

# SITE PLAN FOR TACO BELL

660 LANSING STREET, CHARLOTTE MICHIGAN  
A PART OF THE SOUTHEAST 1/4 OF SECTION 7  
T 2 N, R 4 W, CITY OF CHARLOTTE, EATON COUNTY, MICHIGAN

## LEGAL DESCRIPTION

Located in the City of Charlotte, County of Eaton, State of Michigan and described as follows:

That part of the Southeast 1/4 of Section 7, Town 2 North, Range 4 West, City of Charlotte, Eaton County, Michigan, described as:  
Commencing at the Southeast Corner of said Section 7; thence North 89 degrees 04 minutes 58 seconds West 1326.97 feet along the South line of said Section; thence N00 degrees 55 minutes 24 seconds East 2099.69 feet along the North-South 1/8 line of said Southeast 1/4 to a point on the centerline of Highway I-69 Business Loop (Landing and Battle Creek State Road); thence South 35 degrees 50 minutes 52 seconds West 398.80 feet along said centerline to the POINT OF BEGINNING of this description; thence South 54 degrees 09 minutes 08 seconds East 50.00 feet; thence North 35 degrees 50 minutes 52 seconds East 100 feet; thence North 62 degrees 59 minutes 56 seconds East 54.78 feet; thence North 35 degrees 50 minutes 52 seconds East 151.25 feet; thence South 54 degrees 09 minutes 08 seconds East 325.00 feet; thence South 35 degrees 50 minutes and 52 seconds West 517.76 feet to a point on the North line of land deeded by Max Baker to the City of Charlotte by deed recorded in Liber 318 of Deeds, Page 39, Eaton County Records; thence North 37 degrees 44 minutes 44 seconds West 416.98 feet along said North line to a point on said centerline; thence North 35 degrees 50 minutes 52 seconds East 100.00 feet along said centerline to the Point of Beginning.

Except:

Commencing at the Southeast Corner of Section 7, Town 2 North, Range 4 West, Eaton Township, Eaton County, Michigan; thence North 89 degrees 04 minutes 58 seconds West 1326.97 feet along the South line of said Section 7; thence North 00 degrees 55 minutes 24 seconds East 2099.69 feet along the East line of the West 1/2 of the Southeast 1/4 of said Section 7 to the centerline of Lansing Street (aka Highway I-69 Business Loop); thence South 35 degrees 50 minutes 52 seconds West 398.80 feet along said centerline; thence South 54 degrees 09 minutes 08 seconds East 50.00 feet to a point on the Southeastly Right-of-Way line of said Lansing Street; thence North 35 degrees 50 minutes 52 seconds East 74.50 feet along said Right-of-Way line to the POINT OF BEGINNING of the following described parcel; thence continuing along said Right-of-Way line the following three courses:

North 35 degrees 50 minutes 52 seconds East 25.50 feet,  
North 62 degrees 59 minutes 56 seconds East 54.78 feet and  
North 35 degrees 50 minutes 52 seconds East 55.09 feet  
thence South 53 degrees 07 minutes 51 seconds East 208.89 feet; thence South 36 degrees 41 minutes 31 seconds West 130.29 feet; thence North 52 degrees 59 minutes 58 seconds West 231.98 feet to the Point of Beginning.

Tax ID No.: 23-200-007-400-091-01

Also known as: 660 Lansing Street, Charlotte, MI 48813

Also described as related to the Grid North of State Plane Coordinated System as defined in Michigan Coordinate System Act 9 of 1964, Section 5a(c) as follows:

Commencing at the Southeast Corner of said Section 7; thence N89°06'36"W (SPCS) (record N89°04'58"W) 1326.97 feet along the South line of said Section; thence N00°53'46"E (SPCS) (record N00°55'24"E) 2099.69 feet along the North-South 1/8 line of said Southeast 1/4 to a point on the centerline of Highway I-69 Business Loop (Landing and Battle Creek State Road); thence S35°49'14"W (SPCS) (record S35°50'52"W) 398.80 feet along said centerline to the POINT OF BEGINNING of this description; thence S54°10'46"E (SPCS) (record S54°09'08"E) 50.00 feet; thence N35°49'14"E (SPCS) (record N35°50'52"E) 100 feet; thence N62°58'18"E (SPCS) (record N62°59'56"E) 54.78 feet; thence N35°49'14"E (SPCS) (record N35°50'52"E) 151.25 feet; thence S54°10'46"E (SPCS) (record S54°09'08"E) 325.00 feet; thence S35°49'14"W (SPCS) (record S35°50'52"W) 517.76 feet to a point on the North line of land deeded by Max Baker to the City of Charlotte by deed recorded in Liber 318 of Deeds, Page 39, Eaton County Records; thence N37°46'22"W (SPCS) (record N37°44'44"W) 416.98 feet along said North line to a point on said centerline; thence N35°49'14"E (SPCS) (record N35°50'52"E) 100.00 feet along said centerline to the Point of Beginning.

Except:

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thence S53°09'29"E (SPCS) (record S53°07'51"E) 208.89 feet; thence S36°39'53"W (SPCS) (record S36°41'31"W) 130.29 feet; thence N53°01'36"W (SPCS) (record N52°59'58"W) 231.98 feet to the Point of Beginning.

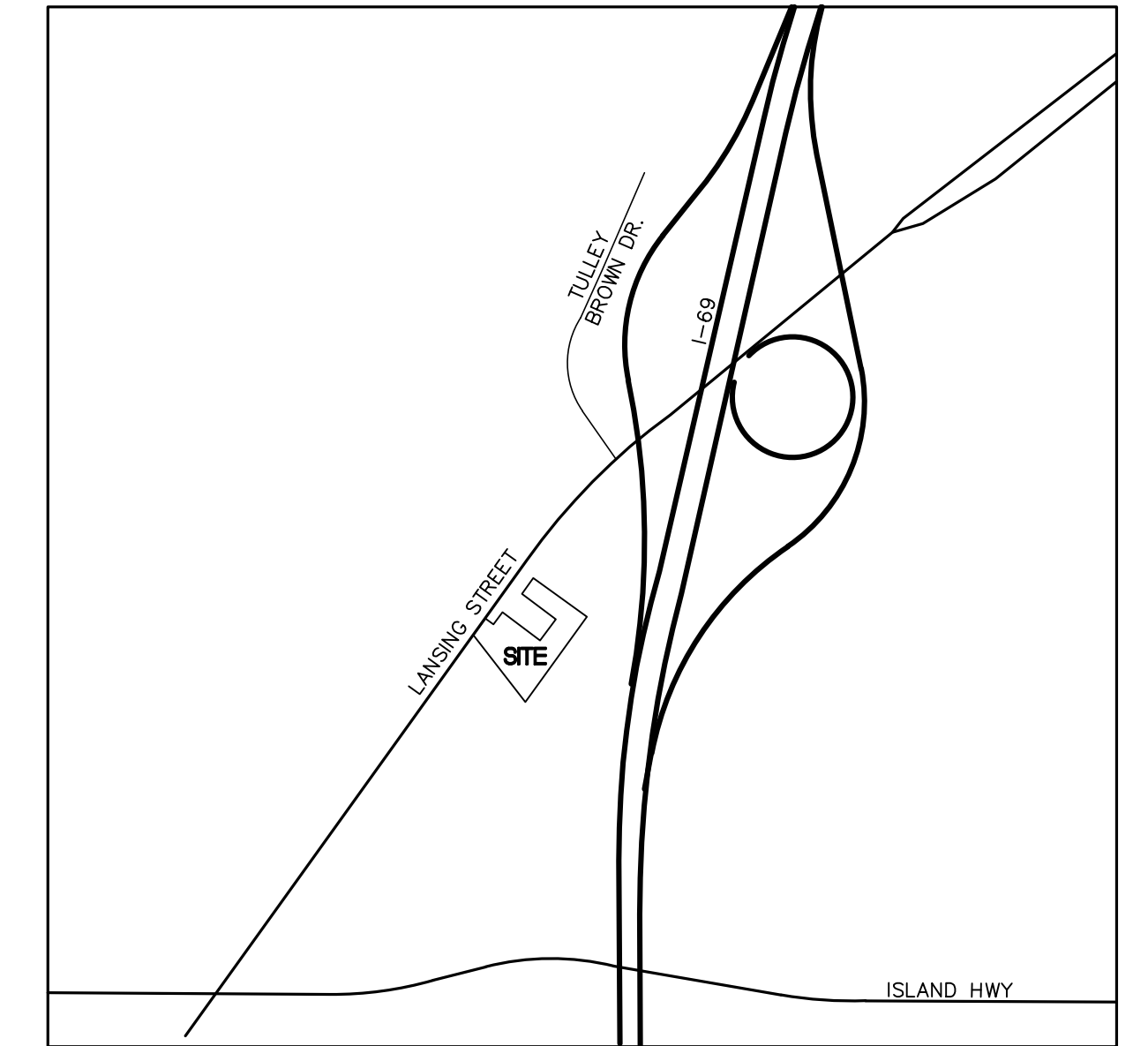
NOTES:

- (SPCS) denotes line bearing value related to the Grid North of State Plane Coordinates System as defined in Michigan Coordinate System Act 9 of 1964, Section 5a(c).

- (record) denotes line bearing value as recorded.



AERIAL PHOTOGRAPH  
SCALE: 1 IN = 50 FT



LOCATION MAP  
NOT TO SCALE

## SHEET INDEX

EX	EXISTING CONDITIONS PLAN
DM	DEMOLITION PLAN
SP	SITE PLAN
UT1	UTILITY AND GRADING PLAN
UT2	UTILITY CALCULATIONS AND DETAILS
LS	LANDSCAPE PLAN
LT	LIGHTING PLAN AND DETAILS
SE1	SOIL EROSION & SEDIMENTATION AND WATERSHED PLAN
SE2	SOIL EROSION & SEDIMENTATION DETAILS AND NOTES
DT1	SITE DEVELOPMENT NOTES AND DETAILS
DT2	SITE DEVELOPMENT NOTES AND DETAILS
DT3	TACO BELL CORPORATE NOTES AND DETAILS
A1.0	FLOOR PLAN
A2	EXTERIOR ELEVATIONS

## PLAN DISTRIBUTION LIST

DATE OF APPLICATION	CONSTRUCTION SET DATE	AGENCY	CONTACT NAME	DESCRIPTION
DEC. 04, 2018	NOV. 30, 2018	CITY OF CHARLOTTE COMM. DEVELOPMENT	BRYAN MYRKLE	SITE PLAN APPLICATION

## ENGINEER/SURVEYOR

DESINE INC.  
2183 PLESS DRIVE  
BRIGHTON, MICHIGAN 48114  
PHONE: (810) 227-9533

## DEVELOPER / APPLICANT

SUNDANCE, INC  
7915 KENSINGTON CT.  
BRIGHTON, MICHIGAN 48116  
PHONE: (248) 446-0100  
CONTACT: JOSEPH R. BAKER

## ARCHITECT

PUCCI + VOLLMAR ARCHITECTS, PC  
508 E GRAND RIVER AVE, SUITE 100B  
BRIGHTON, MI. 48116-1566  
PHONE: (810) 225-2930



REVISED	SCALE: AS NOTED
	PROJECT No.: 183393
	DWG NAME: 3393 COV
	PRINT: NOV. 30, 2018



**LEGAL DESCRIPTION**

Reference: Commitment for Title Insurance prepared by Transaction Title Agency.  
Title No.: 24363SLANS, Effective Date: May 16, 2018 at 8:00 am

Located in the City of Charlotte, County of Eaton, State of Michigan and described as follows:

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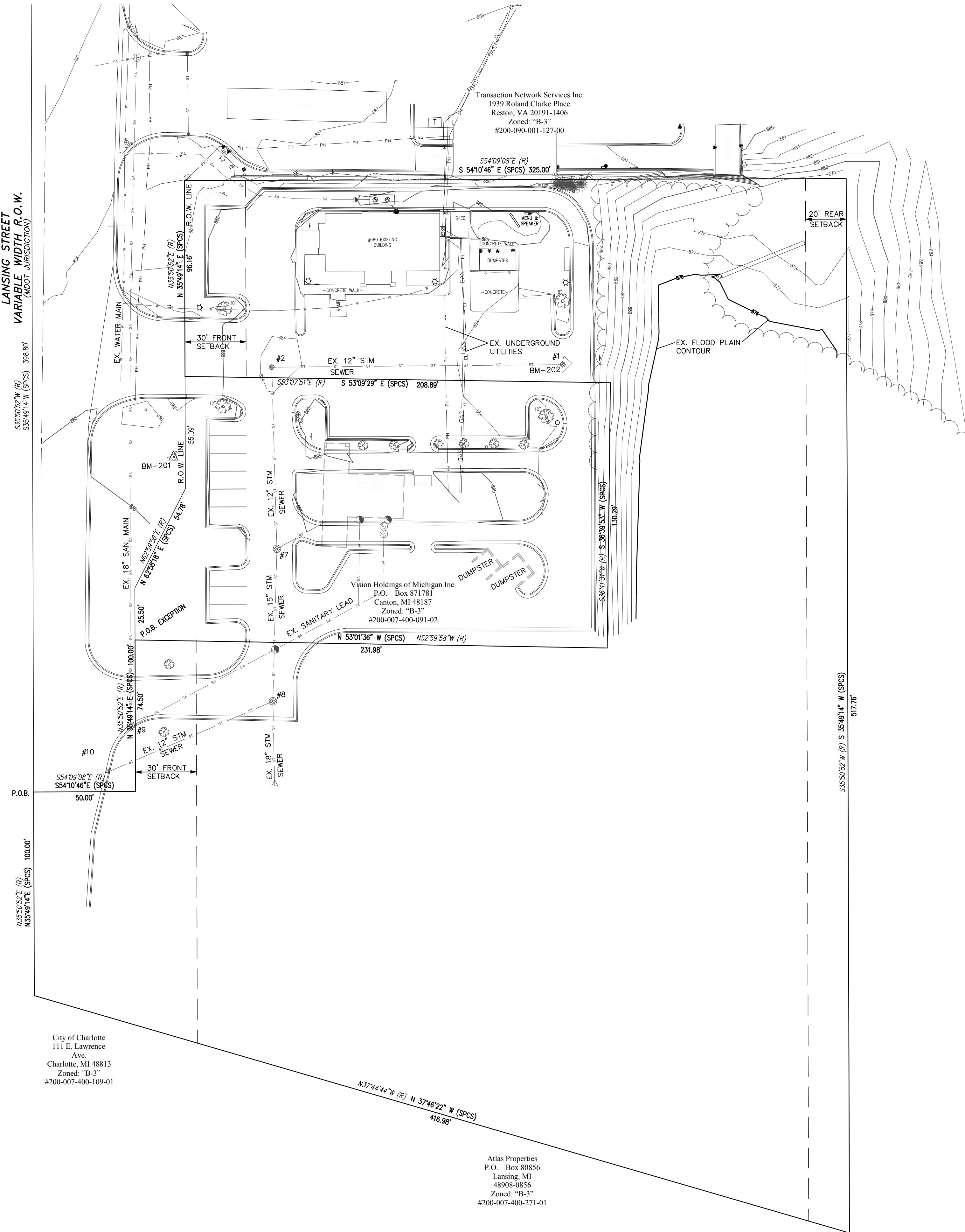
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LANSING STREET  
VARIABLE WIDTH R.O.W.  
(NOT JURISDICTION)



City of Charlotte  
111 E. Lawrence  
Ave.  
Charlotte, MI 48813  
Zoned: "B-3"  
#200-007-400-109-01

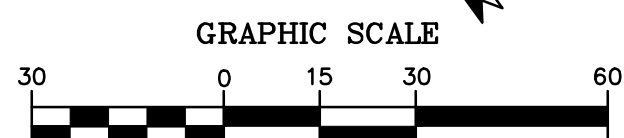
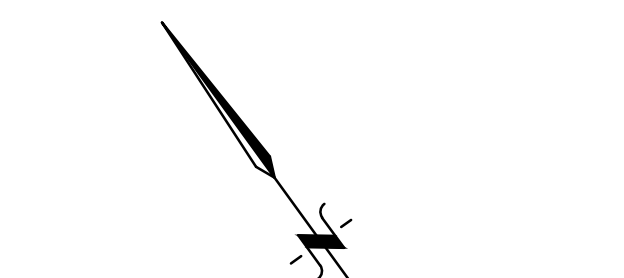
Atlas Properties  
P.O. Box 80856  
Lansing, MI  
48908-0856  
Zoned: "B-3"  
#200-007-400-271-01

Transaction Network Services Inc.  
1939 Roland Clarke Place  
Reston, VA 20191-1406  
Zoned: "B-3"  
#200-090-001-127-00

Vision Holdings of Michigan Inc.  
P.O. Box 871781  
Canton, MI 48187  
Zoned: "B-3"  
#200-007-400-091-02

**STRUCTURE INVENTORY**

- CATCH BASIN #1  
RIM 882.55  
NORTHWEST 12" SDR 878.03
- CATCH BASIN #2  
RIM 883.72  
SOUTHWEST 12" SDR 877.71  
SOUTHEAST 12" SDR 877.79
- CATCH BASIN #3  
RIM 886.60  
NORTHEAST 12" RCP 883.75
- CATCH BASIN #4  
RIM 886.38
- SANITARY SEWER MANHOLE #5  
RIM 886.82  
NORTHEAST 18" CLAY 870.27  
SOUTH 18" CLAY 870.22  
EAST 6" SDR 878.42  
NORTHEAST 8" PVC TOP PIPE 877.64
- CLEAN OUT #6  
RIM 885.57  
NORTHEAST 4" PVC 881.82
- CATCH BASIN #7  
RIM 884.33  
NORTHEAST 12" SDR 877.28  
SOUTHWEST 15" SDR 876.98  
NORTHEAST 4" PVC 880.58
- CATCH BASIN #8  
RIM 882.03  
WEST 12" SDR 876.48  
NORTH 15" SDR 876.28  
SOUTH 18" SDR 876.13
- SANITARY SEWER MANHOLE #9  
RIM 882.64  
EAST 15" 869.34  
NORTHEAST 18" CLAY 866.79  
SOUTHWEST 18" CLAY 866.74
- CATCH BASIN #10  
RIM 881.74  
EAST 12" SDR 877.04



( IN FEET )  
1 INCH = 30 FEET

**LEGEND**

- [Symbol] = MISC. STRUCTURE (AS LABELED)
- [Symbol] = BOLLARD
- [Symbol] = SIGN
- [Symbol] = LIGHT FIXTURE / DECORATIVE LIGHT
- [Symbol] = LIGHT BASE
- [Symbol] = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
- [Symbol] = AIR CONDITIONER UNIT
- [Symbol] = UTILITY MANHOLE (AS LABELED)
- [Symbol] = UTILITY POLE W/GUY WIRE
- [Symbol] = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
- [Symbol] = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
- [Symbol] = EDGE OF WOODS / TREE DRIP LINE
- [Symbol] = DECIDUOUS TREE W/IDENTIFIER
- [Symbol] = CONIFEROUS TREE W/IDENTIFIER
- [Symbol] = BUSH / SHRUB
- [Symbol] = FENCE (CHAIN LINK UNLESS OTHERWISE STATED)
- [Symbol] = GUARD RAIL
- [Symbol] = CONCRETE CURB (UNLESS OTHERWISE STATED)
- [Symbol] = SANITARY SEWER MANHOLE W/IDENTIFIER
- [Symbol] = SANITARY SEWER PIPE
- [Symbol] = CLEAN OUT
- [Symbol] = STORM WATER MANHOLE W/IDENTIFIER
- [Symbol] = CATCH BASIN W/IDENTIFIER
- [Symbol] = STORM WATER DRAINAGE PIPE
- [Symbol] = HYDRANT
- [Symbol] = WATER SHUT OFF
- [Symbol] = WATER GATE VALVE WELL / MANHOLE
- [Symbol] = WATER VALVE BOX
- [Symbol] = WATER MAIN
- [Symbol] = GAS MANHOLE
- [Symbol] = GAS SHUT OFF
- [Symbol] = U/G GAS
- [Symbol] = 1' CONTOUR
- [Symbol] = 5' CONTOUR
- [Symbol] = FLOODPLAIN CONTOUR 876'

**BENCHMARK**  
DATUM BASED ON RTK-GPS OBSERVATIONS,  
DATE 05/25/18

BENCHMARK #201  
ARROW ON HYDRANT, LOCATED ON EASTERLY  
RIGHT-OF-WAY OF LANSING STREET, IN FRONT  
OF #640.  
ELEVATION = 887.51 (NAVD 88)

BENCHMARK #202  
WEST RIM OF CATCH BASIN #1, LOCATED 76±  
FEET SOUTHERLY OF #60 BLDG.  
ELEVATION = 883.07 (NAVD 88)  
CAUTION. BENCHMARK TO BE REMOVED

Vision Holdings of Michigan Inc.  
P.O. Box 871781  
Canton, MI 48187  
Zoned: "B-3"  
#200-007-400-091-02

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1939 Roland Clarke Place  
Reston, VA 20191-1406  
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#200-090-001-127-00

Atlas Properties  
P.O. Box 80856  
Lansing, MI 48908-0856  
Zoned: "B-3"  
#200-007-400-271-01

City of Charlotte  
111 E. Lawrence Ave.  
Charlotte, MI 48813  
Zoned: "B-3"  
#200-007-400-109-01

3 WORKING DAYS  
BEFORE YOU DIG  
CALL 811 OR 1-800-482-7171  
(TOLL FREE)  
OR VISIT CALL811.COM

(810) 227-9533  
CIVIL ENGINEERS  
LAND SURVEYORS  
2183 PLESS DRIVE  
BRIGHTON, MICHIGAN 48114

DESIGN:FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

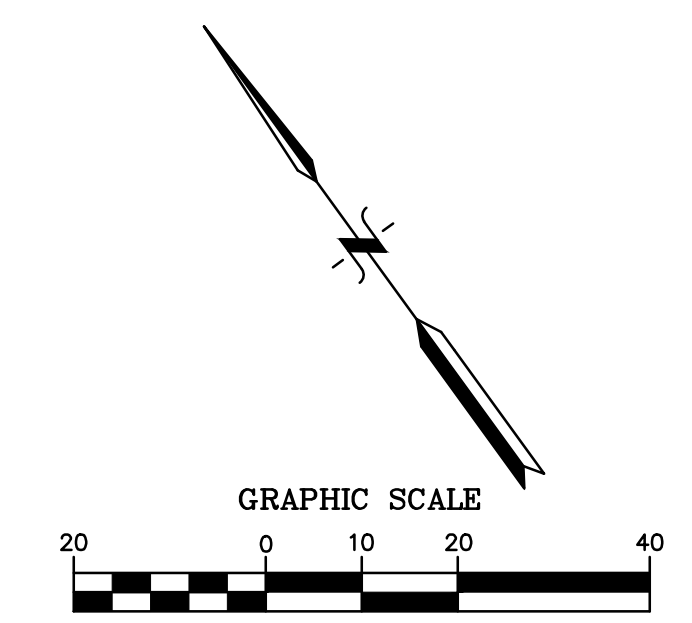
660 LANSING ST.  
TACO BELL

EXISTING CONDITIONS PLAN

CLIENT:  
SUNDANCE INC.  
7915 KENSINGTON CT.  
BRIGHTON, MICHIGAN 48116  
(248)446-0100

SCALE: 1in. = 30ft.  
PROJECT No.: 183393  
DWG NAME: 3393 EX  
ISSUED: NOV. 30, 2018

EX



LEGEND

□	= MISC. STRUCTURE (AS LABELED)
○	= BOLLARD
◉	= SIGN
⦿	= LIGHT FIXTURE / DECORATIVE LIGHT
★	= LIGHT BASE
⊠	= UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
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⊕	= UTILITY MANHOLE (AS LABELED)
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⊙	= SANITARY SEWER MANHOLE W/IDENTIFIER
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⊙	= CLEAN OUT
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⊙	= WATER MAIN
⊙	= GAS MANHOLE
⊙	= GAS SHUT OFF
⊙	= U/G GAS
—	= 1" CONTOUR
—	= 5' CONTOUR
—	= FLOODPLAIN CONTOUR 87'
—	= EXISTING PAVEMENT TO BE REMOVED

**STRUCTURE INVENTORY**

- CATCH BASIN #1  
R/W: 892.95  
NORTHWEST 12' SDR 878.03
- CATCH BASIN #2  
R/W: 893.72  
SOUTHWEST 12' SDR 877.71  
SOUTHEAST 12' SDR 877.79
- CATCH BASIN #3  
R/W: 896.60  
NORTHEAST 12' RCP 893.75
- CATCH BASIN #4  
R/W: 896.38
- SANITARY SEWER MANHOLE #5  
R/W: 896.92  
NORTHEAST 18' CLAY 870.27  
SOUTH 18' CLAY 870.22  
EAST 6' SDR 878.42  
NORTHWEST 8' PVC TOP PIPE 877.64
- CLEAN OUT #6  
R/W: 895.57  
NORTHEAST 4' PVC 891.82
- CATCH BASIN #7  
R/W: 894.33  
NORTHEAST 12' SDR 877.08  
SOUTHWEST 15' SDR 876.98  
NORTHEASTERLY 4' PVC 890.58
- CATCH BASIN #8  
R/W: 892.03  
WEST 12' SDR 876.48  
NORTH 15' SDR 876.26  
SOUTH 18' SDR 876.13
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R/W: 892.64  
EAST 15' 869.34  
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EAST 12' SDR 877.04

