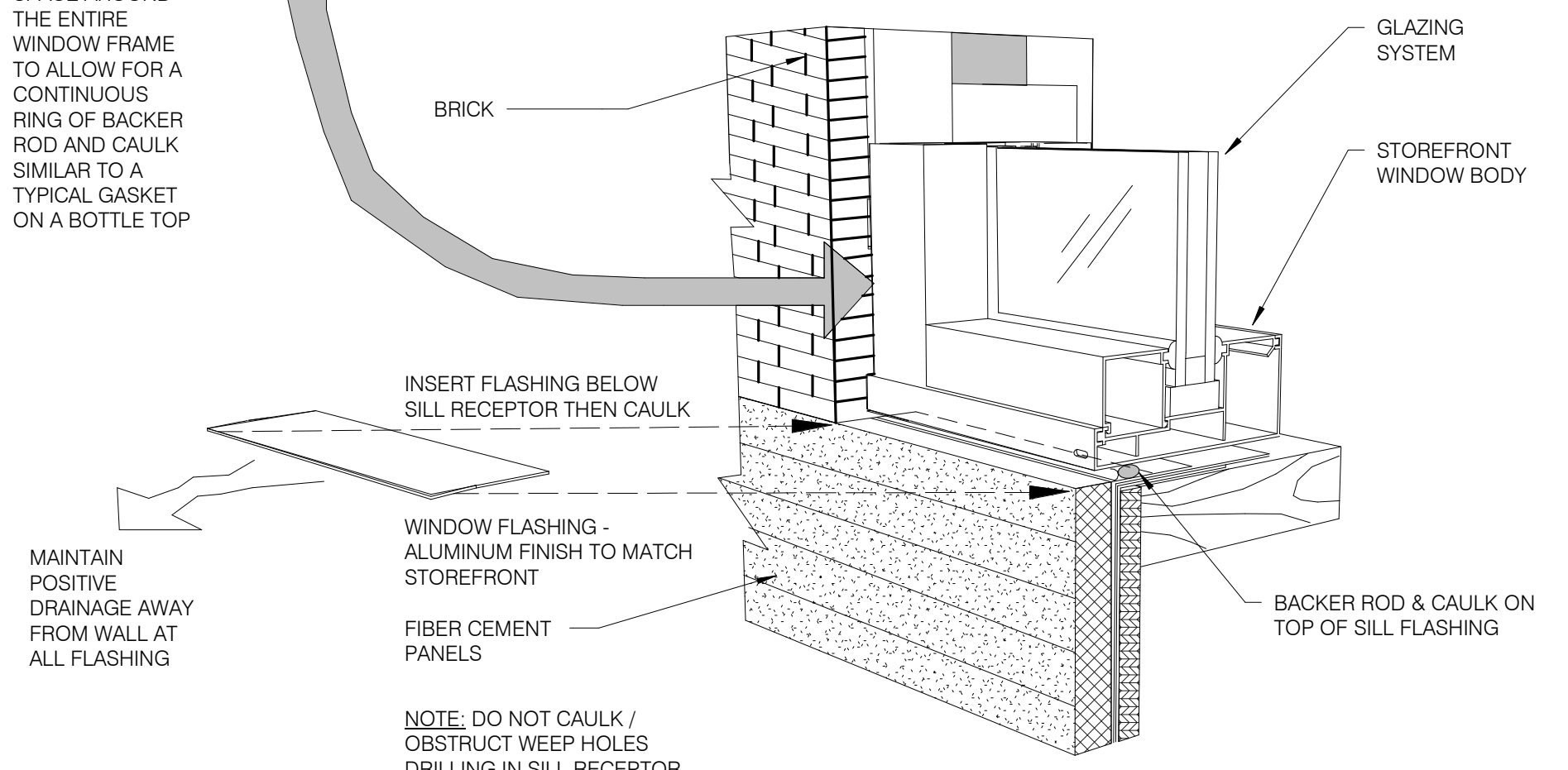
**ADD SILL RECEPTOR AND END DAM**

THIS DIAGRAM SHOWS THE APPLICATION OF SILL RECEPTOR AND WATERPROOFING MEMBRANE. USE 100% PURE ISOPROPYL ALCOHOL TO CLEAN METAL SURFACE PRIOR TO APPLYING SILICONE



**WINDOW ELEVATION**

NOTE: THERE SHOULD BE A 3/8\"/>



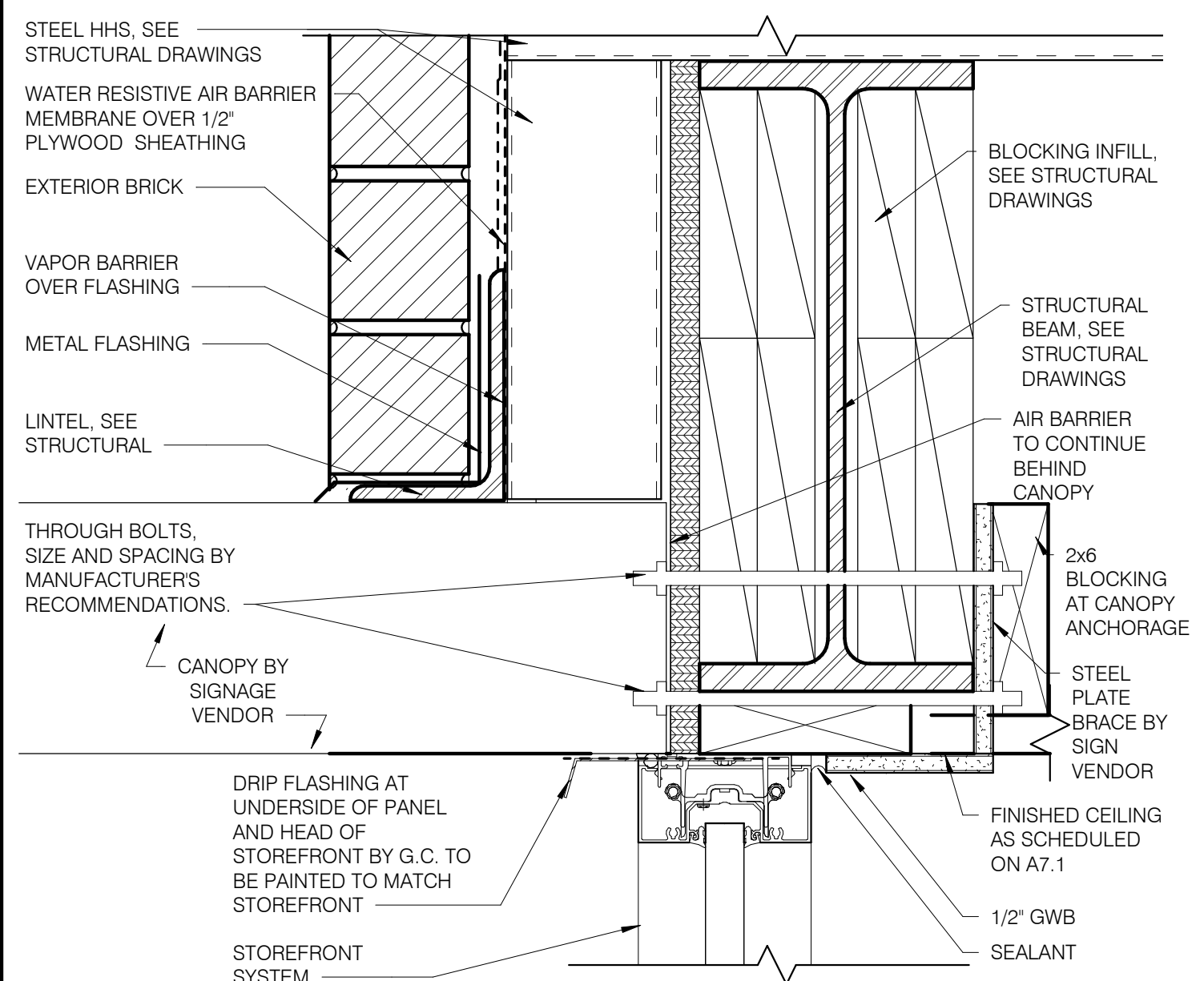
**COMPLETING WINDOW SYSTEM**

SET STOREFRONT WINDOW, APPLY FIBER CEMENT PANEL SYSTEM AND THEN ADD WINDOW FLASHING OVER TOP OF FIBER CEMENT PANEL AT WINDOW SILL

**TYPICAL WINDOW WALL WATER PROOFING**

N.T.S.

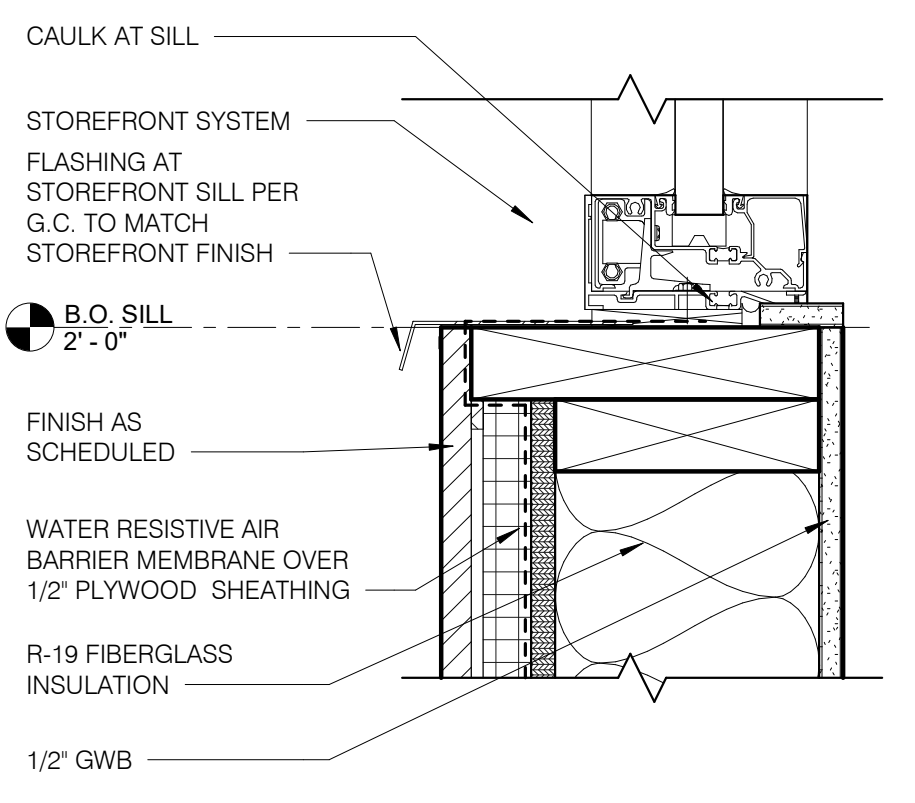
**8**



**STOREFRONT HEAD AT DRIVE-THRU WINDOW**

N.T.S.

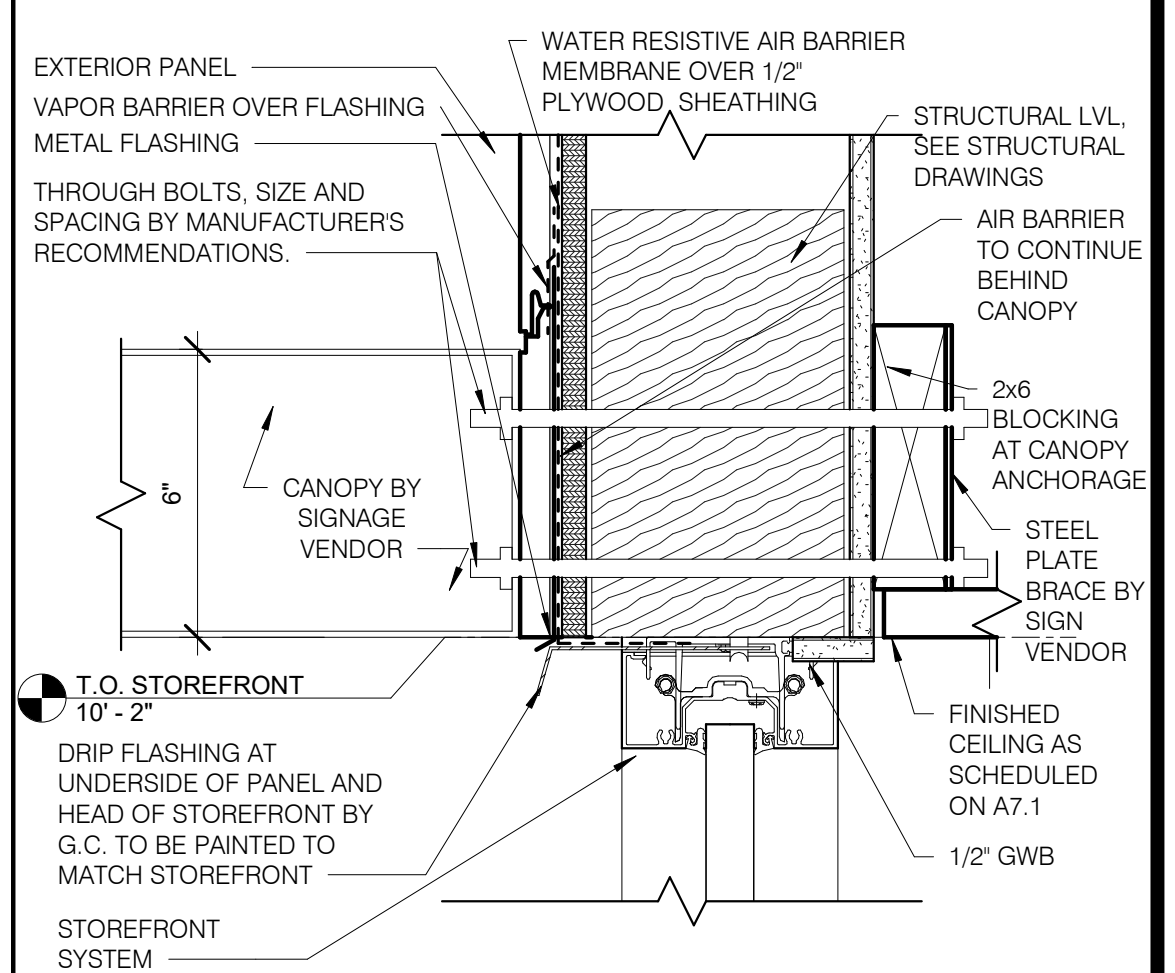
**2**



**STOREFRONT SILL AT DINING**

3\"/>

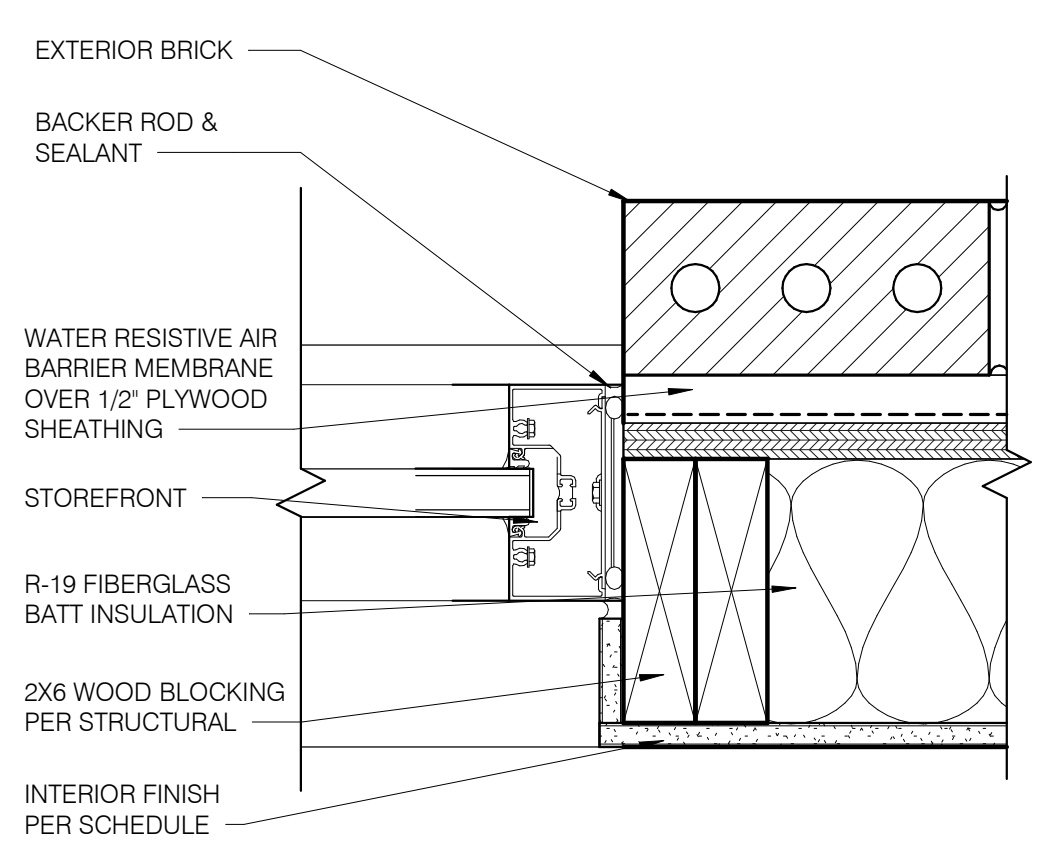
**4**



**STOREFRONT HEAD AT DINING**

3\"/>

**1**



**STOREFRONT JAMB DETAILS**

3\"/>

**3**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

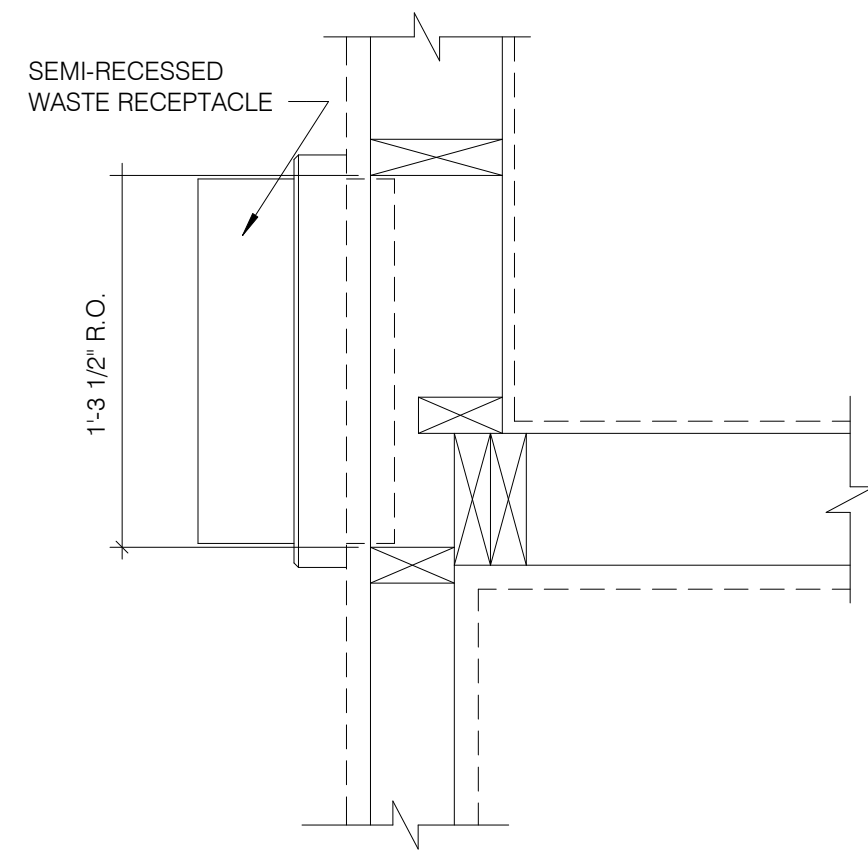
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

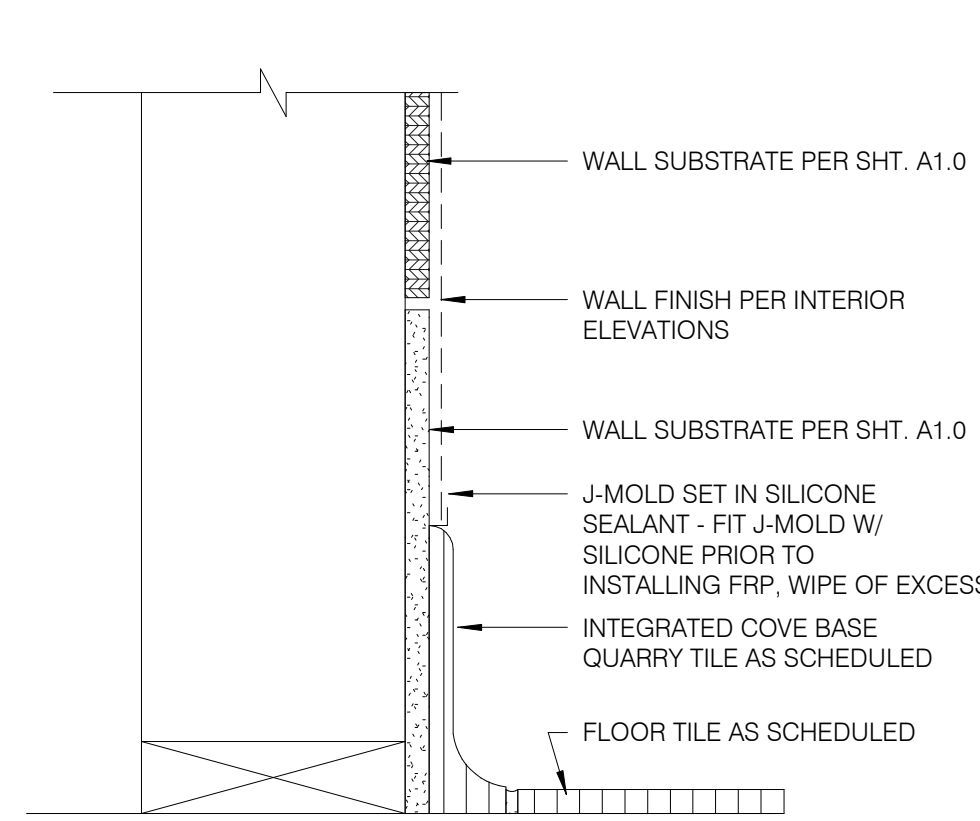
**CONSTRUCTION DETAILS WINDOW**

**A6.4**

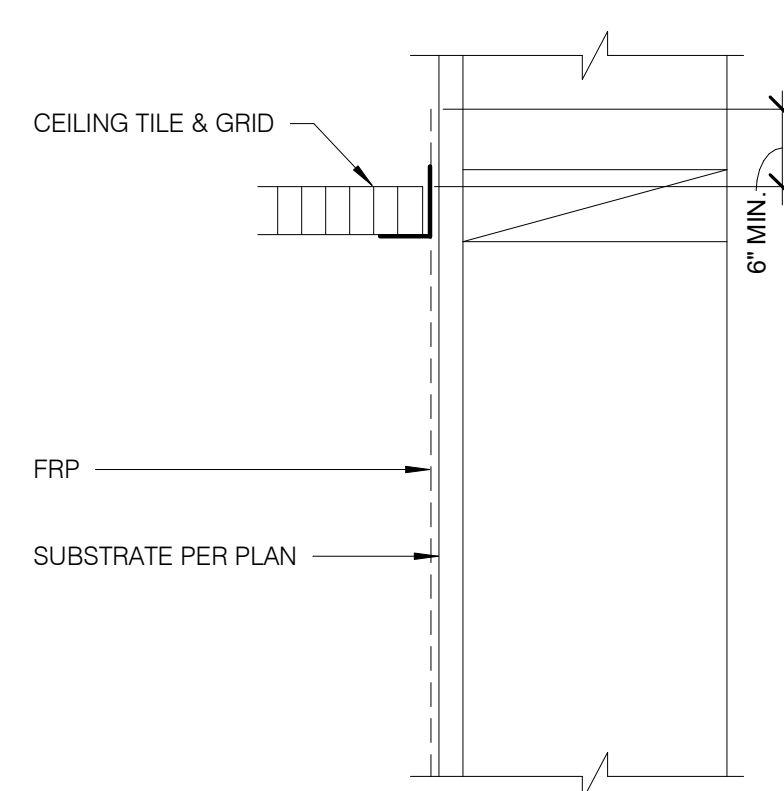
PLOT DATE: 9/17/2018 2:28:38 PM



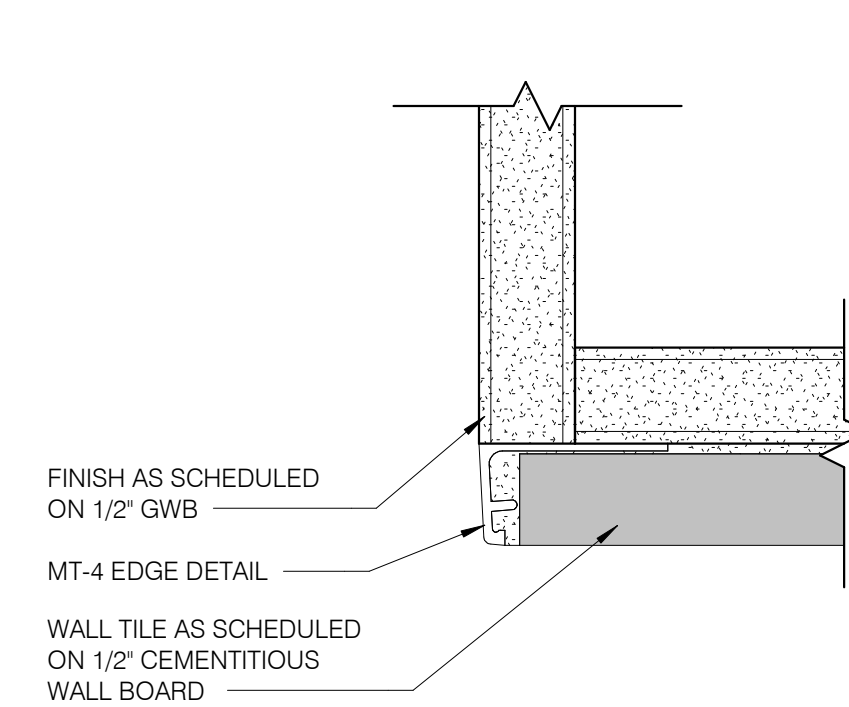
**SEMI-RECESSED WASTE RECEPT** N.T.S. **5**



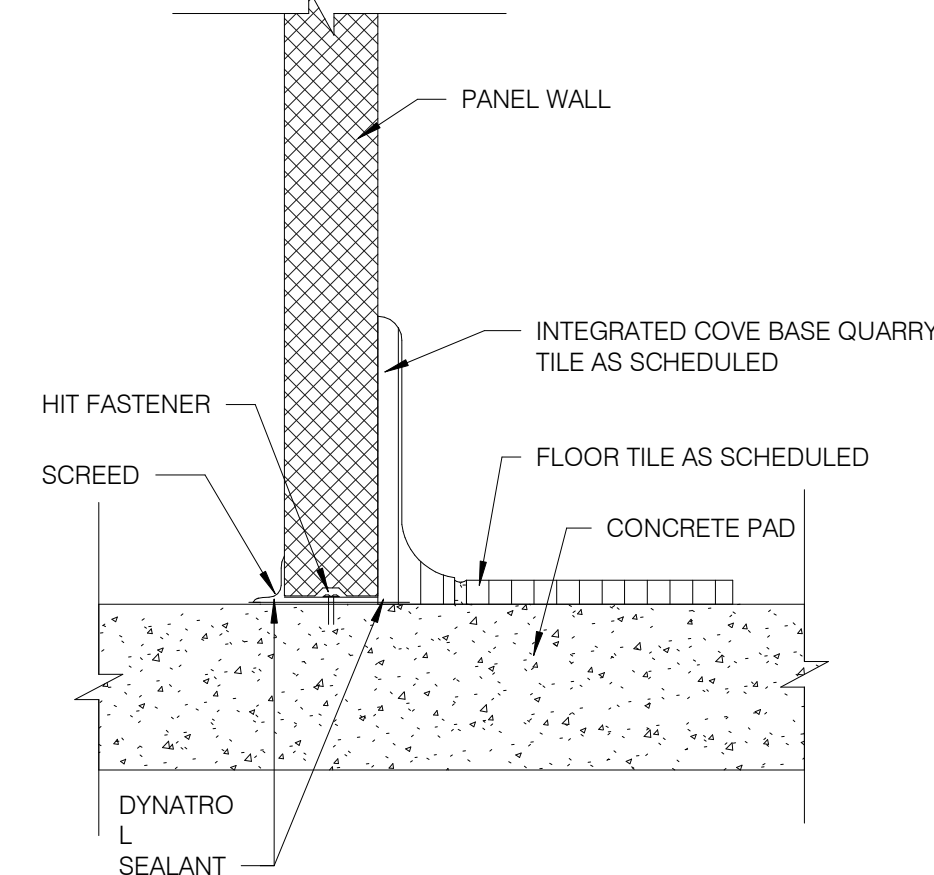
**KITCHEN FINISH @ BASE** N.T.S. **4**



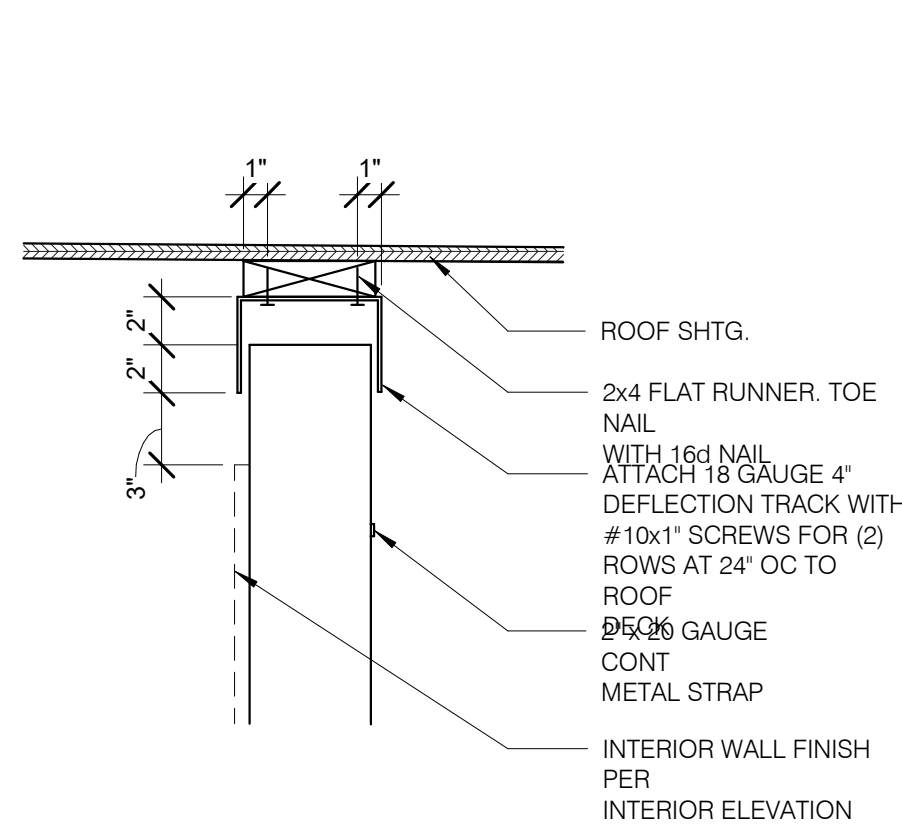
**KITCHEN FINISH @ CEILING** N.T.S. **3**



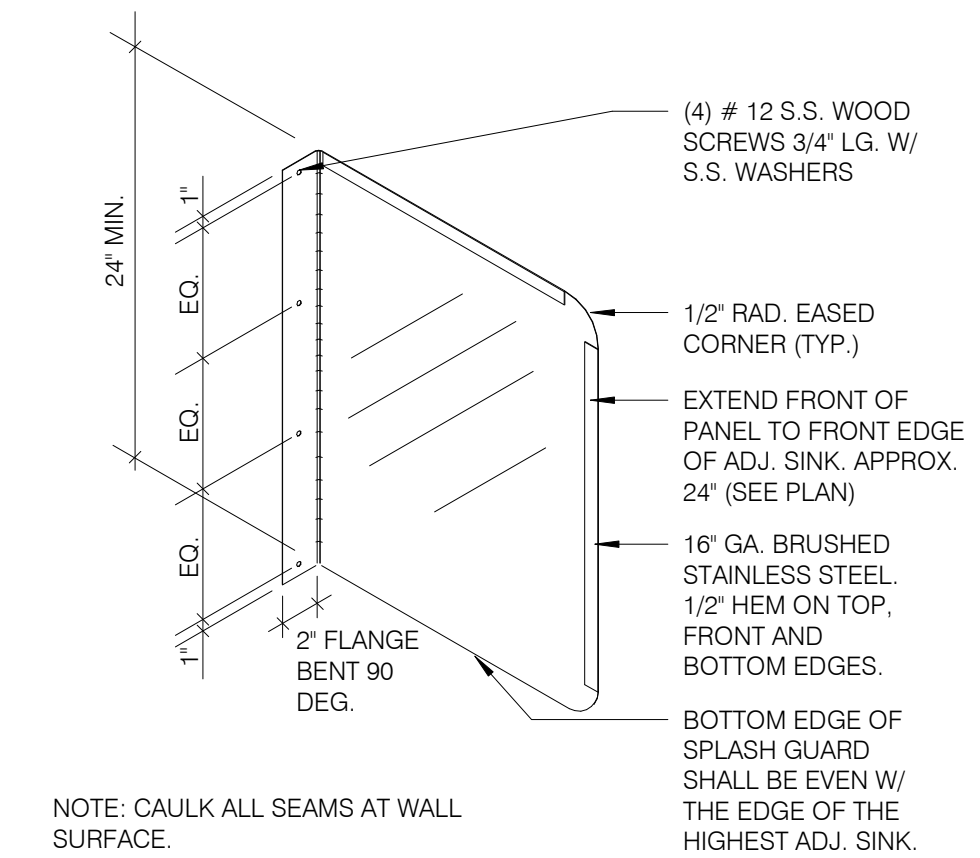
**DETAIL AT EDGE OF TILE WALL** 12" = 1'-0" **2**



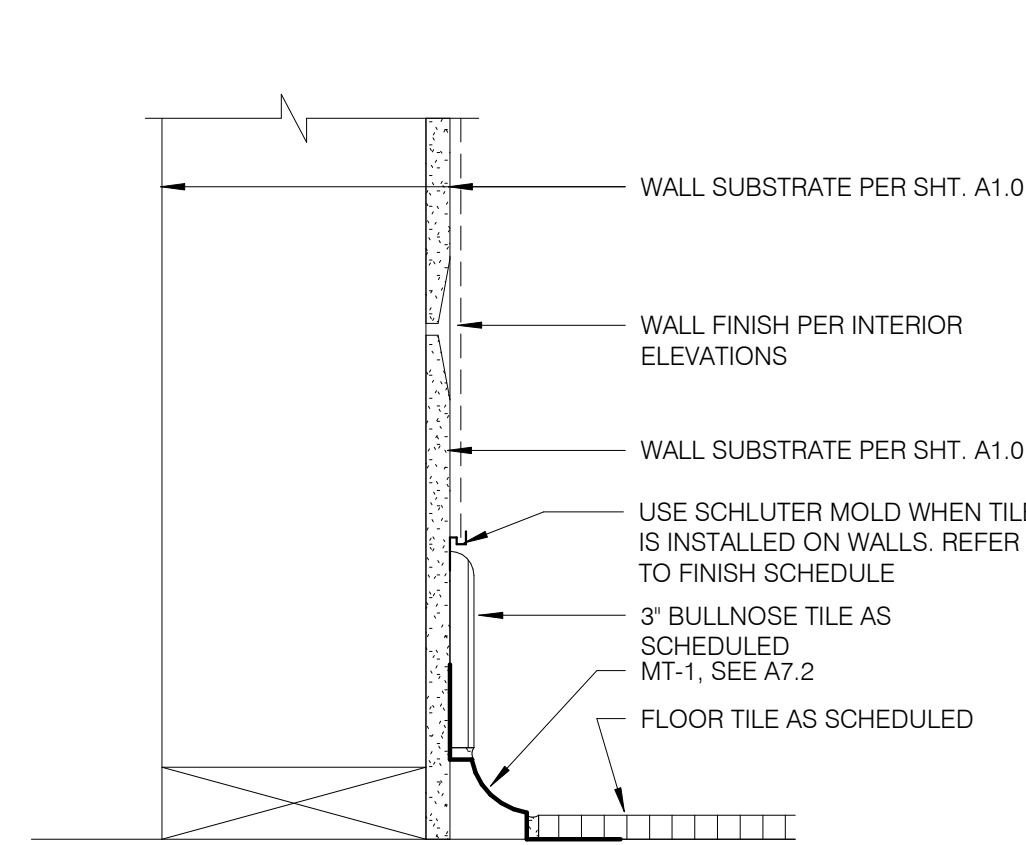
**WALK-IN BASE** N.T.S. **1**



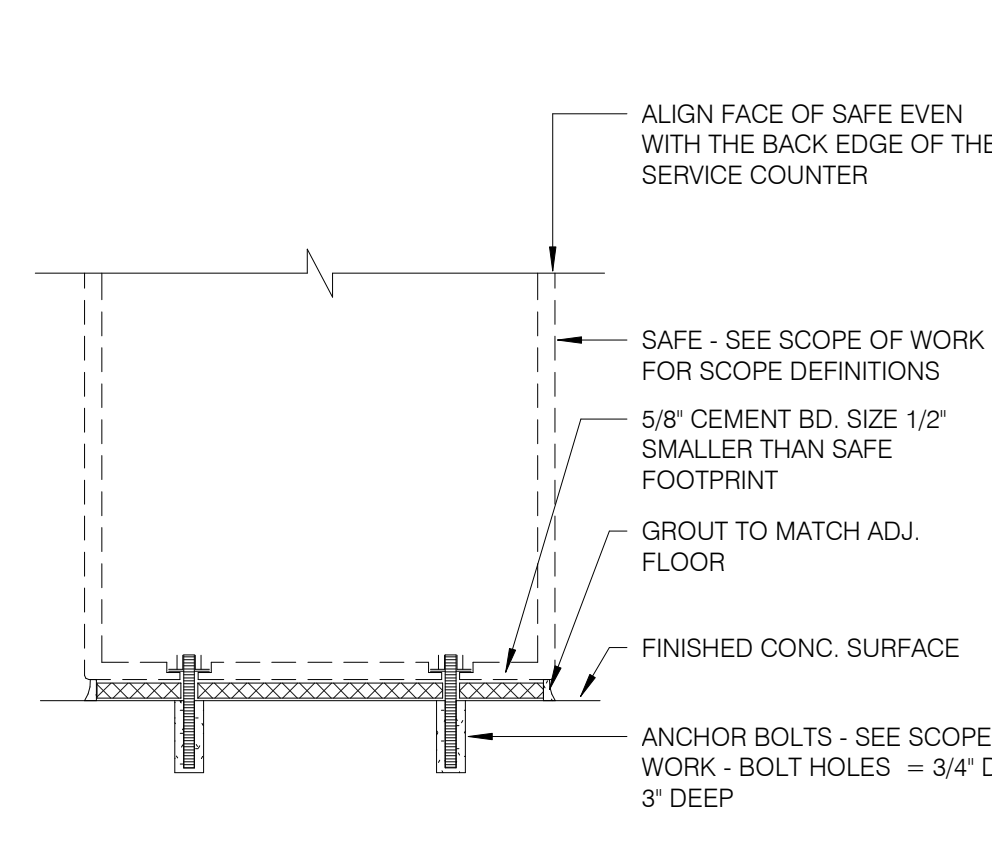
**DEFLECTION TRACK DETAIL** N.T.S. **10**



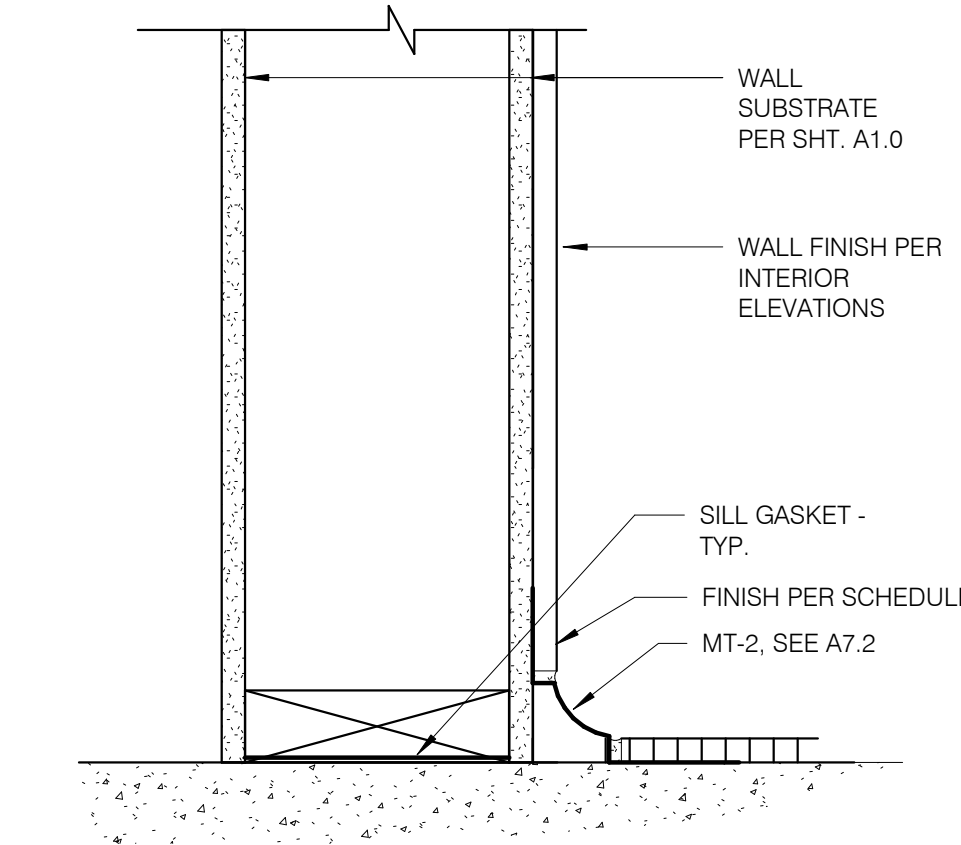
**SPLASH GUARD** N.T.S. **9**



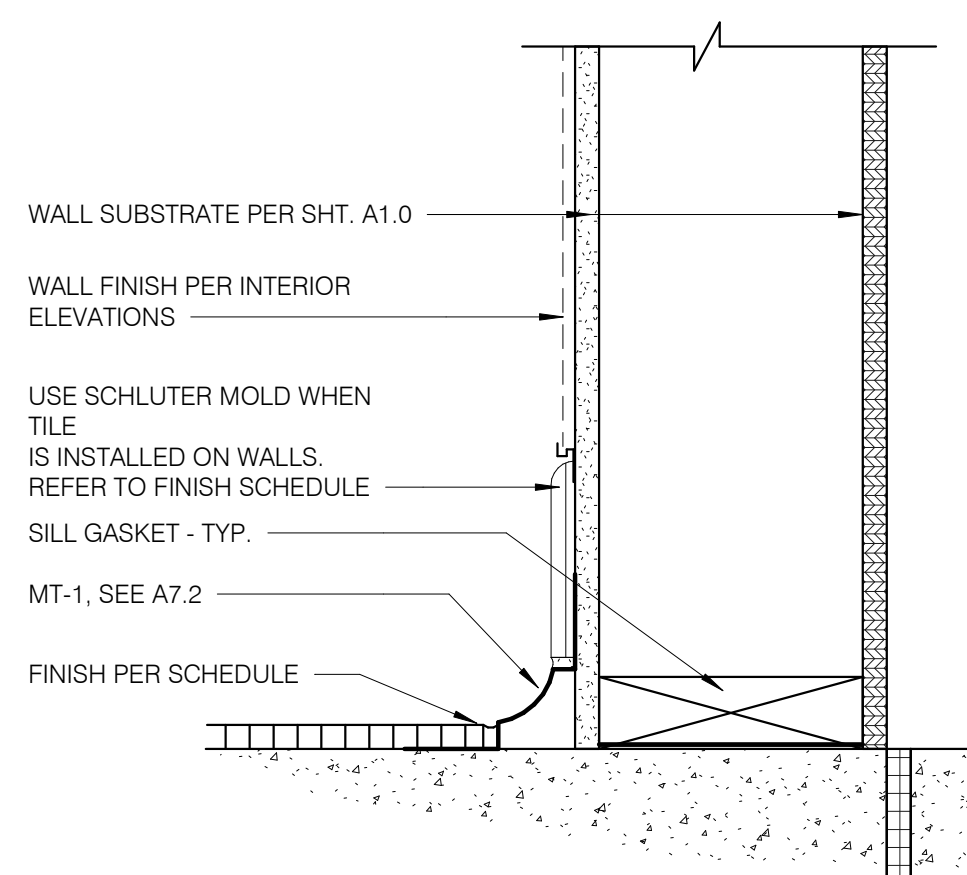
**BASE @ DINING ROOM INT. WALL** N.T.S. **8**



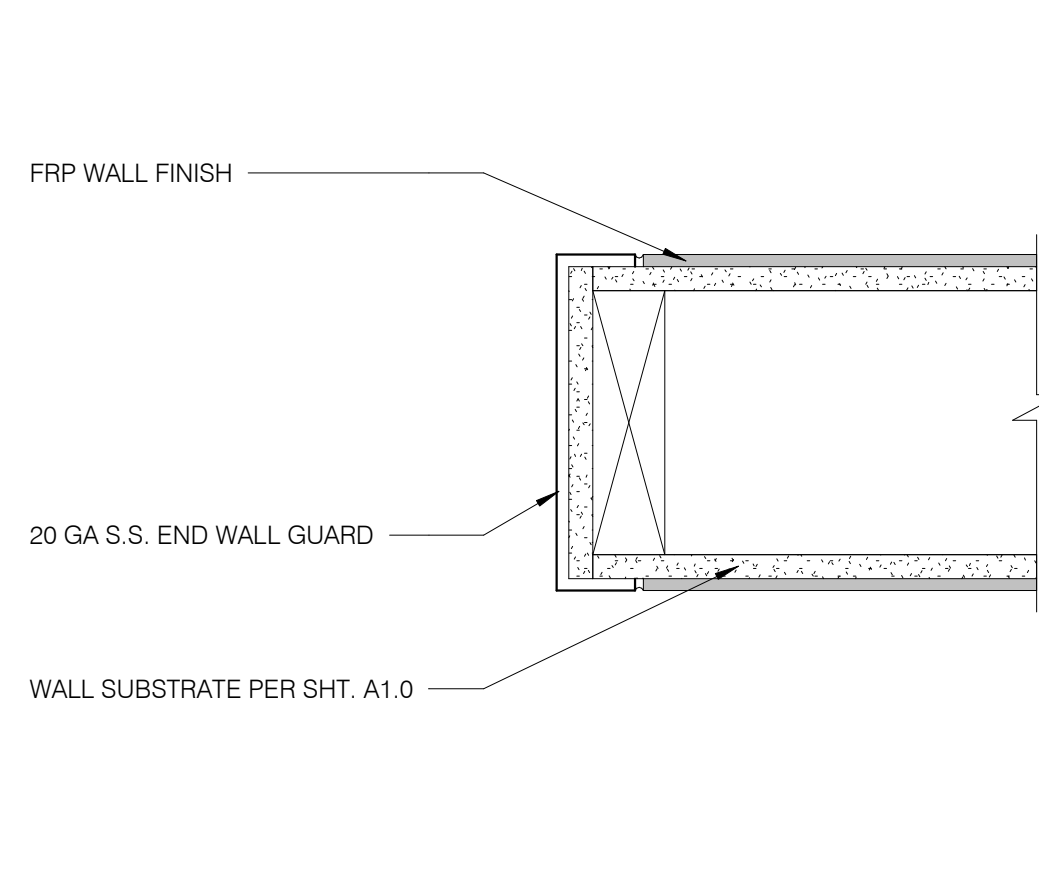
**SAFE PEDESTAL** N.T.S. **7**



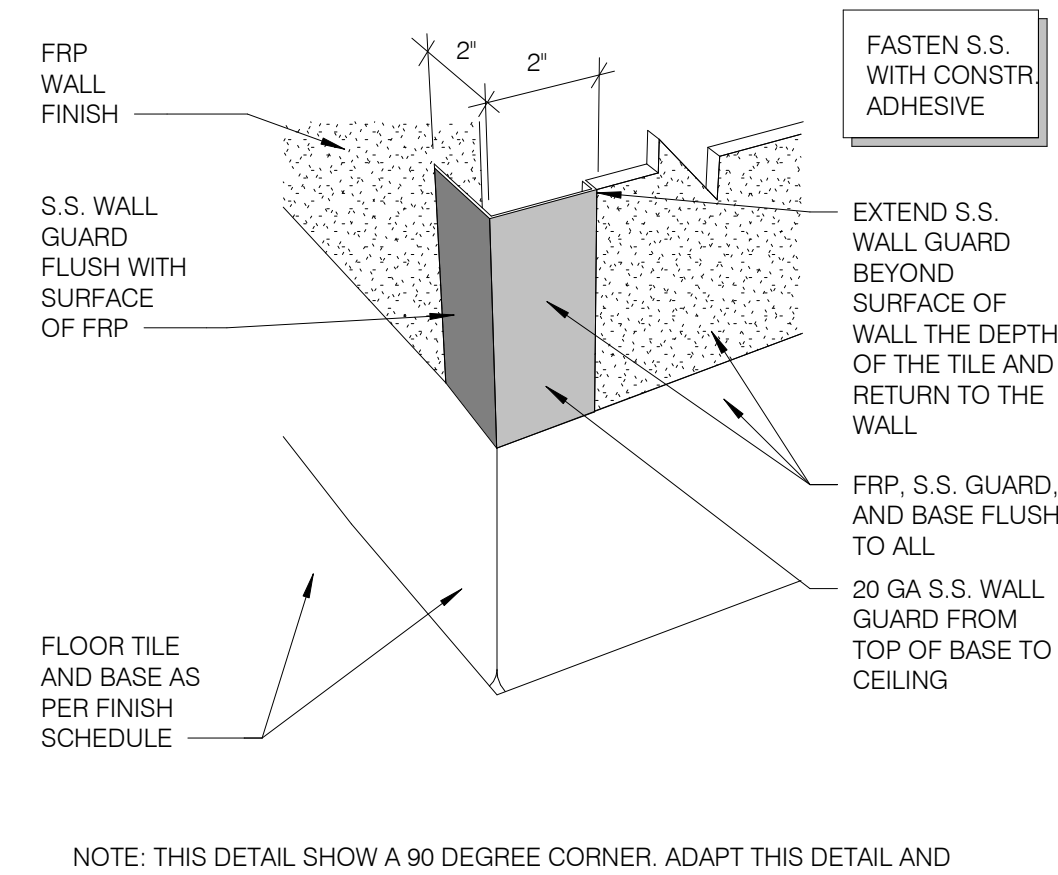
**BASE @ SAUCE AND SODA WALL** N.T.S. **6**



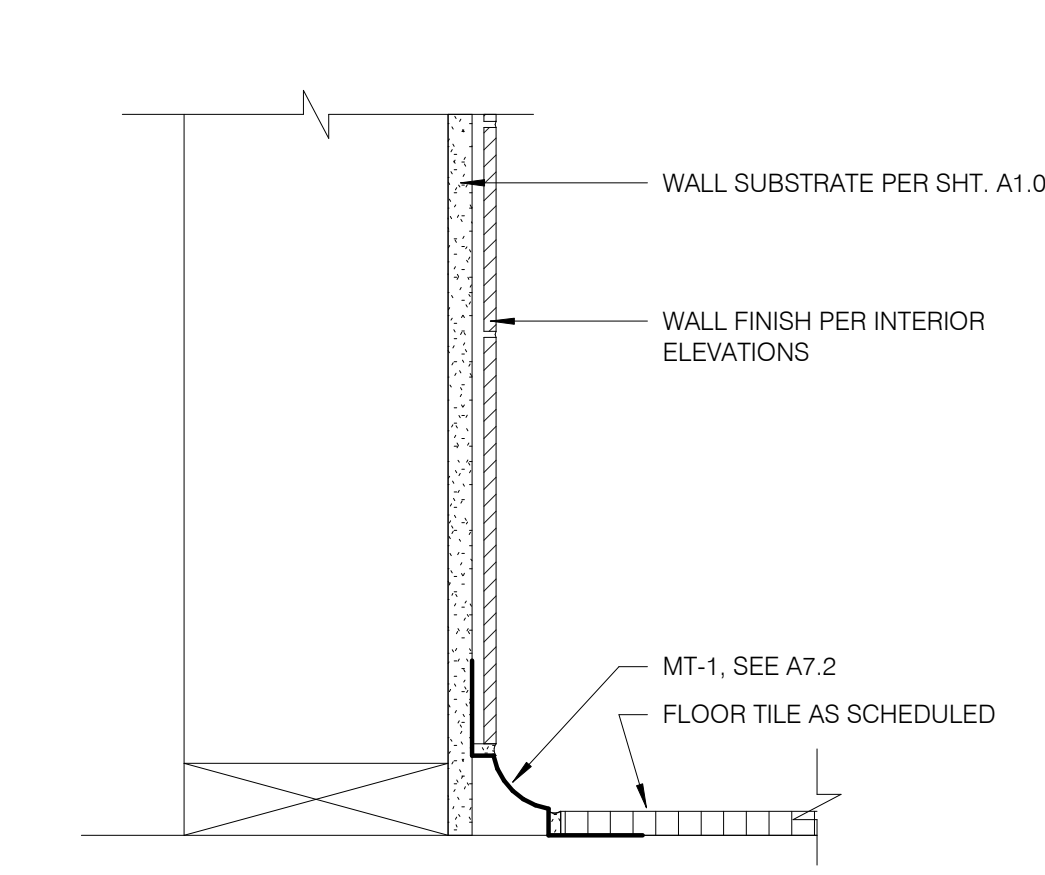
**BASE @ DINING EXT. SIDE WALLS** N.T.S. **15**



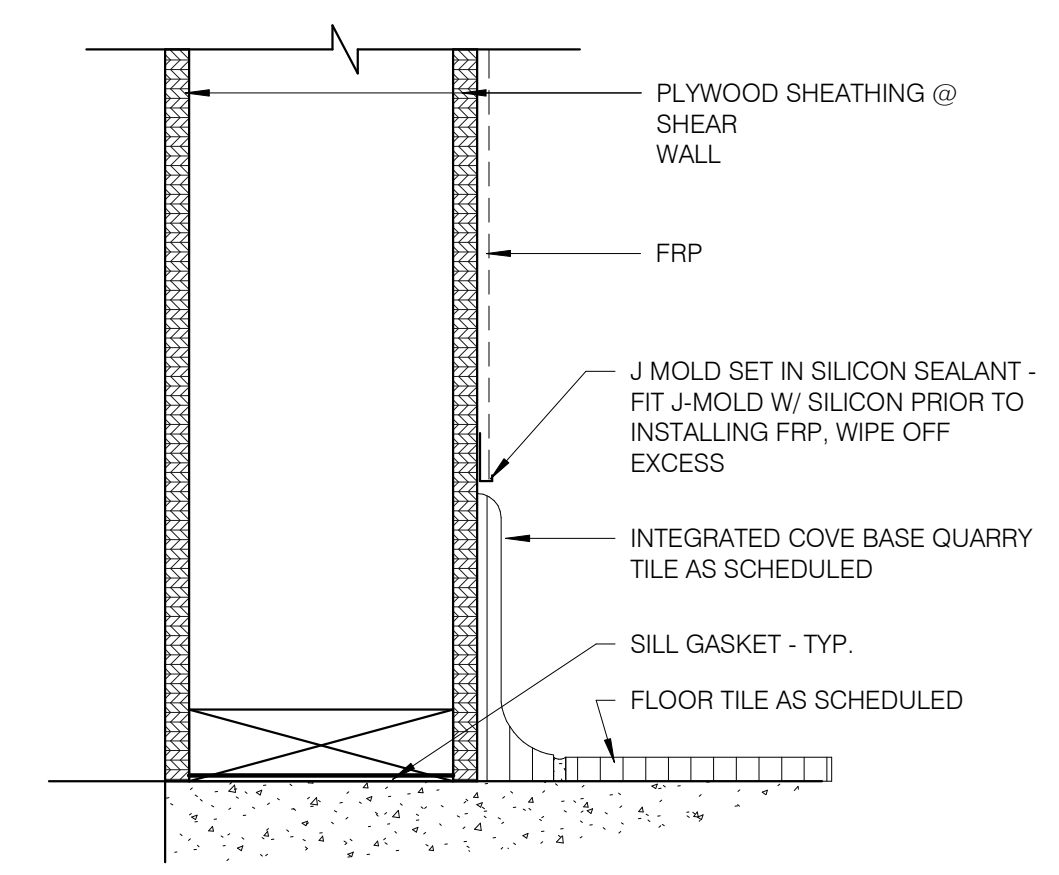
**S.S. END WALL GUARD** N.T.S. **14**



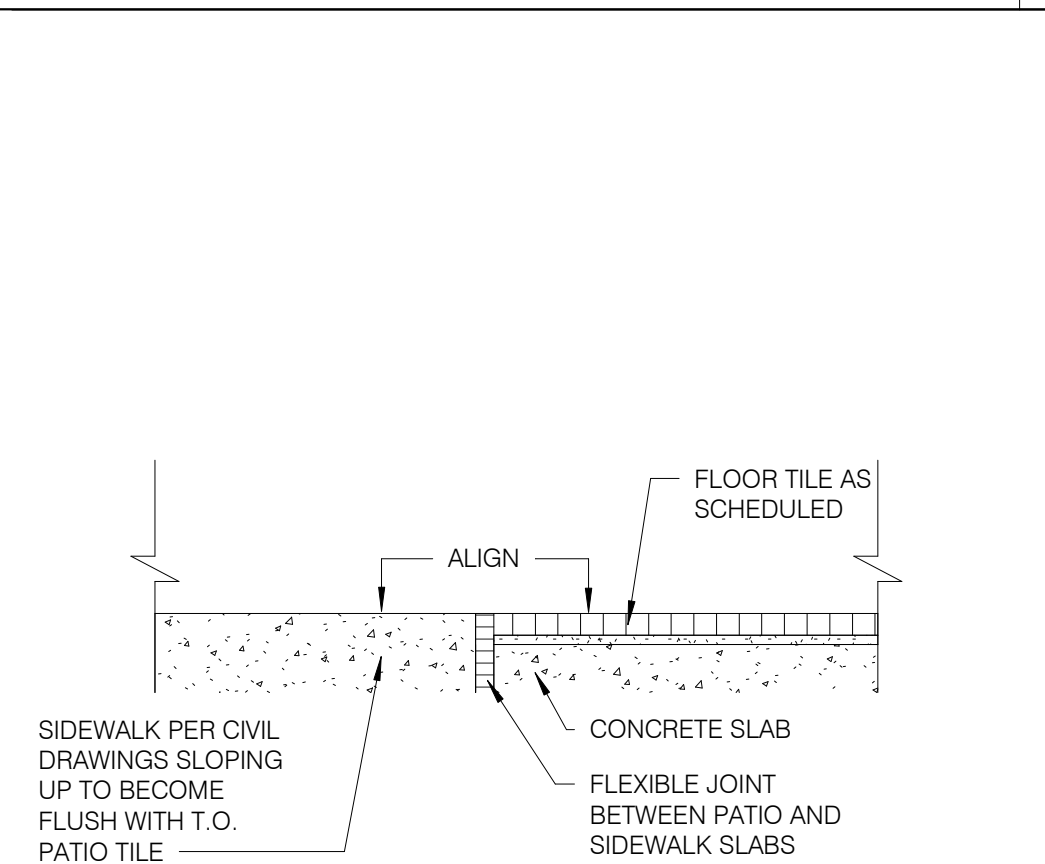
**S.S. CORNER & END WALL GUARD** N.T.S. **13**



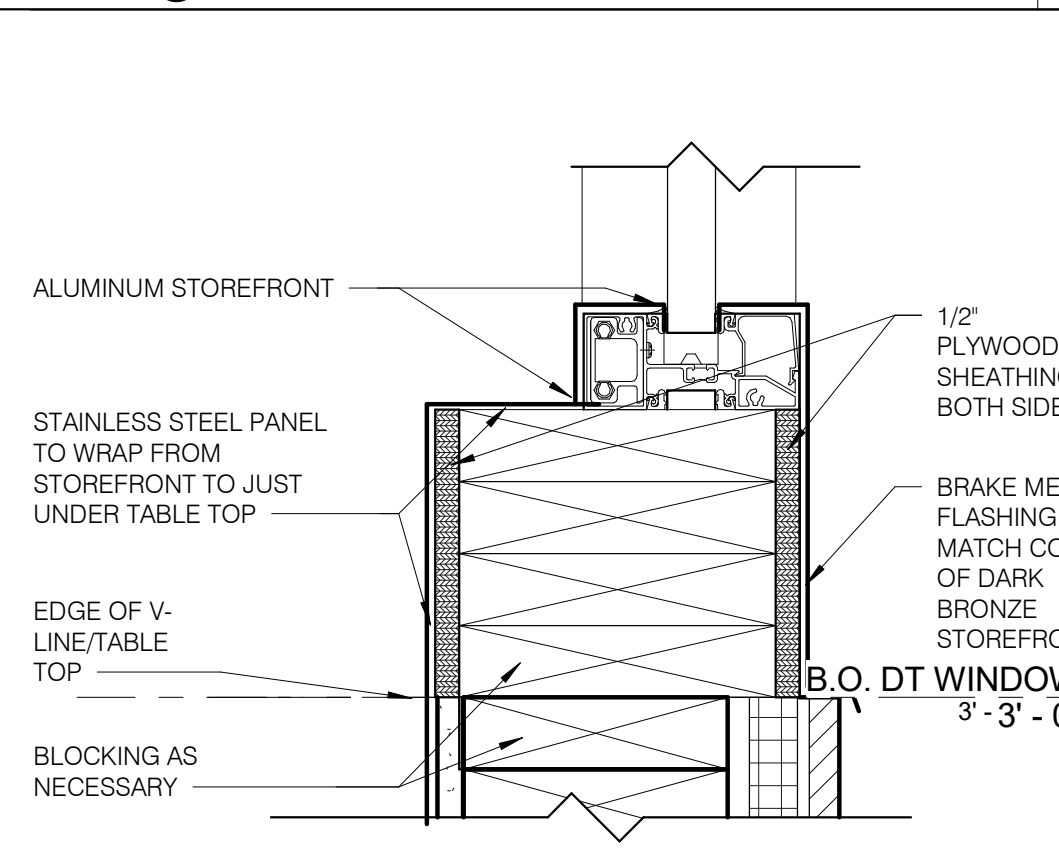
**BASE IN RESTROOM** N.T.S. **12**



**BASE @ KITCHEN EXT. REAR WALL** N.T.S. **11**



**TILE TO CONCRETE SIDEWALK** N.T.S. **17**



**S.S. DTL. @ KITCHEN STOREFRONT** 3" = 1'-0" **16**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

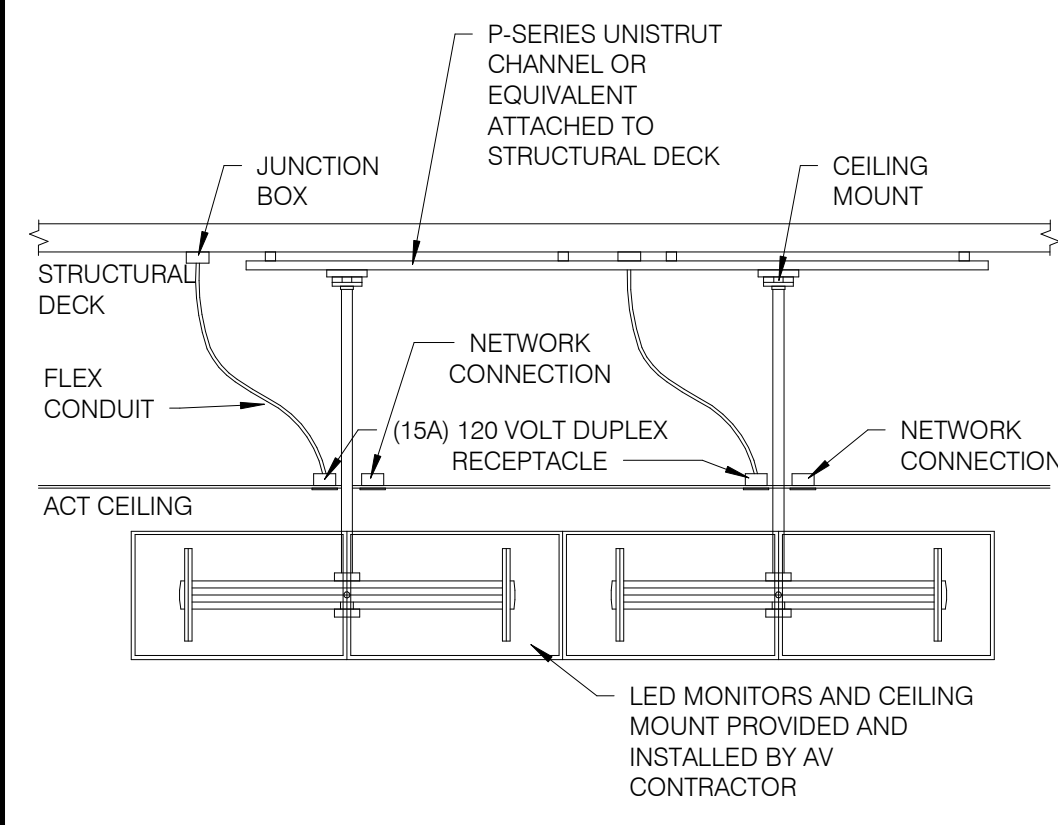


**FINISH DETAILS**

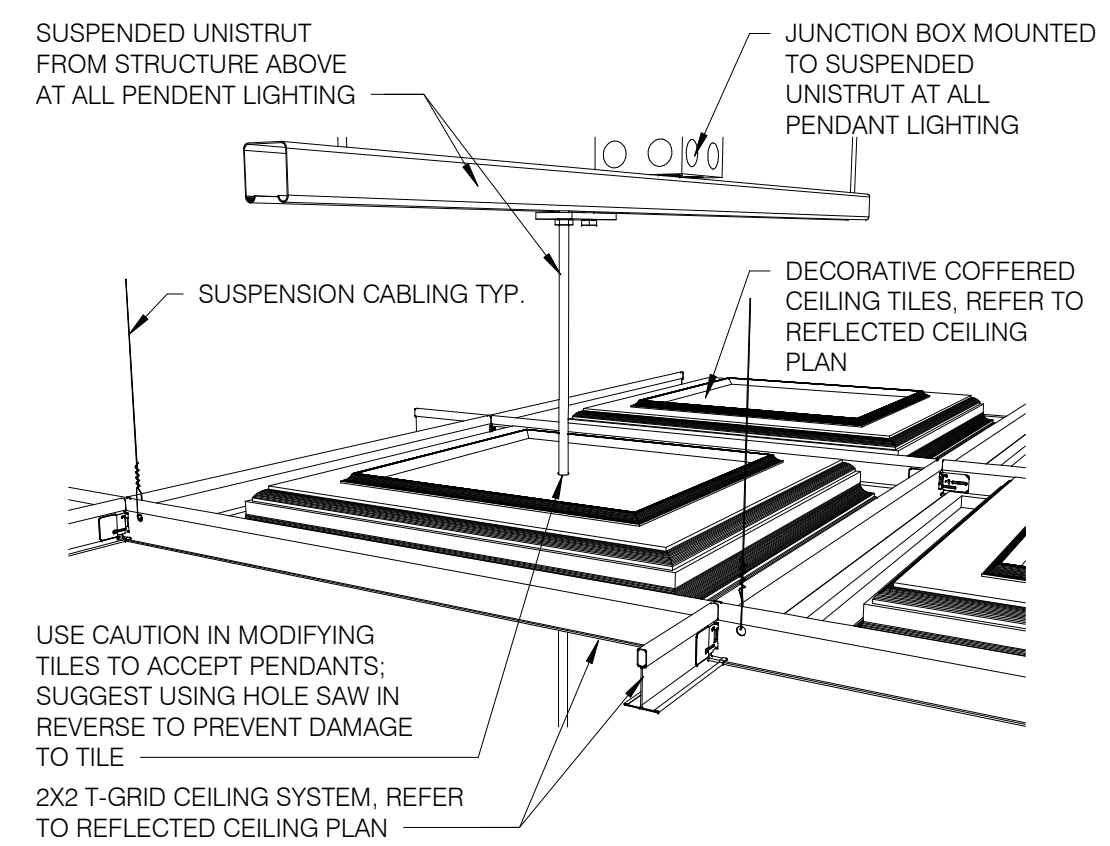
**A6.5**

PLOT DATE: 9/17/2018 2:28:38 PM

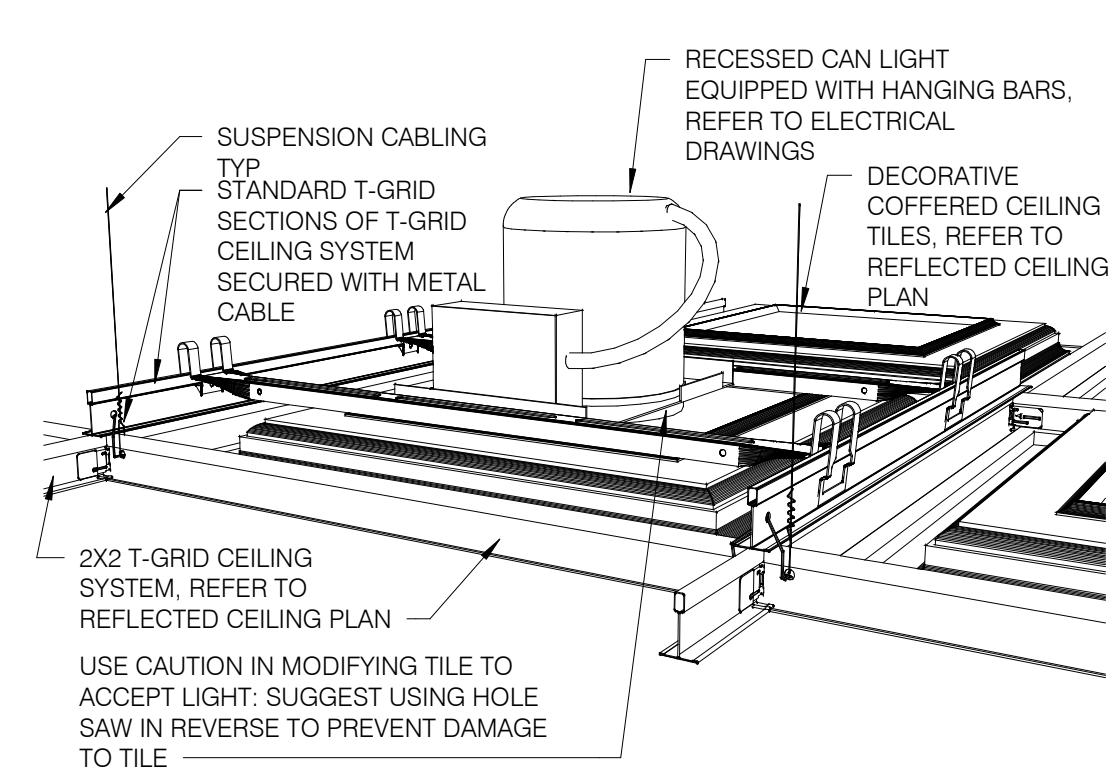




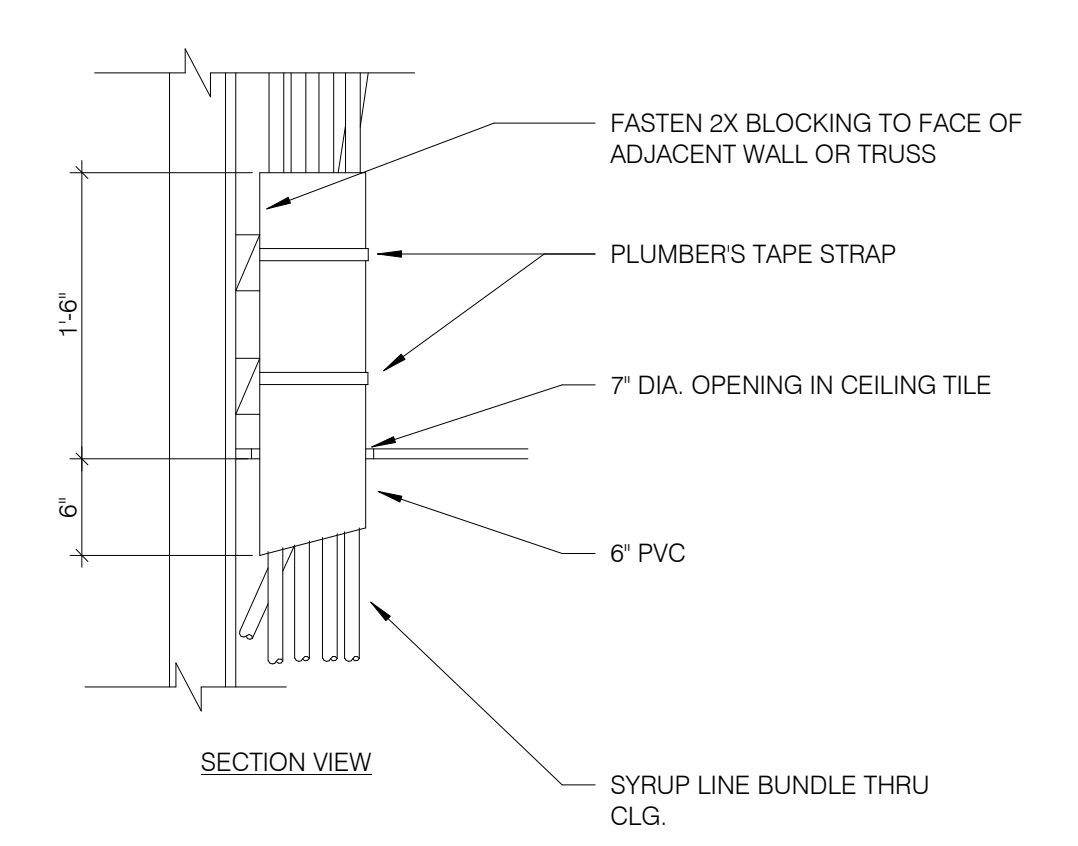
**MENU BOARD MOUNTING DETAIL** N.T.S. **5**



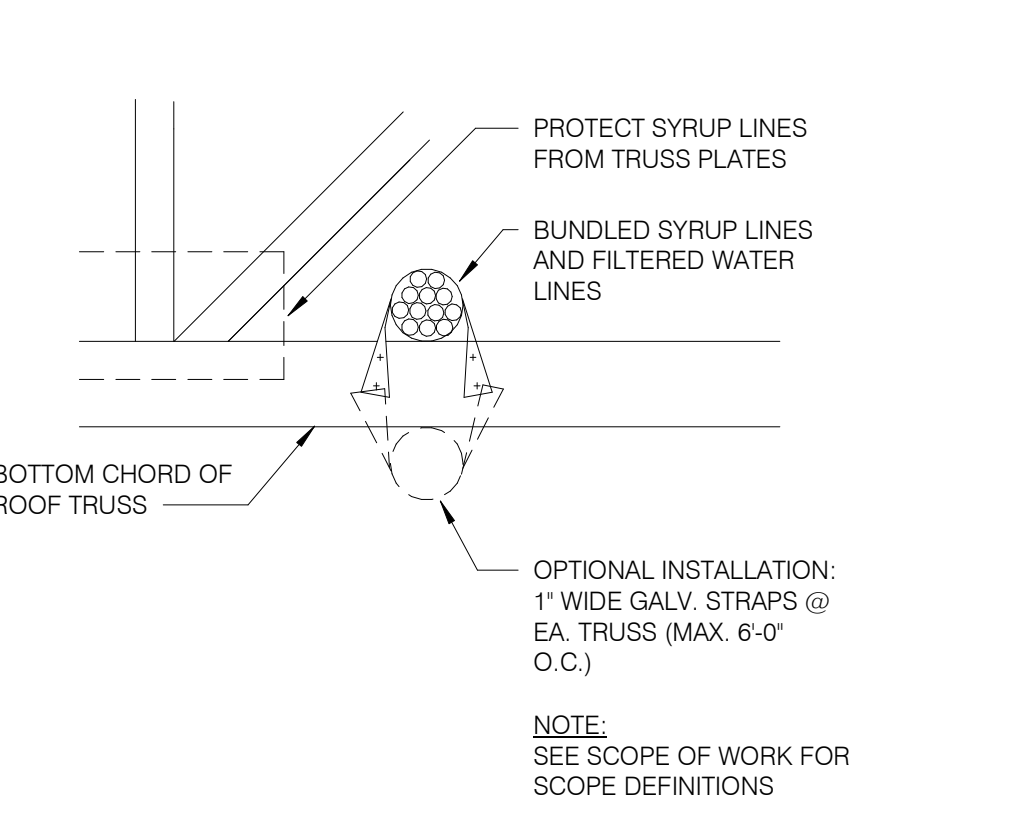
**CEILUME DTL @ PENDANT FIXTURE** N.T.S. **4**