**BENCHMARK**

DATUM BASED ON RTK-GPS OBSERVATIONS, DATE 05/25/18

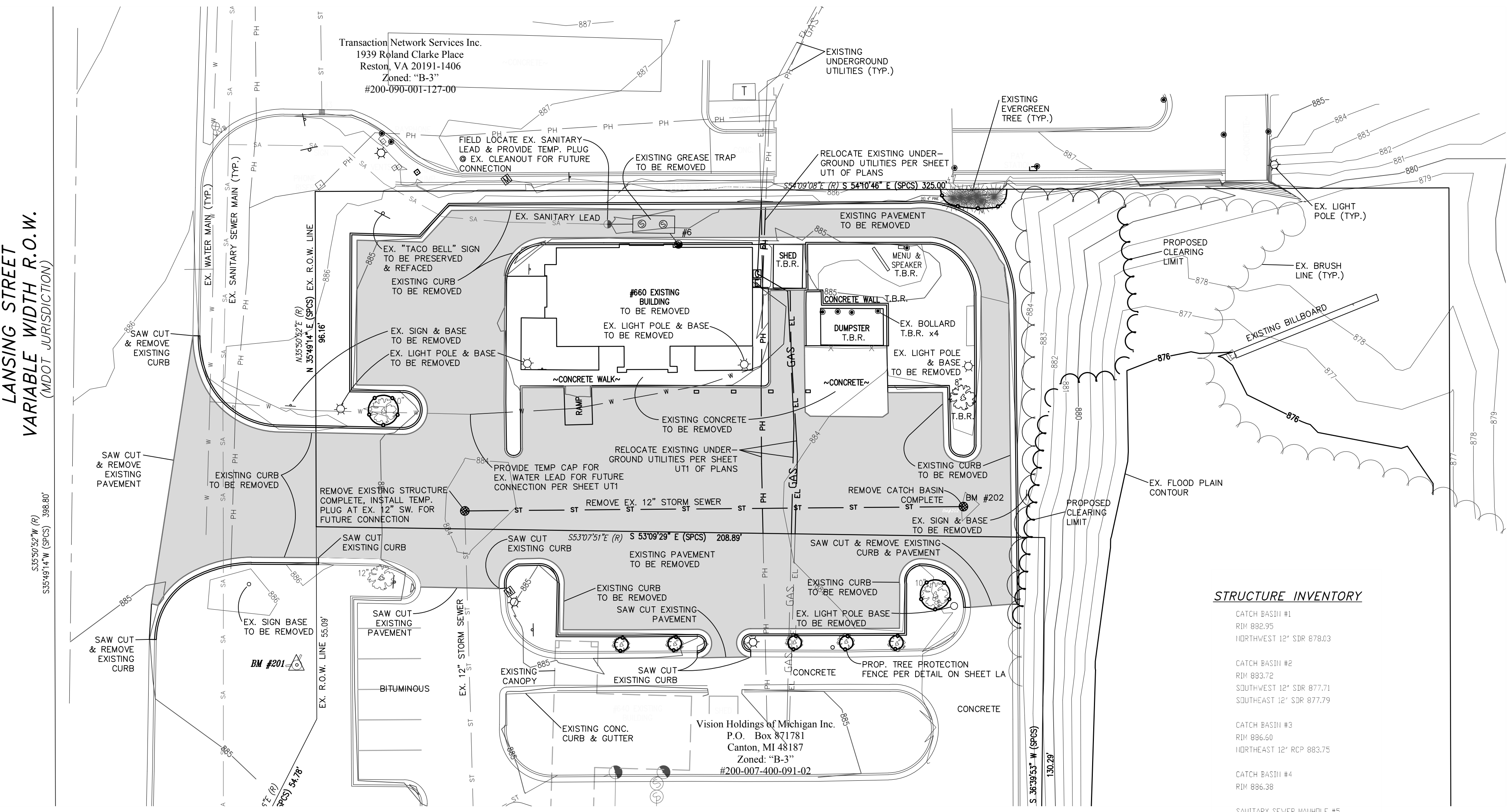
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LAND SURVEYORS  
2183 PLESS DRIVE  
BRIGHTON, MICHIGAN 48114

- DEMOLITION NOTES:**
- The demolition specifications of the Local Municipality are a part of this work. Refer to the General Notes on the project plans for additional requirements.
  - Contractor shall contact the 811 Underground Public Utility Locating System or other appropriate local underground utility locating Agency, a minimum of three (3) working days prior to performing demolition work. Existing utility information on the project plans may be from information disclosed to this firm by the Utility Companies, Local, County or State Agencies, and/or various other sources. No guarantee is given as to the completeness or accuracy thereof. Prior to construction, locations and depths of all existing utilities (in possible conflict with the proposed improvements) shall be verified in the field.
  - Contractor shall contact the appropriate Agencies to coordinate disconnect of the electric, gas, phone, cable and other public utilities as necessary prior to performing demolition work.
  - Contractor shall contact the appropriate Agencies to coordinate removal and/or relocation of any underground and/or overhead public utility lines as necessary prior to performing demolition work.
  - Contractor shall recycle and/or dispose of all demolition debris in accordance with the appropriate Local, County, State and Federal regulations.
  - All bituminous and concrete pavement to be removed shall be saw cut at the limits of removal to provide for a clean straight edge for future abutment.
  - All existing irrigation lines to be removed shall be terminated at the limits of demolition or as necessary to allow for construction of the proposed site improvements. Ends of pipe shall be capped and the location of marked for future connection.
  - All existing water main and sanitary sewer to be removed shall be terminated at the limits of demolition or as indicated on the project plans. Temporary plugs shall be installed in the ends of pipe in accordance with the appropriate Agency and the locations of marked for future connection. Permanent bulkheads shall be installed in the ends of pipe in accordance with the appropriate Agency. The Contractor shall record the location of all permanent plugs and provide the location information to the appropriate Agency.
  - All existing storm sewer to be removed shall be terminated at the limits of demolition or as indicated on the project plans. Temporary plugs shall be installed in the ends of pipe in accordance with the appropriate Agency and the locations of marked for future connection. Permanent bulkheads shall be installed in the ends of pipe and/or openings in terminating structures in accordance with the appropriate Agency. The Contractor shall record the location of all permanent bulkheads and provide the location information to the appropriate Agency.
  - All existing light sources to be removed shall have their power cables removed up to the power source or properly terminated for future connection at the limits of demolition or as necessary to allow for construction of the proposed site improvements. Removal and termination of power cables shall be performed in accordance with local electric codes.
  - All existing utility meters to be removed shall be properly removed to allow for reuse. Any existing utility meters that are not to be reused as a part of this project shall be returned to the appropriate Agency.
  - All trenches and/or excavations resulting from the demolition of underground utilities, building foundations, etc., that are located within the 1 on 1 influence zone of proposed structures, paved areas and/or other areas subject to vehicular traffic shall be backfilled with MDOT Class III granular material (or better) to the proposed subgrade elevation. Backfill shall be placed using the controlled density method (12" maximum lifts, compacted to 95% maximum unit weight, modified proctor).



**NOTE**  
ALL EXISTING ON-SITE IMPROVEMENTS TO BE REMOVED PER DEMOLITION NOTES UNLESS OTHERWISE NOTED

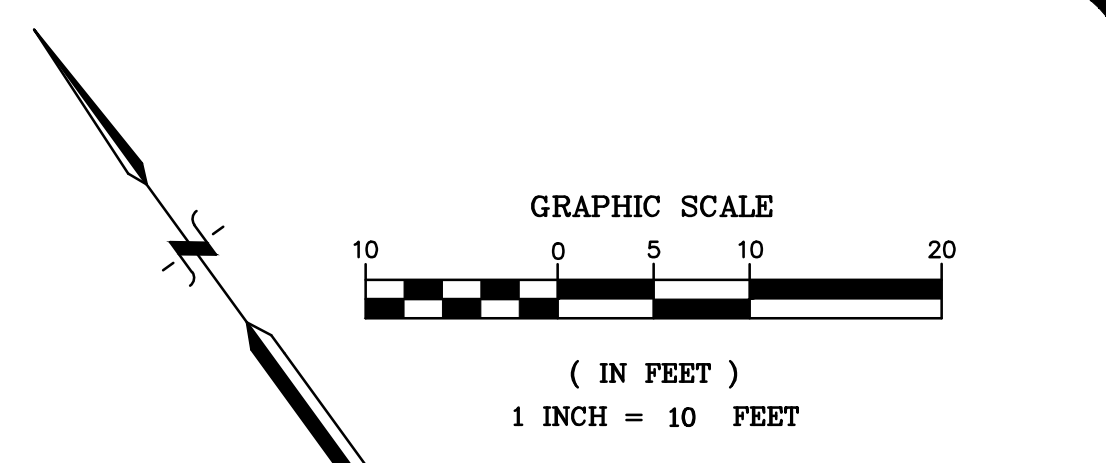
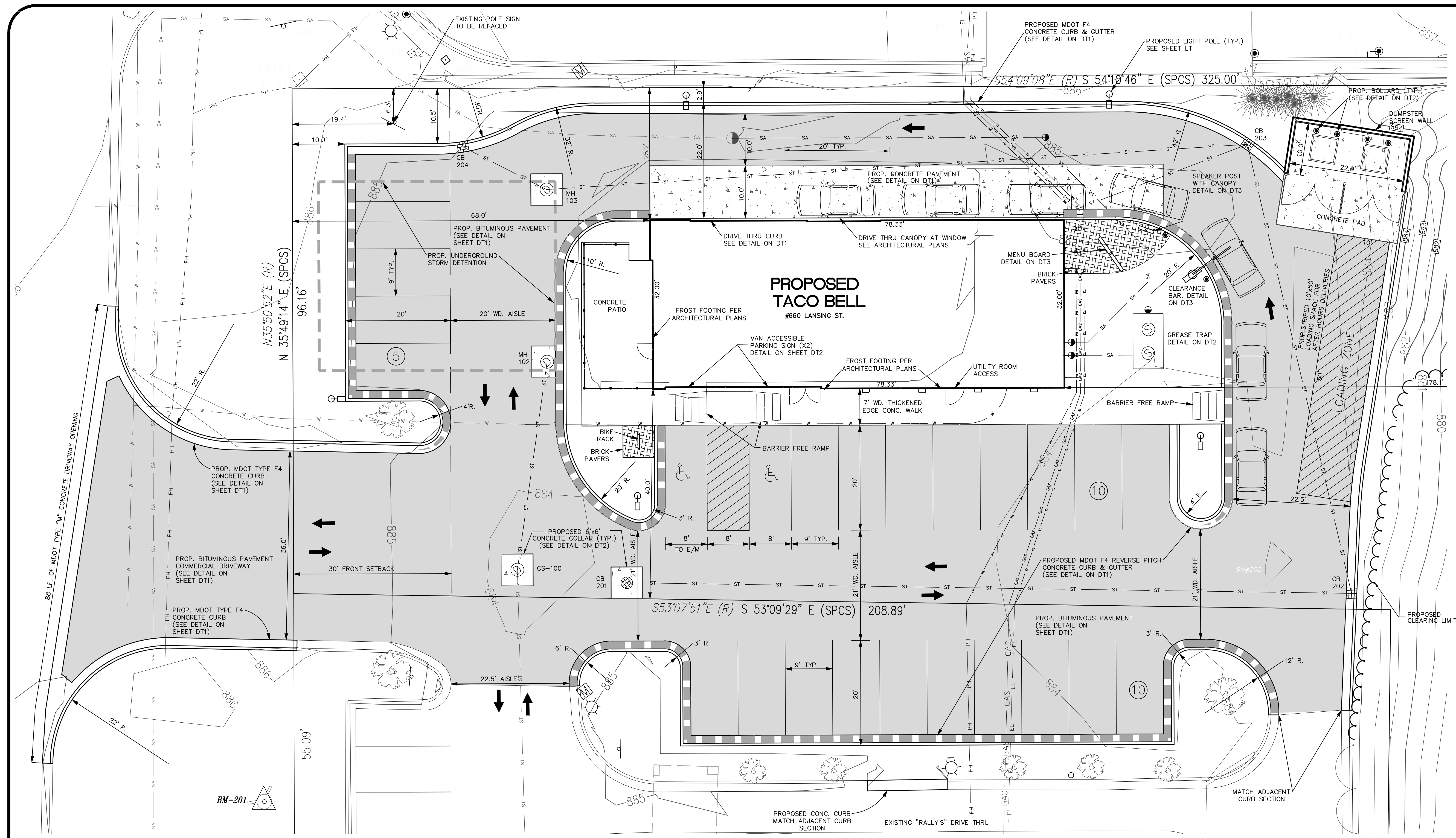
DESIGN:FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

660 LANSING ST.  
TACO BELL

DEMOLITION PLAN

CLIENT: SUNDANCE INC. 7915 KENSINGTON CT. BRIGHTON, MICHIGAN 48116 (248)446-0100	SCALE: 1in. = 10ft. PROJECT No.: 183393 DWG NAME: 3393 DM ISSUED: NOV. 30, 2018
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**DM**



- LEGEND**
- [Symbol] = MISC. STRUCTURE (AS LABELED)
  - [Symbol] = BOLLARD
  - [Symbol] = SIGN
  - [Symbol] = LIGHT FIXTURE / DECORATIVE LIGHT
  - [Symbol] = LIGHT BASE
  - [Symbol] = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
  - [Symbol] = AIR CONDITIONER UNIT
  - [Symbol] = UTILITY MANHOLE (AS LABELED)
  - [Symbol] = UTILITY POLE W/GUY WIRE
  - [Symbol] = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
  - [Symbol] = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTIC/CABLE TV/MISC UTILITIES)
  - [Symbol] = EDGE OF WOODS / TREE W/IDENTIFIER
  - [Symbol] = DECIDUOUS TREE W/IDENTIFIER
  - [Symbol] = CONIFEROUS TREE W/IDENTIFIER
  - [Symbol] = BUSH / SHRUB
  - [Symbol] = CONCRETE CURB (UNLESS OTHERWISE STATED)
  - [Symbol] = SANITARY SEWER MANHOLE W/IDENTIFIER
  - [Symbol] = SANITARY SEWER PIPE
  - [Symbol] = CLEAN OUT
  - [Symbol] = STORM WATER MANHOLE W/IDENTIFIER
  - [Symbol] = CATCH BASIN W/IDENTIFIER
  - [Symbol] = STORM WATER DRAINAGE PIPE
  - [Symbol] = HYDRANT
  - [Symbol] = WATER SHUT OFF
  - [Symbol] = WATER GATE VALVE WELL / MANHOLE
  - [Symbol] = WATER VALVE BOX
  - [Symbol] = WATER MAIN
  - [Symbol] = GAS MANHOLE
  - [Symbol] = GAS SHUT OFF
  - [Symbol] = U/G GAS
  - [Symbol] = 1' CONTOUR
  - [Symbol] = 5' CONTOUR
  - [Symbol] = FLOODPLAIN CONTOUR 876'
  - [Symbol] = PROP. BOLLARD
  - [Symbol] = PROP. LIGHT POLE
  - [Symbol] = PROP. U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTIC/CABLE TV/MISC UTILITIES)
  - [Symbol] = PROP. CLEARING LIMIT
  - [Symbol] = PROP. CONCRETE CURB
  - [Symbol] = PROP. EDGE OF CONCRETE
  - [Symbol] = PROP. FENCE
  - [Symbol] = PROP. SANITARY SEWER MANHOLE
  - [Symbol] = PROP. SANITARY SEWER PIPE
  - [Symbol] = PROP. CLEAN OUT
  - [Symbol] = PROP. STORM WATER MANHOLE
  - [Symbol] = PROP. CATCH BASIN
  - [Symbol] = PROP. STORM WATER DRAINAGE PIPE
  - [Symbol] = PROP. WATER LEAD
  - [Symbol] = PROP. CONTOUR
  - [Symbol] = PROP. REVERSE PITCH CURB
  - [Symbol] = PROP. BITUMINOUS PAVEMENT
  - [Symbol] = PROP. CONCRETE PAVEMENT
  - [Symbol] = PROP. CONCRETE SIDEWALK

- NOTES:**
- For speaker box, canopy menu board & clearance bar details, see sheet DT3.
  - Loading zone and dumpster are to be accessed only when business is closed.
  - Restore all disturbed areas and features within the road right of way to its original conditions.
  - The developer is responsible for resolving any drainage problems on adjacent properties which are the result of the developer's actions.

**EXISTING STRUCTURE INVENTORY**

CATCH BASIN #1 RIM 882.95 NORTHWEST 12' SDR 878.03	CATCH BASIN #7 RIM 884.33 NORTHEAST 12' SDR 877.08 SOUTHWEST 15' SDR 876.98 NORTHEASTERLY 4' PVC 880.38
CATCH BASIN #2 RIM 883.72 SOUTHWEST 12' SDR 877.71 SOUTHEAST 12' SDR 877.79	CATCH BASIN #8 RIM 882.03 WEST 12' SDR 876.48 NORTH 15' SDR 876.28 SOUTH 18' SDR 876.13
CATCH BASIN #3 RIM 885.60 NORTHEAST 12' RCP 883.75	SANITARY SEWER MANHOLE #9 RIM 882.64 EAST 15' 869.34 NORTHEAST 18' CLAY 866.79 SOUTHWEST 18' CLAY 866.74
CATCH BASIN #4 RIM 885.38	CATCH BASIN #10 RIM 881.74 EAST 12' SDR 877.04
SANITARY SEWER MANHOLE #5 RIM 885.82 NORTHEAST 18' CLAY 870.27 SOUTH 18' CLAY 870.28 EAST 6' SDR 878.42 NORTHWEST 8' PVC TOP PIPE 877.64	CLEAN OUT #6 RIM 885.57 NORTHEAST 4' PVC 881.82

**SITE DATA**  
660 LANSING STREET, CHARLOTTE, MI 48816  
REQUIREMENTS FOR B-3, GENERAL BUSINESS DISTRICT PER ZONING ORDINANCE.

FEATURE:	REQUIRED:	PROPOSED:
FRONT BUILDING SETBACK:	30 FEET (Sec 82-426)	68.0 FEET
SIDE BUILDING SETBACK:	N/A (Sec 82-426)	25.25 FEET (NORTHEAST) & 40.0 FEET (SOUTHWEST)
REAR BUILDING SETBACK:	20 FEET (Sec 82-426)	178.10 FEET
FRONT PARKING SETBACK:	10 FEET (Sec 82-426)	10.0 FEET
SIDE PARKING SETBACK:	N/A (Sec 82-426)	10 FEET (NORTHEAST) & 13.15 FEET (SOUTHWEST)
REAR PARKING SETBACK:	N/A (Sec 82-426)	158.50 FEET
MAX BUILDING HEIGHT:	30 FEET (Sec. 82-426)	22 FEET - 1 STORY
MIN. BUILDING AREA:	N/A	2,335 SQ. FT.
MIN. LOT AREA:	N/A	135,863 SF (3.12 Ac.)
MAX LOT COVERAGE:	N/A (Sec. 84-426)	1.86%
REQUIRED PARKING SPACES (Drive Thru & Restaurant Regulations Sec.82-455)	1 FOR EVERY EMPLOYEE = 6 PLUS 1 FOR EACH 2 PERSONS @ MAX. OCCUPANCY	15 SPACES (ONSITE) 10 SPACES* (OFFSITE PARKING EASEMENT)
TOTAL REQ. = 32 SPACES (Sec. 82-455)		25 SPACES TOTAL
REQ. NO. BARRIER FREE SPACES:	2 SPACES (Sec 84-455)	2 B.F. SPACES (VAN ACCESSIBLE)
REQ. NO. OF STACKING SPACES:	5 PER WINDOW SERVING FOOD (Sec 82-455)	7 SPACES (10' W X 20' L)
LOADING AREA:	BUILDING GROSS AREA 0 TO 4,999 SQ. FT. = 1 SPACE FOR EACH ESTABLISHMENT (Sec 82-426f & 82-457b)	1 SPACE (10' X 50' FOR AFTER HOURS DELIVERIES)

**BENCHMARK**  
DATUM BASED ON RTK-GPS OBSERVATIONS, DATE 05/25/16  
  
BENCHMARK #201  
ARROW ON HYDRANT, LOCATED ON EASTERLY RIGHT-OF-WAY OF LANSING STREET, IN FRONT OF #640.  
ELEVATION = 887.51 (NAVD 88)

\* Subject to the "Reciprocal Easement Agreement for Ingress, Egress, Parking and Restrictions" as recorded under Liber 1144, pg. 506 on April 16, 1997 at the Eaton County Register of Deeds.

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3 WORKING DAYS BEFORE YOU DIG  
CALL 811 OR 1-800-482-7171 (TOLL FREE)  
OR VISIT CALL811.COM

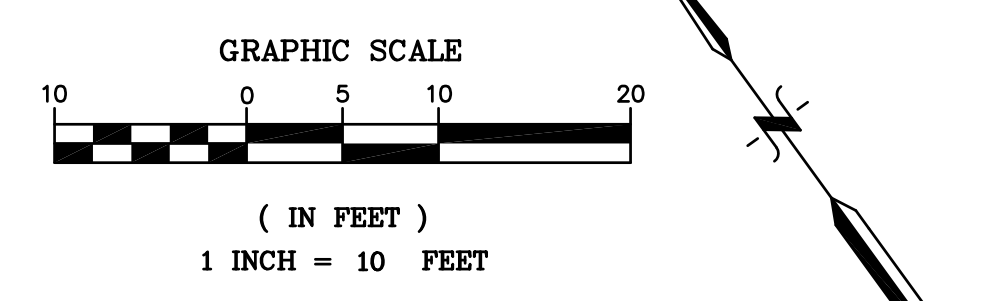
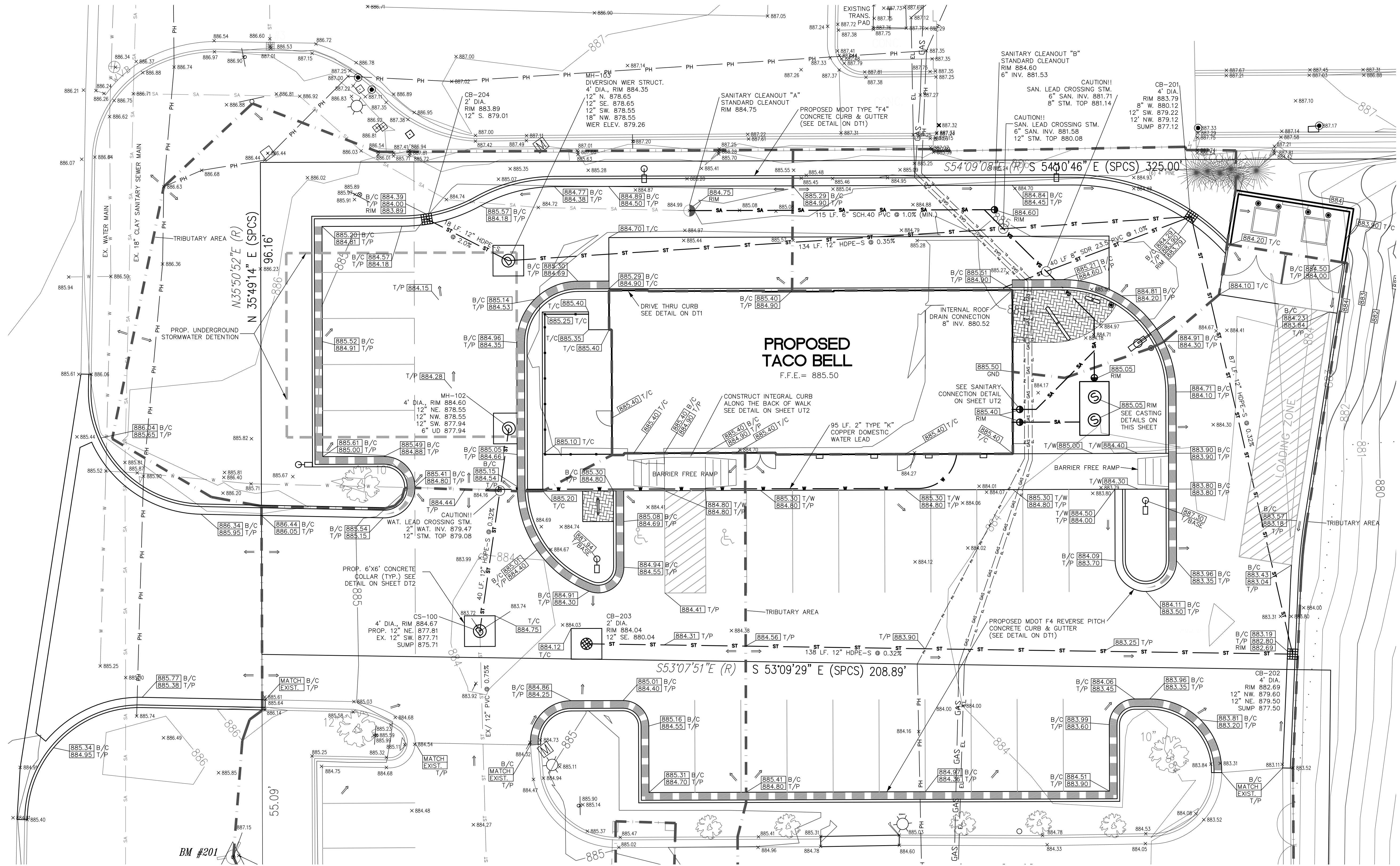
**DESIGN INC.**  
(810) 227-9533  
CIVIL ENGINEERS  
LAND SURVEYORS  
2183 PLESS DRIVE  
BRIGHTON, MICHIGAN 48114

DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

660 LANSING ST.  
TACO BELL

SITE PLAN

CLIENT: SUNDANCE INC. 7915 KENSINGTON CT. BRIGHTON, MICHIGAN 48116 (248)446-0100	SCALE: 1in. = 10ft. PROJECT No.: 183393 DWG NAME: 3393 SP ISSUED: NOV. 30, 2018	<b>SP</b>
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- LEGEND**
- = MISC. STRUCTURE (AS LABELED)
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  - ◊ = SIGN
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  - = PROP. WATER LEAD
  - = PROP. CONTOUR
  - = PROP. REVERSE PITCH CURB
  - = PROP. SPOT ELEVATION
  - T/P = TOP OF PAVEMENT
  - B/C = BACK OF CURB
  - T/W = TOP OF WALK
  - T/C = TOP OF CONCRETE
  - ⇒ = DRAINAGE FLOW ARROW

**TACO BELL'S STRUCTURE / CASTING SCHEDULE**

Structure	Diameter	Casting Type
Storm Sewer		
CS 100, MH 102 & MH 103	4 ft	EJW 1040 TYPE-A SOLID COVER
CB 201 & CB 202	4 ft	EJW 7000-M1-T1
CB 203	2 ft	EJW 1040 TYPE-M1 FLAT GRATE
CB 204	2 ft	EJW 7000-M1-T1
Sanitary Sewer		
Cleanout	4"-8"	EJW 1578
Cleanout	10"-18"	EJW 1545 w/solid cover
Grease Trap	2 ft.	EJW 1040 A (heavy duty) EJW 1040 Z (frame)

**BENCHMARK**  
 DATUM BASED ON RTK-GPS OBSERVATIONS, DATE 05/25/18  
 BENCHMARK #201  
 ARROW ON HYDRANT, LOCATED ON EASTERLY RIGHT-OF-WAY OF LANSING STREET, IN FRONT OF #640.  
 ELEVATION = 887.51 (NAVD 88)

DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

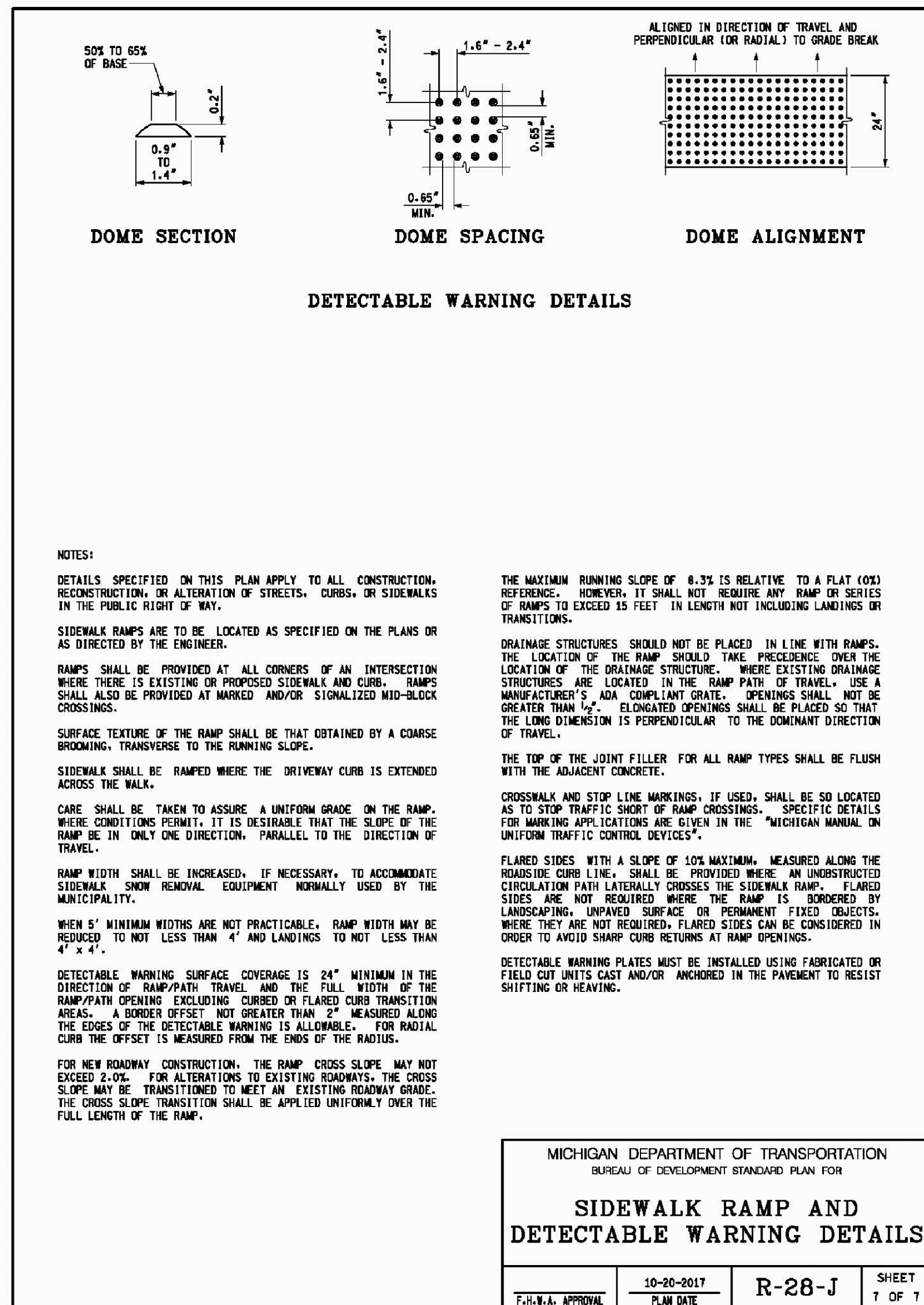
660 LANSING ST.  
 TACO BELL

UTILITY AND GRADING PLAN

CLIENT: SUNDANCE INC.  
 7915 KENNINGTON CT.  
 BRIGHTON, MICHIGAN 48116  
 (248)446-0100

SCALE: 1in. = 10ft.  
 PROJECT No.: 183393  
 DWG NAME: 3393 UT  
 ISSUED: NOV. 30, 2018

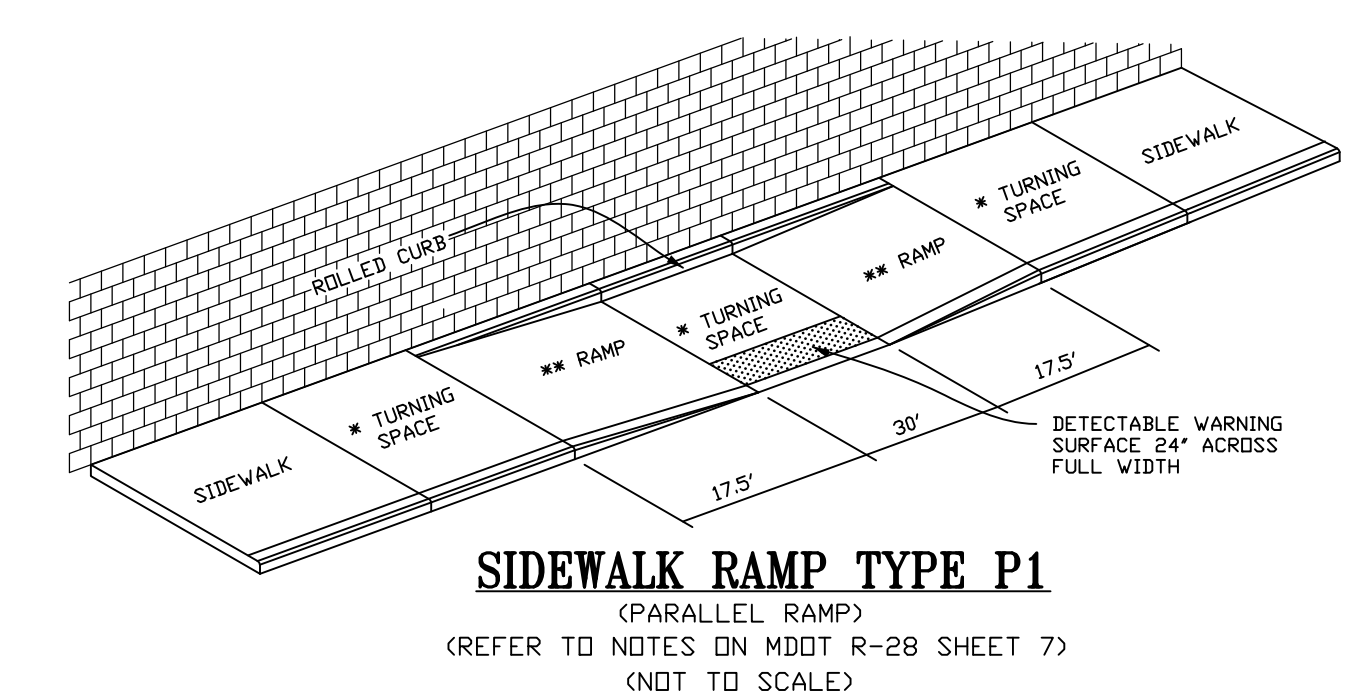
UT1



**STORM SEWER GENERAL NOTES:**

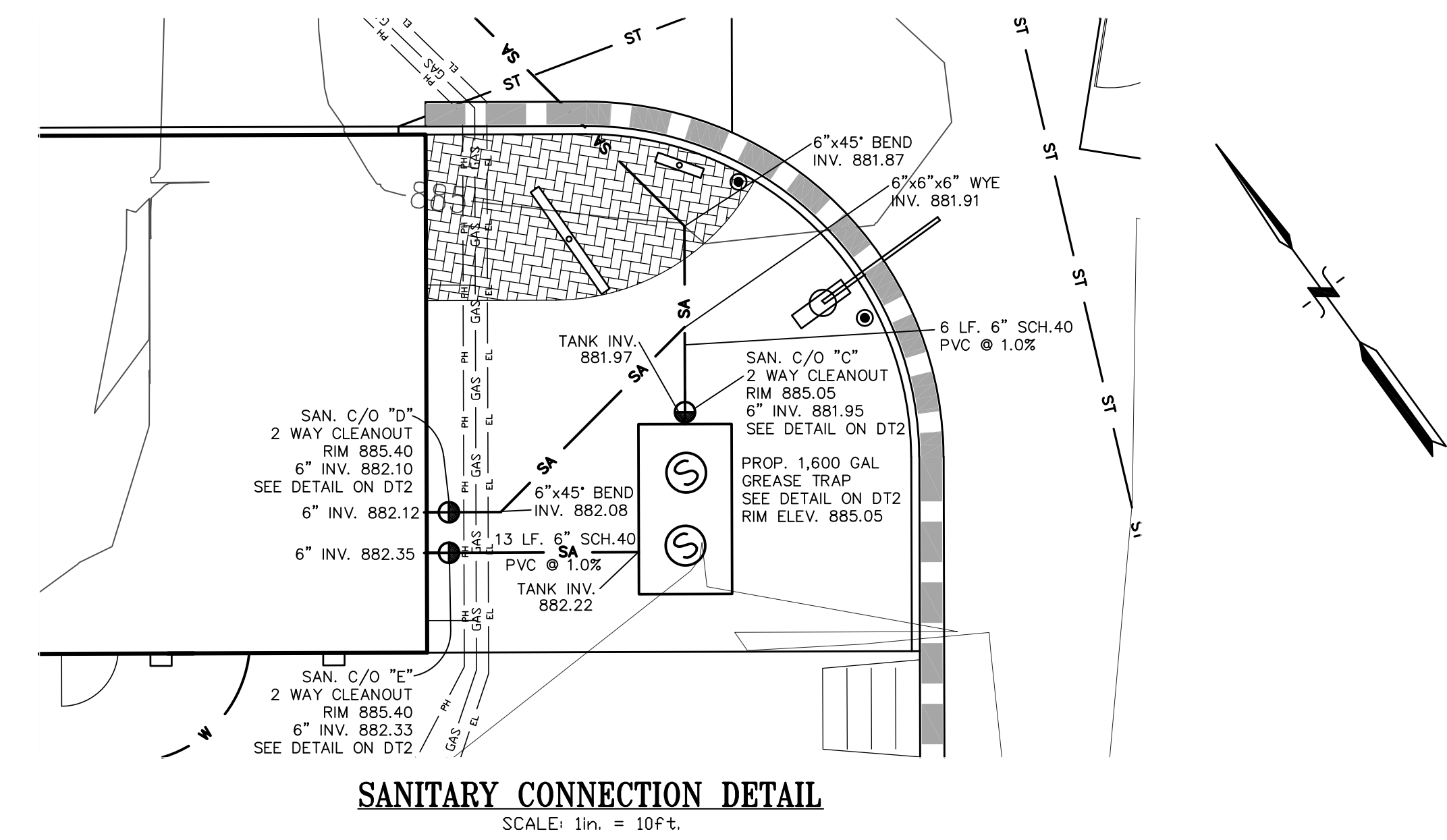
- The storm sewer and stormwater management specifications of the local municipality are a part of this work. Refer to the general notes on the project plans for additional information and requirements.
- Contractor to field verify existing sanitary lead location at start of construction. Contact engineer if conflict arises on field.
- The property owner will be responsible for the maintenance of the storm sewer system and underground treatment systems.
- The developer is responsible for resolving any drainage problems on adjacent properties which are the result of the developer's actions.
- A minimum vertical clearance of 18 inches shall be maintained between sanitary lead and all utility crossings.
- A minimum horizontal clearance of 10 feet shall be maintained between the sanitary lead and water service.
- The sanitary lead shall be located outside of the drive approach wherever possible.
- HDPE - type S when shown on the project plans shall be high density polyethylene pipe with a smooth interior and shall conform to the specifications for high density polyethylene pipe per AASHTO designation M252 Type S for pipes of 3" to 10" diameter and per AASHTO designation M294 Type S for pipes of 12" to 60" diameter. HDPE - Type S pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477. Tamp backfill at spring line of HDPE - Type S pipe. Install high density polyethylene end sections incidental to work. Saw cut pipes to length as needed. All joints and pipe connections shall be watertight.
- HDPE - type C when shown on the project plans shall be high density polyethylene pipe with a corrugated interior and shall conform to the specifications for high density polyethylene pipe per AASHTO designation M252 for pipes of 3" to 10" diameter and per AASHTO designation M294 for pipes of 12" to 60" diameter. HDPE - Type C pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477. Tamp backfill at spring line of HDPE - Type C pipe. Install high density polyethylene end sections incidental to work. Saw cut pipes to length as needed.
- PVC when shown on the project plans shall be polyvinyl chloride pipe and shall conform to the specifications for polyvinyl chloride pipe per ASTM D1785. PVC pipes sch. 40. PVC pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477 or solvent welded type conforming to ASTM D2564. Tamp backfill at spring line of PVC pipe. Saw cut pipes to length as needed.

- MAXIMUM TURNING SPACE SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. MINIMUM DIMENSIONS 5' x 5'
- MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 3% (0.3% MAXIMUM).



**SANITARY SEWER GENERAL NOTES:**

- The existing sanitary lead shall be televised prior to re-use to determine whether the existing condition is adequate for the proposed usage. If the condition of the existing lead is unsuitable for reconnection, a new sanitary lead should be installed per city of Charlotte standards (6", PVC sch. 40, min 1% slope).
- No person shall connect roof downspouts, foundation drains, areaway drains or any sources of surface water or groundwater to a building sewer which in turn is connected to the system.
- No building sewer shall be covered until after it has been inspected and approved by authorized personnel of the city or its designee. No building sewer shall be used until finally approved after the trench is backfilled and an air test is conducted.



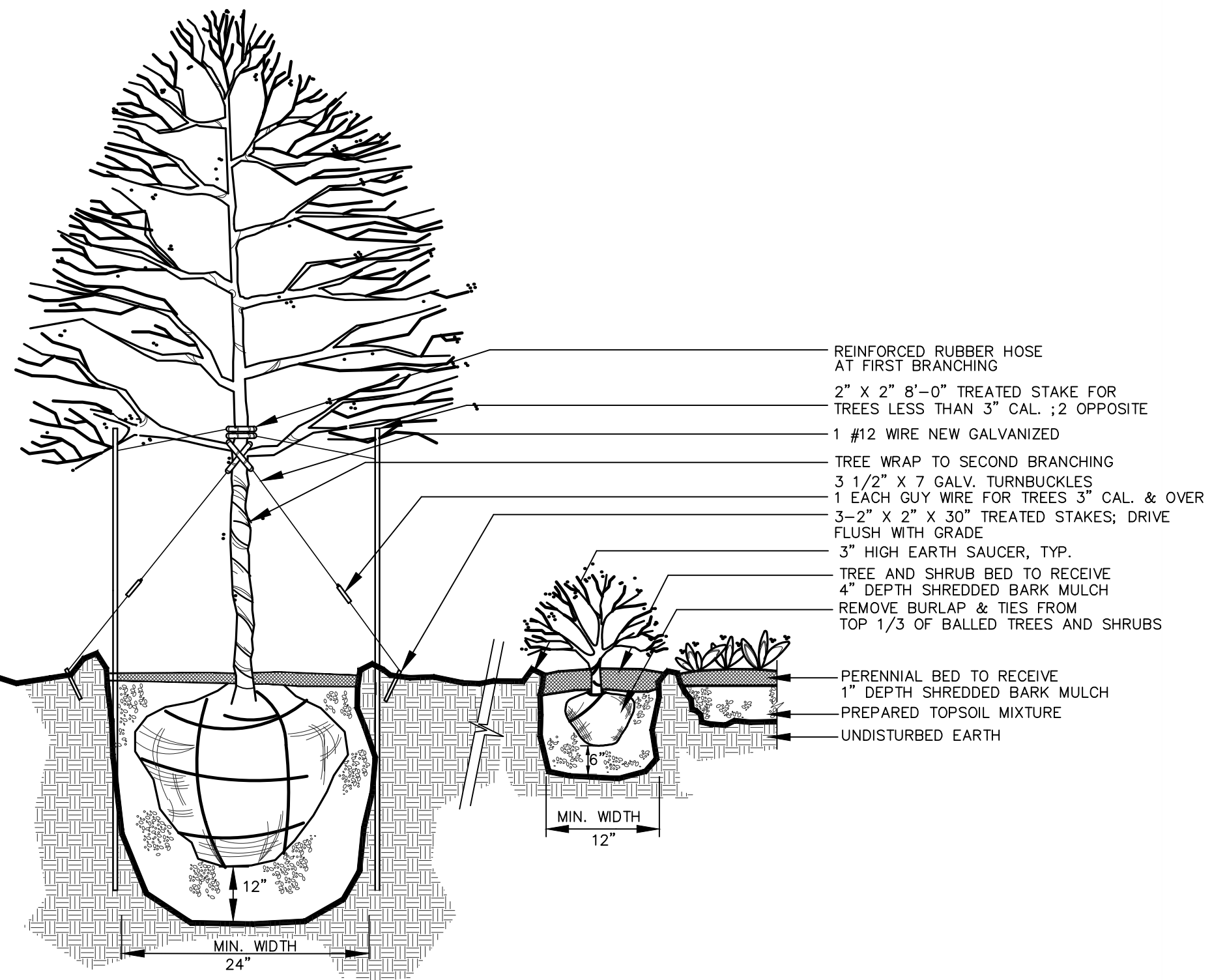
Project: #660 Lansing Rd.	SLCPP / PVC n = 0.011	Stays as built
Location: City of Charlotte, M 48816	RCP n = 0.013	
Design Criteria: 10 year event (I = 175 / (T + 25))	HDPEs n = 0.011	

From MH# CB# FES#	To MH# CB# FES#	Pipe Material	Inc. Area	Eqv. Area	Total Area	T Time	I Per Hour	Q (CIA) c.f.s.	Dia. of pipe inch	Slope %	Slope H.G. %	Length of line ft.	Vel. Flow full ft./sec.	Time of flow min.	Cap of pipe c.f.s.	H.G. upper end	Ground Elev. Upper end	Ground Elev. Lower end	Invert Elev. Upper end	Invert Elev. Lower end	
<b>TACO BELL'S PROPOSED PIPE CALCULATIONS:</b>																					
CB 203	CB 202	HDPEs	0.22	0.18	0.18	15.0	4.38	0.79	12	0.32	0.04	138	3.03	0.8	2.38	880.65	884.04	882.69	880.04	879.60	
CB 202	CB 201	HDPEs	0.37	0.81	0.30	0.48	15.8	4.29	2.06	12	0.32	87	3.03	0.5	2.38	880.43	882.69	883.79	879.50	879.22	
ROOF	CB 201	HDPEs	0.06	0.95	0.06	0.06	15.0	4.38	0.25	8	1.00	0.03	40	4.09	0.2	1.43	880.80	885.50	883.79	880.52	880.12
CB 201	MH 103	HDPEs	0.06	0.70	0.04	0.58	16.2	4.24	2.46	12	0.35	0.34	134	3.17	0.7	2.49	880.11	883.79	884.35	879.12	878.65
CB 204	MH 103	HDPEs	0.16	0.58	0.09	0.09	15.0	4.38	0.41	12	2.00	0.01	18	7.58	0.1	5.95	879.65	883.89	884.35	879.01	878.65
																<b>876.00</b>	<b>=HWL (crown elevation of 12" storm pipe en</b>				
MH 103	MH 102	HDPEs			0.67	16.9	4.17	2.80	12	0.00	0.01	32	0.00	0.1	0.00	879.55	884.35	884.60	878.55	878.55	
MH 102	CS 100	HDPEs			0.67	17.0	4.16	2.80	12	0.32	0.01	40	3.03	0.2	2.38	878.81	884.60	884.67	877.94	877.81	
<b>TACO BELL'S OUTLET STRUCTURE PIPE CALCULATIONS:</b>																					
CS 100	#7	PVC			0.67	17.3	4.14	2.78	15	0.75	0.13	89	5.39	0.3	6.61	878.45	884.04	884.33	877.71	877.08	
#7	#8	PVC	0.05	0.80	0.04	0.71	17.5	4.11	2.93	12	0.93	0.48	79	5.17	0.3	4.06	877.66	884.33	882.03	876.98	876.28
#10	#8	PVC	0.03	0.70	0.02	0.02	15.0	4.38	0.09	12	0.84	0.00	87	4.29	0.3	3.37	877.48	881.74	882.03	877.04	876.48
#8	FES	PVC	0.21	0.84	0.18	0.91	17.8	4.09	3.72	18	1.90	0.09	42	9.68	0.1	17.11	876.87	882.03	875.33	876.13	875.33
																<b>876.00</b>	<b>=HWL (per FEMA's digital flood map zone &amp; effective as of 11/26/2010)</b>				