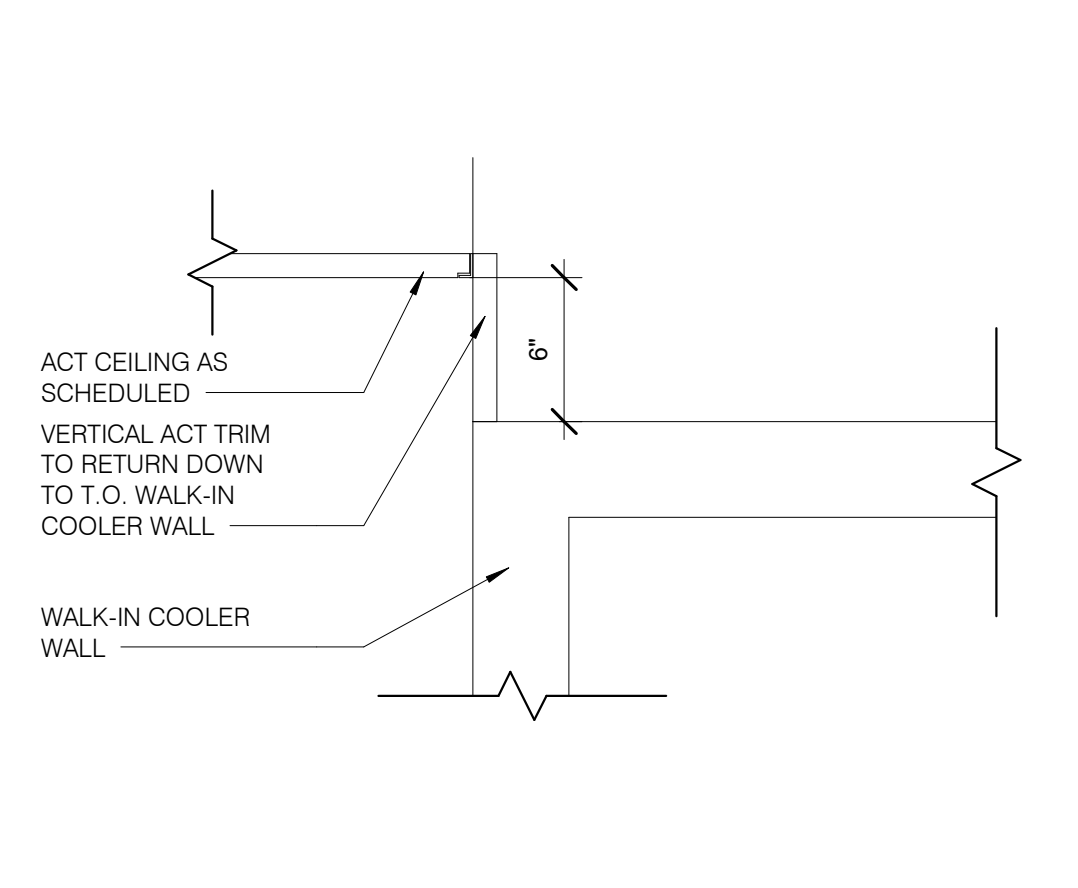
**CELIUME DTL @ RECESSED FIXTURE** N.T.S. **3**



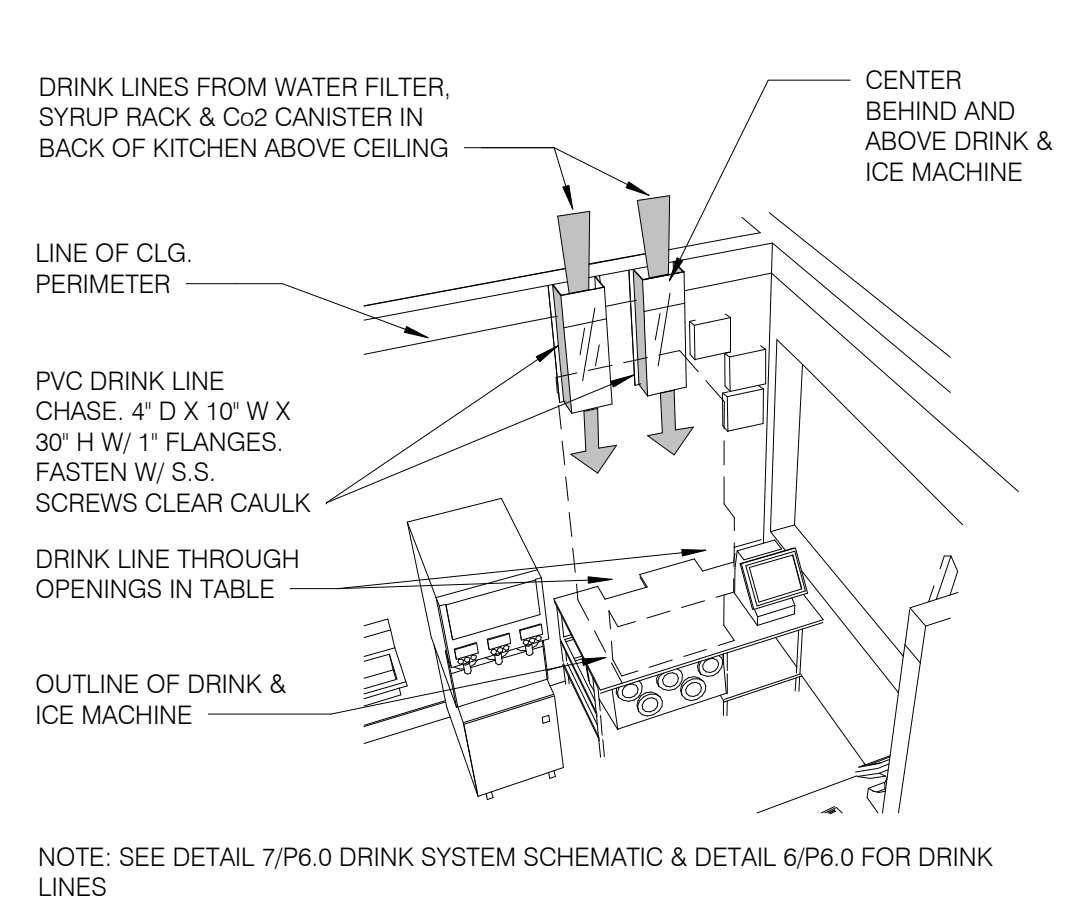
**SYRUP BUNDLE CLG. PENETRATION** N.T.S. **2**



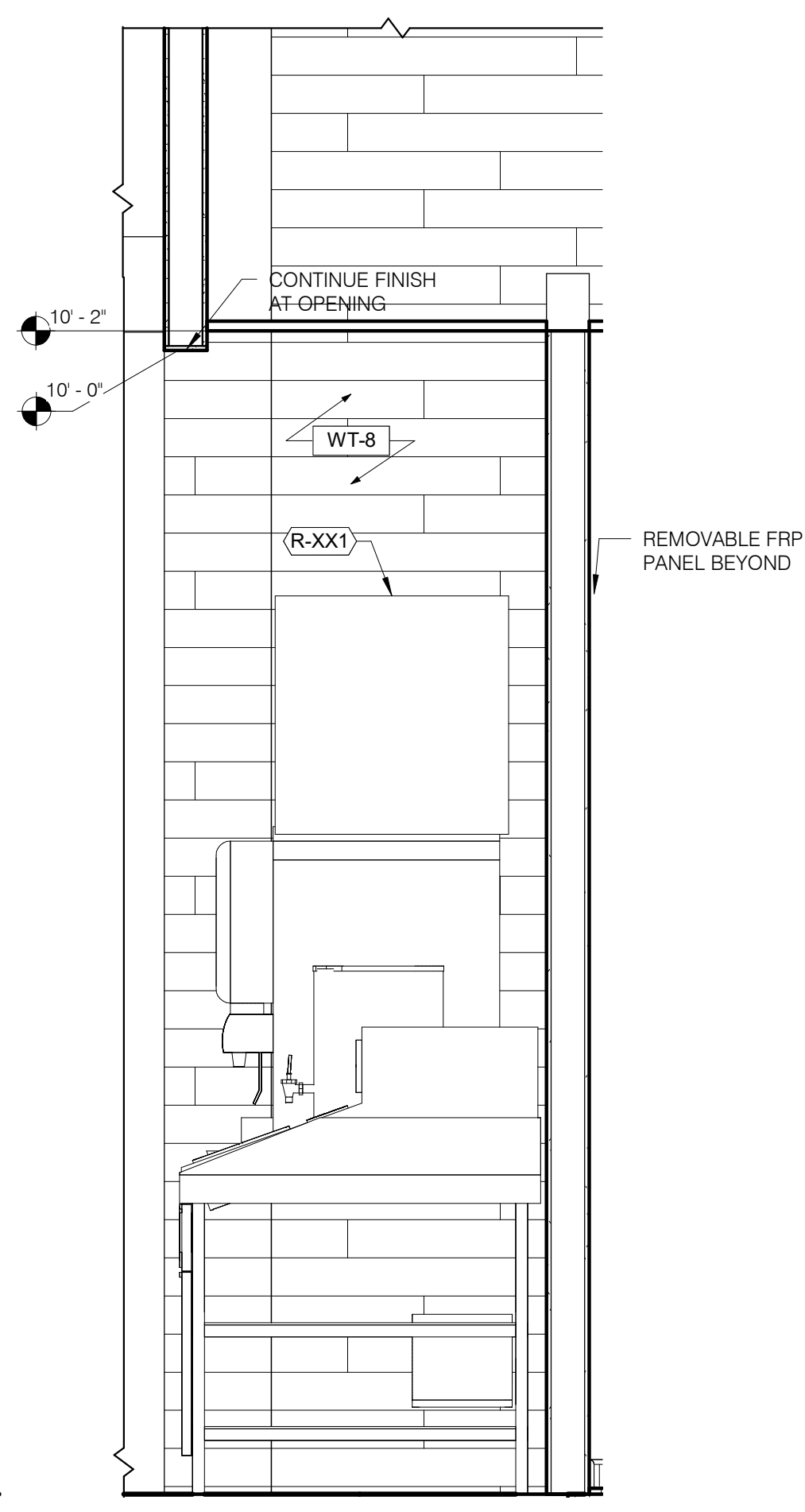
**SYRUP LINE IN CEILING** N.T.S. **1**



**ACT DETAIL AT COOLER** 1 1/2" = 1'-0" **7**



**SYRUP CHASE ON WALL** N.T.S. **8**



**SECTION AT DRINK MILLWORK** 3/4" = 1'-0" **6**

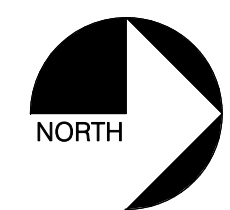
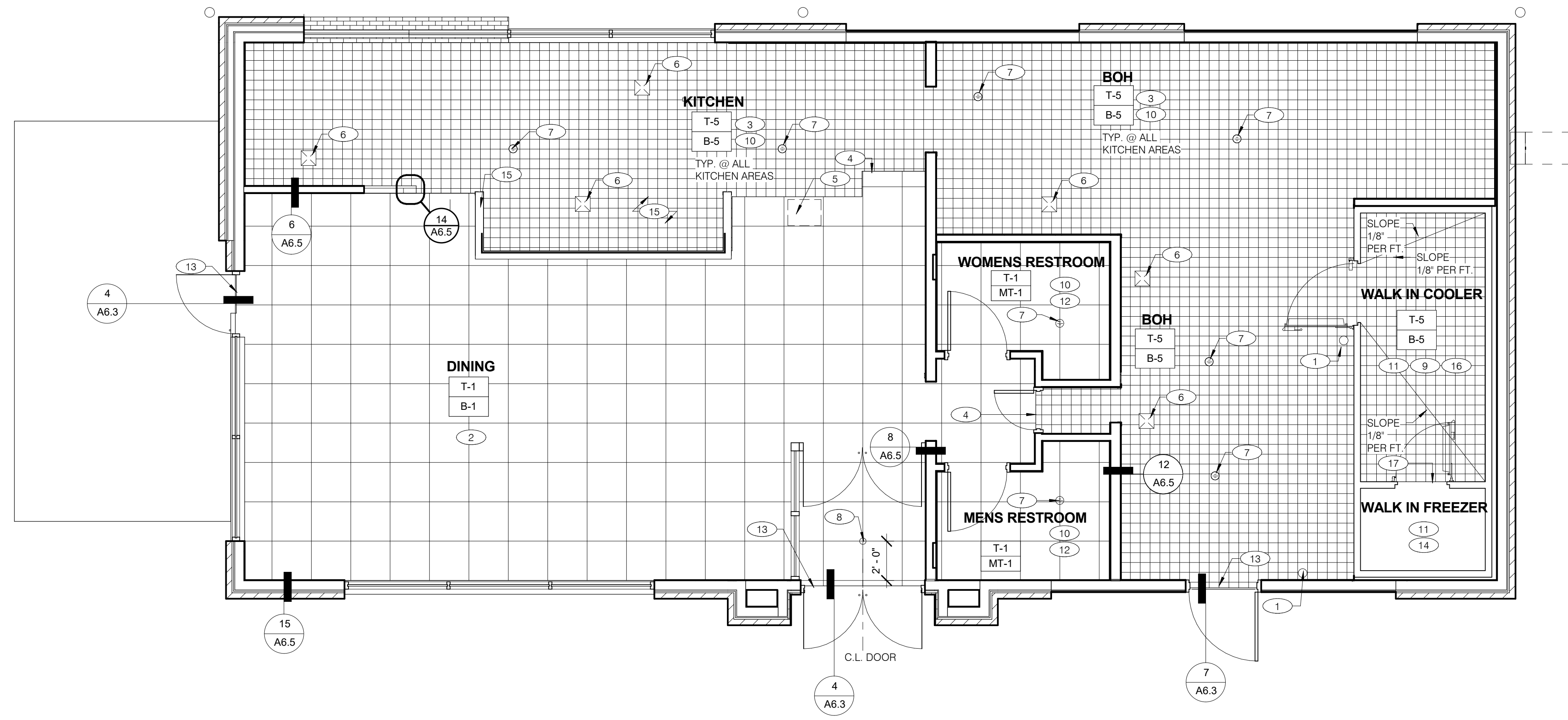
09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**MISCELLANEOUS**



**FLOOR FINISH PLAN** 1/4" = 1'-0" **A**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
B 06.07.18	CLIENT COMMENTS
A 05.24.18	HEALTH COMMENTS
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185



**FLOOR FINISH PLAN**

**A7.0**

PLOT DATE: 9/17/2018 2:28:40 PM

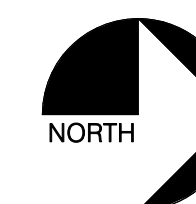
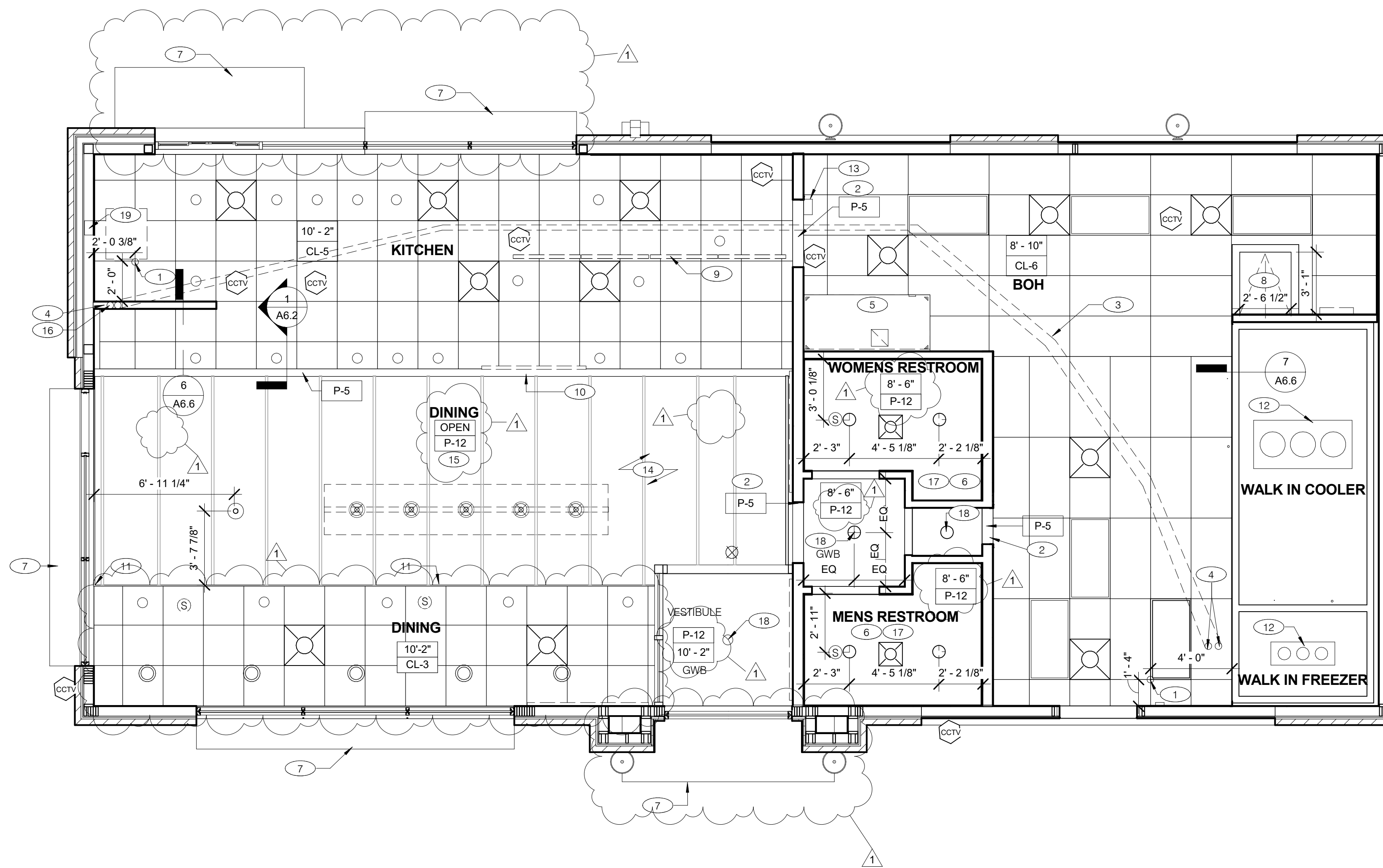
- A. DENOTES FINISH MATERIAL. REFER TO SHT A7.2 FOR FINISHES.
- B. TILE JOINTS (J.O.N.):  
1. PORCELAIN FLOOR TILE : 3/16"  
2. GLAZED WALL TILE : 1/8"  
3. BASE, TRIM AND ACCESSORIES : MATCH ADJOINING TILE UNITS
- C. TILE INSTALLATIONS REQUIRE MANUFACTURERS STANDARD MOLDED CORNERS AT BOTH INSIDE AND OUTSIDE CORNERS.
- D. ALL BASE TILE SHALL BE SANITARY COVE STYLE WITH 3/8" MIN RADIUS UNLESS NOTED OTHERWISE.
- E. SEE SCOPE OF WORK SHEETS FOR RESPONSIBILITIES.
- F. PROVIDE CLEAR SILICONE CAULK WHERE FRP STOPS AT TOP OF COVE BASE.

- 1 HUB DRAIN  
2 4" COVE TILE BASE. SEE DETAIL 8/A6.5 FOR INSTALLATION  
3 6" SANITARY COVE TILE BASE, REF 4/A6.5  
4 FLOAT TILE FOR FLUSH TRANSITION  
5 PEDESTAL SAFE. COORDINATE THE LOCATION WITH CONSTRUCTION MANAGER  
6 FLOOR SINK  
7 FLOOR DRAIN  
8 START POINT FOR FLOOR TILE, CENTERED ON DOOR  
9 BASE IN COOLER; REF. DETAIL 1/A6.5  
10 REFER TO STRUCTURAL DRAWINGS FOR CONC FLOOR SLOPES AROUND FLOOR DRAINS  
11 NO BASE BEHIND WALK-IN COOLER/FREEZER  
12 ALUMINUM COVE BASE TRANSITION. SEE DETAIL 12/A6.5 FOR INSTALLATION  
13 ADA COMPLIANT ALUMINUM THRESHOLD. SEE DETAIL 7/ADA1.1, 4/A6.3 AND 7/A6.3  
14 FACTORY FLOOR FINISH (GALV. STL) W/ INTEGRAL COVE BASE  
15 TILE AND BASE TO CONTINUE UNDER MILLWORK COUNTER TOP.  
16 PROVIDE FLOOR TILE INSIDE WALK-IN COOLER. (NO TILE BASE IN FREEZER). FLOAT FLOOR TILE IN COOLER TO DRAIN TO KITCHEN. COORDINATE WITH COOLER MANUFACTURER.  
17 STEP-UP AT FREEZER TRANSITION

**FLOOR FINISH NOTES** **C**

**FLOOR FINISH PLAN KEYNOTES** N.T.S. **B**





**REFLECTED CEILING PLAN** 1/4" = 1'-0" **A**

09.17.18	ISSUED FOR CONSTRUCTION
09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185



**T40**  
OPEN KITCHEN  
MODERN EXPLORER

**REFLECTED CEILING PLAN**

**A7.1**

PLOT DATE: 9/19/2018 8:57:47 AM

- LIGHTING**
- RECESSED LIGHT FIXTURE
  - PENDANT LIGHT FIXTURE
  - HUB TABLE PENDANT LIGHT
  - SCIONCE LIGHT FIXTURE
  - CEILING MOUNTED EXIT SIGN
  - 2' X 4' LAY-IN LIGHT FIXTURE
  - DUAL HEAD EMERGENCY FIXTURE
  - EMERGENCY WALL PACK FIXTURE
  - SECURITY STROBE LIGHT
- MECHANICAL**
- EXHAUST FAN
  - SUPPLY
  - RETURN
- AUDIO**
- SPEAKER

**RCP LEGEND** N.T.S. **D**

**DIMENSIONS:**  
A. ALL DIMENSIONS ARE TO FACE OF FINISH U.O.N.

**CEILING FINISHES:**  
A. REFER TO ROOM FINISH SCHEDULE (SHT A7.2) FOR CLG. FINISHES.

**SUSPENDED CEILING:**  
A. ACOUSTICAL PANEL INSTALLATION: INSTALL ACOUSTICAL PANELS WITH EDGES IN CLOSE CONTACT WITH METAL SUPPORTS AND IN TRUE ALIGNMENT.  
B. ALLOWABLE VARIATIONS FROM FLAT AND LEVEL SURFACE: 1/8" IN 10'-0" MAX.  
C. ALLOWABLE VARIATIONS FROM PLUMB OF GRID MEMBERS: AS CAUSED BY ECCENTRIC LOADS. 2" MAX.  
D. INSTALL SYSTEM AFTER MAJOR ABOVE CLG. WORK IS COMPLETE. COORD LOCATIONS OF HANGERS WITH RELATED WORK.  
E. SEE SPECS FOR ADDITIONAL INFORMATION.  
F. CUT EDGES OF REGULAR TILES SHALL BE ROUTED.

**CEILUME SUSPENDED CEILING:**  
A. CUT TILES; USE SCISSORS OR STRAIGHT BLADE AVIATION SNIPS TO CUT CEILING TILES. DO NOT USE A UTILITY KNIFE. TWO (2) OR THREE (3) TILES CAN BE NESTED TOGETHER AND CUT AT ONE TIME.  
B. CUTTING HOLES: RUN HOLE SAW IN REVERSE. THIS WILL ALLOW FOR SMOOTH CUT AND PREVENT SAW BLADE FROM BINDING OR GRABBING VINYL FOR AREAS WITH HIGH WIND LOAD OR POSITIVE PRESSURE BELOW THE CEILING. RESULTING IN UPLIFT OF TILES.  
C. INSTALL TWO (2) UPLIFT PREVENTION CLIPS PER TILE; USG/DONN I15 CEILING CLIP OR EQUIVALENT.  
D. INSTALL CLIPS ON TILES NEAREST DOORS FIRST, AND WORK INWARDS. ONLY CLIP TILES THAT THAT EXHIBIT UPLIFT, DO NOT INSTALL ON ENTIRE CEILING. DO NOT INSTALL A "BLANKET" OR MINERAL FIBER TILE ON TOP OF THE CEILUME TILE TO PREVENT UPLIFT.

**GYPSUM BOARD CEILING:**  
A. SUBSTRATE SHALL BE 1/2" THICK GYP. BD.  
B. ACOUSTICAL SEALANT: APPLY TO GYP. BD. PANELS AS INDICATED IN SPECS.  
C. GYP. BD. FINISHING AND DECORATING: REFER TO DWGS FOR TEXTURE AND FINISHES.

**ELECTRICAL:**  
A. SEE ELEC. DWGS. FOR FIXTURE SCHED.  
B. EXISTING EMERGENCY LIGHTS TO REMAIN.  
C. CEILING MOUNTED OUTLETS & PLATES SHALL BE BLACK.  
D. PENDANTS SHALL BE CENTERED OVER TABLES. VERIFY TABLE LOCATIONS WITH SEATING VENDOR SUPPLIED CORE DRILL PLAN PRIOR TO LOCATING PENDANTS.

**MECHANICAL:**  
A. ALL DINING ROOM SUPPLY AND RETURN GRILLES SHALL BE INSULATED. FAILURE TO COMPLY WILL RESULT IN INSTALLATION BEING REJECTED, CORRECTIONS MADE AND ALL REMEDIAL COSTS CHARGED BACK TO CONTRACTOR.

- 1 CEILING GRID STARTING POINT.
- 2 BULK-HEAD @ 7'-0" A.F.F.
- 3 NON-INSULATED BUNDLED SYRUP LINES FOR DRINK SYSTEM ABOVE CEILING. SEE DETAIL 1/A6.6
- 4 6" DIA PVC STUB THROUGH CEILING, SEE DETAIL 2/A6.6
- 5 EXHAUST HOOD
- 6 FOR ROUGH FRAMING OPENINGS SEE AIR DEVICE SCHED. (TYP. AT RESTROOMS).
- 7 AWNING/ROOF BY SIGNAGE VENDOR
- 8 ROOF HATCH. SEE 2&4/A6.2
- 9 MENU BOARD. SEE SCOPE OF WORK
- 10 BULK-HEAD @ 10'-0" A.F.F.
- 11 LINE OF AXIOM EDGE DETAIL FOR FLOATING ACT CEILING
- 12 FAN COIL FOR WALK-IN FREEZER/COOLER
- 13 ALERT LIGHT BOX FOR 3-COMP POWER SOAK MOUNTED AT C.L. OF BOX 7'-11" AFF
- 14 WOOD TRUSS. B.O. TRUSS AT 11'-8" A.F.F.

- 15 PAINT ALL EXPOSED DUCTWORK, ELECTRICAL WIRING, ROOF DECK, AND WALL SURFACES ABOVE TRUSS BEARING P-8. TRUSSES AND BRIDGING TO REMAIN UNPAINTED.
- 16 PVC SYRUP CHASE IN WALL
- 17 RESTROOM CEILINGS TO BE FRAMED W/ 2" X 6" WOOD STUDS @ 16" O.C.
- 18 CENTER RECESSED LIGHT IN ROOM, BOTH DIRECTIONS
- 19 STAINLESS STEEL SYRUP CHASE ON WALL. SEE DETAIL 8/A6.6

**REFLECTED CEILING PLAN NOTES** **C**

**REFLECTED CEILING PLAN KEYNOTES** N.T.S. **B**

	QTY	MANUFACTURER	TYPE	COLOR	SIZE	GROUT	Comments	ALTERNATE MANUFACTURER	ALTERNATE COLOR
<b>CEILING</b>									
CL-3	469 SF	CEILUME	STRATFORD	LATTE	2X2	N/A	SUSPENDED GRID W/ALUMINIUM, KITCHEN FLAME SPREAD RATING 0-25, CLASS A, PAINT GRID SW6080 UTTERLY BEIGE		
CL-5	363 SF	CERTAINTeed	CEILING TILE	ACT VINYL ROCK #1140 WASHABLE NON PERFORATED, COLOR MATCH CL-3	2X2X1/2"	N/A	WHITE FLAME SPREAD RATING 0-25, CLASS A		
CL-6	470 SF	CERTAINTeed	CEILING TILE	ACT VINYL ROCK #1140 WASHABLE NON PERFORATED	2X4X1/2"	N/A	WHITE SUSPENDED GRID W/ALUMINIUM, BOH FLAME SPREAD RATING 0-25, CLASS A		
CL-9	45' - 5" LF	ARMSTRONG	AXIOM CLASSIC TRIM	MATCH CL-3	10"H PROFILE	N/A			
CL-16		N/A	GYPSUM BOARD	P-5					
<b>CHAIR RAIL</b>									
CR-1	46 LF	MINWAX	STAINED MAPLE CHAIR RAIL - 1" X 4"	CLASSIC GRAY STAIN	1X4				
<b>FLOOR BASE</b>									
B-1	140' - 8" LF	EUROWEST	TILE	URBAN GREY WEAVE -X104292X8	3X24	MAPEI # 47 CHARCOAL	DINING ROOM, ALCOVE	CREATIVE MATERIALS	METROPOLITAN 6"X12" COVE BASE
B-5	182' - 4" LF	EUROWEST	TILE	QUARRY NON ABRASIVE PURITAN GRAY COVE BASE	4X24	MAPEI # 106 WALNUT	B.O.H, KITCHEN	CREATIVE MATERIALS	QUARRY #507, 6"X6" NATURAL, GROUT: MAPEI KERAPOXY IEG CQ W/ PART C GREY
<b>FLOORING</b>									
T-1	1043 SF	EUROWEST	TILE	URBAN GREY WEAVE # V606292X8	24X24	MAPEI # 47 CHARCOAL	DINING ROOM, ALCOVE, RESTROOMS	CREATIVE MATERIALS	METROPOLITAN GREIGE 24X24 NATURAL, GROUT: MAPEI ULTRA COLOR PLUS
T-5	875 SF	EUROWEST	TILE	QUARRY #507 NON ABRASIVE PURITAN GRAY	6X6	MAPEI # 106 WALNUT	B.O.H, KITCHEN	CREATIVE MATERIALS	QUARRY #507, 6"X6" NATURAL, GROUT: MAPEI KERAPOXY IEG CQ W/ PART C GREY
<b>LAMINATE</b>									
DL-1		NEVAMAR	LAMINATE	BAILEY # WK0027T			DOOR EDGES TO BE FINISHED SIMILAR TO FACES		
FRP-1		MARLITE	FIBERGLASS REINFORCED PANEL	FP-100 WHITE (PEBBLE FINISH) - NO COLOR VARIATIONS ACCEPTED			B.O.H WALLS		
L-1		WILSONART	LAMINATE	RUSTIC SLATE 4888-38			POS / PICK UP COUNTER FACE		
L-2		WILSONART	LAMINATE	FIRE D STEEL 4994-60			OPEN KITCHEN WALL / SHROUD		
L-9		NEVAMAR	LAMINATE	SMOKEY WHITE # 27027T			LAMINATE FOR OFFICE SHELVING		
SS-1		WILSONART	SOLID SURFACE	STARON BRIGHT WHITE SS-3 GLOSS 15			1/2" SS GLUED TO 3/4" PLYWOOD BACKING		
WC-1	190 SF	WOLF GORDON	'RAMPART' HIGH IMPACT WC	FOUNDATION /PIGMENT (GOH 12172606)					
<b>METAL TRANSITION</b>									
MT-1		SCHLUTER	DILEX AHK	NICKEL ANODIZED ALUMINUM	23/32"	MAPEI # 47 CHARCOAL	COVE BASE		FOR ALL CALIFORNIA STORES, USE AF: SATIN ANODIZED ALUMINUM
MT-2		SCHLUTER	DILEX AHK	EB: BRUSHED STAINLESS STEEL			TILE WALL @ KITCHEN AND DINING - COVE BASE		
MT-3				SATIN ALUMINUM ANODIZED			METAL SILVER TRIM AT VERTICAL WAINSCOT SEAMS		
MT-4		SCHLUTER	JOLLY	SATIN ALUMINUM ANODIZED	1/2" PROFILE	MAPEI #01 ALABASTER	TILE WALL EDGE TRANSITION		
<b>PAINT</b>									
P-2		SHERWIN WILLIAMS	PAINT	WORLDLY GRAY SW 7043 - FLAT					
P-5		SHERWIN WILLIAMS	PAINT	WORLDLY GRAY SW 7043 - SEMI GLOSS	N/A	N/A			
P-8		SHERWIN WILLIAMS	PAINT	GRIFFIN SW7026 - SEMI GLOSS	N/A	N/A			
P-12		SHERWIN WILLIAMS	PAINT	GRIFFIN SW7026 - FLAT					
<b>WALL TILE</b>									
WT-1	908 SF	EUROWEST	TILE	TERRE NERO - #713175	8X8	MAPEI # 47 CHARCOAL	RESTROOM WALLS	CREATIVE MATERIALS	TERRA ANTHRACITE 8X8 NATURAL, GROUT: MAPEI ULTRACOLOR PLUS
WT-2	151 SF	EUROWEST	TILE	TERRECOTTE DECO MIX - 713192	8X8	MAPEI # 47 CHARCOAL	ACCENT WALL TILE , INSTALL ON WALL OPPOSITE DOOR OPENING	CREATIVE MATERIALS	TERRA DECO MIX 8X8, GROUT: MAPEI ULTRACOLOR PLUS
WT-8	295 SF	EUROWEST	TILE	ARCTIC ANTICATO - BA790488H	3X36	MAPEI # 01 ALABASTER	RUNNING BOND PATTERN OFFSET 25%	CREATIVE MATERIALS	CMC SALVAGE WOOD WHITE WASH 3X36 NATURAL, GROUT: MAPEI ULTRACOLOR PLUS

**FINISH LEGEND A**

Name	Floor Finish	Base Finish	Wall Finish	Accent Wall	Ceiling Finish	CEILING HEIGHT	Comments
BOH	T-5	B-5	FRP-1	N/A	CL-6	8' 10"	
DINING	T-1	B-1	P-5, P-8	N/A	CL3, CL-9	VARIES, SEE A7.1	
KITCHEN	T-5	B-5	P-5	WT-8	CL-5	10' 2"	
MENS RESTROOM	T-1	MT-1	WT-1	WT-2	GWB, P-5	8' 6"	PAINT CEILING
OFFICE	T-5	B-5	FRP-1	N/A	CL-6	8' 10"	
VESTIBULE	T-1	B-1	STOREFRONT, P-5	N/A	GWB, P-5	10' 2"	REMOVE IF NOT USING VESTIBULE
WALK IN COOLER	T-5	B-5	N/A	N/A	N/A	PER MANUFACTURER	
WALK IN FREEZER	N/A	N/A	N/A	N/A	N/A	PER MANUFACTURER	
WOMENS RESTROOM	T-1	MT-1	WT-1	WT-2	GWB, P-5	8' 6"	PAINT CEILING

1. INSTALL FRP ON KITCHEN SIDE OF SERVING COUNTER WALL.
2. GALV. STEEL WALL AND CEILING FINISHES BY WIC / WIF BOX MFR.
3. REFER TO INTERIOR ELEVATIONS FOR LOCATIONS OF TILE AND FRP.
4. APPROVED PAINT MANUFACTURERS:
5. PORTER, BENJAMIN MORE, SHERWIN WILLIAMS, ICI, & PITTSBURGH PAINTS.
6. MATCH SPECIFIED SCHEDULE COLORS EXACTLY.
7. ALL PAINTED GYPSUM BOARD SHALL HAVE A LIGHT ORANGE PEEL TEXTURE.
8. ALL MORTAR SHALL BE MIXED WITH WHITE SAND TO INSURE A COLOR CONSISTENT TO THE ORIGINAL DESIGN INTENT
9. ALL TILE MUST BE ORDERED FROM THE SAME VENDOR, EITHER EUROWEST OR CREATIVE MATERIAL CORP.

EUROWEST DECORATIVE SURFACES  
JAN DETER  
DESIGN/ ARCH. CONSULTANT  
(714)-309-9551  
WWW.EUROWEST.COM

MARLITE  
DAN EGBERS  
(330)-343-6621  
WWW.MARLITE.COM

WILSONART INTERNATIONAL, INC.  
DAVID CHICKVARA  
(254)-207-2130  
CHICKV@WILSONART.COM

SHERWIN WILLIAMS  
BRAD HARRINGTON  
(216)-341-5553 EXT. 115  
CELL: 216-210-2723  
BRAD.E.HARRINGTON@SHERWIN.COM

CREATIVE MATERIALS CORP.  
PH: (800)-207-2967 EXT BELL(2355)  
TACOBELLTILE@CREATIVEMATERIALSCORP.COM

RETROPLATE CONCRETE DYE  
MIKE BLACKBURN  
(717)-439-1114

CUMMINGS SIGNS  
ANN BAKER  
(800)-489-7446 EXT. 1001  
DIRECT DIAL: (615)-872-0068  
CELL: (615)-812-2204

NATIONAL METAL SHAPES  
RUSSEL DAY  
(800)-837-9559

ROCA TILE GROUP  
CHRISTINA DORDAS  
(708)-910-2368  
WWW.ROCATILEGROUP.COM  
CHRISTINA.DORDAS@US.ROCA.COM

BERRIDGE  
1-(800)-669-0009

REPLICATIONS UNLIMITED  
RODNEY JARBOE  
(314)-523-2040 EXT. 101

DAVIS COLORS  
(MORTAR PIGMENT)  
WEST: (800)-356-4848  
EAST: (800)-638-4444

EVERBRITE  
NICHOLE BIERMAN  
NBIERMAN@EVERBRITE.COM  
(414)-529-7179

JOHNSONITE  
LAURIE BAATZ  
(440)-313-8238

NICHIIHA  
MATT STEPHENSON  
(770)-789-8228

09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

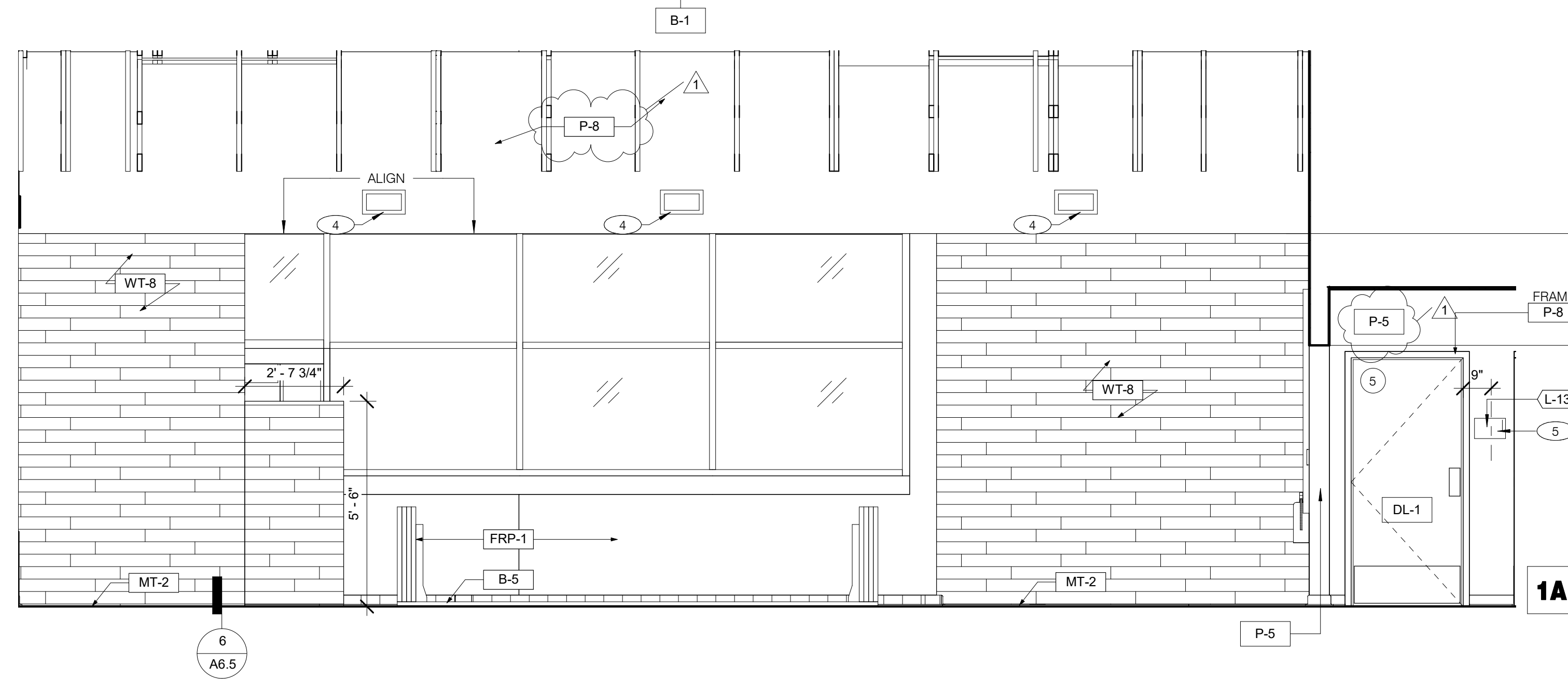
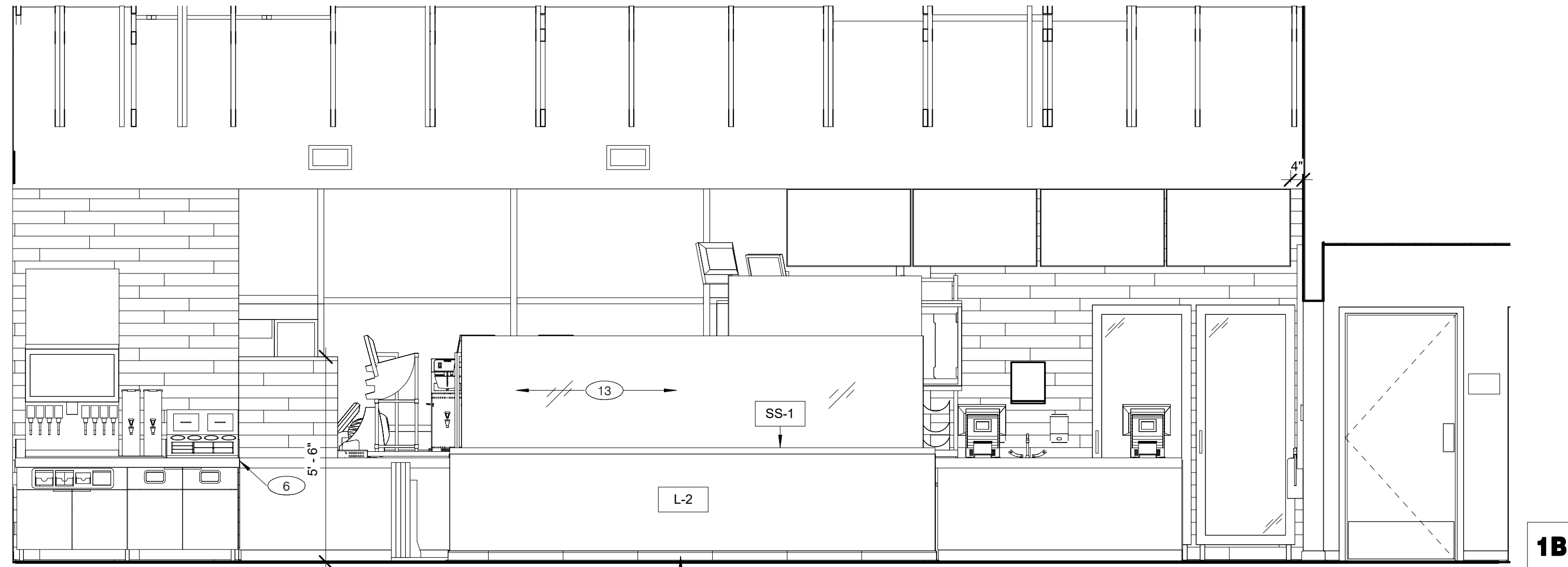
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**FINISH LEGEND AND SCHEDULE**

**A7.2**

PLOT DATE: 9/19/2018 8:57:48 AM



- 1 TEMPERATURE SENSOR.
- 2 ARTWORK SHOWN INSIDE VESTIBULE.
- 3 ACT EDGE TRIM, SEE A7.2
- 4 HVAC SUPPLY DIFFUSER
- 5 H.C. SIGNAGE.
- 6 PROVIDE CLEAR SILICONE CAULK WHERE ALL FIXED AND BUILT-IN COUNTERS / EQUIPMENT ABUT WALL SURFACES. WHERE GAP BETWEEN WALL AND COUNTER SPLASH / EQUIPMENT EXCEEDS 1/4", PROVIDE S.S. CLOSURE ANGLE.
- 7 NOT USED.
- 8 STAINLESS STEEL WALL GUARDS.
- 9 "PLEASE ASK IF YOU NEED ASSISTANCE" SIGN. SMALLWARE PACKAGE.
- 10 NOT USED
- 11 FIRE EXTINGUISHER MOUNTED ON WALL HOOK
- 12 CEILING EXPOSED ABOVE ACT EDGE TRIM
- 13 1/2" TEMPERED GLASS. SEE DETAILS ON SHEET A8.3
- 14 METAL TRIM FOR WALL TILE TO GYP. TRANSITION. SEE FINISH LEGEND
- 15 NOT USED

NOT ALL KEY NOTES APPEAR ON THIS SHEET. SEE SHEET A8.1 FOR ADDITIONAL ELEVATIONS.

**DINING** 3/8" = 1'-0" **1**

**KEY NOTES**

**A**

09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
B 06.07.18	CLIENT COMMENTS
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

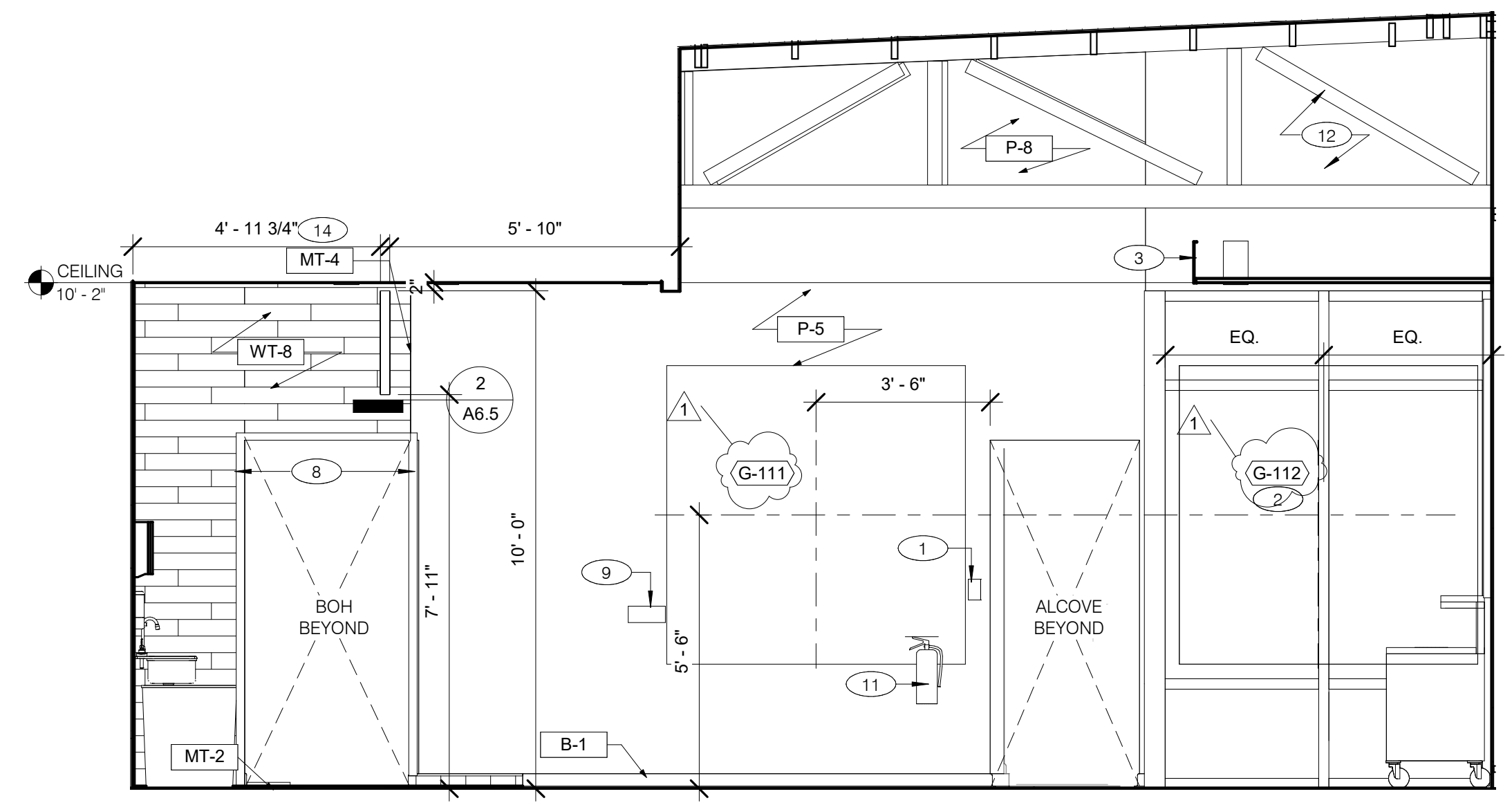
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**INTERIOR ELEVATIONS DINING ROOM**

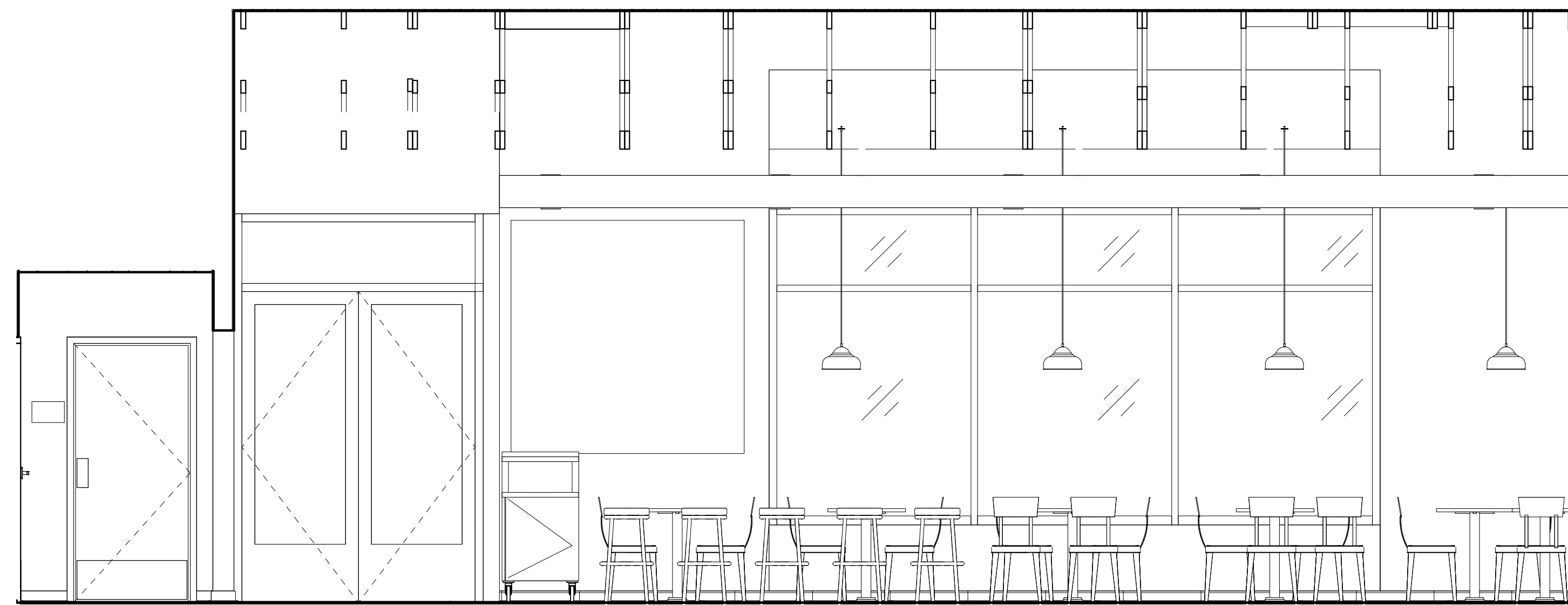
**A8.0**

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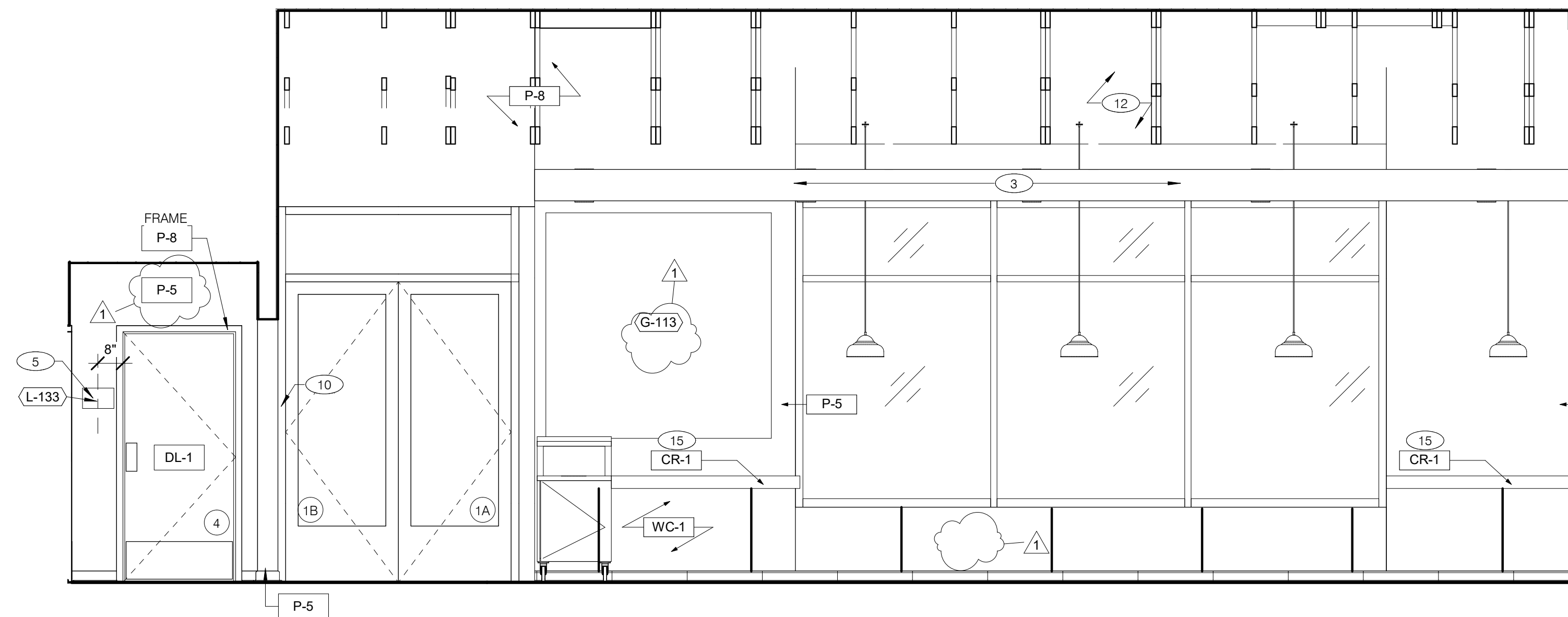


**DINING** 3/8" = 1'-0" **2**





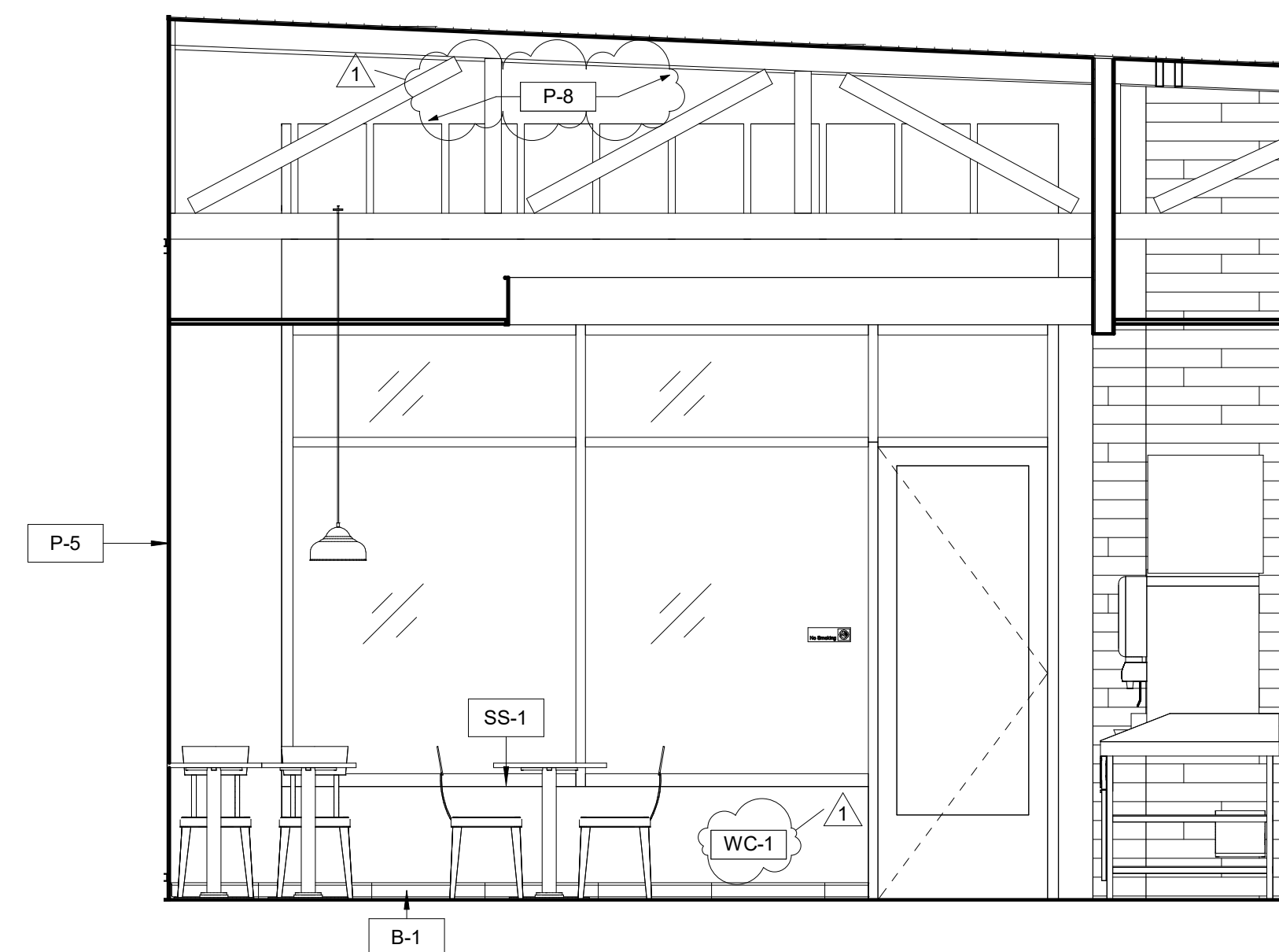
**1B**



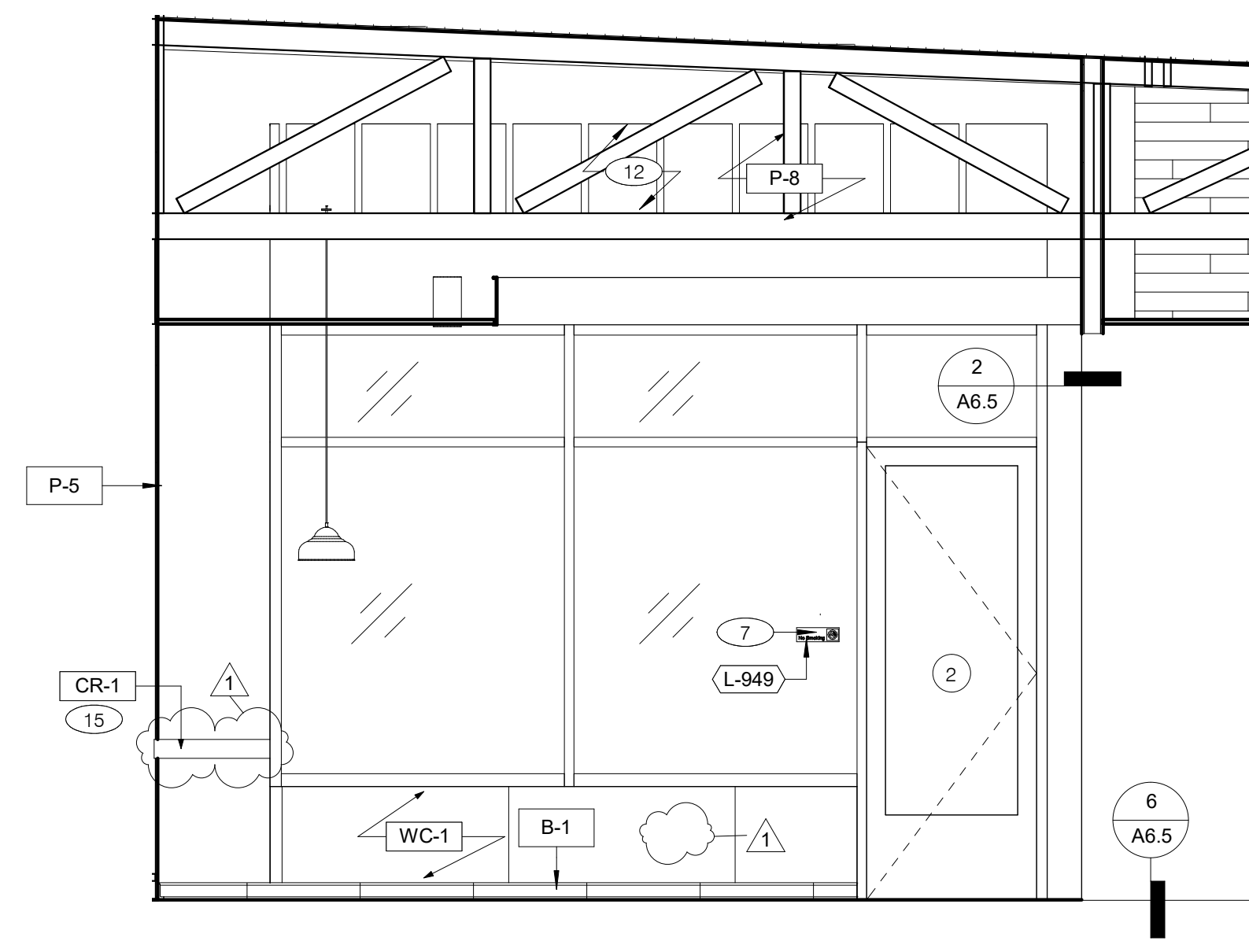
**1A**

SEE SHEET A8.0 FOR KEY NOTES

**DINING** 3/8" = 1'-0" **1**



**2B**



**2A**

SEE SHEET A8.0 FOR KEY NOTES

**DINING** 3/8" = 1'-0" **2**

09.17.18	ISSUED FOR CONSTRUCTION
09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**TACO BELL**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40  
 OPEN KITCHEN  
 MODERN EXPLORER

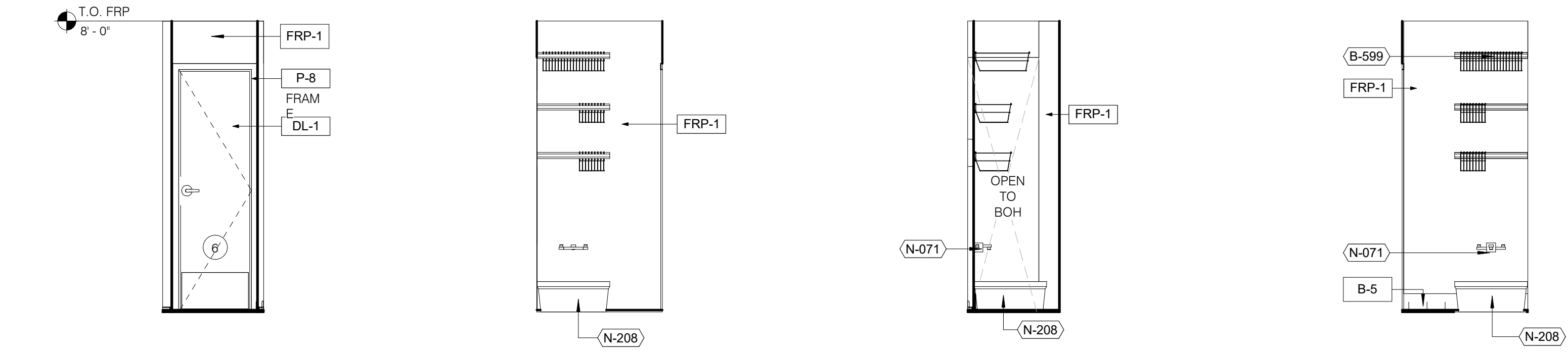
**INTERIOR ELEVATIONS DINING ROOM**

**A8.1**

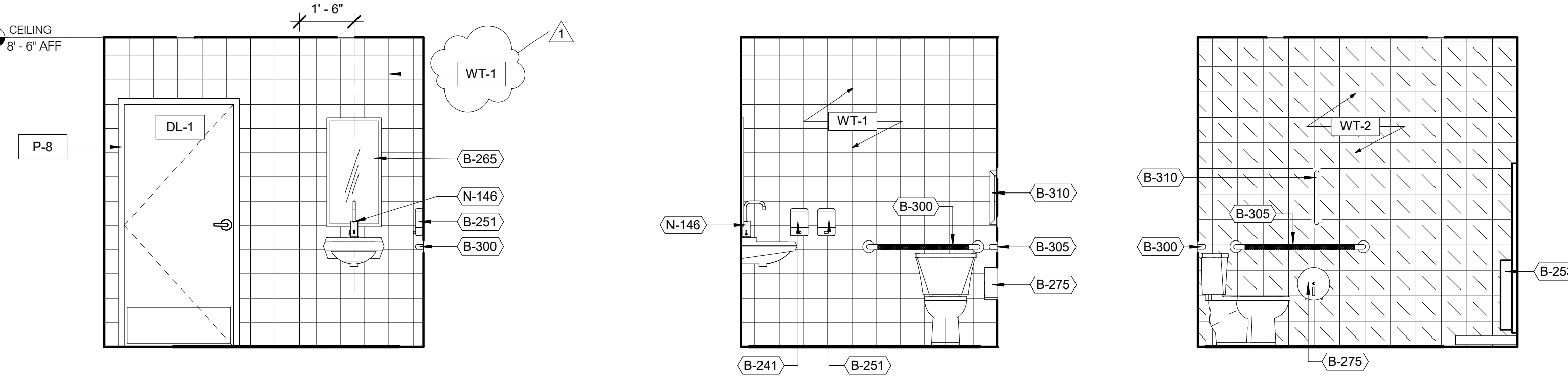
PLOT DATE: 9/19/2018 8:57:52 AM

1. PROVIDE PROPER 2x BLOCKING AT WALL RECESSED MOUNTED ACCESSORIES.
2. GRAB BARS, FASTENERS AND MOUNTING DEVICES SHALL BE INSTALLED PER ADA REQUIREMENTS. REFER TO SHEET ADA1.0.
3. REFER TO FLOOR PLAN NOTES FOR BLOCKING AND SUBSTRATE NOTES.
4. REFER TO SHEET ADA1.0 FOR MOUNTING HEIGHTS AND CLEARANCES OF ACCESSORIES AND FIXTURES. ALL DIMENSIONS THIS DRAWING ARE TO FINISH SURFACE.
5. FOR ( ) DESCRIPTIONS, REFER TO ARTWORK SCHEDULE ON SHEET A2.0.
6. PROVIDE 1/4" MAX GAP AT ALL TOILET PARTITION JOINTS.
7. FOR ( ) DESCRIPTIONS, REFER TO EQUIPMENT SCHEDULE ON SHEET A2.0.

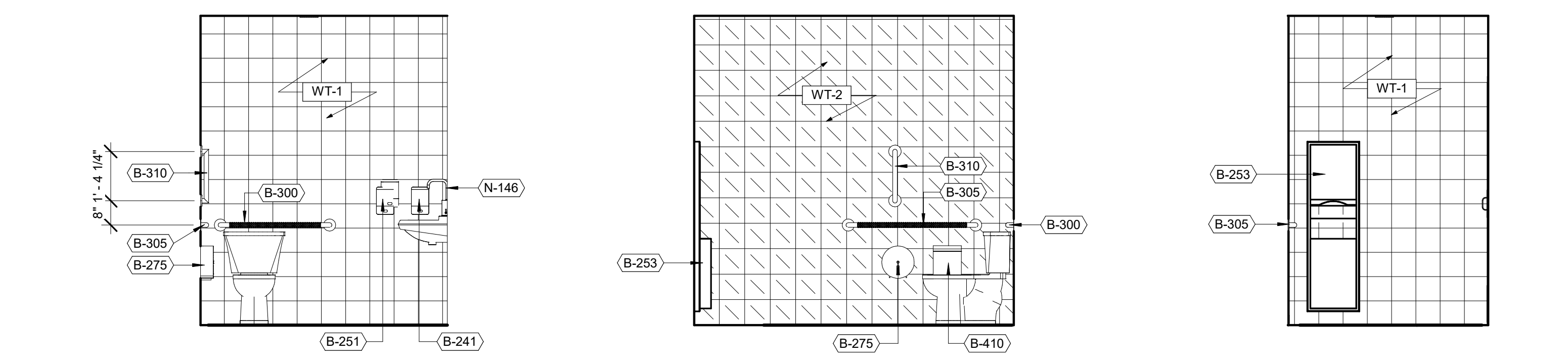
\*ABSOLUTE DIMENSIONS



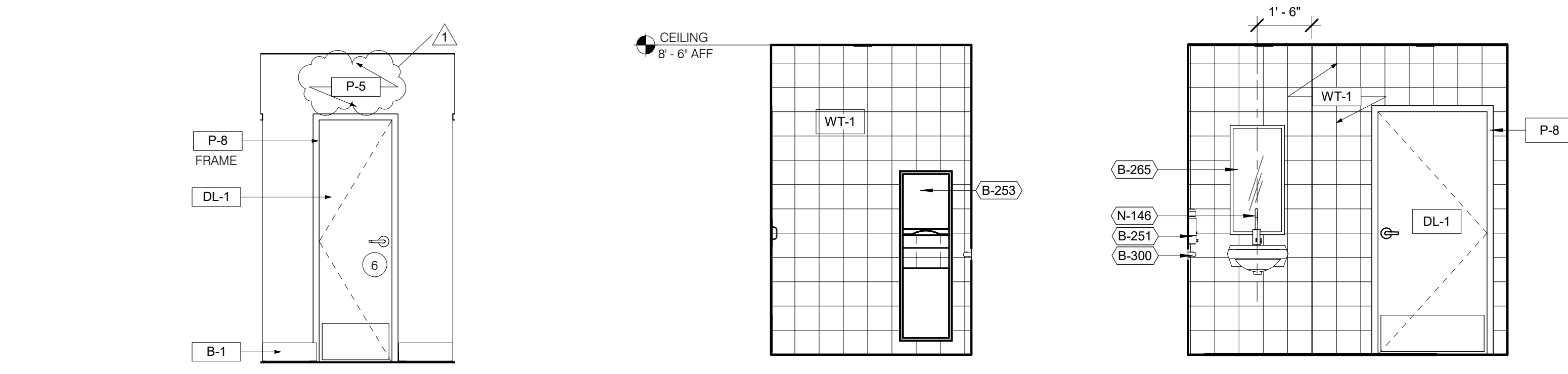
**MOP SINK ROOM** 3/8" = 1'-0" **4** **MOP SINK ROOM** 3/8" = 1'-0" **3** **MOP SINK ROOM** 3/8" = 1'-0" **2** **MOP SINK ROOM** 3/8" = 1'-0" **1**



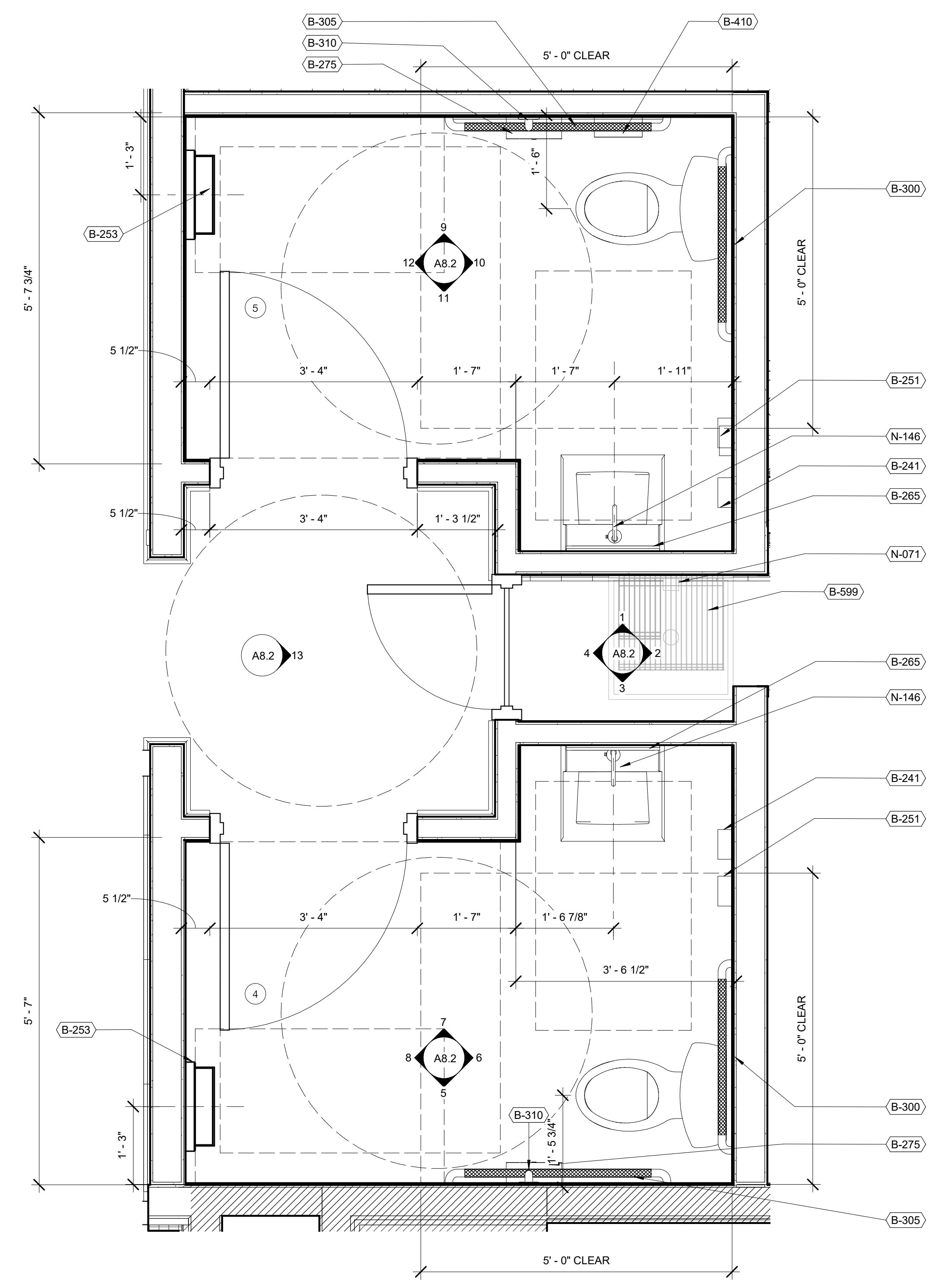
**MENS RESTROOM** 3/8" = 1'-0" **7** **MENS RESTROOM** 3/8" = 1'-0" **6** **MENS RESTROOM** 3/8" = 1'-0" **5**



**WOMENS RESTROOM** 3/8" = 1'-0" **10** **WOMENS RESTROOM** 3/8" = 1'-0" **9** **MENS RESTROOM** 3/8" = 1'-0" **8**



**ALCOVE** 3/8" = 1'-0" **13** **WOMENS RESTROOM** 3/8" = 1'-0" **12** **WOMENS RESTROOM** 3/8" = 1'-0" **11**



**ENLARGED RESTROOM PLAN** 3/4" = 1'-0" **A**

09.17.18	ISSUED FOR CONSTRUCTION
1 09.17.18	BULLETIN 1
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

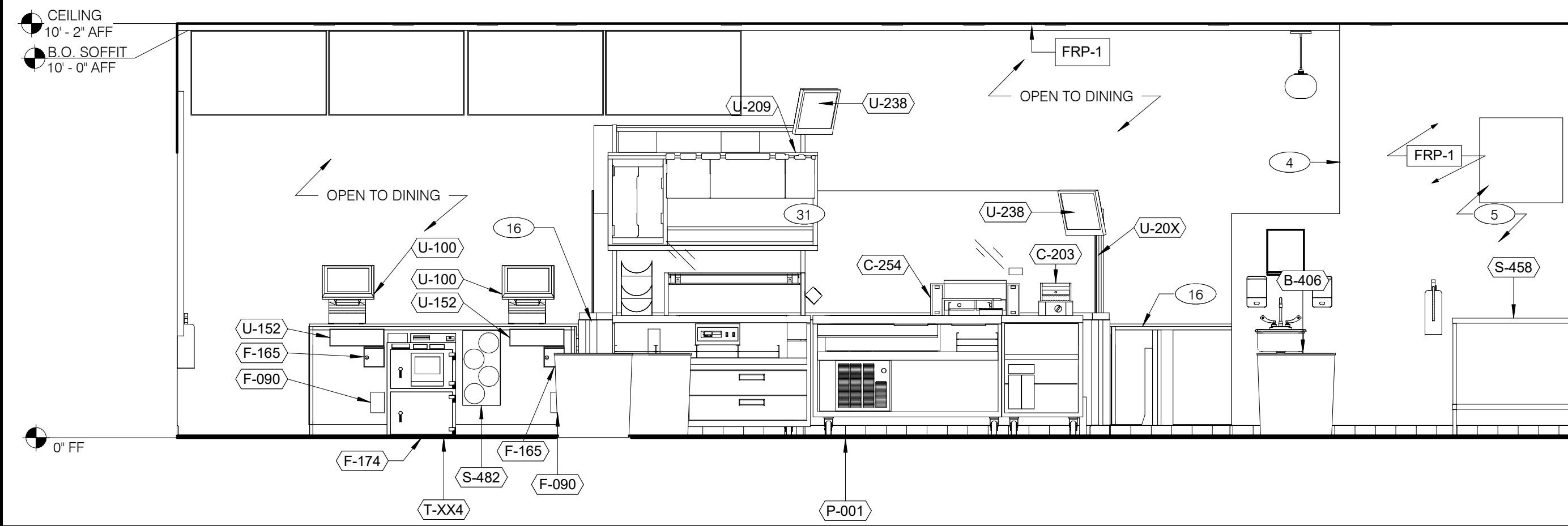
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

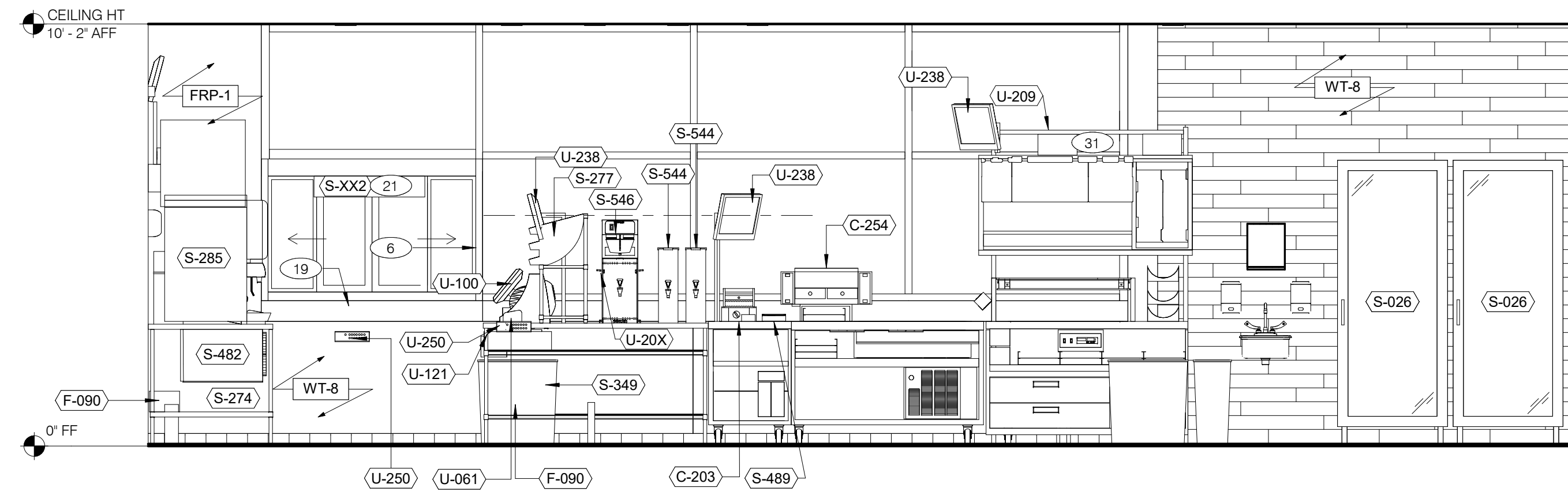
**INTERIOR ELEV.  
ENLARGED  
RESTROOMS**

**A8.2**

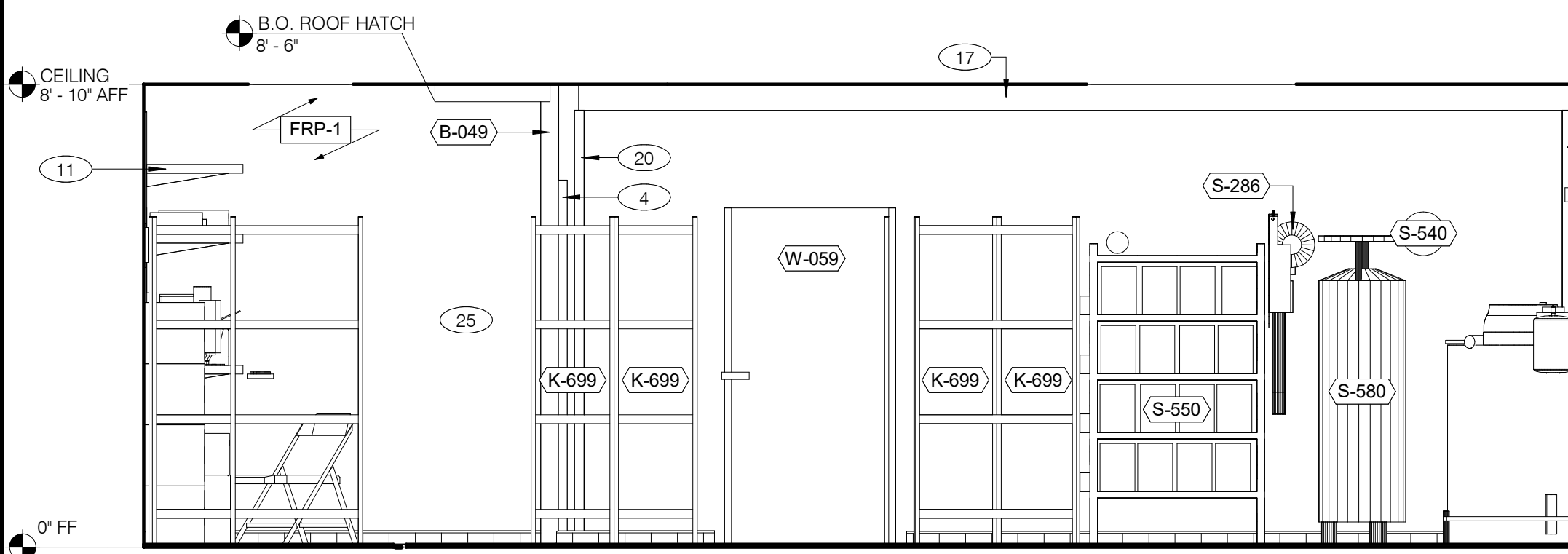
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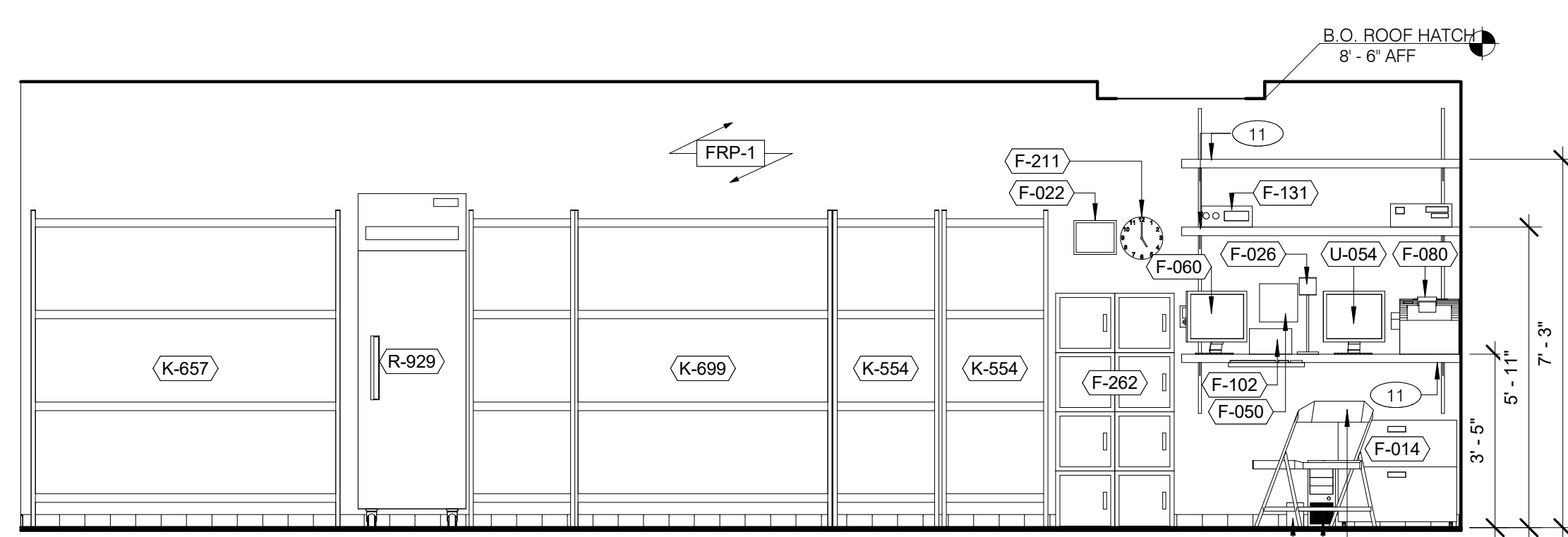
**DRIVE-THRU / PREP** 3/8" = 1'-0" **2**



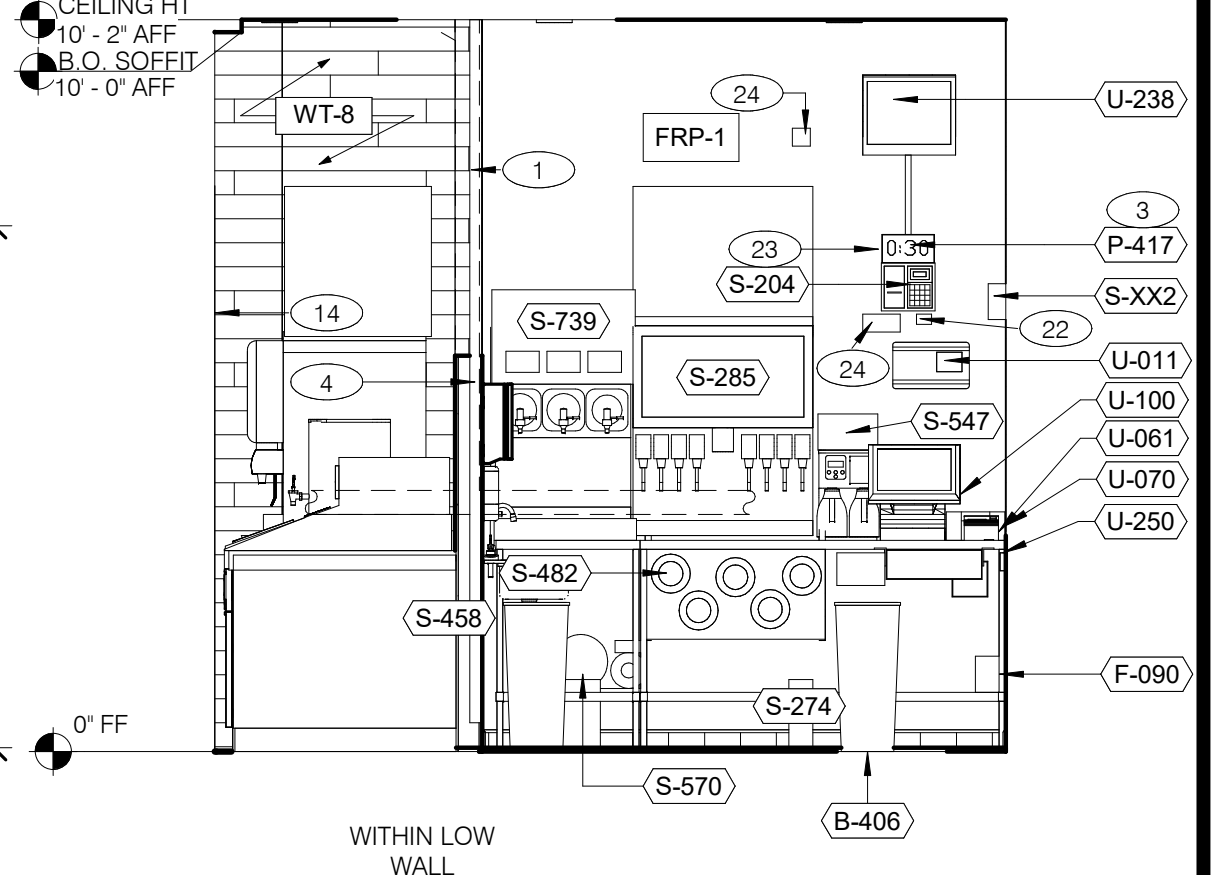
**DRIVE-THRU / PREP** 3/8" = 1'-0" **1A**



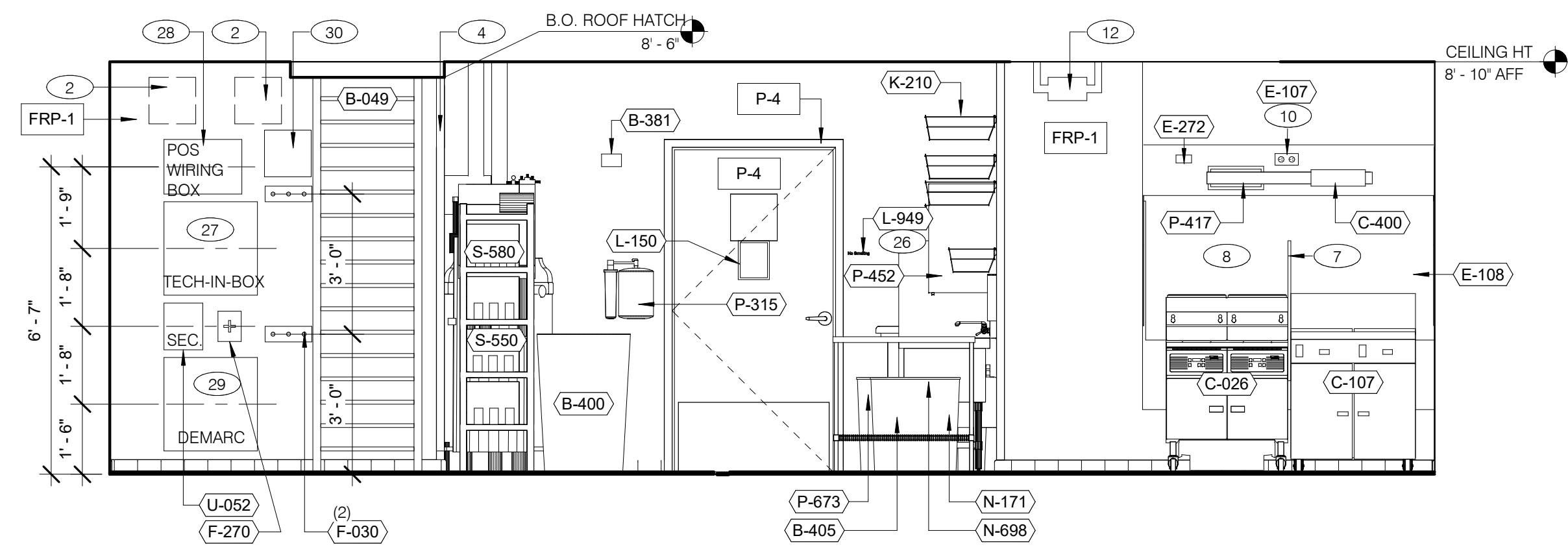
**DRY STORAGE / UTILITY / OFFICE** 3/8" = 1'-0" **5**



**DRY STORAGE / UTILITY / OFFICE** 3/8" = 1'-0" **4**

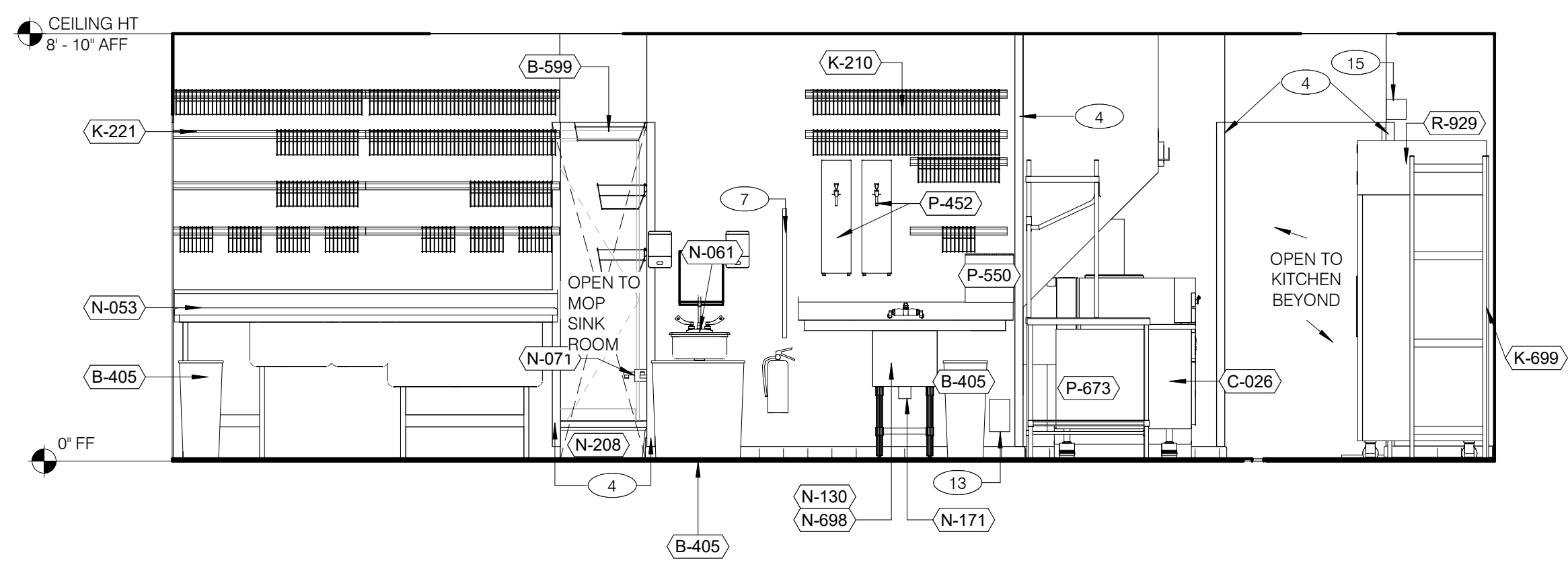


**DRIVE-THRU** 3/8" = 1'-0" **3**



**TB COOK / UTILITY** 3/8" = 1'-0" **6**

- 1 BUNDLED PVC SYRUP LINES & ICE MACHINE REFRIGERANT LINES
- 2 FAN MOTOR STARTERS, SURFACE MOUNTED. (2) TYP.
- 3 DRIVE-THRU TIMER DISPLAY UNIT.
- 4 SS CORNER / END WALL CHANNEL GUARD, FULL HEIGHT. SEE DETAIL 13/A6.5.
- 5 REMOVABLE FRP PANEL AT DRINK STATION.
- 6 SS CORNER GUARDS AT PERIMETER OF D/T WINDOW. SEE DETAIL 10/A6.4 AND SCOPE OF WORK FOR RESPONSIBILITIES.
- 7 SPLASHGUARD. SEE DETAIL 9/A6.5.
- 8 SS PANEL BEHIND HOOD.
- 9 ANSUL PULL STATION.
- 10 J-BOX AND OUTLET INCLUDED WITH HOOD. INSET WITH FLUSH WITH FACE OF HOOD.
- 11 SHELF BY G.C. FINISH WITH PLASTIC LAMINATE DL-3.
- 12 GAS SHUT-OFF VALVE.
- 13 FILTER FOR HOT WATER SYSTEM.
- 14 METAL TILE EDGE DETAIL AT CORNER. SEE DETAIL 20/A6.5
- 15 ALERT LIGHT BOX FOR POWER SOAK
- 16 COUNTER BY G.C.
- 17 VERTICAL ACT BORDER ABOVE WALK-IN/ BELOW CEILING. SEE DETAIL 9/A6.6.
- 18 NOT USED.
- 19 NOT USED.
- 20 VERTICAL S.S. BORDERS AT GAP BETWEEN WALK-IN COOLER WALLS AND FRAMED WALLS.
- 21 FLY FAN.
- 22 DT TIMER SIGNAL PROCESSOR.
- 23 DT TIMER MONITOR AND CONTROL UNIT.
- 24 DT TIMER ETHERNET SWITCH.
- 25 ELECTRIC PANELS.
- 26 NO SMOKING SIGN
- 27 TECH-IN-A-BOX: REFER TO E3.1. G.C. TO PROVIDE BLOCKING WHERE REQUIRED.
- 28 WIRING CABINET BY POS PROVIDER
- 29 TELEPHONE TERMINAL BOARD
- 30 12"X12" PHONE DISTRIBUTION BOX: OWNER PROVIDED AND INSTALLED.
- 31 COORDINATE W/ OWNER ON EQUIPMENT FIT



**PREP** 3/8" = 1'-0" **7**

**KEY NOTES** **A**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
B 06.07.18	CLIENT COMMENTS
A 05.24.18	HEALTH COMMENTS
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

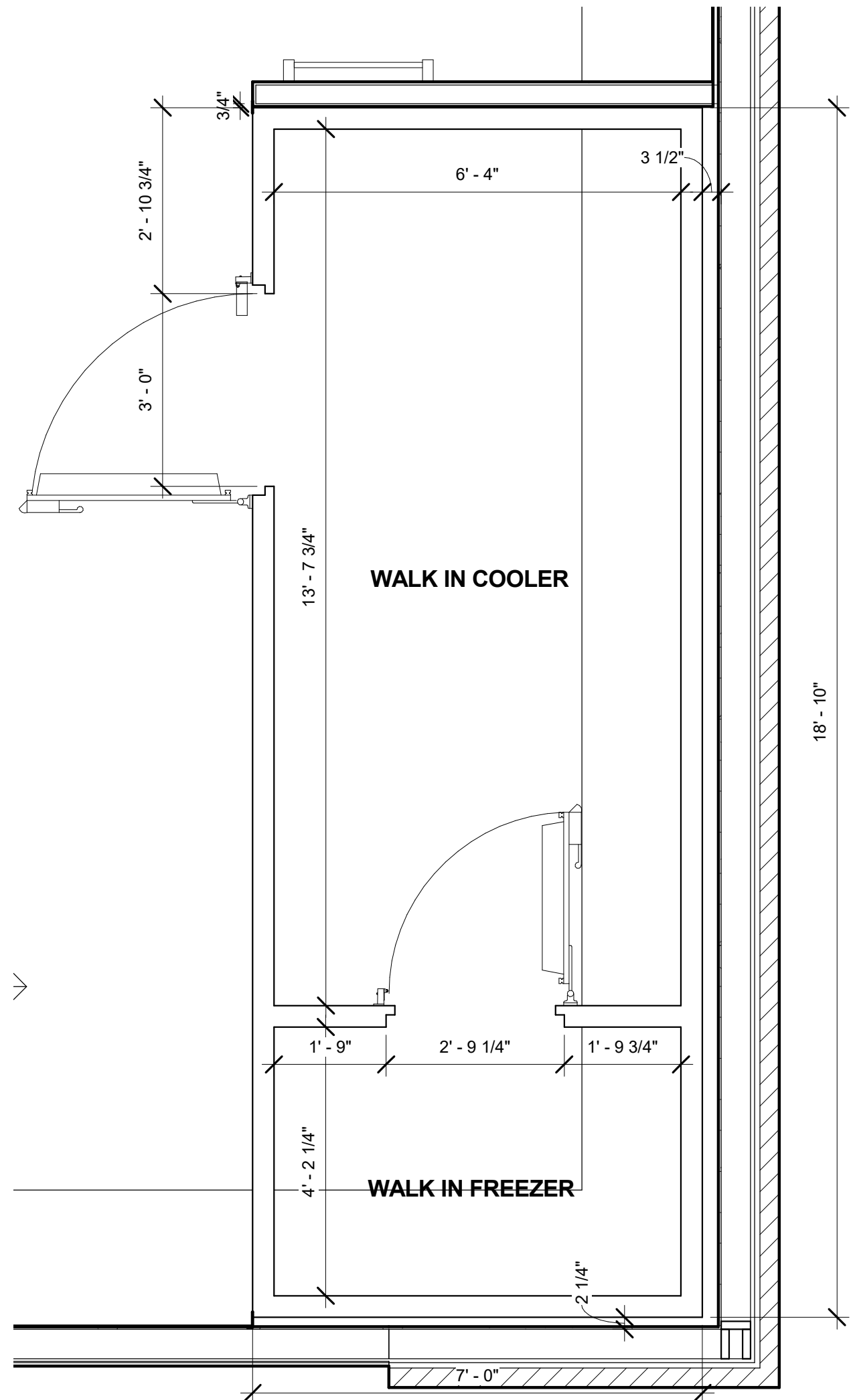
**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

**INTERIOR ELEVATIONS KITCHEN**

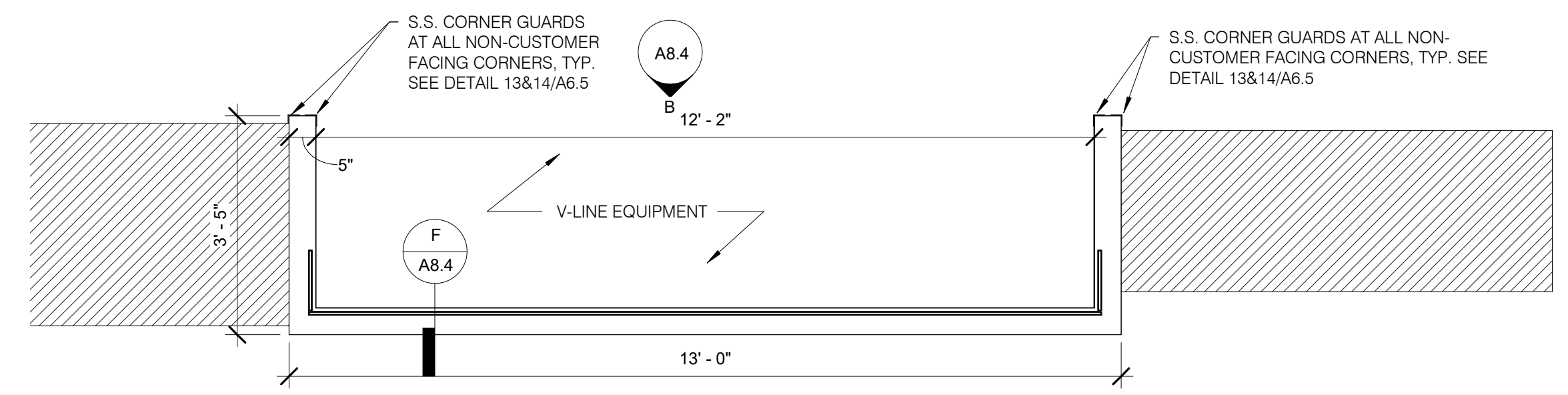
**A8.3**

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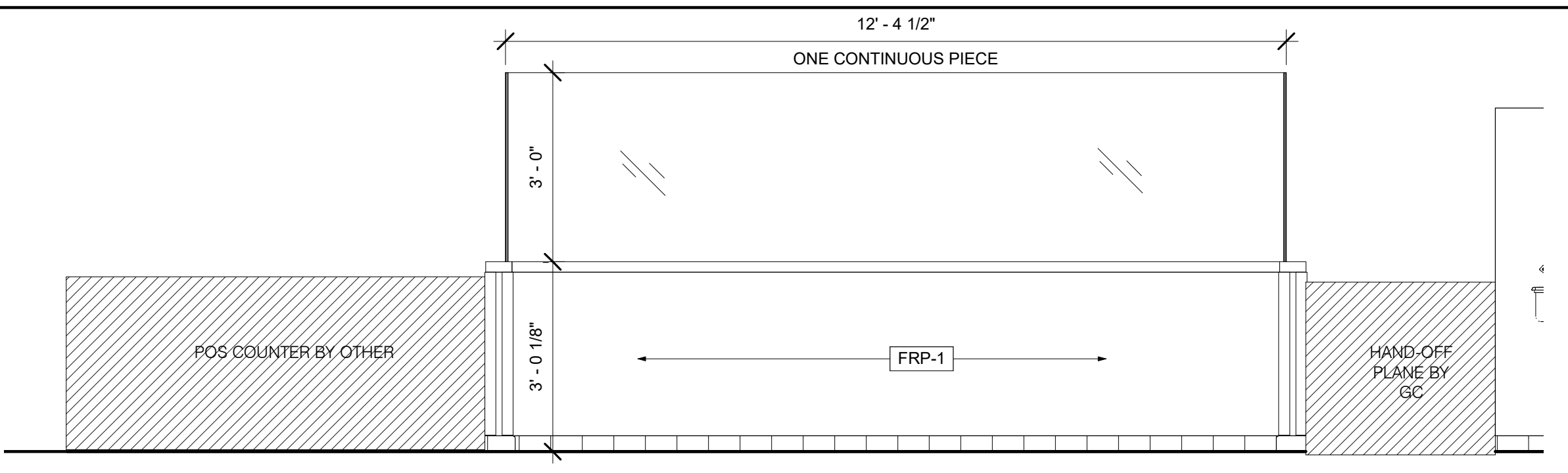




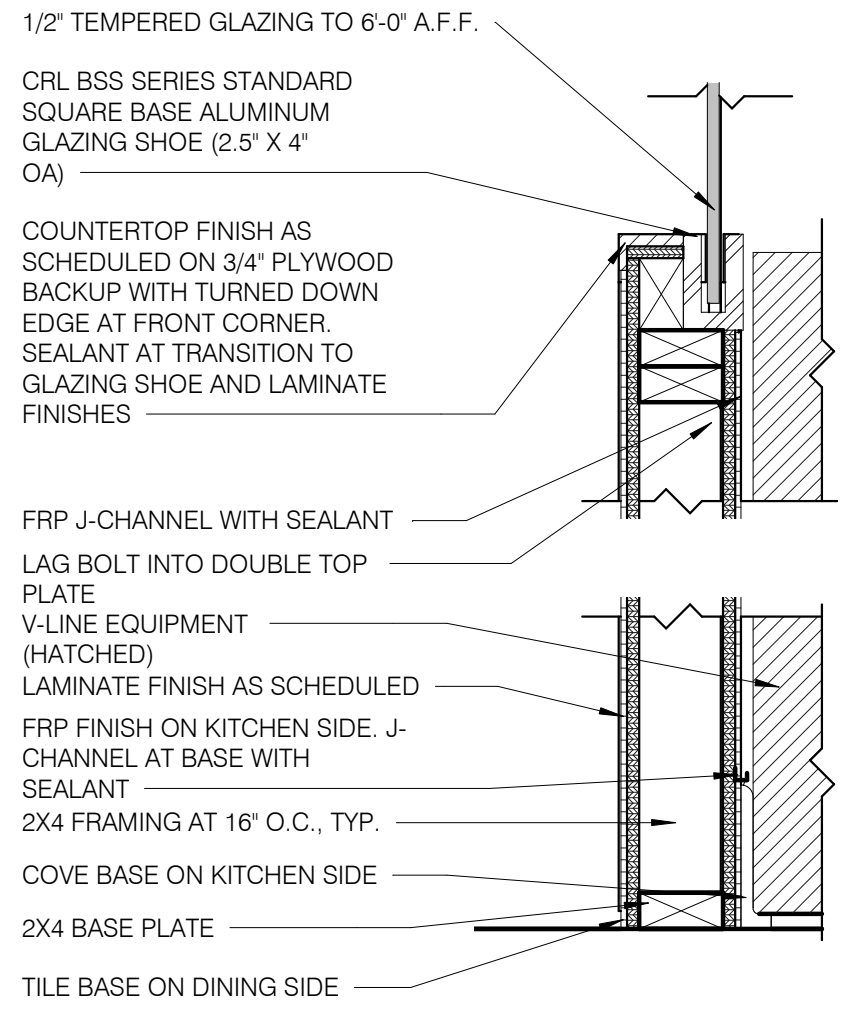
**WALK-IN COOLER AND FREEZER - ENLARGED PLAN** N.T.S. **E**



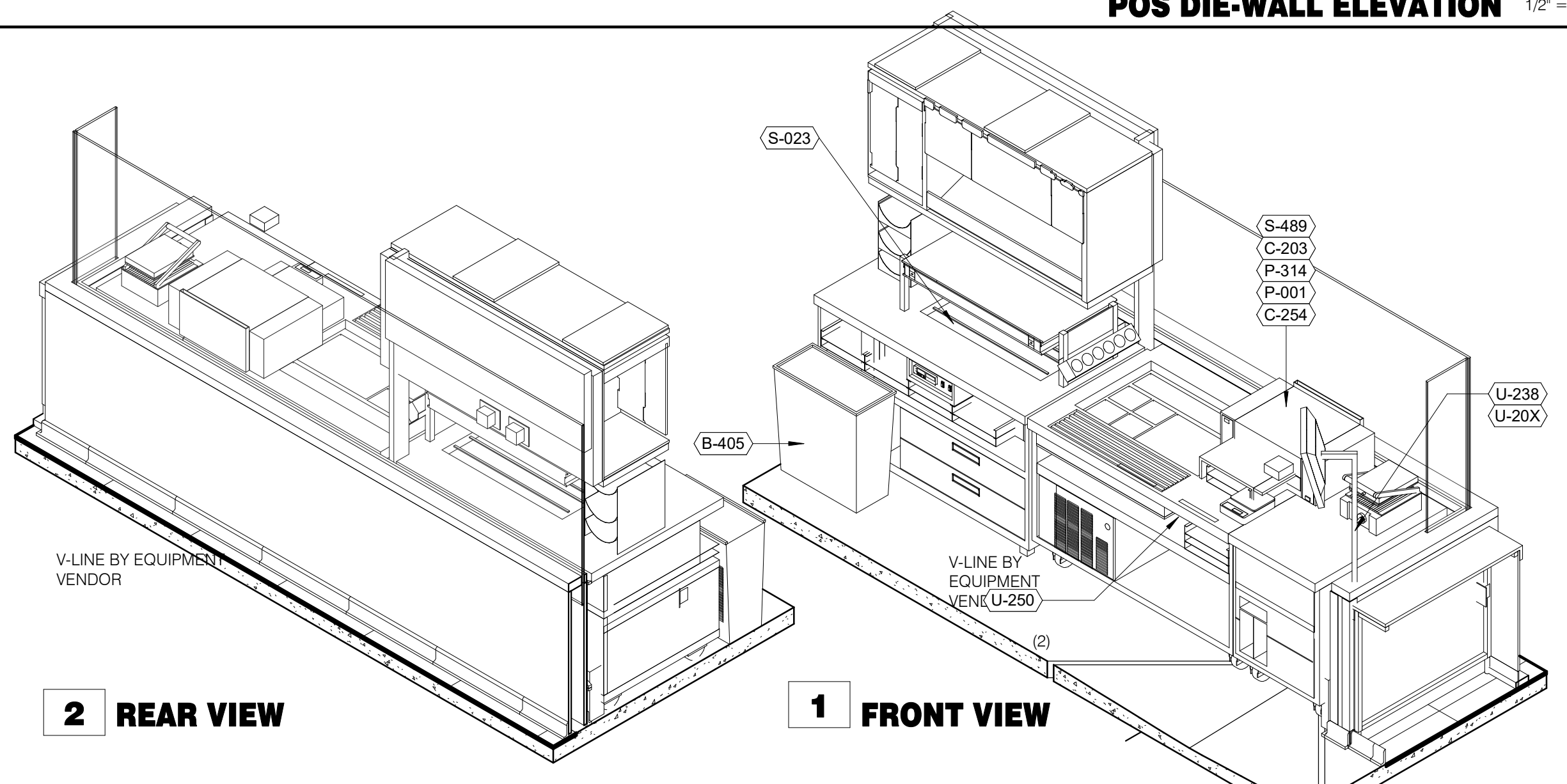
**ENLARGED POS DIE-WALL PLAN** 1/2" = 1'-0" **A**



**POS DIE-WALL ELEVATION** 1/2" = 1'-0" **B**



**POS DIE-WALL DETAILS** 1 1/2" = 1'-0" **F**



**"V" LINE** N.T.S. **C**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE:	01.08.18
BUILDING TYPE:	T40M-O
PLAN VERSION:	DEC 2017
BRAND DESIGNER:	
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

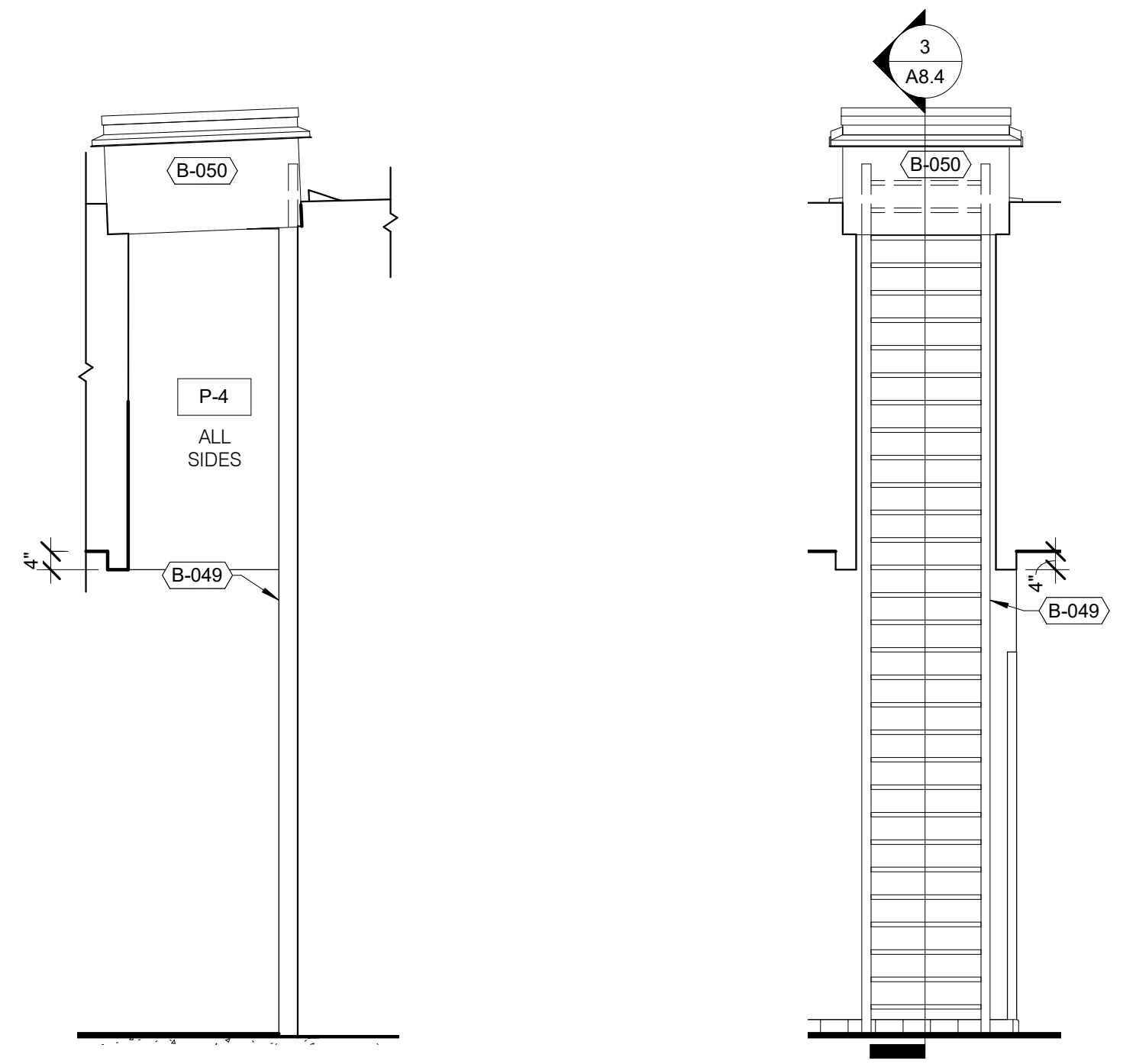
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
OPEN KITCHEN  
MODERN EXPLORER

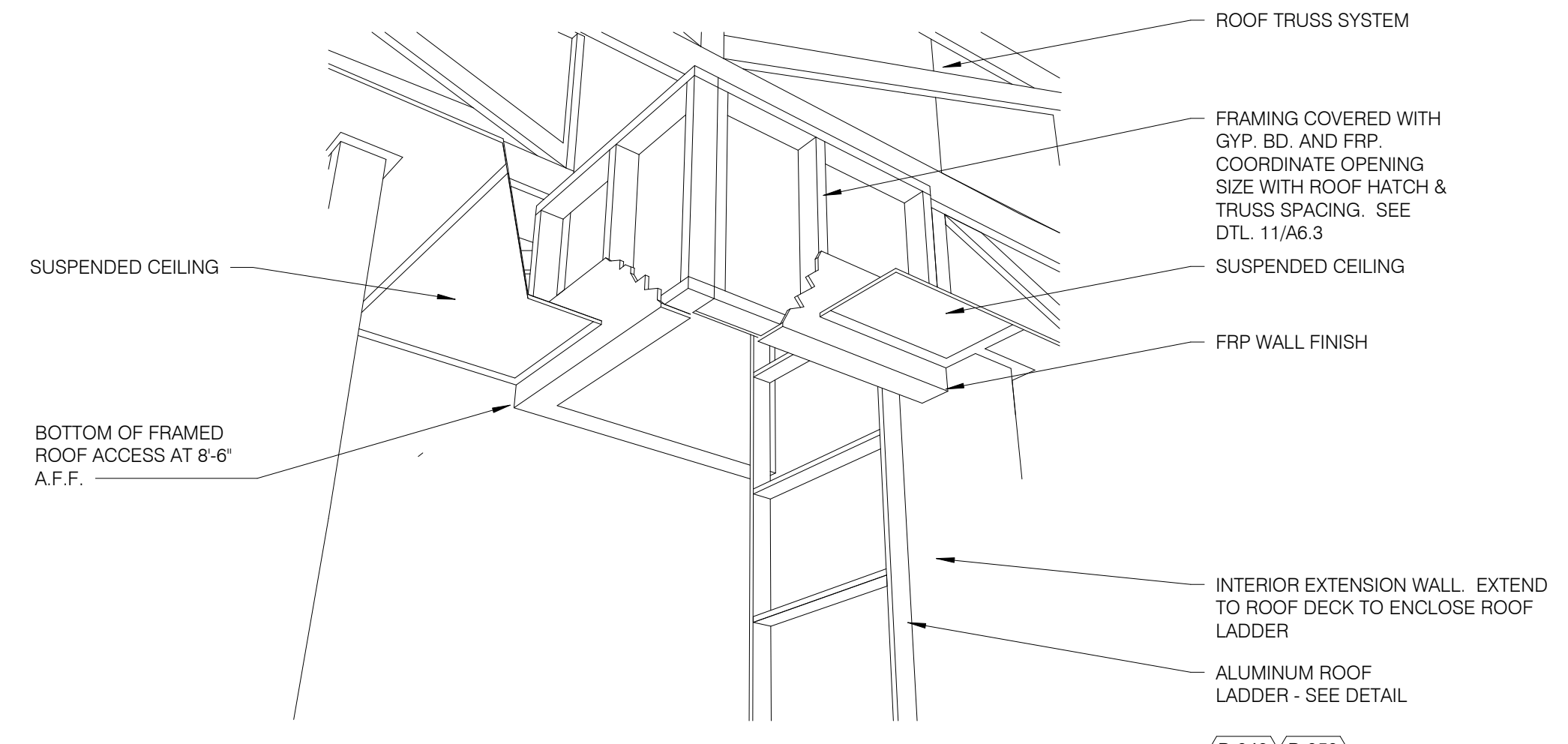
**KITCHEN DETAILS**

**A8.4**

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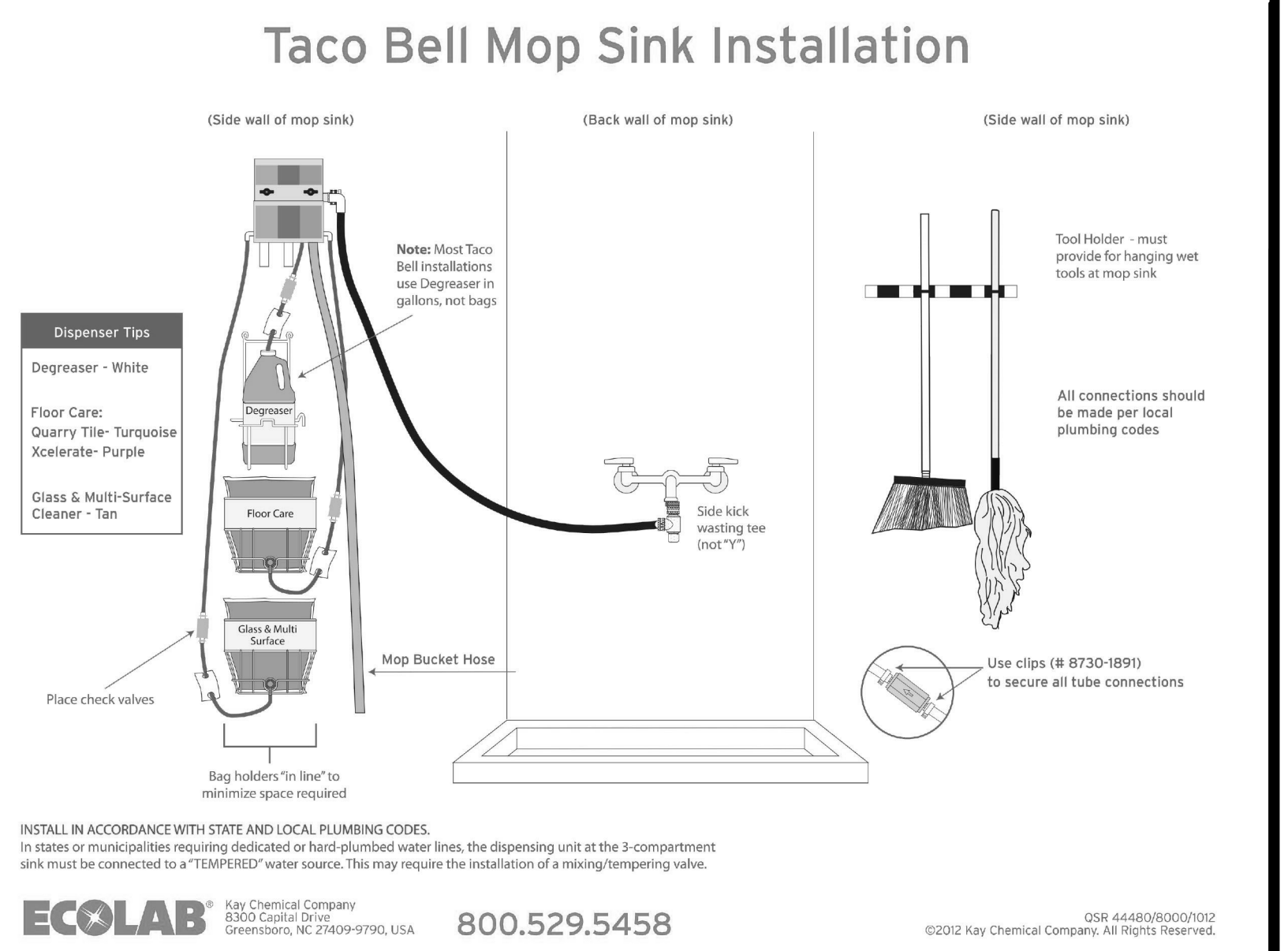


**ROOF LADDER SECTION**



**ROOF LADDER VIEW**

**ROOF ACCESS PASSAGEWAY** N.T.S. **G**



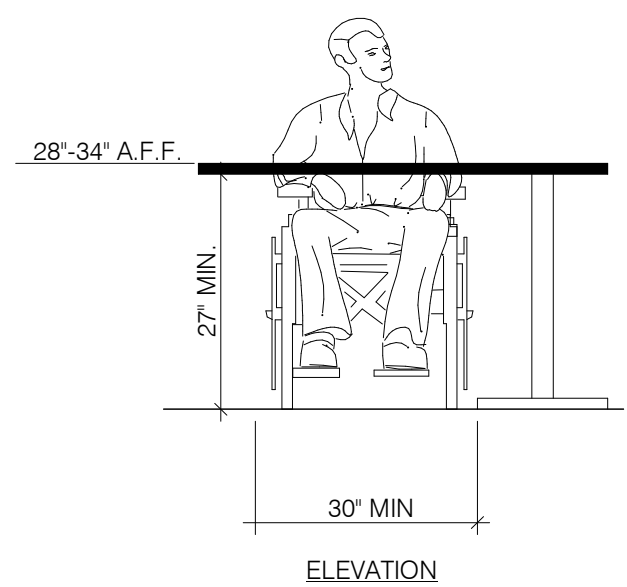
**ECOLAB** Kay Chemical Company  
8300 Capital Drive  
Greensboro, NC 27409-9790, USA  
800.529.5458  
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**MOP SINK INSTALLATION** **D**

TOTAL SEATS ACCESSIBLE SEATS

1 - 20	1
21-40	2
41-60	3
61-80	4
81-100	5
101-120	6
121-140	7

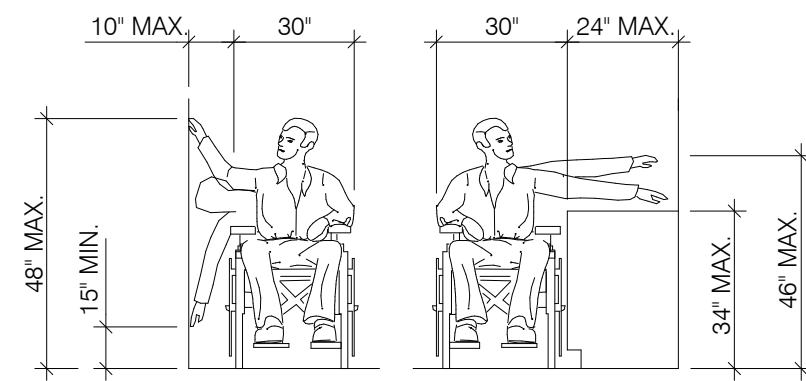
NUMBER OF ACCESSIBLE SEATS



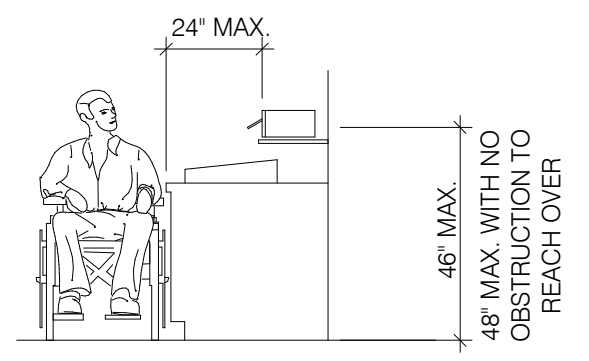
**SEATING AND TABLES**

N.T.S.

**18**



EXAMPLE: DRINK MACHINE, ETC.

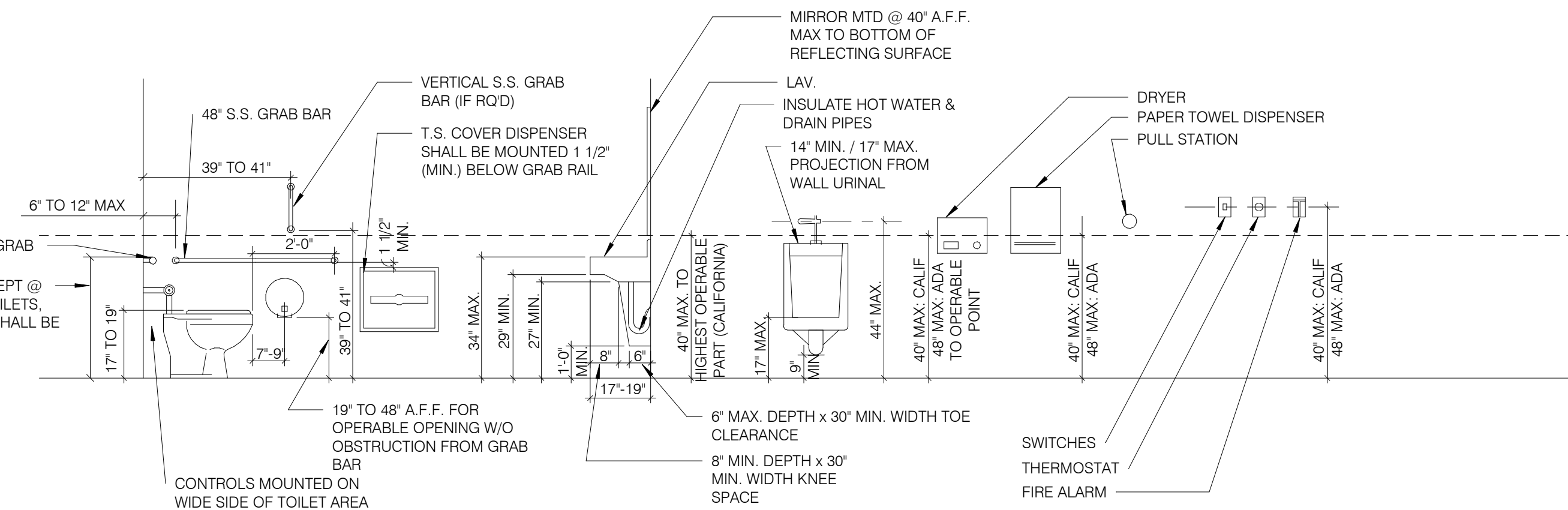


**REACH RANGES**

N.T.S.

**14**

- NOTES:
- TOP OF GRIPPING SURFACE 33" TO 36" MAX TO THE TOP OF THE BAR. SEE NOTES BELOW
  - 12" MINIMUM CLEAR ABOVE GRAB BAR

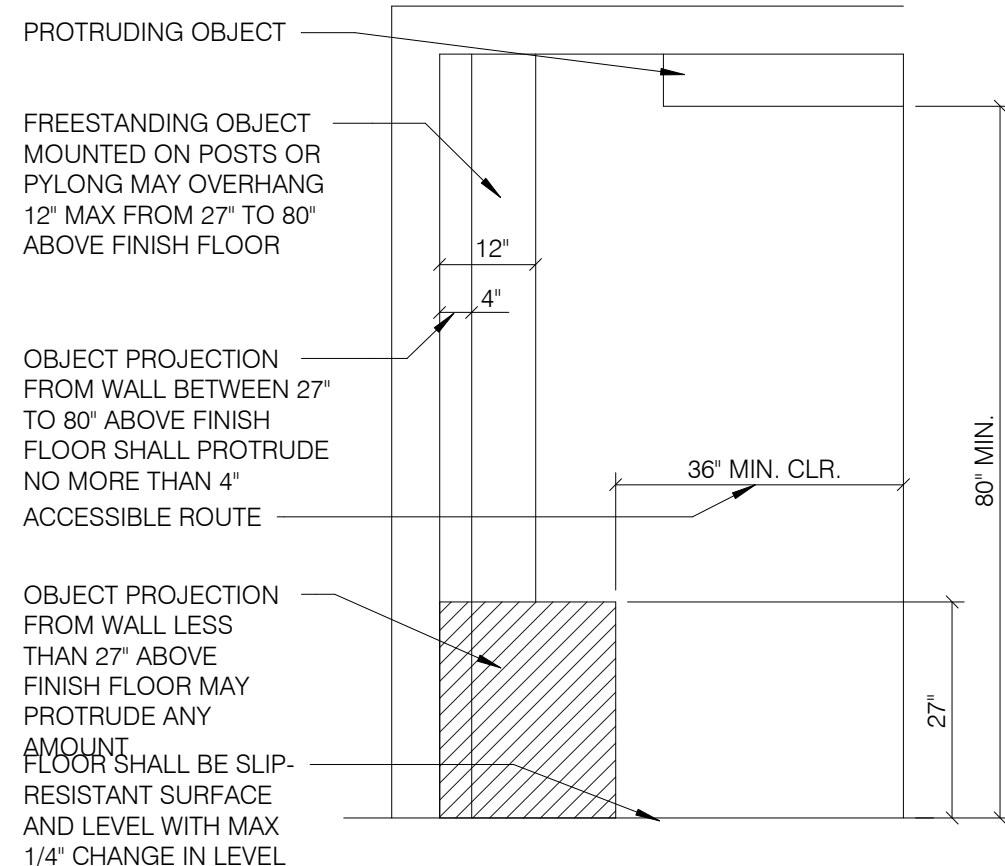


**MOUNTING HTS. & CLEARANCE FOR ACCESSIBILITY BY THE DISABLED**

N.T.S.

FAM016

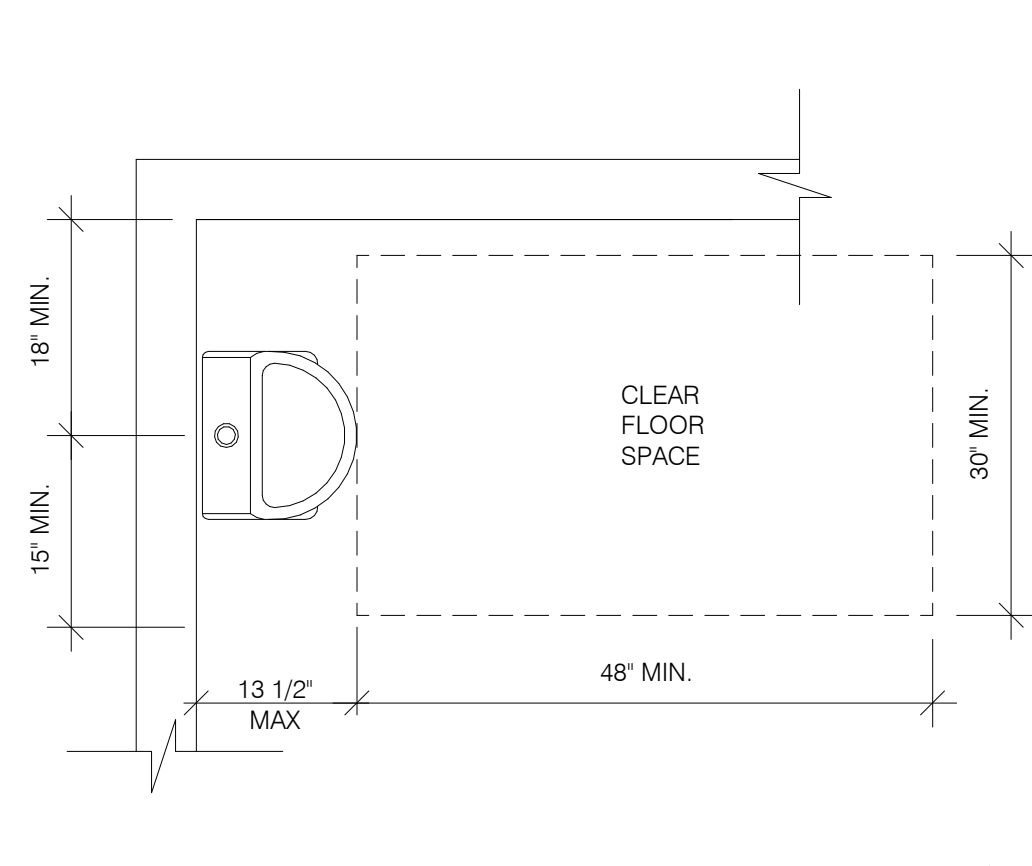
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**INT. ACCESS. ROUTE CLEARANCES**

1/2" = 1'-0"

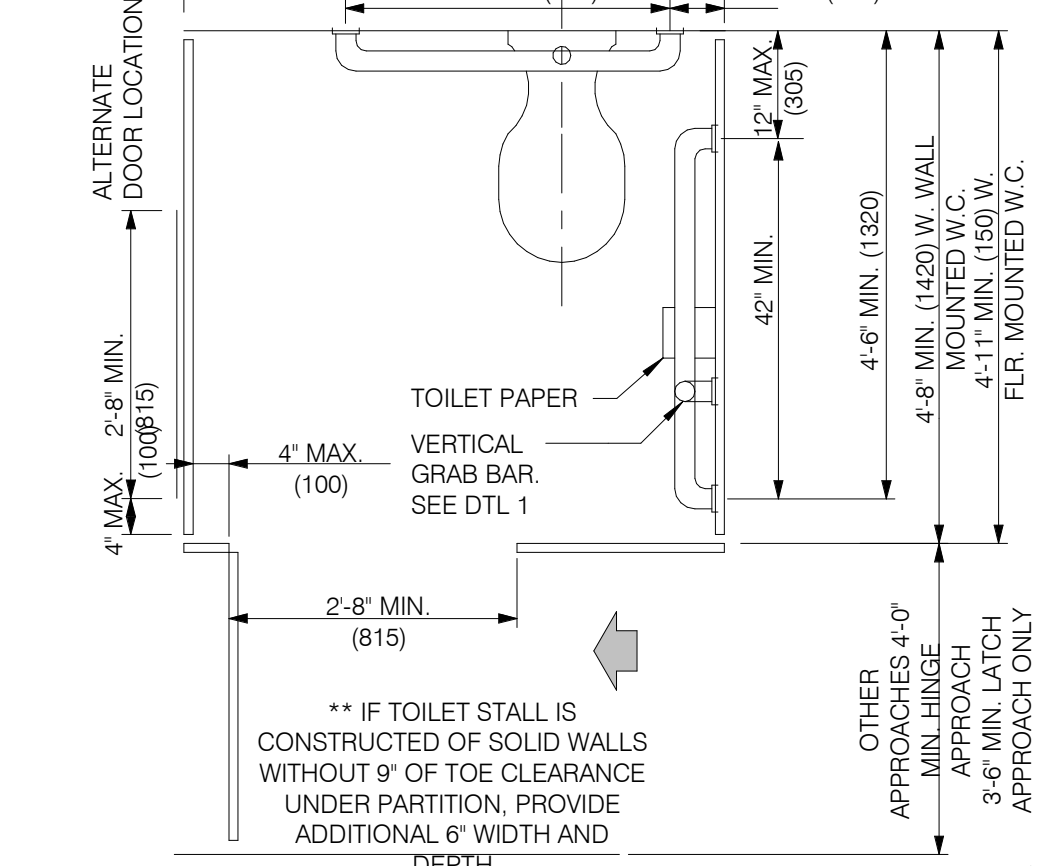
**10**



**ACCESSIBLE URINAL**

3/4" = 1'-0"

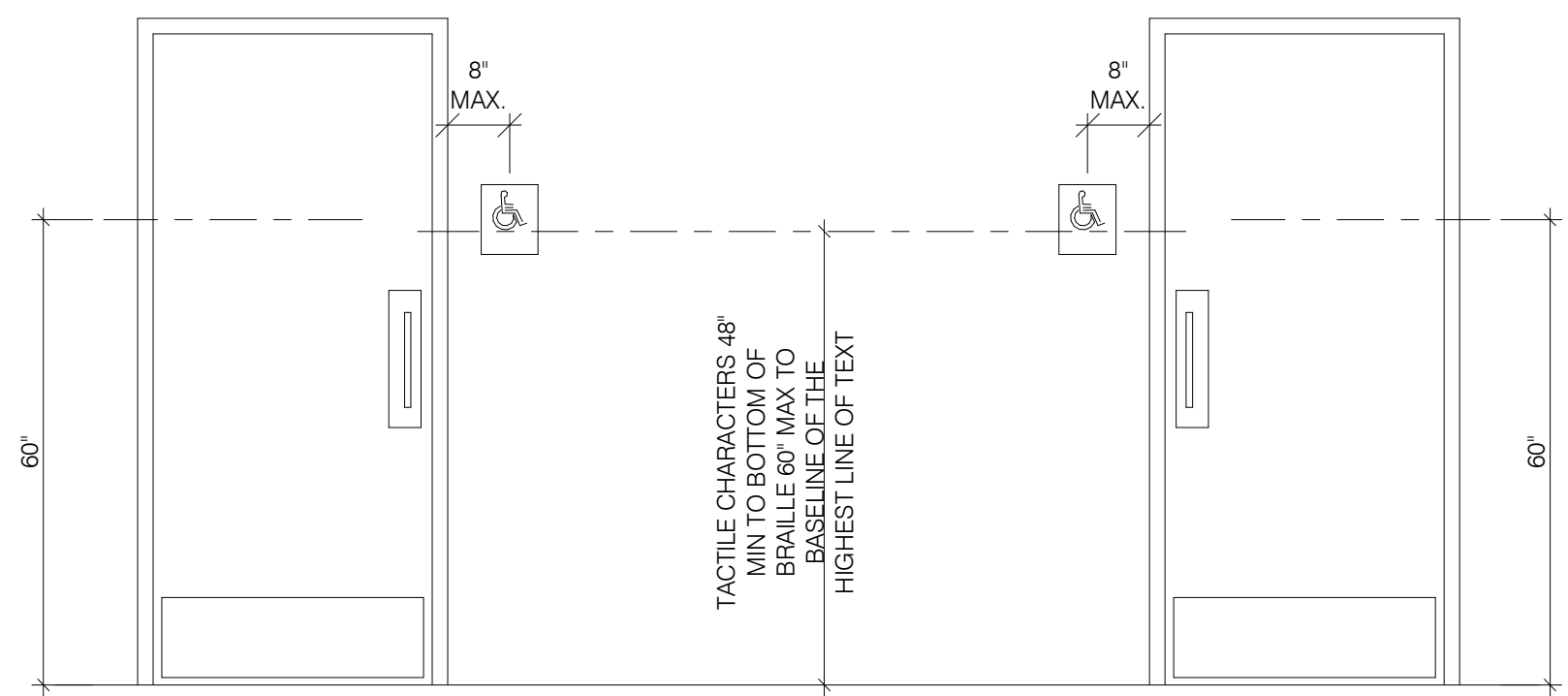
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**STANDARD TOILET STALL**

N.T.S.

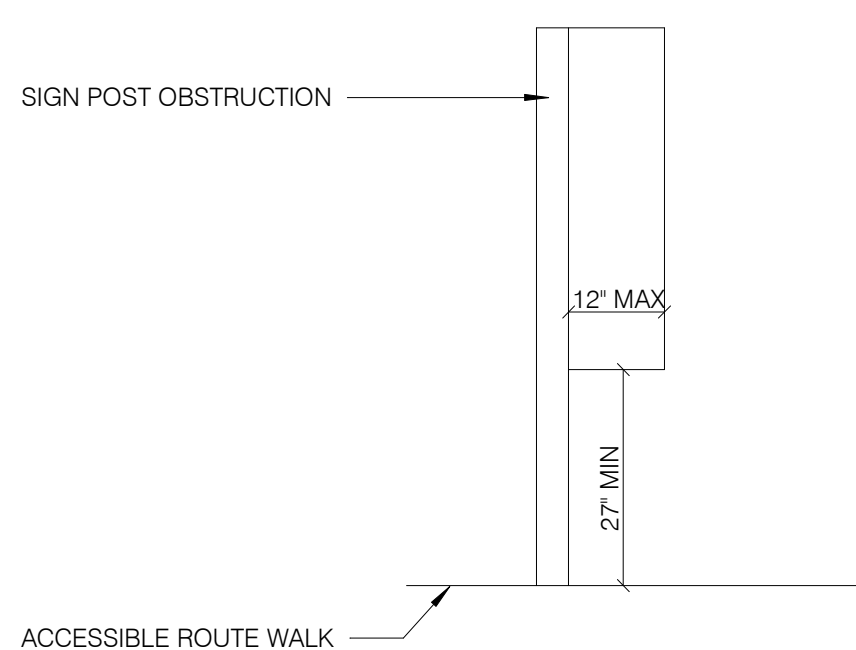
**2**



**ACCESSIBLE RESTROOM DOORS**

N.T.S.

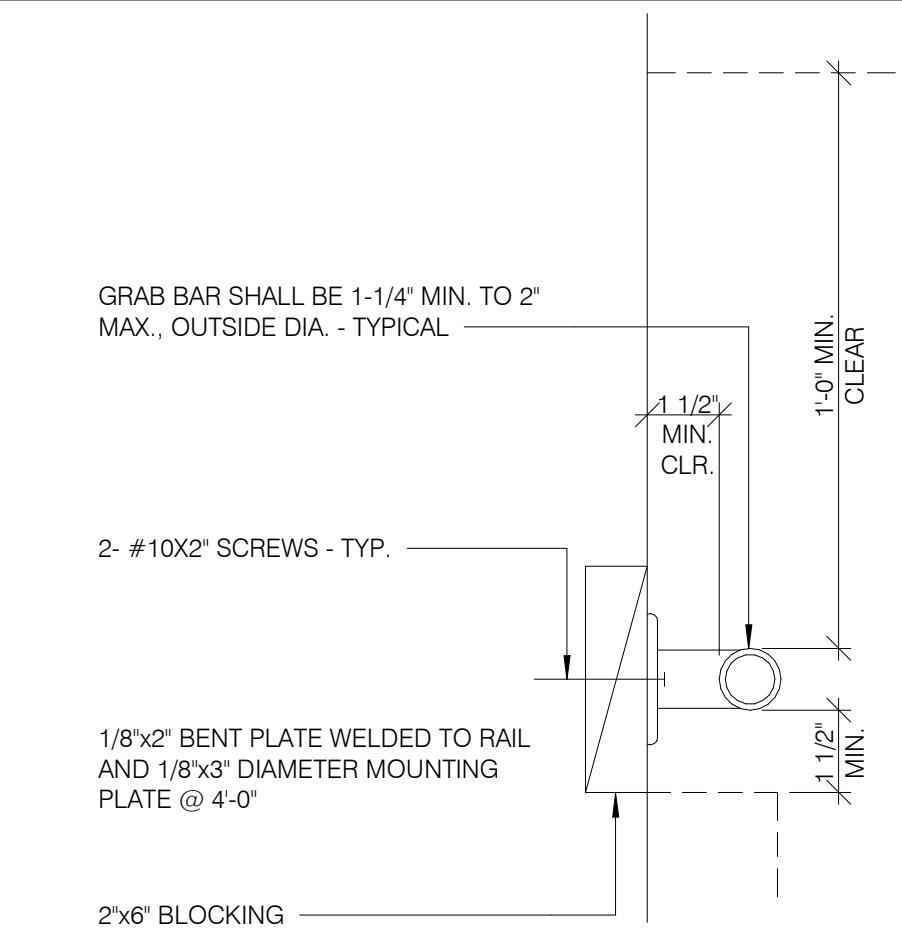
**15**



**PROTRUDING HAZARDS**

1/2" = 1'-0"

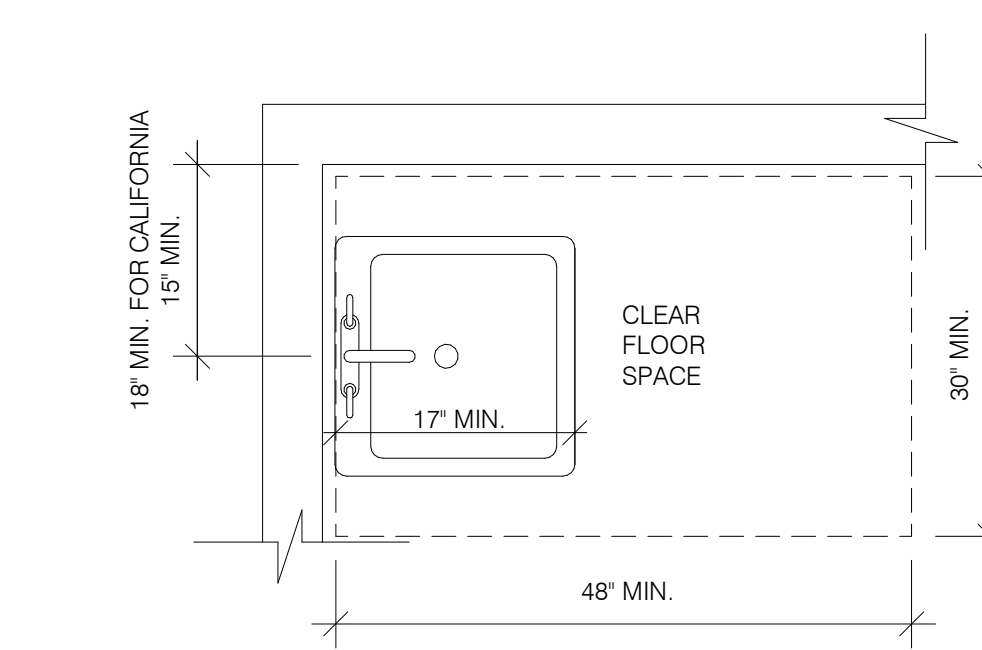
**11**



**GRAB BAR**

3/4" = 1'-0"

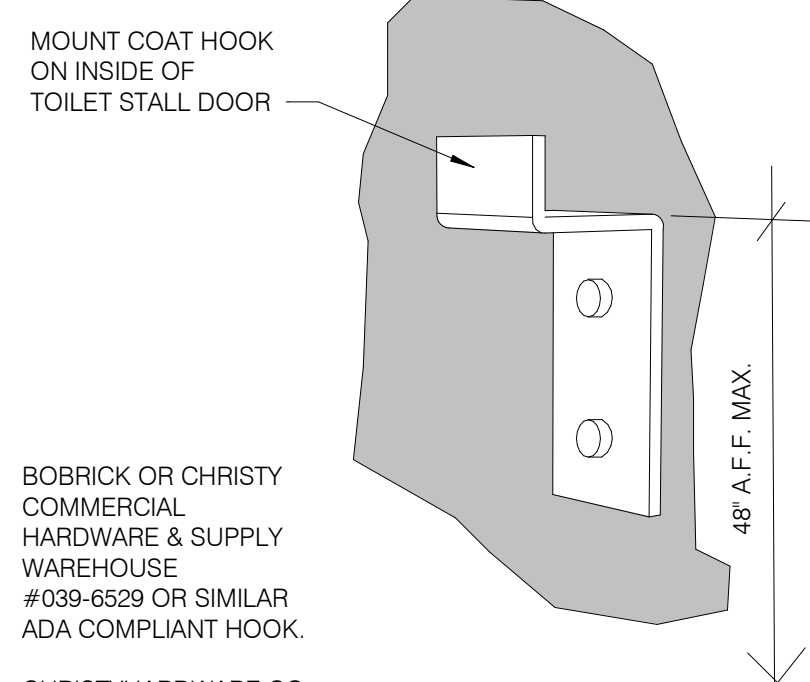
**7**



**ACCESSIBLE LAVATORY**

3/4" = 1'-0"

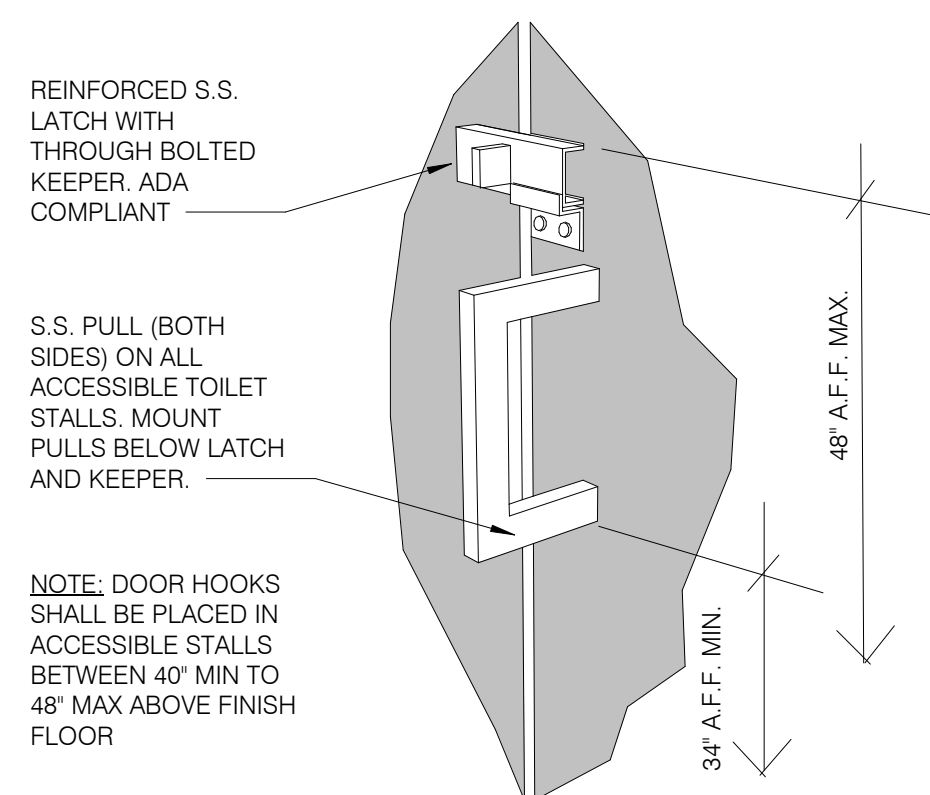
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**COAT HOOK**

N.T.S.