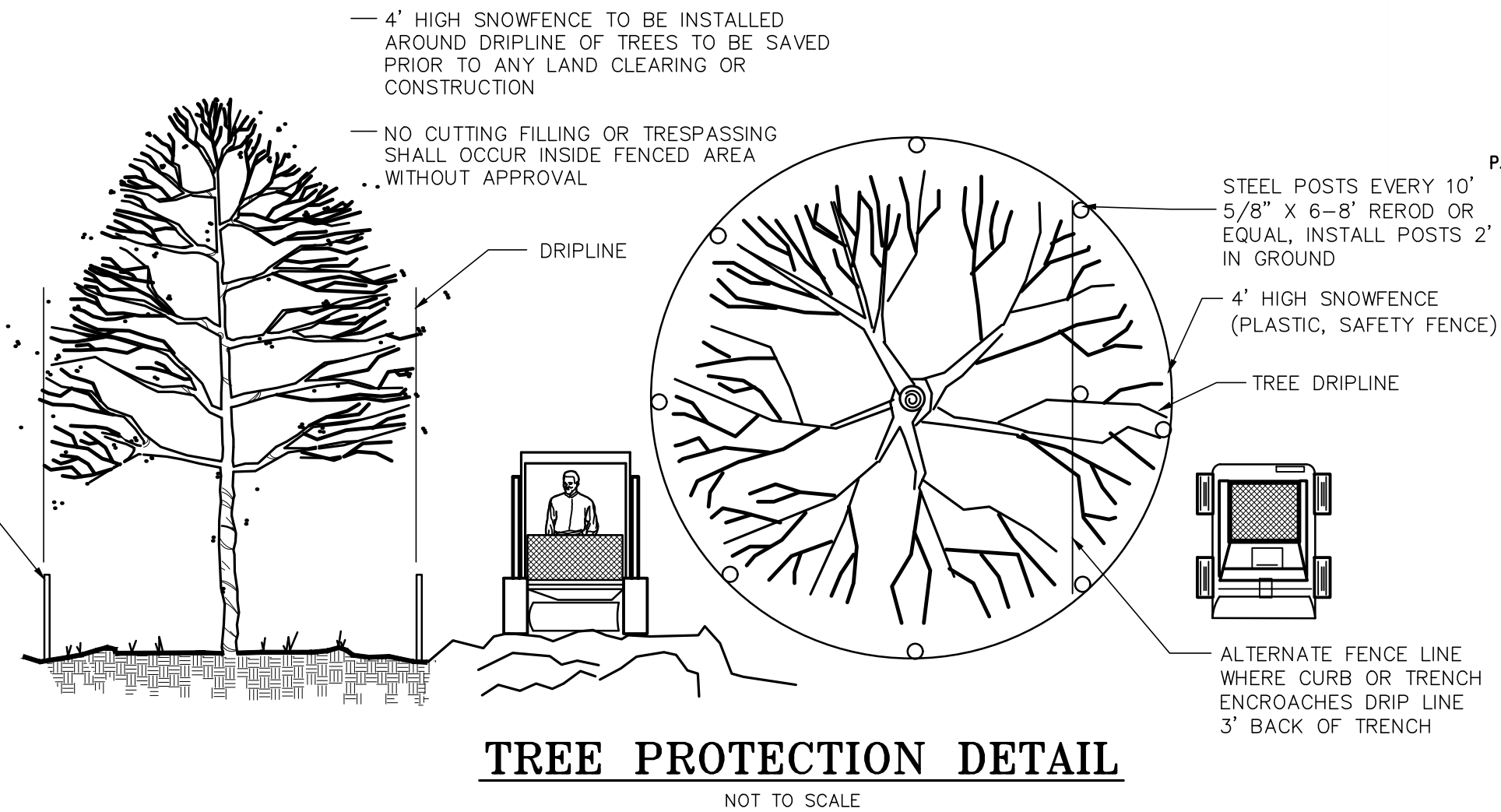
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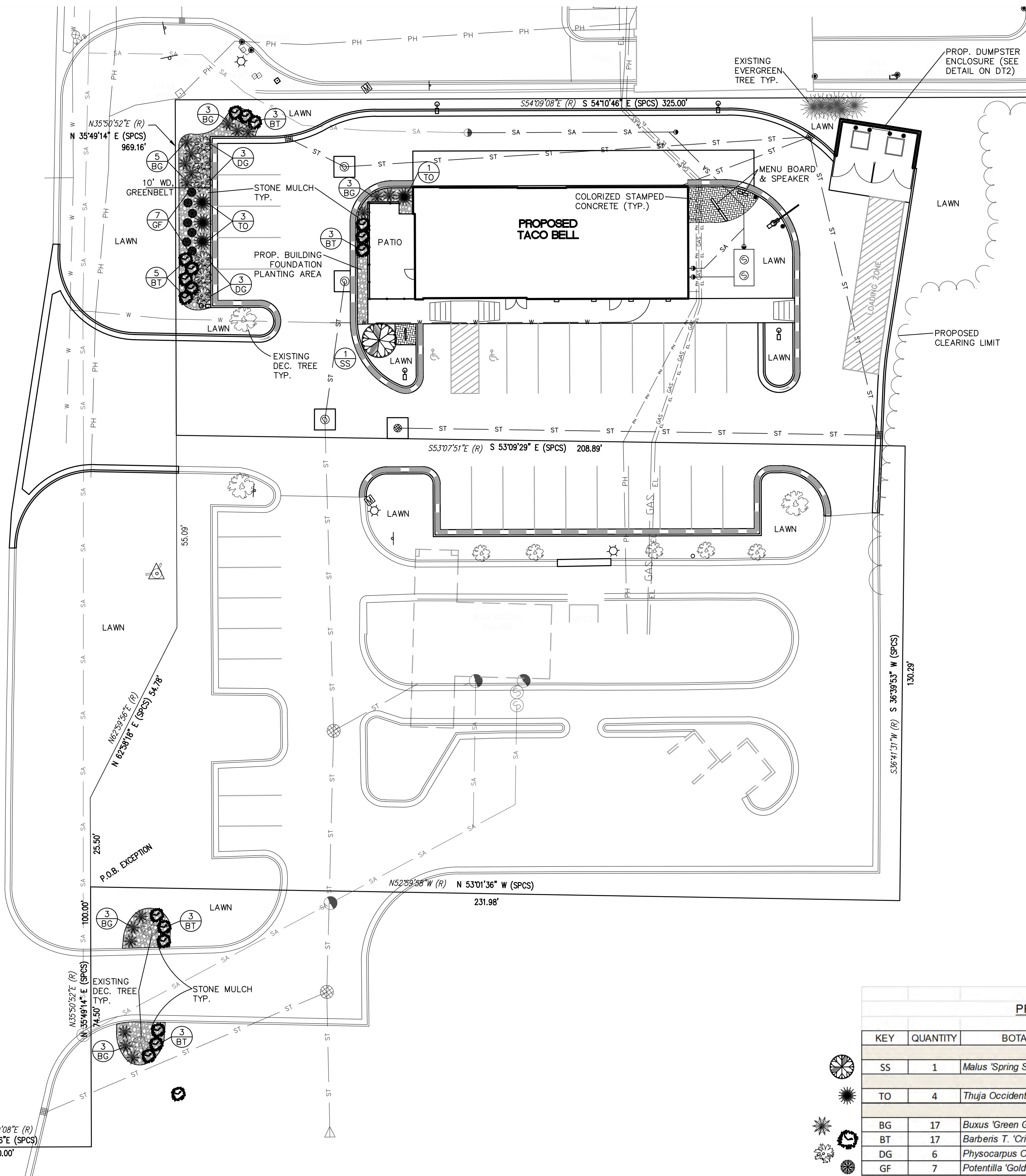
TYPICAL TREE/SHRUB/PERENNIAL PLANTING  
NOT TO SCALE



LANSING STREET  
VARIABLE WIDTH R.O.W.  
(M/DOT JURISDICTION)

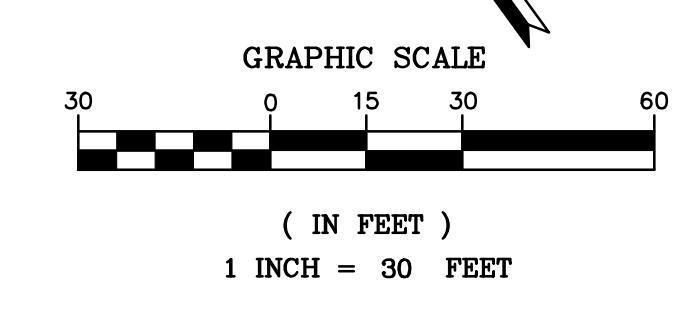
3.850'±2.7' W (R) 398.80'  
5.894'±1.4' W (SPCS) 398.80'

P.O.B.



CATEGORY / CALCULATION	REQUIRED		EXISTING PRESERVED		PROPOSED		TOTAL PROVIDED	
	TREES	SHRUBS	TREES	SHRUBS	TREES	SHRUBS	TREES	SHRUBS
<b>PARKING LOT LANDSCAPING (Sec. 82-460.3)</b>								
1 TREE PER 20 PARKING SPACES (2 TREES MINIMUM)								
(25 SPACES) X (1 TREE PER 20 SPACES) =	2	0	6	0	0	0	6	0
<b>GREENBELT LANDSCAPING (Sec. 82-460.4)</b>								
1 TREE PER 75 LF OF FRONTAGE GREENBELT								
(271 LF - 51 LF ACCESS DRIVES) X (1 TREE PER 75 LF) =	3	0	3	0	0	0	3	0
4 SHRUB PER 20 LF OF FRONTAGE GREENBELT								
(271 LF - 51 LF ACCESS DRIVES) X (4 SHRUB PER 20 LF) =	44	0	0	0	0	44	0	44
<b>BUILDING FOUNDATION PLANTINGS (Sec. 24.08)</b>								
MIN. OF 5% OF BUILDING MAIN FLOOR AREA TO BE INTERIOR LANDSCAPING								
(1,085 SF) X (0.05) = 54 SF. REQUIRED, 334 SF PROPOSED								
1 DEC./EVERGREEN TREE PER 1,000 SF OF REQUIRED INTERIOR LANDSCAPING AREA	1	0	0	0	1	0	1	0
1 SHRUB PER 250 SF OF REQUIRED INTERIOR LANDSCAPING AREA		1	0	0	0	7	0	7
<b>SOLID WASTE DUMPSTER (Sec. 82-460.7)</b>								
SCREENING ON ALL SIDES AND A GATE ENCLOSURE REQUIRED								
BRICK EMBOSSED CONCRETE WALL SCREENING AND 6" W/D. CEDAR FENCE PROPOSED	YES							YES

- LEGEND**
- = MISC. STRUCTURE (AS LABELED)
  - = BOLLARD
  - ⊙ = SIGN
  - ▲ = LIGHT FIXTURE / DECORATIVE LIGHT
  - ☆ = LIGHT BASE
  - ⊕ ⊖ ⊗ ⊗ = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
  - ⊙ = AIR CONDITIONER UNIT
  - ⊙ = UTILITY MANHOLE (AS LABELED)
  - = UTILITY POLE W/GUY WIRE
  - ||— = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
  - ||— = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
  - |— = EDGE OF WOODS / TREE DRIPLINE
  - ⊙ = DECIDUOUS TREE W/IDENTIFIER
  - ⊙ = CONIFEROUS TREE W/IDENTIFIER
  - ⊙ = BUSH / SHRUB
  - ⊙ = CONCRETE CURB (UNLESS OTHERWISE STATED)
  - ⊙ = SANITARY SEWER MANHOLE W/IDENTIFIER
  - S— = SANITARY SEWER PIPE
  - ⊙ = CLEAN OUT
  - ⊙ = STORM WATER MANHOLE W/IDENTIFIER
  - |— = CATCH BASIN W/IDENTIFIER
  - |— = STORM WATER DRAINAGE PIPE
  - ⊙ = HYDRANT
  - ⊙ = WATER SHUT OFF
  - ⊙ = WATER GATE VALVE WELL / MANHOLE
  - ⊙ = WATER VALVE BOX
  - ⊙ = WATER MAIN
  - ⊙ = GAS MANHOLE
  - ⊙ = GAS SHUT OFF
  - G— = U/G GAS



KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE	ROOT
<b>PROPOSED LANDSCAPE PLANTING LEGEND</b>					
<b>DECIDUOUS TREES</b>					
SS	1	<i>Malus 'Spring Snow'</i>	Spring Snow Crabapple	2" Caliper	B & B
<b>EVERGREEN SHRUBS</b>					
TO	4	<i>Thuja Occidentalis 'Golden Glove'</i>	Golden Glove Arborvitae	24" Height	Container
<b>DECIDUOUS SHRUBS</b>					
BG	17	<i>Buxus 'Green Gem'</i>	Green Gem Boxwood	30" Height	B & B
BT	17	<i>Barbent's T. 'Crimson Pigmy'</i>	Crimson Pigmy Barberrry	18" Height	Container
DG	6	<i>Physocarpus Opulifolia 'Dart's Gold'</i>	Dart's Gold Ninebark	24" Height	Container
GF	7	<i>Potentilla 'Goldfinger'</i>	Gold Finger Potentilla	24" Height	Container

**BENCHMARK**  
DATUM BASED ON RTX-GPS OBSERVATIONS, DATE 05/25/18

BENCHMARK #201  
ARROW ON HYDRANT, LOCATED ON EASTERLY RIGHT-OF-WAY OF LANSING STREET, IN FRONT OF #640.  
ELEVATION = 887.51 (NAVD 88)

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BRIGHTON, MICHIGAN 48114

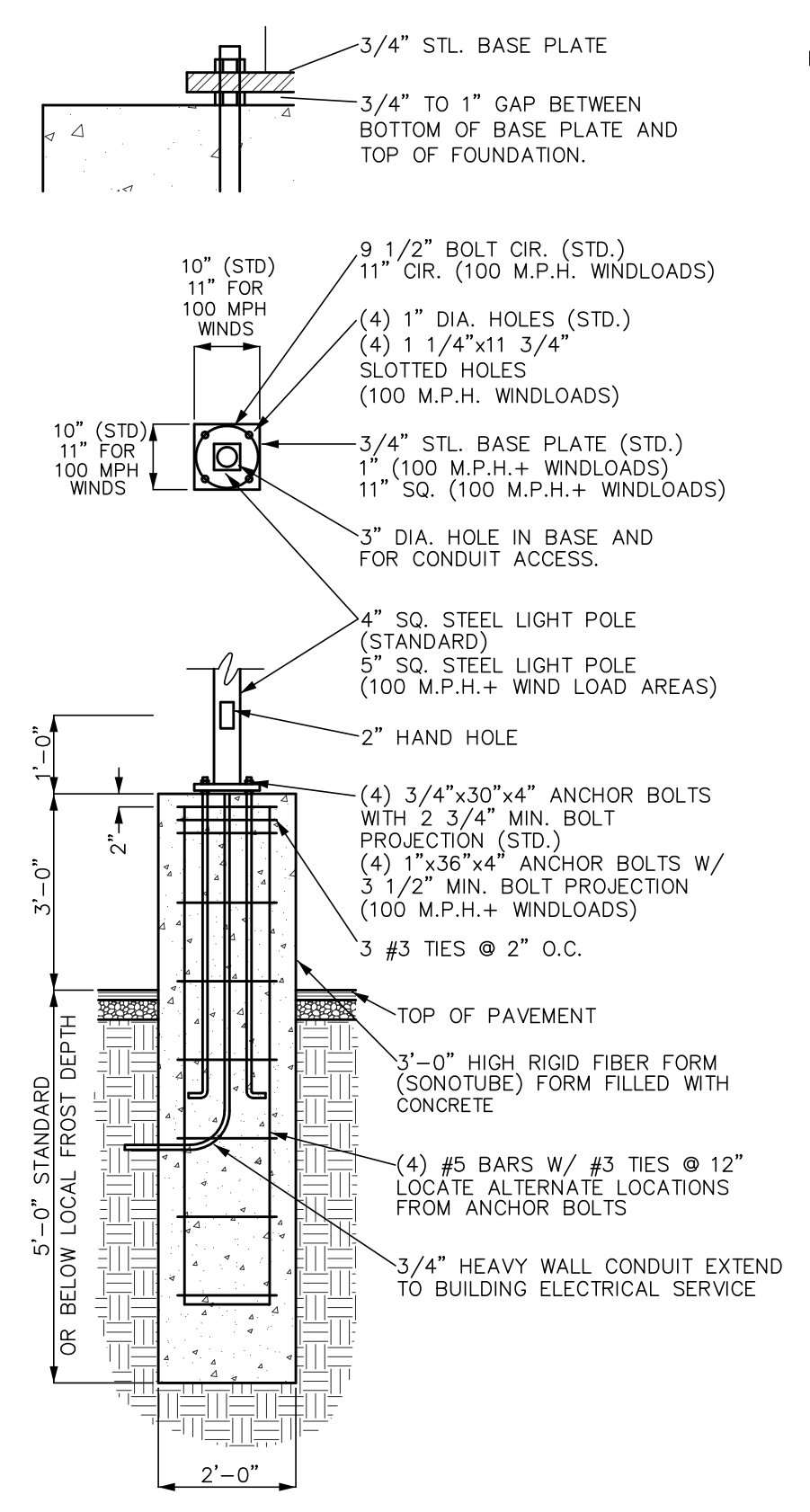
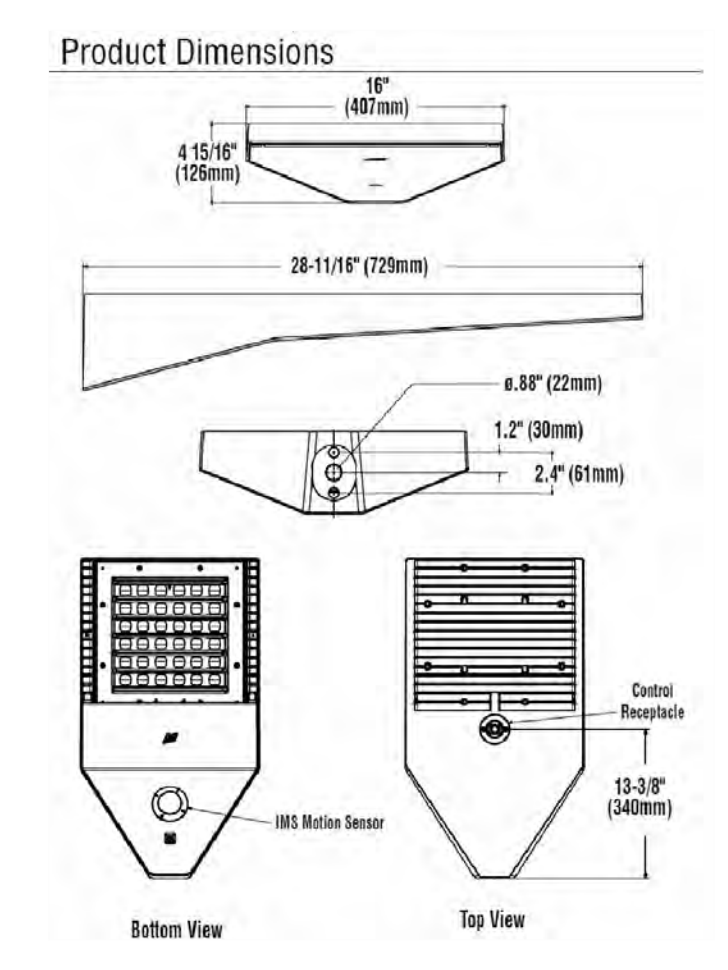
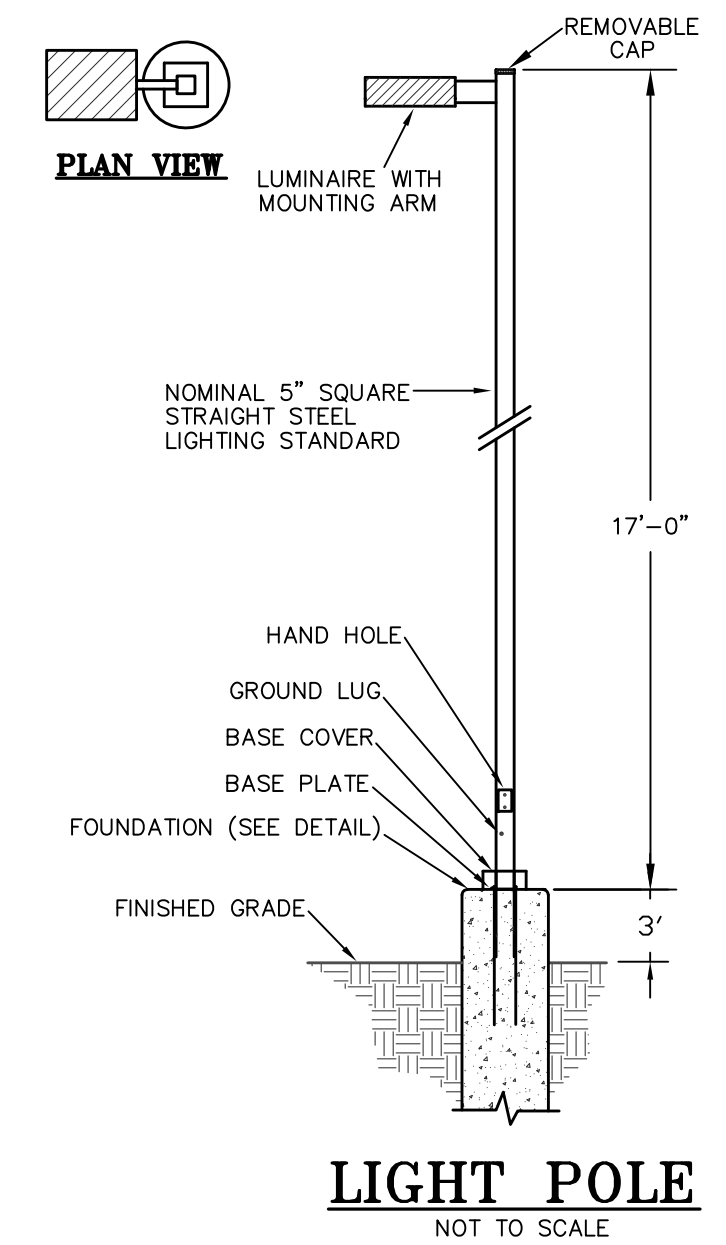
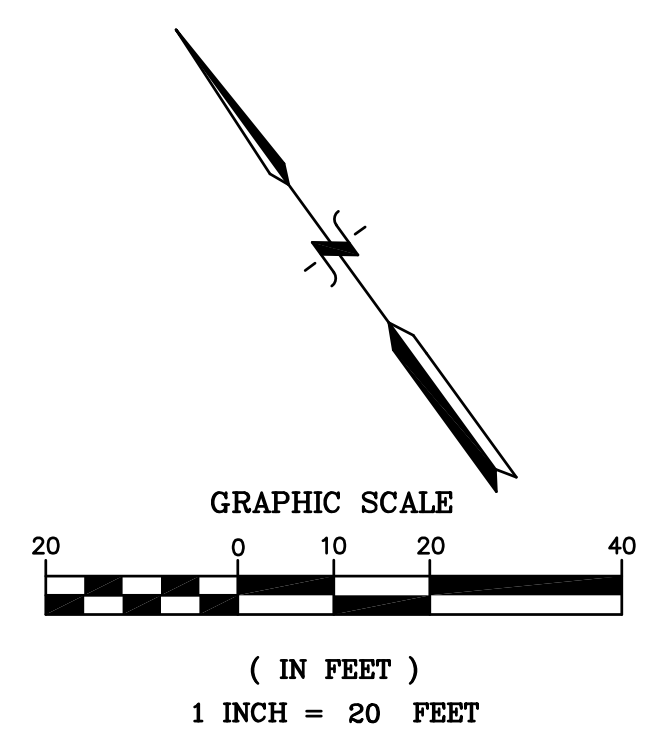
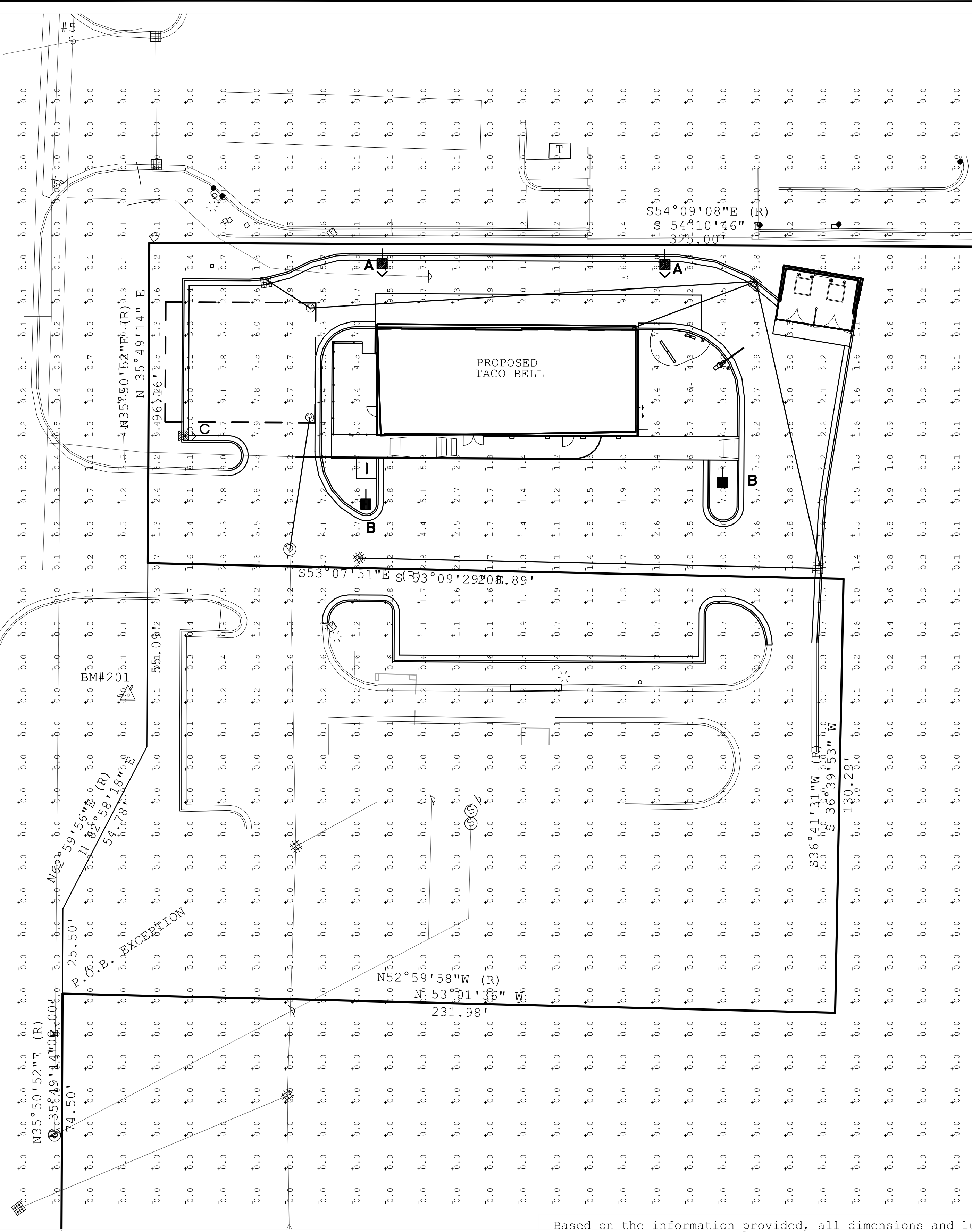
DESIGN/FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

660 LANSING ST.  
TACO BELL

LANDSCAPE PLAN

CLIENT: SUNDANCE INC. 7915 KENSINGTON CT. BRIGHTON, MICHIGAN 48116 (248)446-0100	SCALE: 1in. = 30ft.	PROJECT No.: 183393	<b>LS</b>
	DWG NAME: 3393 LS	ISSUED: NOV. 30, 2018	

LANSING STREET  
VARIABLE WIDTH R.O.W.



**LIGHT STANDARD DETAIL**  
NOT TO SCALE

- NOTES
- FOUNDATION SHOWN IS A TYPICAL DESIGN. WIND LOADS MORE THAN 100 MPH AND UNSTABLE SOIL CONDITIONS MAY REQUIRE AN ALTERNATE DESIGN. VERIFY CONDITION OF SOILS WITH SOILS REPORT.
  - FOUNDATIONS SHALL EXTEND BELOW FROST DEPTH PER LOCAL CODES.
  - CONCRETE SHALL HAVE MIN 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.

**Ordering Guide**

TYPICAL ORDER EXAMPLE: **SLM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Luminaire Prefix	Light Source	Lumen Package*	Light Output	Distribution	Orientation*	Voltage	Driver
SLM	LED	9L - 9,000 lms 12L - 12,000 lms 16L - 18,000 lms 24L - 24,000 lms 30L - 30,000 lms 36L - 36,000 lms 42L - 42,000 lms	SIL - Silicone	2 - Type 2 3 - Type 3 SW - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive	(blank) - standard L - Optics rotated left 90 R - Optics rotated right 90	UNV - Universal Voltage (120-277V) HW - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)

\*Consult factory for programmable wattages and lumen packages

**TYPICAL ORDER GUIDE DETAIL**  
NOT TO SCALE

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS AT GRADE	Illuminance	Fc	0.98	10.0	0.0	N.A.	N.A.
PARKING AND DRIVE SUMMARY	Illuminance	Fc	4.91	9.7	1.1	4.46	8.82

Luminaire Schedule

Symbol	Qty	Label	Arrangement	Description	LLF	Arr. Lum. Lumens	Arr. Watts
	2	A	SINGLE	SLM-LED-24L-SIL-FT-50-70CRI-IL-SINGLE ON 17' POLE + 3' BASE	1.000	15885	188.8
	2	B	SINGLE	SLM-LED-24L-SIL-SW-50-70CRI-SINGLE ON 17' POLE + 3' BASE	1.000	23823	188.8
	1	C	SINGLE	SLM-LED-24L-SIL-FT-50-70CRI-SINGLE ON 17' POLE + 3' BASE	1.000	25280	188.8

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

Total Project Watts  
Total Watts = 944

LIGHTING PROPOSAL LO-144683

TACO BELL #660  
LANSING ST.  
CHARLOTTE, MI

BY: SLS DATE: 10/31/18 REV: 0 SHEET 1 OF 1

SCALE: 1"=20'

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BRIGHTON, MICHIGAN 48114

DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

660 LANSING ST.  
TACO BELL

PHOTOMETRIC PLAN

CLIENT:  
SUNDANCE INC.  
7915 KENNINGTON CT.  
BRIGHTON, MICHIGAN 48116  
(248)446-0100

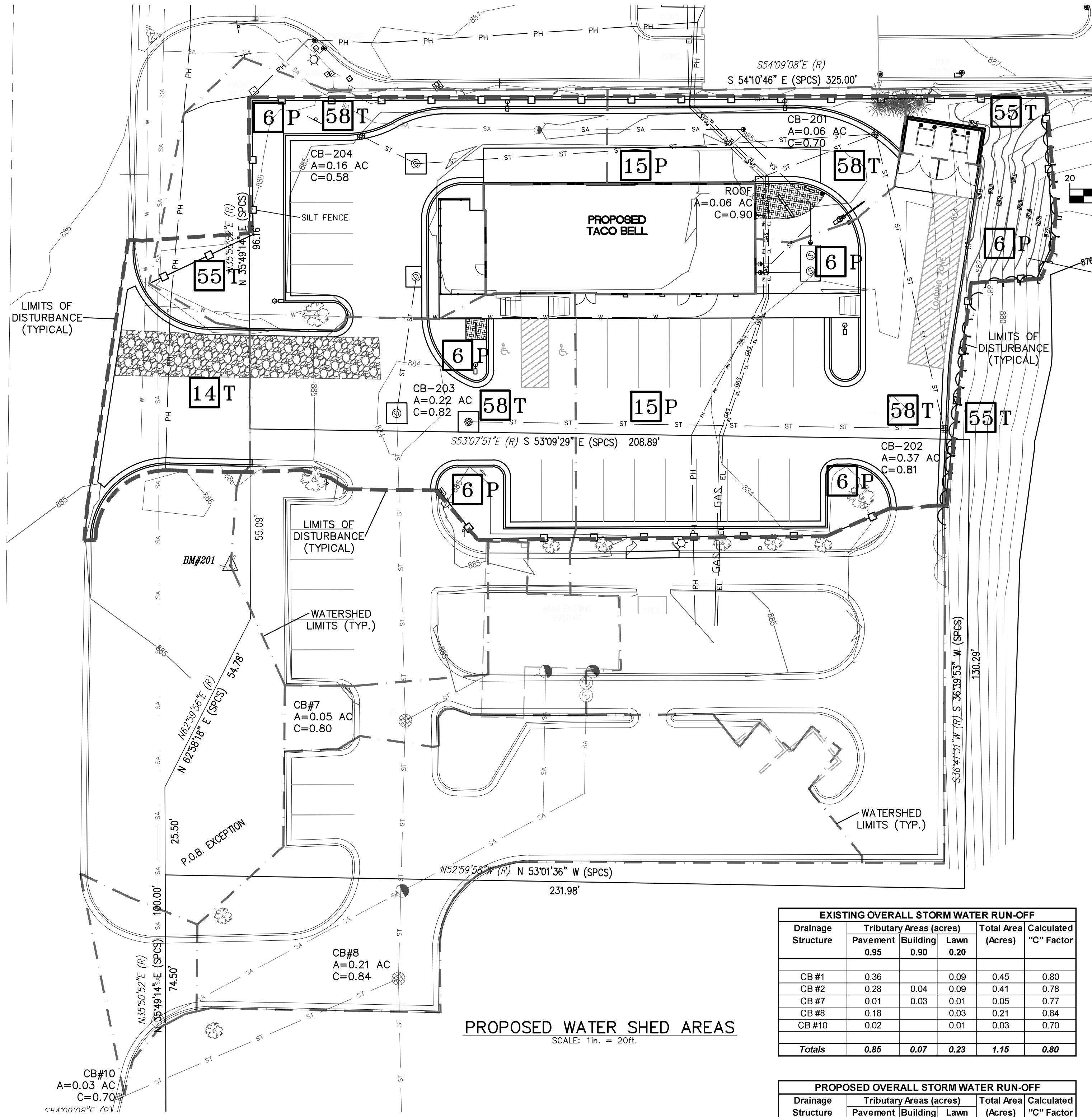
SCALE: 1in. = 20ft.  
PROJECT No.: 183393  
DWG NAME: 3393 LS  
ISSUED: NOV. 30, 2018

LT



LANSING STREET  
VARIABLE WIDTH R.O.W.  
(MDOJ JURISDICTION)

S35°50'52"W (R)  
S35°49'14"W (SPCS) 398.80'



PROPOSED WATER SHED AREAS  
SCALE: 1in. = 20ft.

**EROSION CONTROL LEGEND**

6	SEEDING WITH MULCH AND/OR MATTING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER. EFFECTIVE FOR DRAINAGEWAYS WITH LOW VELOCITY. CAREFULLY PLACE IN SMALL QUANTITIES BY EXPERIENCED PERSONNEL. SHOULD INCLUDE PREPARED TOPSOIL BED.
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THUS MINIMIZING EROSION. PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER. MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS.
15	PAVING	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF VOLUME AND VELOCITY. IRREGULAR SURFACE WILL HELP SLOW VELOCITY.
16	CURB & CUTTER	KEEPS HIGH VELOCITY RUNOFF ON PAVED AREAS FROM LEAVING PAVED SURFACE. COLLECTS AND CONDUCTS RUNOFF TO ENCLOSED DRAINAGE SYSTEM OR PREPARED DRAINAGEWAY.
55	GEOTEXTILE SILT FENCE	USES GEOTEXTILE AND POSTS OR POLES. MAY BE CONSTRUCTED OR PREPACKAGED. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.
58	INLET SEDIMENT FILTER	USES PREPACKAGED GEOTEXTILE SACKS. FILTERS SEDIMENT FROM RUNOFF AT CATCH BASIN INLET. EASY TO INSTALL AND MAINTAIN.

**EXISTING OVERALL STORM WATER RUN-OFF**

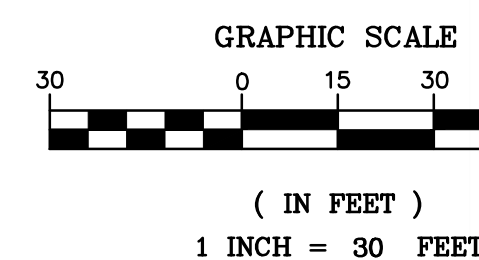
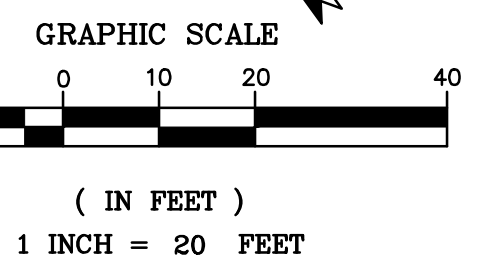
Drainage Structure	Tributary Areas (acres)			Total Area (Acres)	Calculated "C" Factor
	Pavement 0.95	Building 0.90	Lawn 0.20		
CB #1	0.36	0.09	0.45	0.80	
CB #2	0.28	0.04	0.09	0.41	0.78
CB #7	0.01	0.03	0.01	0.05	0.77
CB #8	0.18	0.03	0.21	0.84	
CB #10	0.02	0.01	0.03	0.70	
<b>Totals</b>	<b>0.85</b>	<b>0.07</b>	<b>0.23</b>	<b>1.15</b>	<b>0.80</b>

**PROPOSED OVERALL STORM WATER RUN-OFF**

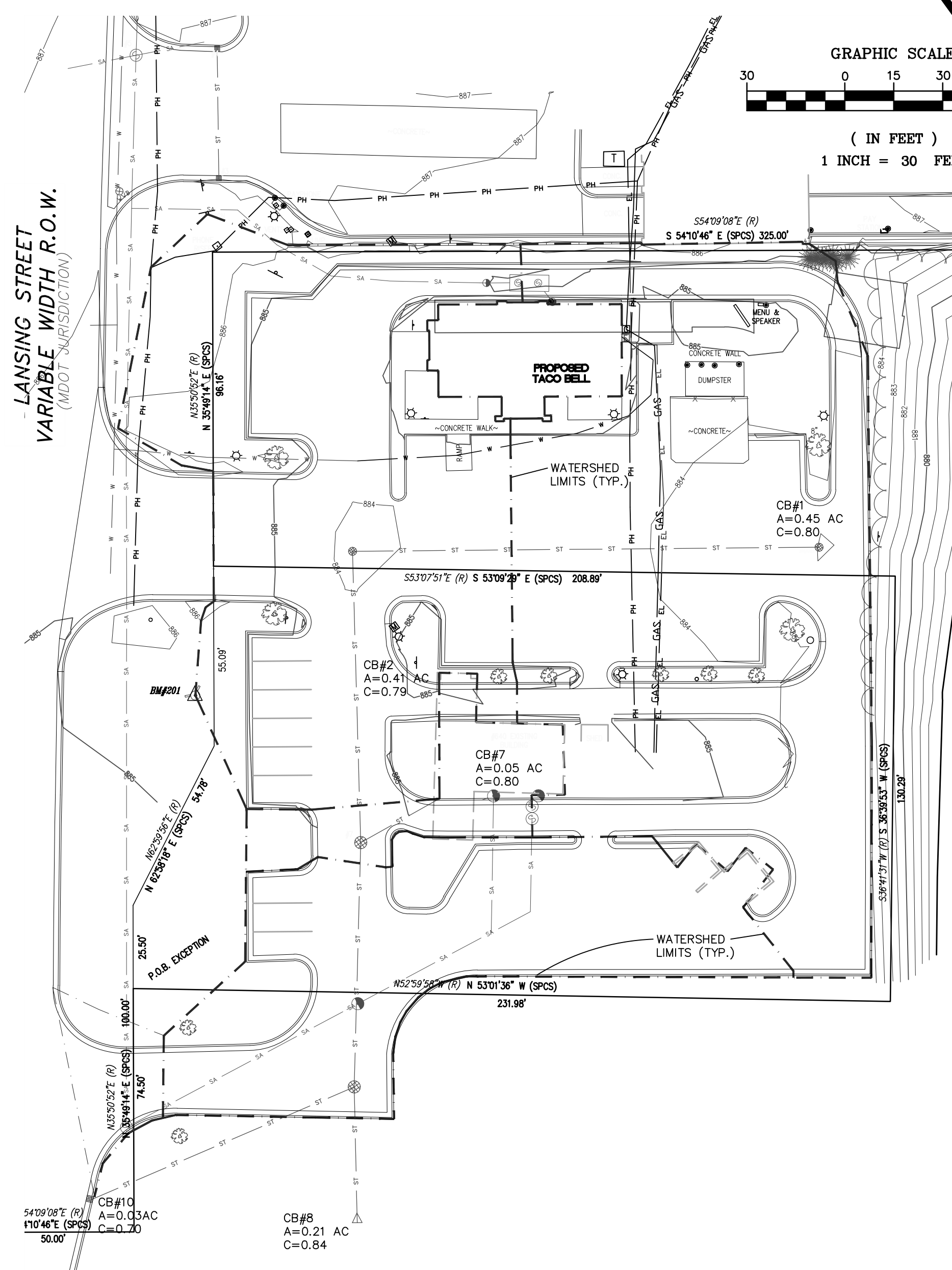
Drainage Structure	Tributary Areas (acres)			Total Area (Acres)	Calculated "C" Factor
	Pavement 0.95	Building 0.90	Lawn 0.20		
ROOF		0.06	0.06	0.90	
CB 201	0.04	0.02	0.06	0.70	
CB 202	0.30	0.07	0.37	0.81	
CB 203	0.18	0.04	0.22	0.82	
CB 204	0.08	0.08	0.16	0.58	
CB #7	0.01	0.03	0.01	0.05	0.77
CB #8	0.18	0.03	0.21	0.84	
CB #10	0.02	0.01	0.03	0.70	
<b>Totals</b>	<b>0.81</b>	<b>0.09</b>	<b>0.28</b>	<b>1.18</b>	<b>0.78</b>

**PROPOSED UG STORAGE STORM WATER RUN-OFF**

Drainage Structure	Tributary Areas (acres)			Total Area (Acres)	Calculated "C" Factor
	Pavement 0.95	Building 0.90	Lawn 0.20		
ROOF		0.06	0.06	0.90	
CB 201	0.04	0.02	0.06	0.70	
CB 202	0.30	0.07	0.37	0.81	
CB 203	0.18	0.04	0.22	0.82	
CB 204	0.08	0.08	0.16	0.58	
<b>Totals</b>	<b>0.60</b>	<b>0.06</b>	<b>0.21</b>	<b>0.87</b>	<b>0.77</b>



LANSING STREET  
VARIABLE WIDTH R.O.W.  
(MDOJ JURISDICTION)



EXISTING WATER SHED AREAS  
SCALE: 1in. = 30ft.

**LEGEND**

- = MISC. STRUCTURE (AS LABELED)
- = BOLLARD
- = SIGN
- = LIGHT FIXTURE / DECORATIVE LIGHT
- = LIGHT BASE
- = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
- = AIR CONDITIONER UNIT
- = UTILITY MANHOLE (AS LABELED)
- = UTILITY POLE W/GUY WIRE
- = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
- = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
- = EDGE OF WOODS / TREE DRIP LINE
- = DECIDUOUS TREE W/IDENTIFIER
- = CONIFEROUS TREE W/IDENTIFIER
- = BUSH / SHRUB
- = CONCRETE CURB (UNLESS OTHERWISE STATED)
- = SANITARY SEWER MANHOLE W/IDENTIFIER
- = SANITARY SEWER PIPE
- = CLEAN OUT
- = STORM WATER MANHOLE W/IDENTIFIER
- = CATCH BASIN W/IDENTIFIER
- = STORM WATER DRAINAGE PIPE
- = HYDRANT
- = WATER SHUT OFF
- = WATER GATE VALVE WELL / MANHOLE
- = WATER VALVE BOX
- = WATER MAIN
- = GAS MANHOLE
- = GAS SHUT OFF
- = U/G GAS
- = 1' CONTOUR
- = 5' CONTOUR
- = FLOODPLAIN CONTOUR 876'
- = PROP. BOLLARD
- = PROP. LIGHT POLE
- = PROP. U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
- = PROP. CLEARING LIMIT
- = PROP. CONCRETE CURB
- = PROP. EDGE OF CONCRETE
- = PROP. FENCE
- = PROP. SANITARY SEWER MANHOLE
- = PROP. SANITARY SEWER PIPE
- = PROP. CLEAN OUT
- = PROP. STORM WATER MANHOLE
- = PROP. CATCH BASIN
- = PROP. STORM WATER DRAINAGE PIPE
- = PROP. WATER LEAD
- = PROP. CONTOUR

**BENCHMARK**  
DATUM BASED ON RTK-GPS OBSERVATIONS,  
DATE 05/25/18  
  
BENCHMARK #201  
ARROW ON HYDRANT, LOCATED ON EASTERLY  
RIGHT-OF-WAY OF LANSING STREET, IN FRONT  
OF #640.  
ELEVATION = 887.51 (NAVD 88)

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DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

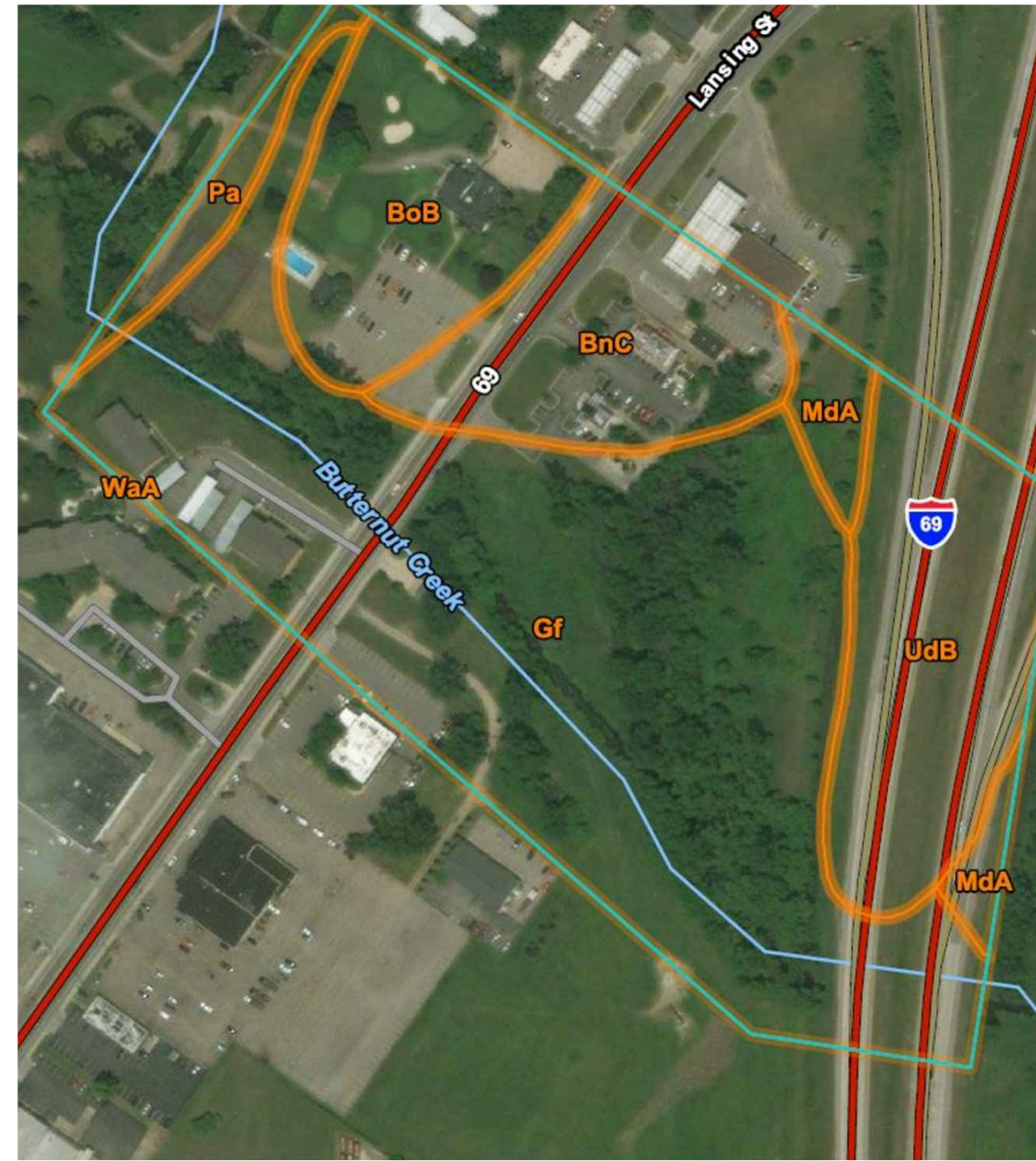
660 LANSING ST.  
TACO BELL

SOIL EROSION CONTROL  
AND  
WATER SHED PLAN

CLIENT:  
SUNDANCE INC.  
7915 KENSINGTON CT.  
BRIGHTON, MICHIGAN 48116  
(248)446-0100

SCALE: AS NOTED  
PROJECT No.: 183393  
DWG NAME: 3393 SE  
ISSUED: NOV. 30, 2018

**SE1**



**SOILS MAP**  
NOT TO SCALE

**Map Unit Legend**

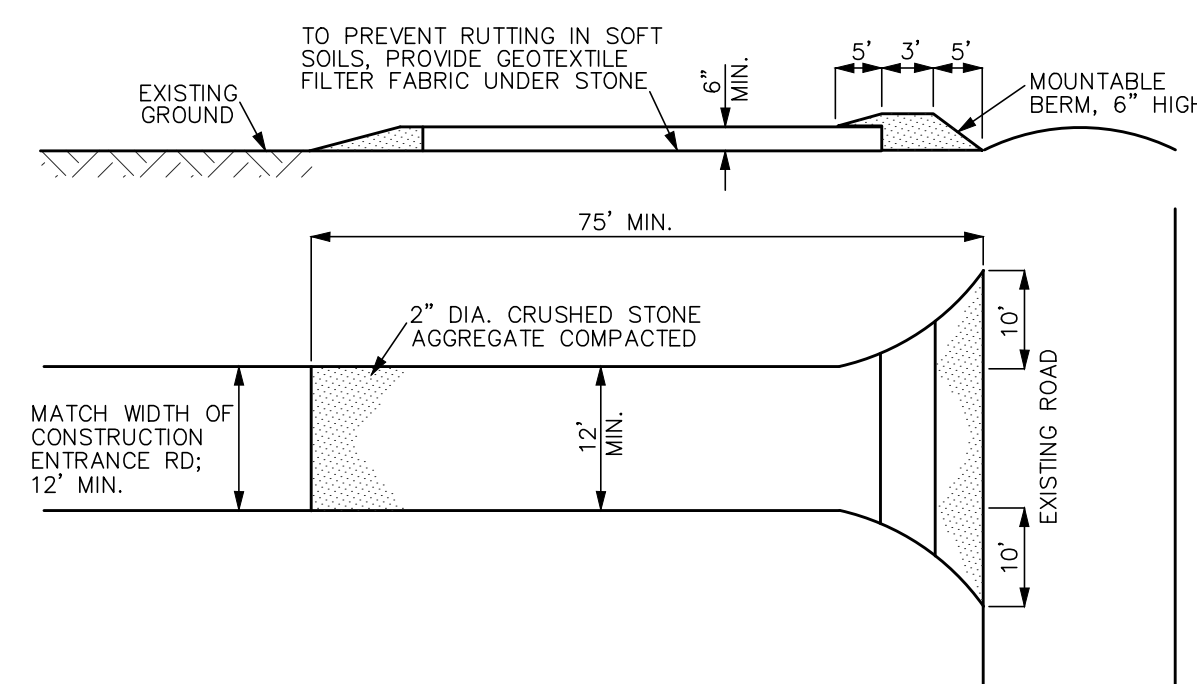
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BnC	Boyer loamy sand, 6 to 12 percent slopes	3.1	11.6%
BoB	Boyer sandy loam, 0 to 6 percent slopes	3.2	12.1%
Gf	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	14.7	55.8%
MdA	Matherlon loam, 0 to 3 percent slopes	0.9	3.3%
Pa	Palms muck, 0 to 1 percent slopes	0.6	2.4%
UdB	Udorthents, nearly level and undulating	3.9	14.7%
WaA	Wasepi sandy loam, 0 to 3 percent slopes	0.0	0.0%
<b>Totals for Area of Interest</b>		<b>26.4</b>	<b>100.0%</b>

**TIME LINE OF SOIL EROSION CONTROL AND CONSTRUCTION SEQUENCE**

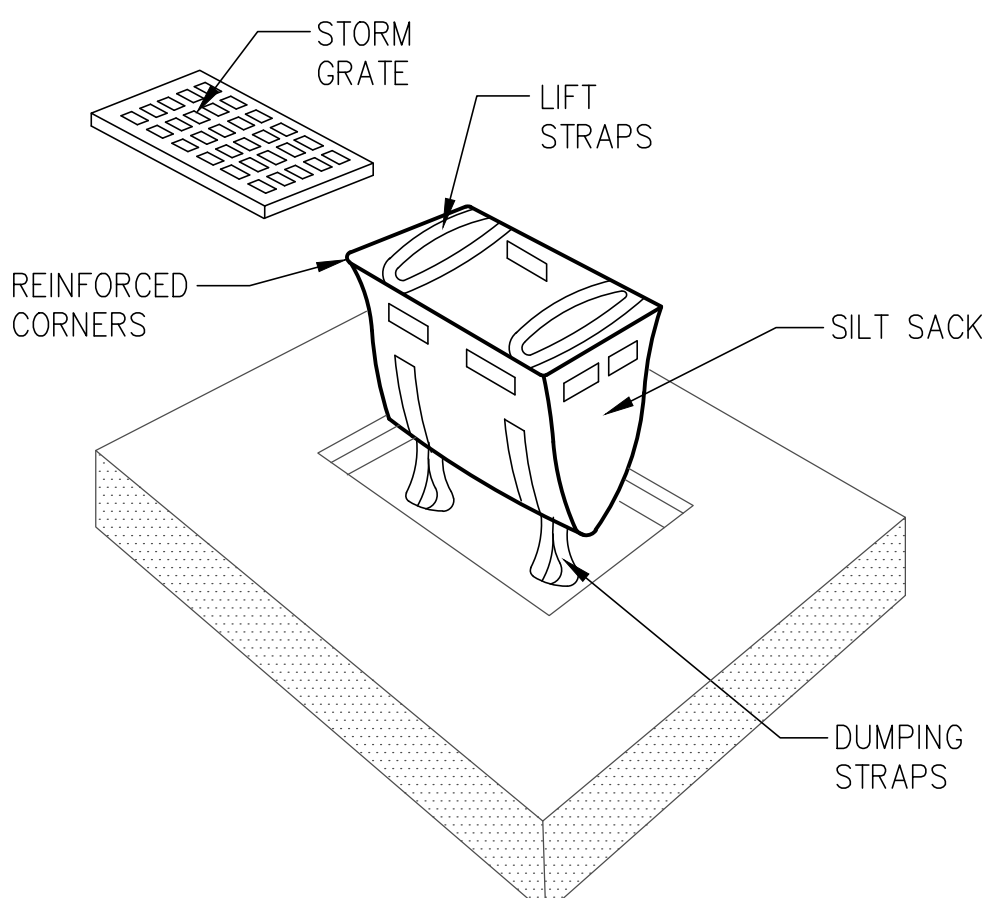
CONSTRUCTION & WORK CATEGORIES*	2019				
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5
1 - OBTAIN PERMITS					
2 - SESC MEASURES					
3 - INSPECT / MAINTAIN					
4 - DEMOLITION WORK					
5 - EARTH WORK					
6 - UTILITIES					
7 - BUILDING					
8 - PAVEMENT					
9 - IRRIGATION					
10 - TOPSOIL/VEGETATION					
11 - LANDSCAPING					
12 - RESTORATION					
13 - PERMIT CLOSURE					

\*REFER TO THE MAJOR WORK ITEMS OUTLINED IN THE SOIL EROSION CONTROL AND CONSTRUCTION SEQUENCE NOTES.