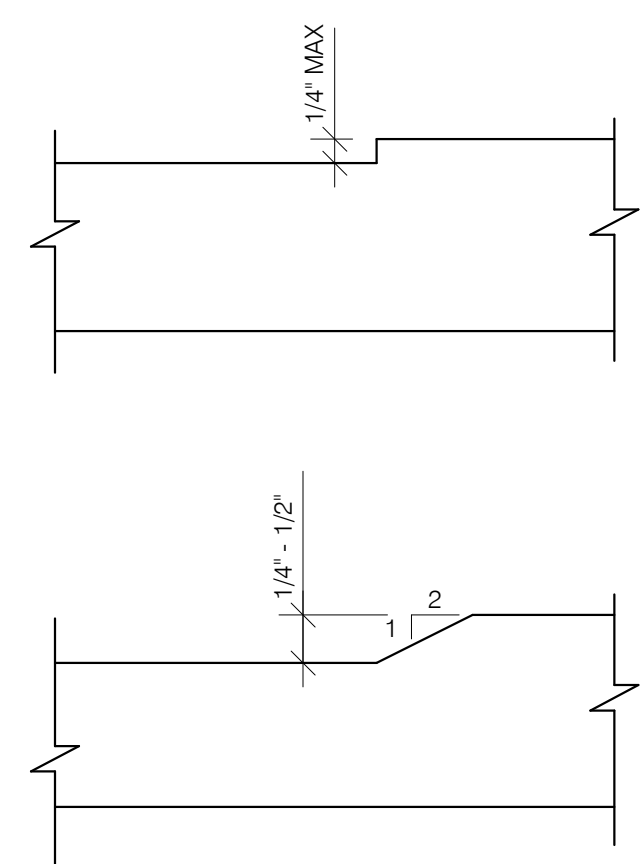
**20**



**PARTITION DOOR LATCH @ PULL**

N.T.S.

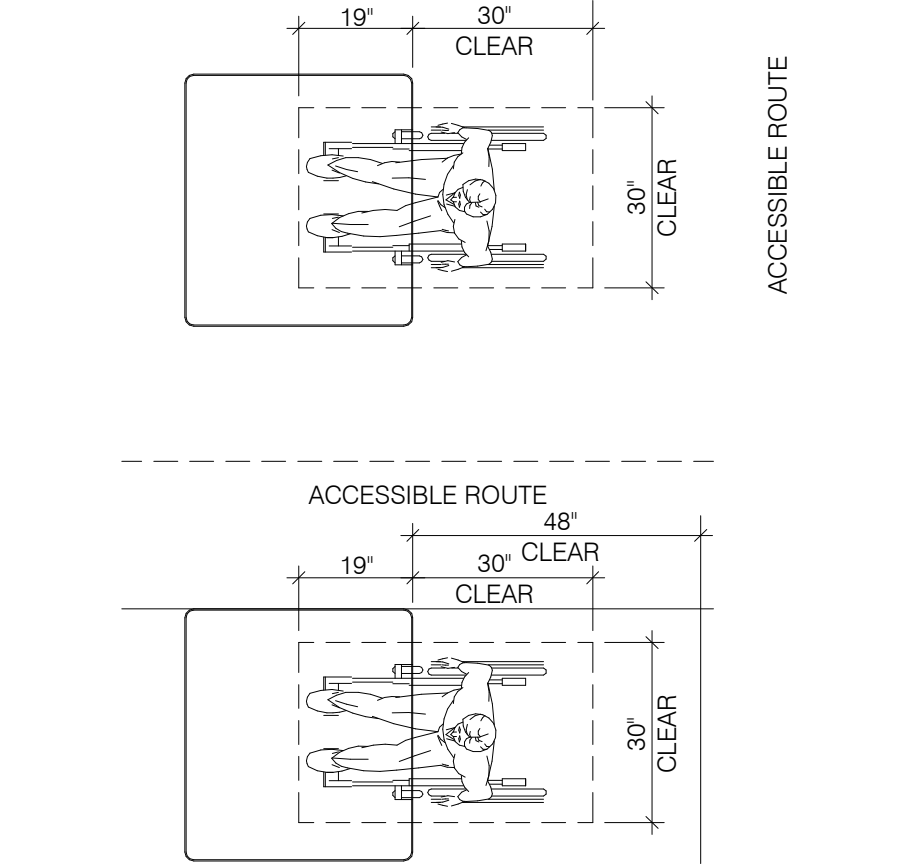
**16**



**CHANGES IN LEVEL**

N.T.S.

**12**



**DINING ROOM SEATING CLEARANCES**

N.T.S.

**8**

- INDICATED DIMENSIONS, HEIGHTS, DEPTHS, AREAS AND OTHER GRAPHIC INFORMATION ARE PROVIDED AS MINIMUMS THAT MUST BE MAINTAINED. THESE MINIMUMS ARE BASED UPON YUM STANDARDS AND MAY EXCEED ADA REQUIREMENTS.
- THE DETAILS SHOWN ARE CONCEPTUAL ONLY AND INTENDED TO SHOW ABSOLUTE MINIMUMS AND SHALL BE COORDINATED WITH THE OTHER CONSTRUCTION DOCUMENTS ASSOCIATED WITH THIS PROJECT.
- 60" TURNING SPACE
  - PERMITTED OVERLAP LIMITED TO 1 ARM OF T-SHAPED SPACE
  - CAN OVERLAP FIXTURE & DOOR CLEARANCE
  - DOOR CAN SWING INTO TURNING SPACE A MAXIMUM OF 12"
- RESTROOM - IN GENERAL, DOOR SWING MUST BE OUTSIDE OF THE FIXTURE CLEAR FLOOR SPACE HOWEVER A DOOR CAN SWING INTO FIXTURE CLEAR FLOOR SPACE IF WHEELCHAIR SPACE 30"X48" IS PROVIDED BEYOND THE DOOR SWING.
- TOILET ROOM MUST ALLOW FOR SIDE TRANSFER - 42" BETWEEN FIXTURES
- ALL BARRIER FREE SIGNS SHALL BE WHITE ON A BLUE BACKGROUND.

**GENERAL NOTES**

N.T.S.

**4**

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BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

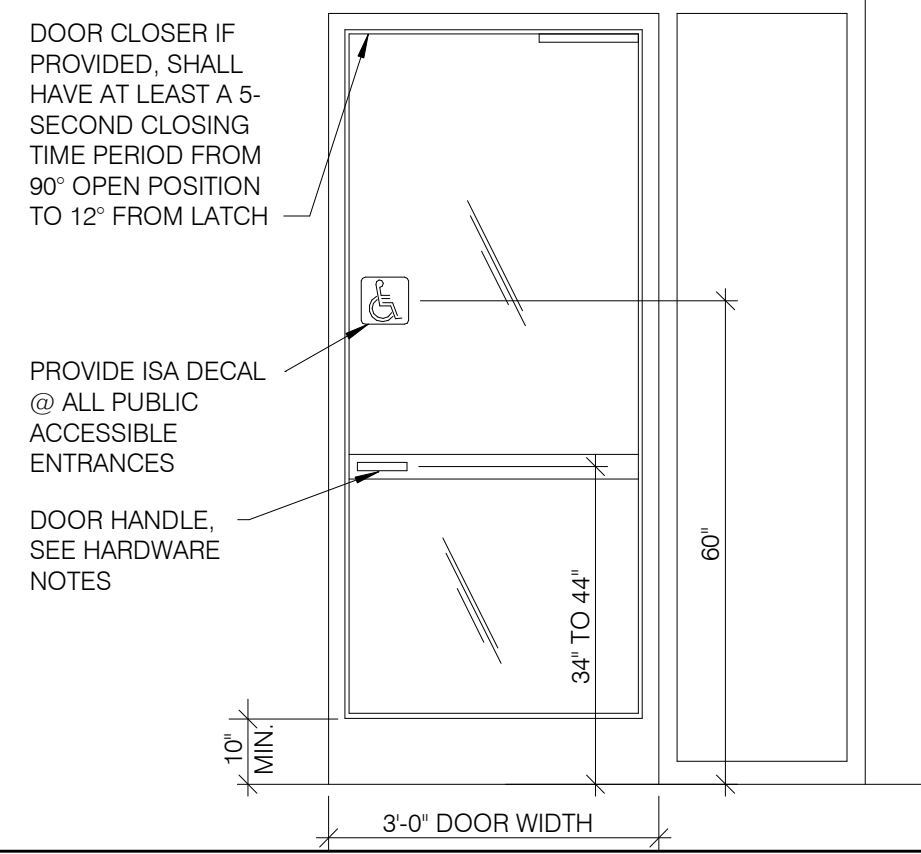
**TACO BELL**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40  
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MODERN EXPLORER

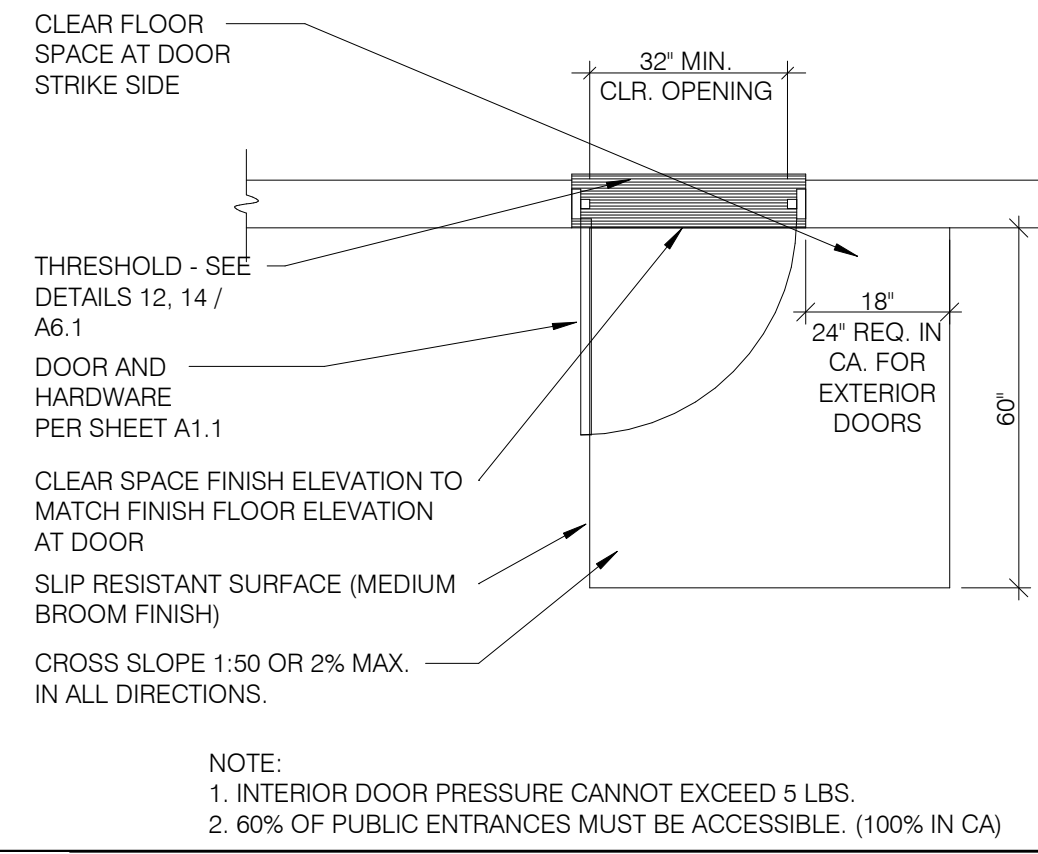
**ACCESSIBILITY REQUIREMENTS**

**ADA1.0**

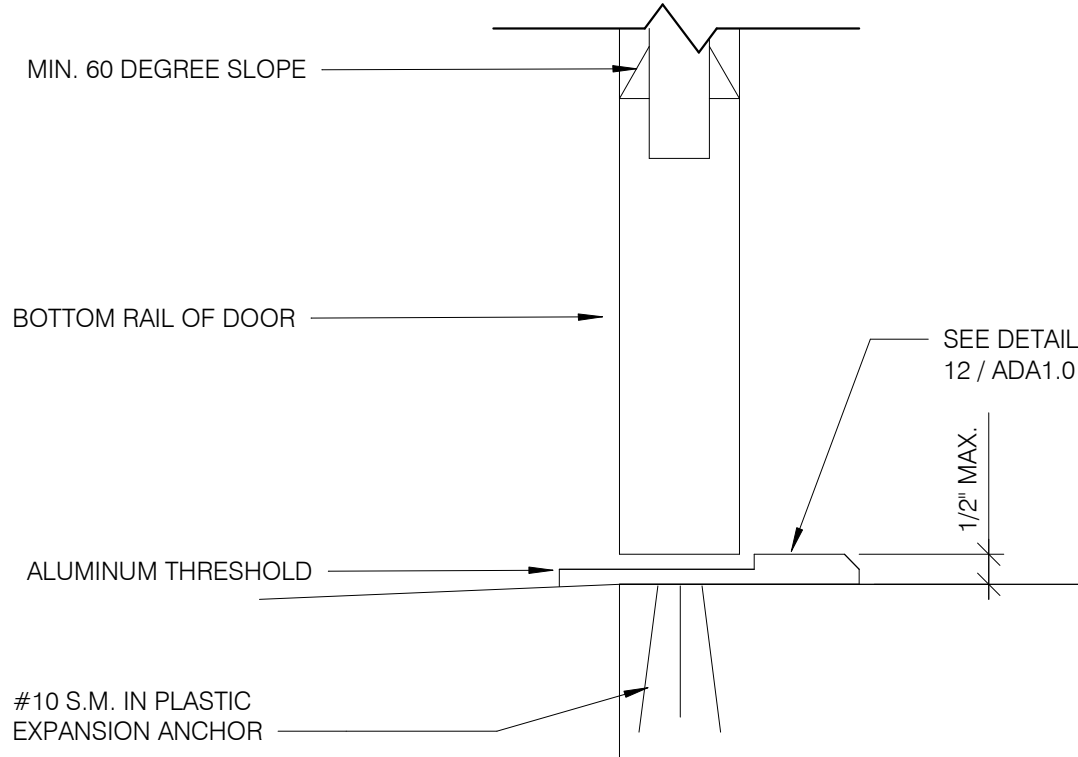
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**TYP. ENTRANCE / EXIT DOOR** 12' = 1'-0" **9**



**EXTERIOR DOOR REQUIREMENT** 12' = 1'-0" **6**



**BOTTOM RAIL ( EXTERIOR DOOR)** 3' = 1'-0" **7**

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CONTRACT DATE: 01.08.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**TACO BELL**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40  
 OPEN KITCHEN  
 MODERN EXPLORER

**ACCESSIBILITY REQUIREMENTS**

**ADA1.1**



**GENERAL:**

- LOCATE, CUT AND FRAME ROOF OPENINGS AS SHOWN FOR ALL HVAC EQUIPMENT AND EXHAUST FANS.
- IT IS VERY IMPORTANT THAT ACCURATE MEASUREMENTS ARE USED WHEN LOCATING EXHAUST FAN ROOF OPENINGS TO ENSURE THAT NO ADDITIONAL OFF-SETS ARE REQUIRED IN THE EXHAUST DUCTWORK. COORDINATE ROOF OPENINGS WITH THE KITCHEN EQUIPMENT.
- PROVIDE ANY FRAMING REQUIRED FOR DIFFUSER INSTALLATION IN HARD CEILING.

**HVAC:**

- INSTALLATION SHALL CONFORM TO THE ENERGY CONSERVATION DESIGN MANUAL STANDARDS FOR NEW NONRESIDENTIAL BUILDINGS.
- ALL WORK AND MATERIALS SHALL COMPLY WITH GOVERNING CODES, SAFETY ORDERS AND REGULATIONS.
- OBTAIN AND PAY FOR ALL NECESSARY PERMITS, FEES AND INSPECTIONS REQUIRED BY GOVERNING AUTHORITIES.
- E.C. SHALL PROVIDE CONDUIT FOR LINE AND LOW VOLTAGE WIRING, LINE VOLTAGE WIRING SWITCHES, AND FINAL CONNECTIONS. M.C. SHALL PROVIDE 24V CONTROL WIRING AND FINAL CONNECTIONS.
- ANY EQUIPMENT THAT IS SUBSTITUTED SHALL FIT IN THE SPACE PROVIDED WITH ADEQUATE ROOM FOR SERVICING, INCLUDING SUBSTITUTE EQUIPMENT NAMED IN THE SPECIFICATIONS. SUBMIT A 1/4" SCALE DRAWING OF ALL EQUIPMENT SUBSTITUTED FOR APPROVAL PRIOR TO INSTALLATION, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL AND ARCHITECTURAL IMPACT, CLEARANCE REQUIREMENTS AND UTILITY REQUIREMENTS.
- FOR INSTALLATION OF RECHARGEABLE REFRIGERANT LINES FROM ICE MACHINE TO CONDENSER ON ROOF, SEE SCOPE OF WORK.
- HVAC UNITS SHALL BE MOUNTED LEVEL ON ROOF CURBS.
- ALL SUPPLY / RETURN DUCTWORK SHALL BE EXTERNALLY INSULATED.
- ALL SUPPLY / RETURN DUCTS SHALL BE RIGID, WITH THE EXCEPTION OF THE LAST 14'-0", WHICH MAY BE FLEX.
- SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN AIR DUCT, PRIOR TO ANY OUTSIDE AIR CONNECTIONS, AND SHALL DEACTIVATE ROOFTOP UNIT UPON SENSING SMOKE. INCLUDE SMOKE DETECTOR IN THE SUPPLY AIR DUCT ONLY IF REQUIRED BY LOCAL CODE.
- ALL HOOD EXHAUST DUCTS SHALL BE RIGID 16 GA MINIMUM, WELDED DUCT. GRIND ALL WELDS SMOOTH. PROVIDE 3M FIRE BARRIER DUCT WRAP FOR ALL HOOD EXHAUST DUCTS. SEE 15/M4.0.
- ALL BRANCH DUCTS FEEDING INDIVIDUAL DIFFUSERS SHALL HAVE DAMPERS AT TAKEOFFS FOR AIR BALANCING. PROVIDE ACCESS PANELS TO DAMPERS. SEE 4/M4.0.
- ALL UTILITY PIPING FOR RTUS SHALL RUN UP THROUGH ROOF INSIDE EACH UNIT'S ROOF CURB.
- ALL OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF 10'-0" FROM EXHAUST FANS AND / OR VENTS.
- FINAL HVAC SYSTEM TESTING AND BALANCING SHALL BE PERFORMED BY INDEPENDENT AGENT CONTRACTED DIRECTLY BY THE OWNER. A RE-TEST IS MANDATORY FOR A FALSE START (I.E. NO POWER UPON AGENT'S ARRIVAL, EQUIPMENT NOT WIRED, ETC.) AND SHALL BE A COST INCURRED BY THE G.C. IN THE EVENT A SYSTEM / STORE RECEIVES A GRADE OF 5 OR BELOW AS A RESULT OF THE HVAC SYSTEM PERFORMANCE OR OPERATIONAL DEFICIENCIES, OWNER WILL REQUEST A RE-TEST AND THE COST FOR SAME SHALL BE ALSO INCURRED BY THE GENERAL CONTRACTOR.

MARK	AREA SERVED	FAN DATA					COOLING CAPACITY				HEATING CAPACITY				UNIT ELECT DATA						
		SUPPLY CFM	MIN. O.A. CFM	ESP	HP	RPM	NOMINAL TONS	MIN CAP (MBH)	TOT/SEN	EER	INPUT STAGE (MBH)	OUTPUT (MBH)	HEATING STAGES	AFUE %	VOLTS/PH	MCA (A)	MOCP (A)	WEIGHT (LBS.)	MANUF.	MODEL	NOTES
RTU-1	DINING	2400	600	1.0'	2	1095	6	77.2/57.9	12.0		108	86	1	81	208/3	32	50	921	LENNOX	LGH072H4BM1Y	1,2,3,4,5,6,7
RTU-2	KITCHEN	4400	950	1.0'	3	970	12.5	145.2/100.2	12.3		240	192	2	80	208/3	64	80	1365	LENNOX	LGH152U4EH1Y	1,2,3,4,5,6,7

**SCHEDULE NOTES:**

- LISTED CAPACITY IS THE STANDARD UNITS GROSS COOLING CAPACITY AT 80 DEG. F. DB / 67 DEG. F. WB EAT AND 95 DEG. F. AMBIENT, OUTDOOR DESIGN CONDITION, SUMMER 90 DEG. F. & 73 DEG. F. WB, WINTER 0 DEG. F. (ARI STANDARD CONDITIONS). THERMOSTAT SHALL BE PROGRAMMED FOR 73 DEG. F IN SUMMER AND 68 DEG. F IN WINTER WITH 2 DEG. ADJ. FUNCTION UP OR DOWN. THE UNOCCUPIED TEMP SHALL BE SET TO THE STORE SCHEDULE AND 60 DEG. F MINIMUM.
- SPECIFIED RTUS ARE DOWN DISCHARGE PACKAGED GAS / ELECTRIC ROOFTOP UNITS WITH MINIMUM 2-STAGE COOLING. INCLUDES THROUGH THE ROOF CURB POWER, GAS & CONDENSATE DRAIN. GAS PIPING SHALL BE FACTORY PIPED WITH SHUT-OFF OUTSIDE OF UNIT.
- SPECIFIED UNIT INCLUDES HINGED ACCESS DOORS, 2" PLEATED FILTERS, LOW AMBIENT CONTROL TO 0 DEG. F., MODULATING ECONOMIZER, CIRCUIT BREAKER WITH SINGLE POINT WIRING, HAIL GUARD, AND FACTORY FABRICATED, KNOCK DOWN ROOF CURB.
- SPECIFIED UNIT INCLUDES FACTORY INSTALLED GAS REHEAT OPTION, INCLUDING REMOTE MOUNTED TEMPERATURE AND HUMIDITY SENSORS AS INDICATED ON THE DRAWINGS.
- SPECIFIED UNIT INCLUDES SUPPLY AIR TEMPERING CONTROL.
- PROJECT LOCATIONS NEAR COASTAL AREAS MAY REQUIRE EPOXY COATED COILS.
- SPECIFIED RTUS SHALL BE SUPPLIED WITH OVERSIZED INDOOR FAN MOTOR AND EVAPORATOR MOTOR.

**HVAC UNIT SCHEDULE**

**1**

MARK	FAN DATA					VOLTS/PH	DRIVE TYPE	MANUFACTURER	MODEL	NOTES
	CFM	ESP	RPM	HP						
EF-1	1050	0.9	1344	1/2	120/1	DIRECT	STRATOVENT	#SVDU50HFA		1,3,5,6,7,8,10
EF-2	300	0.375	1025	1/4	120/1	DIRECT	STRATOVENT	#SVDR30HFA		2,4,7,8,9,10,11

**REMARKS:**

- UL 762 LISTED (GREASE)
- UL 705 LISTED (HEAT OR STEAM)
- FLAT ROOF CURB, 19.5" X 19.5" X 26"H, VENTED
- FLAT ROOF CURB, 19.5" X 19.5" X 14"H
- GREASE CUP WITH DRAIN
- FACTORY ATTACHED HINGES
- WEATHERPROOF PRE-WIRED DISCONNECT SWITCH
- PROVIDE PRE-WIRED SOLID STATE SPEED CONTROLLER
- GRAVITY BACKDRAFT DAMPER
- PROVIDED BY OWNER WITH HOOD PACKAGE
- PROVIDED WITH DAMPER TRAY

**MECHANICAL NOTES**

**6**

**SUPPLY AND EXHAUST FAN SCHEDULE**

**2**

MARK	QUANTITY	NECK SIZE	FACE SIZE OR GRID SIZE	(NO.) & AIR PATTERN	TYPE	MAX FLOW (CFM)	MOUNTING	MATERIAL	MANUFACTURER	MODEL NUMBER	REMARKS
E-1	2	8"Ø	12x12	-	EXHAUST	200	SURFACE	ALUMINUM	METAL-AIRE / TITUS	CC5 / 50F	FRN SQR TO RND ADAPTER
E-2	1	8"Ø	12x12	-	EXHAUST	200	SURFACE	ALUMINUM	METAL-AIRE / TITUS	CC5 / 50F	FRN SQR TO RND ADAPTER
R-1	4	22x22	24x24	-	RETURN	2000	LAY-IN	ALUMINUM	METAL-AIRE / TITUS	CC5-FB-TB / 50FF	FULLY REMOVABLE FACE
S-1	7	SEE PLANS	24x24	(2)4W/(2)3W	SUPPLY	500	LAY-IN	ALUMINUM	METAL-AIRE / TITUS	5000-6 / TDC-AA	FRN SQR TO RND ADAPTER
S-2	3	6"Ø	14x14	HORIZ	SUPPLY	250	SURFACE	ALUMINUM	METAL-AIRE / TITUS	5000-1 / TDC-AA	FRN SQR TO RND ADAPTER
S-3	3	18x6	14x8	VERT	SUPPLY	400	SURFACE	ALUMINUM	TITUS	301RL	SUPPLY GRILLE WITH SINGLE DEFLECTION
S-4	5	SEE PLANS	24x24	HORIZ	SUPPLY	700	LAY-IN	ALUMINUM	HART & COOLEY	RZMCDST	PLASTIC MODULAR CORE

**NOTES:**

- DIFFUSERS IN SURFACE MOUNTED CEILING SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS. SEE ARCHITECTURAL DRAWINGS FOR CEILING TYPES.

**AIR DEVICE SCHEDULE**

**3**

ITEM	OA	RA	SA	EA	PRESSURE
EF-1	--	--	--	1050	-1050
EF-2	--	--	--	300	-300
RTU-1	600	1800	2400	--	+600
RTU-2	950	3450	4400	--	+950
TOTAL	1550	5250	6800	1350	+200

**NOTE:**

THE OUTSIDE PERCENTAGE OF TOTAL SUPPLY AIR IS 25.0% FOR RTU-1 AND 21% FOR RTU-2.

**AIR BALANCE SCHEDULE CFM**

**4**

**MECHANICAL SYMBOLS**

**7**

SYMBOL & ABBREV.	DESCRIPTION
	SA/SUP SUPPLY AIR (RISE/DROP)
	RA/RET RETURN AIR DUCT (RISE/DROP)
	EA/EXH EXHAUST AIR DUCT (RISE/DROP)
	CD/SR CEILING DIFFUSER/SUPPLY REGISTER (ARROWHEAD REPRESENTS NUMBER OF THROW)
	RR/RG RETURN REGISTER/GRILLE
	ER/EG EXHAUST REGISTER/GRILLE
	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	FC FLEXIBLE CONNECTION
	MCD MANUAL VOLUME DAMPER
	FD FIRE DAMPER
	(L) DUCT LINING (1" THICK UNLESS OTHERWISE NOTED)
	SINGLE LINING DUCT BRANCH TAKEOFF
	DUCT TRANSITION (RECTANGULAR TO ROUND)
	FLEX FLEXIBLE DUCT (14'-0" MAXIMUM)
	T-TSTAT PROGRAMMABLE THERMOSTAT, PROVIDED WITH LENNOX PACKAGE
	(TS) THERMOSTAT SENSOR (REMOTE), PROVIDED WITH LENNOX PACKAGE
	(H) HUMIDITY SENSOR (REMOTE), PROVIDED WITH LENNOX PACKAGE
	D CONDENSATE DRAIN
	Ø DIAMETER
	DL DOOR LOUVER
	UC DOOR UNDERCUT (3/4" MINIMUM)
	(X-X) 0000 MECHANICAL EQUIPMENT DESIGNATION
	(R) RESET SMOKE DETECTOR RESET

SYMBOL & ABBREV.	DESCRIPTION
A/C, AC	AIR CONDITIONING
BDD	BACK DRAFT DAMPER
CB	CIRCUIT BREAKER
CLG.	CEILING
CONN.	CONNECT/CONNECTION
CONT.	CONTINUATION
CONTR	CONTRACTOR
CFM	CUBIC FEET PER MINUTE
DET.	DETAIL
DISC.	DISCONNECT
DTR	DOWN THRU ROOF
EF	EXHAUST FAN
(E)	EXISTING
GA.	GAGE/GAUGE
GC	GENERAL CONTRACTOR
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
MFR.	MANUFACTURER
MECH.	MECHANICAL
(N)	NEW
OA/OSA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
S/S	STAINLESS STEEL
TYP.	TYPICAL
UON	UNLESS OTHERWISE NOTED
UTR	UP THRU ROOF



520 South Main Street, Suite 2531  
Akron, OH 44311  
330.572.2100 Fax: 330.572.2102

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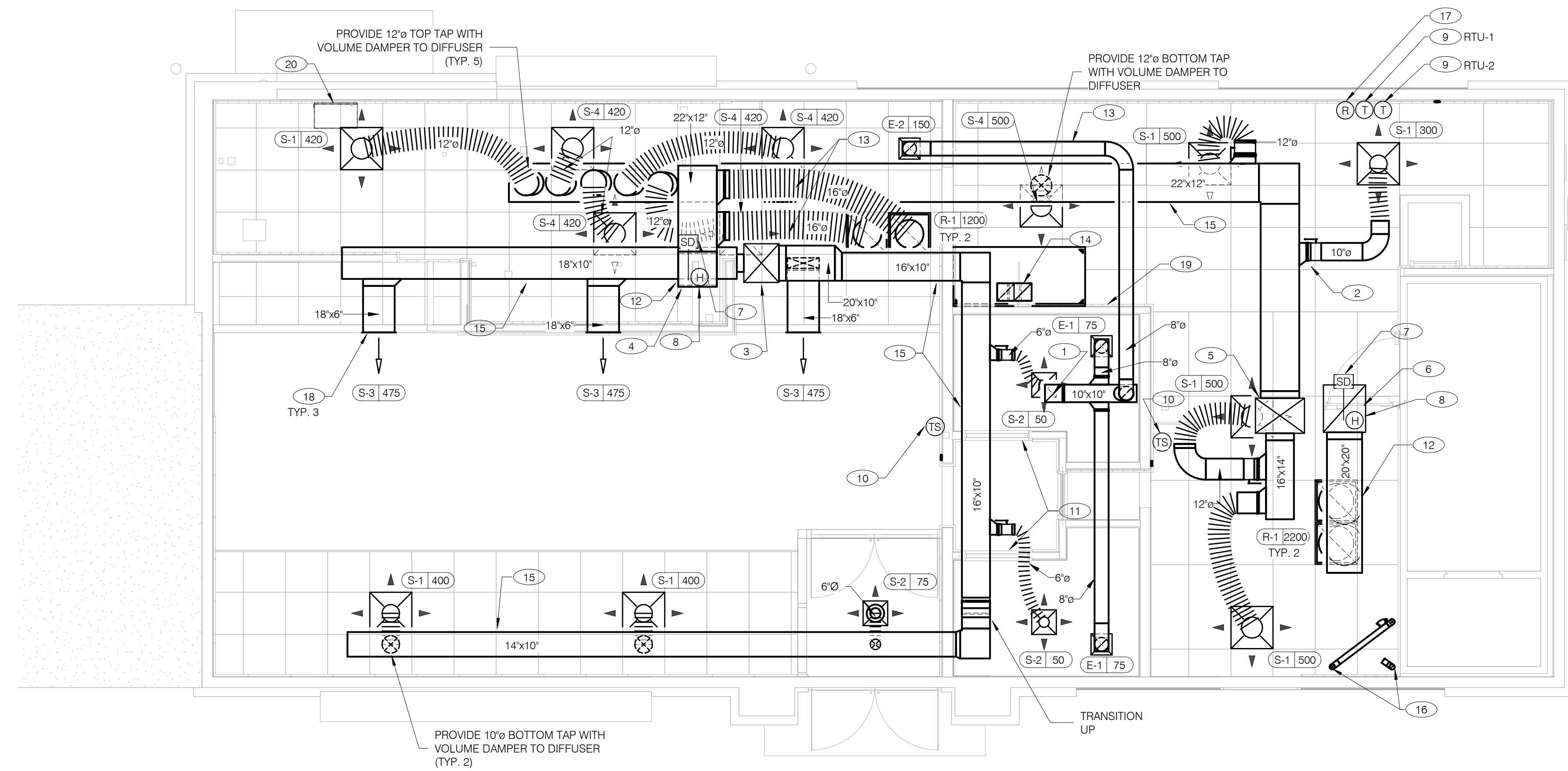


T40M-O  
OPEN KITCHEN  
MODERN EXPLORER

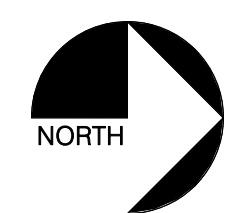
**MECHANICAL SCHEDULES AND NOTES**

**M1.0**

PLOT DATE: 9/17/2018 2:51:50 PM



**COVER ALL HVAC DUCT SYSTEMS OPENINGS TO PROTECT FROM CONSTRUCTION DUST AND DEBRIS UNTIL CONSTRUCTION IS COMPLETE. IF THE HVAC SYSTEM IS OPERATED BEFORE CONSTRUCTION IS COMPLETE, PROVIDE MERV8 FILTERS AT ALL AIR INTAKES INSIDE THE BUILDING.**



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**DUCT AND DIFFUSER PLAN** 1/4" = 1'-0" **A**

- DINING ROOM LIGHT FIXTURE LOCATIONS ARE CRITICAL. COORDINATE DUCTWORK LOCATIONS SO AS NOT TO CONFLICT WITH LIGHT FIXTURE LOCATIONS.
- THERMOSTATS SHALL BE PROGRAMMABLE THERMOSTAT WITH SUBBASE. REMOTE TEMPERATURE SENSOR, AND REMOTE HUMIDITY SENSOR.
- HUMIDITY SENSOR APPLICATION IS VARIABLE PER SITE SPECIFIC CONDITIONS. REFER TO HVAC UNIT SCHEDULE, 1/M1.0, FOR APPLICATION CONDITIONS. COORDINATE DUCTWORK LOCATIONS WITH LIGHTING AND STRUCTURAL.
- NO FLEX DUCT ALLOWED ON EXHAUST SYSTEMS.
- HVAC TEST AND BALANCE. CONTRACTOR TO CONTACT ONE OF THE FOLLOWING COMPANIES TO PERFORM THE HVAC AIR BALANCE.
  - TEST AND BALANCE CORP.  
MISTY CRIDER  
(678) 393-9401 EXT. 2237  
isextorikeeton@tabonline.com
  - MELINK CORP.  
JENNIFER JACKSON  
(513) 393-9401 EXT. 2237  
kjohanson@melinkcorp.com
  - AIR CARE EXPERTS  
CHUCK McCABE  
cmccabe@ace-iaq.com

- 10x10 EXHAUST AIR DUCT UP TO EF-2.
- SEE DETAIL 4 ON DRAWING M4.0 FOR SUPPLY AIR TAKE-OFF TO CEILING DIFFUSERS AND GRILLES.
- EXTEND FULL SIZE SUPPLY DUCT DROP WITH FLEX CONNECTION TO RTU-1. PROVIDE 90° ELBOWS WITH TURNING VANES.
- DUCT TRANSITION FROM MAIN RETURN PLENUM TO 22"x18" RETURN AIR DUCT. CONNECT TO RETURN AIR PLENUM AT ROOFTOP UNIT RTU-1 WITH FLEX CONNECTION.
- EXTEND FULL SIZE SUPPLY PLENUM WITH FLEX CONNECTION TO RTU-2. PROVIDE 90° ELBOWS WITH TURNING VANES AND SPLITTER DAMPERS.
- EXTEND FULL SIZE RETURN DUCT DROP WITH FLEX CONNECTION TO RTU-2.
- FURNISH AND INSTALL SMOKE DETECTOR IN THE RETURN AIR DUCT, IN ACCORDANCE WITH LOCAL CODES. DUCT SMOKE DETECTOR WIRED BY ELECTRICAL CONTRACTOR, SEE SHEET E3.2.
- HUMIDITY SENSOR (REMOTE). HUMIDITY SENSOR LOCATION SHALL BE PLACED IN RETURN AIR DUCTWORK. VERIFY EXACT LOCATION.
- LOCATE THERMOSTAT CONTROLS ON WALL IN OFFICE AT 48" A.F.F. COORDINATE LOCATION WITH LIGHT SWITCHES AND OTHER WALL MOUNTED ACCESSORIES.
- MOUNT THERMOSTAT REMOTE SENSOR AT 60" ABOVE FINISHED FLOOR.
- UNDERCUT RESTROOM DOORS MINIMUM 3/4" FOR MAKE-UP AIR.
- RUN DUCTWORK BETWEEN TRUSSES AS HIGH AS POSSIBLE. COORDINATE ACTUAL DUCT ROUTING WITH FINAL TRUSS SPACING AND LOCATIONS.
- RUN DUCT THROUGH OPEN WEBBING OF ROOF TRUSSES (WHERE POSSIBLE). COORDINATE WITH TRUSS DESIGN PRIOR TO DUCTWORK FABRICATION.
- 10"x10" EXHAUST AIR DUCT DOWN FROM EF-1 AND TRANSITION TO FIELD CUT EXHAUST CONNECTION AT HOOD. EXHAUST DUCT SHALL BE ROUTED THROUGH TRUSS WEBS TO CONNECT TO HOOD COLLAR. SEE HOOD DETAILS ON DRAWING M3.0. SEE DETAIL 10 ON SHEET M4.0 FOR FIRE PROTECTION OF DUCT WORK. SEE DETAIL 6 ON SHEET M4.0 FOR EXHAUST DUCT TRANSITION.
- RUN MAIN SUPPLY DUCT UNDER BOTTOM OF TRUSS. COORDINATE ACTUAL DUCT ROUTING WITH FINAL CEILING HEIGHT.
- FURNISH AND INSTALL 3" PVC WATER HEATER INTAKE AND FLUE VENT TERMINATION ON ROOF. COORDINATE WORK WITH ALL TRADES.
- NEW SMOKE DETECTOR RESET SWITCH WITH KEY. MFR. IS "SYSTEM SENSOR" MODEL # RT5151 KEY. MOUNT NEXT TO THERMOSTATS @ 48" A.F.F. - INSTALL PER MFR. SPECIFICATIONS.
- INSTALL SIDE-WALL MOUNTED GRILLE AT APPROXIMATELY 10'-8" A.F.F. CONNECT GRILLE TO SUPPLY DUCT AND PROVIDE WITH VOLUME DAMPER AT CONNECTION PAINT TO MATCH ADJACENT CONDITIONS.
- CONTRACTOR TO INSTALL FIRE SUPPRESSION CABINET ON EXHAUST HOOD. CONTRACTOR TO PROVIDE ALL NECESSARY PIPING, FITTINGS, AND ACCESSORIES TO MAKE FINAL CONNECTION AT HOOD. FIELD VERIFY EXACT LOCATION OF FIRE SUPPRESSION CABINET.
- CONTRACTOR TO PROVIDE AND INSTALL AIR CURTAIN IN LOCATION AS SHOWN ON PLAN. MOUNT AIR CURTAIN ON MULLION DIRECTLY ABOVE SERVICE OPENING DOORS AT DRIVE-THRU WINDOW. PROVIDE BERNER MODEL DTU03-2026A AT 120/1/60. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS FOR MORE DETAILS.

**GENERAL NOTES - MECHANICAL** NTS **C**

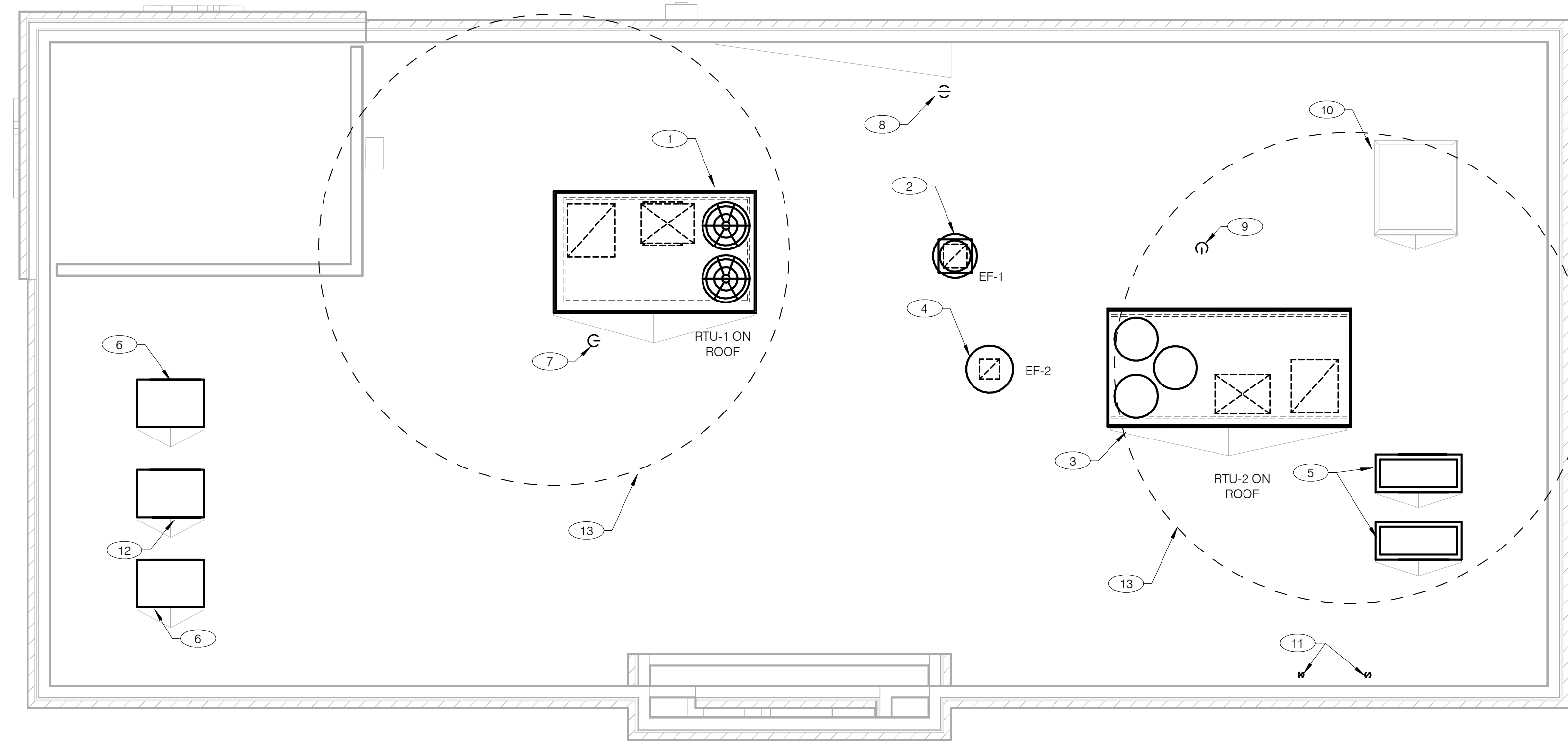
**KEYNOTES - DUCT AND DIFFUSER** NTS **B**

**Taco Bell**  
37500 FORD ROAD  
WESTLAND, MI 48185

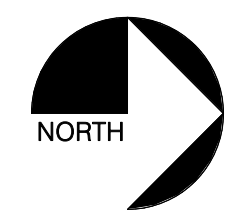


**DUCT AND DIFFUSER PLAN**

**M2.0**



**COVER ALL HVAC DUCT SYSTEMS OPENINGS TO PROTECT FROM CONSTRUCTION DUST AND DEBRIS UNTIL CONSTRUCTION IS COMPLETE. IF THE HVAC SYSTEM IS OPERATED BEFORE CONSTRUCTION IS COMPLETE, PROVIDE MERV8 FILTERS AT ALL AIR INTAKES INSIDE THE BUILDING.**



09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**MECHANICAL ROOF PLAN** 1/4" = 1'-0" **A**

- 1 CONTRACTOR TO PROVIDE AND INSTALL RTU-1 IN LOCATION AS SHOWN ON PLANS. COORDINATE EXACT RTU LOCATION AND DUCT DROPS WITH STRUCTURAL TRUSS LAYOUT.
- 2 CONTRACTOR TO PROVIDE AND INSTALL TYPE I EXHAUST FAN (EF-1) IN LOCATION AS SHOWN PLANS. CONNECT 10"x10" EXHAUST DUCT FROM EXHAUST HOOD UP TO EF-1 ON ROOF. COORDINATION EXHAUST DUCT ROUTING WITH STRUCTURAL TRUSS LAYOUT.
- 3 CONTRACTOR TO PROVIDE AND INSTALL RTU-2 IN LOCATION AS SHOWN ON PLANS. COORDINATE EXACT RTU LOCATION AND DUCT DROPS WITH STRUCTURAL TRUSS LAYOUT.
- 4 CONTRACTOR TO PROVIDE AND INSTALL TYPE II EXHAUST FAN (EF-2) IN LOCATION AS SHOWN PLANS. CONNECT 10"x10" EXHAUST DUCT FROM RESTROOM EXHAUST GRILLES TO EF-2 ON ROOF. COORDINATION EXHAUST DUCT ROUTING WITH STRUCTURAL TRUSS LAYOUT.
- 5 CONDENSING UNIT SERVING WALK-IN COOLER/FREEZER. COORDINATE EXACT LOCATION WITH ROOF LAYOUT. CONTRACTOR TO FIELD VERIFY EXACT REFRIGERANT PIPING. PROVIDE ALL NECESSARY PIPING ACCESSORIES INCLUDING PIPING INSULATION AND INSTALL ON APPROPRIATE EQUIPMENT SUPPORTS.
- 6 CONDENSING UNIT SERVING ICE MAKER. COORDINATE EXACT LOCATION WITH ROOF LAYOUT. CONTRACTOR TO FIELD VERIFY EXACT REFRIGERANT PIPING. PROVIDE ALL NECESSARY PIPING ACCESSORIES INCLUDING PIPING INSULATION AND INSTALL ON APPROPRIATE EQUIPMENT SUPPORTS.
- 7 1" GAS PIPING UP THROUGH ROOF FROM BELOW. CONTRACTOR TO ROUTE GAS PIPING ON ROOF AND PROVIDE PIPING SUPPORTS. CONNECT TO RTU AND PROVIDE WITH SHUT-OFF VALVE AND DIRT LEG.
- 8 PLUMBING VENT, REFERENCE 1/P2.0. ENSURE AT LEAST A 10'-0" DISTANCE BETWEEN ANY OUTDOOR AIR INTAKES
- 9 1-1/4" GAS PIPING UP THROUGH ROOF FROM BELOW. CONNECT TO RTU AND PROVIDE WITH SHUT-OFF VALVE AND DIRT LEG.
- 10 ROOF HATCH. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
- 11 FURNISH AND INSTALL 3" PVC WATER HEATER INTAKE AND FLUE VENT TERMINATION ON ROOF. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. ENSURE AT LEAST A 10'-0" DISTANCE BETWEEN ANY OUTDOOR AIR INTAKES.
- 12 CONDENSING UNIT SERVING FROZEN BEVERAGE MACHINE. COORDINATE EXACT LOCATION WITH ROOF LAYOUT. CONTRACTOR TO FIELD VERIFY EXACT REFRIGERANT PIPING. PROVIDE ALL NECESSARY PIPING ACCESSORIES INCLUDING PIPING INSULATION AND INSTALL ON APPROPRIATE EQUIPMENT SUPPORTS.
- 13 MAINTAIN A MINIMUM 10'-0" CLEARANCE TO ANY EXHAUST TERMINATIONS.

**KEYNOTES - ROOF PLAN** NTS **B**

**Taco Bell**  
37500 FORD ROAD  
WESTLAND, MI 48185



**MECHANICAL ROOF PLAN**

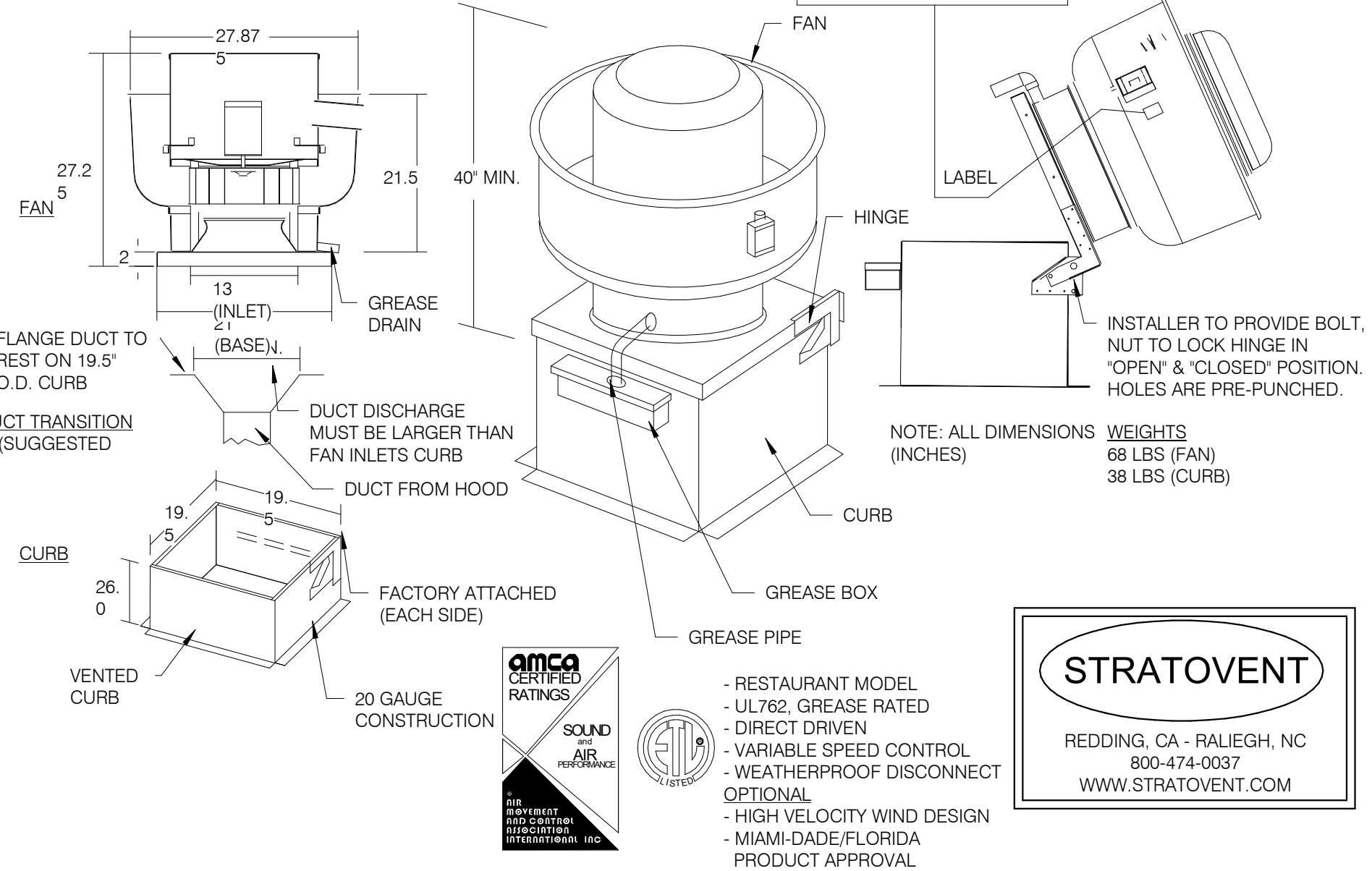
**M2.1**



EF-1 PERFORMANCE DATA:  
 MODEL: STRATVENT, SVDU50HFA  
 AIRFLOW: 1050 CFM, 0.8" STATIC PRESSURE  
 FAN RPM: 1292\*\*  
 POWER: 0.231 BHP  
 MOTOR: 0.50 HP, 115V, 1PH, 8.1 FLA  
 \*\* DIRECT DRIVEN WITH PREWIRED SPEED CONTROLLER

STRATOVENT UL-762 EXHAUST FAN  
 6'-3" LONG TACO BELL HOOD

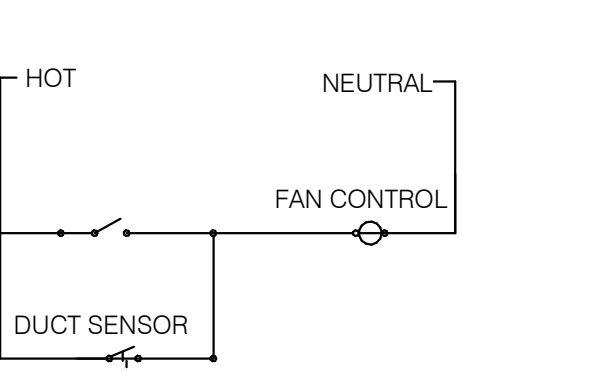
ATTENTION!  
 INSTALLER MUST READ LABEL NEAR DISCONNECT SWITCH!  
 MESSAGE ON LABEL:  
 "INSTALLER SHOULD SUPPLY ENOUGH ELECTRICAL CORD TO ALLOW FAN TO MAKE COMPLETE SWING"



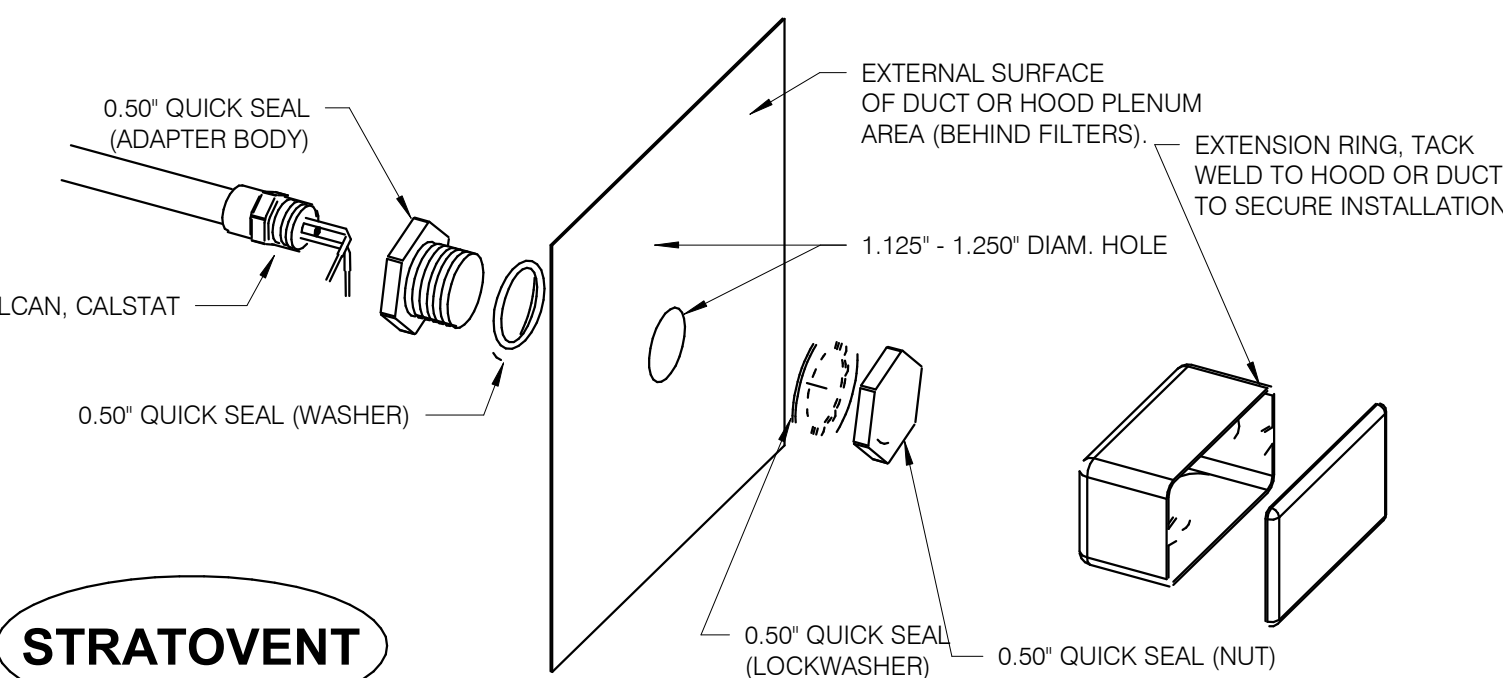
**HOOD EXHAUST FAN DETAIL** NTS **7**

INSTALLATION: DUCT TEMPERATURE SWITCH SENSOR DETAIL

FAN CONTROL CIRCUIT (BY OTHERS, SEE E6.0)



- NORMALLY OPEN DRY CONTACT, CLOSES ON TEMPERATURE RISE ABOVE 85F. WIRED IN PARALLEL TO NORMAL CONTROLS CIRCUIT.  
 - FIELD WIRED AS SAFETY SWITCH (NO PRIMARY MEANS OF FAN POWER), TO ENERGIZE HOOD EXHAUST FANS  
 WHEN COOKING EQUIPMENT GENERATES HEAT  
 -FAN CONTACTOR BY OTHERS. SEE E6.0 SHEET FOR DETAILS.



**STRATOVENT**

ADDITIONAL QUESTIONS??  
 CONTACT: STRATOVENT VENTILATION HOODS,  
 919-573-4250 - 251-490-6114  
 JEFF.JOHNSON@STRATOVENT.COM

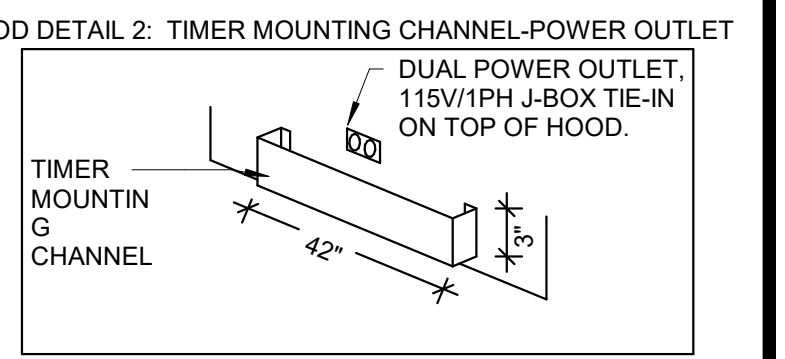
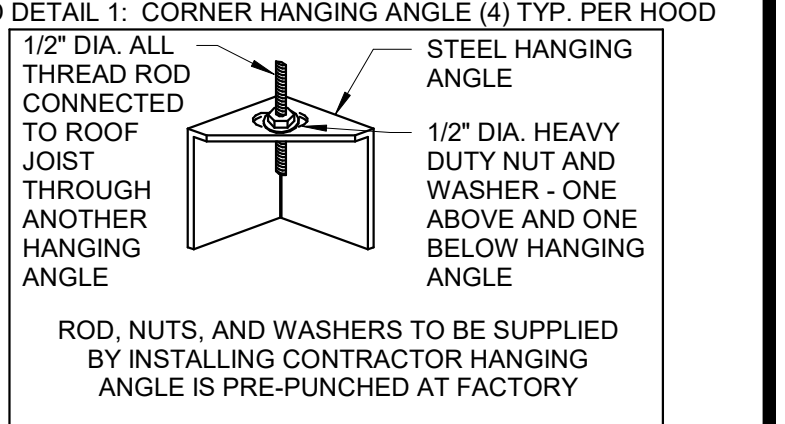
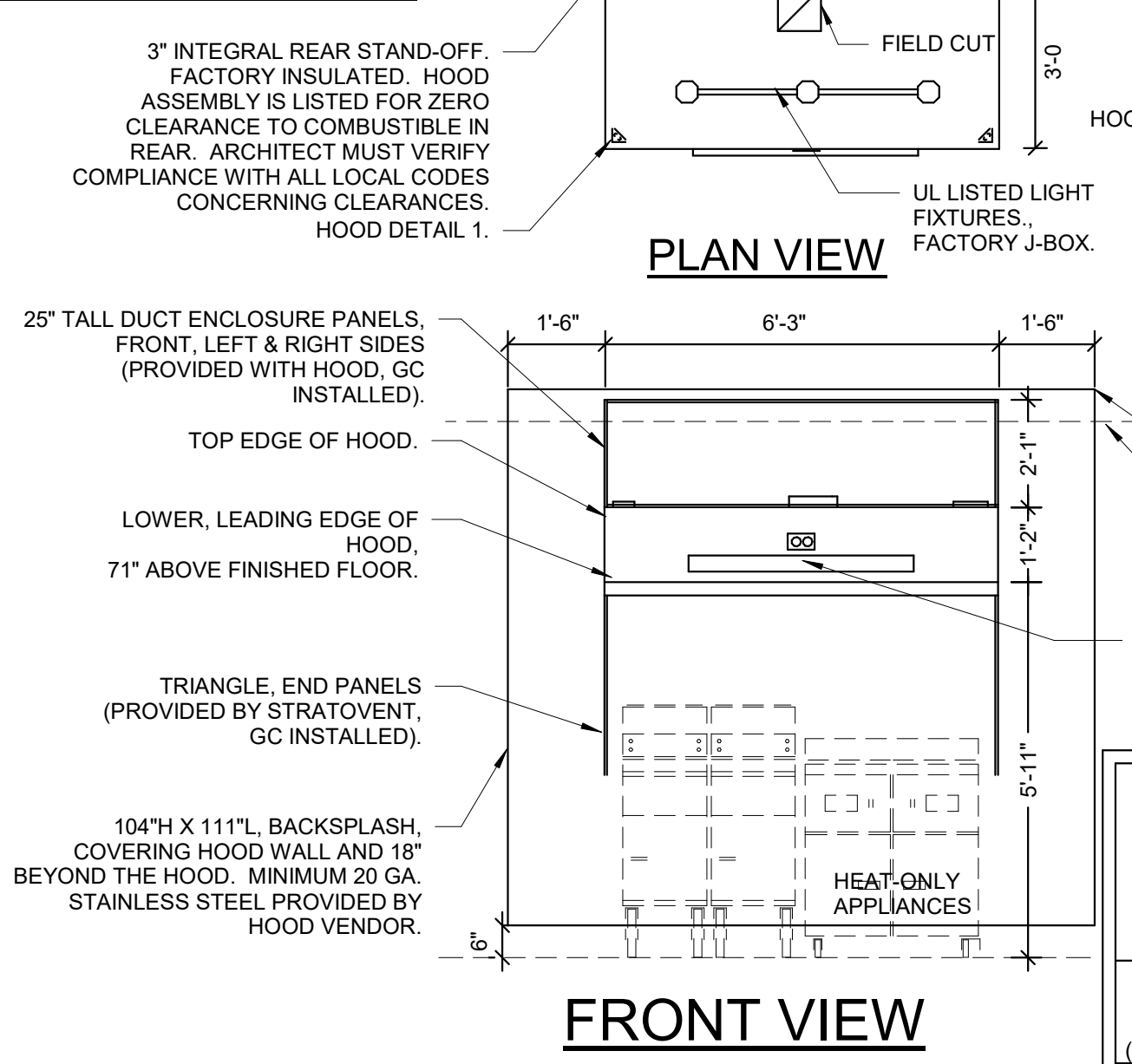
SPECIFICATIONS:  
 \* VULCAN CALSTAT, 1E2B9-85, NORMALLY OPEN DRY CONTACT  
 \* SENSOR FACTORY SET AT 85F  
 \* FIELD ADJUSTED W/SET SCREW, CW INCREASE, CCW DECREASE, 90F PER REVOLUTION  
 \* RATED FOR 10 AMPS @ 120 VAC, 5 AMPS @ 240 VAC  
 \* SHIPPED LOOSE BY HOOD VENDOR FOR FIELD INSTALLATION.

**HEAT SENSOR ATTACHMENT** NTS **5**

HOOD#	1 OF 1	STRATOVENT SVBD2
LENGTH (IN):	6'-3"	LENGTH (IN): 36" HEIGHT (IN): 14"
EXHAUST CFM:	1050	SUPPLY CFM: BY RTU-SEE M1.0
EXHAUST SP: 0.9" (HOOD+DUCT)		SUPPLY SP: NA
EXHAUST FPM:	1512	SUPPLY FPM: NA
EXHAUST SIZE:	10"X10"	SUPPLY SIZE: NA
FILTERS: (4)	16" X 16"	HOOD WEIGHT 300 LBS
FIRE SUPPRESSION: ANSUL-R102		FILTER TYPE: STAINLESS BAFFLE
LIGHT QTY: (3)	A19/CFL	CONTROL SWITCH: BY OTHERS

DESIGN NOTES:  
 - STRATOVENT HOODS ARE ETL LISTED TO UL-710 STANDARDS. 3054804-001  
 - MODEL SVBD2 IS A NON-CANOPY HOOD, "LISTED" VALUES ARE UTILIZED FOR AIRFLOW, OVERHANGS AND TEMPERATURE RATINGS.  
 - 18/20 GAUGE MINIMUM S/S ON EXPOSED SURFACES PER NFPA.  
 - HOOD IS PREPARED FOR ANSUL SYSTEM INSTALL BY OTHERS.  
 - INSTALLER TO REVIEW E6.0 SHEET FOR HOOD AND FAN WIRING. NO CONTACTOR OR CONTROL BOX IS FURNISHED WITH HOOD, UNLESS SOURCED DIRECT FROM STRATOVENT BY INSTALLER.

**LOW-PROFILE HOOD**



TOP OF S/S BACKSPASH.  
 8'-10"H, DROP CEILING (TYPICAL). HOOD PROVIDER MUST BE NOTIFIED IF CEILING VARIES.  
 HOOD DETAIL 2: 42"L x 3"H, FACTORY ATTACHED MOUNTING CHANNEL FOR CUSTOMER SUPPLIED TIMERS. DUAL 115V/1PH OUTLET FACE MOUNTED ABOVE CHANNEL WITH J-BOX ON TOP OF HOOD.

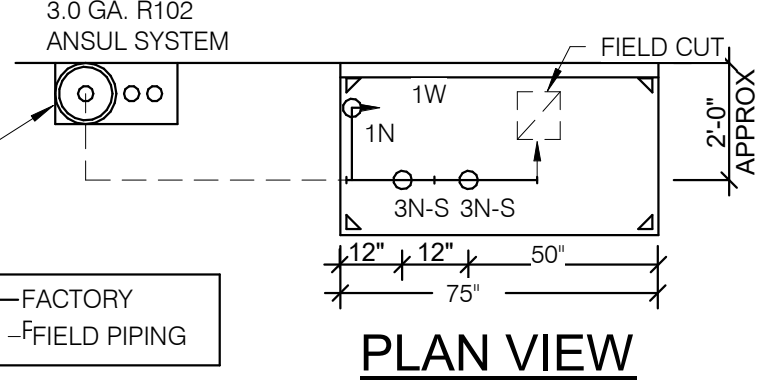
**STRATOVENT**  
 REDDING, CA - RALEIGH, NC  
 800-474-0037 OR 251-490-6114

ETL (UL-710 Standard) | NSF/ANSI Standard 2 | NFPA  
 ETL-LISTED FILE #3054804-001 / TESTED TO UL-710

**TACO BELL HOOD DETAIL** NTS **2**

PROJECT: TACO BELL

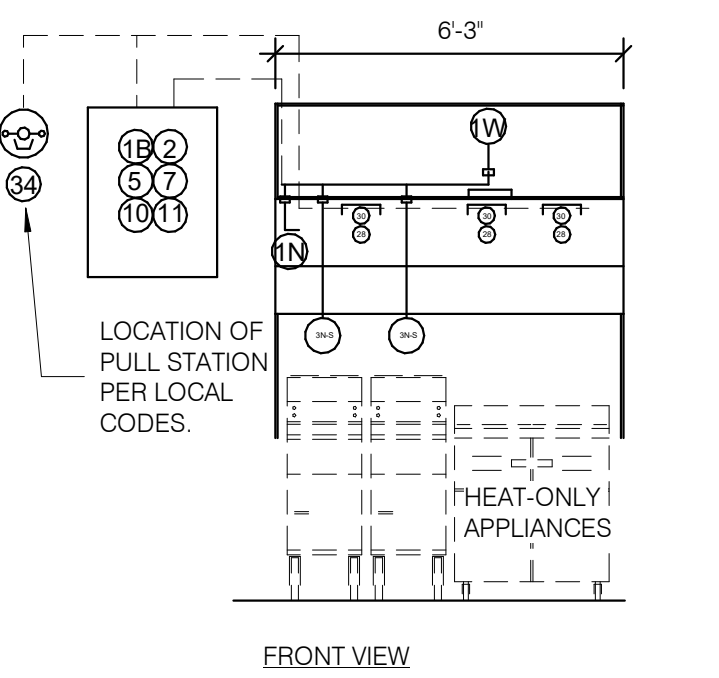
System Size: ANSUL-3.0 Gallons Total, R102  
 Flow Points: 8 Design, 11 (max)  
 8 FLOW POINTS  
 Hood #1: 6'-6" L x 36" W x 14" H  
 Exhaust Riser Size: 10" x 10"



NOTES  
 - FIELD PIPE DROPS AS SHOWN: SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY STRATOVENT FOR HOOD-BASED PIPING.  
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED.  
 - MAXIMUM 9 ELBOWS IN SUPPLY LINE. MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE.  
 - ALL NOZZLE HEIGHT AND PLACEMENT TO BE DETERMINED BY INSTALLER AND AHJ PER ANSUL GUIDELINES.  
 - ALL PIPING TO BE 3/8" SCH 40 BLACK IRON.  
 - THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.  
 - SYSTEM INSTALLATION AND FINAL HOOKUP SOURCED BY GEN CONTRACTOR. SYSTEM PARTS OPTIONALLY PURCHASED FROM STRATOVENT BY OWNER OR G.C..

LEGEND - WALL MOUNTED ANSUL SYSTEM

- 1B 3.0 GALLON TANK
- 2 AUTOMAN RELEASE
- 5 ANSULEX LIQUID AGENT (3.0GAL.)
- 7 CARTRIDGE (101-20)
- 10 TEST LINK
- 11 DOUBLE MICROSWITCH
- 1W NOZZLE ASSEMBLY (419336)
- 1N NOZZLE ASSEMBLY (419335)
- 3N NOZZLE ASSEMBLY (419338)
- 2B DETECTOR BRACKET
- 30 HIGH TEMP FUSIBLE LINK
- MGV MECHANICAL GAS VALVE
- 34 REMOTE MANUAL PULL STATION
- S SWIVEL ADAPTOR



**STRATOVENT**  
 PREPARED BY: STRATOVENT  
 RALEIGH, NC - REDDING, CA  
 CONTACT: JEFF JOHNSON  
 PH: 251-490-6114, 919-573-4251  
 JEFF.JOHNSON@STRATOVENT.COM

**TACO BELL HOOD FIRE SUPPRESSION SYSTEM PLAN** NTS **6**

- Hoods shall be constructed of minimum 20 gauge stainless steel with #3 grade 46 concealed surfaces shall be constructed of minimum 18 gauge aluminum steel.
- UL listed aluminum or stainless steel baffles type filter mesh shall be used throughout hood. Filter housing shall terminate in a perfect gasketed seal that drains into a removable stainless steel grease cup.
- UL listed and NSF approved vapor proof retardant light fixtures permitted to be installed in top of hood in accordance with NEC 710.
- Prepiped fire suppression systems shall be located on the top of the hood and provided with the hood by a certified technician. Final location of all components and the suppression drops to be locally approved and reported.
- Hoods shall be fabricated in accordance with NFPA 96B fire code and shall have the NSF Seal of Approval. Hoods shall be listed under UL 710 ETL-Listed Hoods for Commercial Cooking Equipment. Contacted by ETL under File # 3054804-001.

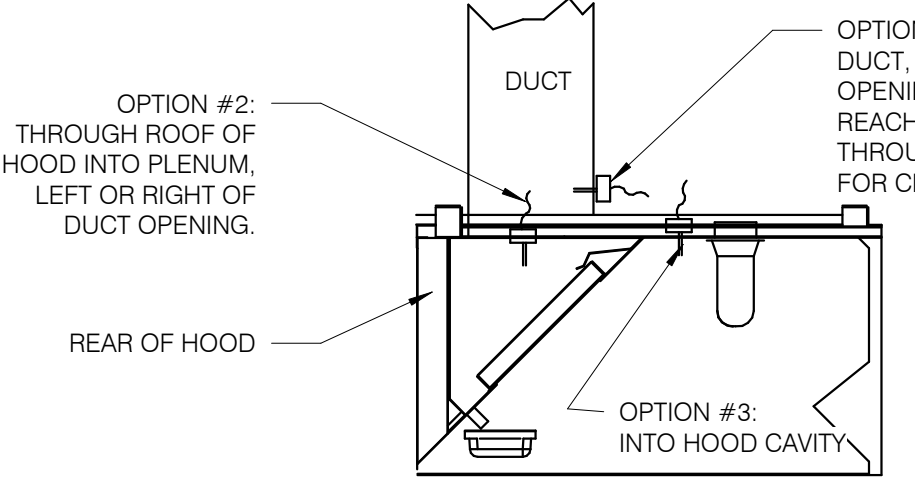
THIS HOOD DESIGN IS BASED UPON STRATOVENT, MODEL SVND2, MANUFACTURED BY:  
 STRATOVENT VENTILATION HOODS  
 RALEIGH, NC 27616  
 CONTACT: JEFF JOHNSON, 251-490-6114

NSF LISTED NAPA INTERNATIONAL

**HOOD NOTES AND SPECS (TYP.)** NTS **4**

INSTALLATION: DUCT TEMPERATURE SWITCH HOOD DETAIL

**STRATOVENT**



**SIDE VIEW**

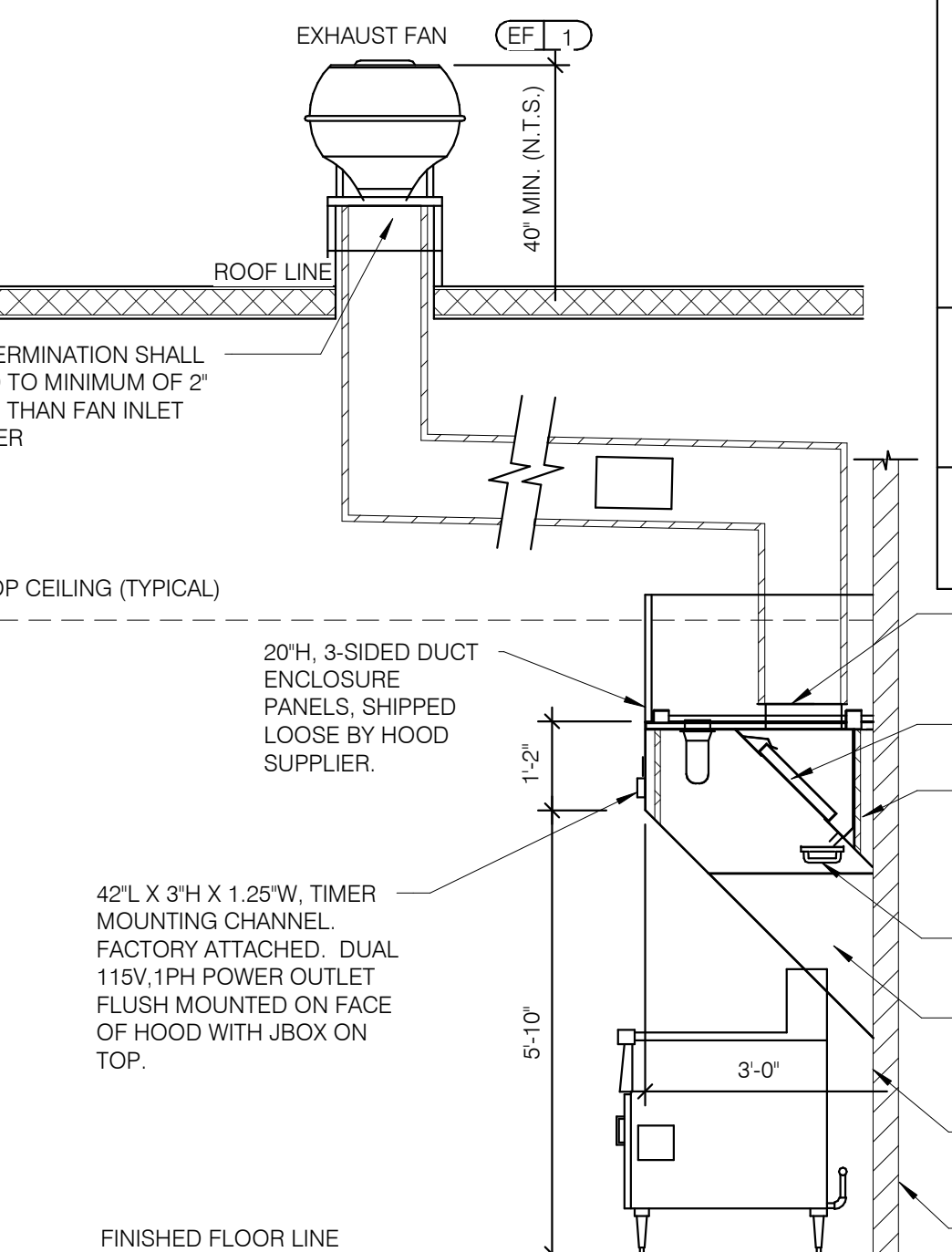
NOTE:  
 SENSOR MUST BE INSTALLED WITH INCLUDED UL-LISTED QUICK SEAL KIT PER FACTOR GUIDELINES (SEE EXPLODED PARTS VIEW).

ADDITIONAL QUESTIONS?  
 CONTACT: STRATOVENT VENTILATION HOODS,  
 919-573-4250 - 251-490-6114  
 JEFF.JOHNSON@STRATOVENT.COM

MODIFIED: 05-05-2014

**HEAT SENSOR LOCATION** NTS **3**

**LOW-PROFILE HOOD HOOD#1**



**SIDE VIEW**

NON-CANOPY HOOD DESIGN BASED ON:  
 MANUFACTURER: STRATOVENT\_SVBD2  
 ETL LISTED (UL-710): 3054804-001  
 MIN. AIRFLOW: 150 CFM/FT  
 DESIGN AIRFLOW: 168 CFM PER LINEAR FT  
 MAX. DIST. ABOVE COOK SURFACE: 47"  
 MAX. FRONT COOK SURFACE UNDERHANG: -3"  
 MIN. SIDE COOK SURFACE OVERHANG: 0"  
 MAX. APPLIANCE COOKING TEMPERATURE: 450°F

HOOD DESIGN QUESTIONS?  
 STRATOVENT KITCHEN VENTILATION  
 PHONE: 251-490-6114  
 JEFF.JOHNSON@STRATOVENT.COM

**STRATOVENT**  
 (UL-710 Standard) (NSF/ANSI Standard 2) NFPA

**TACO BELL HOOD SECTION** NTS **1**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

Taco Bell  
 37500 FORD ROAD  
 WESTLAND, MI 48185

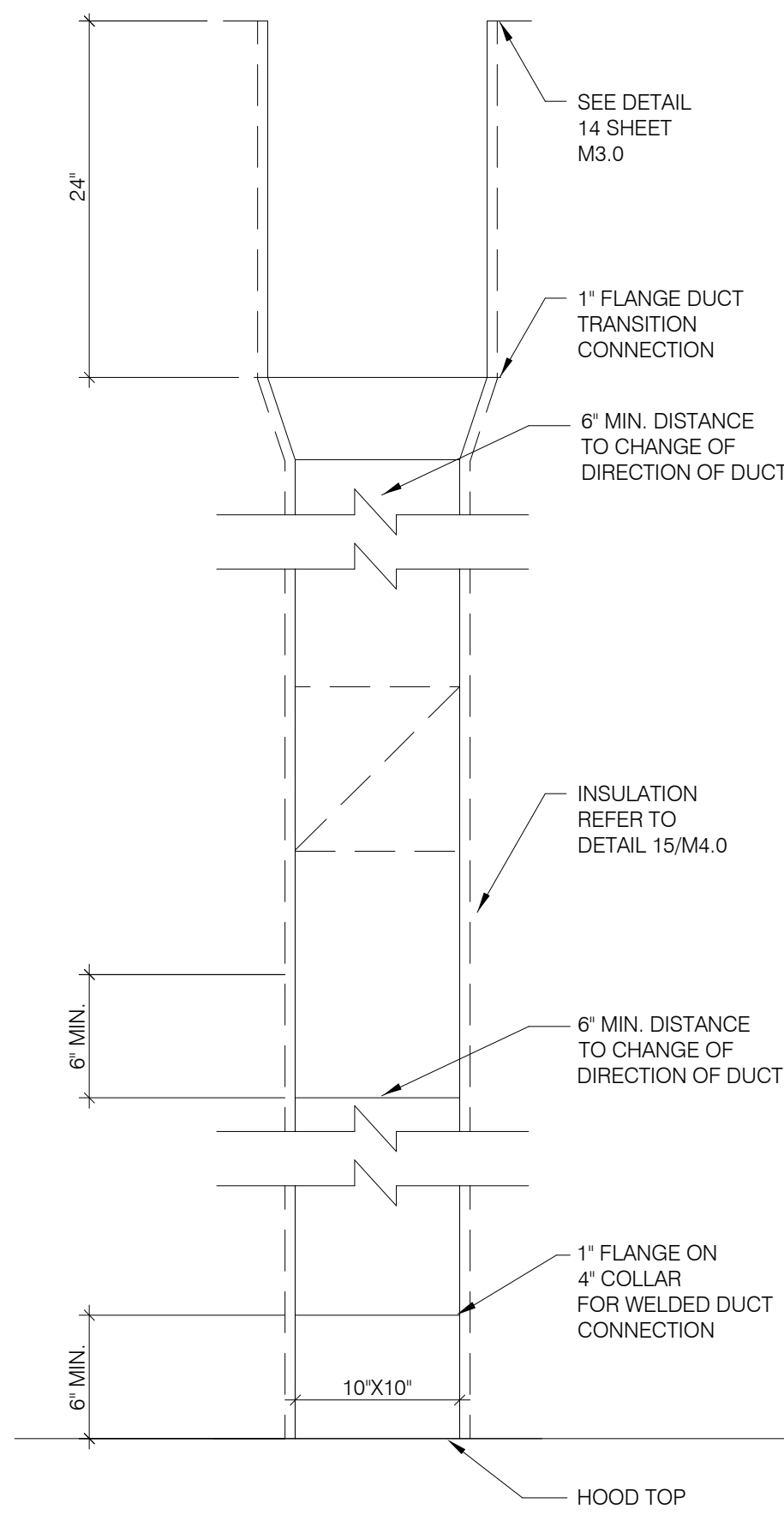
**TACO BELL**  
 T40M-O  
 OPEN KITCHEN  
 MODERN EXPLORER

**HOOD DRAWINGS  
 PLANS AND  
 SECTIONS**

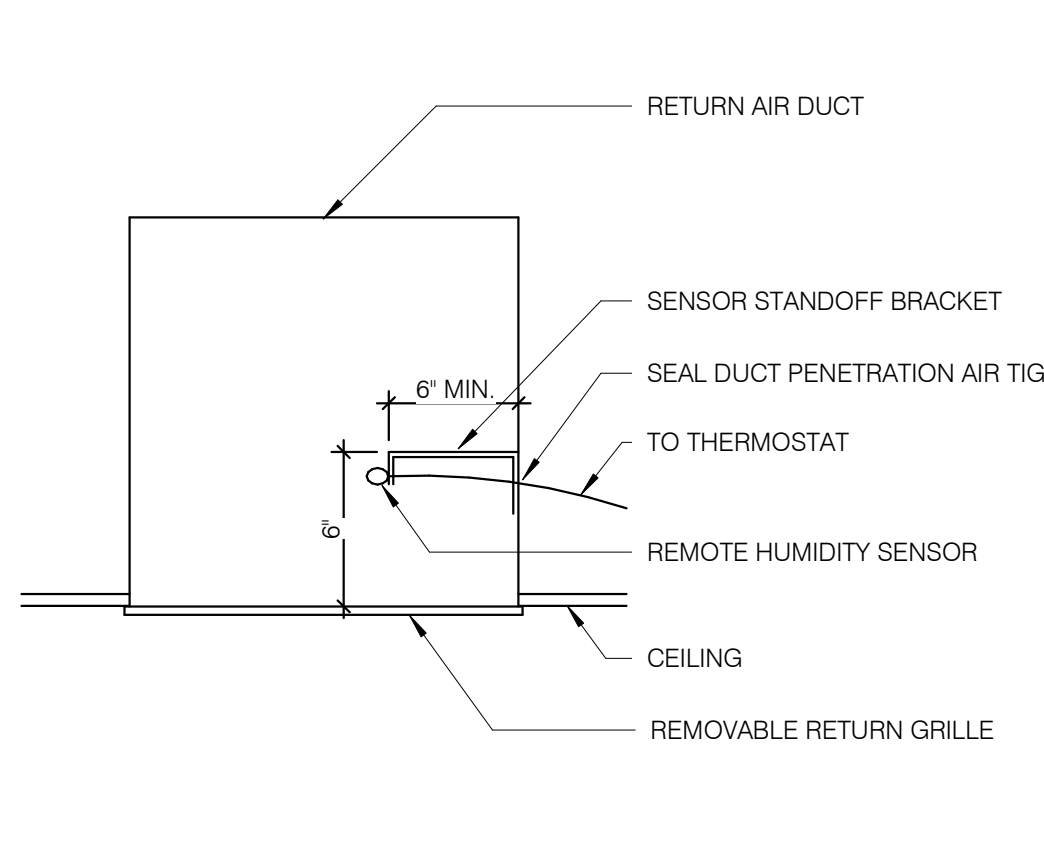
**M3.0**

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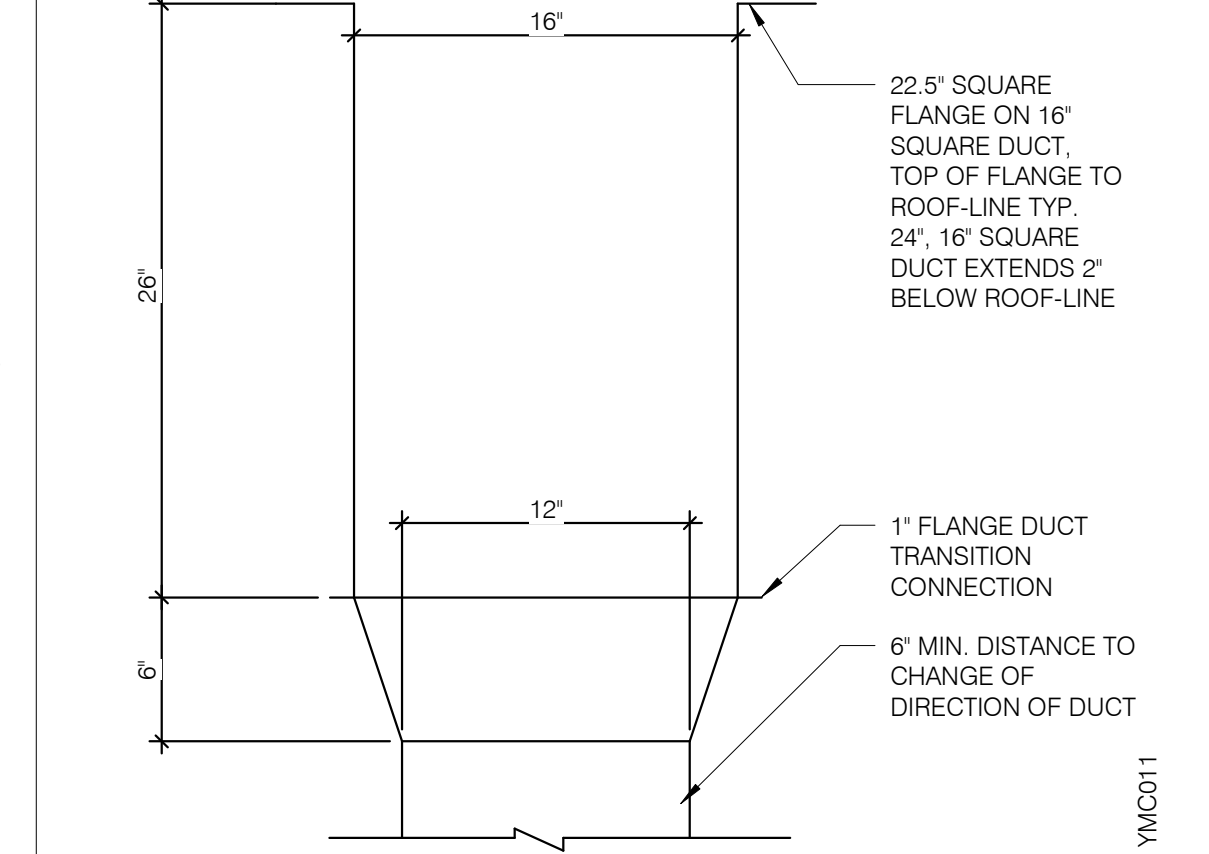
FOR REFERENCE ONLY



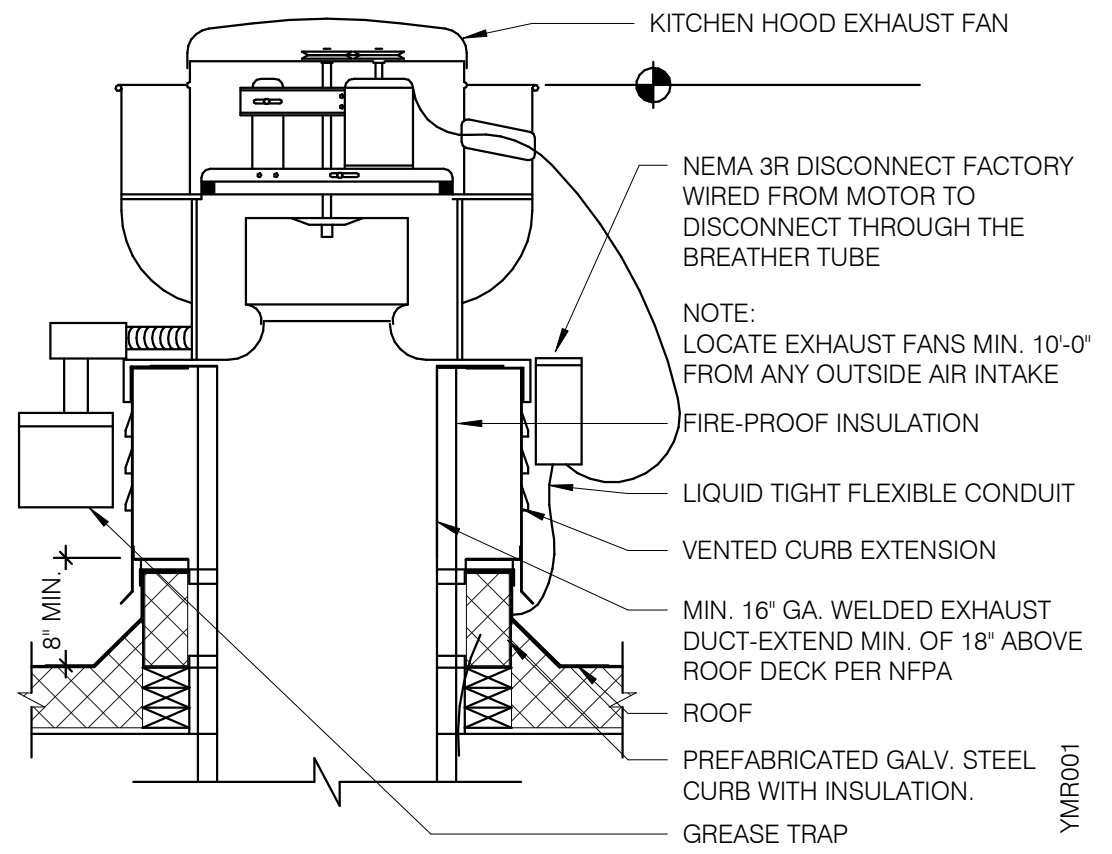
**TB HOOD DUCT TRANSITION** NTS **11**



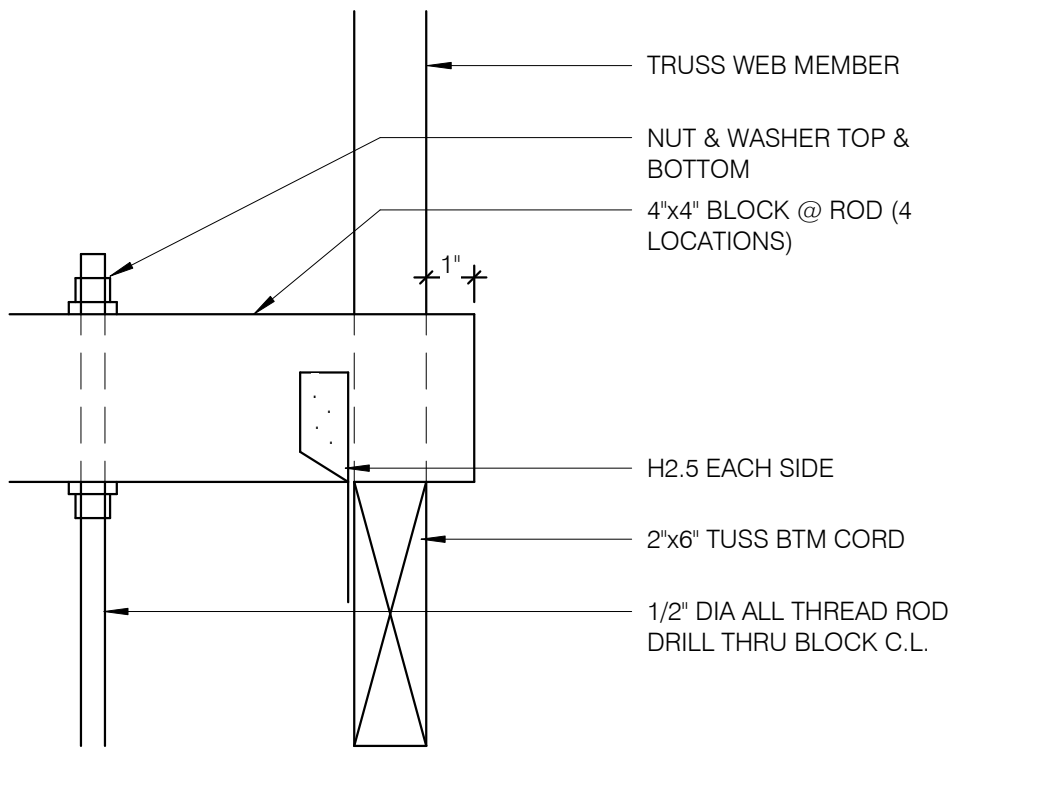
**REMOTE HUMIDITY SENSOR** NTS **8**



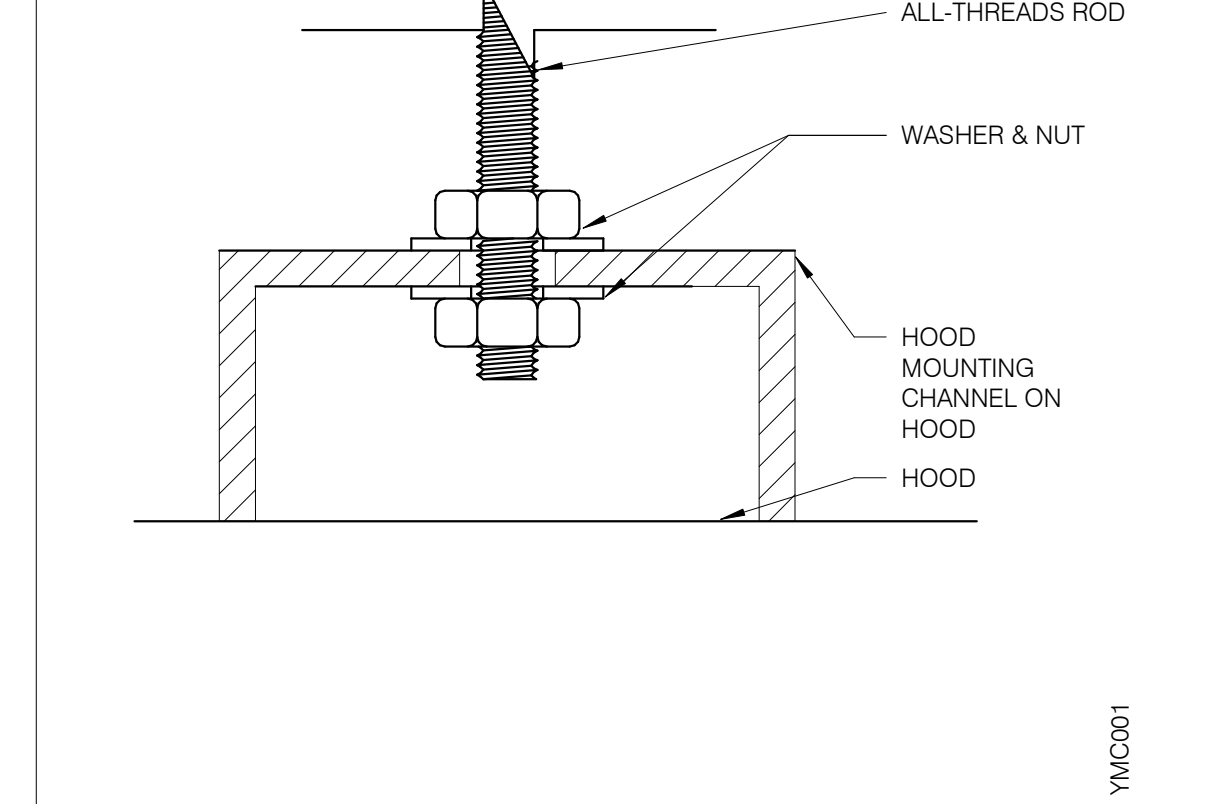
**OVEN HOOD EXH. DUCT TRANSITION** NTS **6**



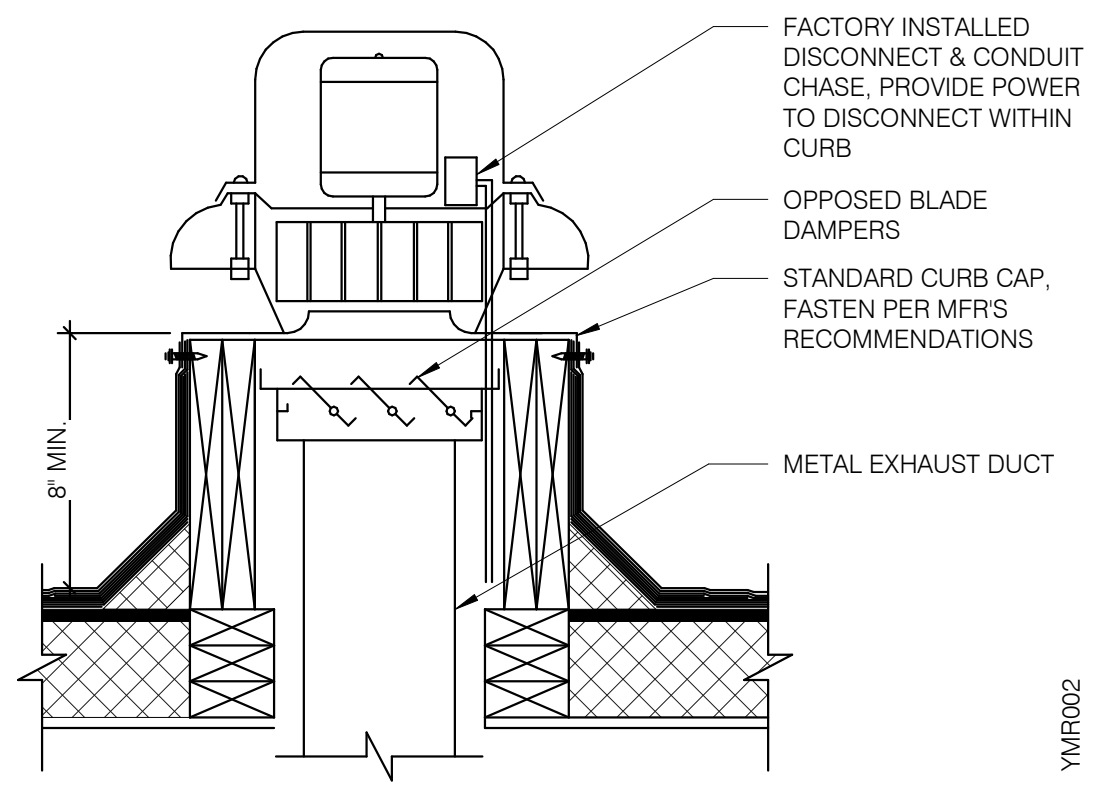
**EXHAUST FAN (EF-1)** NTS **3**



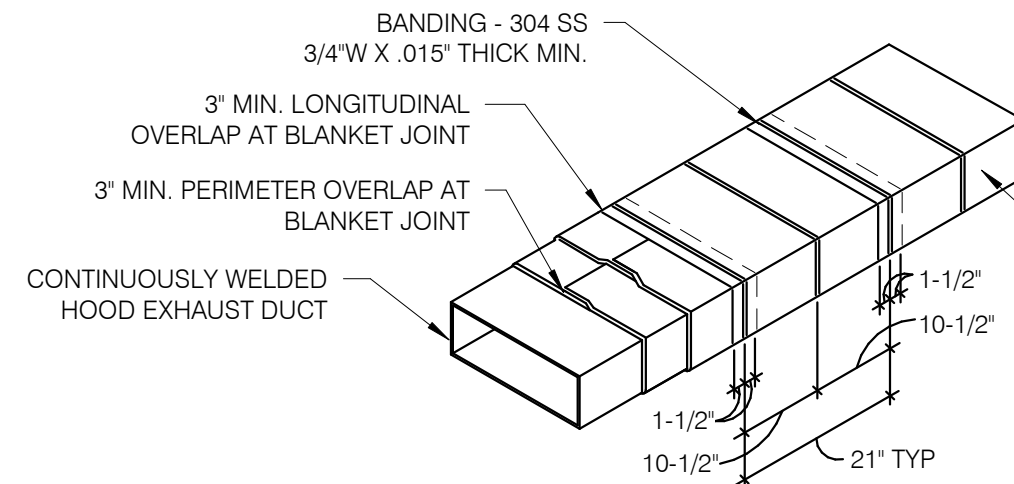
**ROD ATTACHMENT** NTS **7**



**BOLT CONNECTION TO HOOD** NTS **5**

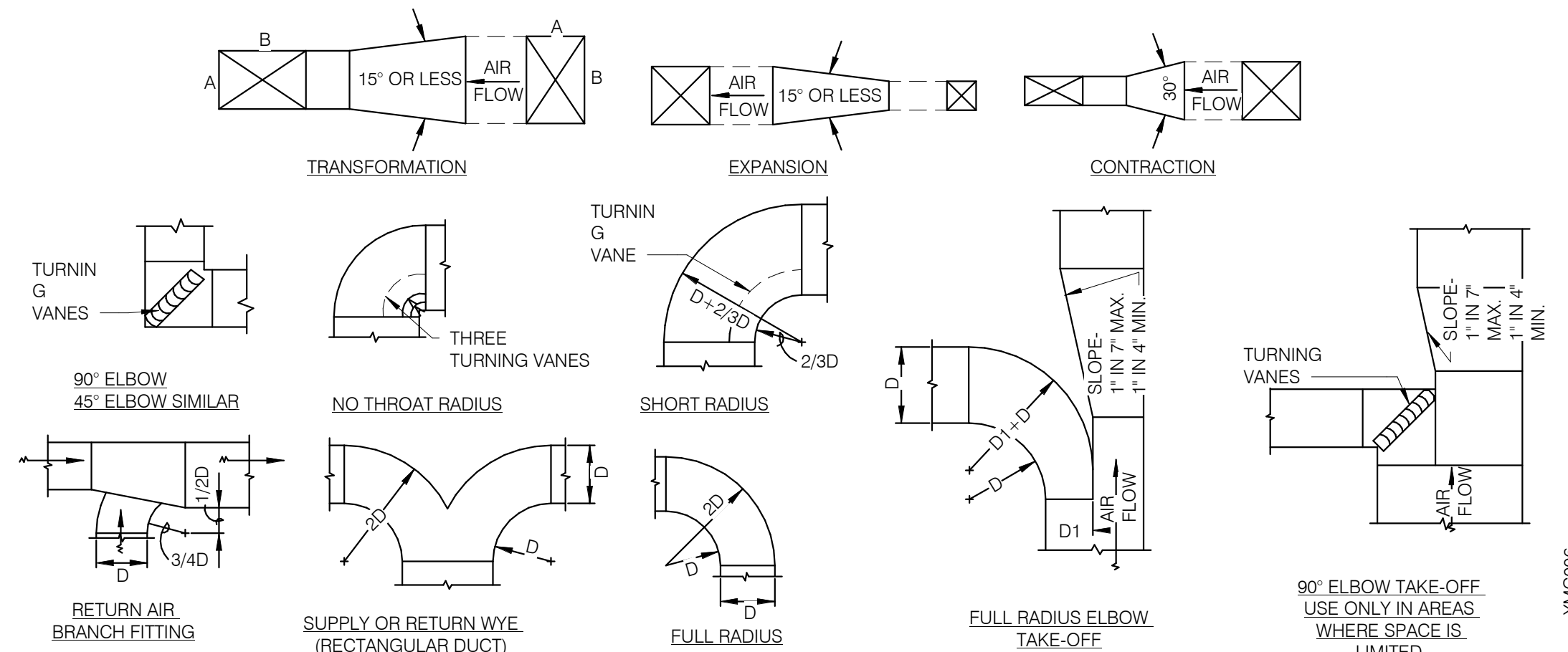


**RESTROOM FAN (EF-2)** NTS **2**

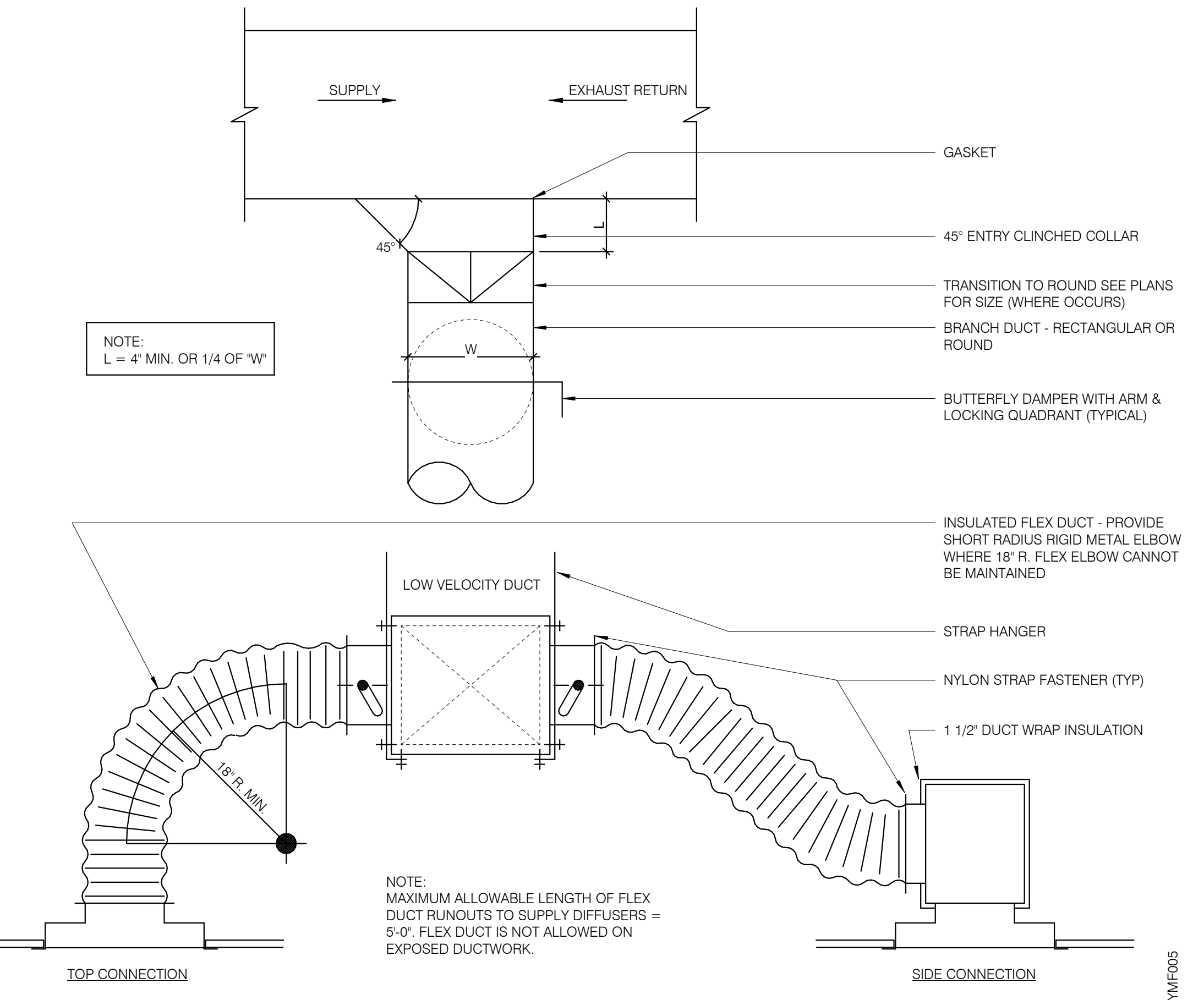


- TWO LAYERS 1-1/2\"**
- NOTES:**
1. WRAP GREASE DUCT CONTINUOUS AS SHOWN FROM CONNECTION AT FAN THROUGH CURB AND EXTEND 18\"
  2. FOR HORIZONTAL RUNS OF EXHAUST DUCTS PROVIDE TYPICAL TRAPEZE SUPPORT SYSTEM WITH 1/2\"
  3. SLOPE HORIZONTAL EXHAUST DUCT RUNS A MINIMUM OF 1/4\"
  4. PROVIDE INSULATED ACCESS DOOR OR PANEL NEAR MID POINT OF EXHAUST DUCT RUN FOR CLEANING AND INSPECTION OF DUCT. PROVIDE AN APPROVED SIGN ON ACCESS DOOR OR PANEL WHICH READS \"ACCESS PANEL DO NOT OBSTRUCT\"

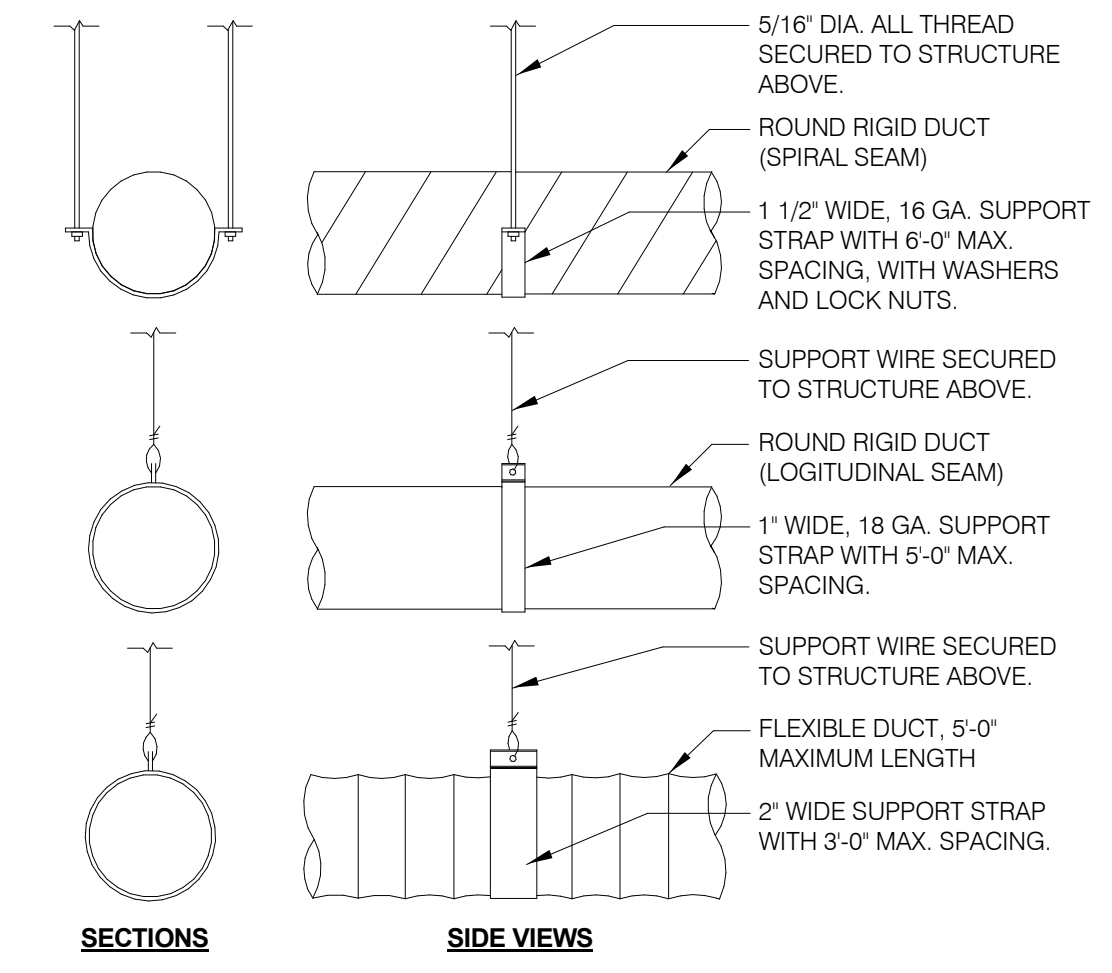
**KITCHEN HOOD EXHAUST DUCT SYSTEM DETAIL** NTS **10**



**TYPICAL DUCTWORK DETAILS** NTS **9**



**CEILING DIFFUSER CONNECTIONS** NTS **4**



**DUCT SUPPORT DETAIL** NTS **1**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
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CONTRACT DATE: XX.XX.18  
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**Taco Bell**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40M-O  
OPEN KITCHEN  
MODERN EXPLORER

**MECHANICAL AND HOOD DETAILS**

**M4.0**

- SOIL AND WASTE PIPE SHALL SLOPE 2% MINIMUM, UNLESS OTHERWISE NOTED OR REQUIRED BY CODE.
- ALL DRAWN WATER & GAS LINES SHALL BE KEPT TIGHT TO THE UNDERSIDE OF EQUIPMENT & SECURED IN PLACE.
- VERIFY THE LOCATION OF THE SANITARY SEWER ON THE SITE PLAN AND SHALL REVISE THE SEWER SYSTEM AS REQUIRED.
- PROVIDE TRAP PRIMERS FOR FLOOR DRAINS IN RESTROOMS, WHERE REQUIRED BY CODES. PROVIDE DEEP SEAL TRAPS FOR FLOOR DRAINS WITHOUT TRAP PRIMERS.
- ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. THE CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENT, CABINETS, ETC. AND THE OWNERS REPRESENTATIVE PRIOR TO ANY INSTALLATION.
- ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILING SHALL BE INSTALLED BEHIND AN ACCESS PANEL.
- ALL PLUMBING FIXTURE VENTS SHALL TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10 FEET FROM ANY OUTSIDE AIR INTAKE.
- PROVIDE GAS PIPING TO UNITS AND ALL FINAL CONNECTIONS REQUIRED FOR OPERATION.
- INSTALL SHUT-OFF VALVES ON ALL HOT & COLD WATER LINES TO FIXTURE OR APPLIANCE. ALL EXPOSED WATER AND WASTE LINES TO BE CHROME PLATED.
- PROVIDE A LEVER HANDLE GAS SHUT-OFF VALVE IN THE BRANCH PIPING OF EACH APPLIANCE OR PIECE OF EQUIPMENT, FOR EACH APPLIANCE INSTALL QUICK DISCONNECT, FLEXIBLE PIPE WHEN ALLOWED BY CODE AND RESTRAINING DEVICE FURNISHED BY OWNER. PROVIDE PRESSURE REDUCING VALVES AT EACH PIECE OF EQUIPMENT OR APPLIANCE. IF GAS PRESSURE GREATER THAN 10"wc IS USED DOWNSTREAM FROM THE GAS METER.
- ALL VALVES, UNIONS, ETC. SHALL BE SAME SIZE AS PIPE UNLESS OTHERWISE INDICATED ON DRAWINGS.
- REFER TO KITCHEN EQUIPMENT DRAWINGS FOR PLUMBING ROUGH-IN SCHEDULE & FOR ADDITIONAL WORK TO BE FURNISHED & INSTALLED BY CONTRACTOR. ALL ROUGH-IN PLUMBING AND FINAL CONNECTIONS TO KITCHEN EQUIPMENT SHALL BE MADE BY THE CONTRACTOR U.O.N.
- REFER TO MECHANICAL SHEETS FOR HVAC AND HOOD PLUMBING REQUIREMENTS.
- ALL GAS LINES SHALL BE SUPPORTED SEE SPECS.
- ALL FLOOR SINKS AND FLOOR DRAINS IN TRAFFIC AREAS SHALL BE INSTALLED FLUSH TO FLOOR SURFACE.
- PROVIDE WATER HAMMER ARRESTOR FOR ALL HAND SINKS AND URINAL WATER LINES.
- PROVIDE AIR GAPS FOR INDIRECT DRAINS AS REQUIRED BY CODE. AIR GAP SHALL BE MINIMUM 2 TIMES THE DIAMETER OF THE INDIRECT DRAIN.
- PRIOR TO COMMENCING WORK ON THIS PROJECT, VERIFY DEPTH, SIZE, LOCATION AND CONDITION OF ALL EXISTING UTILITIES IN FIELD. SHOULD CONDITIONS EXIST OTHER THAN THOSE INDICATED WHICH WOULD CAUSE THE DESIGN TO BE ALTERED, CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY.
- COORDINATE INSTALLATION OF PLUMBING WORK WITH ALL OTHER TRADES SO AS TO AVOID UNNECESSARY DELAY OR INTERFERENCES. CONTRACTOR SHALL REVIEW ARCHITECTURAL AND EQUIPMENT SHEETS.
- FURNISH & INSTALL ALL BACKFLOW PROTECTION DEVICES REQUIRED BY AGENCIES HAVING JURISDICTION. BACKFLOW DEVICES REQUIRING TESTING SHALL BE INSTALLED NO HIGHER THAN 5'-0" A.F.F.
- PROVIDE CONDENSATE DRAIN FROM A/C UNITS TO APPROVED DRAIN, GAS PIPING TO UNITS AND ALL FINAL CONNECTIONS REQUIRED FOR OPERATION.
- THE OWNER OR KITCHEN EQUIPMENT SUPPLIER MAY SUBSTITUTE EQUIPMENT OR THE EQUIPMENT MAY VARY FROM WHAT IS SHOWN. THEREFORE, VERIFY ALL CRITICAL DIMENSIONS WITH THE OWNER PRIOR TO CONSTRUCTION. FAILURE OF THE CONTRACTOR TO VERIFY THESE DIMENSIONS SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT RELOCATION DIRECTLY UPON THE CONTRACTOR.
- ALL WATER LINES SHALL BE RUN OVERHEAD U.O.N.
- ALL WATER LINES SHALL BE FLUSHED PRIOR TO CONNECTING ANY FIXTURES OR EQUIPMENT.
- PROVIDE ESCUTCHEON PLATES AND SILICONE SEALANT AT ALL UTILITY PENETRATIONS INTO WALLS, CEILINGS, AND FLOORS. DO NOT USE CAULKS OR EXPANDING FOAMS FOR SEALANT.
- PVC SCHEDULE 40 WASTE PIPE CAN BE SUBSTITUTED FOR BLACK IRON WASTE PIPE WHERE ALLOWED BY LOCAL MUNICIPALITIES.

**GENERAL NOTES - PLUMBING** NTS **6**

- IF GEN POWER SOAK SINK USED THEN ADD A MIXING VALVE TO SINK ABOVE SUSPENDED CEILING.

**KEYNOTES** NTS **5**

SYMBOLS	ABBREV.	DESCRIPTION
	Y.B.	YARD BOX
	R.D.	ROOF DRAIN
	A.P.	ACCESS PANEL
	V.T.R.	VENT THRU ROOF
	V.B.F.	VENT BELOW FLOOR
	U.T.R.	UP THRU ROOF
	V.C.P.	VITRIFIED CLAY PIPE
	C.I.	CAST IRON
	A.C.P.	ASBESTOS CEMENT PIPE
	(N)	NEW
	(E)	EXISTING
	F.D.	FLOOR DRAIN
	H.D.	HUB DRAIN
	OFD	OVERFLOW DRAIN
	F.S.	FLOOR SINK
	G.L.	GAS LINE
	A.F.F.	ABOVE FINISHED FLOOR
		PLUMBING EQUIPMENT DESIGNATION
		KITCHEN EQUIPMENT NUMBER: REFER TO KITCHEN EQUIPMENT DRAWINGS FOR DESCRIPTION.
		SOIL OR WASTE (SANITARY)/WASTE STUB
		SOIL OR WASTE (GREASE WASTE)/WASTE STUB
	G	GAS / GAS STUB
	CW	COLD WATER/ CW STUB
	HW	HOT WATER / HW STUB
	H.W.R.	HOT WATER RETURN
	V	SANITARY VENT
	S.D.	STORM DRAIN
	C.D.	CONDENSATE DRAIN
	F.C.O.	FLOOR CLEANOUT OR CLEANOUT TO GRADE
	W.C.O.	WALL CLEANOUT
	FW	FILTERED WATER
	TW	PREMIXED TEMPERATURE WATER
	H.B.	HOSE BIBB
	S.O.V.	SHUT-OFF GATE VALVE
	S.O.C.	SHUT-OFF GAS COCK
	C.V.	CHECK VALVE
	P.T.R.V.	PRESS-TEMPERATURE RELIEF VALVE
	B.V.	BALL VALVE
	C.W.	COLD WATER BELOW GRADE
	E.C.O.	EXTERIOR CLEAN OUT
	BFP	BACK FLOW PREVENTER
	FU	FIXTURE UNIT

**PLUMBING LEGEND** NTS **4**

FIXTURE	NO.	DRAIN		COLD WATER		HOT WATER	
		D.F.U.	TOTAL D.F.U.	F.U. C.W.	TOTAL C.W.	F.U. H.W.	TOTAL H.W.
WATER CLOSET	2	4	8	2	4	--	--
URINAL	0	5	--	5	--	--	--
LAVATORY	2	1	2	1.5	3	1.5	3
HAND SINK	2	2	4	1.5	3	1.5	3
PREP SINK *	1	--	--	2	2	2	2
3 - COMPARTMENT SINK *	1	--	--	3	3	3	3
HOSE BIBB/WATER FILTRATION UNIT	2/1	--	--	2.5:1/1	3.5	--	--
FLOOR DRAIN	8	2	16	--	--	--	--
HUB DRAIN	2	2	4	--	--	--	--
FLOOR SINK	4	6	24	--	--	--	--
MOP SINK	1	3	3	2.25	2.25	2.25	2.25
REETHERMALIZER *	1	--	--	--	--	1.0	1.0
TOTAL	--	--	61	--	20.75	--	14.27

PROBABLE DEMANDS/ AND PIPE SIZING REQUIREMENTS: COLD WATER: 20.75 FU = 20 GPM DRAIN: GW 39 DFU USE 1-1/2" CW SERVICE  
 DRAIN: SAN 22 DFU USE 4" SANITARY (MIN)  
 HOT WATER: 14.25 FU = 17 GPM USE 1-1/4" HW SERVICE

BASED ON 2014 MPC (COMBINATION DRAIN & VENT). \*FIXTURE HAS INDIRECT WASTE TO FLOOR SINK

**PLUMBING FIXTURE COUNT** NTS **3**

ITEM	FIXTURE	SOIL OR WASTE	VENT	COLD WATER	HOT WATER	TEMPD WATER	WASTE FU	WATER FU	DESCRIPTION	MANUFACTURER / MODEL NUMBER
(ECO   1)	EXTERIOR CLEANOUT	--	--	--	--	--	--	--	CAST IRON CLEANOUT WITH THREADED ADJUSTABLE HOUSING, ROUND SCORIATED HEAVY CAST IRON COVER.	JOSAM / MODEL: 56000 WADE / MODEL: 6000Z ZURN / MODEL: Z-1400
(FS   1)	FLOOR SINK	4"	2"	--	--	--	6	--	PVC 12" SQUARE FLOOR SINK, 8" DEEP, WITH ALUMINUM OR PVC DOME STRAINER AND LOOSE SET PVC SLOTTED TOP GRATE. SET FLOOR SINK LIP FLUSH WITH FLOOR TILE.	JOSAM / MODEL: JPF54-PVC ZURN / MODEL: FD-2370-PV4-DS-F
(FS   2)	FLOOR SINK	3"	2"	--	--	--	6	--	CAST IRON 12" SQUARE FLOOR SINK, 8" DEEP, WITH ALUMINUM DOME STRAINER AND NICKEL BRONZE HINGED TOP.	JOSAM / MODEL: 49034AS WADE / MODEL: 9144 ZURN / MODEL: Z-1900-32
(FD   1)	FLOOR DRAIN	3"	2"	--	--	--	2	--	PVC FLOOR DRAIN, 5" DIA. IF PVC OR ABS DRAINS ARE USED, SCHEDULE 80 PVC DRAIN PIPE SHALL BE USED FOR THE FIRST 10'-0" FROM THE DRAIN.	ZURN / MODEL: FD-2210 JOSAM / MODEL: 30003-A WADE / MODEL: 1103
(HD   1)	HUB DRAIN	3"	2"	--	--	--	2	--	CAST IRON DEEP SEAL P-TRAP WITH FUNNEL, NO-HUB OUTLET AND BRASS GASKETED CLEANOUT PLUG.	JOSAM / MODEL: 88213 WADE / MODEL: 2453EF ZURN / MODEL: Z-1019
(FCO   1)	FLOOR CLEANOUT	--	--	--	--	--	--	--	CAST IRON CLEANOUT WITH THREADED ADJUSTABLE HOUSING, ROUND SCORIATED HEAVY CAST IRON COVER.	JOSAM / MODEL: 56000 WADE / MODEL: 6000Z ZURN / MODEL: Z-1400
(WCO   1)	WALL CLEANOUT	--	--	--	--	--	--	--	CAST IRON CLEANOUT TEE WITH INLET/OUTLET SPIGOT AND THREADED BRASS PLUG, WITH STAINLESS STEEL ACCESS COVER.	JOSAM / MODEL: 58510 WADE / MODEL: 8560E ZURN / MODEL: Z-1446-BP
(HB   1)	HOSE BIBB	--	--	3/4"	--	--	--	2.5/1	NON-FREEZE WALL HYDRANT WITH INTEGRAL VACUUM BREAKER, BRONZE CASING AND NICKEL BRONZE BOX.	JOSAM / MODEL: 71000 WADE / MODEL: 8600L ZURN / MODEL: Z-1300
(WC   1)	WATER CLOSET	4"	2"	1/2"	--	--	4	2	WHITE VITREOUS CHINA FLOOR MOUNTED FLUSHOMETER TANK (PRESSURE ASSISTED) TYPE, ELONGATED BOWL, ADA COMPLIANT, 1.1 GPF, WITH OPEN FRONT SEAT LESS COVER OLSENITE #95 OR EQUIVALENT, FLUSHOMETER TANK; SLOAN FLUSHMATE OR EQUAL. PROVIDE TANK COVER LOCKS. FLUSH VALVES SHALL BE RIGHT HAND OR LEFT HAND AS REQUIRED TO CORRESPOND WITH ACCESS FROM WIDE SIDE OF STALL. VERIFY FLUSH SIDE REQUIREMENTS	AM, STD. "CADET" / MODEL: 2467.100 KOHLER "HIGHLINE" / MODEL: K-3519 CRANE "ECONMISER" / MODEL: 31888
(L   1)	LAVATORY	1-1/4"	1-1/2"	1/2"	--	1/2"	1	1.5	WHITE VITREOUS CHINA, WALL HUNG, WITH CONCEALED ARMS SUPPORT, 4" CENTERS, WITH INTEGRAL BACKSPASH, ADA ACCESSIBLE, FLAT GRID STRAINER, BRAIDED WATER LINES. FAUCET: FURNISHED BY OWNER-INSTALLED BY G.C. ELECTRONIC SENSOR TYPE FAUCET, SLOAN SF-2300, ADA COMPLIANT. SEE 5/P6.0 FOR LAV SUPPORT DETAIL, .5 GPM AERATOR	A.S. COMRADE/ MODEL: 0124.131 CRANE "HARWICH" / MODEL: 1412V
(S   1)	HAND SINK	1-1/2"	1-1/2"	1/2"	--	1/2"	2	1.5	S-1: STAINLESS STEEL HAND SINK, WALL HUNG, INCLUDES A 6" GOOSENECK STAINLESS. FAUCET W/FOOT VALVE, BRAIDED WATER LINES, 0.5 GPM AERATOR.	--
(S   2)	MOP SINK	3"	2"	1/2"	1/2"	--	3	2.25	MOP SINK: AERO - 3MP-2121-6 W/ 48" HIGH S.S. LEFT SIDE AND BACK-SPLASH. FURNISHED BY OWNER, INSTALLED BY G.C. FAUCET: T&S #B2465, WITH VACUUM BREAKER, FURNISHED BY OWNER, INSTALLED BY G.C.	--
(S   3)	3-COMP. SINK	INDIRECT	--	1/2"	1/2"	--	--	3	SINK, FAUCET & DRAIN, GEN IV POWER SOAK STANDARD, GEN III IS AN OPTION FOR FRANCHISES	--
(S   4)	PREP SINK	INDIRECT	--	1/2"	1/2"	--	--	3	SINK, FAUCET AND DRAIN	--
(GI   1)	GREASE INTERCEPTOR	4"	--	--	--	--	--	--	PRECAST 1,000 GALLON GREASE INTERCEPTOR WITH SAMPLING BOX. SEE SITE PLAN FOR EXTERIOR GREASE INTERCEPTOR LOCATION.	JENSEN / JP1000G
(MV   1)	MIXING VALVE	--	--	1/2"	1/2"	--	--	--	THERMOSTATIC, 125 P516, 200VF BRONZE BODY, STAINLESS STEEL PISTON LINER, CHECK VALVES SIZE PER PIPE CONNECTIONS.	POWERS SERIES LFLM495 LAWLER SERIES 310 LEONARD SERIES 170
(WH   1)	WATER HEATER	--	--	1-1/4"	1-1/4"	--	--	--	GAS FIRED WATER HEATER, 95.0% THERMAL EFF., 199,000 BTUH INPUT, 100 GAL. STORAGE TANK, 235 GPH @ 100 DEG. RISE REC. RATE, 3" PVC FLUE & INTAKE, ASME RTD TEMP. & PRESS. REL. VALVE, ELECTRONIC IGNITION SYSTEM AND ELECTRONIC CONTROLS. Call 800-477-1953 Option #1 for National Account Price & Service	AO SMITH / BTH-199
(ET   1)	EXPANSION TANK	--	--	3/4"	--	--	--	--	EXPANSION TANK, STEEL, EXPANSION MEMBRANE 150 PSI, 160° F, 12 GALLON CAPACITY.	WATTS SERIES DETA AMTROL SERIES ST WILKINS SERIES WXTP
(BFP   1)	BACKFLOW PREVENTOR	--	--	VERIFY	--	--	--	1	REDUCED PRESSURE ZONE BACKFLOW PREVENTER, CAST BRONZE CONSTRUCTION WITH QUARTER TURN FULL-PORT BALL VALVES AND BRONZE STRAINER.	WATTS / MODEL: LF009M2QTS WILKINS / MODEL: 975XLS FEBCO / MODEL: 860
(RO   1)	REVERSE OSMOSIS	INDIRECT	--	1/2"	--	--	--	--	REVERSE OSMOSIS FILTER SYSTEM BY OWNER SEE TO DETAIL 9/P6.0	--

**PLUMBING FIXTURE SCHEDULE** NTS **2**

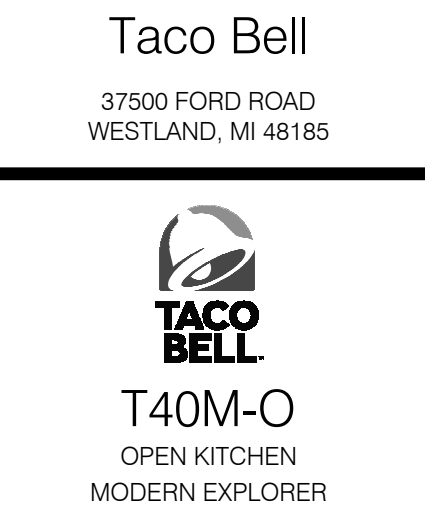
FLOOR DRAIN TOTAL CUBIC IN FOR 7 FLOOR DRAINS	147
DIMENSIONS OF ONE (1) COMPARTMENT OF THE 3-COMPARTMENT SINK	28" x 30" x 14"
DIMENSIONS OF ONE (1) COMPARTMENT OF THE 3-COMPARTMENT SINK	28" x 42" x 21"
DIMENSIONS OF ONE (1) COMPARTMENT OF THE 3-COMPARTMENT SINK	28" x 12" x 14"
DIMENSIONS OF 1-COMPARTMENT SINK	28" x 12" x 14"
TOTAL CAPACITY OF 3-COMPARTMENT AND 1-COMPARTMENT SINKS	46,011 CUBIC INCHES
CAPACITY IN GALLONS (DIVIDE BY 231)	200 GAL
ACTUAL DRAINAGE LOAD (75% OF TOTAL CAPACITY)	150 GAL
FLOW RATE FOR 2 MINUTE (2 LB. RETENTION = 1 GPM/FLOW)	75 GPM 150 LBS.
GREASE TRAP REQUIREMENTS NEED TO BE VERIFIED WITH LOCAL PERMIT AUTHORITY REQUIREMENTS.	

**GREASE TRAP SIZING** NTS **1**



09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72



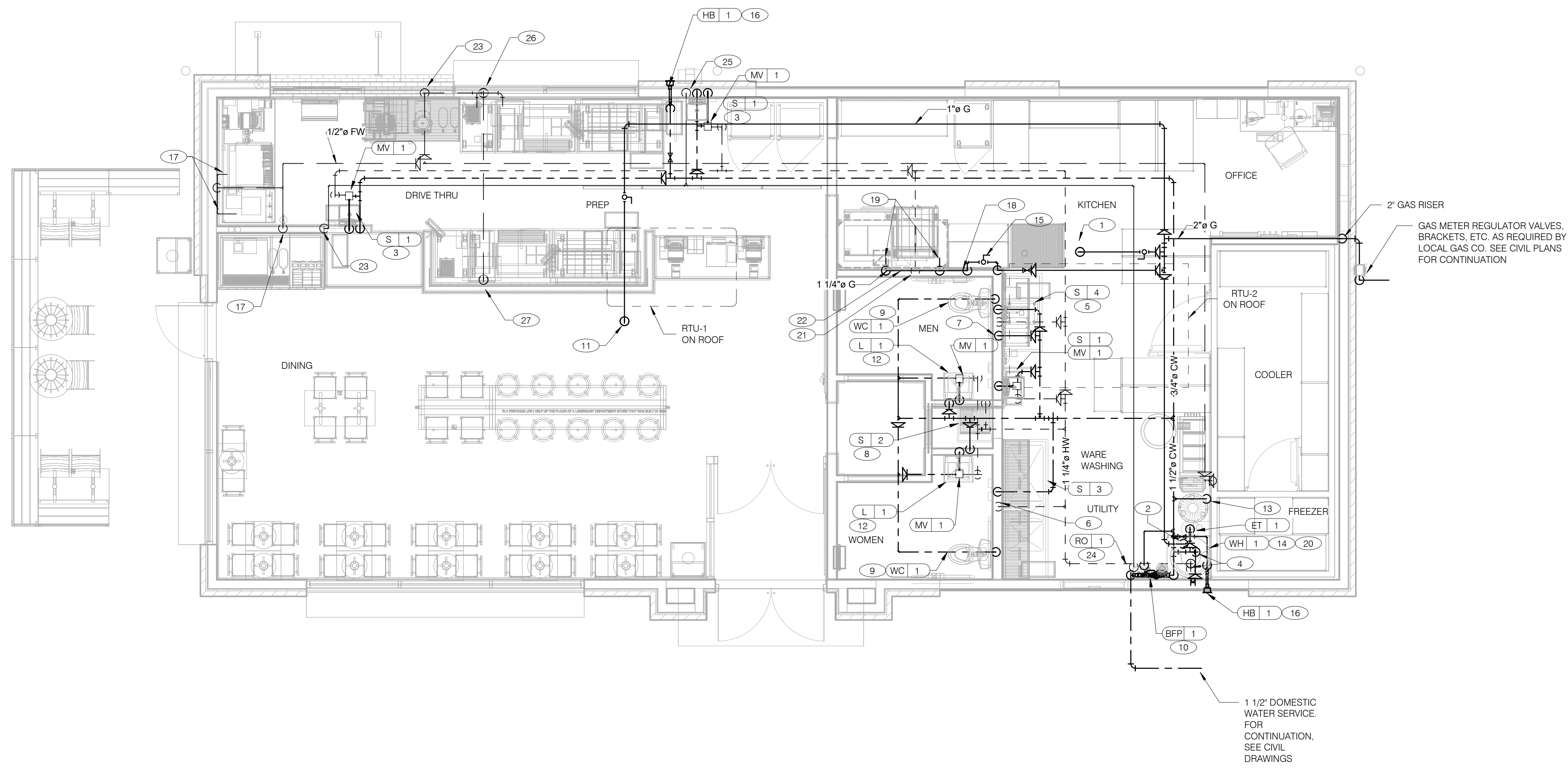
**PLUMBING SCHEDULES AND NOTES**

**P1.0**

PLOT DATE: 9/17/2018 2:54:34 PM







**WATER & GAS PLAN** 1/4" = 1'-0" **1**

- A. WATER DISTRIBUTION PIPING IS SHOWN ABOVE FINISH CEILING. UNDER SLAB DISTRIBUTION ALLOWED AT CONTRACTOR OPTION. COORDINATE ALL DETAILS.
- B. NO ROOF PENETRATIONS PERMITTED WITHIN THE ROOF "WATER VALLEYS". REFER TO ROOF PLAN FOR LOCATIONS.
- C. REFER TO SHT P4.0 FOR ROUGH-IN LOCATIONS.
- D. REFER TO SHEET P5.0 FOR WATER AND GAS ISOMETRIC DRAWINGS.
- E. FLUSH ALL WATER SUPPLY LINES OF ALL DEBRIS AND IMPURITIES PRIOR TO CONNECTING TO WATER FILTERS.
- F. PROVIDE REDUCED PRESSURE BACKFLOW TO SERVE CARBONATOR, DRAIN RELIEF TO FLOOR SINK WITH AIR GAP
- G. ALL PLUMBING LINES IN KITCHEN VISIBLE TO CUSTOMERS SHALL BE STAINLESS STEEL.

- 1 1-1/4" (240 CFH) GAS UP TO RTU-2 WITH DIRT LEG, GAS COCK, UNION.
- 2 1" (199 CFH) GAS DOWN TO WATER HEATER WITH GAS COCK, DIRT LEG AND UNION.
- 3 1/2" TEMPERED WATER DOWN IN WALL TO HAND SINK.
- 4 1-1/4" HOT AND 1-1/4" COLD WATER LINES DOWN TO WATER HEATER.
- 5 1/2" HOT AND COLD WATER LINES DOWN IN WALL TO PREP SINK.
- 6 1/2" COLD AND HOT WATER LINES DOWN IN WALL TO THREE COMPARTMENT SINK.
- 7 1/2" COLD WATER 2'-0" A.F.F. CONNECT TO WATER FILTER FOR HOT WATER SYSTEM P-452. PROVIDE SHUT-OFF VALVE PRIOR TO CONNECTION TO WATER FILTER.
- 8 1/2" COLD AND HOT WATER DOWN IN THE WALL TO THE MOP SINK.
- 9 3/4" CW DOWN IN WALL TO FLUSH TANK WATER CLOSET.
- 10 REDUCED PRESSURE BACKFLOW PREVENTER LOCATED PER LOCAL UTILITY REQ'S. PIPE RELIEF TO HUB SINK.
- 11 1" (108 CFH) GAS UP TO RTU-1 WITH DIRT LEG, GAS COCK, UNION.
- 12 1/2" TEMPERED WATER LINES DOWN IN WALL TO LAVATORY.
- 13 3/4" CW DOWN ALONG WALL TO WATER FILTER S-286.
- 14 WATER HEATER (WH-1). PIPE CONDENSATE LINE. T&P DISCHARGE AND DRAIN PAN TO HUB DRAIN. SEE WATER HEATER DETAIL 2/P6.0.
- 15 EMERGENCY GAS SHUT OFF VALVE LOCATED BELOW CEILING.
- 16 3/4" CW DOWN IN WALL TO EXTERIOR HOSE BIBB.
- 17 BUNDLED SYRUP LINES AND FILTERED WATER LINES TO BEVERAGE DISPENSERS S-284 AND S-285, AND FILTERED WATER LINES TO FROZEN BEVERAGE DISPENSER S-739. SEE DRAWINGS A2.0, P5.0, P6.0 AND 1/A6.6.
- 18 1-1/4" GAS DOWN WALL TO TACO BELL COOKING EQUIPMENT. VERTICAL GAS PIPING IN WALL SHALL NOT BE RIGIDLY SECURED AND ADEQUATE PIPE PROTECTION SHALL BE PROVIDED.
- 19 3/4" GAS DIRT LEG W/ GAS COCK TO COOKING EQUIPMENT. PROVIDE FLEXIBLE GAS HOSE KIT FOR CONNECTION TO COOKING EQUIPMENT.
- 20 3" PVC EXHAUST AND INTAKE FLUES FROM WATER HEATER, PIPE THROUGH ROOF AS RECOMMENDED BY MANUFACTURER TO LOCATIONS SHOWN ON SHEET M2.0. SEE DETAIL 2/P6.0.
- 21 1/2" HOT WATER DOWN IN WALL TO TB RETHERMALIZER C-107. PROVIDE SHUT-OFF VALVE OUTSIDE OF WALL FOR CONNECTION TO RETHERMALIZER.
- 22 RUN GAS PIPE 18" A.F.F. WITH DIRT LEGS FOR GAS HOSE KITS TO COOKING EQUIPMENT C-026 AND C-107.
- 23 1/4" RO WATER PIPE DOWN IN WALL AND ROUTED IN LOW WALL OF DRY PRODUCTION LINE. PROVIDE SHUT-OFF VALVE ON RO PIPING IN CEILING NEAR CHASE.
- 24 1/2" COLD WATER TO REVERSE OSMOSIS FILTER P-315 AND 1/2" FILTER WATER FROM REVERSE OSMOSIS FILTER. PROVIDE SHUT-OFF VALVE ON CW PIPE PRIOR TO CONNECTION TO FILTER.
- 25 1/2" FW WATER PIPE DOWN IN WALL AND ROUTED IN LOW WALL OF DRY PRODUCTION LINE TO BREWERS S-546 AND S-547. PROVIDE SHUT-OFF VALVE ON FW PIPING IN CEILING NEAR CHASE.
- 26 ROUTE 1/2" FW DOWN IN WALL BELOW SLAB FOR CHEESEMELTER.
- 27 1/2" FW UP FROM BELOW SLAB TO CHEESEMELTER. PROVIDE SHUT OFF VALVE.

**WATER & GAS PLAN NOTES** NTS **3**

**KEYNOTES - WATER AND GAS** NTS **2**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
05.24.18	HEALTH COMMENTS
04.12.18	ISSUED FOR PERMIT

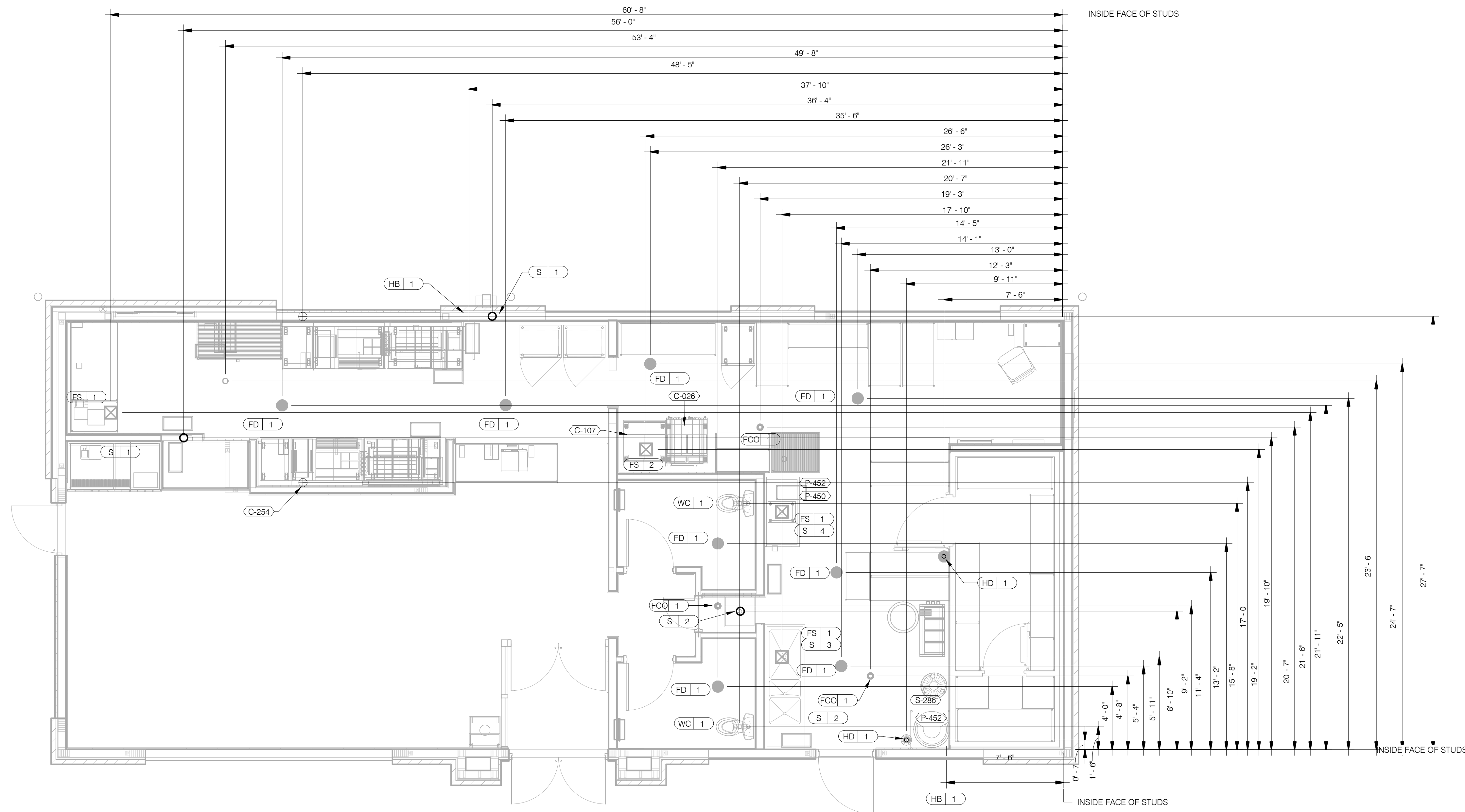
CONTRACT DATE:	XX.XX.18
BUILDING TYPE:	T40M-O
PLAN VERSION:	DEC 2017
BRAND DESIGNER:	
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

**Taco Bell**  
37500 FORD ROAD  
WESTLAND, MI 48185



**WATER AND GAS PLAN**

**P3.0**



**PLUMBING ROUGH-IN PLAN** 1/4" = 1'-0" **1**

EQUIP #	EQUIPMENT ITEM	TYPE	ELEVATION	REMARKS	EQUIP #	EQUIPMENT ITEM	TYPE	ELEVATION	REMARKS
FS 1	FLOOR SINK			--	S 3	3-COMPARTMENT SINK FAUCET	CW/HW	+38" A.F.F.	--
FS 2	FLOOR SINK			EPOXY COATED CAST IRON	S 4	PREP SINK	W	+19" A.F.F.	--
HD 1	HUB DRAIN			--	S 4	PREP SINK FAUCET	CW/HW	+38" A.F.F.	--
WH 1	WATER HEATER	CW		--	WCO 1	WALL CLEAN OUT			--
WH 1	WATER HEATER	G	+15" A.F.F.	--	FCO 1	FLOOR CLEAN OUT			--
WC 1	WATER CLOSET FLUSH VALVE	CW	+29" A.F.F.	BOTH HANDICAP AND REGULAR	HB 1	HOSE BIB			--
UR 1	URINAL FLUSH VALVE	CW	+47" A.F.F.	WALL MOUNTED					
UR 1	URINAL WASTE STUB	W	+16-1/2" A.F.F.	WALL MOUNTED					
L 1	LAVATORY	TW	+20" A.F.F.	--	C-107	RE THERMALIZER	HW	+8" A.F.F.	
L 1	LAVATORY WASTE LINE	W	+16-1/2" A.F.F.	--	C-107	RE THERMALIZER	G	+12" A.F.F.	
RO 1	REVERSE OSMOSIS	CW	+84" A.F.F.	--	C-026	DUAL VAT FRYER	G	+12" A.F.F.	
S 1	HAND SINK	TW	+18" A.F.F.	RIM OF LAV @ +2'-8" A.F.F.					
S 2	MOP SINK	W	-6" A.F.F.	RECESSED IN FLOOR					
S 2	MOP SINK FAUCET	CW/HW	+36" A.F.F.	--	S-286	WATER FILTER SYSTEM	CW	+94" A.F.F.	INLET TO & OUTLET FROM FILTER
S 2	MOP SINK FAUCET	CW/HW	+42" A.F.F.	CLOSET MOP SINK ONLY					
S 3	3-COMPARTMENT SINK	W	+19" A.F.F.	--	P-452	HOT WATER SYSTEM	CW	+24" A.F.F.	

**PLUMBING ROUGH-IN SCHEDULE** NTS **4**

- HOT WATER
- COLD WATER
- TEMPERED WATER
- ⊠ GAS
- ⊖ FLOOR DRAIN
- ⊠ FLOOR SINK
- HUB DRAIN
- ◆ WASTE OUTLET
- ⊖ FLOOR CLEANOUT
- ⊖ WALL CLEANOUT
- FILTERED WATER
- ◇ VENT UP FROM UNDER SLAB
- WATER LINE THRU FLOOR

**SYMBOL LEGEND** NTS **3**

- ALL DIMENSIONS TO FLOOR SINKS, FLOOR DRAINS AND HUB DRAINS ARE TO CENTER OF FIXTURE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THIS DATA ON THE LOCATION OF ALL PLUMBING ROUGH-INS WITH INFORMATION PROVIDED ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND THE EQUIPMENT ACTUALLY SUPPLIED AND TO CONFIRM THE CORRECTNESS OF ANY DIMENSIONS INDICATED HEREIN.

**PLUMBING ROUGH-IN NOTES** NTS **2**

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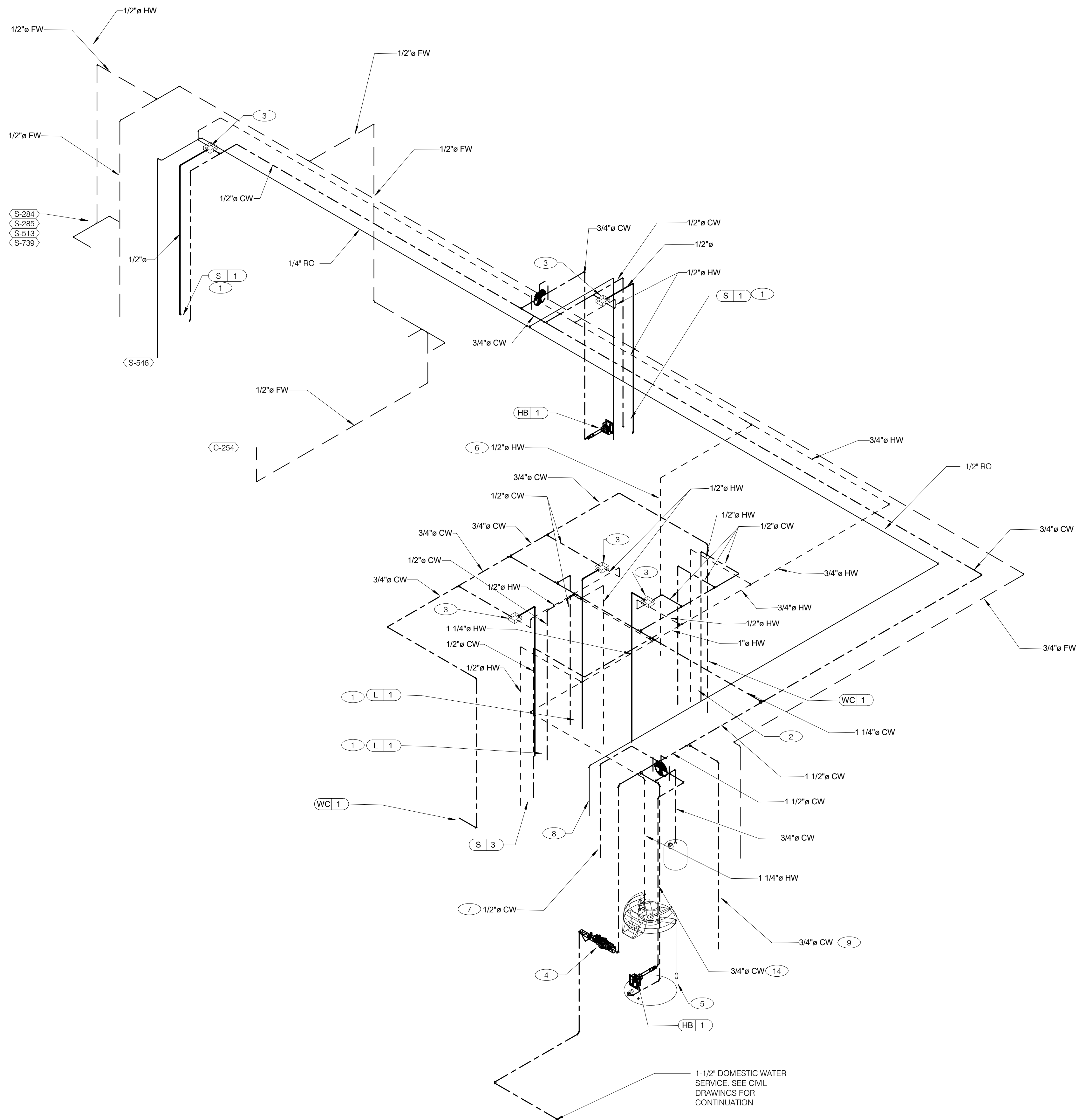
**PLUMBING ROUGH-IN PLAN**

**P4.0**

PLOT DATE: 9/17/2018 2:54:38 PM







- ① 1/2" TEMPERED WATER DOWN IN WALL TO HAND SINK / LAVATORY.
- ② 1/2" HOT AND COLD WATER LINES DOWN IN WALL TO PREP SINK AND 1/2" COLD WATER TO WATER FILTER FOR HOT WATER SYSTEM P-450.
- ③ THERMOSTATIC MIXING VALVE.
- ④ REDUCED PRESSURE BACKFLOW PREVENTER PER LOCAL UTILITY REQ'S. PROVIDE SHUT-OFF VALVES AT BOTH SIDES OF BACKFLOW PREVENTER. VERIFY LOCATIONS WITH CIVIL DWGS.
- ⑤ PIPE T&P RELIEF VALVE TO OUTSIDE OF BUILDING OR TO HUB DRAIN, RUN FULL SIZE PIPE FROM VALVE WITH TYPE 'K' COPPER TUBING.
- ⑥ 1/2" HOT WATER PIPE DOWN IN WALL. PROVIDE SHUT-OFF VALVE OUTSIDE OF WALL FOR CONNECTION TO TB RETHERMALIZER.
- ⑦ 1/2" COLD WATER CONNECT TO REVERSE OSMOSIS FILTER AND 1/2" FILTERED WATER FROM REVERSE OSMOSIS FILTER. PROVIDE SHUT-OFF ON CW PIPE PRIOR TO CONNECTION TO FILTER.
- ⑧ 1/2" FILTERED WATER FROM REVERSE OSMOSIS FILTER DOWN IN UTILITY CHASE OF M.A.P.S. LINE. PROVIDE SHUT-OFF VALVE ON FW PIPE IN CEILING NEAR UTILITY CHASE.
- ⑨ 1/2" COLD WATER TO WATER SYSTEM FILTER.