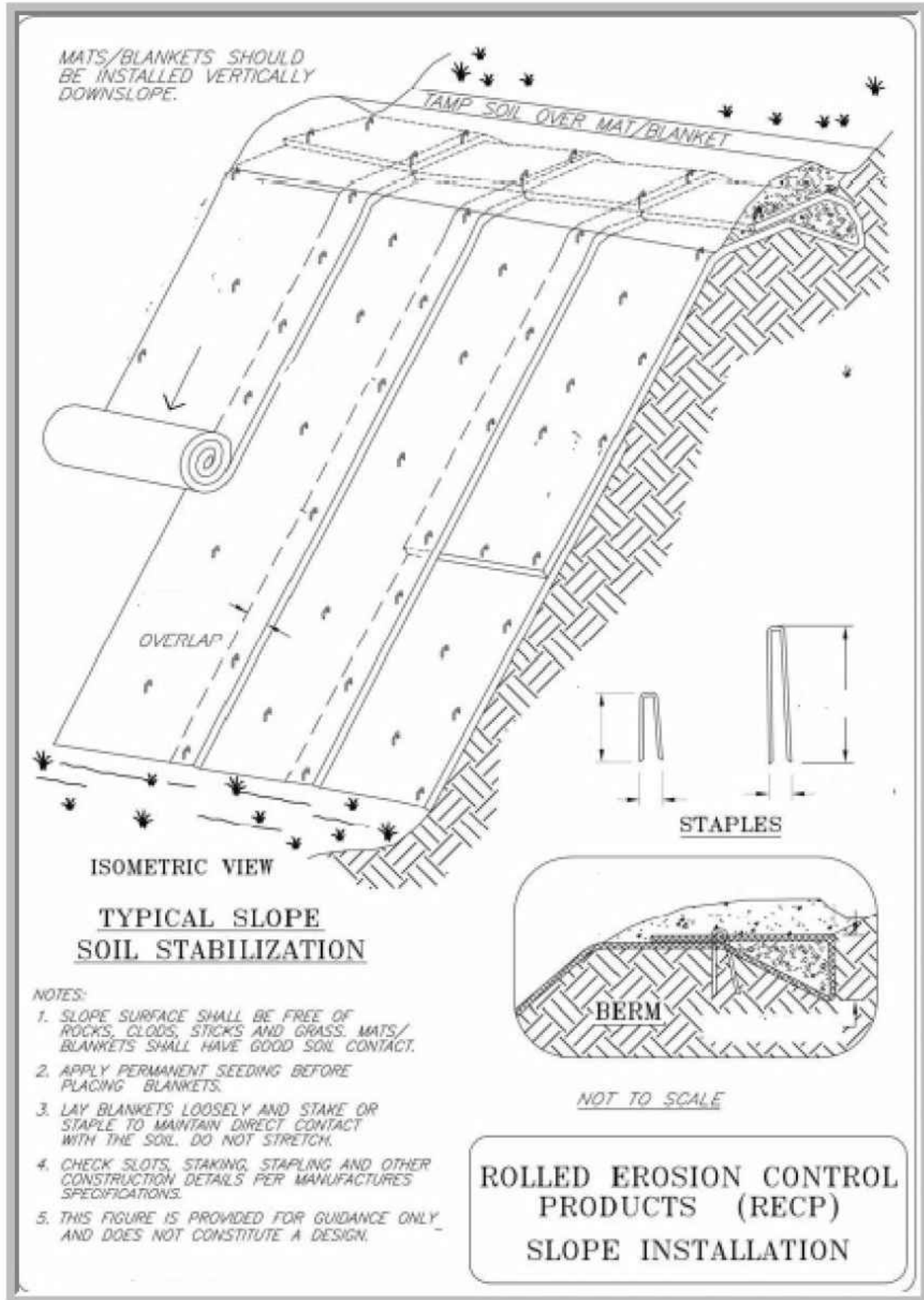
- SOIL EROSION AND SEDIMENTATION CONTROL NOTES:**
- The Soil Erosion and Sedimentation Control Specifications of the appropriate Local, County and/or State Agencies are a part of this work. Refer to the General Notes on the Project Plans for additional requirements.
  - The Soil Erosion and Sedimentation Control (SESC) Permit Holder shall be responsible for compliance with the SESC Permit requirements for the duration of the project and until receipt of final approval from the Permitting Agency. For any site with an earth disturbance area of 1 acre or greater, the SESC Permit Holder shall retain a Certified Storm Water Operator in accordance with the SESC Permit requirements. The Certified Storm Water Operator shall perform routine inspections of the site and the SESC measures and file inspection reports in accordance with the SESC permit requirements. For any site with an earth disturbance area of 5 acres or greater, the SESC Permit Holder shall file a National Pollutant Discharge Elimination System (NPDES) Notice of Coverage Form with the State DEQ prior to any earth disruption.
  - The Contractor shall install the appropriate Soil Erosion Control Measures in accordance with the Project Plans prior to massive earth disruption, including but not limited to; silt fence, mud tracking control mats and sediment filters on existing storm sewer structures. Demolition work may be necessary prior to installation of some soil erosion control measures. In such cases, postpone installation of affected soil erosion control measures until immediately following demolition work. Refer to the Project Plans and the Soil Erosion Control and Construction Sequence for additional requirements.
  - The Contractor shall schedule work so as to minimize the period of time that an area is exposed and disturbed. The Contractor shall observe the grading limits and limits of disturbance in accordance with the Project Plans. The Contractor shall maintain an undisturbed vegetative buffer around the work when shown on the Project Plans.
  - The Contractor shall install and maintain Soil Erosion Control Measures in accordance with the Project Plans during the appropriate phases of construction. The Project Plans show the minimum requirements for Soil Erosion Control Measures. The Contractor shall install additional Soil Erosion Control Measures as necessary due to site conditions and as directed by the Permitting Agency and/or Engineer. The Contractor shall perform routine inspection and maintenance of all Soil Erosion Control Measures to ensure compliance with the permit requirements and proper operation of the Soil Erosion Control Measures.
  - The Contractor shall strip and stockpile topsoil from all areas of proposed disturbance. Topsoil stockpiles shall be located in accordance with the Project Plans. Topsoil stockpiles shall be stabilized with vegetative growth (or matted with straw during the non-growing season) to prevent wind and water erosion. A temporary diversion berm and/or silt fence shall encompass all earthen material stockpiles, including but not limited to topsoil, sand and gravel.
  - The Contractor shall install Soil Erosion Control Measures associated with the proposed storm sewer system during storm sewer construction. Inlet structure filters shall be installed immediately following completion of each storm inlet structure. Riprap shall be installed immediately following the installation of each flared end section with the following exception: Storm drain outlets that do NOT empty into a Retention, Detention or Sedimentation Basin shall have a temporary 5' wide x 10' long x 3' deep sump installed at the termination of the storm sewer. Upon completion of the stabilization work, the sump area shall be filled and riprap shall be installed in accordance with the Project Plans.
  - The Contractor shall install filter stone around the storm basin control structure(s) in accordance with the Project Plans immediately following installation of the control structure(s). The filter stone shall be monitored for sediment build up. The filter stone may need to be cleaned and/or replaced as site conditions require and as directed by the Permitting Agency and/or the Engineer.
  - All disturbed areas outside of paved areas shall be restored within 5 days of finish grading. Proposed vegetative areas shall be restored with a minimum of 3-inches of topsoil, then seeded and mulched; unless noted otherwise on the Project Plans. During the non-growing season, temporary stabilization shall be provided using straw matting or as directed by the Permitting Agency and/or the Engineer.
  - Following complete site restoration and stabilization; sediment shall be removed from all storm sewer structures, paved areas and storm basins. The SESC Permit Holder shall contact the Permitting Agency to request closure of the SESC Permit. For any site with an earth disturbance area of 5 acres or greater, the SESC Permit Holder shall file a NPDES Notice of Termination Form with the State DEQ.



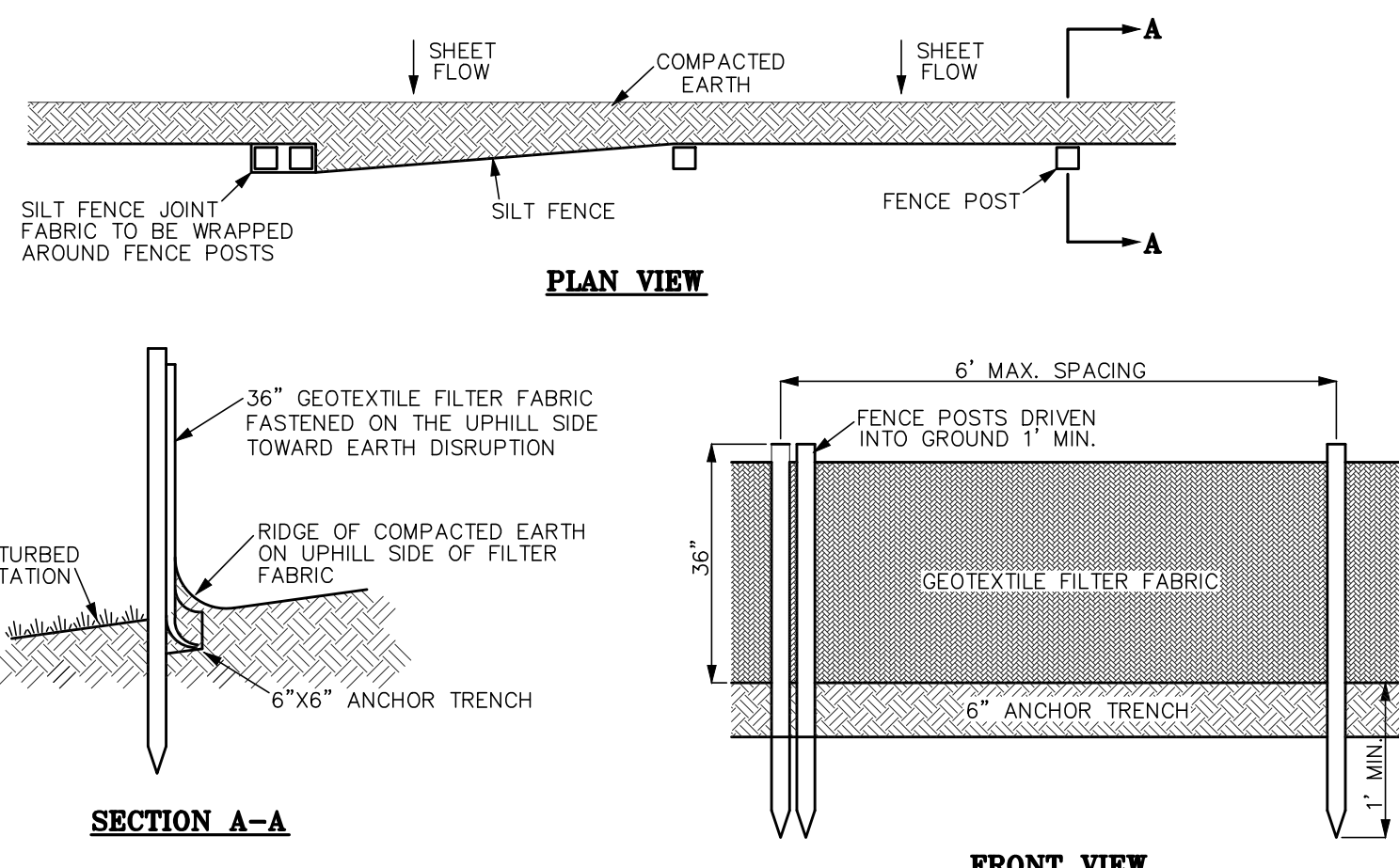
**14 MUD TRACKING CONTROL DEVICE**  
NOT TO SCALE



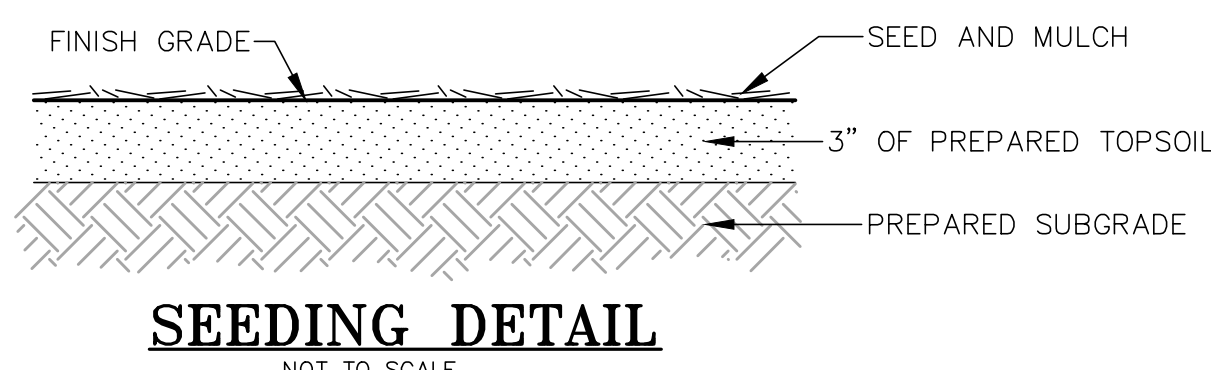
**58 INLET SEDIMENT FILTER**  
NOT TO SCALE



NOTE: WHEN ACCEPTABLE TO ENGINEER, CONTRACTOR MAY INSTALL STONE BELOW THE SUBGRADE ELEVATION; THIS STONE MAY BE LEFT IN PLACE BELOW PAVEMENT.



**55 SILT FENCE**  
NOT TO SCALE



**SEEDING DETAIL**  
NOT TO SCALE

- SOIL EROSION CONTROL AND CONSTRUCTION SEQUENCE:**
- Obtain all necessary Soil Erosion and Sedimentation Control related permits from the appropriate Local, County and/or State Agencies. Refer to the General Notes on the project plans for additional requirements.
  - Prior to commencement of any earth disruption, install Silt Fence, Mud Tracking Control Devices, and Culvert Sediment Trap at the existing culvert in accordance with the Soil Erosion and Sedimentation Control Plan and the Soil Erosion and Sedimentation Control Permit.
  - Inspect and maintain all Soil Erosion Control Measures daily. Maintain all Soil Erosion Control Measures as necessary and as directed by the Engineer and/or the Permitting Agency.
  - Perform demolition work. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Strip and stockpile topsoil. Perform mass grading and land balancing. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Construct underground utilities including sanitary sewer, water main, storm sewer, and conduit for underground public utilities. Install appropriate Soil Erosion Control Measures, including inlet sediment filters on new catch basins, in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Construct building in accordance with the Site Plan and Architectural Plans. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Install light pole bases and fixtures and underground electric. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Construct curb & gutter, sidewalk and paved parking and roadway areas. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Backfill curb and sidewalks and finish grade all disturbed areas outside of pavement areas. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Place topsoil and hydroseed within 5 days of finish grade for establishment of vegetative ground cover outside of pavement and mulched landscape bed areas. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Landscape site in accordance with the Project Landscape Plan. Install appropriate Soil Erosion Control Measures in accordance with the Soil Erosion and Sedimentation Control Plan and/or as directed by the Engineer and/or the Permitting Agency.
  - Following establishment of sufficient vegetative ground cover and receipt of approval from the Permitting Agency, remove all temporary Soil Erosion Control Measures, remove all sediment accumulation from the detention basin, clean all storm sewer structures, and repair any permanent Soil Erosion Control Measures as directed by the Engineer and/or the Permitting Agency.

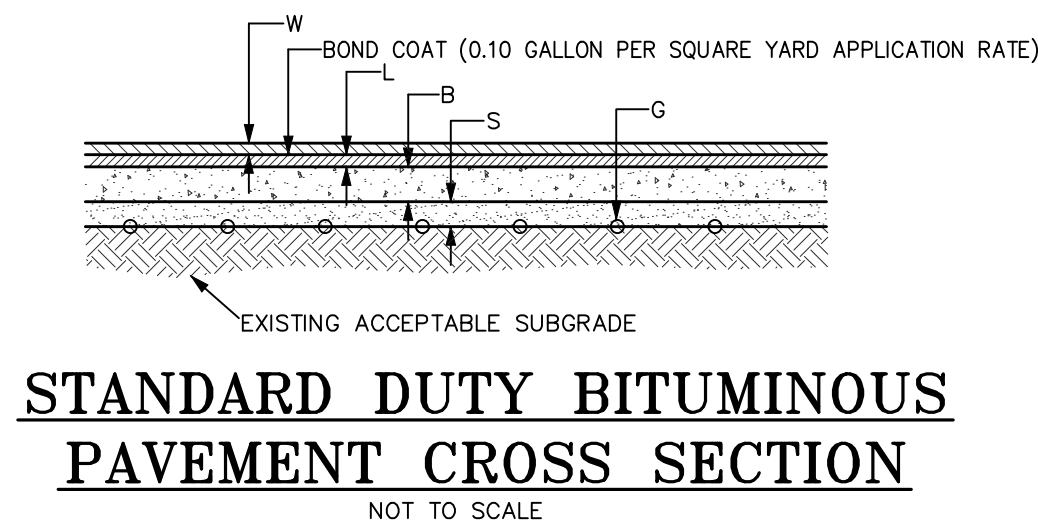


DESIGN:FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

660 LANSING ST.  
TACO BELL

SOIL EROSION CONTROL  
NOTES AND DETAILS

CLIENT: SUNDANCE INC. 7915 KENSINGTON CT. BRIGHTON, MICHIGAN 48116 (248)446-0100	SCALE: AS NOTED PROJECT No.: 183393 DWG NAME: 3393 SE ISSUED: NOV. 30, 2018	SE2
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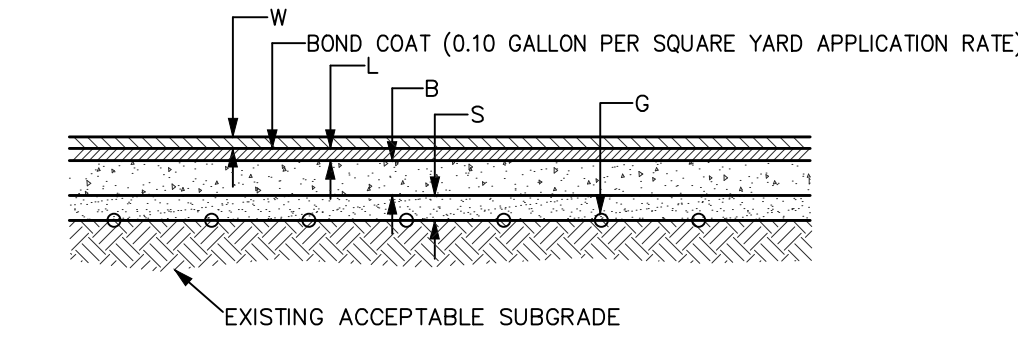


**STANDARD DUTY BITUMINOUS PAVEMENT CROSS SECTION**  
NOT TO SCALE

KEY	DESCRIPTION	MATERIAL SPECIFICATION	MINIMUM COMPACTED THICKNESS
W	WEARING COURSE	MDOT 36A	1.5"
L	LEVELING COURSE	MDOT 13A	1.5"
B	AGGREGATE BASE	MDOT 21AA	8"
S	GRANULAR SUBBASE	MDOT CLASS II	12"
G	GEOGRID	N/A	N/A

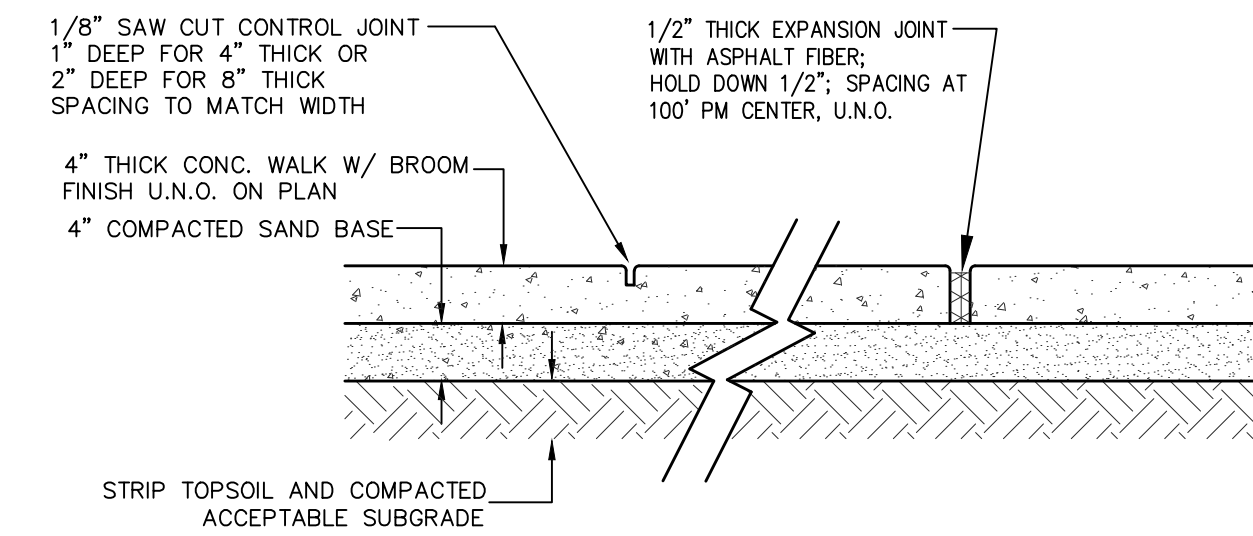
**PAVEMENT CROSS SECTION NOTES:**

- Refer to the General Notes, Road Construction Notes and Typical Road Cross Section detail on the project plans for additional requirements.
- Unsuitable soils found within the 1 on 1 influence zone of the roadway, such as muck, peat, topsoil, marl, silt or other unstable materials shall be excavated and replaced up to the proposed subgrade elevation with MDOT Class III granular material compacted to 95% maximum unit weight, modified proctor.
- Contractor shall proof roll prepared subgrade as directed by Engineer. Unacceptable areas of subgrade shall be undercut and replaced as directed by Engineer. See Subgrade Undercut & Replacement Cross Section detail for additional requirements.
- Owner/Developer may delay placement of the bituminous wearing course. Repair of the bituminous leveling course may be necessary due to any delay in placement of the bituminous wearing course. Substantial repair to the bituminous leveling course may be necessary if placement of the bituminous wearing course is delayed for more than 12 months after placement of the bituminous leveling course. The bituminous leveling course shall be repaired as directed by Engineer prior to placement of the bituminous wearing course.