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
A 05.24.18	HEALTH COMMENTS
04.12.18	ISSUED FOR PERMIT

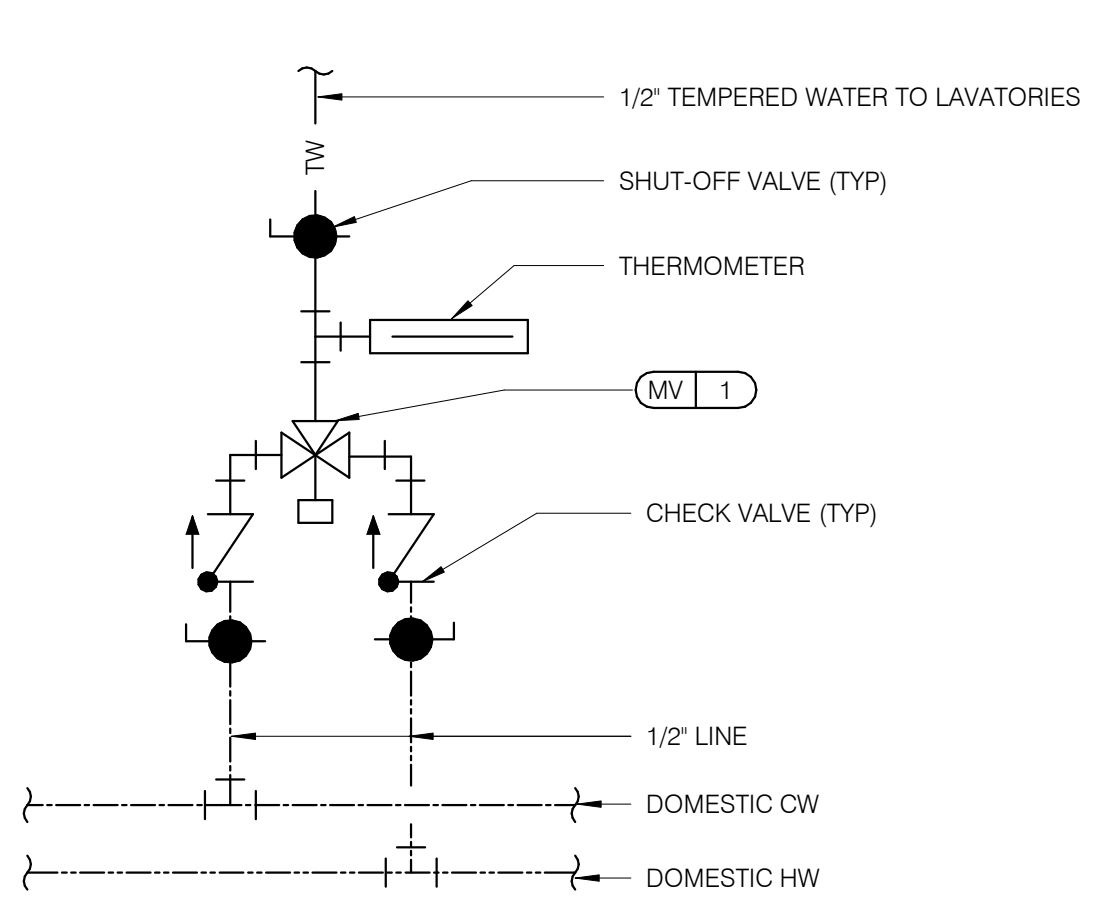
CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**Taco Bell**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

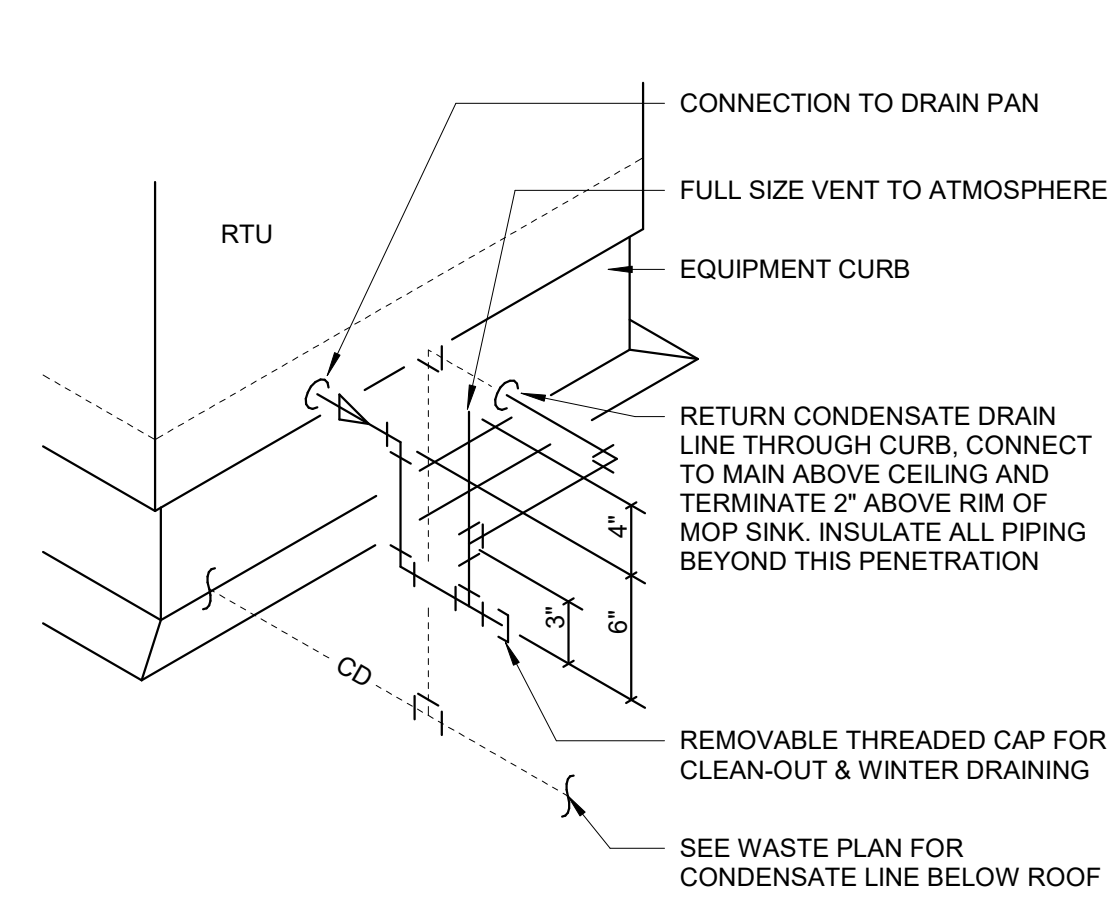


**RISER DIAGRAM**

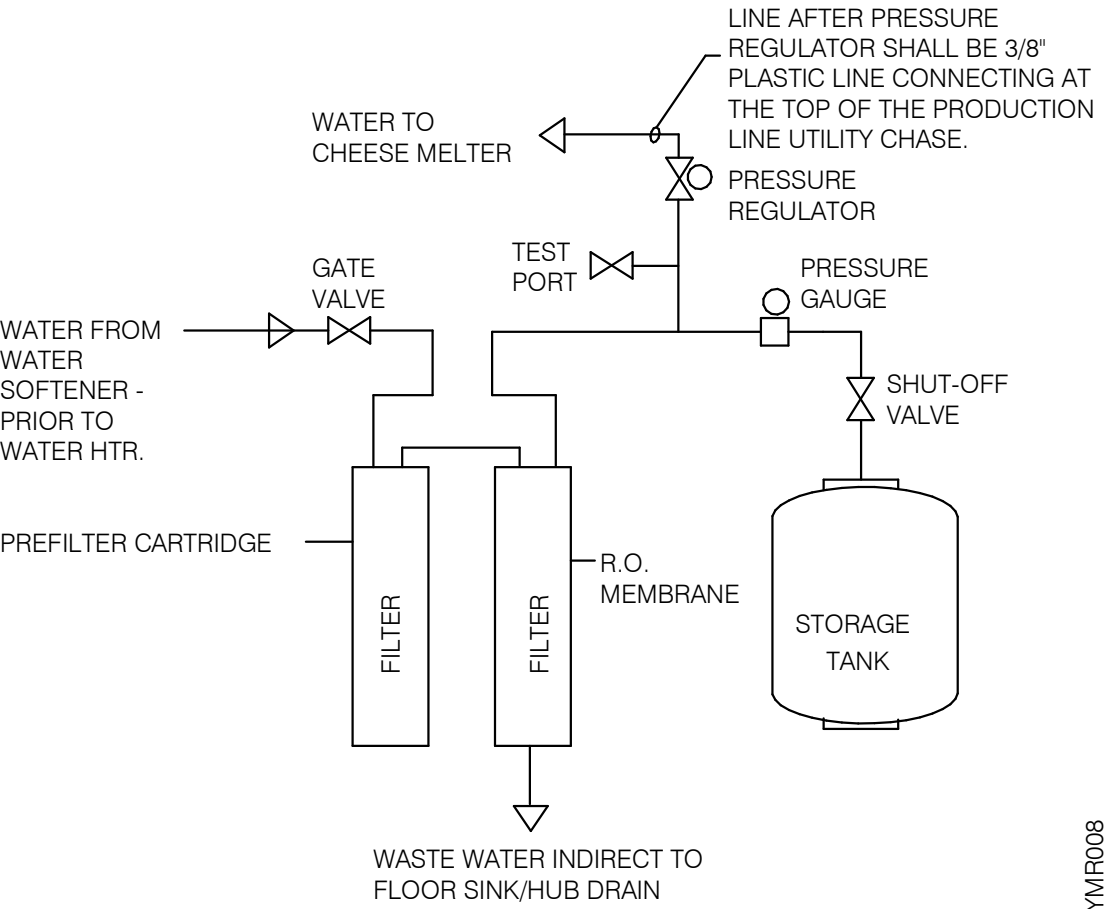
**P5.1**



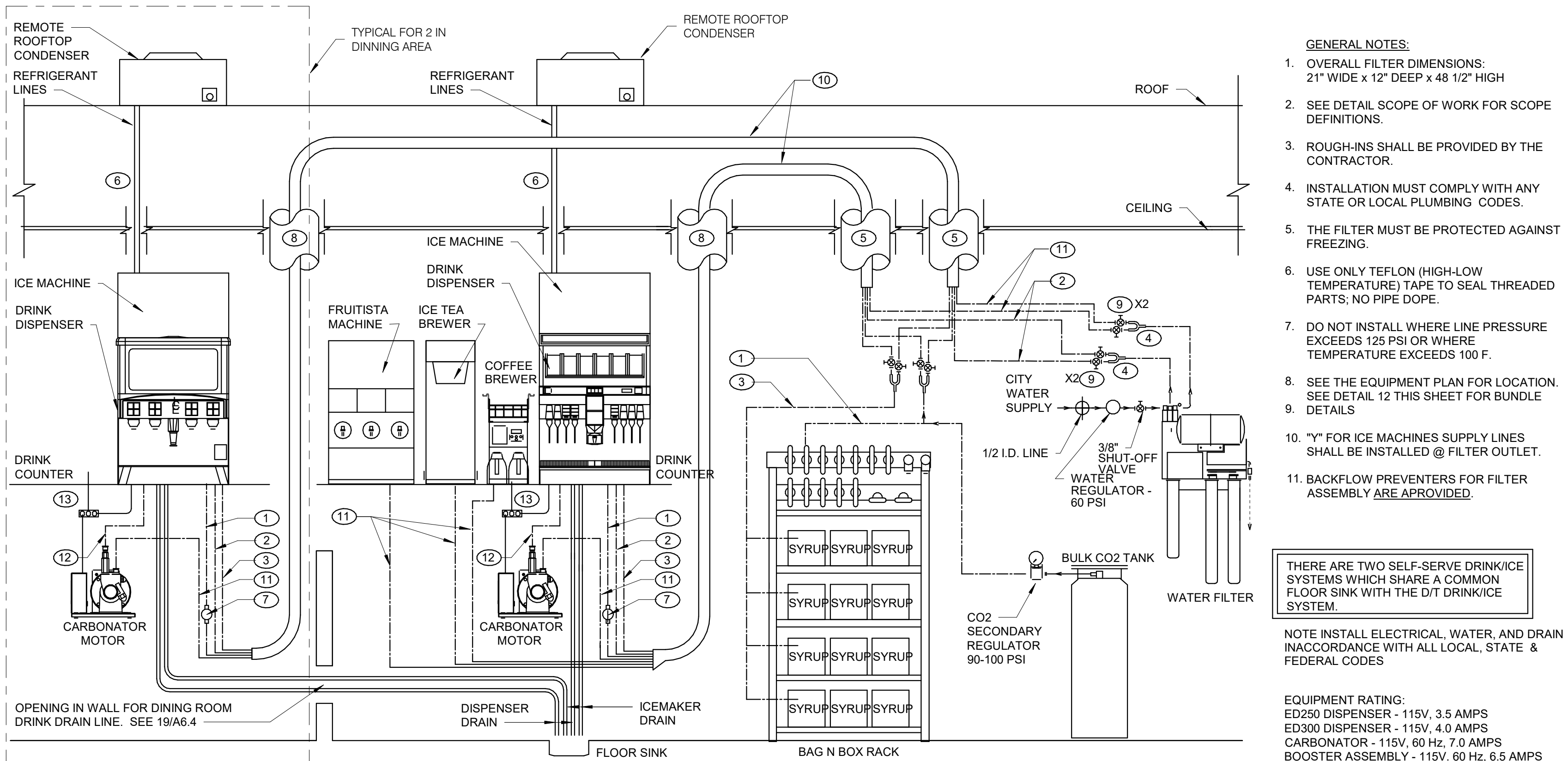
**TEMPERING VALVE** NTS **11**



**RTU CONDENSATE** NTS **10**



**REVERSE OSMOSIS SYSTEM** NTS **9**



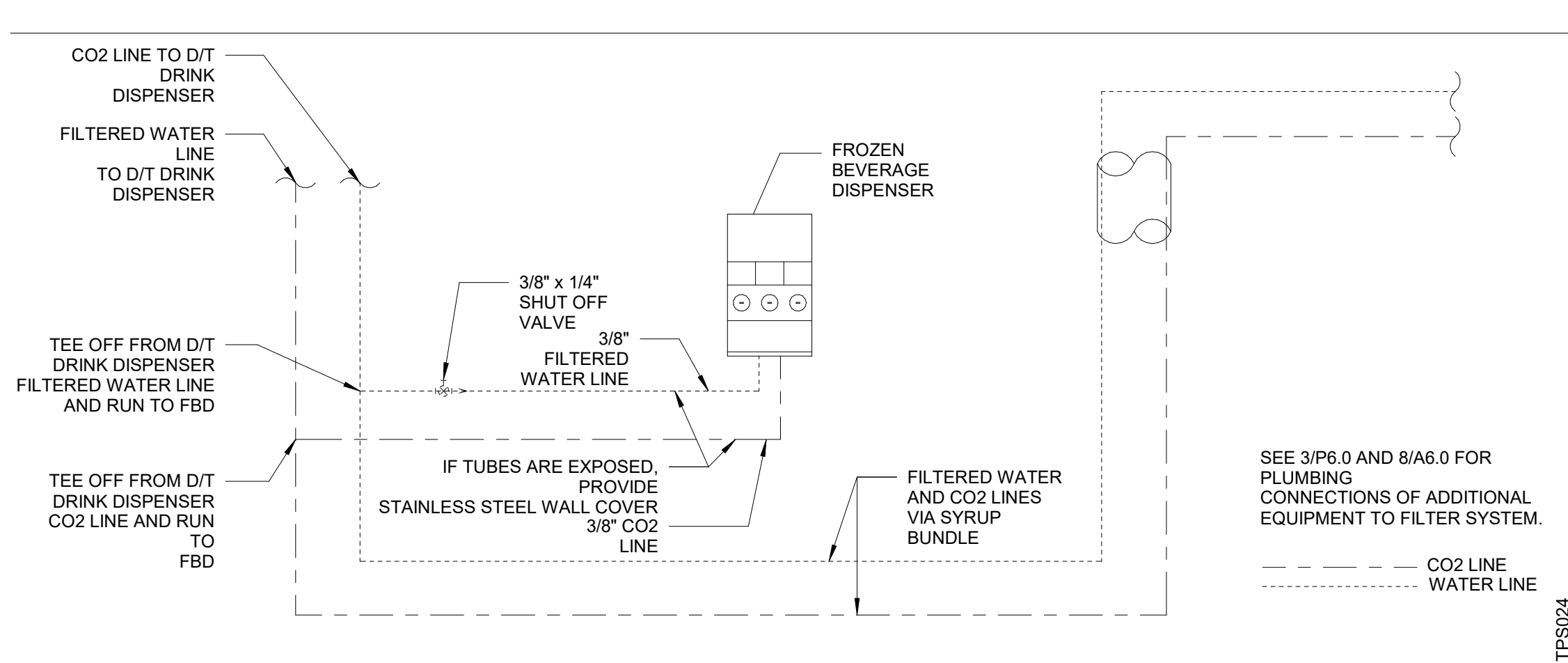
- GENERAL NOTES:**
- OVERALL FILTER DIMENSIONS: 21" WIDE x 12" DEEP x 48 1/2" HIGH
  - SEE DETAIL SCOPE OF WORK FOR SCOPE DEFINITIONS.
  - ROUGH-INS SHALL BE PROVIDED BY THE CONTRACTOR.
  - INSTALLATION MUST COMPLY WITH ANY STATE OR LOCAL PLUMBING CODES.
  - THE FILTER MUST BE PROTECTED AGAINST FREEZING.
  - USE ONLY TEFLON (HIGH-LOW TEMPERATURE) TAPE TO SEAL THREADED PARTS; NO PIPE DOPE.
  - DO NOT INSTALL WHERE LINE PRESSURE EXCEEDS 125 PSI OR WHERE TEMPERATURE EXCEEDS 100 F.
  - SEE THE EQUIPMENT PLAN FOR LOCATION. SEE DETAIL 12 THIS SHEET FOR BUNDLE DETAILS
  - BACKFLOW PREVENTERS FOR FILTER ASSEMBLY ARE APPROVED.
  - \*\*"Y" FOR ICE MACHINES SUPPLY LINES SHALL BE INSTALLED @ FILTER OUTLET.
  - SEE DETAIL 12 THIS SHEET FOR BUNDLE DETAILS
  - BACKFLOW PREVENTERS FOR FILTER ASSEMBLY ARE APPROVED.

THERE ARE TWO SELF-SERVE DRINK/ICE SYSTEMS WHICH SHARE A COMMON FLOOR SINK WITH THE D/T DRINK/ICE SYSTEM.

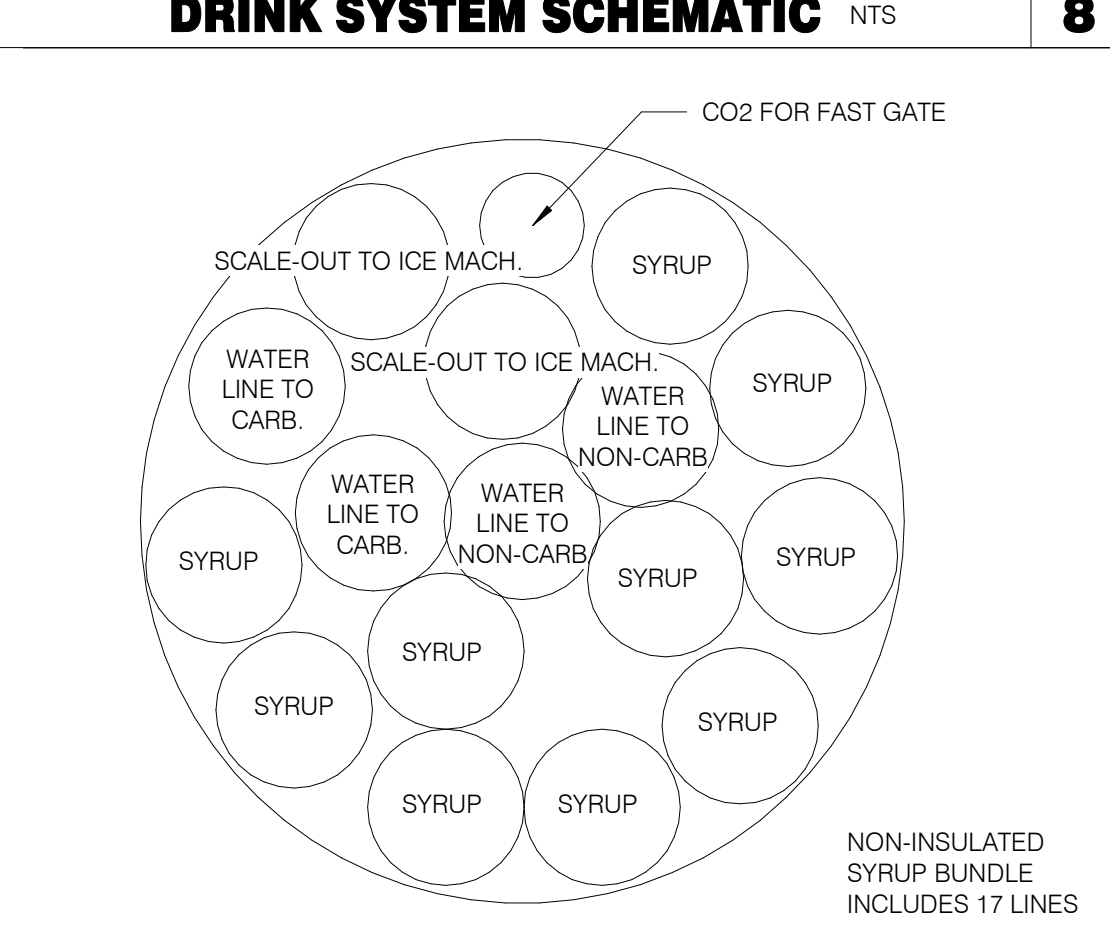
NOTE: INSTALL ELECTRICAL, WATER, AND DRAIN IN ACCORDANCE WITH ALL LOCAL, STATE & FEDERAL CODES

EQUIPMENT RATING:  
 ED250 DISPENSER - 115V, 3.5 AMPS  
 ED300 DISPENSER - 115V, 4.0 AMPS  
 CARBONATOR - 115V, 60 Hz, 7.0 AMPS  
 BOOSTER ASSEMBLY - 115V, 60 Hz, 6.5 AMPS

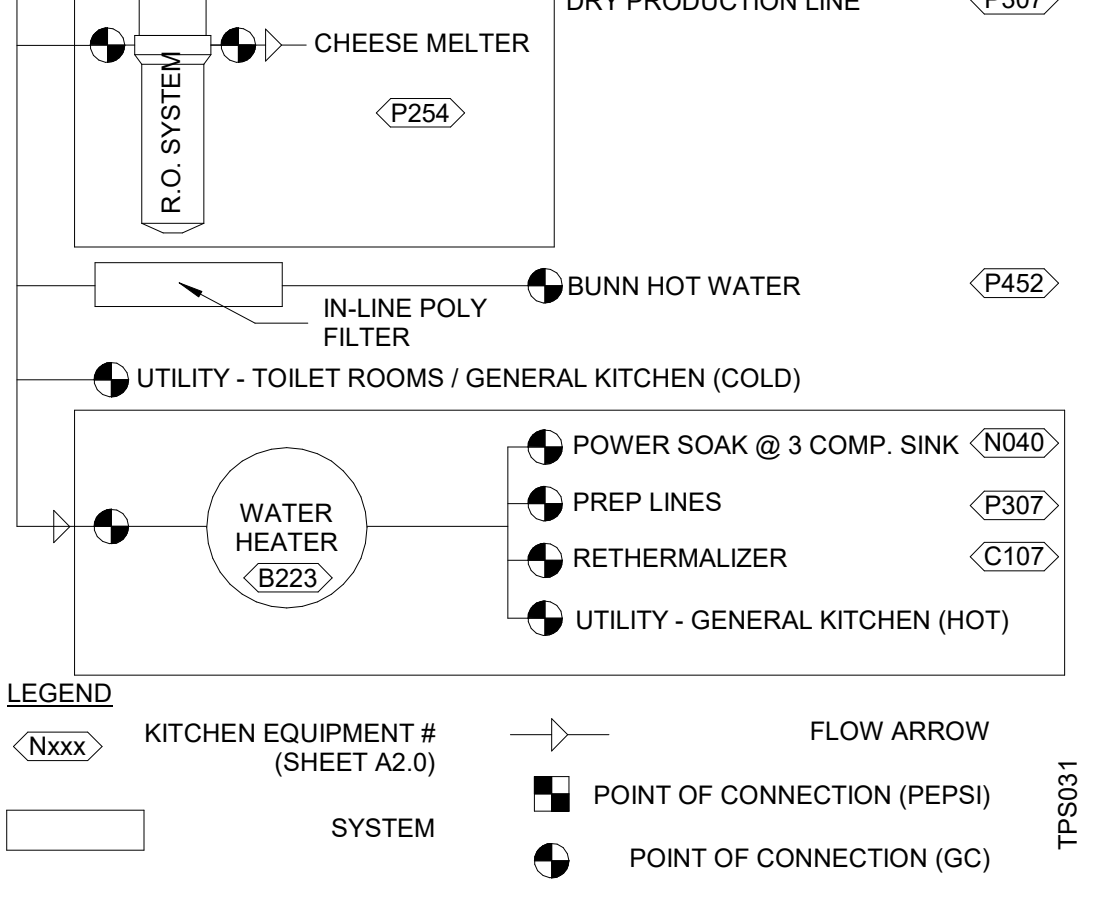
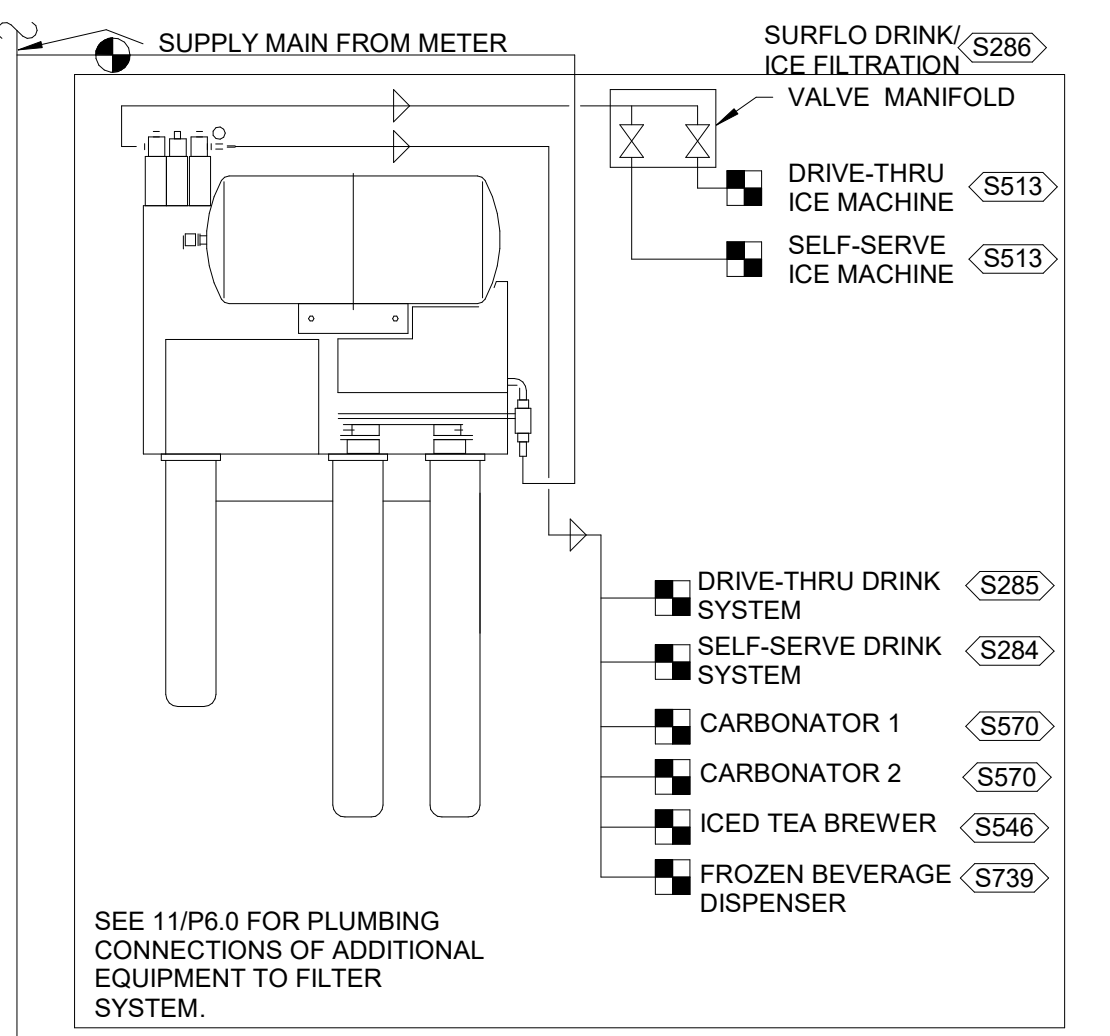
- KEY NOTES:**
- 3/8" Co2 LINE
  - 3/8" FILTERED WATER LINE - ICE MACHINES
  - 3/8" SYRUP LINES
  - 1/2 X 3/8 X 3/8 "Y"
  - BUNDLED TUBING CEILING PENETRATION. SEE DETAIL 1/A6.6
  - STAINLESS CHASE SURFACE MOUNTED FROM CEILING TO TOP OF ICE MACHINE
  - PRE-SET Co2 REGULATOR
  - RECESSED 4" DIA. PVC VERTICAL CHASE FOR DRINK SYSTEM BUNDLED TUBING SYSTEM.
  - 3/8" SHUT OFF VALVES BARB FITTINGS
  - DRINK SYSTEM BUNDLED TUBING. SEE DETAIL 6/P6.0
  - 3/8" FILTERED WATERLINE - ICE TEA, FRUITISTA & DRINK MACHINES
  - 3/8" LINE FOR PRESSURIZE FILTERED WATER
  - ELECTRICAL FOR DRINK SYSTEM. SEE SHEET E3.0



**FBD DRINK SYSTEM DETAIL** NTS **7**



**SYRUP BUNDLE CONFIGURATION** NTS **6**

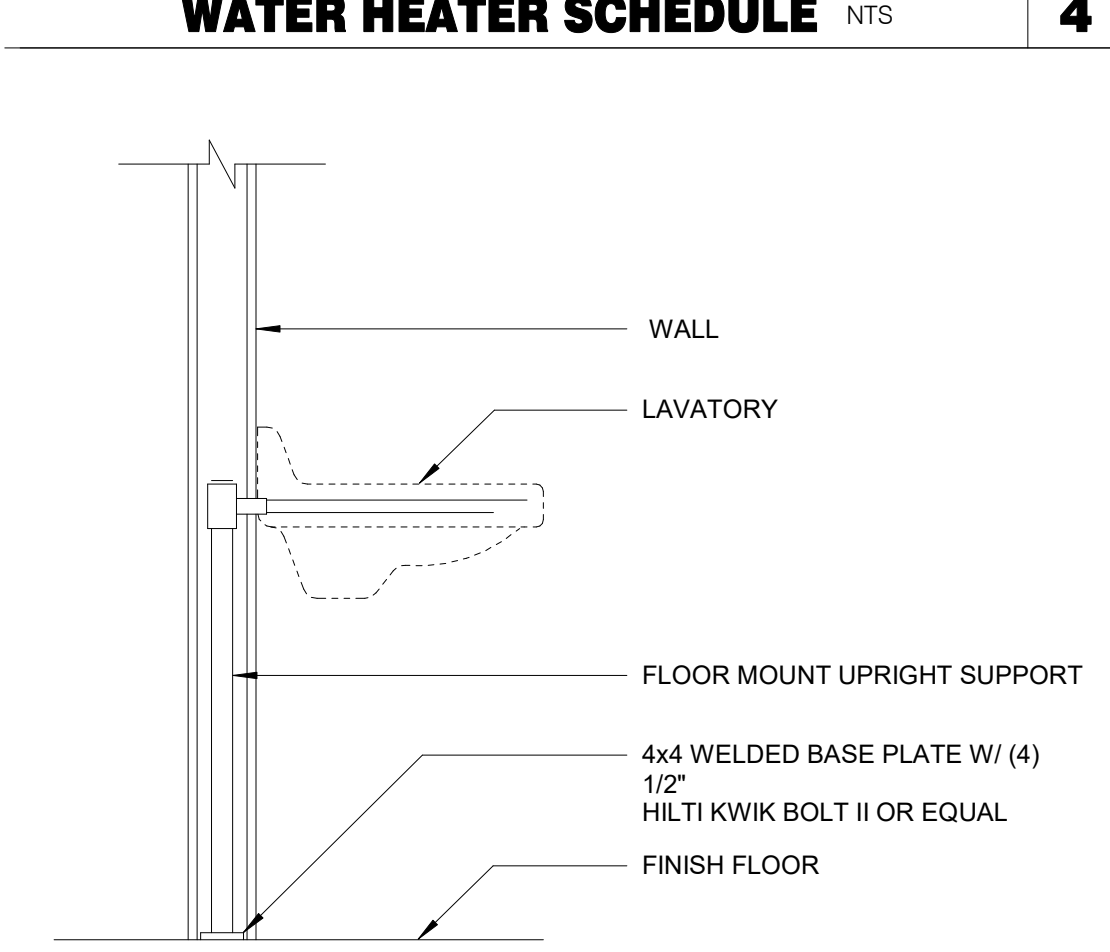


**WATER HEATER SCHEDULE** NTS **4**

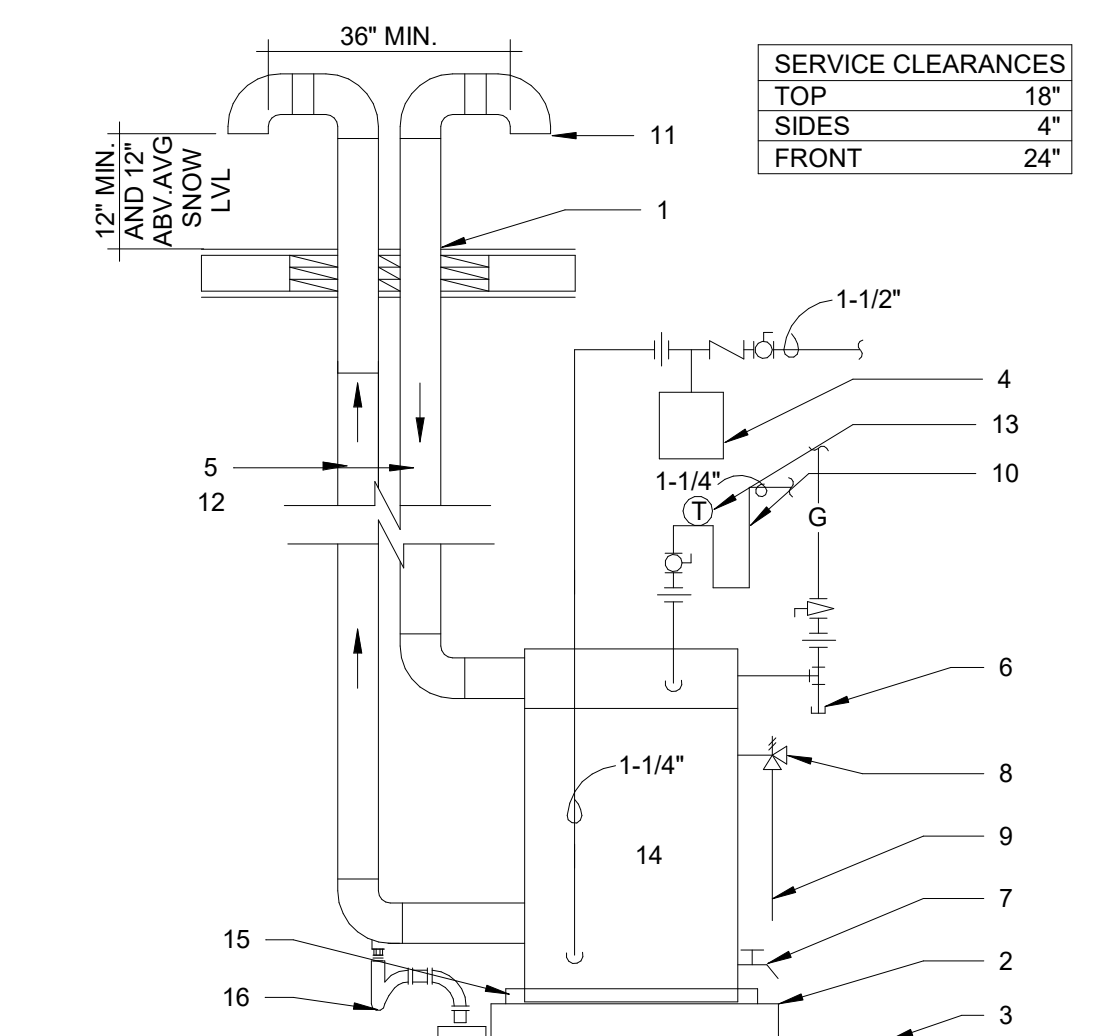
QTY	MODEL #	DESCRIPTION
1	EF100T199E3N	BWC HIGH EFFICIENCY COMMERCIAL WATER HEATER
1	MFK7	MANIFOLD KIT *
1	DET12	EXPANSION TANK
1	HAL	ALARM LIGHT W/ INSTALLATION INSTRUCTIONS
1	PK100	STAND

\* THE FOLLOWING IS INCLUDED IN THE MANIFOLD KIT:

QTY	DESCRIPTION
1	3/4" BLK GAS COCK
1	3/4" BLK UNION
1	3/4" BLK TEE
1	3/4" BLK CAP
3	3/4" x 2 1/2" BLK NIPPLE
1	3/4" x 4 BLK NIPPLE
1	3/4" THD BALL VALVE
2	1 1/2" FX UNION
6	1 1/2" CXC 90
1	1 1/2" CXC TEE
2	1 1/2" BALL VALVES CXC
1	1 1/2" CHECK VALVES CXC
1	1 1/2" GALV ST 90
1	1 1/2" CX ST 90
1	HPT-507 1/2" P-TRAP
1	1/2" P4 SMA
1	1 1/2" x 1 1/2" x 1/2" TEE COPPER
1	DIAL THERMOMETER
1	1/2" COPPER FEMALE FITTING ADAPTER
1	3" PVC 90°
1	1/2" PVC STREET 90°
1	1/2" PVC 90° ELBOW

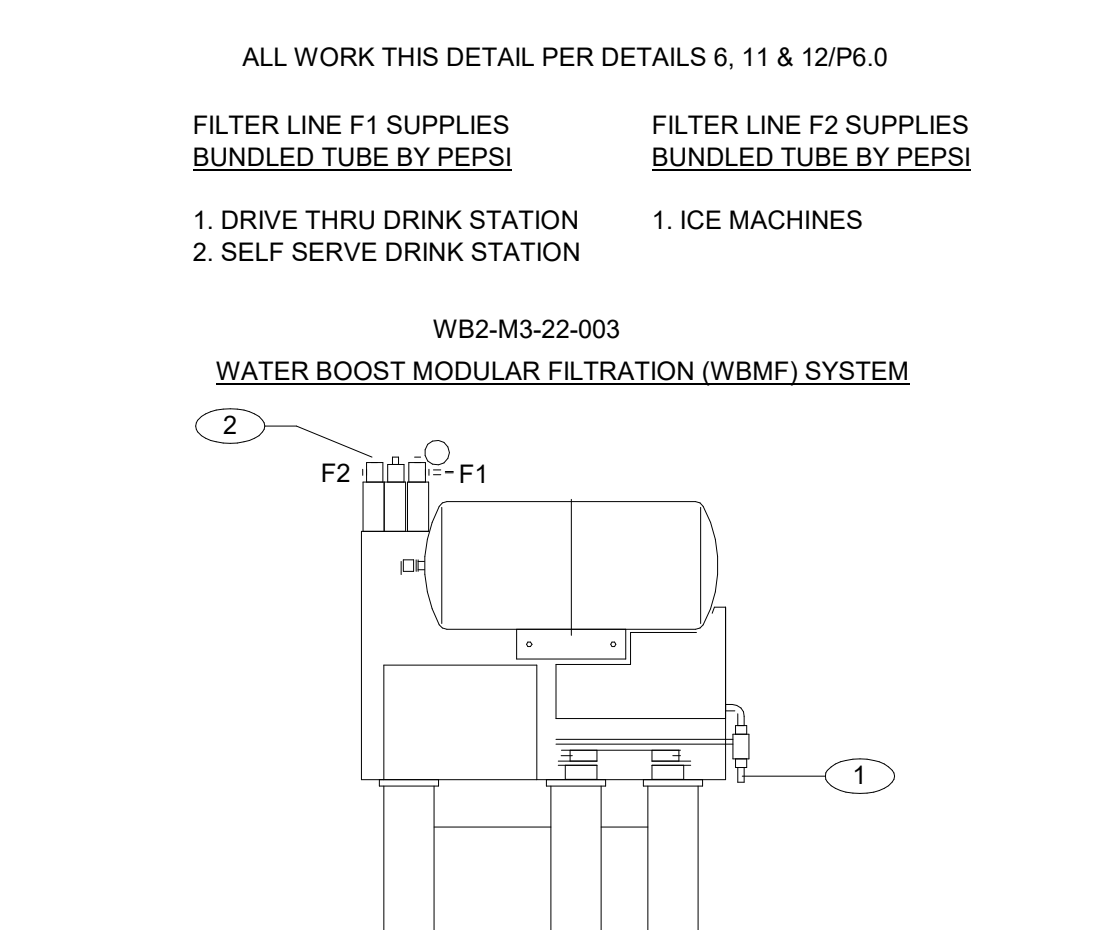


**LAVATORY SUPPORT** NTS **5**



- KEY NOTES:**
- 3/4" COLD WATER INLET TO 1/2" COPPER LINE AND FITTINGS AT FILTER.
  - 3/4" OUTLET W/ INTEGRAL BACKFLOW PREVENTER, EQUAL TO WATTS REGULATOR CO. SERIES 007 AND SERVICE BALL VALVE.
- GENERAL NOTES:**
- OVERALL DIMENSIONS 21" WIDE x 12" DEEP x 48 1/2" HIGH
  - SEE SCOPE OF WORK FOR ADDITIONAL INFORMATION.
  - INSTALLATION MUST COMPLY WITH STATE OR LOCAL PLUMBING CODES.
  - THE UNIT MUST BE PROTECTED AGAINST FREEZING.
  - USE ONLY TEFLON (HIGH-LOW TEMPERATURE) TAPE TO SEAL THREADED PARTS; NO PIPE DOPE.
  - DO NOT INSTALL WHERE LINE PRESSURE EXCEEDS 125 PSI OR WHERE TEMPERATURE EXCEEDS 100 F.
  - SEE SHT. A2.0 FOR LOCATION.

**WATER FILTER SYSTEM** NTS **1**



**WATER HEATER** NTS **2**

DATE	ISSUED FOR
09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**Taco Bell**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40M-O  
 OPEN KITCHEN  
 MODERN EXPLORER

**PLUMBING DETAILS**

**P6.0**

PLOT DATE: 9/17/2018 2:54:41 PM



09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

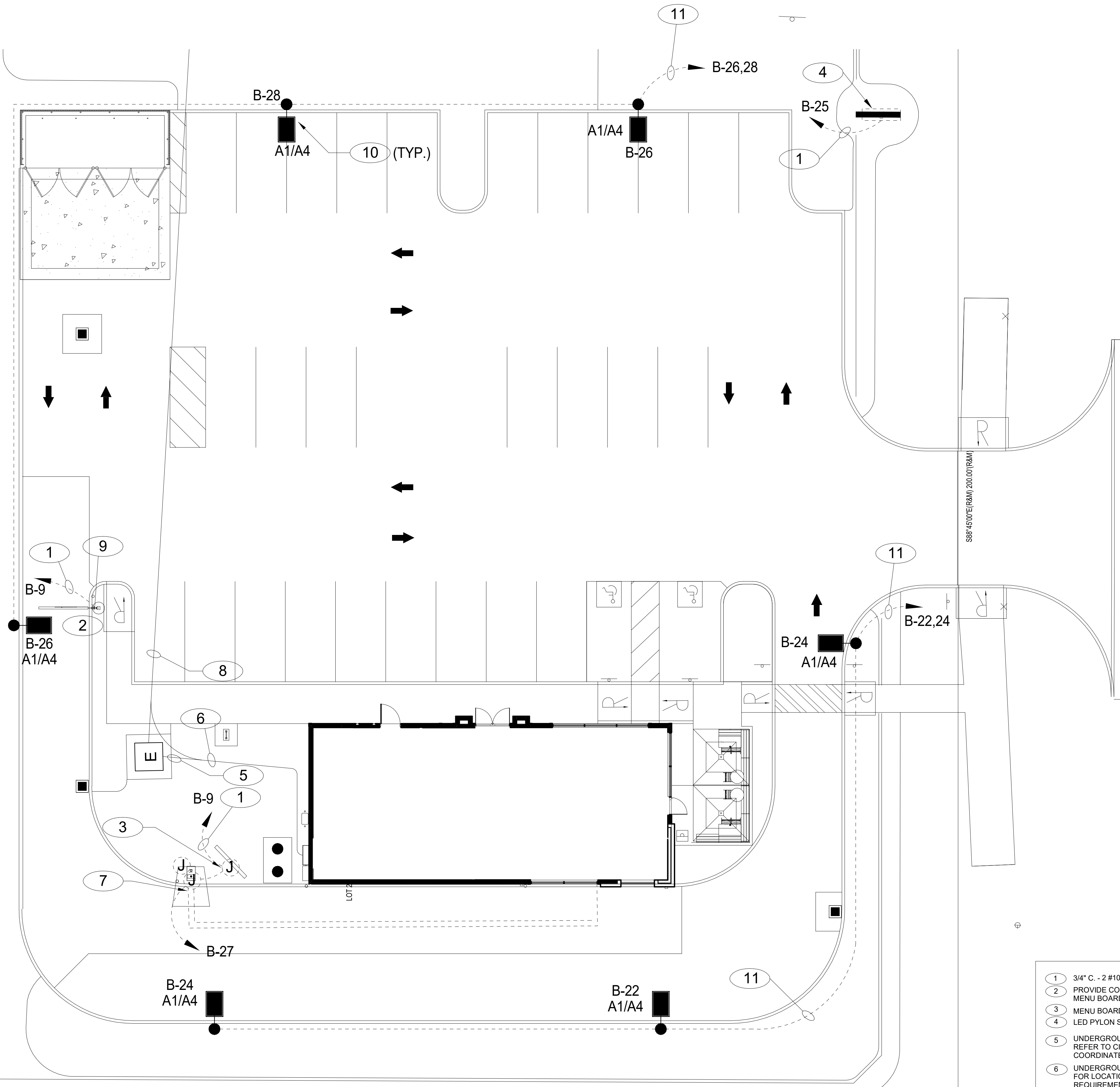
CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

Taco Bell  
37500 FORD ROAD  
WESTLAND, MI 48185



**SITE ELECTRICAL PLAN**

**E1.0**



- 1 3/4" C. - 2 #10, #10 GRD. (TYP. FOR ENTIRE CIRCUIT.)
- 2 PROVIDE CONNECTION TO ORDER CANOPY ON SAME CIRCUIT AS MENU BOARD AND CLEARANCE BAR. REFER TO DETAIL 3/E7.0.
- 3 MENU BOARD. REFER TO DETAIL 3/E7.0.
- 4 LED PYLON SIGN.
- 5 UNDERGROUND ELECTRIC SERVICE TO UTILITY CO. TRANSFORMER. REFER TO CIVIL SHEETS FOR LOCATION AND ROUTING. VERIFY AND COORDINATE ALL REQUIREMENTS WITH UTILITY CO.
- 6 UNDERGROUND TELEPHONE SERVICE. REFER TO CIVIL SHEETS FOR LOCATION AND ROUTING. VERIFY AND COORDINATE ALL REQUIREMENTS WITH UTILITY CO.
- 7 ORDER CONFIRMATION BOARD/ SPEAKER POST.
- 8 UNDERGROUND SECONDARY ELECTRICAL SERVICE. REFER TO SINGLE LINE DIAGRAM FOR CONDUIT AND CONDUCTOR SIZES.
- 9 ILLUMINATED CLEARANCE BAR.
- 10 SITE LIGHTING, REFER TO E4.0 FOR SCHEDULE.
- 11 3/4" C. - 2 #8, #8 GND.

**NATIONAL ACCOUNTS: SWITCHGEAR**  
SUPPLY and INSTALL STANDARD PACKAGE

CORPORATE AND FRANCHISE DEVELOPMENT

YUM NATIONAL ACCOUNT AGREEMENT IS WITH SQUARE-D FOR ELECTRICAL SWITCHGEAR EQUIPMENT FOR COMPANY AND FRANCHISE DEVELOPMENT. CUTLER-HAMMER ELECTRICAL SWITCHGEAR EQUIPMENT IS AN APPROVED ALTERNATE MANUFACTURER FOR FRANCHISE DEVELOPMENT ONLY.

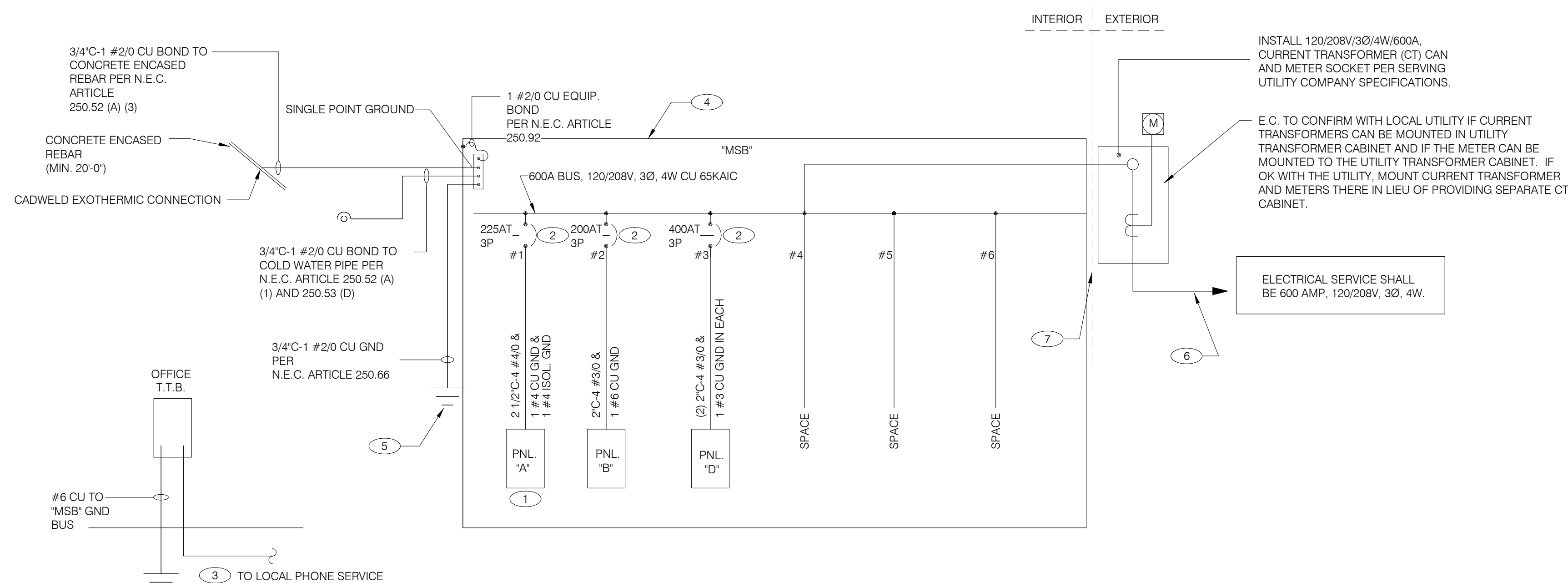
UNDER THIS AGREEMENT, THE CONTRACTOR IS RESPONSIBLE FOR PURCHASE AND INSTALLATION OF THE SYSTEMS DESCRIBED IN THE PLANS. ALL COMPANY AND FRANCHISE PROJECTS SHALL CONTACT ACCUSERVE FOR A PRICE QUOTE AND A BILL OF MATERIAL CONFIRMATION FOR THEIR SPECIFIC PROJECT. SEE THE SWITCHGEAR SECTION IN THE SCOPE OF WORK FOR ADDITIONAL INFORMATION.

PRIMARY CONTACT: BUDDY BOCKWEG  
PHONE: (877) 707-7378  
FAX: (502) 961-0357  
EMAIL: HYPERLINK "mailto:buddy@accuserv.com" buddy@accuserv.com

THE SWITCHGEAR PACKAGE CONSISTS OF SERVICE ENTRANCE, SWITCHGEAR, MAIN PANELS, SUB PANELS, LIGHTING CONTACTORS AND ALL ASSOCIATED PRODUCTS TO COMPLEMENT THE SWITCHGEAR PACKAGE.

BE PREPARED AT TIME OF ORDER OR QUOTE REQUEST TO PROVIDE ALL PROJECT DETAILS REGARDING SPECIFICATIONS AND QUANTITIES AS SITE SPECIFIC DESIGN MAY NOT MATCH PROTOTYPICAL DESIGN.

NOTE: THE SITE-ADAPT CONSULTANT IS RESPONSIBLE FOR DETERMINING IF THE SITE-SPECIFIC SWITCHGEAR PACKAGE FALLS WITHIN A JURISDICTION THAT REQUIRES EUSERC-COMPLIANT METERING EQUIPMENT.



**SINGLE LINE DIAGRAM** NTS **A**

	2X4 FLUORESCENT FIXTURE	NL	NIGHTLIGHT		FUSIBLE DISCONNECT SWITCH WITH STARTER
	2X4 FLUORESCENT FIXTURE WITH BATTERY PACK	(S)	CEILING MOUNTED SPEAKER		FUSIBLE DISCONNECT SWITCH
	1X4 FLUORESCENT FIXTURE	(I)	WALL MOUNTED SPEAKER		NON-FUSIBLE DISCONNECT SWITCH
	1X4 FLUORESCENT FIXTURE WITH BATTERY PACK	(J)	JUNCTION BOX		PHOTOCELL
	DOWNLIGHT FIXTURE	(J)	WALL MOUNTED JUNCTION BOX		RAIN SENSOR
	SUSPENDED DOWNLIGHT FIXTURE	(T)	TELEPHONE OUTLET		FLUORESCENT WALL MOUNT FIXTURE
	PENDANT MOUNTED LIGHT FIXTURE	(D)	DEDICATED GROUNDED OUTLET		EMERGENCY LIGHT
	TRACK MOUNTED PENDANT LIGHT FIXTURE	(D)	DUPLEX GROUNDED OUTLET		SINGLE POLE, SINGLE THROW TOGGLE SWITCH
	DIRECTIONAL FIXTURE, TRACK MOUNTED	(D)	DOUBLE DUPLEX GROUNDED OUTLET		SINGLE POLE, SINGLE THROW TOGGLE SWITCH W/ PILOT LIGHT
	DIRECTIONAL FIXTURE, TRACK MOUNTED TO UNDERSIDE OF INTERIOR CANOPY	(D)	GROUND FAULT DUPLEX OUTLET		WALL MOUNTED OCCUPANCY SENSOR
	COOLER FIXTURE	(D)	GROUND FAULT DUPLEX W/ BOTT. HALF SWITCHED		RELAY
	EXIT SIGN (WALL MOUNTED)	(D)	GROUND FAULT DEDICATED OUTLET		CONDUIT RUN, UNDERGROUND
	EXIT SIGN (CEILING MOUNTED)	(D)	CEILING DUPLEX OUTLET		SMOKE DETECTOR
	SECURITY STROBE	(D)	DOUBLE DUPLEX GROUNDED OUTLET		EXTERIOR WALL FIXTURE
		(D)	DUPLEX ISOLATED GROUND OUTLET		EXTERIOR DECORATIVE WALL FIXTURE
		(D)	GROUND FAULT DEDICATED OUTLET		EXTERIOR DECORATIVE WALL FIXTURE
		(D)	CEILING DUPLEX OUTLET		WEATHERPROOF GROUND FAULT
		(D)	DUPLEX ISOLATED GROUND OUTLET		
		(D)	DEDICATED ISOLATED GROUND		
		(D)	SPECIAL PURPOSE OUTLET		
		(D)	CEILING SPECIAL PURPOSE OUTLET		
		(D)	ELECTRICAL PANEL. SEE SHEET E2.1 FOR PANEL SCHED.		
		(D)	HOLD UP EMERGENCY BUTTON		
		(D)	ELECTRICAL MOTOR		
		(D)	DUCT MOUNTED SMOKE DETECTOR		
		(D)	CONNECTION TO EQUIPMENT		

**ELECTRICAL LEGEND** NTS **D**

- THERE SHALL BE U.L. LISTED SERIES RATING BETWEEN CKT. BREAKERS LOCATED AT THE DISTRIBUTION PANEL AND THE DOWNSTREAM 10k A.I.C. RATED CIRCUIT BREAKERS AT PANELS 'A', 'B' DUAL LINE EQUIPMENT CABINET BASED ON THE MAXIMUM FAULT CURRENT AS DETERMINED AT THE SERVICE ENTRANCE AND DOWNSTREAM 22K A.I.C. RATED CIRCUIT BREAKERS AT PANEL 'D'.
- THE NFPA-70 'SIX SWITCH' MAXIMUM RULE SHALL APPLY AT THE POINT AT WHICH THE SERVICE ENTERS THE BUILDING AS DEFINED BY NFPA-70 (CURRENT EDITION IN FORCE AT THIS SITE). NOTIFY ENGINEER WHERE LOCAL CONDITIONS REQUIRE ALTERNATE LOCATIONS OR SINGLE POINT DISCONNECT.
- SEE SCOPE OF WORK FOR DETAILS REGARDING OWNER SUPPLIED AND/OR INSTALLED PRODUCTS. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL OTHER ASPECTS OF THE PROJECT.
- IF UTILITY COMPANY PROPOSES A SERVICE DIFFERENT FROM THAT ILLUSTRATED, CONTACT THE CONSTRUCTION ENGINEER FOR A DECISION BEFORE PROCEEDING. COORDINATE AVAILABLE SHORT CIRCUIT CURRENT W/ LOCAL UTILITY AND PROVIDE CIRCUIT BREAKERS W/ SUFFICIENT INTERRUPTING CAPACITY.
- COORDINATE CT METERING COMPARTMENT SIZE WITH LOCAL UTILITY COMPANY, THE LOCAL ELECTRICAL INSPECTOR AND THE NATIONAL ELECTRICAL CODE TO MEET ALL REQUIREMENTS BEFORE PURCHASE AND INSTALLATION. NEW METER BY LOCAL UTILITY COMPANY.
- ALL WIRING SHOWN SHALL BE COPPER TYPE "THHN/THWN" EXCEPT FEEDERS FROM UTILITY TRANSFORMER TO SWITCH BOARD MAY BE ALUMINUM. CONTRACTOR SHALL RESIZE CONDUCTORS/CONDUITS PER NEC.
- ARMOR CABLE ACCEPTABLE FOR THE LAST 6'-0" FROM A JUNCTION BOX TO LIGHT FIXTURES. ARMOR CABLE IS NOT ALLOWED FOR NON-ACCESSIBLE FLOORS, WALLS AND CEILINGS. CABLES SHLL CONTAIN GREEN CU CODE SIZED GROUND CONDUCTOR. CABLE MUST BE ALLOWED BY LOCAL JURISDICTION.

**ONE LINE DIAGRAM GENERAL NOTES** NTS **C**

- WIRE ISOLATED GROUND TO ISOLATION GROUND BUS IN PANEL AND LAND ISOLATED GROUND TO SINGLE POINT GROUND. "DO NOT COMBINE COMMON GND TO ISOLATED GROUND". REF DETAIL 6/E3.1.
- 6 BUILDING MAIN DISCONNECTS FOR THIS SERVICE: (MAXIMUM 6 MAINS PER N.E.C.) LABEL EACH MAIN BREAKER AS INDICATED:  
 "MAIN 1 OF 6" (ENGRAVED LETTERS x 3/4" HIGH, TYP.)  
 "MAIN 2 OF 6"  
 "MAIN 3 OF 6"  
 "MAIN 4 OF 6"  
 "MAIN 5 OF 6"  
 "MAIN 6 OF 6"
- PROVIDE 2" CONDUIT STUBBED INTO BULDING FROM LATERAL POLE FOR TELEPHONE.
- VERIFY AVAILABLE FAULT CURRENT AT SREVICE ENTRANCE WITH THE UTILITY COMPANY. IF THE AIC RATING AS INDICATED IS NOT SUFFICIENT, CONTACT PROJECT MANAGER AND ENGINEER PRIOR TO BID/PRICING TO UPDATE EQUIPMENT RATING.
- (3) 5/8" DIA. x 10'-0" COPPER CLAD GROUND RODS. INSTALL 10'-0" APART AND CONNECT GROUND SYSTEM PER N.E.C. ARTICLE 250
- PROVIDE UNDERGROUND SERVICE LATERAL TO UTILITY TRANSFORMER PER SERVING UTILITY COMPANY SPECIFICATIONS. 4#350 KCMIL IN EACH OF (2) 3". TO PAD MOUNT TRANSFORMER. GC/ELECT. CONTRACTOR SHALL COORDINATE SERVICE POLES PER LOCAL UTILITY CODE. IF ALUMINUM CONDUCTORS ARE USED PROVIDE 4#500 KCMIL IN EACH (2) 3-1/3".
- PROVIDE ONE MAIN SERVICE ENTRANCE 600 AMP SERVICE DISCONNECT OR MAIN BREAKER IF REQUIRED BY LOCAL JURISDICTION. VERIFY BEFORE BID AND BEFORE ORDERING EQUIPMENT OR START OF CONSTRUCTION.

**ONE LINE DIAGRAM KEY NOTES** NTS **B**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**Taco Bell**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40M-O  
 OPEN KITCHEN  
 MODERN EXPLORER

**ELECTRICAL ONE LINE DIAGRAMS AND LEGEND**

**E2.0**

PLOT DATE: 9/17/2018 2:56:10 PM

### Switchboard: MSB

Location:  
Supply From:  
Mounting: SURFACE  
Enclosure: NEMA-1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: 65 KAIC  
Mains Type: M.L.O.  
Mains Rating: 600 A  
MCB Rating: 600 A

Notes:

CKT	Circuit Description	WIRE SIZE	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	PANELBOARD A		3	225 A	225 A	51486 VA	--
2	PANELBOARD B		3	225 A	200 A	21682 VA	--
3	PANELBOARD D		3	400 A	400 A	70716 VA	--
4							
5							
6							

**Total Conn. Load:** 143883 VA  
**Total Amps:** 399 A

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	13885 VA	100.00%	13885 VA	
Kitchen	10316 VA	65.00%	6705 VA	<b>Total Conn. Load:</b> 143883 VA
Lighting	15558 VA	125.00%	19448 VA	<b>Total Est. Demand:</b> 144162 VA
Other	19037 VA	100.00%	19037 VA	<b>Total Conn. Current:</b> 399 A
Power	58009 VA	100.00%	58009 VA	<b>Total Est. Demand Current:</b> 400 A
Receptacle	7684 VA	100.00%	7684 VA	
Refrigeration	18894 VA	100.00%	18894 VA	
Spare	500 VA		500 VA	

### Branch Panel: A

Location:  
Supply From: MSB  
Mounting: Recessed  
Enclosure: Type 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: SERIES  
Mains Type: M.L.O.  
Mains Rating: 225 A  
MCB Rating:

Notes:

CKT	Circuit Description	Wire Size	Trip	Poles	A	B	C	Poles	Trip	Wire Size	Circuit Description	CKT
1	P-417 TIMER		20 A	1	180 VA	300 VA		1	20 A		F-040 OFFICE COMPUTER	2
3	S-546 ICED TEA		20 A	1		240 VA	720 VA	1	20 A		DRIVE THRU POS/ORDER ENTRY 1	4
5	OFFICE QUAD RECEPTACLE		20 A	1			680 VA	480 VA	1	20 A	S-547 BREWER	6
7	J-BOX SECURITY SYSTEM / DVR		20 A	1	1180 VA	1200 VA			1	20 A	DINING POS ENTRY 1	8
9	OFFICE RECEPT AND J-BOX		20 A	1		680 VA	180 VA	1	20 A		RECEPTACLES - OFFICE	10
11	U-052 SECURITY SYSTEM		20 A	1			860 VA	864 VA	1	20 A	S-204 D/T TIMING SYSTEM	12
13	DRIVE THRU POS/ORDER ENTRY 2		20 A	1	1220 VA	1140 VA			1	20 A	R-009 FULL HEIGHT FREEZER	14
15	BEVERAGE DISPENSER D/T		15 A	1		360 VA	2013 VA					16
17	P-452 HOT WATER SYSTEM		30 A	2			2013 VA	2013 VA	2	30 A	P-452 HOT WATER SYSTEM	18
19					2013 VA	1080 VA			1	20 A	INTERIOR DIGITAL MENUBOARD	20
21	C-107 RETHERMALIZER		20 A	1		180 VA	500 VA		1	20 A	E-107 FIRE SUPPRESSION	22
23	E-272 HOOD FIRE SUP.		20 A	1			500 VA	180 VA	1	20 A	C-026 FRYER	24
25	C-400 COOK TIMER		20 A	1	180 VA	0 VA			--	--	SHUNT TRIP BREAKER FOR DUAL FRYER	26
27	EVO CABINET 1 (VLINE 1)		15 A	2		1248 VA	500 VA		1	20 A	OCB SWITCH	28
29							1248 VA	1248 VA	2	15 A	EVO CABINET 2 (VLINE 1)	30
31	S-027 HEATED CABINET		20 A	1	180 VA	1248 VA						32
33	S-027 HEATED CABINET		20 A	1		180 VA						34
35	REFRIGERATOR (VLINE 1)		15 A	1			960 VA					36
37	HOT WELL W/ GRILL		30 A	2	2309 VA	1664 VA						38
39									2	20 A	C-250 (VLINE 1) CHEESE MELTER	40
41							1664 VA	2196 VA	1	30 A	C-203 (VLINE 2) CLAM	42
43	C-250 (VLINE 2) CHEESE MELTER		20 A	2	1664 VA	2196 VA			1	30 A		44
45	DIGITAL SCALE (VLINE 1)		15 A	1		240 VA	240 VA		1	15 A	DIGITAL SCALE (VLINE 1)	46
47	DRIVE THRU MONITORS		20 A	1			360 VA	960 VA	1	15 A	REFRIGERATOR (VLINE 2)	48
49	EVO CABINET 1 (VLINE 2)		15 A	2	1248 VA	1248 VA			2	15 A	EVO CABINET 1 (VLINE 2)	50
51						1248 VA	1248 VA					52
53	DINING POS ENTRY 2 & CARD...		20 A	1			900 VA	360 VA	1	20 A	SAFE W/TOUCHSCREEN...	54

**Total Load:** 20250 VA  
**Total Amps:** 174 A

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Kitchen	1500 VA	100.00%	1500 VA	
Power	45462 VA	100.00%	45462 VA	<b>Total Connected Load:</b> 51486 VA
Receptacle	4524 VA	100.00%	4524 VA	<b>Total Estimated Demand:</b> 51486 VA
				<b>Total Connected Current:</b> 143 A
				<b>Total Estimated Demand Current:</b> 143 A
				<b>System Voltage:</b> 120/208 Wye

Notes:

### Branch Panel: B

Location:  
Supply From: MSB  
Mounting: Recessed  
Enclosure: Type 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating: SERIES  
Mains Type: M.L.O.  
Mains Rating: 225 A  
MCB Rating:

Notes:

CKT	Circuit Description	Wire Size	Trip	Poles	A	B	C	Poles	Trip	Wire Size	Circuit Description	CKT
1	DINING LTS		20 A	1	758 VA	0 VA		1	20 A		SPARE	2
3	EXTERIOR SCONCE/PATIO LTS		20 A	1		240 VA	0 VA		1	20 A	SPARE	4
5	KITCHEN/BOH/ RESTROOM LTS		20 A	1			700 VA	2000 VA	1	20 A	EXTERIOR SIGNAGE	6
7	SPARE		20 A	1	0 VA	154 VA			1	20 A	EMERGENCY LTS INT/EXT. EXIT SIGNS	8
9	LTG-SITE-MENU CLEARANCE & CANOPY		20 A	1		1000 VA	500 VA		1	20 A	TBCCB	10
11	EXTERIOR CANOPY LTS - ENTRANCE		20 A	1			2000 VA	900 VA	1	20 A	LTG - SHOW WINDOW	12
13	LTG - SHOW WINDOW		20 A	1	600 VA	500 VA			1	20 A	INTERIOR COVE LIGHTS	14
15	EXTERIOR CANOPY LTS		20 A	1		1500 VA	1000 VA		1	20 A	DIGITAL MENU SECURITY LTS	16
17	LTG - COOLER & FREEZER		20 A	1			800 VA	2000 VA	1	20 A	CANOPY LTS - DRIVE THRU	18
19	SPARE		20 A	1	0 VA	0 VA			1	20 A	SPARE	20
21	CANOPY LTS - ENTRANCE		20 A	1		1500 VA	968 VA		1	20 A	SITE LIGHTING	22
23	SPARE		20 A	1			0 VA	484 VA	1	20 A	SITE LIGHTING	24
25	LTG-SITE-PYLON SIGN		20 A	1	1200 VA	484 VA			1	20 A	SITE LIGHTING	26
27	LTG-SITE-S240 OCB & SPEAKER POST		20 A	1		130 VA	484 VA		1	20 A	SITE LIGHTING	28
29	EF-1		20 A	1			1120 VA	660 VA	1	20 A	EF-2	30
31	SPARE		20 A	1	0 VA	0 VA			1	20 A	SPARE	32
33	SPARE		20 A	1		0 VA	0 VA		1	20 A	SPARE	34
35	SPARE		20 A	1			0 VA	0 VA	1	20 A	SPARE	36
37	SPARE		20 A	1	0 VA	0 VA			1	20 A	SPARE	38
39	SPARE		20 A	1		0 VA	0 VA		1	20 A	SPARE	40
41	SPARE		20 A	1			0 VA	0 VA	1	20 A	SPARE	42

**Total Load:** 3696 VA  
**Total Amps:** 31 A

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
HVAC	1780 VA	100.00%	1780 VA	
Lighting	15558 VA	125.00%	19448 VA	<b>Total Connected Load:</b> 21682 VA
Other	14 VA	100.00%	14 VA	<b>Total Estimated Demand:</b> 25572 VA
Power	2330 VA	100.00%	2330 VA	<b>Total Connected Current:</b> 60 A
Receptacle	1500 VA	100.00%	1500 VA	<b>Total Estimated Demand Current:</b> 71 A
Spare	500 VA	100.00%	500 VA	<b>System Voltage:</b> 120/208 Wye

Notes:

#### NOTE TO CONTRACTORS

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITION THAT DIFFERS FROM THAT SHOWN ON THESE PLANS SHALL BE REPORTED TO THE TENANTS ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATION TO THE SCOPE OF WORK WHICH RESULTS FROM THE CONTRACTORS NEGLIGENCE TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

#### GENERAL NOTE:

FOR PARKING LOT (SITE) LIGHTS AND OUTSIDE SIGNS: PROVIDE (5) 3/4" FROM PANEL "B" AND STUB OUT 10'-0" AWAY FROM THE BUILDING. VERIFY EXACT LOCATION OF STUB PRIOR TO ROUGH-IN. LOADS MAY VARY WITH LOCATION. VERIFY OUTDOOR VOLTAGE DROP FOR ALL PARKING LIGHTING (SITE) CIRCUITS.

#### KEY NOTES:

- ① PROVIDE LOCK-ON BREAKER.
- ② CIRCUITS TO BE WIRED THROUGH COMBINED CONTROL BOX CONTACTOR. SEE SHEETS 6.0 THROUGH 6.3.