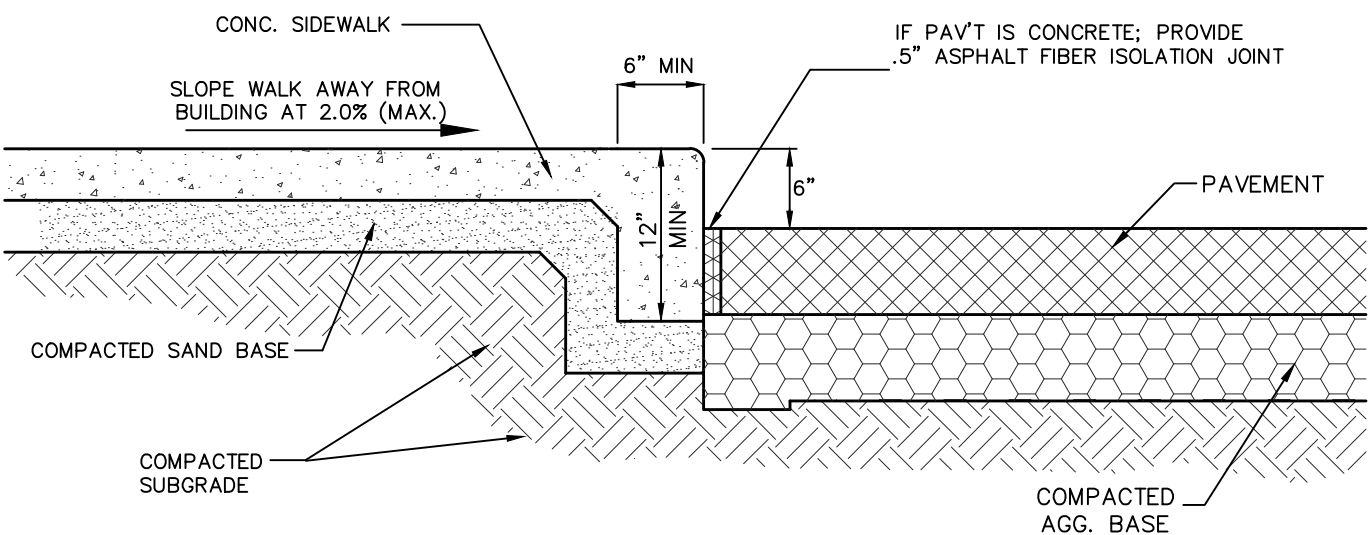
**MDOT - LANSING ST. R.O.W. PAVEMENT CROSS SECTION**  
NOT TO SCALE

KEY	DESCRIPTION	MATERIAL SPECIFICATION	MINIMUM COMPACTED THICKNESS
W	WEARING COURSE	MDOT LVSP	1.5"
L	LEVELING COURSE	MDOT LVSP	1.5"
B	BASE	MDOT LVSP	1.5"
S	GRANULAR SUBBASE	N/A	N/A
G	GEOGRID	N/A	N/A

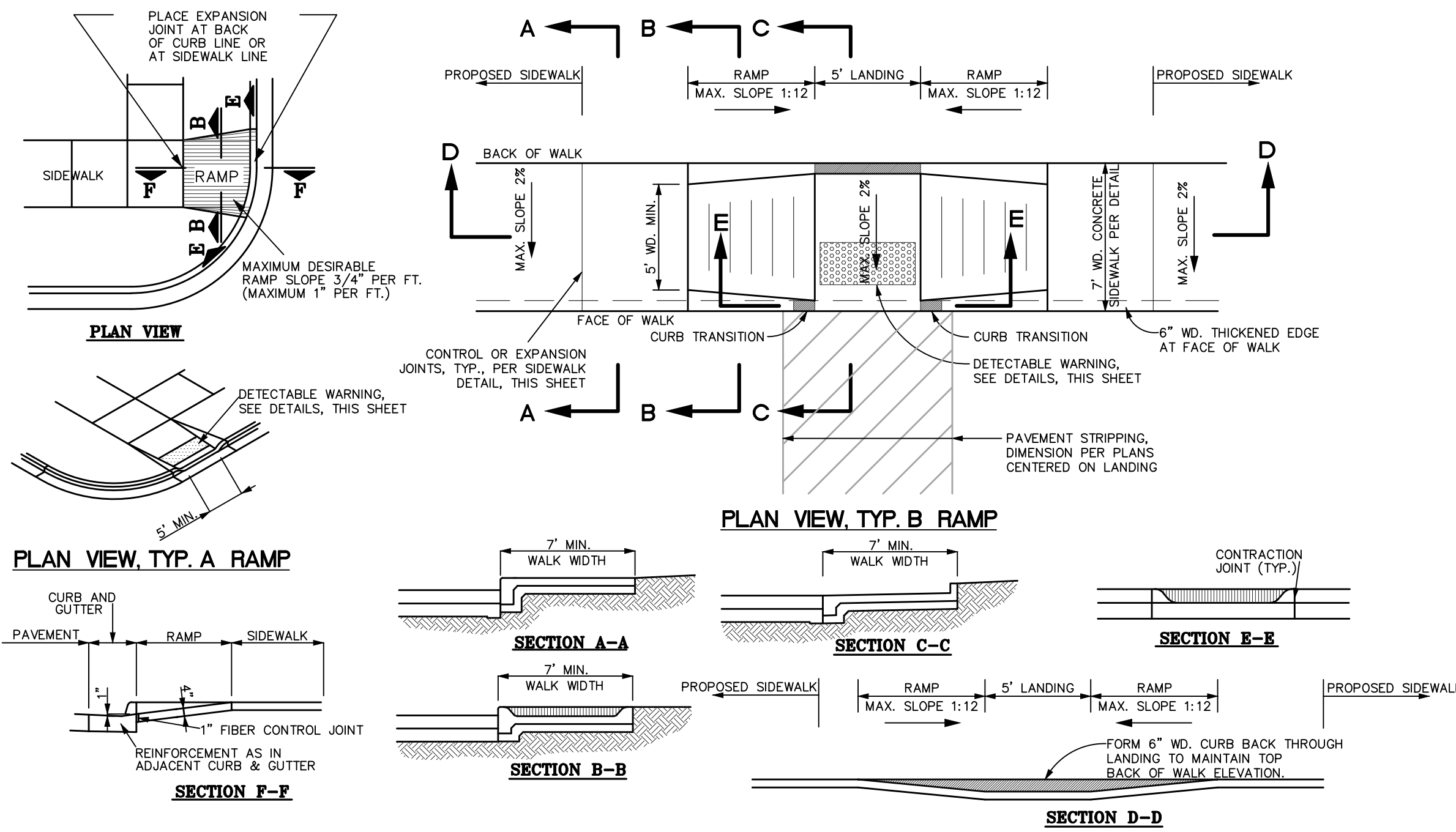


**SIDEWALK CROSS SECTION**  
NOT TO SCALE

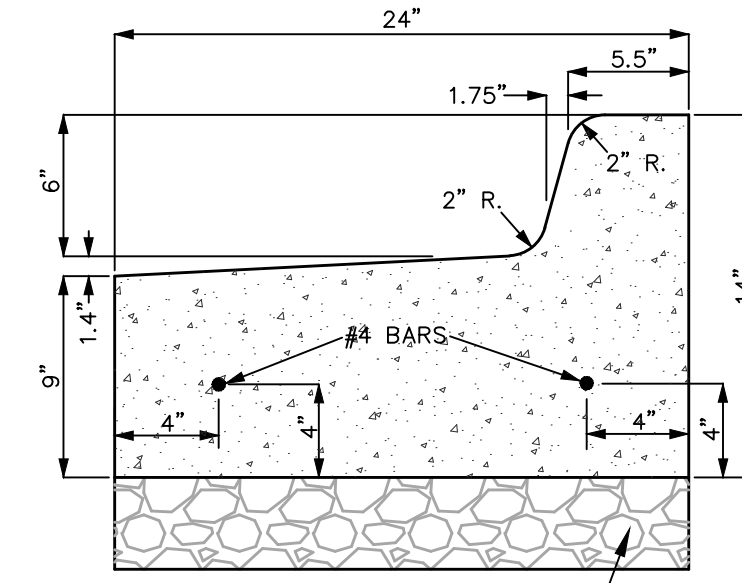
- NOTES:
- SEE PLAN FOR WIDTH OF SIDEWALK.
  - PROVIDE CONCRETE TYPE PER LOCAL CODE. (3500 PSI AIR ENTRAINED)



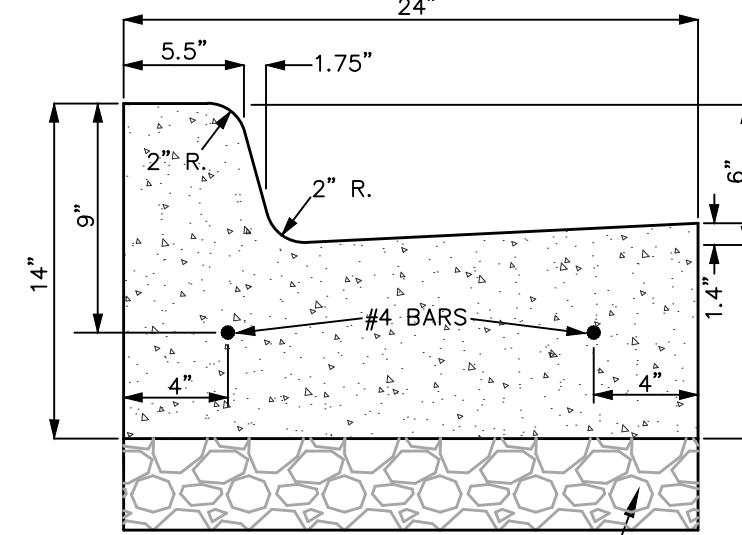
**THICKENED EDGE WALK & ISOLATION JOINT DETAIL**  
NOT TO SCALE



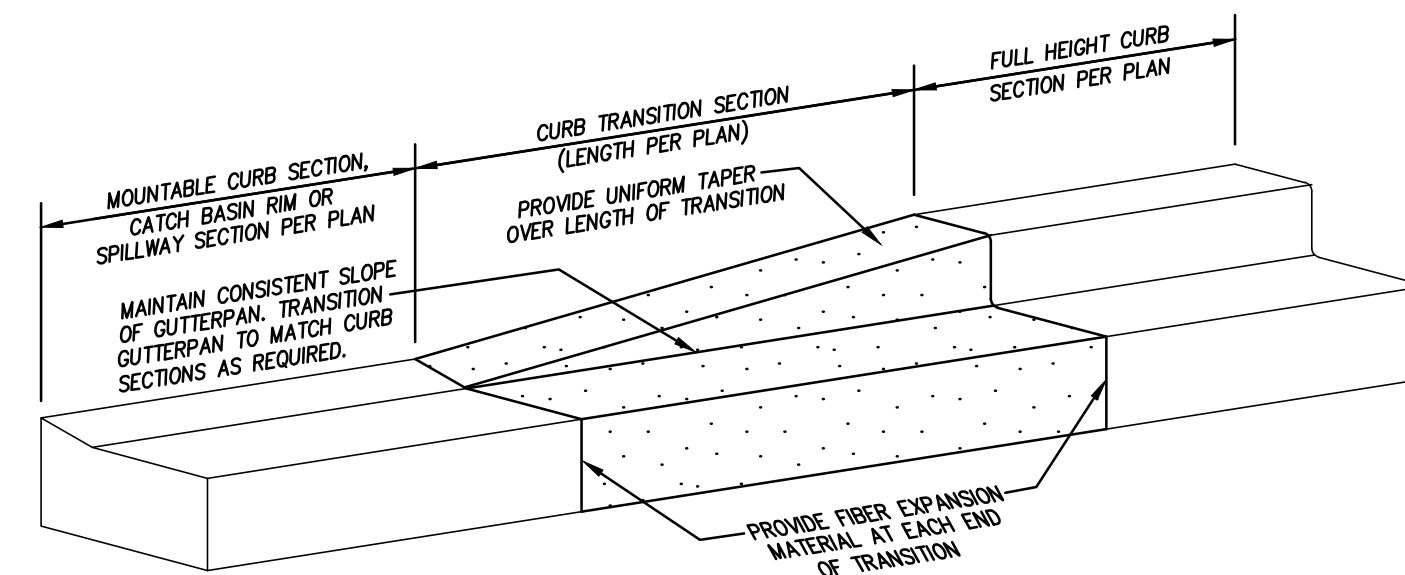
**BARRIER FREE RAMP DETAIL**  
NOT TO SCALE



**CONC. CURB DETAIL - MDOT TYPE F4 REVERSE PITCH**  
NOT TO SCALE

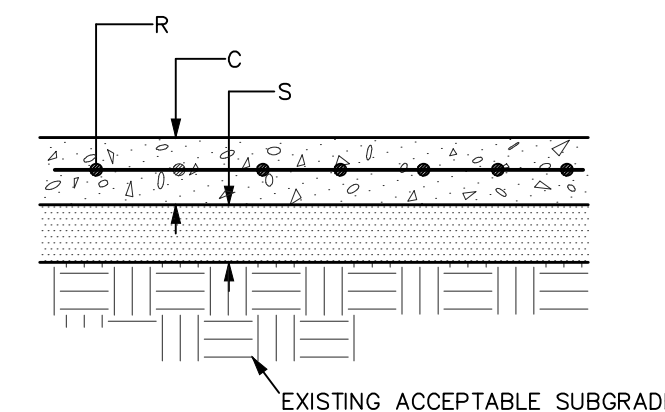


**CONC. CURB DETAIL - MDOT TYPE F4**  
NOT TO SCALE



**CURB TRANSITION DETAIL**  
NOT TO SCALE

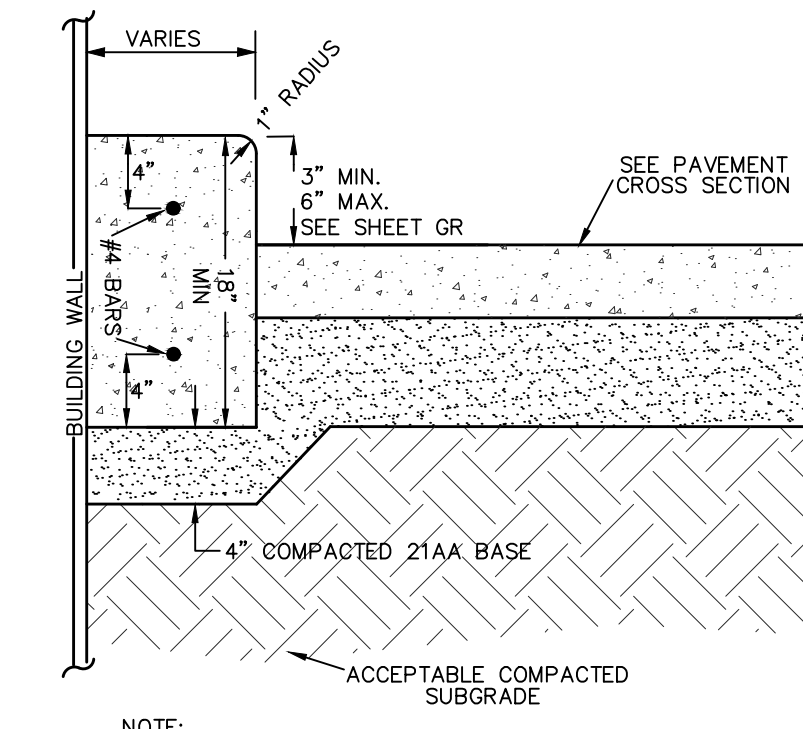
- NOTES:
- CURB TRANSITIONS SHALL BE SMOOTH. PROVIDE SPECIAL FORMING AND LABOR IF NEEDED. CURB TRANSITIONS ARE INCIDENTAL TO CURB WORK.
  - CONTRACTOR SHALL ADJUST THE ELEVATION OF THE TOP OF CURB AS NEEDED TO MAINTAIN THE GUTTER LINE AT A CONSTANT SLOPE BETWEEN THE DIFFERENT CURB CROSS SECTIONS.
  - WHEN PRESENT, THE CURB TRANSITION MAY BEGIN AT A CATCH BASIN OR PAVED SPILLWAY SECTION.



**CONCRETE PAVEMENT CROSS-SECTION**  
NOT TO SCALE

KEY	DESCRIPTION	MATERIAL SPECIFICATION	MINIMUM THICKNESS
R	REINFORCEMENT	N/A	N/A
C	CONCRETE	MDOT 601, P1	8"
S	AGGREGATE BASE	21AA	6"

\*\*CONCRETE TO BE NON REINFORCED CONCRETE, SIX SACKS, AIR ENTRAINED, TWENTY EIGHT DAY COMPRESSIVE STRENGTH OF 3,500 PSI.



**DRIVE-THRU CURB**  
NOT TO SCALE

NOTE: REFER TO "PRIVATE DEVELOPMENT CURB NOTES" WITHIN CONSTRUCTION DOCUMENTS FOR SPECIFICATIONS.

**PRIVATE DEVELOPMENT CURB NOTES:**

- Refer to the project plans for the proposed locations of the specific curb types.
- The construction specifications of the appropriate Local Municipality are a part of this work. Refer to the Private Road Construction Notes and/or Driveway and Parking Lot Construction Notes and the General Notes on the project plans for additional requirements.
- Concrete material shall meet or exceed the specification requirements of the appropriate Local Municipality. Unless specified otherwise by the Local Municipality, concrete material shall be air-entrained and shall have a minimum 28-day class design strength of 3500 psi. Contractor shall submit concrete mix design and aggregate mechanical analysis report to the Local Municipality and Engineer for review and approval prior to use.
- Install transverse contraction control joints in accordance with the Local Municipality requirements. If not specified by the Local Municipality, then install transverse contraction control joints in curb with 1" minimum depth at 10' on center. Tool joints in fresh concrete or saw cut within 8 hours.
- Install transverse expansion control joints in accordance with the Local Municipality requirements. If not specified by the Local Municipality, then install transverse expansion control joints in curb as follows: 300' maximum on center, at spring points of intersecting streets and within 10' on each side of catch basins. Transverse expansion control joints shall be 1" thick asphalt fiber joint filler matching entire curb cross section.
- Provide 0.5" asphalt fiber control joint between back of curb and all other concrete structures, such as concrete sidewalks and concrete driveways.
- Curb Contractor shall provide final adjustment of catch basin castings in curb line. Castings shall be tucked point to structure water tight with concrete or mortar inside and outside of casting.
- Install curb cuts for all existing and proposed sidewalks and pedestrian ramps in accordance with the American Disabilities Act and the Barrier Free Design requirements of the appropriate Local, County and/or State Agency. Install curb cuts for all existing and proposed vehicular ramps and drives as noted on the project plans.

**DRIVEWAY AND PARKING LOT CONSTRUCTION NOTES:**

- The grading, driveway and parking lot specifications of the Local Municipality are a part of this work. Refer to the General Notes on the project plans for additional requirements.
- Driveway and Parking Lot work shall include site clearing of vegetation and tree stumps; stripping and stockpiling of topsoil for reuse; mass grading cuts and fills; removal of unsuitable soils from the paved surface influence area; culvert placement; subgrade preparation including fine grading and proof roll; subgrade undercuts and/or placement of geotextile fabric if needed; placement and preparation of granular subbase and aggregate base courses including fine grading and compaction; placement of concrete curb and gutter; watering of aggregate base within 24 hours of paving to obtain optimum moisture content; bituminous and/or concrete pavement including placement, compaction and bond coats; cleaning of bituminous pavements between courses if needed; preparation, finish work and restoration as needed to connect to existing pavements, ditches, driveways, etc.; adjustment of storm and utility structure castings to match finish grade; placement of shoulders and finish grading of ditches; pavement markings; topsoil placement; seed & mulch; site cleanup; restoration; and other work as shown on the project plans and specifications.
- Existing and proposed grades shown in the driveway profile view(s) are along the centerline of each driveway. Proposed contours for ditches, curbs, driveway crown and pavement slope may not be shown in the plan view and/or grading plan.
- Contractor shall coordinate scheduling a Pre-Construction Meeting with Engineer prior to commencement of driveway and/or parking lot work.
- Contractor shall coordinate construction staking, testing, documentation submittal and observation with the appropriate Agency, Surveyor and/or Engineer as required for construction, certification and/or acceptance of the driveway(s) and/or parking lot(s). All materials used and work done shall meet or exceed the requirements and specifications noted on the project plans. Any materials used or work done that does not meet said requirements and/or specifications shall be replaced and/or redone at Contractor's expense. The Owner/Developer may wait for test results, certifications and/or Agency reviews prior to accepting work.
- Contractor shall take all appropriate job site safety precautions. Refer to the Traffic Control specifications of the appropriate Regulatory Agency for work within a public road right of way.
- Contractor shall take precautions to prevent contamination of driveway and/or parking lot materials during handling, installation and construction procedures. Contaminated materials shall be removed and replaced at Contractor's expense.
- Clear vision areas shall be created where required, refer to the Clear Vision Area detail on the project plans. Relocate existing signs/utilities as acceptable to the appropriate Agency. Owner/Developer shall coordinate installation of permanent street signage after completion of road work.
- When side slopes within utility easements exceed 1 on 10 (10%), Contractor shall rough grade a flat shelf within the easement area as acceptable to Engineer and restore following underground utility installation.

**GENERAL NOTES:**

- Contractor shall perform the work in accordance with the requirements of the appropriate Local, County and State Agencies and all other Government and Regulatory Agencies with jurisdiction over the project. Contractor shall notify the appropriate Agencies in advance of each stage of work in accordance with each Agency's requirements.
- Contractor shall comply with all permit, insurance, licensing and inspection requirements associated with the work. Prior to construction, Contractor and Owner/Developer shall determine who is responsible for obtaining each required permit. Contractor shall verify that the each required permit has been obtained prior to commencement of the stage of work associated with the required permits.
- Contractor shall furnish liability insurance and property damage insurance to save harmless the Owner, Developer, Architect, Engineer, Surveyor and Government Agencies for any accident occurring during the construction period. Refer to the appropriate Local, County and State Agencies for additional requirements. Copies of insurance certifications shall be made available to the Owner/Developer.
- Contractor shall conduct and perform work in a safe and competent manner. Contractor shall perform all necessary measures to provide for traffic and pedestrian safety from the start of work and through substantial completion. Contractor shall determine procedures and provide safety equipment such as traffic controls, warning devices, temporary pavement markings and signs as needed. Contractor shall comply with the safety standards of the State Department of Labor, the occupational health standards of the State Department of Health and safety regulations of the appropriate Local, County, State and Federal Agencies. Refer to the safety specifications of the appropriate Regulatory Agencies. The Contractor shall designate a qualified employee with complete job site authority over the work and safety precautions; said designated employee shall be on site at all times during the work.
- Contractor shall coordinate scheduling of all work in the proper sequence, including work by Subcontractors. Additional costs due to improper planning by Contractor or work done out of sequence as determined by standard acceptable construction practices, shall be Contractor's responsibility.
- Contractor shall contact the MISS DIG locating system, or other appropriate local underground utility locating Agency, a minimum of three (3) working days prior to construction. Existing utility information on the project plans may be from information disclosed to this firm by the Utility Companies, Local, County or State Agencies, and/or various other sources. No guarantee is given as to the completeness or accuracy thereof. Prior to construction, locations and depths of all existing utilities (in possible conflict with the proposed improvements) shall be verified in the field.
- Contractor shall coordinate scheduling a Pre-Construction Meeting with Engineer prior to commencement of work.
- The Local Municipality, County and/or State in which the project is located may require an Engineer's Certification of construction of the proposed site improvements. Contractor shall verify the certification requirements with Engineer prior to commencement of work. Contractor shall coordinate construction staking, testing, documentation submittal and observation with the appropriate Agency, Surveyor and/or Engineer as required for Engineer's Certification and Government Agency Acceptance. All materials used and work done shall meet or exceed the requirements of certification and acceptance, the contract documents and the material specifications noted on the project plans. Any materials used or work done that does not meet said requirements, contract documents and/or specifications shall be replaced and/or redone at Contractor's expense. The Owner/Developer may wait for test results, certifications and/or Agency reviews prior to accepting work.
- Engineer may provide subsurface soil evaluation results, if available, to Contractor upon request. Subsurface soil evaluation results, soils maps and/or any other documentation does NOT guarantee existing soil conditions or that sufficient, acceptable on-site granular material is available for use as structural fill, pipe bedding, pipe backfill, road subbase or use as any other granular material specified on the project plans. On-site granular material that meets or exceeds the material specifications noted on the project plans may be used as structural fill, pipe bedding, pipe backfill and/or road subbase material. On-site granular material shall be stockpiled and tested as acceptable to the appropriate Agency and/or Engineer prior to use.
- During the performance of their work, Contractor shall be solely responsible for determining soil conditions and appropriate construction methods based on the actual field conditions. Contractor shall furnish, install and maintain sheeting, shoring, bracing and/or other tools and equipment and/or construction techniques as needed for the safety and protection of the workers, pedestrians and vehicular traffic and for protection of adjacent structures and site improvements.
- Contractor shall install temporary and permanent soil erosion and sedimentation control devices at the appropriate stages of construction in accordance with the appropriate regulatory Agencies. Refer to Soil Erosion and Sedimentation Control Plans and Notes on the project plans.
- Structural fill shall be placed as specified on the project plans and within the 1 on 1 influence zone of all structures, paved areas and other areas subject to vehicular traffic. Structural fill shall be placed using the controlled density method (12" maximum lifts, compacted to 95% maximum unit weight, modified proctor). Fill material shall meet or exceed the specifications noted on the project plans or as directed by Engineer when not specified on the project plans.
- All existing monuments, property corners, ground control and benchmarks shall be protected and preserved; and if disturbed by Contractor, shall be restored at Contractor's expense. Contractor shall notify Surveyor of any conflicts between existing monuments, property corners, ground control and/or benchmarks and the proposed site improvements.
- Contractor shall notify Owner/Developer and Engineer immediately upon encountering any field conditions, which are inconsistent with the project plans and/or specifications.
- When noted on the project plans for demolition and/or removal, Contractor shall remove existing structures, building and debris and recycle and/or dispose of in accordance with Local, County, State and Federal regulations.
- Contractor shall remove excess construction materials and debris from site and perform restoration in accordance with the project plans and specifications. Disposing of excess materials and debris shall be performed in accordance with Local, County, State and Federal regulations.
- Construction access to the site shall be located as acceptable to the Owner/Developer and to the appropriate Local, County and/or State Agency with jurisdiction over the road(s) providing access to the site. Construction access shall be maintained and cleaned in accordance with the appropriate Local, County and/or State Agencies and as directed by Owner/Developer and/or Engineer.
- Contractor shall take necessary precautions to protect all site improvements from heavy equipment and construction procedures. Damage resulting from Contractor actions shall be repaired at Contractor's expense.