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07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

### Taco Bell

37500 FORD ROAD  
WESTLAND, MI 48185



T40M-O  
OPEN KITCHEN  
MODERN EXPLORER

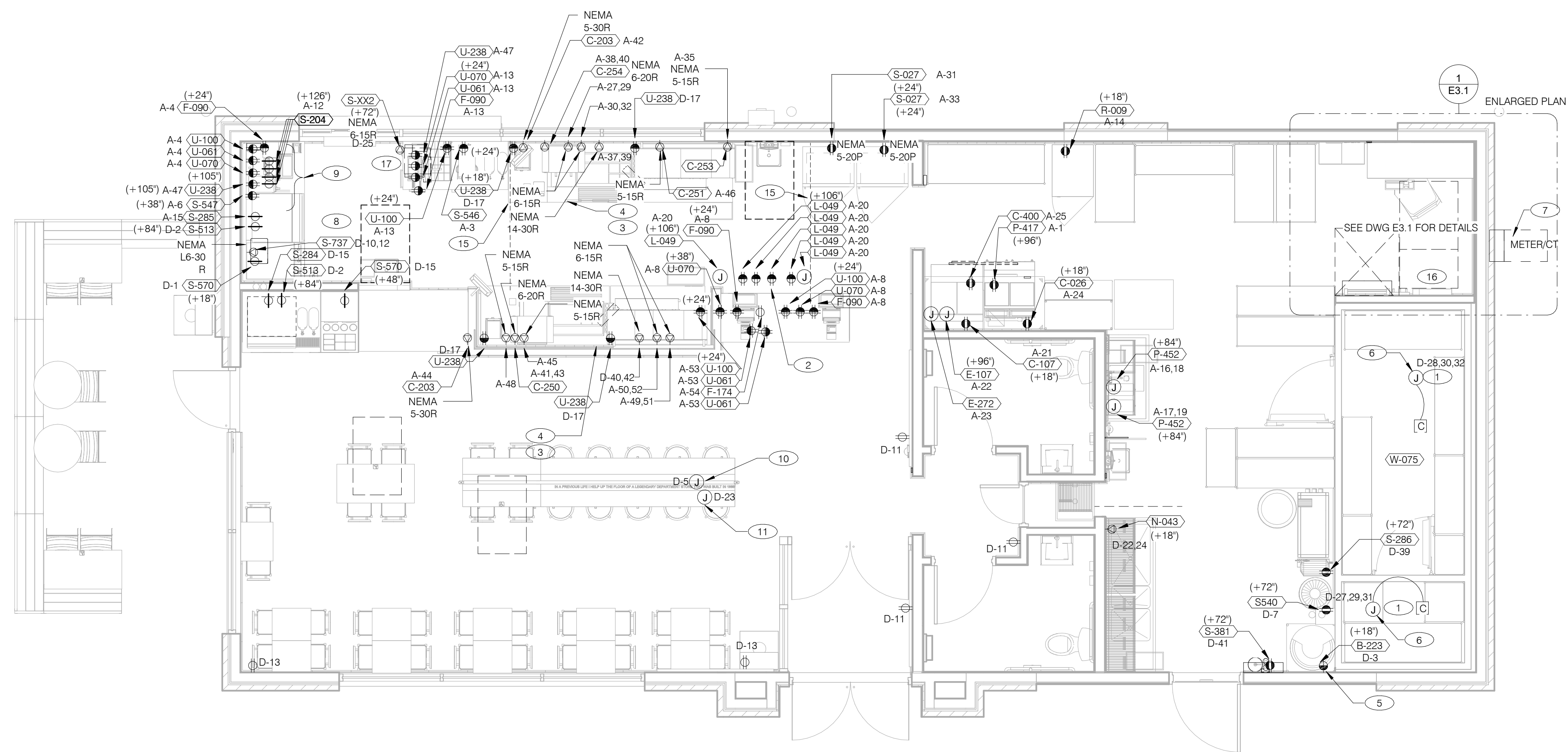
### ELECTRICAL SCHEDULES

# E2.1

PLOT DATE: 9/17/2018 2:56:10 PM







**NOTE**

- IN LIEU OF GFCI OUTLETS, CONTRACTOR MAY USE GFCI CIRCUIT BREAKERS TO CUT COSTS.
- REFER TO POWER AND COMMUNICATION DIMENSIONS PLAN

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**POWER PLAN** 1/4" = 1'-0" **A**

- |   |   |
|---|---|
| <p>A. ALL DIMENSIONS TO J-BOXES ARE FROM FACE OF STUD TO CENTER OF BOX, U.O.N.</p> <p>B. ALL CONDUIT DROPS ARE INSIDE WALLS U.O.N. SEE ARCH. DWGS FOR WALL DIMS.</p> <p>C. ALL J-BOX CIRCUITS, CONDUITS, FIXTURES, ETC. SHALL BE AS INDICATED ON THE ELECT. DWGS AND SPECS.</p> <p>D. CONTRACTOR SHALL VERIFY UNDERGROUND CONDUIT LOCATIONS PRIOR TO POURING SLAB.</p> <p>E. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THIS DATA ON THE LOCATION OF ELECT. ROUGH-INS WITH INFO PROVIDED ON THE ARCH. AND STRUCT. DWGS AND THE EQUIPMENT ACTUALLY SUPPLIED, AND TO CONFIRM THE CORRECTNESS OF ANY DIMENSIONS HEREIN.</p> <p>F. LOCATIONS OF ALL OUTLETS MAY BE RELOCATED TO NEAREST STUD. DO NOT CUT INTO STUDS.</p> <p>G. FOR EXACT LOCATIONS OF KITCHEN &amp; MECHANICAL EQUIPMENT AND POINTS OF CONNECTION, REFER TO KITCHEN &amp; MECHANICAL EQUIPMENT DRAWINGS AND MANUFACTURER'S SHOP DRAWINGS.</p> <p>H. ALL CIRCUIT FEEDERS AND DISCONNECTS SHALL BE SIZED BY NEC.</p> <p>I. CONTRACTOR SHALL VERIFY CIRCUIT BREAKER, DISCONNECT SWITCH, STARTER AND FUSE SIZES WITH SELECTED EQUIPMENT MANUFACTURER'S SHOP DRAWINGS PRIOR TO PLACING ORDER AND PROVIDE EVERYTHING AS REQUIRED.</p> | <p>J. ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE NEMA-1 FOR INTERIOR AND NEMA 3R FOR EXTERIOR. IN COASTAL REGIONS THE STANDARD FOR OUTSIDE SHALL BE NEMA-4X.</p> <p>K. PER SECTION 210.8(B)(3) NEC 2011, ALL 15 AND 20A, 120V RECEPTACLES IN COMMERCIAL KITCHENS ARE REQUIRED TO BE GFCI PROTECTED. THIS INCLUDES ISOLATED GROUND RECEPTACLES.</p> <p>L. DO NOT MEASURE/LOCATE OUTLETS ON DRAWINGS. USE DIMENSIONS PROVIDED.</p> <p>M. CONDUIT MAY RUN UNDER SLAB AT G.C.'S DISCRETION.</p> <p>N. E.C. SHALL PROVIDE A PREPRINTED SELF-ADHESIVE LABEL ON ALL POS RECEPTACLES STATING "POS USE ONLY".</p> <p>O. PROVIDE ESCUTCHEON PLATES AND SEALANT AT ALL UTILITY PENETRATIONS INTO WALLS, CEILING, AND FLOORS. DO NOT USE CAULKS OR EXPANSION FOAM FOR SEALANT.</p> <p>P. ARMOR CABLE (BX) ALLOWED WHERE ACCEPTABLE BY CODE. ALL WIRE SHALL BE CONCEALED O.N.U.</p> <p>Q. FOR ALL CIRCUITS NOT SHOWN ON EQUIPMENT SCHEDULE, CONTRACTOR SHALL PROVIDE CONDUCTOR AND CONDUIT SIZES AS SHOWN ON BRANCH CIRCUIT WIRING SCHEDULE SHOWN ON E2.2. IF SIZES DIFFER FROM N.E.C., THE MORE STRINGENT (LARGER) SIZE SHALL BE PROVIDED.</p> <p>R. OUTLETS WITHIN FOH TO BE AT 18" AFF FOR ADA ACCESS.</p> <p>S. CONDUITS NEAR DRIVE THRU WINDOW AREA TO BE ROUTED FROM ABOVE CEILING OR STUBBED UP FROM UNDER SLAB SO AS TO NOT INTERFERE WITH WINDOW FRAMING.</p> |
|---|---|

**GENERAL NOTES - ELECTRICAL POWER PLAN** NTS **C**

- |   |  |
|---|--|
| <p>1 REFER TO ROOF PLAN.</p> <p>2 INSTALL IN CONDUIT RUNNING ON SURFACE OF KITCHEN SIDE OF CABINERY REAR WALL.</p> <p>3 THE EC SHALL BE RESPONSIBLE FOR PROVIDING RECEPTACLES FOR THE EQUIPMENT IN THE V-LINE. EC SHALL COORDINATE REQUIREMENTS WITH EQUIPMENT MANUFACTURER. CONFIRM AND COORDINATE ALL MOUNTING HEIGHTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.</p> <p>4 EC SHALL COORDINATE WITH V-LINE MANUFACTURER FOR RECEPTACLE MOUNTING HEIGHT AND SPECIFICATIONS.</p> <p>5 LOCATED INSIDE SHELL OF HEATER.</p> <p>6 INSTALL CONTROL CABLE FROM FREEZER/COOLER FAN COIL TO ROOF MOUNTED CONDENSOR.</p> <p>7 LOCATE ELECTRICAL SERVICE EQUIPMENT PER GUIDELINES ON ARCHITECTURAL AND CIVIL DRAWINGS.</p> <p>8 PROVIDE BOOST TRANSFORMER (208V, 1-PHASE IN, 240V, 1-PHASE OUT) FOR FROZEN BEVERAGE DISPENSER IF APPLICABLE. COORDINATE WITH EQUIPMENT MANUFACTURER FOR EXACT REQUIREMENTS.</p> <p>9 ABOVE CEILING FOR WALL MOUNTED HME. SEE 5/E3.1.</p> <p>10 J-BOX FOR POWER AT HUB TABLE. CONDUIT SHALL BE ROUTED UNDERGROUND WITH 3/4" C. W/ 2 # 12 AND 1#12 GND. STUB CONDUIT UP IN FLOOR TO END OF HUB TABLE. PROVIDE AND INSTALL FLEX CABLE WIRING THROUGH STUB-UP CONDUIT INTO TUBING CHASE AT END OF TABLE. MAKE FINAL CONNECTIONS TO JUNCTION BOXES AND/OR RECEPTACLES MOUNTED ON TABLE. COORDINATE LIGHTING INSTALLATION REQUIREMENTS WITH CONDUIT ROUTING. REFER TO E4.0 FOR LIGHTING INFORMATION. FIELD VERIFY AND COORDINATE WITH HUB TABLE MANUFACTURER FOR EXACT REQUIREMENTS AND LOCATIONS PRIOR TO INSTALLATION.</p> | <p>11 PROVIDE POWER AND DATA JUNCTIONS BOXES IN SLAB WITH COVER PLATE FOR FUTURE ORDERING KIOSK. PROVIDE ALL NECESSARY TRENCHING AND CONDUITS. VERIFY EXACT QUANTITY AND LOCATION WITH EQUIPMENT INSTALLER AND TACO BELL CONSTRUCTION MANAGER.</p> <p>12 NOT USED.</p> <p>13 NOT USED.</p> <p>14 NOT USED.</p> <p>15 CONTRACTOR TO RUN POWER AND DATA CONDUITS FOR V LINE AND FRONT POS COUNTER UNDER SLAB. CONFIRM ROUTE WITH TACO BELL REPRESENTATIVE PRIOR TO ROUGH-IN.</p> <p>16 LOCATION OF TBCB COMBINED CONTROL BOX. COORDINATE EXACT LOCATION IN FIELD. CONSIDER OPERATOR'S NEED TO ACCESS SWITCHES ON THE FRONT OF THE CONTROL BOX AND BUILT IN OCCUPANCY SENSOR FOR MANAGER'S OFFICE. CIRCUIT TO B-10.</p> <p>17 REFER TO DETAIL 7/E3.1.</p> |
|---|--|

**KEY NOTES - ELECTRICAL POWER PLAN** NTS **B**

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**ELECTRICAL POWER PLAN**

**E3.0**

THE DEDICATED POS POWER CIRCUIT REQUIRES AN ISOLATED GROUND IN ADDITION TO THE NORMAL COMMON BUILDING GROUND. THE ISOLATED GROUND WIRE SERVES TWO PURPOSES:  
 \* AS A SAFETY PATH TO GROUND.  
 \* AS A ZERO REFERENCE POINT FOR ALL POS DIGITAL LOGIC.

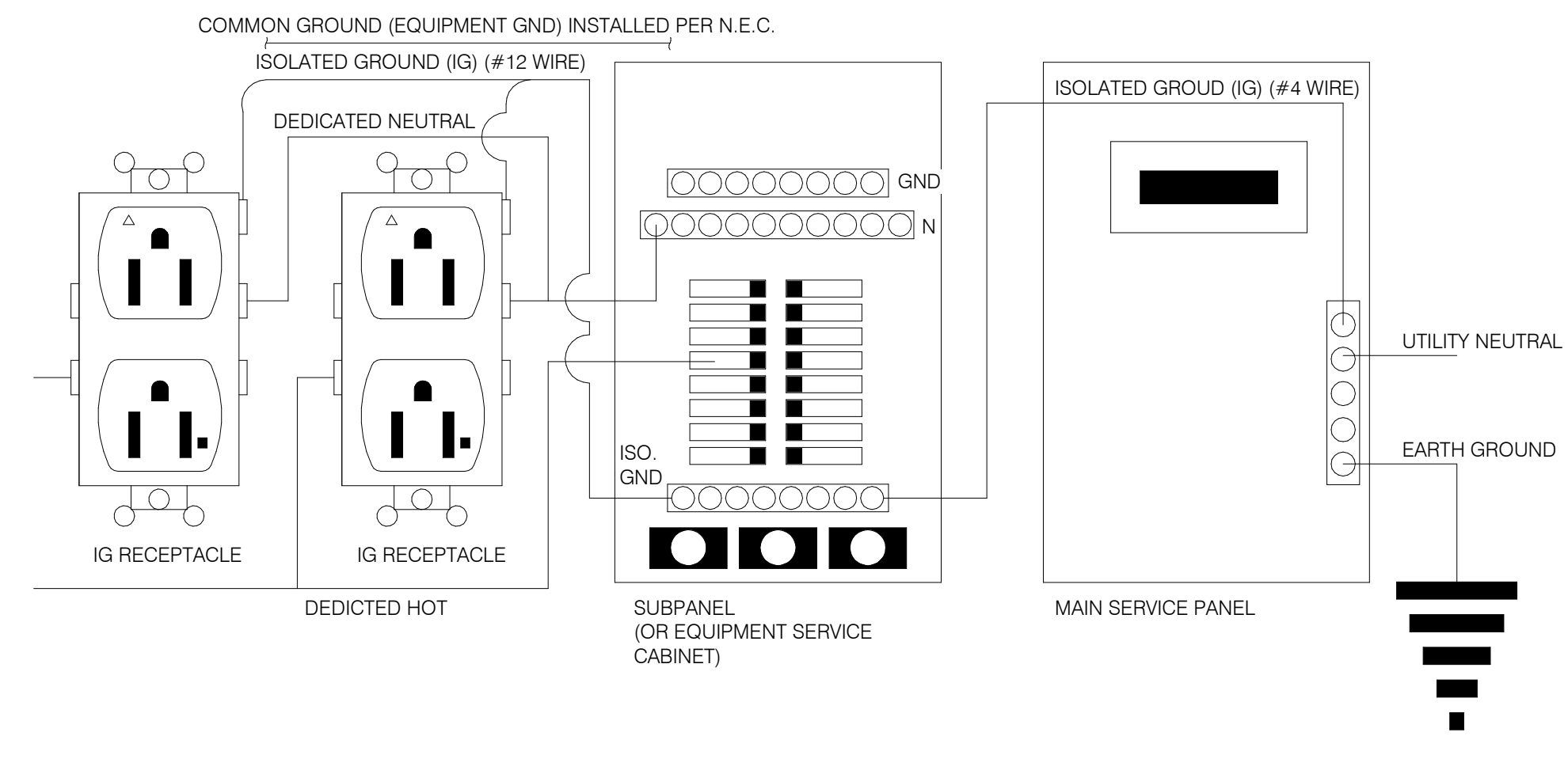
THE GROUND MUST EXHIBIT THE LOWEST POSSIBLE IMPEDANCE TO MINIMIZE VOLTAGE TRANSIENTS AND NOISE.

BE SURE TO:

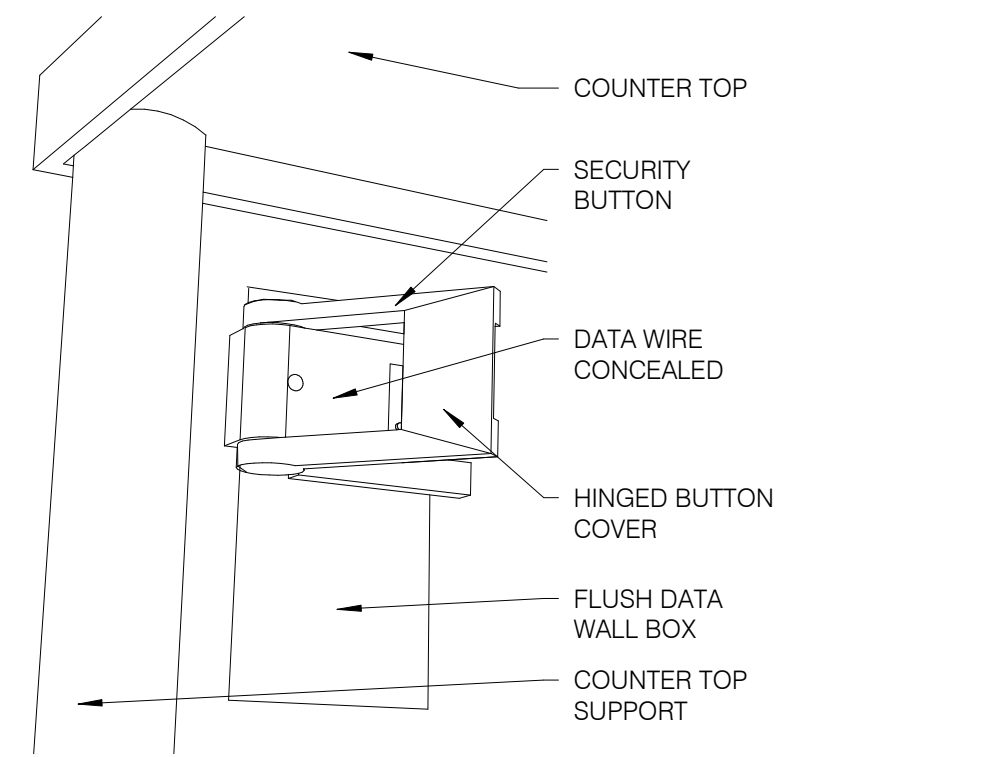
- \* USE AN INSULATED CONDUCTOR FOR THE ISOLATED GROUND WIRE.
- \* RUN THE ISOLATED GROUND WIRE THROUGH THE SAME CONDUIT AS THE HOT AND NEUTRAL WIRES.
- \* INSTALL ONLY ISOLATED GROUND (IG) TYPE RECEPTACLES.
- \* CONNECT THE ISOLATED GROUND WIRE TO BUILDING GROUND ONLY AT THE MAIN SERVICE PANEL.
- \* VERIFY THAT IG RECEPTACLES PRE-WIRED IN OWNER SUPPLIED EQUIPMENT HAVE A TRUE ISOLATED GROUND THAT CAN BE TRACED BACK TO THE BUILDING GROUND AT THE MAIN SERVICE PANEL.

DO NOT CONNECT THE ISOLATED GROUND WIRE TO THE CONDUIT, JUNCTION BOXES, THE FRAME ON A SUBPANEL, OR ANY OTHER METAL SURFACE.

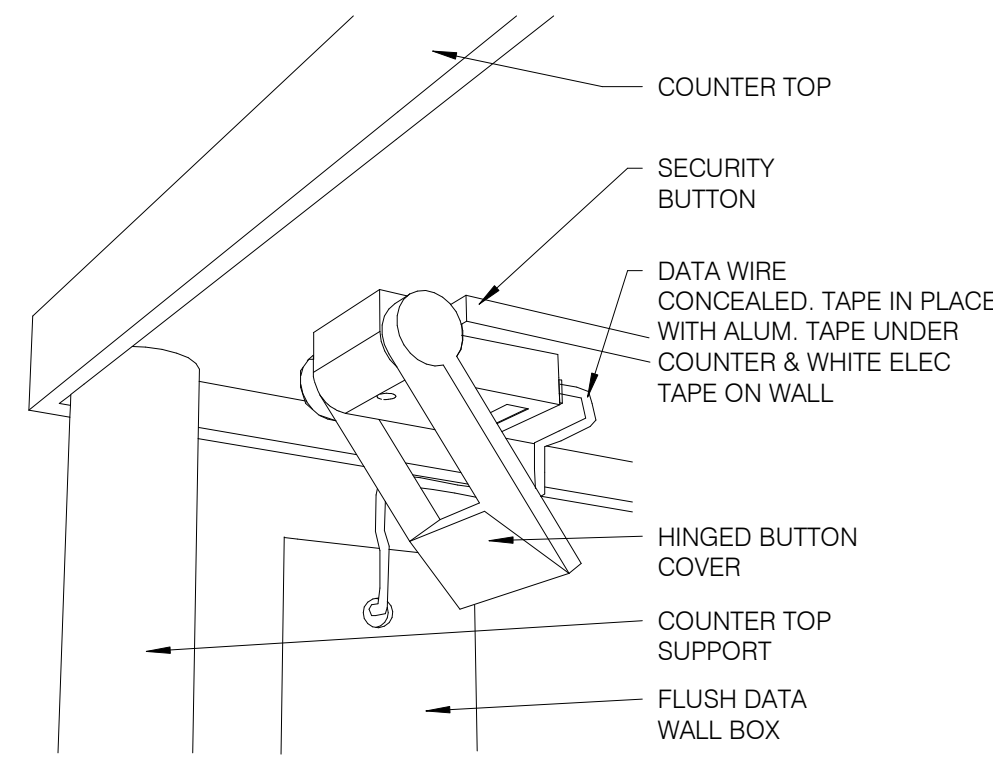
DEDICATED CIRCUITS: DEDICATED CIRCUITS REQUIRE A DEDICATED HOT AND A DEDICATED NEUTRAL THAT ARE NOT SHARED WITH ANY OTHER CIRCUITS. IG RECEPTACLES MUST BE "PHASE ALIGNED" WITH THE "B" PHASE OF BUILDING SUBPANEL "A".



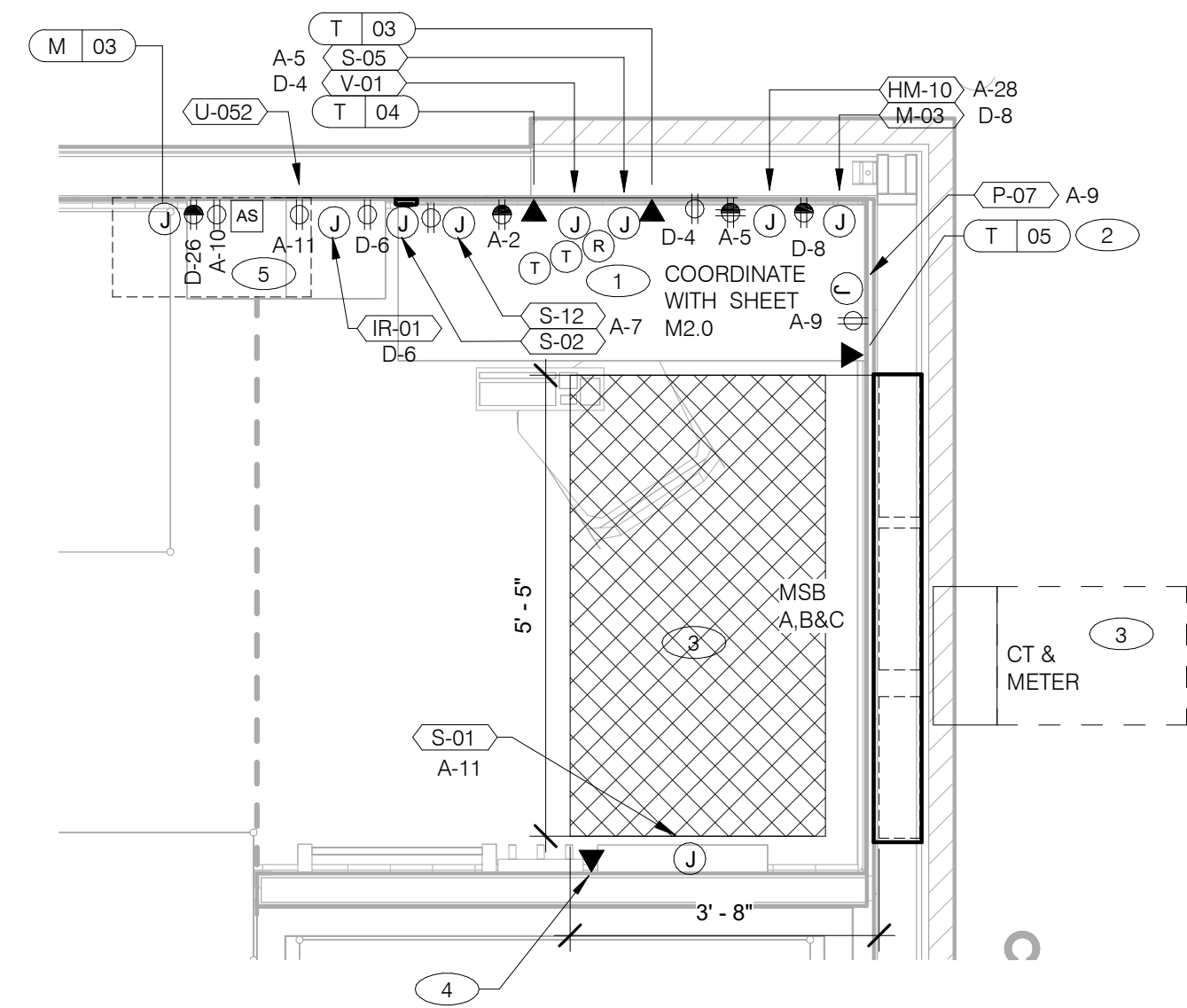
**P.O.S. ISOLATED GROUND SYSTEM** NTS **6**



**SECURITY BUTTON ON WALL** NTS **3**



**SECURITY BUTTON UNDER COUNTER** NTS **4**



**ENLARGED POWER AND COMMUNICATIONS PLAN (OFFICE)** 1/2" = 1'-0" **1**

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04.12.18	ISSUED FOR PERMIT

CONTRACT DATE:	XX.XX.18
BUILDING TYPE:	T40M-O
PLAN VERSION:	DEC 2017
BRAND DESIGNER:	
SITE NUMBER:	312720/446548
STORE NUMBER:	2017088.72

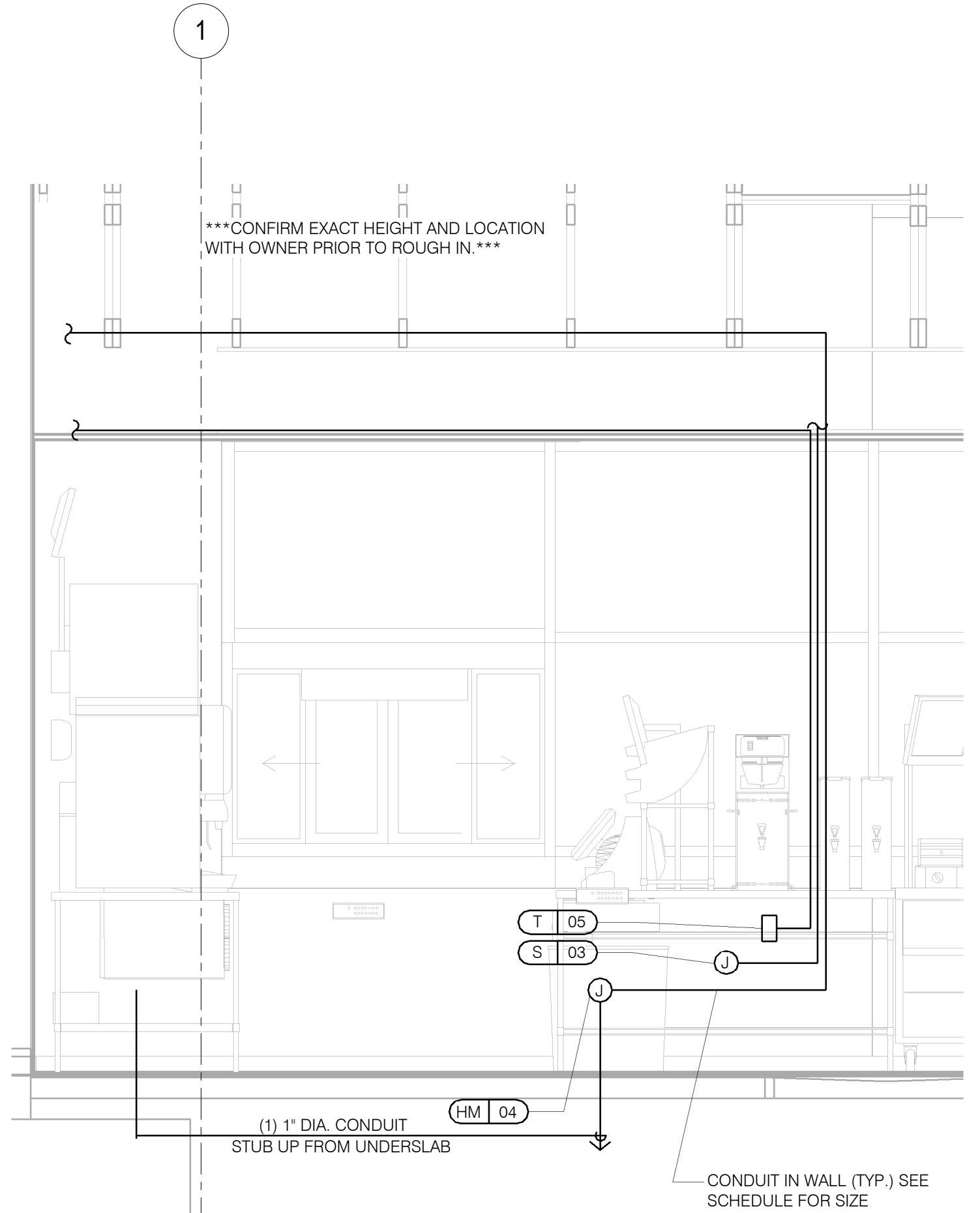
Taco Bell  
 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40M-O  
 OPEN KITCHEN  
 MODERN EXPLORER

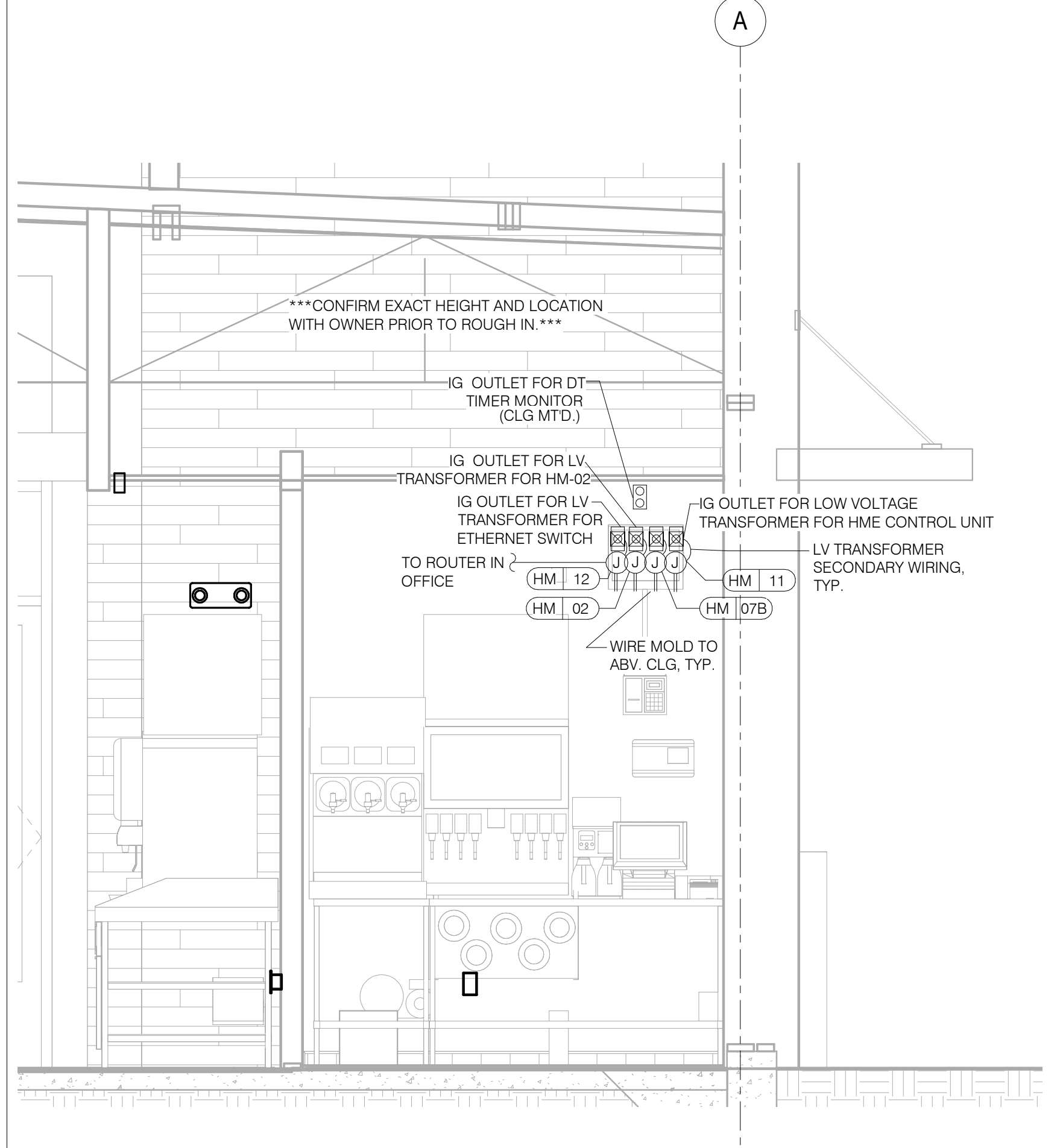
**ENLARGED POWER PLAN AND DETAILS**

**E3.1**

PLOT DATE: 9/17/2018 2:56:18 PM



**ENLARGED INTERIOR ELEVATION (D/T WINDOW)** NTS **7**

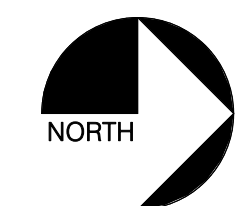
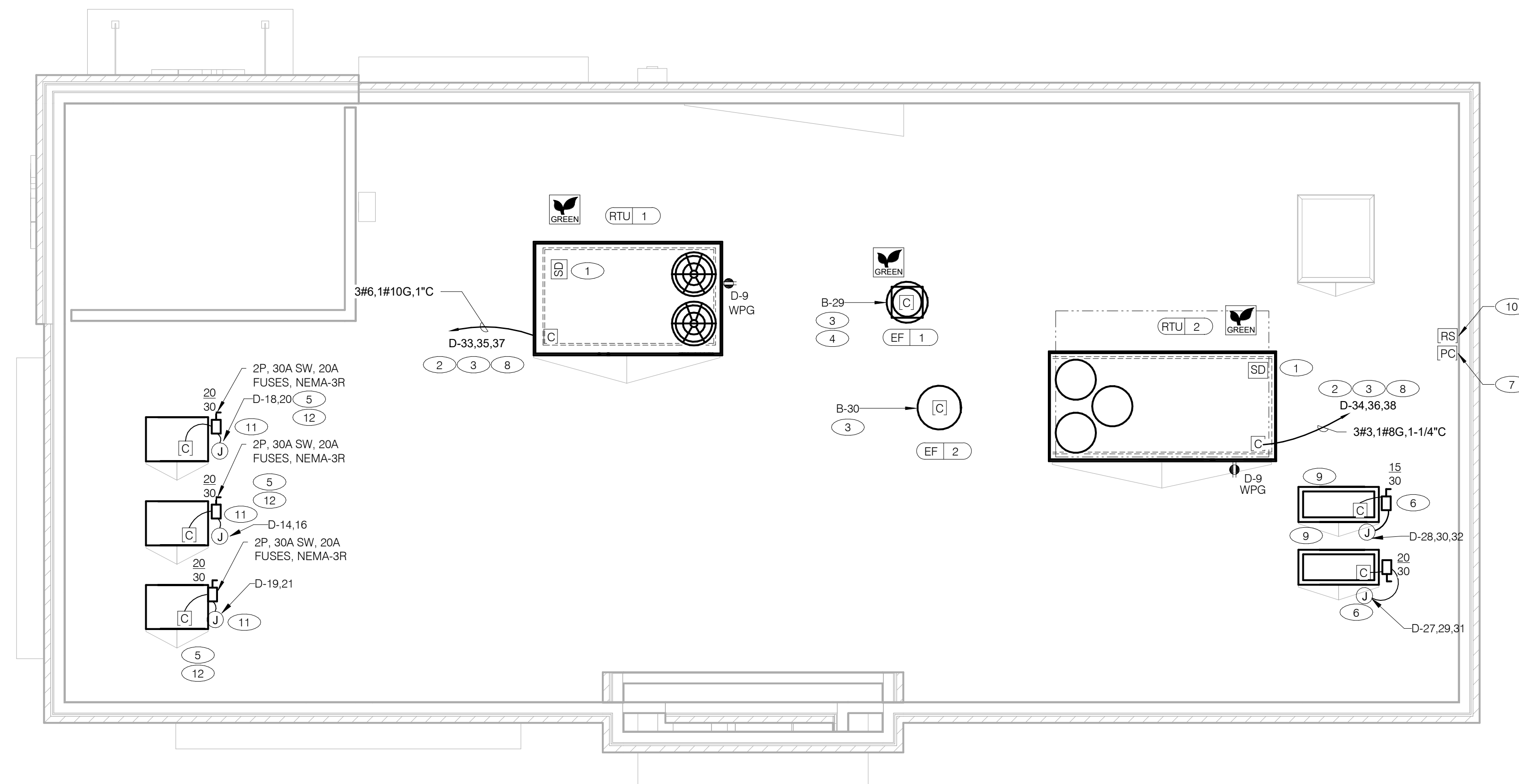


**ENLARGED INTERIOR ELEVATION** NTS **5**

- 1 THERMOSTATS CONTROLS.
- 2 PHONE JACK FOR MODEM.
- 3 ELECTRICAL WORKING CLEARANCE
- 4 DATA JACK FOR TECH-IN-BOX WITH 2 PORTS.
- 5 ELECTRICAL AND DATA DEVICES SHOWN OFFSET ON PLANS FOR CLARITY AND COORDINATION PURPOSES. COORDINATE WITH TACO BELL CONSTRUCTION MANAGER FOR FINAL LOCATIONS PRIOR TO INSTALLATION.

**KEY NOTES - ELECTRICAL ENLARGED DETAILS** NTS **2**





**POWER ROOF PLAN** 1/4" = 1'-0" **A**

- A. NO CONDUIT SHALL BE FASTENED DIRECTLY TO OR THROUGH ROOFING MEMBRANE.
- B. ALL CUTS IN ROOFING MEMBRANE SHALL BE MINIMAL AND IN ACCORDANCE WITH ROOFING MFR'S AND INSTALLER'S REQ'S.
- C. REFER TO MECH. DWGS FOR MECHANICAL EQUIPMENT ELECTRICAL REQ'S.
- D. ALL EXPOSED ELECTRICAL CONDUITS SHALL PENETRATE ROOF MEMBRANE AT PIPE HOODS U.O.N.
- E. REFER TO ELECT. EQUIP. SCHEDULE AND ELECT. ROUGH-IN PLAN.
- F. ALL CONDUITS FROM EXHAUST FANS SHALL BE ROUTED INSIDE OF CURB.
- G. ALL CONDUITS TO AND FROM RTU SHALL BE ROUTED INSIDE OF RTU CURB. COORDINATE WITH RTU MFR RECOMMENDATIONS.
- H. REFER TO GENERAL NOTES SHEET E2.0
- I. ALL WIRING AND CONDUITS SHALL BE CONCEALED. NO CONDUITS PERMITTED TO RUN EXPOSED ACROSS ROOF DECK. ROUTE ALL CONDUITS THROUGH EQUIPMENT ROOF CURBS OR ARCHITECT SPECIFIED ROOF PENETRATIONS.
- J. ARMOR CABLE (BX) ALLOWED WHERE ACCEPTABLE BY CODE. CABLE SHALL BE ROUTED CONCEALED, AND SHALL BE ACCESSIBLE. CABLE SHALL CONTAIN GREEN CU CODE SIZE GROUND CONDUCTOR.

- 1 SMOKE DETECTOR PROVIDED WITH UNIT. REFER TO MECHANICAL DRAWINGS.
- 2 SPECIFIED RTU IS SUPPLIED WITH THRU THE BASE ELECTRICAL CONNECTIONS AND FACTORY INSTALLED HACR CIRCUIT BREAKER WITH WEATHER TIGHT ENCLOSURES AND ACCESS THRU SWINGING DOOR.
- 3 POWER AND CONTROL ENTRY FROM BOTTOM OF UNIT.
- 4 CONNECT TO EF-1 RELAY. REF E6.0 THROUGH E6.3.
- 5 1/2" C, WITH REQ'D CONDUCTORS TO J-BOX IN CEILING ABOVE ICE MACHINE. MAKE CONNECTION TO ICE MACHINE AND CONDENSING UNIT.
- 6 REFER TO POWER PLAN FOR CONTINUATION TO COOLER / FREEZER.
- 7 MOUNT PHOTOCELL ON THE NORTH SIDE OF THE BUILDING 14.0' ABOVE GRADE. CONNECT TO LIGHTING CONTROL PANEL AND RELAYS. SEE E6.0 AND E6.1.
- 8 RTU'S SHALL BE PROVIDED WITH BUILT-IN DISCONNECT, SINGLE POINT WIRING AND CONVENIENCE OUTLET.
- 9 CONTRACTOR SHALL VERIFY CIRCUIT BREAKER TYPE, STARTER, DISCONNECT SWITCH, AND FUSE SIZE (IF REQUIRED) WITH SELECTED EQUIPMENT MANUFACTURER'S SHOP DRAWINGS PRIOR TO PLACING ORDER AND FURNISH AND INSTALL EVERYTHING AS REQUIRED.
- 10 RAIN SENSOR MOUNTED NEXT TO PHOTOCELL 14.0' ABOVE GRADE.
- 11 PIPE HOOD FOR ICE MACHINE CONDENSERS. SEE ARCHITECTURAL ROOF PLAN.
- 12 ELECTRICAL CONTRACTOR SHALL MAKE ALL ELEC. CONNECTIONS INCLUDING ALL NECESSARY INTERCONNECTIONS BETWEEN THE COMPRESSOR ON THE ROOF & THE EVAPORATOR IN THE ICE MACHINE AS REQ'D. REFER TO THE MFR'S SHOP DWGS FOR EXACT INSTALL. & INTERCONNECTION RQMTS. PRIOR TO ROUGH-IN INSTALL.

**GENERAL NOTES - ELECTRICAL POWER ROOF PLAN** NTS **C**

**KEY NOTES - ELECTRICAL POWER ROOF PLAN** NTS **B**

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BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
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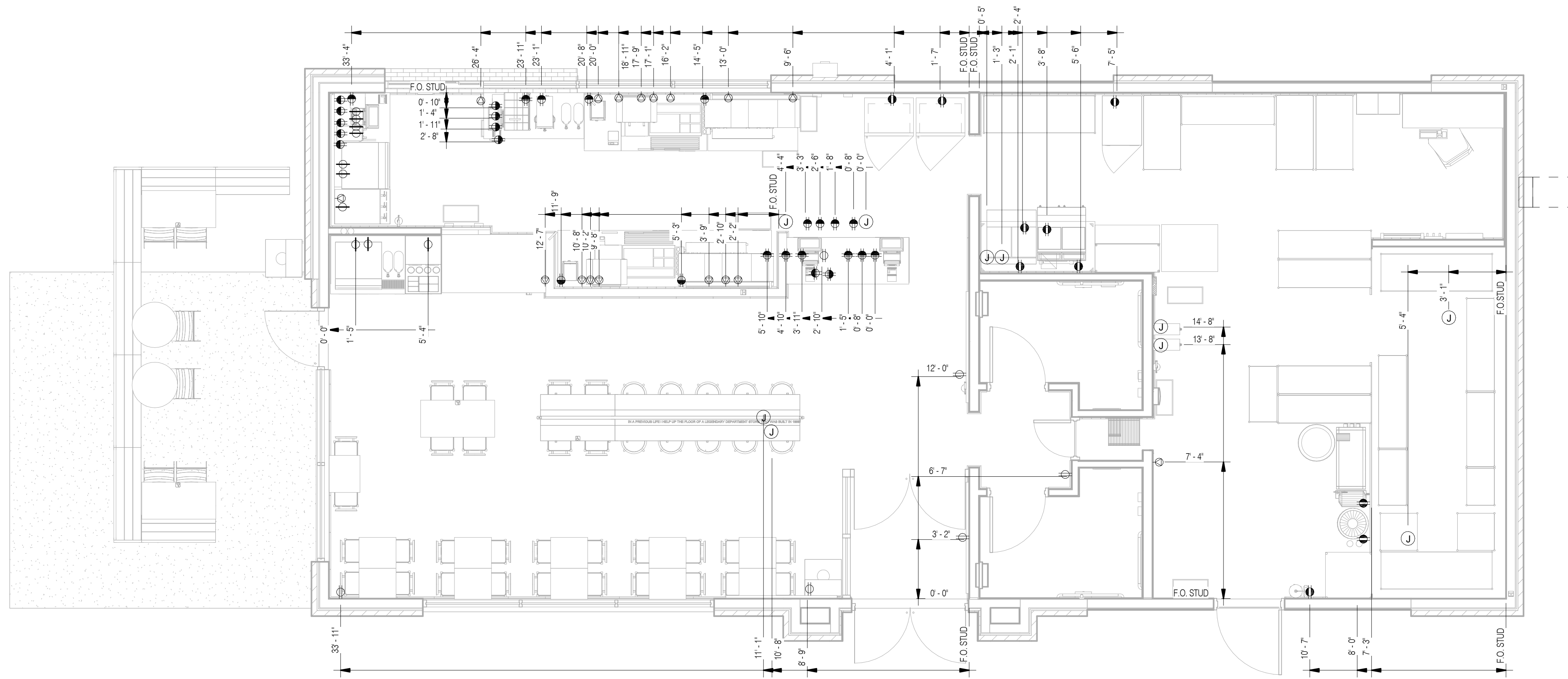
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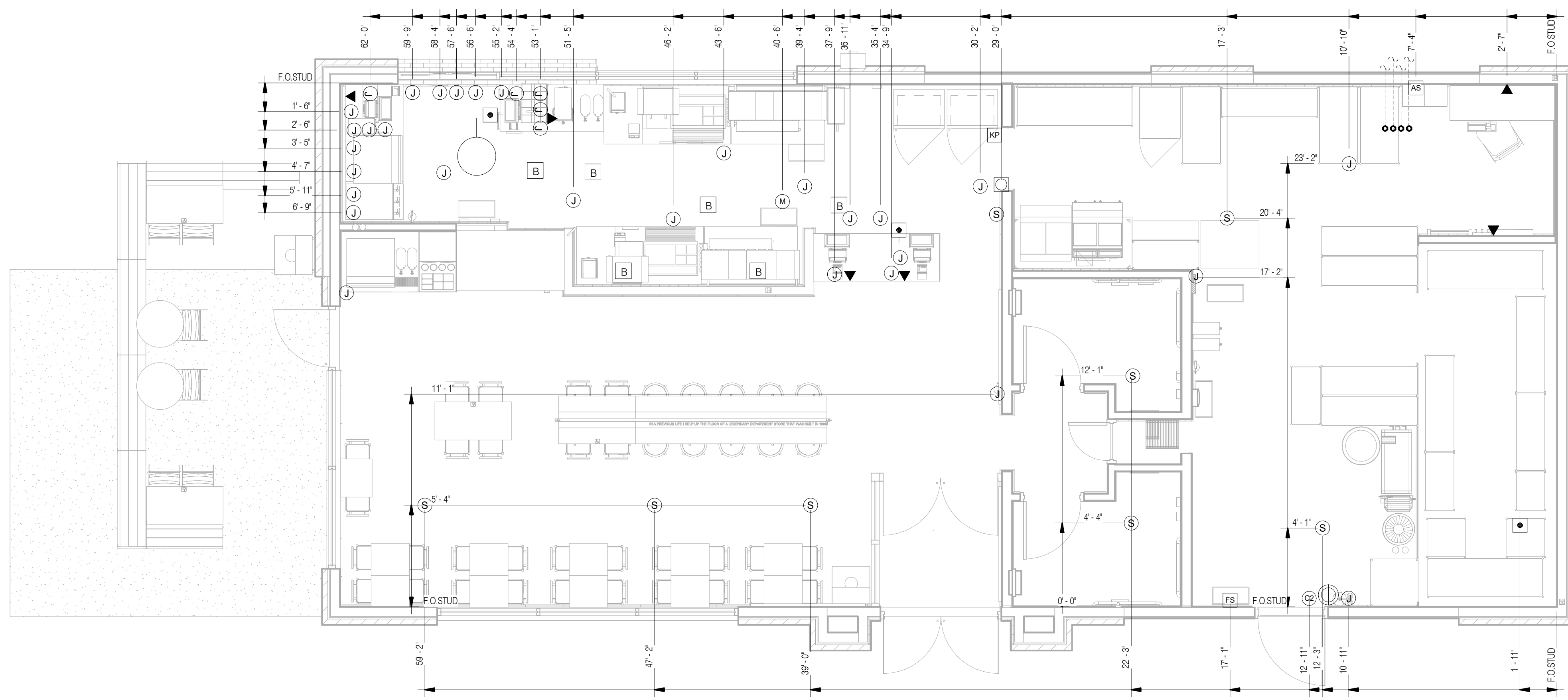
**ELECTRICAL POWER ROOF PLAN**

**E3.2**

PLOT DATE: 9/17/2018 2:56:19 PM



**POWER DIMENSIONS PLAN** 1/4" = 1'-0" **A**



**COMMUNICATION DIMENSIONS PLAN** 1/4" = 1'-0" **B**

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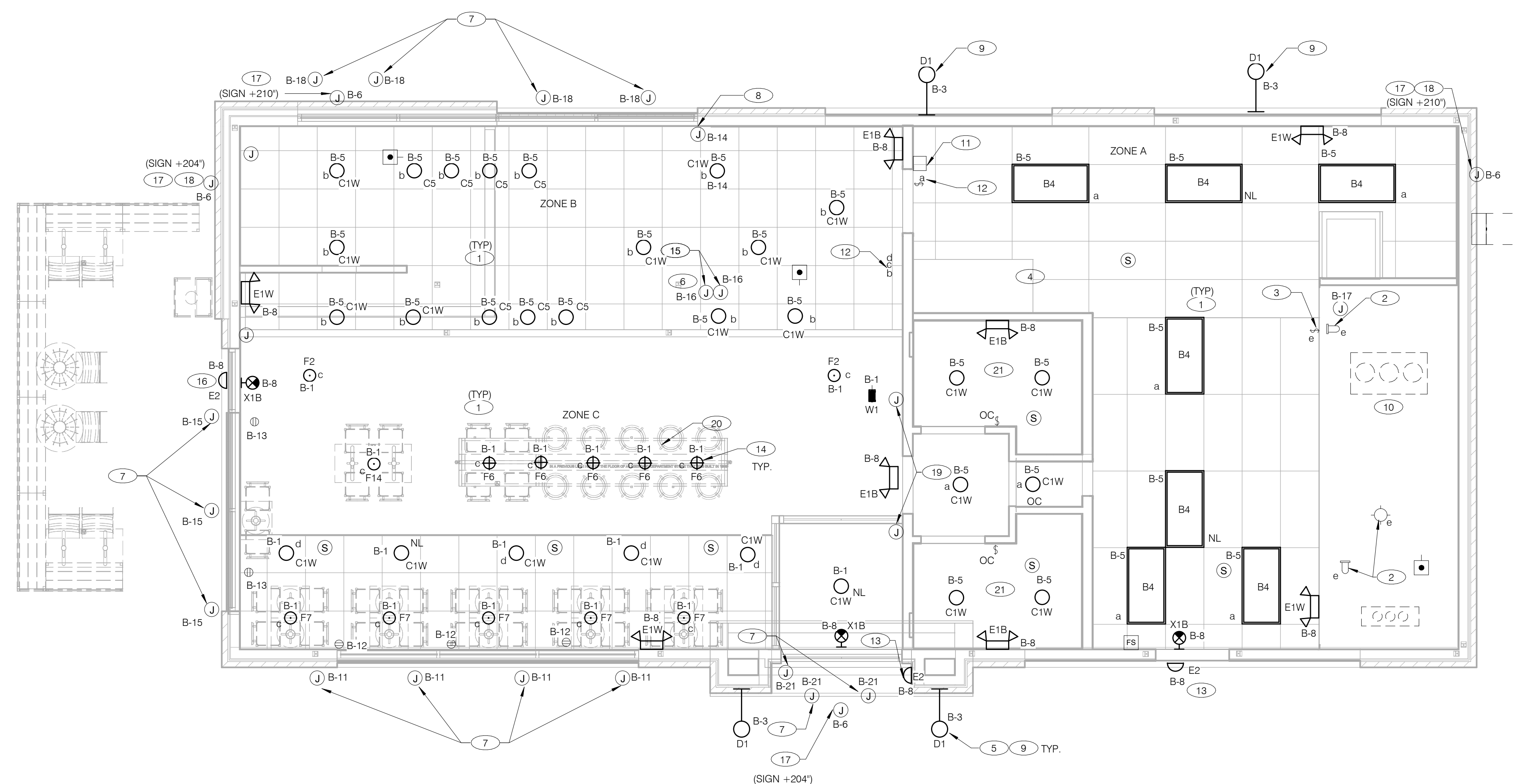
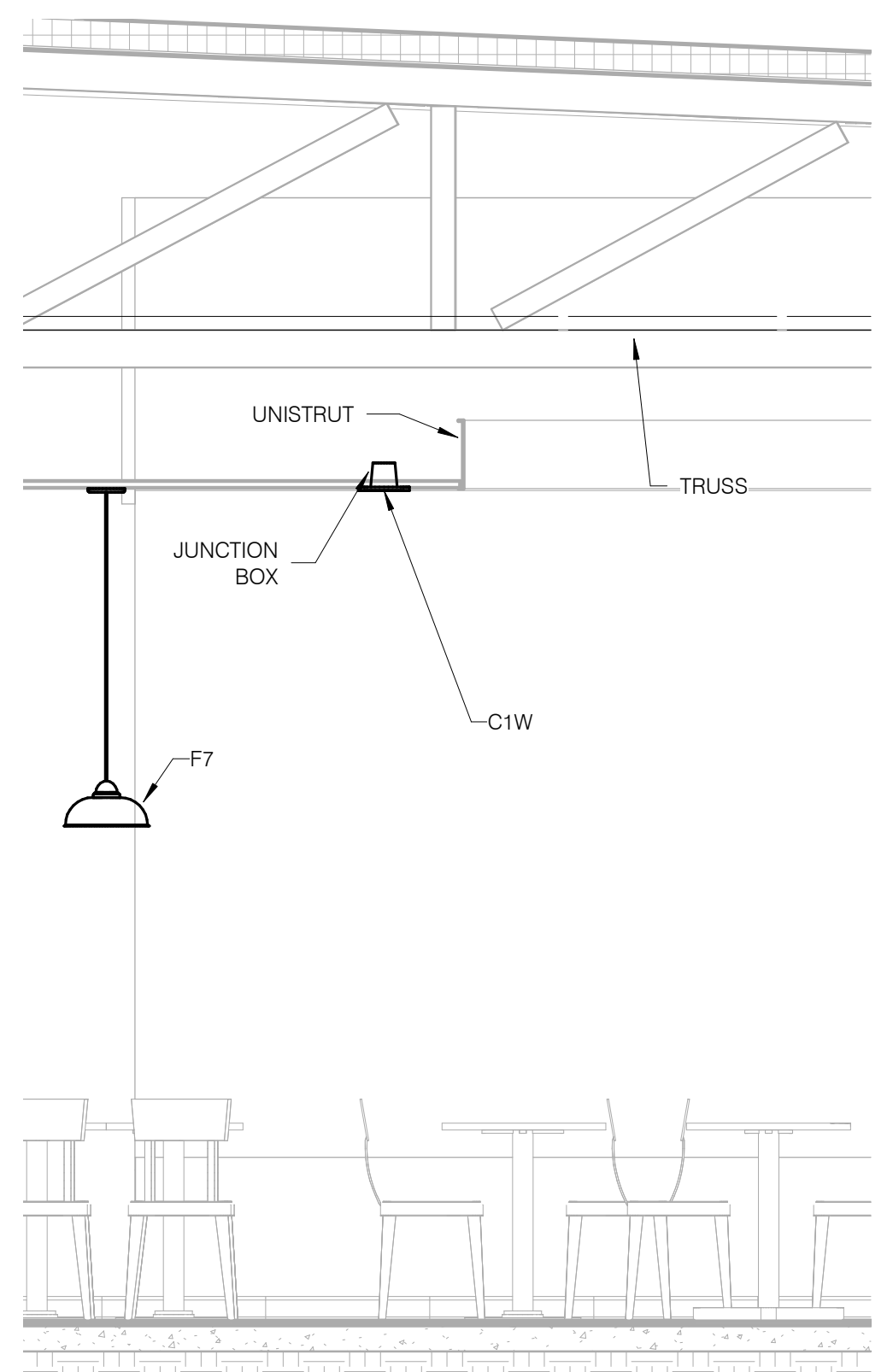
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**TACO BELL**  
T40M-O  
OPEN KITCHEN  
MODERN EXPLORER

**ELECTRICAL DIMENSIONS PLAN**

**E3.3**

PLOT DATE: 9/17/2018 2:56:21 PM



**GENERAL NOTES:**

- CONFIRM LIGHTING FIXTURE QUANTITIES WITH SUPPLIER.
- EMERGENCY AND NORMAL LIGHTING MARKED WITH "NL" SUBSCRIPT SHALL OPERATE CONTINUOUSLY. PROVIDE UNSWITCHED HOT TO NORMAL AND EMERGENCY BALLAST.
- EMERGENCY LIGHTING NOT MARKED WITH "NL" SUBSCRIPT SHALL OPERATE UNDER CONTROL OF LIGHTING SWITCH AS INDICATED. PROVIDE UNSWITCHED CONSTANT HOT TO EMERGENCY BALLAST AND SWITCHED HOT TO NORMAL BALLAST.
- ALL CONDUITS ENTERING OR LEAVING COOLER/FREEZER SHALL BE PROVIDED WITH SEAL-OFF FITTING WITH COMPOUND PER NEC 300-7(a).
- ALL INTERIOR LIGHTING CIRCUITS TO BE WIRED THROUGH TBCCB. SEE E6.0 THROUGH E6.3.
- CONTRACTOR TO FIELD VERIFY CEILING TYPE AND PROVIDE PROPER MOUNTING HARDWARE.
- ALL FIXTURES SUPPLIED WITH LAMPS.
- ALL EXTERIOR NON-EMERGENCY LIGHT FIXTURES, BUILDING SIGNS, AND EXTERIOR SIGNS SHALL BE CONTROLLED THROUGH PHOTOCELL AND LIGHTING CONTROL RELAYS. SEE E6.0 THRU E6.3 FOR ADDITIONAL DETAILS.

**PENDANT MOUNTING DETAIL** NTS

**ELECTRICAL LIGHTING PLAN** 1/4" = 1'-0" **A**

NO.	QTY	LOCATION	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	MOUNTING	LAMP #/TYPE	BALLAST TYPE	ELECTRICAL DATA	REMARKS
A1	7	PARKING	LSI INDUSTRIES	XALM-FT-LED-HO-40-IL	LED AREA LIGHTS FORWARD THROW, BRONZE FINISH	POLE STRUCTURE SITE LIGHTING	LED		120 V/1-193 VA	
A4	7	PARKING	LSI INDUSTRIES	4SQB3-S07G-25-S-BRZ	4" SQ 7GA 25FT SINGLE DRILL	POLE STRUCTURE SITE LIGHTING	LED		120 V/1-0 VA	
B4	7	BOH	MAXLITE	MLFP-24EP-4841	2X4 LED TROFFER	RECESSED GRID	LED	NA	120 V/1-45 VA	-
C1W	22	FOH	MAXLITE	B6IC-AT-W-LED14DR5630KB95	LED TRIM 14W 6" RECESSED 30K 80CRI WHITE TRIM, W/ ELITE B6IC-AT-W 6" IC AIR SHUT HOUSING	RECESSED	LED		120 V/1-14 VA	-
C5	7	OPEN KITCHEN AREA/ FOH	MAXLITE	RAF-6-23-30-W	LED DOWNLIGHT 23W 6" RECESSED 30K 80CRI WHITE TRIM	RECESSED	LED	NA	120 V/1-23 VA	-
D1	4	EXTERIOR SCOFF	TROY	B2772	17"x14" WALL MOUNT SCOFF, OLD SILVER FINISH, MEDIUM BASE SOCKET, 100 WATT MAX	WALL, CENTER OF BRACKET @ 14'-0" A.F.F.	-	NA	120 V/1-60 VA	ALIGN BOTTOM OF FIXTURE'S MOUNTING WITH CHANGE IN EIFS THICKNESS
E1B	4	FOH	ELITE	ELM-809-B	EMERGENCY LIGHT FROG EYE - BLACK	WALL, TOP @ 9'-4" U.O.N.	-	EM	120 V/1-12 VA	-
E1W	4	FOH	ELITE	ELM-809-W	EMERGENCY LIGHT FROG EYE - WHITE	WALL, TOP @ 9'-4" U.O.N.	-	EM	120 V/1-12 VA	-
E2	3	EXTERIOR	LIGHTALARMS	CAM-SD-DB-CW	CAMRAY LED EM WALL MNT, DRK BRNZ, CLD WEATHER	UNIVERSAL	-	EM	120 V/1-16 VA	-
F2	2	DINING ROOM	SPECTRUM LIGHTING	SPOC310LEDXT10L27KWDE1 GL CP13 PM36" MB 3	LED PENDANT - 3"	PENDANT, VARIES	1/LED		120 V/1-9 VA	-
F6	5	HUB TABLE	KICHLER	43852OZ	9.75" GLASS PENDANT AVERY WITH MED BASE SOCKET RATED 100W MAX OLDE BRONZE FINISH	PENDANT, VARIES	1/LED AAMSCO LED-6W-ST64HYBRID-DIM	NA	120 V/1-100 VA	PLACEHOLDER INCLUDES LAMP
F7	5		HI-LITES	H24212-96-CB15-20WLBL-60P	12" GALVANIZED PENDANT WITH BLACK CORD AND CANOPY MED BASE SOCKET		1/LED 10A19D0027K		120 V/1-20 VA	-
F14	1	LOUNGE PENDANT	BASELITE	HD2478-EXT/59-INT/15LCBLC/B LC25 WINC MAX	24" DEEP BOWL PENDANT, BLACK EXTERIOR/ COOPERTONE INTERIOR BLACK CORD AND CANOPY/MEDIUM BASE	PENDANT, 6'-0" A.F.F.	1/LED	NA	120 V/1-42 VA	-
W1	1	172	ConTech Lighting	CTL84C2M27D-P-FA-84-B-LF16SL 60MM	Stealth LED Wall Lighter Track Fixture		LED		Power Connector 120 V/1-14 VA	MOUNT IN MIDDLE OF CEILING TILE. AIM FIXTURE TO CENTER ON GRAPHIC WALL AT BOOTH
X1B	3	FOH/BOH	LIGHTALARMS	GRANNRB	LED UNIVERSAL MNTG THERMOPLASTIC EXIT, RED LETTERS, BLACK HSG	UNIVERSAL	-LED	EM	120 V/1-3 VA	-

- UTILIZE TIME-CLOCK CONTROLS FOR DINING ROOM CIRCUITS. REFER TO DRAWINGS E6.0 AND E6.1.
- FOR LIGHTING FIXTURES, CONDUIT, CONDUCTORS AND INSTALLATION RESPONSIBILITIES, REFER TO SCOPE OF WORK.
- FIXTURE AND SWITCH FACTORY INSTALLED WITH UNIT. G.C. TO COMPLETE CIRCUITING.
- EXHAUST HOOD LIGHT FIXTURES SUPPLIED WITH HOOD AND MTD IN PRE-WIRED J-BOX. COMPLETE CIRCUITING PER SHEETS E6.0-E6.3.
- COORD. J-BOX LOCATION WITH WOOD FRAMING SO IT REMAINS CONCEALED BEHIND FIXTURE. VERIFY MOUNTING HEIGHT WITH ARCH. DWGS.
- OUTLET FOR MENU BOARD: SEE SHEET E3.0. VERIFY POINT OF CONNECTION. 10 LIGHT PANELS WIRED IN SERIES. G.C. TO MAKE FINAL CONNECTION.
- J-BOX FOR EVERBRITE LIGHTING SYSTEM IN CANOPY. PROVIDE DISCONNECTING MEANS FOR LIGHTING. COORDINATE WITH CANOPY MANUFACTURER FOR ADDITIONAL DETAILS.
- J-BOX FOR LIGHT TROUGH AGAINST WINDOW. VERIFY POINT OF CONNECTION. WIRE VIA EXTERIOR LIGHTING CONTRACTOR.
- REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR DIMENSIONED LOCATION OF FIXTURE.
- SEAL ALL ELECTRICAL CONDUITS INTO THE WALK-IN COOLER.
- ALERT LIGHT - ONLY APPLIES WHEN A GEN IV POWER SOAK IS USED. DISREGARD IF GEN III POWER SOAK IS USED. SEE SHEET E3.0 FOR POWER REQUIREMENTS.
- PROVIDE LIGHT SWITCHES FOR CONTROL OF LIGHT FIXTURES AS SHOWN. COORDINATE WITH LIGHTING MANUFACTURER FOR TYPE OF SWITCH.
- MOUNT "E2" AT 8'-0" A.F.G. TO CENTER OF FIXTURE. REFER TO ARCHITECTURAL ELEVATIONS.
- SUBSCRIPT "x" CORRESPONDS TO LIGHTING CONTROL SWITCH.
- J-BOX FOR SECURITY (J-052) AND INTERIOR MENU BOARD (L-XX1) RESPECTIVELY.
- MOUNT "E2" AT 8'-6" A.F.G. TO CENTER OF FIXTURE. REFER TO ARCHITECTURAL ELEVATIONS.
- COORDINATE LOCATION OF J-BOX WITH SIGN VENDOR. PROVIDE DISCONNECTING MEANS AS REQUIRED. SEE SCOPE OF WORK.
- COORDINATE LOCATION OF J-BOX WITH TOWER VENDOR. SEE SCOPE OF WORK.
- PROVIDE J-BOX TO END OF UNISTRUT FOR ROUTING OF LIGHTING CABLES TO PENDANT LIGHTING FIXTURES. SEE DETAIL C ON E4.0 FOR ADDITIONAL INFORMATION.
- F6 FIXTURES TO BE MOUNTED FROM HUB TABLE CROSS BAR BY ELECTRICAL CONTRACTOR. COORDINATE PRE-DRILLED HOLES AND WIRING WITH FURNITURE VENDOR. FIXTURES TO BE HUNG AT STAGGERED LENGTHS DOWN FROM THE CROSS BAR. COORDINATE LENGTH WITH TACO BELL PROJECT MANAGER.
- CIRCUIT RESTROOM LIGHTS AND OCCUPANCY SENSOR SWITCH AHEAD OF LIGHTING CONTROL BOX.

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BRAND DESIGNER:  
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**TACO BELL**  
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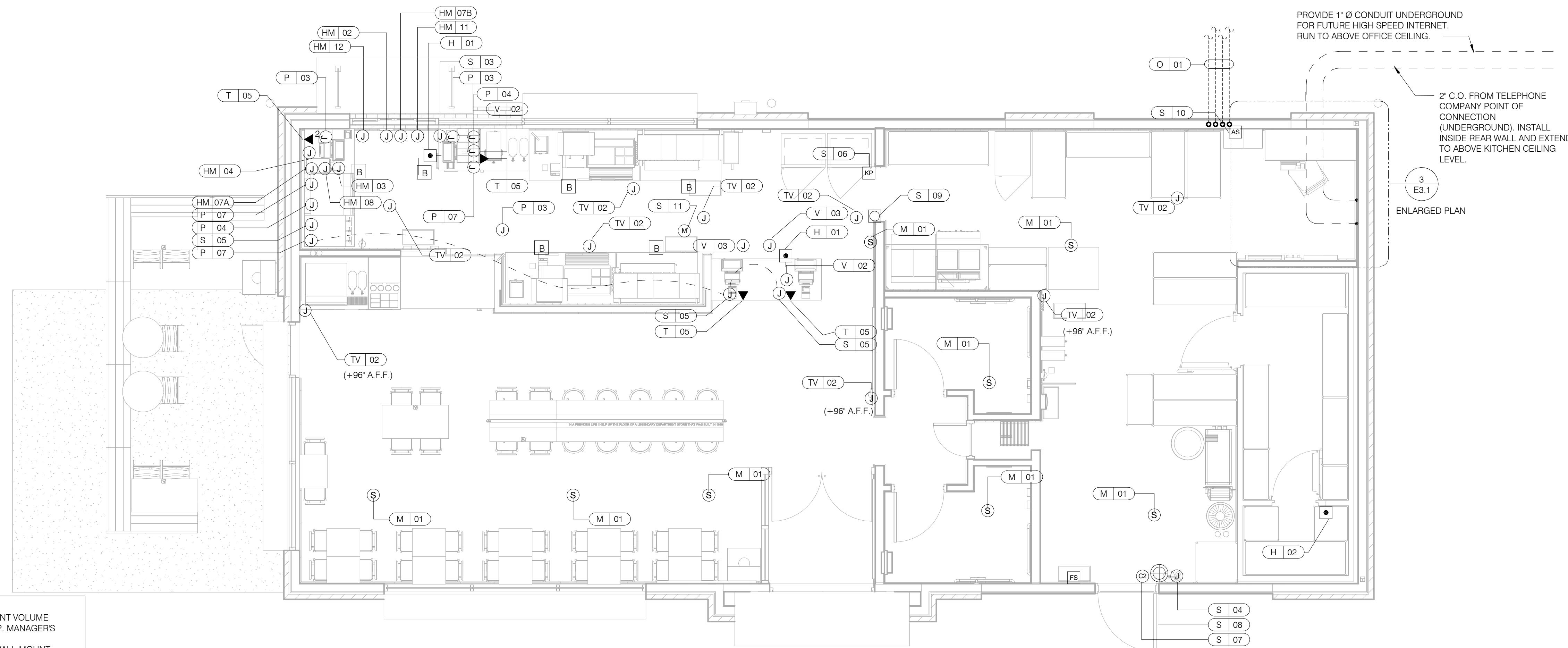
**LIGHTING PLAN AND DETAILS**

**E4.0**

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**KEY NOTES - ELECTRICAL LIGHTING PLAN AND SCHEDULE** NTS **B**





- VOLUME CONTROL NOTES:**  
 1) PATIO SPEAKER: DEDICATED WALL-MOUNT VOLUME CONTROL IN LOCATION OF HEAD-END (TYP. MANAGER'S OFFICE).  
 2) DINING ROOM SPEAKERS: DEDICATED WALL-MOUNT VOLUME CONTROL IN LOCATION OF HEAD-END (TYP. MANAGER'S OFFICE).  
 3) KITCHEN SPEAKERS: IF CONNECTED TO THE SOUND SYSTEM, CAN EITHER HAVE VOLUME CONTROL BUILT INTO THE SPEAKER ITSELF, OR HAVE A THIRD DEDICATED WALL-MOUNT VOLUME CONTROL IN LOCATION OF HEAD-END (TYP. MANAGER'S OFFICE).  
 4) RESTROOM SPEAKERS: VOLUME CONTROL BUILT INTO SPEAKER.

**COMMUNICATIONS PLAN** 1/4" = 1'-0" **A**

COMMUNICATIONS ROUGH-IN SCHEDULE					
COMM. TYPE	COMM. #	EQUIPMENT ITEM	ELEVATION	REMARKS	
H	01	UNDER COUNTER HOLD-UP BUTTON		SEE DETAIL 6/E3.1.	
H	02	WALL MOUNTED HOLD-UP BUTTON	+18" A.F.F.	SURFACE MTD. 2X4 J-BOX ON INSIDE OF WALK-IN FREEZER HINGE WALL W/ (1) 1/2" CONDUIT TO ABOVE KITCHEN CEILING. BUTTON FACING DOWN. SEE DETAIL 3/E3.1	
HM	02	D/T TIMER SIGNAL PROCESSOR J-BOX	+126" A.F.F.	4X4X4" DEEP (MIN.) J-BOX ABV. CLG. W/ (1) 1" CONDUIT TO HM-07B, (1) 1" CONDUIT TO HM-04, (1) 1-1/2" CONDUIT TO HM-08 & (1) 1" CONDUIT TO HM-12. SEE DET. 5/E3.1.	
HM	03	D/T BASE STATION J-BOX	+72" A.F.F.	4X4 J-BOX @ D/T BASE STATION W/ (1) 1-1/2" C TO HM-08 & (1) 1-1/2" C TO HM-07A. SEE DETAIL 5/E3.1.	
HM	04	D/T COMM SYSTEM J-BOX	+18" A.F.F.	4X8 J-BOX W/ (1) 1" CONDUIT TO HM-02, (1) 1" CONDUIT TO HM-07A, (1) 1" CONDUIT TO PICK-UP WINDOW D/T LOOP, AND (3) 1" CONDUIT TO D/T MENU BOARD. SEE DETAIL 7/E3.1	
HM	07A	D/T TIMER DISPLAY J-BOX	+62" A.F.F.	2X4 J-BOX W/ (1) 1-1/2" CONDUIT TO HM-03 & (1) 1" C TO HM-04. SEE DETAIL 5/E3.1.	
HM	07B	D/T TIMER DISPLAY J-BOX	+126" A.F.F.	2X4 J-BOX ABV. CEILING W/ (1) 1" CONDUIT TO HM-02. SEE DETAIL 5/E3.1	
HM	08	D/T J-BOX	+96" A.F.F.	4X4X4" DEEP (MIN.) J-BOX W/ (1) 1-1/2" CONDUIT TO HM-03 & (1) 1-1/2" CONDUIT TO HM-02. SEE DETAIL 5/E3.1.	
HM	11	D/T CONTROL UNIT J-BOX	+126" A.F.F.	2X4 J-BOX ABV. CEILING W/ (1) 1" CONDUIT TO HM-12. SEE DETAIL 5/E3.1.	
HM	12	D/T ETHERNET SWITCH J-BOX	+126" A.F.F.	2X4 J-BOX ABV. CEILING W/ (1) 1" CONDUIT TO HM-11, (1) 1" CONDUIT TO HM-02 & (1) 1" CONDUIT TO OFFICE ROUTER.	
M	01	SPEAKER	CEILING	SPEAKER WIRING FROM SPEAKERS IN DINING ROOM TO AMPLIFIER IN OFFICE. FOR EXACT LOCATION OF SPEAKERS, SEE LIGHTING PLAN SHEET E4.0.	
M	03	MUSIC SYSTEM J-BOX (SEE ENLARGED PLAN)	+60" A.F.F.	4X4 J-BOX & COVER W/ (1) 1/2" CONDUIT TO ABOVE CEILING FOR MUSIC SYSTEM. SEE SCOPE OF WORK.	
O	01	(4) 1" DATA CONDUITS	U.G.	FROM MENU BOARD/SPEAKER POST TO ABOVE CEILING FOR OCB AND D/T COMM. SYSTEM. SEE DETAIL 3/E7.0	
P	03	KITCHEN MONITOR J-BOX	+84" A.F.F.	2X4 J-BOX W/ (1) 3/4" CONDUIT TO ABOVE CEILING	
P	04	BUMP PAD J-BOX	+24" A.F.F.	2X4 J-BOX W/ (1) 3/4" CONDUIT TO P-03.	
P	07	POS J-BOX W/ 2-1/2" DIA HOLE IN COVER PLATE	+24" A.F.F.	6X6X4" DEEP J-BOX W/ 2-1/2" CONDUIT IN WALL TO ABV. CEILING, WITH PULL STRING FOR POS.	
S	03	J-BOX SECURITY SYSTEM	+30" A.F.F.	2X4 J-BOX W/ (1) 1/2" CONDUIT TO ABV. CLG. FOR HOLD-UP BUTTON SIGNAL WIRE.	
S	04	J-BOX SECURITY SYSTEM	+84" A.F.F.	2X4 J-BOX W/ COVER & (1) 1/2" CONDUIT TO ABOVE CEILING.	
S	05	J-BOX SECURITY SYSTEM	+24" A.F.F.	2X4 J-BOX W/ 3/4" CONDUIT TO S-05 AND TO ABOVE CEILING.	
S	06	J-BOX SECURITY SYSTEM	+48" A.F.F.	2X4 J-BOX W/ (1) 1/2" CONDUIT TO ABOVE CEILING FOR SECURITY SYSTEM KEYPAD.	

COMMUNICATIONS ROUGH-IN SCHEDULE					
COMM. TYPE	COMM. #	EQUIPMENT ITEM	ELEVATION	REMARKS	
S	07	J-BOX SECURITY SYSTEM	TOP OF JAMB	2X4 J-BOX W/ (1) 1/2" CONDUIT TO ABOVE CEILING FOR DOOR CONTACT.	
S	08	"SOUND ALERT" DEVICE	CEILING	CONNECT TO SECURITY SYSTEM.	
S	09	SECURITY STROBE LIGHT	CEILING	CONNECT TO SECURITY SYSTEM.	
S	10	ALARM SIREN	ABV. CEILING	CONNECT TO SECURITY SYSTEM.	
S	11	MOTION / HEAT DETECTOR	+78" A.F.F.	STUB 1/2" CONDUIT, D5835 OR D5820. MOUNT 90" A.F.F. FOR OFFICE	
T	03	VOICE LINE PHONE JACK	+106" A.F.F.	2X4 J-BOX W/ DOUBLE RJ-11 PHONE JACK & 1" CONDUIT TO ABOVE CEILING	
T	04	COMPUTER PHONE JACK (SEE ENLARGED PLAN)	+42" A.F.F.	2X4 J-BOX W/ RJ-11 PHONE JACK AND 1" CONDUIT TO ABOVE CEILING.	
T	05	POS PHONE JACK	+24" A.F.F.	2X4 J-BOX W/ 1" CONDUIT TO ABOVE CEILING.	
TV	02		+96" A.F.F.	MINI-DOME CAMERA MTD. TO BTM. OF MENU BOARD BULKHEAD. 2X4 J-BOX W/ (1) 1/2" CONDUIT TO ABOVE CEILING MTD. ON BACK SIDE OF BULKHEAD (6 TOTAL).	
V	02	CREDIT CARD READER (VSAT)	+24" A.F.F.	2X4 J-BOX W/ 1/2" CONDUIT TO ABOVE CEILING FOR ETHERNET CABLES.	
V	03	DIGITAL MENUBOARD	+106" A.F.F.	J-BOX MTD. TO TOP OF MENU BOARD BULKHEAD. 2X4 J-BOX W/ (1) 1/2" CONDUIT (2	
S	01	J-BOX SECURITY SYSTEMS	+48" A.F.F.	4X4 J-BOX AT SECURITY SYSTEM CONTROL PANEL W/ (1) 2" CONDUIT TO S-02	
S	02	J-BOX SECURITY SYSTEMS	+106" A.F.F.	4X4 J-BOX ADJACENT TO T-02 W/ (1) 2" CONDUIT TO S-01	
S	12	J-BOX SECURITY DVR	+42" A.F.F.	2X4 J-BOX FOR SECURITY DVR	
T	02	SECURITY SYSTEM PHONE JACK	+106" A.F.F.	2X4 J-BOX ADJACENT TO S-02 W/ RJ-31X PHONE JACK	
V	01	ALTERNATE PAYMENT ROUTER BOX	+90" A.F.F.	4X4 J-BOX W/ 1/2" CONDUIT TO ABOVE CEILING FOR ETHERNET CABLES	
HM	10	OCB SWITCH	+52" A.F.F.	2X4 J-BOX W/ 1" CONDUIT TO ABOVE CEILING	
IR	01	IRRIGATION TIMER	+80" A.F.F.	4X4 J-BOX W/ 1" CONDUIT TO IRRIGATION VALVES	

**COMMUNICATIONS LEGEND** NTS **C**

HOLD-UP BUTTON (MOUNT 2-1/2" BEHIND COUNTER EDGE)	DOOR CONTACT (LINKED TO AUDIO / VISUAL ALARM)
MUSIC SYSTEM SPEAKERS	"SOUND ALERT" DEVICE
SECURITY STROBE	KEYPAD (MTD AT 48" A.F.F.)
J-BOX	ALARM SIREN ABOVE CLG
2" x 4" J-BOX W/ DATA PORTS	BUMP PAD (MOUNT AT FRONT COUNTER)
MOTION DETECTOR	HOOD FIRE SUPPRESSION
OCCUPANCY SENSOR, CEILING MOUNTED. SEE DETAILS 1 & 2 / E7.0	USB OUTLET STATION

- COMMUNICATIONS NOTES** NTS **B**
- SUPPLY AND INSTALL OUTLETS AND CONDUIT FOR OWNER SUPPLIED AND INSTALLED CABLE AND LOW VOLTAGE WIRING (U.O.N.). TELEPHONE AND MUSIC SYSTEM WIRING SHALL BE SUPPLIED AND INSTALLED. SEE SCOPE OF WORK SHEETS.
  - SEE SHEETS E3.0 AND E3.1 FOR ELECT. INFO ON POS, SECURITY SYSTEM, CCTV SYSTEM, (OFFICE) COMPUTER, DRIVE-THRU TIMER AND DRIVE-THRU COMMUNICATION SYSTEM.
  - THIS PLAN INCLUDES CONDUITS AND J-BOXES FOR POS, SECURITY SYSTEM, CCTV SYSTEM, (OFFICE) COMPUTER, TELEPHONE SYSTEM, MUSIC SYSTEM, DRIVE-THRU TIMER AND DRIVE-THRU COMMUNICATION SYSTEM.
  - ALL OUTLETS AND BOXES MOUNTED IN THE SERVING COUNTER CABINETS ARE TO BE 24" AFF. INSTALL JUNCTION BOXES WITH CONDUIT UNDER CABINET TO NEAREST WALL AND TO ABOVE CEILING.

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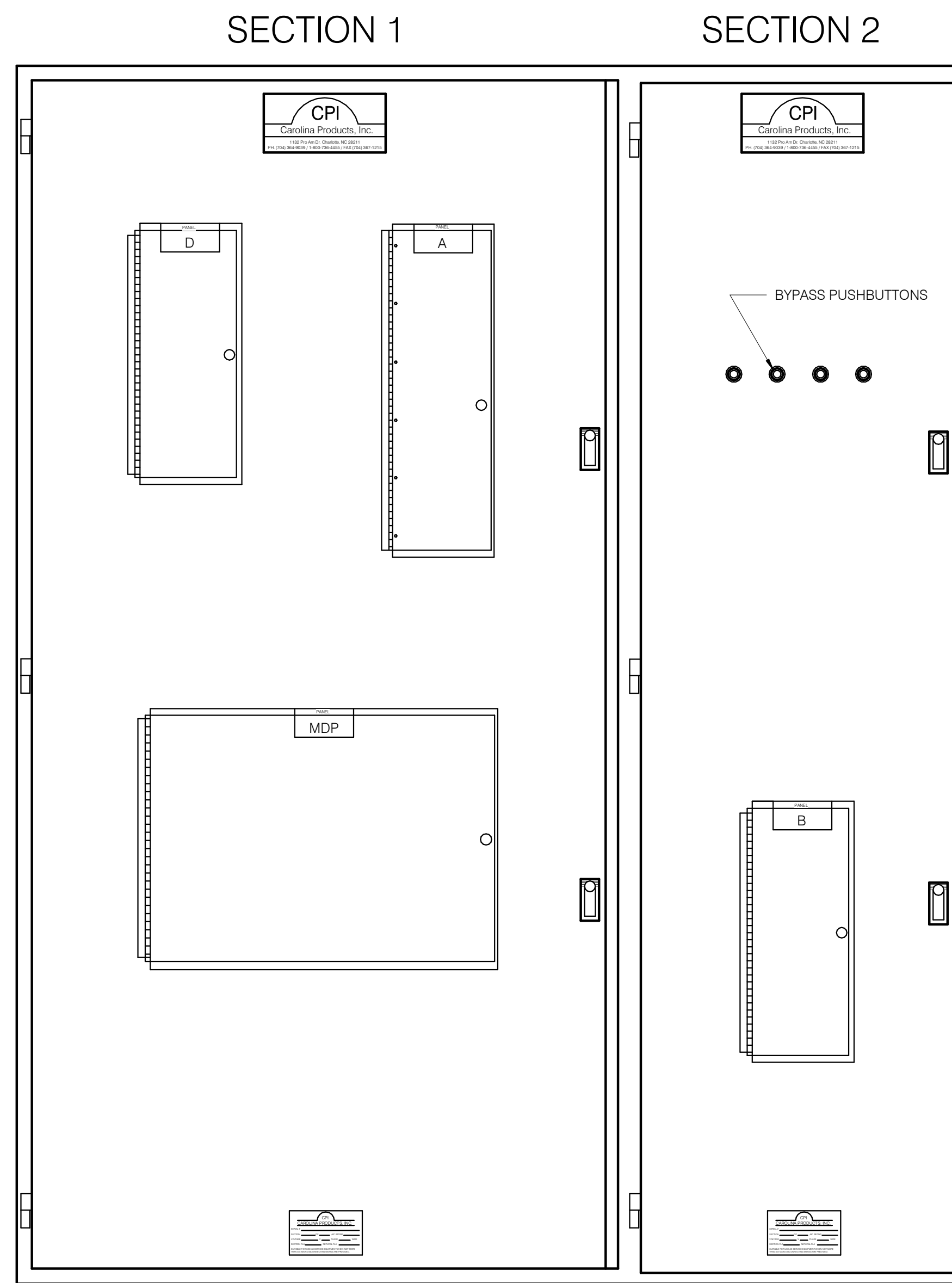
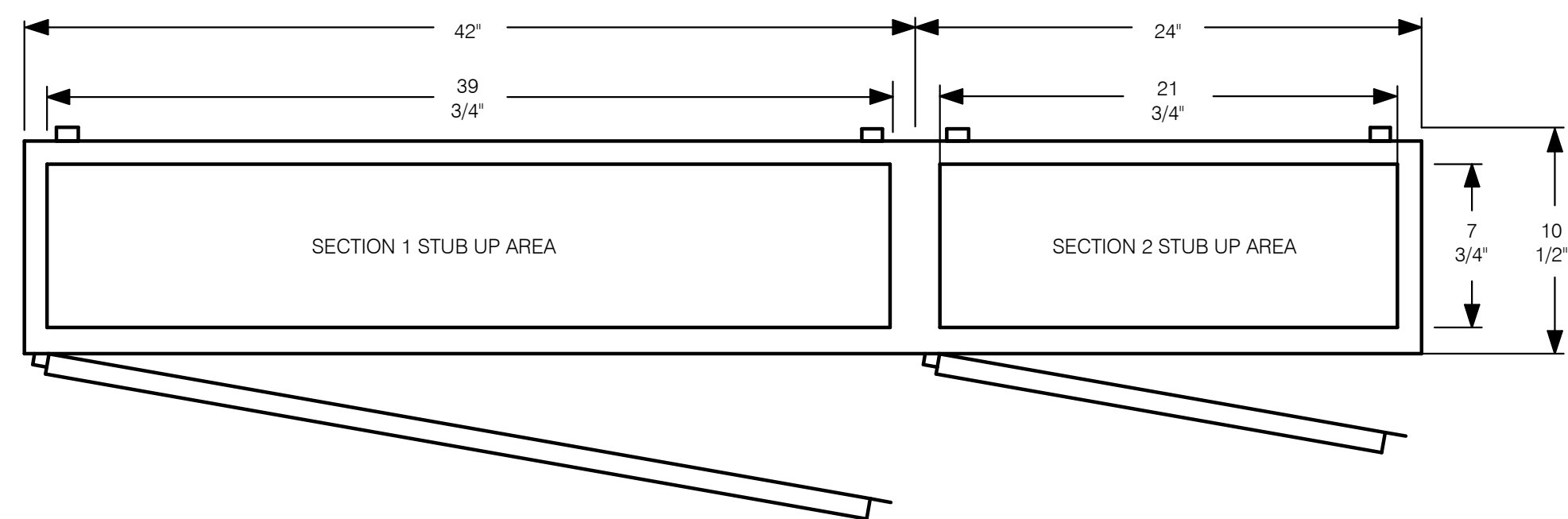
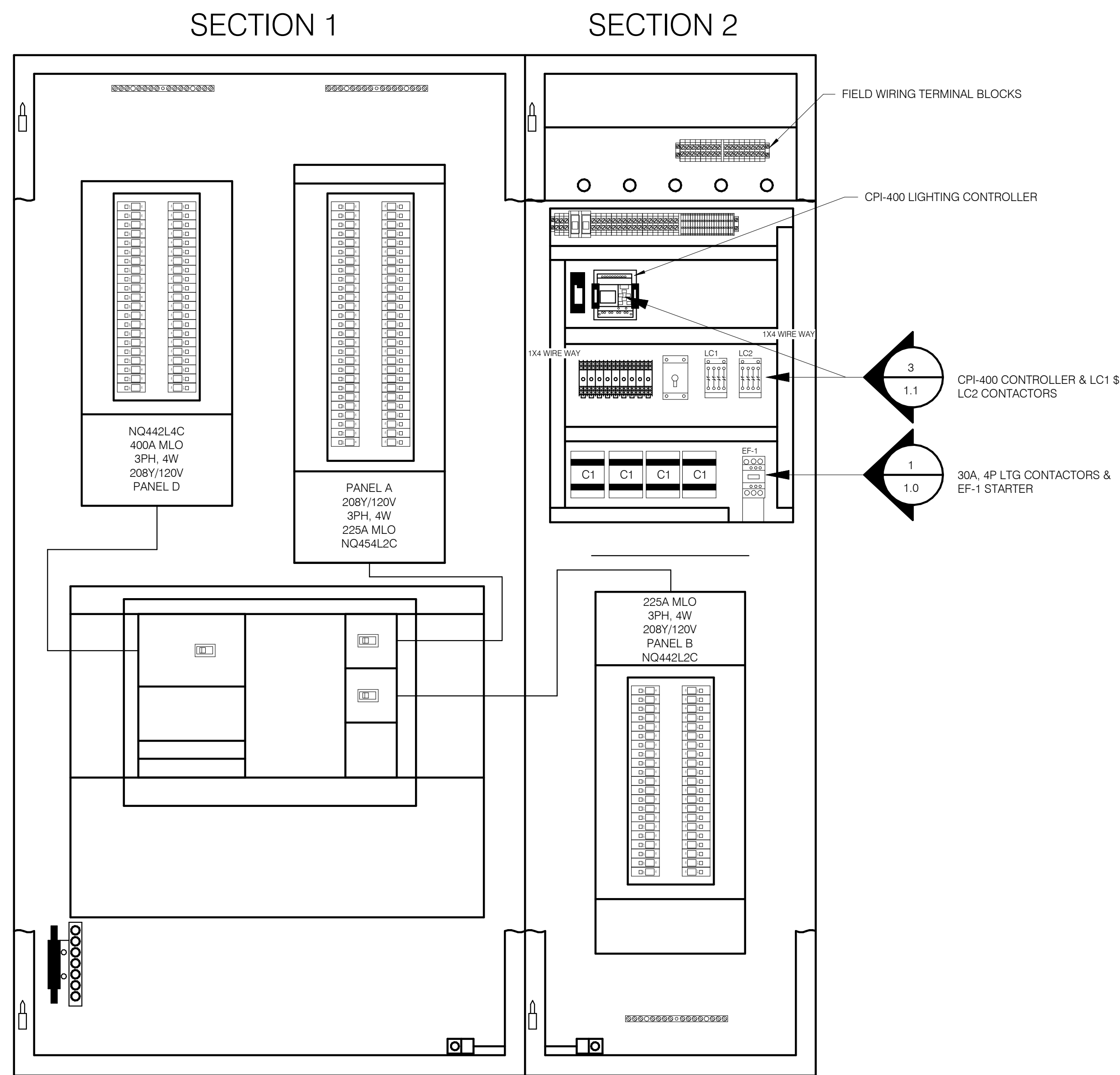
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 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40M-O  
 OPEN KITCHEN  
 MODERN EXPLORER

**COMMUNICATIONS PLAN**

**E5.0**  
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**CPI INTEGRATED TACO BELL CONTROLS :**

THE CPI CONTROL SYSTEM IS TO ACTIVATE OR DEACTIVATE THE FOLLOWING:

- BUILDING SIGNS AND PARKING LIGHTS
- KITCHEN AND DINING LIGHTING
- EXHAUST HOOD FAN (EF-1 AND EF-2)
- MAKE UP AIR / REPLACEMENT AIR FAN

**SEQUENCE OF OPERATION**

**OCCUPIED MODE**

A TEAM MEMBER TURNS ON KITCHEN LIGHTS BY FLIPPING A WALL SWITCH 'UP' IN THE KITCHEN, PLACING THE KITCHEN IN 'OCCUPIED' MODE. THE SWITCH IS INSTALLED INVERTED IN THE KITCHEN SO THAT THE NORMAL ACTION OF FLIPPING THE SWITCH UP BREAKS POWER TO THE LIGHTING CONTACTOR (LC1) IN THE CPI SWITCHGEAR CONTROL SYSTEM. THE CONTACTS IN THE LIGHTING CONTACTOR REVERT TO THEIR NORMALLY CLOSED POSITION. THIS ALLOWS POWER TO PROCEED TO THE FOLLOWING:

- THE RESTROOM AND COOKLINE EXHAUST FAN MARKED 'EF-2'
- A LIGHT SWITCH IN THE KITCHEN FOR THE DINING ROOM LIGHTS
- THE KITCHEN LIGHTS
- THE EXHAUST HOOD FAN MARKED 'EF-1', HOOD LIGHTS, AND RELAY (R6) FOR MAKE UP AIR / REPLACEMENT AIR FAN (EVAPORATOR FAN) IN RTU-1 AND RTU-2.

**UNOCCUPIED MODE**

A TEAM MEMBER TURNS OFF THE KITCHEN LIGHTS BY FLIPPING THE WALL SWITCH 'DOWN' IN THE KITCHEN, PLACING THE KITCHEN IN 'UNOCCUPIED' MODE. THE SWITCH IS INSTALLED INVERTED IN THE OFFICE SO THAT THE NORMAL ACTION OF FLIPPING THE SWITCH DOWN PROVIDES POWER TO THE LIGHTING CONTACTOR (LC1) IN THE CPI SWITCHGEAR CONTROL SYSTEM. THE CONTACTS IN THE LIGHTING CONTACTOR OPEN FROM THEIR NORMALLY CLOSED POSITION. THIS BREAKS POWER TO THE FOLLOWING:

- THE RESTROOM AND COOK LINE EXHAUST FAN MARKED 'EF-2'
- A LIGHT SWITCH IN THE KITCHEN FOR THE DINING ROOM LIGHTS
- THE KITCHEN LIGHTS
- OCCUPIED SIGNAL FOR THE EXHAUST HOOD FAN MARKED 'EF-1' AND RELAY (R6) FOR THE MAKE UP AIR / REPLACEMENT AIR FAN (EVAPORATOR FAN) IN RTU-1 AND RTU-2.

**EXHAUST FAN (EF-1) AND MAKE UP AIR RELAY (R6) OFF DELAY TIMER**

UPON LOSING THE 'OCCUPIED' MODE SIGNAL FROM WALL SWITCH IN THE KITCHEN THE CPI-400 CONTROLLER WILL START AN OFF DELAY TIMER (15 MINUTES). DURING THIS TIME DURATION THE EXHAUST FAN (EF-1) AND RELAY (R6) FOR THE MAKE UP AIR / REPLACEMENT AIR FAN (EVAPORATOR FAN) IN RTU-1 AND RTU-2 WILL REMAIN ON. AFTER THE TIME DURATION HAS ELAPSED THE EF-1 AND R6 COMPONENTS WILL TURN OFF. \*\*OFF DELAY TIMER IS ADJUSTABLE VIA CPI-400 BUILT-IN DISPLAY SCREEN.

**HOOD STAT**

IN THE EVENT OF A RISE IN TEMPERATURE ABOVE 100°F IN THE EXHAUST HOOD, CONTROL VOLTAGE WILL BE SENT TO THE CPI-400 WHICH WILL IMMEDIATELY ACTIVATE EXHAUST FAN (EF-1) AND RELAY (R6). WHEN ACTIVATED, MOTOR STARTER EF-1 CONTACTS CLOSE PROVIDING POWER TO EXHAUST FAN MOTOR. IT ALSO CLOSES AUXILIARY CONTACTS THAT TURN ON THE EXHAUST HOOD LIGHTS. UPON ACTIVATION OF RELAY R6, THE CONTACTS FOR RTU-1 AND RTU-2 CLOSE, RETURNING 24VAC TO THE EVAPORATOR FAN CONTROLLER OF EACH UNIT.

WHEN IN UNOCCUPIED MODE AND UPON DROP IN TEMPERATURE BELOW 100°F IN THE EXHAUST HOOD, CONTROL VOLTAGE TO THE CPI-400 IS DROPPED AND STARTS THE OFF DELAY TIMER MENTIONED IN THE 'EXHAUST FAN (EF-1) AND MAKE UP AIR RELAY (R6) OFF DELAY TIMER NOTES ABOVE)

**EXTERIOR LIGHTS**

LIGHTS ON: LIGHTING IN BOTH ZONE 1 AND ZONE 2 SHALL TURN ON WHEN BOTH TIME OF DAY SCHEDULE AND EXTERIOR LIGHT LEVEL AGREE.

LIGHTS OFF: LIGHTING IN ZONE 1 AND ZONE 2 SHALL TURN OFF WHEN EITHER THE TIME OF DAY SCHEDULE OR EXTERIOR LIGHT LEVEL AGREE.

OVERRIDE: THE MOMENTARY ILLUMINATED PUSHBUTTONS INSTALLED ON DOOR OF THE CPI SWITCHGEAR SHALL TURN LIGHTS ON OR OFF REGARDLESS OF WHETHER THE TIME OF DAY SCHEDULE OR EXTERIOR LIGHT LEVELS. WHEN THE OVERRIDE IS USED TO TURN ON THE LIGHTS, THE CPI-400 SHALL TURN THE LIGHTS OFF AGAIN WITHIN AN HOUR AND THE OVERRIDE FUNCTION SHALL BE DEACTIVATED. WHEN THE OVERRIDE IS USED TO TURN LIGHTS OFF, THE NEXT SCHEDULED TIME OF DAY OR EXTERIOR LIGHT LEVEL EVENT SHALL DEACTIVATE THE OVERRIDE FUNCTION AND THE SYSTEM SHALL RETURN TO NORMAL FUNCTION.

UNITIZED SWITCHGEAR WITH INTEGRATED CONTROLS SUPPLIER:

CAROLINA PRODUCTS, IN  
(704) 364-9029 (PH)  
(704) 367-1215 (FAX)

PRIMARY CONTACT: TONY THORNTON  
EMAIL: TONYT@CPIPANELS.COM

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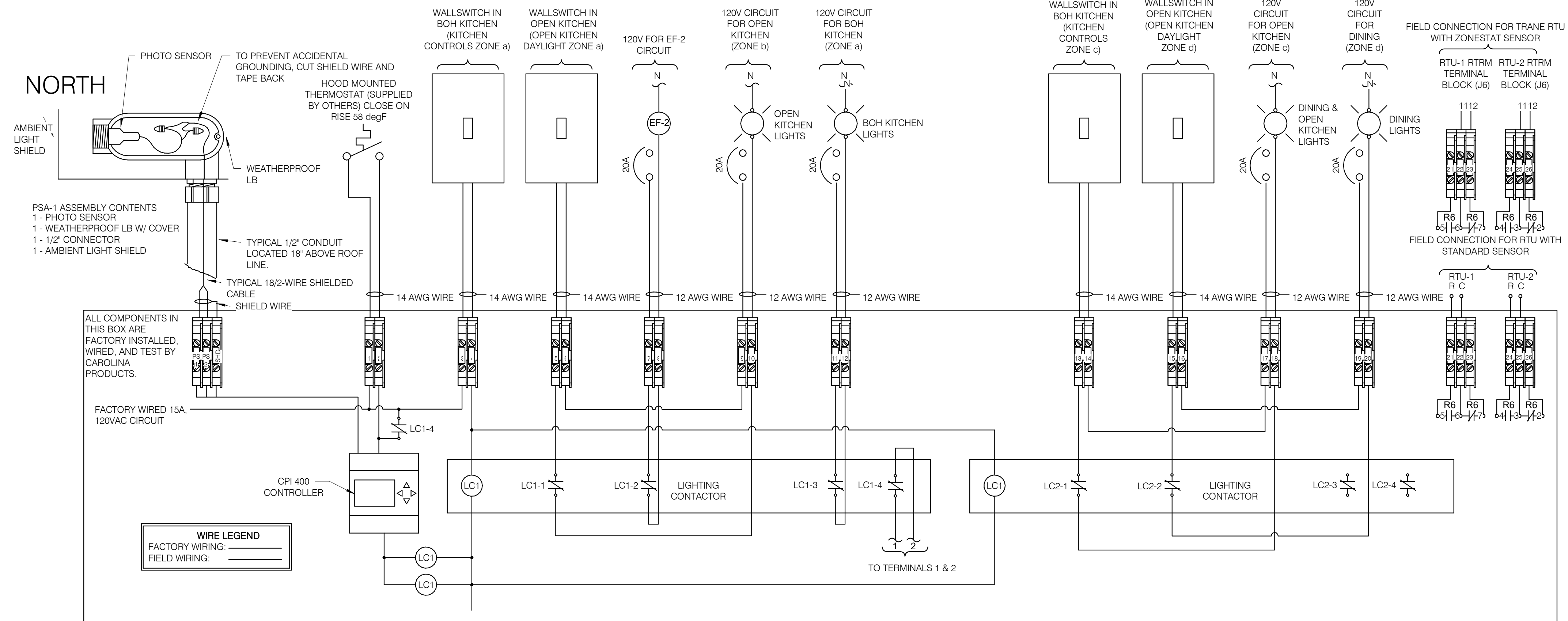
T40M-O  
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**ELECTRICAL  
DETAILS**

(FOR REFERENCE ONLY)

**E6.0**

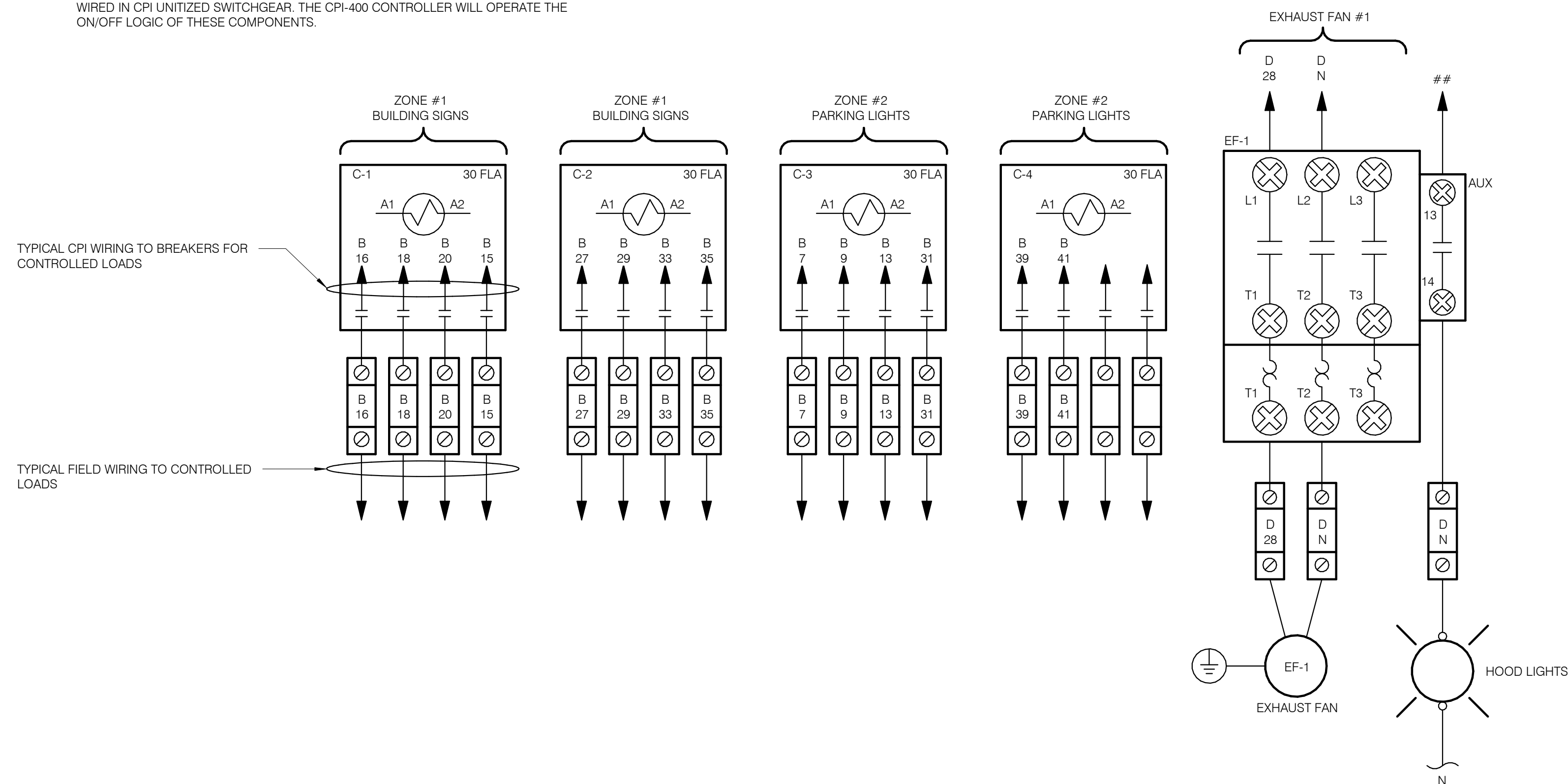
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**CPI SWITCHGEAR INTEGRATED CONTROL** 6" = 1'-0"

**IMPORTANT NOTE:**

ALL LIGHTING CONTACTORS AND EXHAUST FAN (EF-1) ARE FACTORY INSTALLED AND WIRED IN CPI UNITIZED SWITCHGEAR. THE CPI-400 CONTROLLER WILL OPERATE THE ON/OFF LOGIC OF THESE COMPONENTS.



**LIGHTING CONTACTORS AND EF-1 STARTER WIRING DETAIL** N.T.S.

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SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

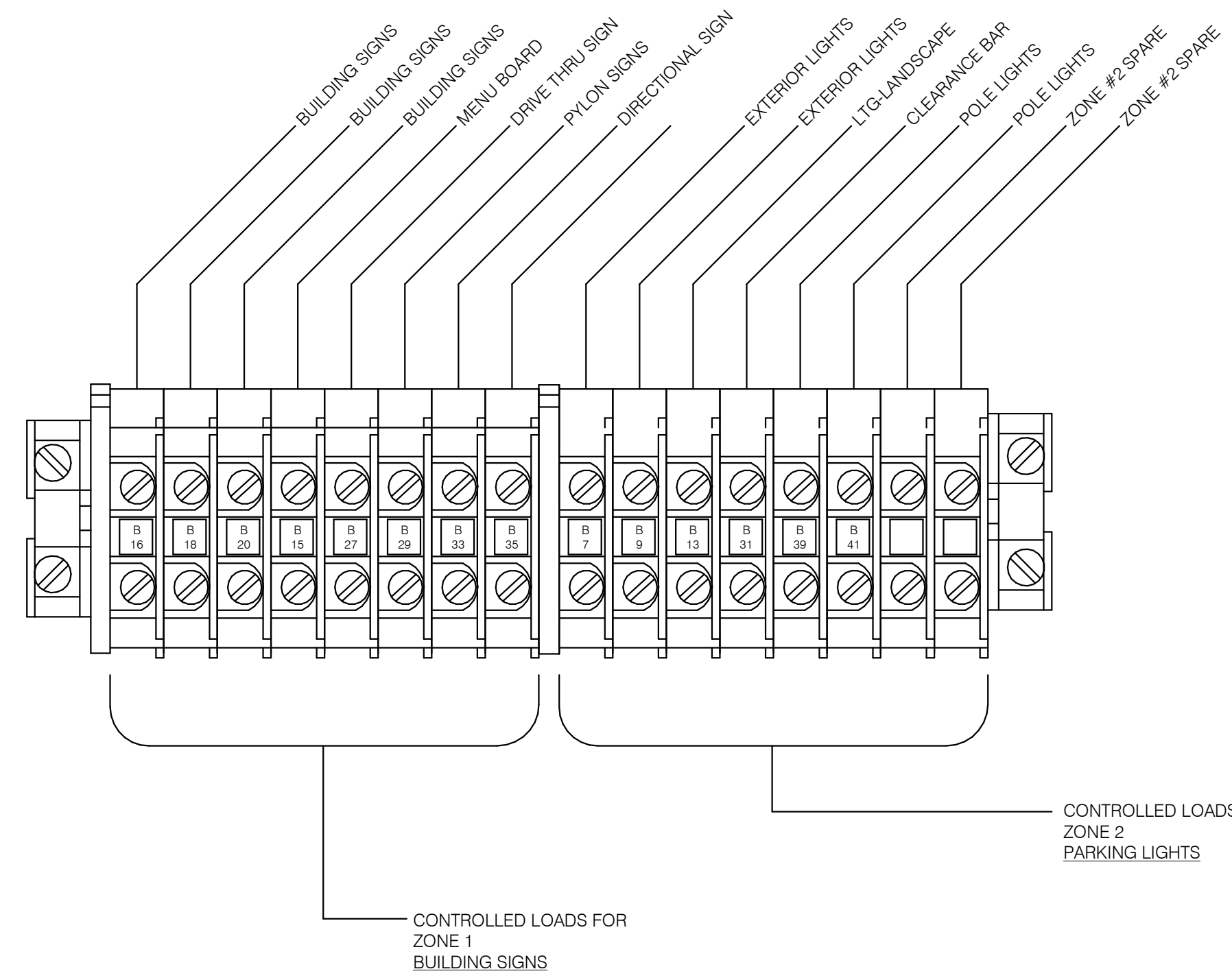
**Taco Bell**  
37500 FORD ROAD  
WESTLAND, MI 48185

**TACO BELL**  
T40M-O  
OPEN KITCHEN  
MODERN EXPLORER

**ELECTRICAL DETAILS**  
(FOR REFERENCE ONLY)

**E6.1**

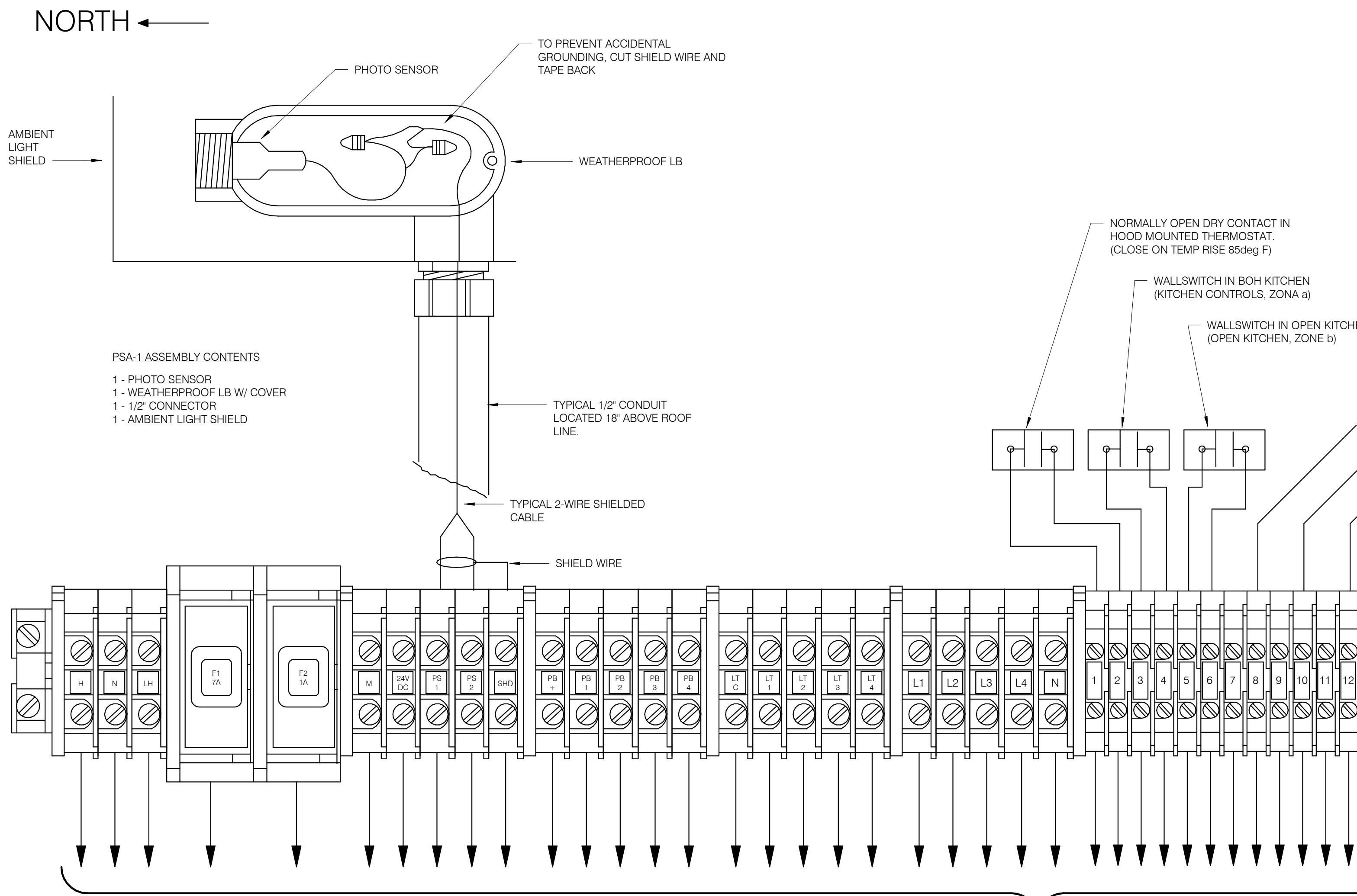




**FIELD CONNECTIONS TO CONTROLLED LOADS FROM TERMINAL BLOCK SHELF** N.T.S. **1**

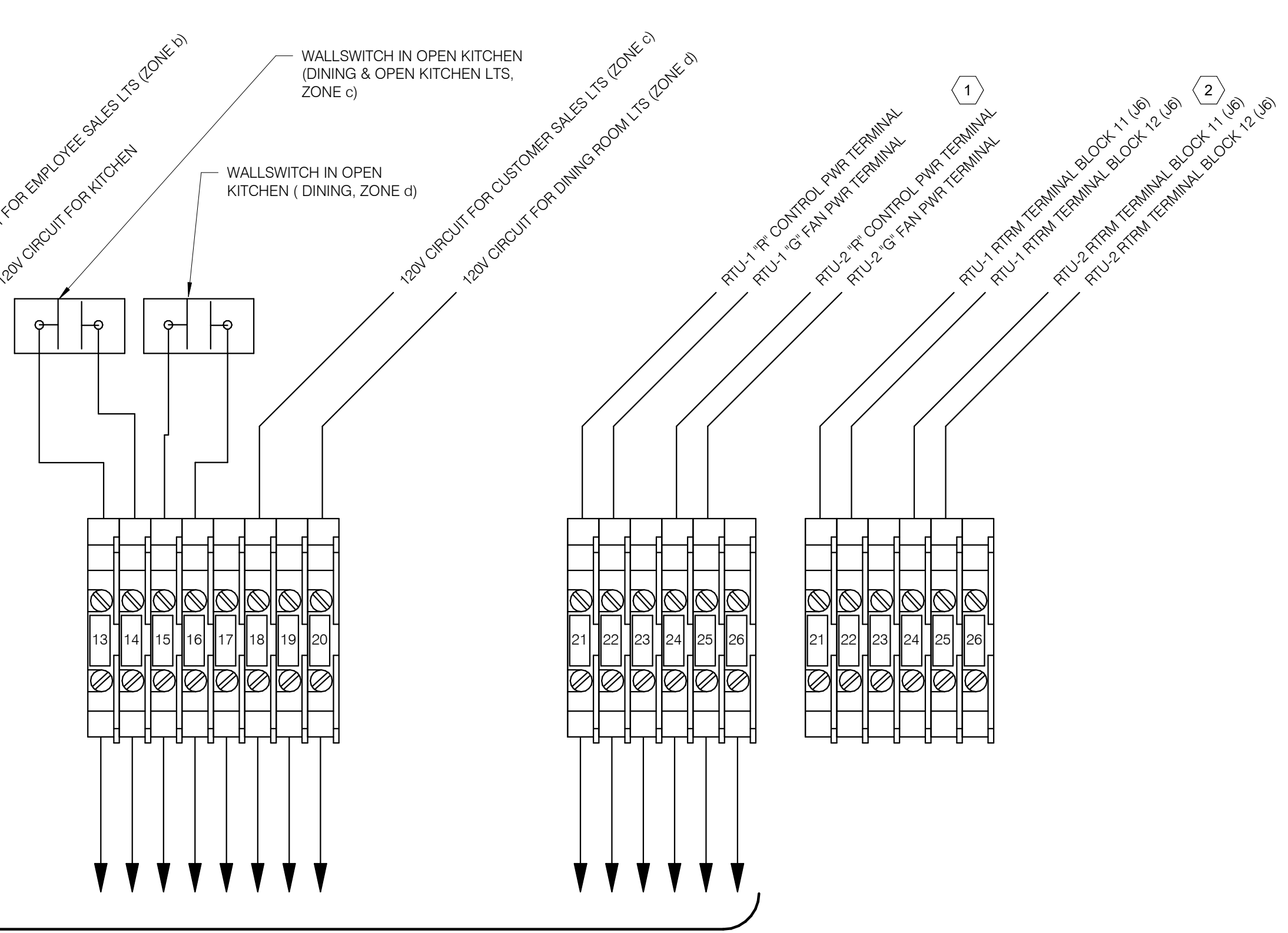
**NOTES:** #

1. FIELD CONNECTION FOR RTU WITH STANDARD SENSOR.
2. FIELD CONNECTION FOR TRANE RTU WITH ZONESTAT SENSOR.



- PSA-1 ASSEMBLY CONTENTS**
- 1 - PHOTO SENSOR
  - 1 - WEATHERPROOF LB W/ COVER
  - 1 - 1/2" CONNECTOR
  - 1 - AMBIENT LIGHT SHIELD

REFER TO DETAIL 3 (THIS SHEET) FOR FACTORY CONTROL WIRING



**FIELD CONNECTIONS TO TERMINAL BLOCKS** N.T.S. **2**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

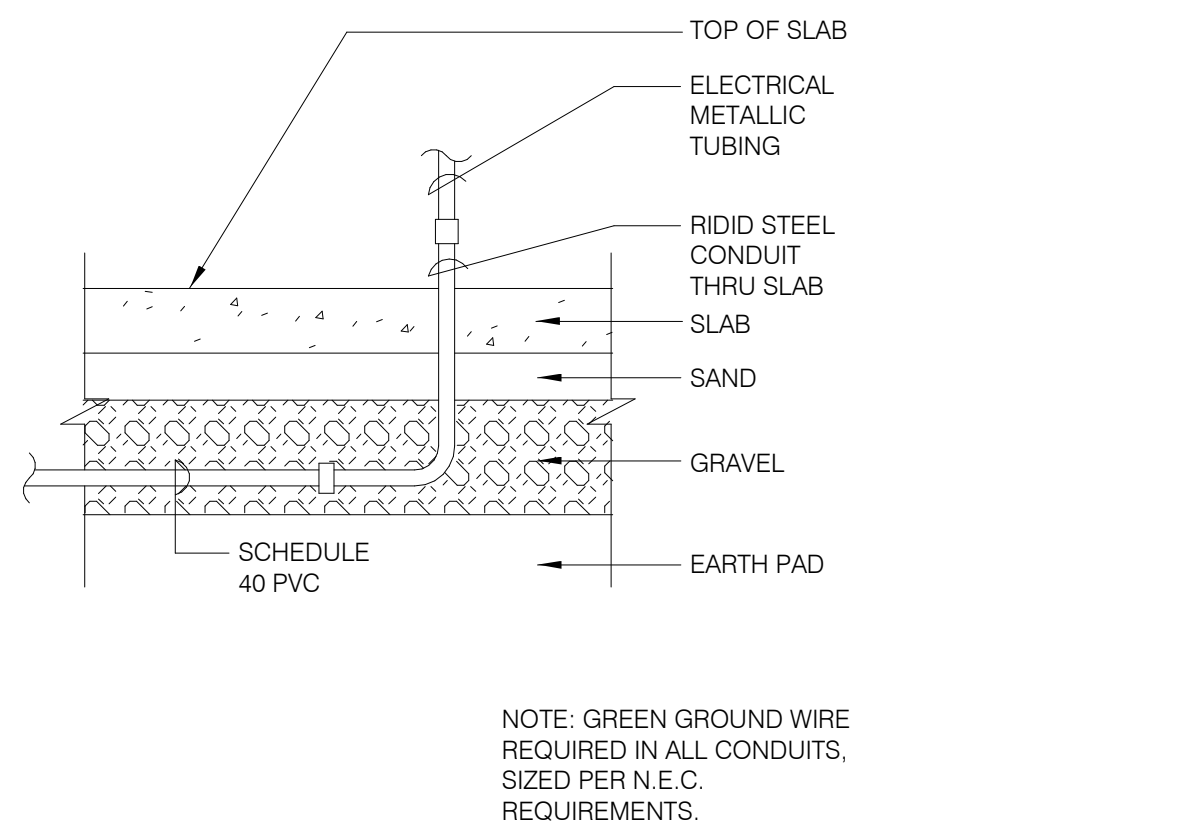
CONTRACT DATE: XX.XX.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

**Taco Bell**  
37500 FORD ROAD  
WESTLAND, MI 48185

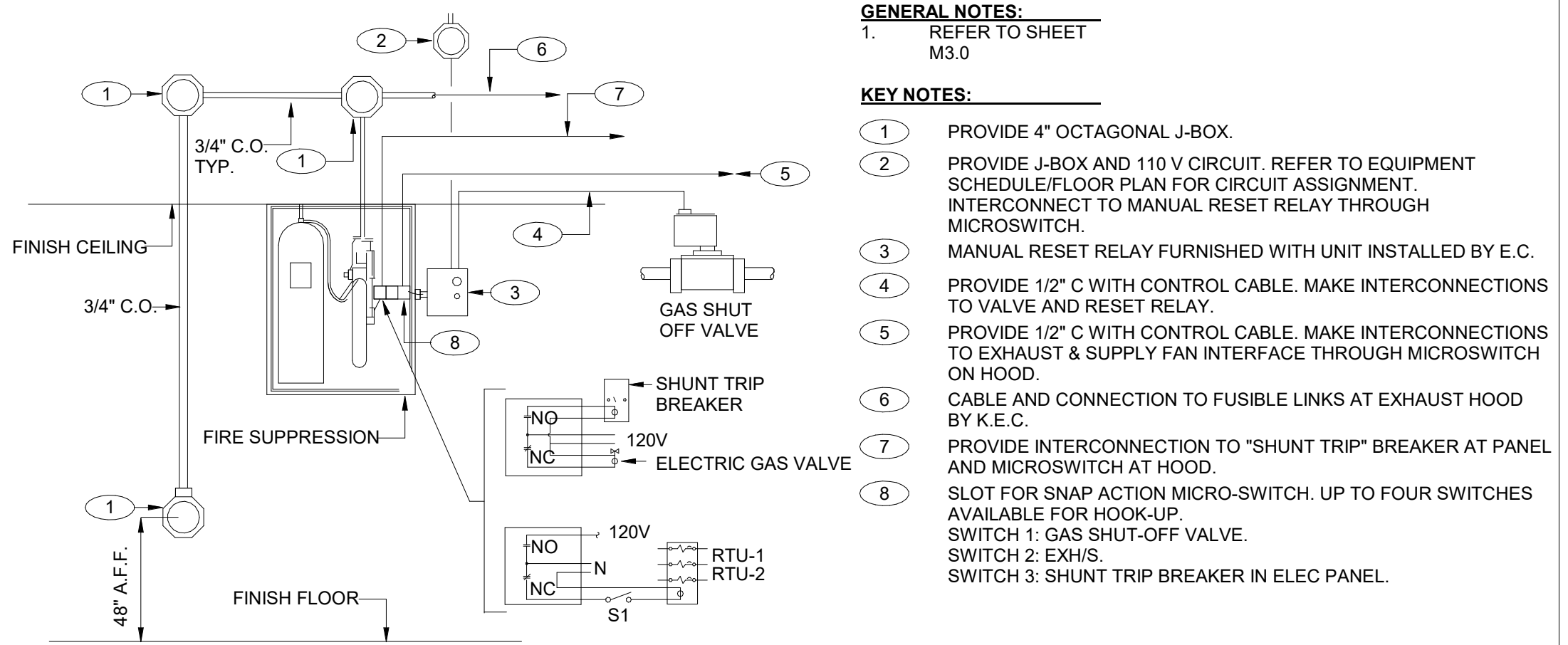
**TACO BELL**  
T40M-O  
OPEN KITCHEN  
MODERN EXPLORER

**ELECTRICAL DETAILS**  
(FOR REFERENCE ONLY)

**E6.2**

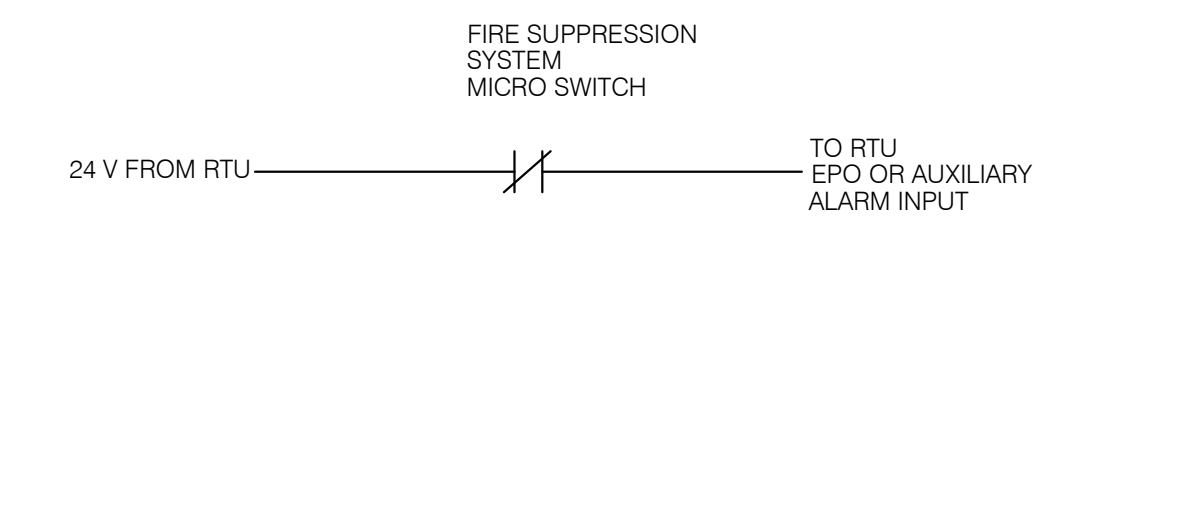


**UNDER SLAB CONDUIT1** 12" = 1'-0" **6**

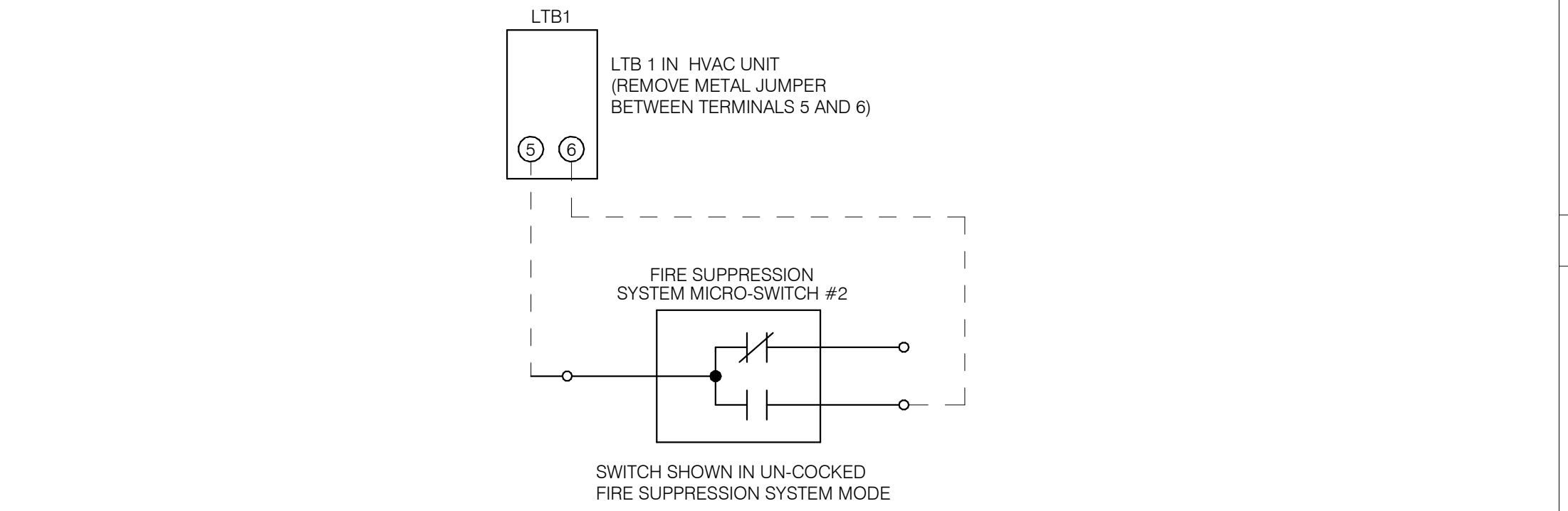


**FIRE SUPPRESSION SYSTEM WIRING DIAGRAM1** 12" = 1'-0" **4**

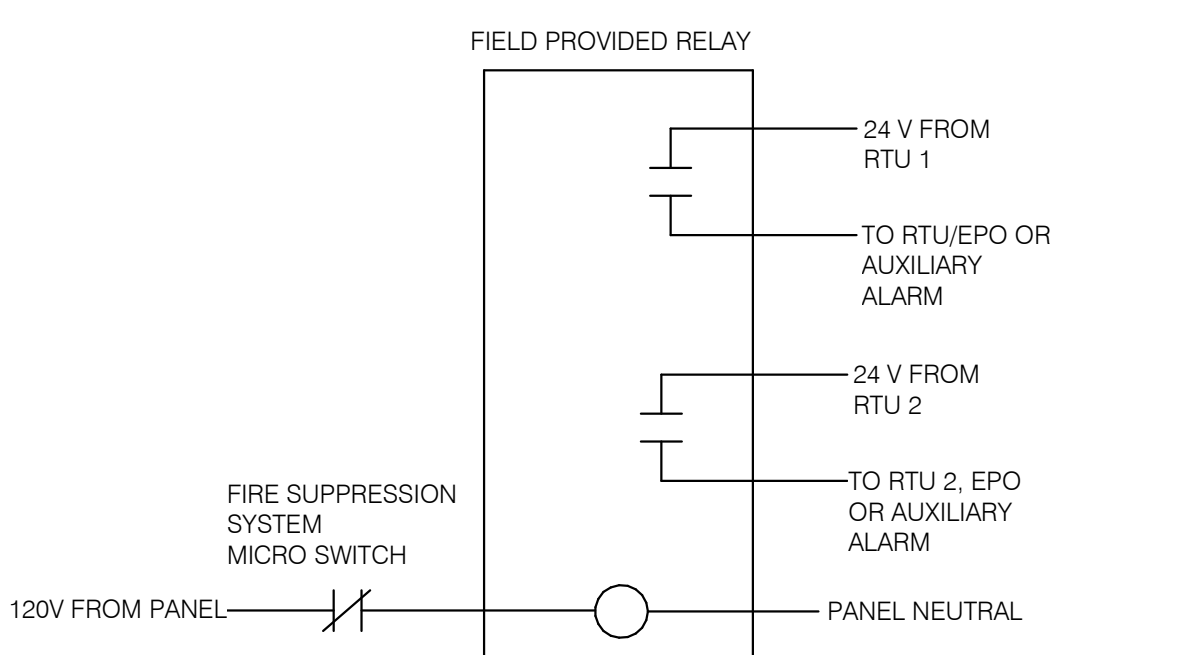
- GENERAL NOTES:**  
 1. REFER TO SHEET M3.0
- KEY NOTES:**
- 1 PROVIDE 4" OCTAGONAL J-BOX.
  - 2 PROVIDE J-BOX AND 110 V CIRCUIT. REFER TO EQUIPMENT SCHEDULE/FLOOR PLAN FOR CIRCUIT ASSIGNMENT. INTERCONNECT TO MANUAL RESET RELAY THROUGH MICROSWITCH.
  - 3 MANUAL RESET RELAY FURNISHED WITH UNIT INSTALLED BY E.C.
  - 4 PROVIDE 1/2" C WITH CONTROL CABLE. MAKE INTERCONNECTIONS TO VALVE AND RESET RELAY.
  - 5 PROVIDE 1/2" C WITH CONTROL CABLE. MAKE INTERCONNECTIONS TO EXHAUST & SUPPLY FAN INTERFACE THROUGH MICROSWITCH ON HOOD.
  - 6 CABLE AND CONNECTION TO FUSIBLE LINKS AT EXHAUST HOOD BY K.E.C.
  - 7 PROVIDE INTERCONNECTION TO "SHUNT TRIP" BREAKER AT PANEL AND MICROSWITCH AT HOOD.
  - 8 SLOT FOR SNAP ACTION MICRO-SWITCH. UP TO FOUR SWITCHES AVAILABLE FOR HOOK-UP.  
 SWITCH 1: GAS SHUT-OFF VALVE.  
 SWITCH 2: EXH/S.  
 SWITCH 3: SHUNT TRIP BREAKER IN ELEC PANEL.



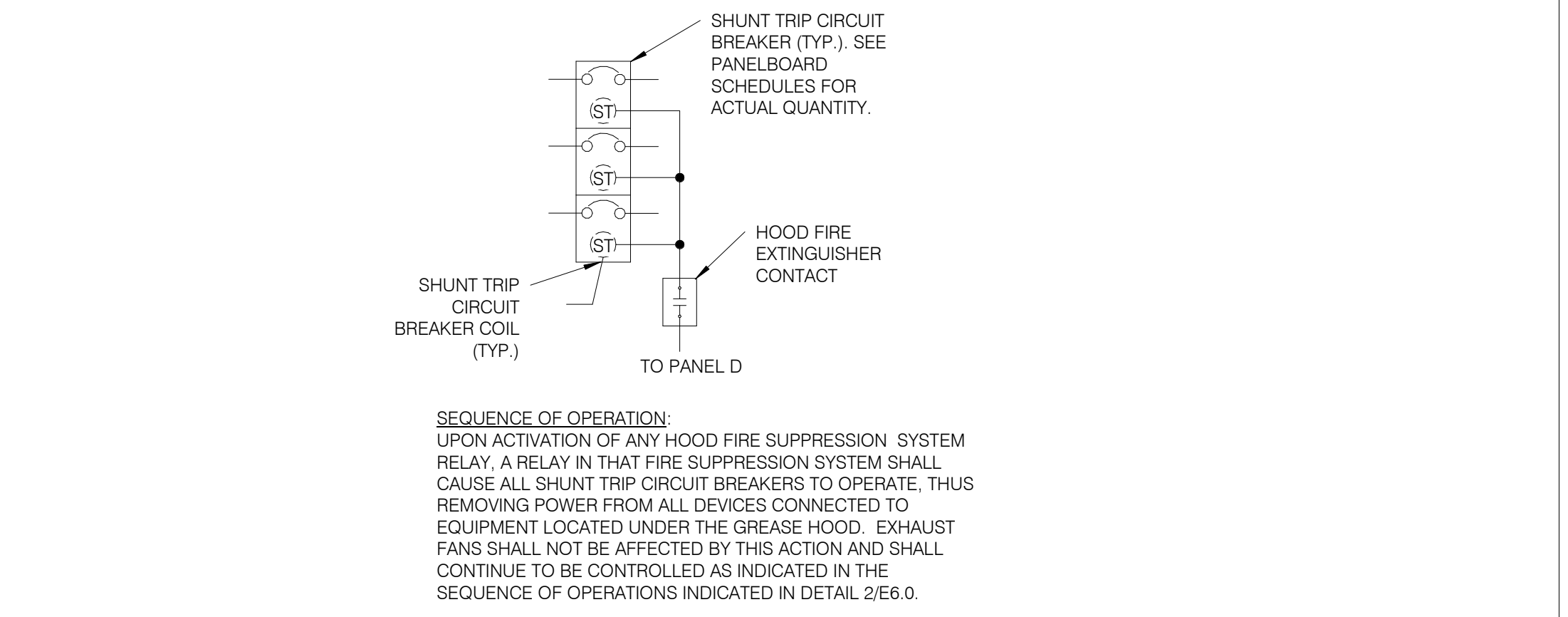
**SINGLE UNIT SHUTDOWN** N.T.S. **7**



**FIRE SUPPRESSION SYSTEM-TRANE SHUTDOWN** N.T.S. **5**

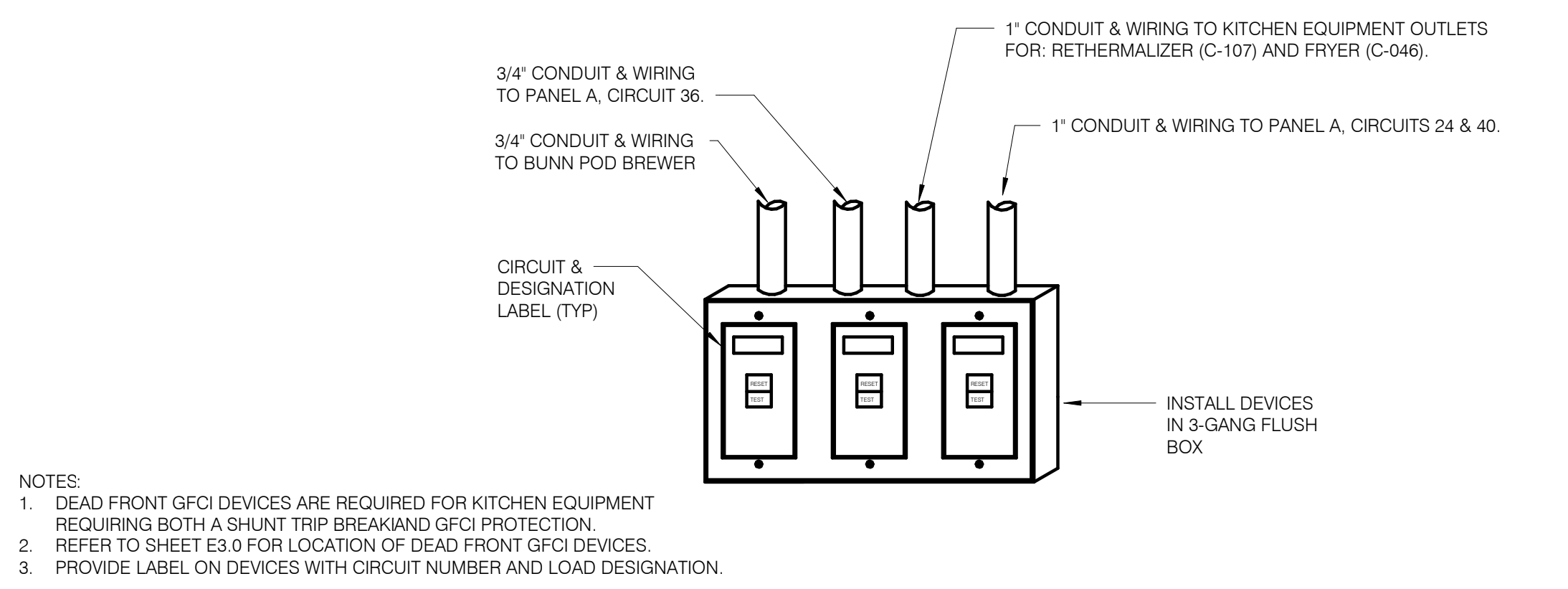


**MULTI UNIT SHUTDOWN** N.T.S. **8**



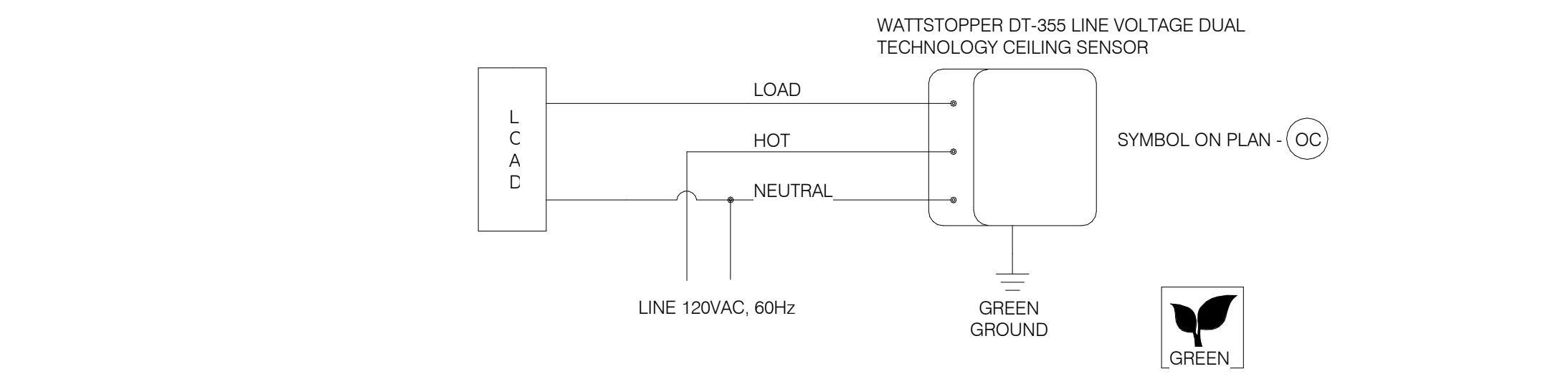
**SEQUENCE OF OPERATION:**  
 UPON ACTIVATION OF ANY HOOD FIRE SUPPRESSION SYSTEM RELAY, A RELAY IN THAT FIRE SUPPRESSION SYSTEM SHALL CAUSE ALL SHUNT TRIP CIRCUIT BREAKERS TO OPERATE, THUS REMOVING POWER FROM ALL DEVICES CONNECTED TO EQUIPMENT LOCATED UNDER THE GREASE HOOD. EXHAUST FANS SHALL NOT BE AFFECTED BY THIS ACTION AND SHALL CONTINUE TO BE CONTROLLED AS INDICATED IN THE SEQUENCE OF OPERATIONS INDICATED IN DETAIL 2/E6.0.

**SHUNT TRIP DETAIL1** 12" = 1'-0" **9**

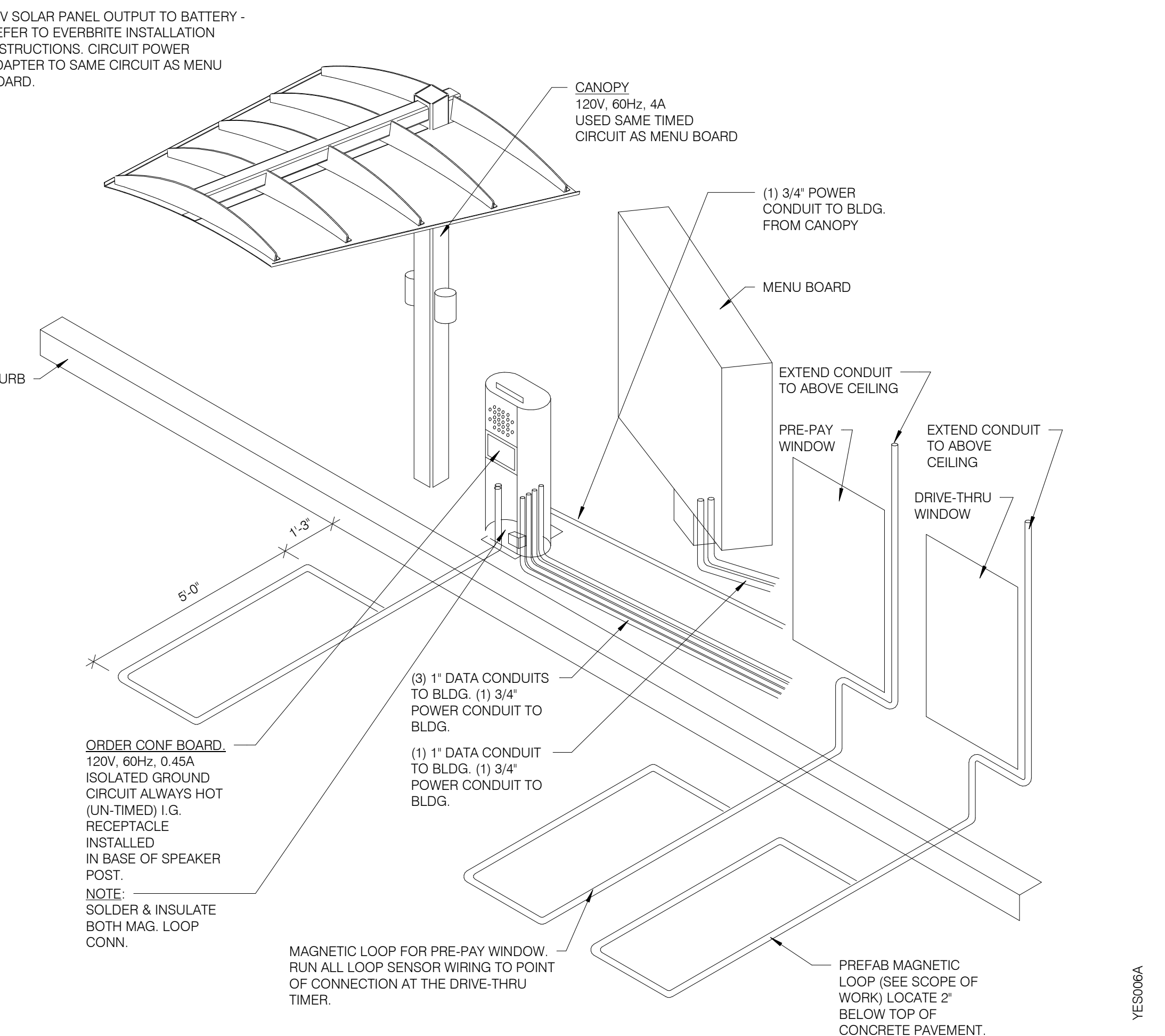


- NOTES:**
1. DEAD FRONT GFCI DEVICES ARE REQUIRED FOR KITCHEN EQUIPMENT REQUIRING BOTH A SHUNT TRIP BREAK AND GFCI PROTECTION.
  2. REFER TO SHEET E3.0 FOR LOCATION OF DEAD FRONT GFCI DEVICES.
  3. PROVIDE LABEL ON DEVICES WITH CIRCUIT NUMBER AND LOAD DESIGNATION.

**DEAD-FRONT GFCI DEVICE DETAIL** N.T.S. **3**



**CEILING OCCUPANCY SENSOR WIRING DIAGRAM1** N.T.S. **2**



**ORDER CONE BOARD:**  
 120V, 60Hz, 0.45A  
 ISOLATED GROUND  
 CIRCUIT ALWAYS HOT  
 (UN-TIMED) I.G.  
 RECEPTACLE  
 INSTALLED  
 IN BASE OF SPEAKER  
 POST.  
 NOTE:  
 SOLDER & INSULATE  
 BOTH MAG. LOOP  
 CONN.

MAGNETIC LOOP FOR PRE-PAY WINDOW.  
 RUN ALL LOOP SENSOR WIRING TO POINT  
 OF CONNECTION AT THE DRIVE-THRU  
 TIMER.

PREFAB MAGNETIC  
 LOOP (SEE SCOPE OF  
 WORK) LOCATE 2"  
 BELOW TOP OF  
 CONCRETE PAVEMENT.

**DRIVE-THRU COMMUNICATIONS ISOMETRIC1** N.T.S. **1**

09.17.18	ISSUED FOR CONSTRUCTION
07.30.18	ISSUED FOR BID
04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: XX.XX.18  
 BUILDING TYPE: T40M-O  
 PLAN VERSION: DEC 2017  
 BRAND DESIGNER:  
 SITE NUMBER: 312720/446548  
 STORE NUMBER: 2017088.72

**Taco Bell**  
 37500 FORD ROAD  
 WESTLAND, MI 48185

**TACO BELL**  
 T40M-O  
 OPEN KITCHEN  
 MODERN EXPLORER

**ELECTRICAL DETAILS**

**E7.0**

TITLE	DESCRIPTION	SUPPLIER	MANUFACTURER'S MODEL	A&D ITEM #	ORDERED BY	SHIPPED BY	INSTALLED BY	SHOP DRAWINGS
6200	Roof Access Ladder & Hatch (T50 only)	Precision	FL 184 (Ladder) & PLHG (Hatch)	B-049 (Ladder) & B-050 (Hatch)	DIS	DIS	GC	
8341	Door - Security	LockNet	DU3670L5ZVED	-	RSCS	RSCS	GC	
10290-1	Air Curtain (D/T Window)	Marley	E2400-1115FG	B-151	DIS	DIS	GC	
10290-2	Air Curtain (Service Door)	Marley	E4200-1175	B-150	DIS	DIS	GC	
	Exterior Menu Board & Preview Board Housings	Everbrite	VARIES	-	CM (Company), CM or DIS (Franchise)	Manufacturer	Federal Heath Sign Co or GC	X
	Interior Menuboard	Order Matic Corporation	VARIES	-	DIS	Manufacturer	GC	
	Exterior Menuboard Strip, Interior Menu Board Panels, POP	VGS	VGS #MB-MBD-I-10P	L-016	DIS	Manufacturer	GC	
	Signage (Bldg Signs, Road Signs, Directional Signs)	Taco Bell Marketing (represents supplier "Archway")	-	-	RSCS	DIS	OPS	
10430		Everbrite	VARIES	VARIES	CM (Company), CM or DIS (Franchise)	Manufacturer	Manufacturer (Local Installer)	X
			VARIES	VARIES				
			VARIES	VARIES				
10536	Canopies / Slat Walls / Flying Arches	Everbrite	VARIES	VARIES	CM (Company), CM or DIS (Franchise)	Manufacturer	Manufacturer (Local Installer)	X
			VARIES	VARIES				
			VARIES	VARIES				
10810	Restroom Accessories	Accuserv	VARIES	F-452 (if indicated in plan set), B-241, B-265, B-275, B-290 (where occurs), B-291 (where occurs), B-300, B-305, B-405, B-410	DIS	DIS	GC	
11020-1	Safe	Brinks	Tidel Series 4 (duel single note validator, standard side vault)	F-174	CM	BRINKS	BRINKS	
11020-2	Security System	Tyco	-	-	CM	Manufacturer	GC	X
11030-1	Drive-thru Window	Quikserv	QKSRVSC4030BR	B-140	RSCS	Manufacturer	GC	
11030-3	Drive-thru Clearance Bar / Portal	Everbrite	-	-	CM	Manufacturer	GC	
			-	-				
			-	-				
11030-4	Drive-thru Sensor Loops	ERC Parts Inc.	WX8171	-	Manufacturer	Manufacturer	GC	
11100-3	P.O.S.	IBM	-	VARIES	TB / IT	Manufacturer	SSP	X
		NCR	-	VARIES				
		PAR	-	VARIES				
11100-4	Credit Card Payment System	Hughes Network Systems	-	-	TB / IT	Manufacturer	SSP	
11300-1	Order Confirmation Board (OCB)	Delphi Display Systems	P6YUC5TDUSV1S; P6YOCSSTDUSEN1S	-	DIS	DIS	GC (see Scope of Work notes)	
		Hyperactive	TDMHX2H01TCB;TDMHX1H26	L-090				
		Texas Digital	AVNGE60	L-095				
11300-2	Drive-thru Speaker & Microphone	HME	C400005HS3TB; C11422TB	U-011; S-204	DIS	Manufacturer	GC	
		3M Food Services Trad Dept	78691149153; G55HSSINGLE	-				
11300-4	Order Confirmation Board (OCB) Canopy	Everbrite	823NI6INX4X9CPY	V-350	CM, Franchisee or DIS on behalf of Franchisee	Manufacturer	GC (see Scope of Work notes)	X
			E005749B					
			500115671					
			TBCAN9246					
11400-1	Kitchen Equipment	RSCS (Company stores only)	VARIES	VARIES	DIS	DIS	GC (see General Comments)	X
			VARIES	VARIES				
11400-5	GTO with EVO Production Line	Delfield	VARIES	VARIES	DIS	DIS	GC / Manufacturer (Local Installer)	X
		Duke	VARIES	VARIES				
		Carter Hoffman (EVO cabinets)	VARIES	VARIES				
11405-3	Kitchen Shelving / Workstations	I.S.S.	VARIES	VARIES	DIS	DIS	GC	
11405-4	Walk-In Cooler / Freezer (Panelized)	I.C.S.	VARIES	VARIES	GC	Manufacturer	GC or Manufacturer (up to CM's discretion)	X
		Norlake	VARIES	VARIES				
		Kolpak	VARIES	VARIES				
11425	Exhaust Hoods	Stratavent (preferred supplier)	VARIES	VARIES	DIS	DIS	GC	X
		Gaylord Industries (Broiler hood, preferred supplier)	VARIES	VARIES				
		Randell (alternate supplier)	VARIES	VARIES				
11430-2	Drink Dispensers / Line Sets	Pepsi	-	-	RSCS	Pepsi	Pepsi (Local installer)	
11435-6	Ice Machines	Manitowoc Ice Inc & Hoshisaki	Manitowoc SY-1474C	S-513	DIS	Manufacturer	Manufacturer (Local Installer)	
11680	Office Computer (Taco System)	En Pointe Global Services	VARIES	F-040, F-060	TB / IT	SSP	SSP	
12100-1	Artwork	Creative Palette	VARIES	-	DIS	DIS	GC	
		Clark and Riggs Printing	VARIES	-				
12400-5	Décor	iDx for transformational	VARIES	-	DIS	DIS	GC	X
			VARIES	-				
			VARIES	-				
			VARIES	VARIES				
12430	Fruitista Machine	Equipment Delivery, Install and Activation	VARIES	VARIES	DIS - Equipment; GC - Installation & Setup (notify vendor 2 weeks from install date)	DIS	Service Agents - ICEE (East) or Rep Tec (West)	
		FBD Equipment Manufacturer	VARIES	VARIES				
		Taco Bell Engineering	VARIES	VARIES				
12440	Iced Tea	Tetley	E56150000	S-546	DIS	Supplier	GC / Supplier	
13200	CO2 - Bulk	MVE (bulk tank)	VARIES	S-580	DIS	DIS	Manufacturer (Local Installer)	
		NU CO2 (CO2 and service)	VARIES	S-580				
13700-4	CCTV	MARTCO	-	-	RSCS	MARTCO	MARTCO	X
13800-1	Lighting Control Panel - Exterior	Accuserv	Cooper LT16	-	DIS	DIS	GC	
13800-2	Exhaust Fan - Make Up Air Interlock & Interior Lighting Control Panel	Air Care Experts	TBCB-1	-	Contractor	Air Care	Air Care	
13900-1	Fire Suppression System	Ansul	-	-	GC	GC	GC (Local Installer)	
15410	Hand Sinks	Aero	HS-Mod	N-053	DIS	DIS	GC	
15470-5	Water Filter	Shurflo	WB6-M3-22-003	-	DIS	Manufacturer	GC (see Vendor Scope - Pepsi Drink System)	
15480-3	Water Heater	AO Smith (standard)	AO Smith BTH-120 (standard)	B-215	RSCS	RSCS	GC	
		Bradford White (alternate)	-	B-215				
		-	-	-	RSCS	RSCS	GC	
15500-1	HVAC - Test and Balance	Test and Balance Corp.	-	-	Determined by CM or RCM;	Determine by CM or RCM;	Determined by GC / CM / RCM	X
		Melink Corp/	-	-	Approved options - GC	Approved options - GC		
		Air Care Experts	-	-	CM/RCM	options - GC CM/RCM		
15700-1	HVAC	Trane (Company stores)	VARIES	-	GC	Manufacturer	GC	X
		York International (Franchise only)	VARIES	-				
16300-1	Switchgear - Franchisee	Accuserv	Square-D and Cutler Hammer	VARIES	DIS	DIS	GC	X
16300-2	Switchgear - Company	Accuserv	Square-D and Cutler Hammer	VARIES	GC or RSCS (confirm with CM at time of bid)	GC	GC	X
16500	Light Fixtures - Interior and Building	Capital Light	VARIES	-	Accuserv - DIS; Genesis - GC	Accuserv - DIS; Genesis - GC	GC	X
			VARIES	-				
16520	Light Fixtures - Site	Accuserv	VARIES	-	DIS	DIS	GC	
16720	Telephone Communications	YUM! Telecom (Company stores)	-	-	TB	Manufacturer	Manufacturer (Local Installer)	X
		By owner through local phone service provider (franchise)	-	-	Franchisee	Manufacturer	Manufacturer (Local Installer)	
16820-3	Music System	Mood Media	-	-	F-131	TB	Manufacturer (Local Installer)	X
		Coffee Brewer	Bunn	42300.0008	S-547	RSCS	RSCS	GC
		Floor and Wall Tile	Creative Materials	-	GC	Manufacturer	GC	X



09.17.18	ISSUED FOR CONSTRUCTION
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04.12.18	ISSUED FOR PERMIT

CONTRACT DATE: 01.08.18  
BUILDING TYPE: T40M-O  
PLAN VERSION: DEC 2017  
BRAND DESIGNER:  
SITE NUMBER: 312720/446548  
STORE NUMBER: 2017088.72

TACO BELL  
37500 FORD ROAD  
WESTLAND, MI 48185



SCOPE OF WORK MATRIX

SW1.0

PLOT DATE: 9/17/2018 2:27:11 PM