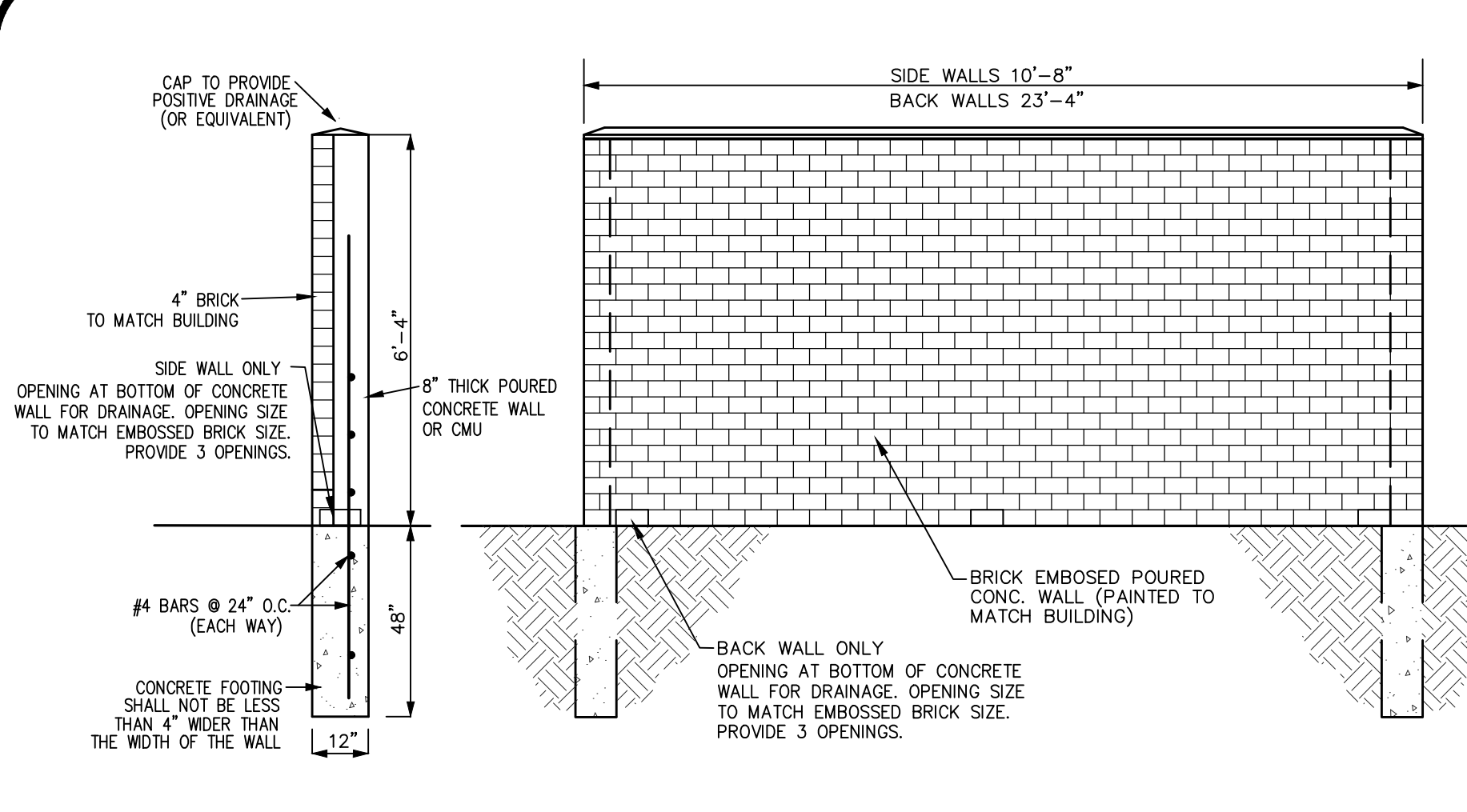
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CHECK: JMB						

**660 LANSING ST. TACO BELL**

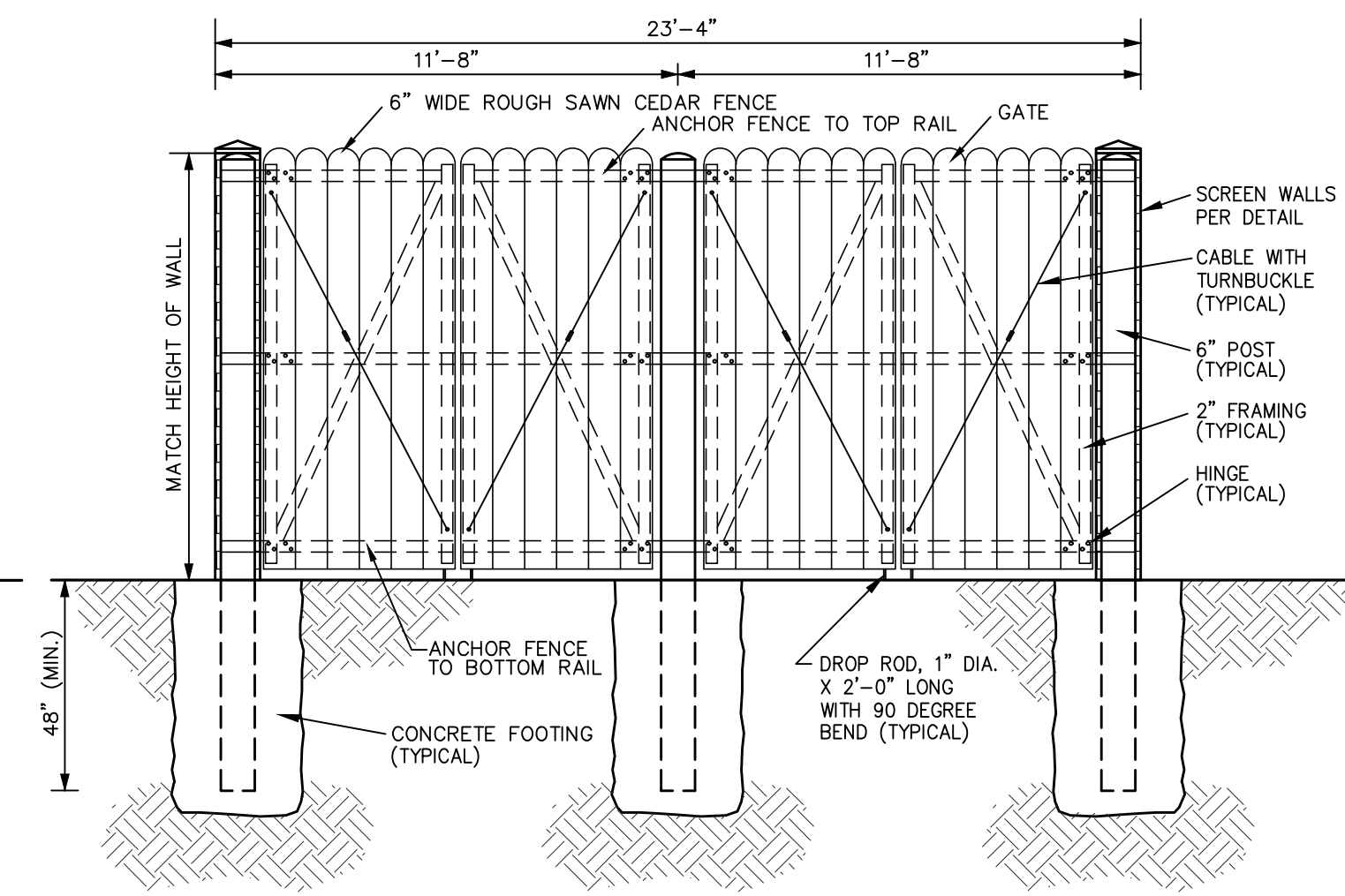
**SITE DEVELOPMENT NOTES AND DETAILS**

CLIENT: SUNDANCE INC. 7915 KENSINGTON CT BRIGHTON, MI 48116 (248) 446-0100	SCALE: AS NOTED PROJECT No.: 183393 DWG NAME: 2815 DT ISSUED: <b>NOV. 30, 2018</b>	<b>DT1</b>
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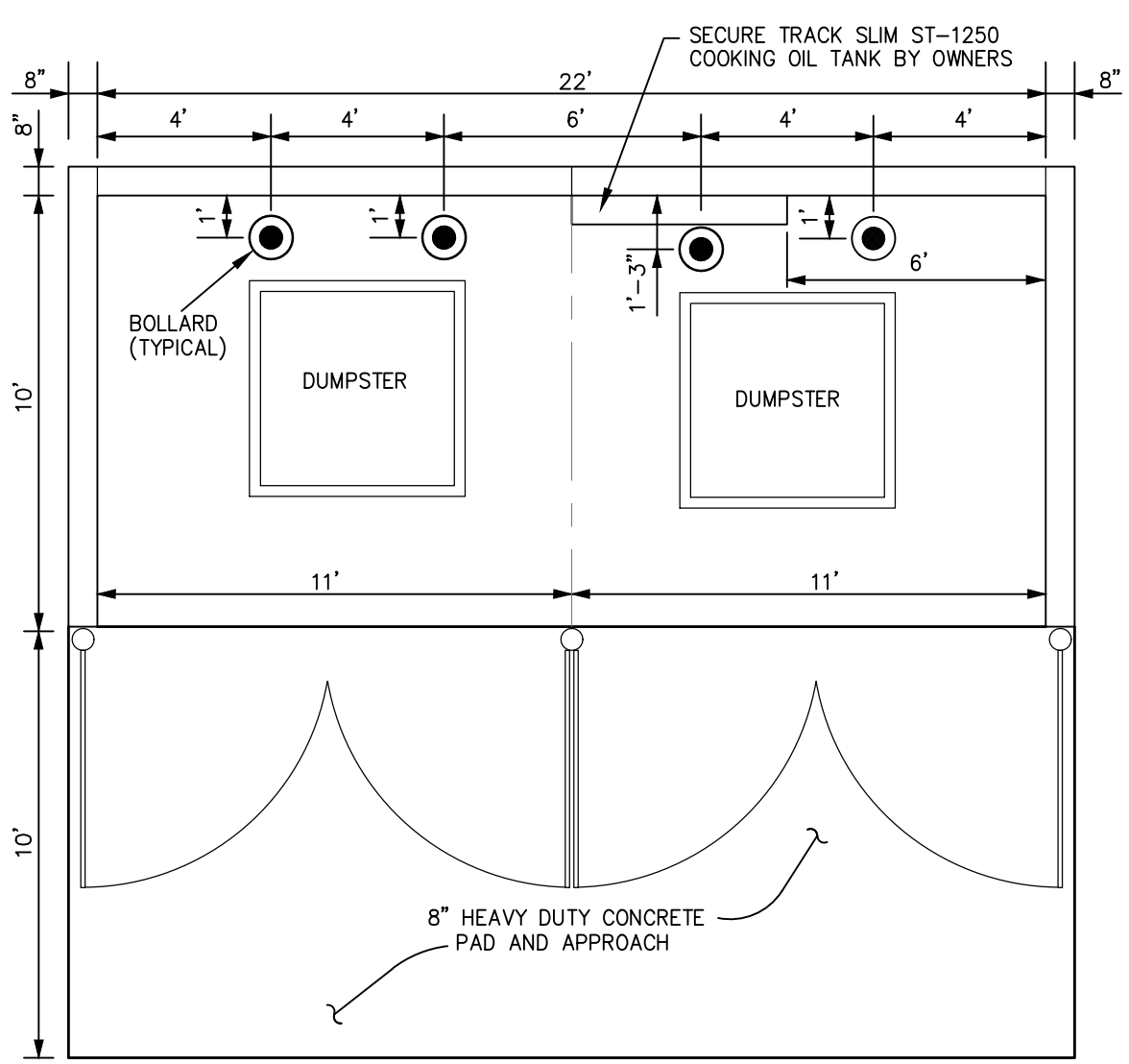




**DUMPSTER ENCLOSURE DETAIL**  
NO SCALE



**DUMPSTER GATE**  
NO SCALE

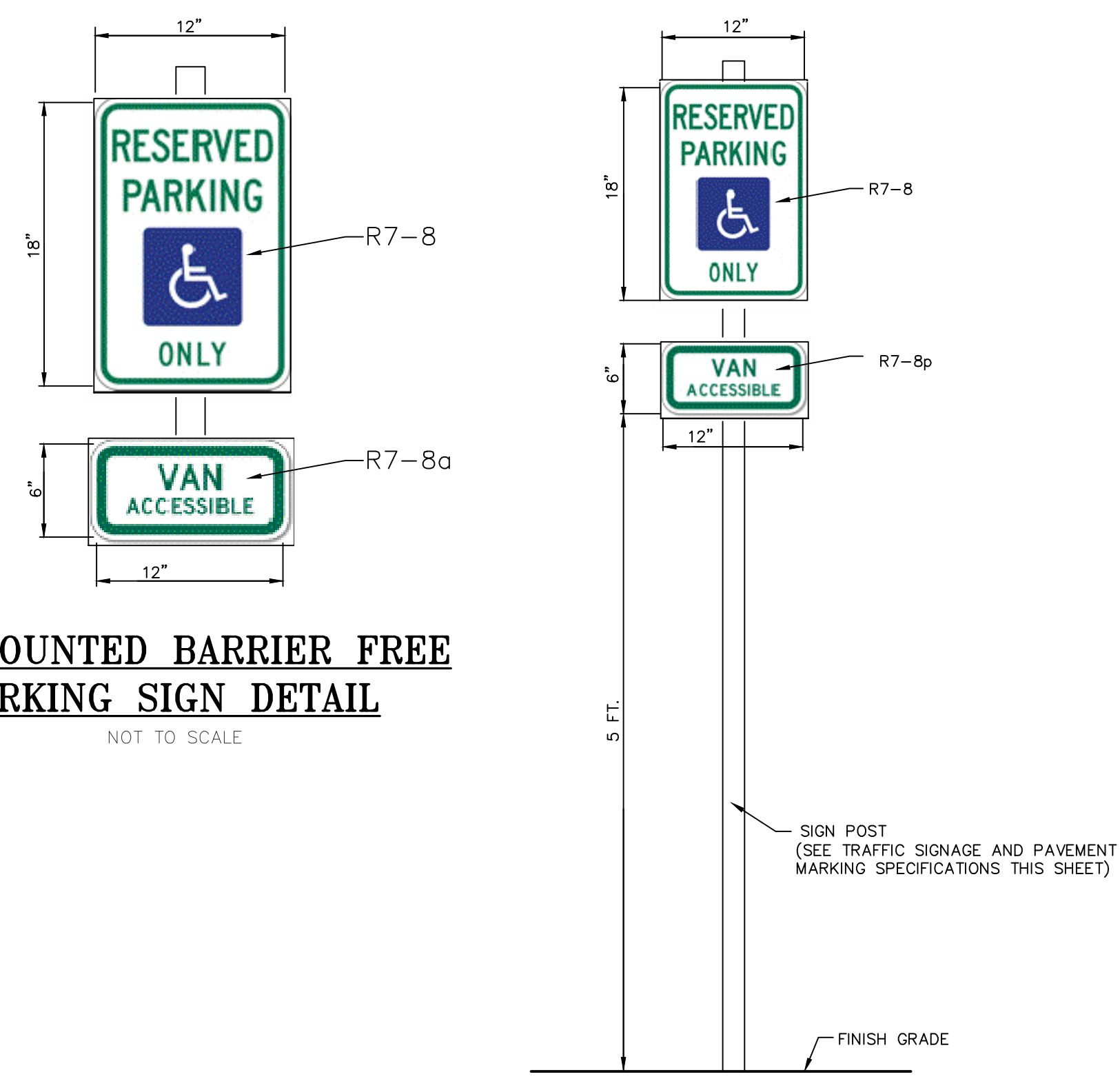


**WALL MOUNTED BARRIER FREE PARKING SIGN DETAIL**  
NOT TO SCALE

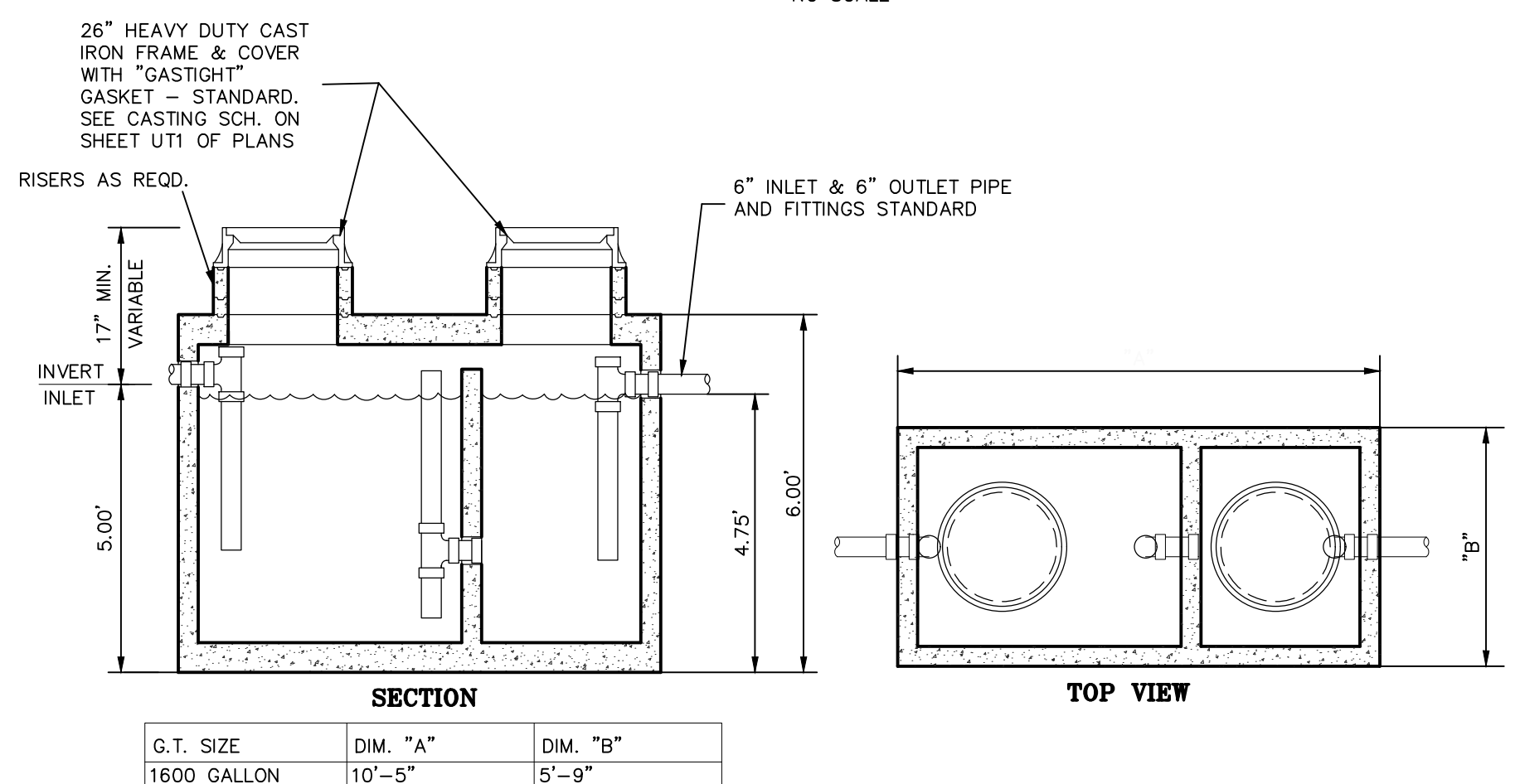
**SIGN SCHEDULE**

SIGN	KEY	SIZE (W x H)	TYPE OR MOUNT	MOUNTING HEIGHT	QUANTITY
	R7-8	12' x 18'	WALL MOUNTED	7'-6"	2
	R7-8a	12' x 6'	WALL MOUNTED	7'-0"	2

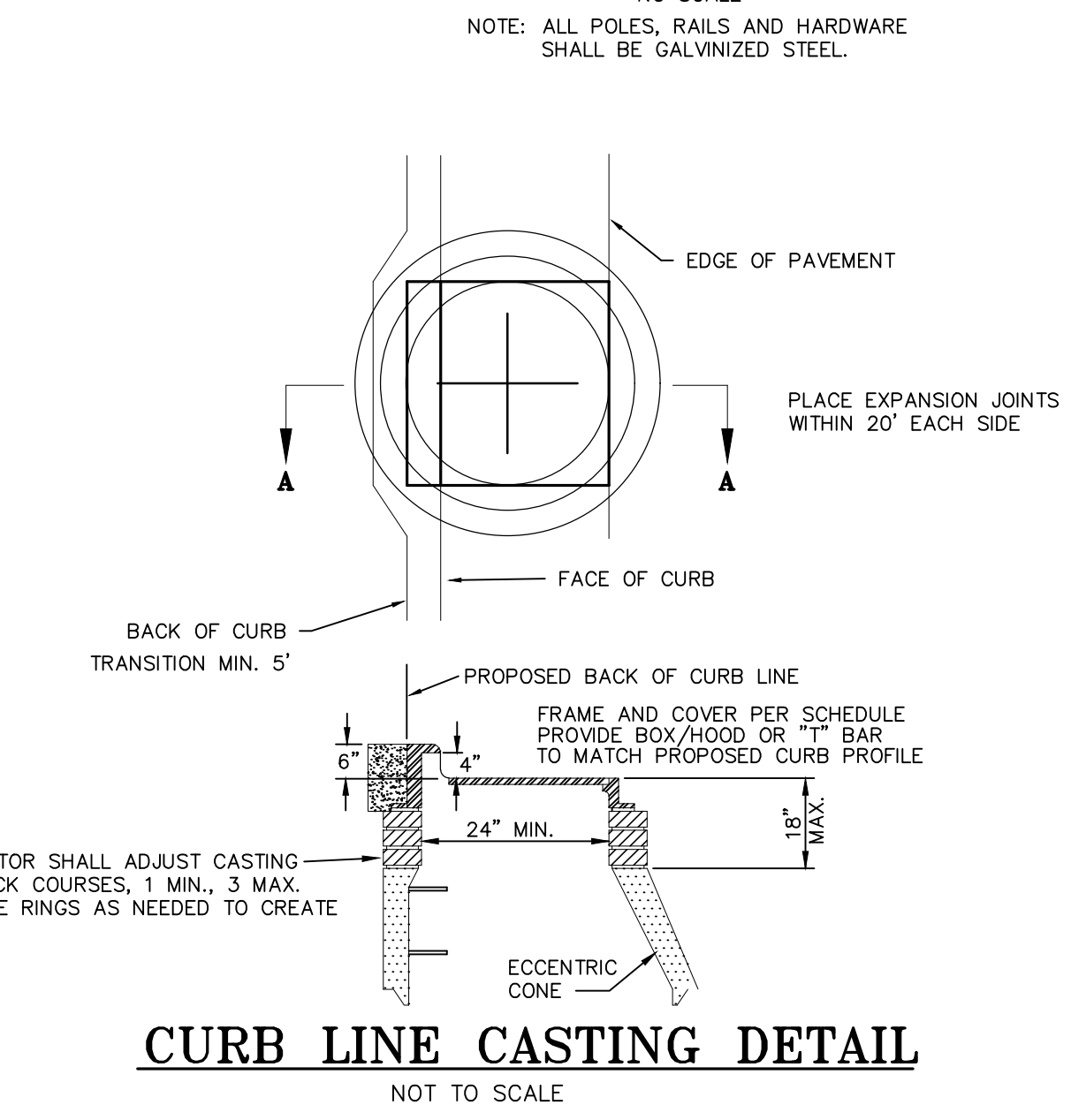
ALL TRAFFIC SIGNAGE WILL COMPLY WITH CURRENT MMUTCD STANDARDS.



**POST MOUNTED BARRIER FREE PARKING SIGN DETAIL**  
NOT TO SCALE



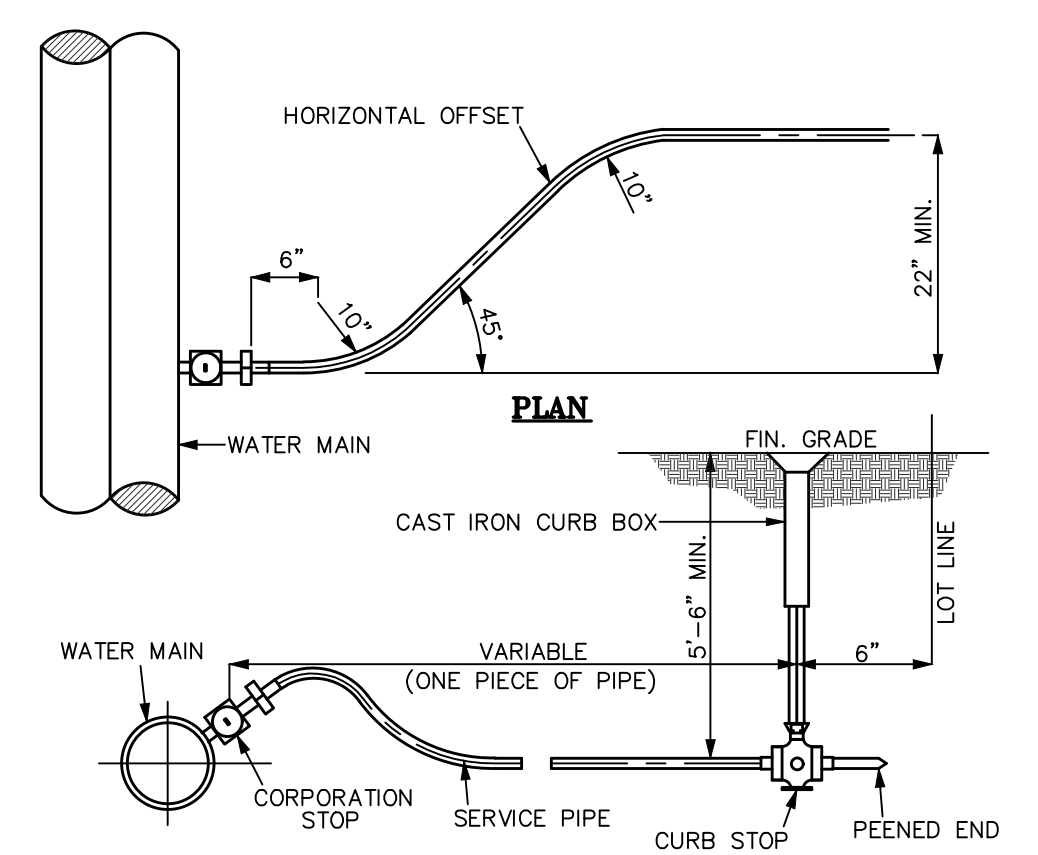
**EXTERIOR GREASE TRAP**  
NOT TO SCALE



**CURB LINE CASTING DETAIL**  
NOT TO SCALE

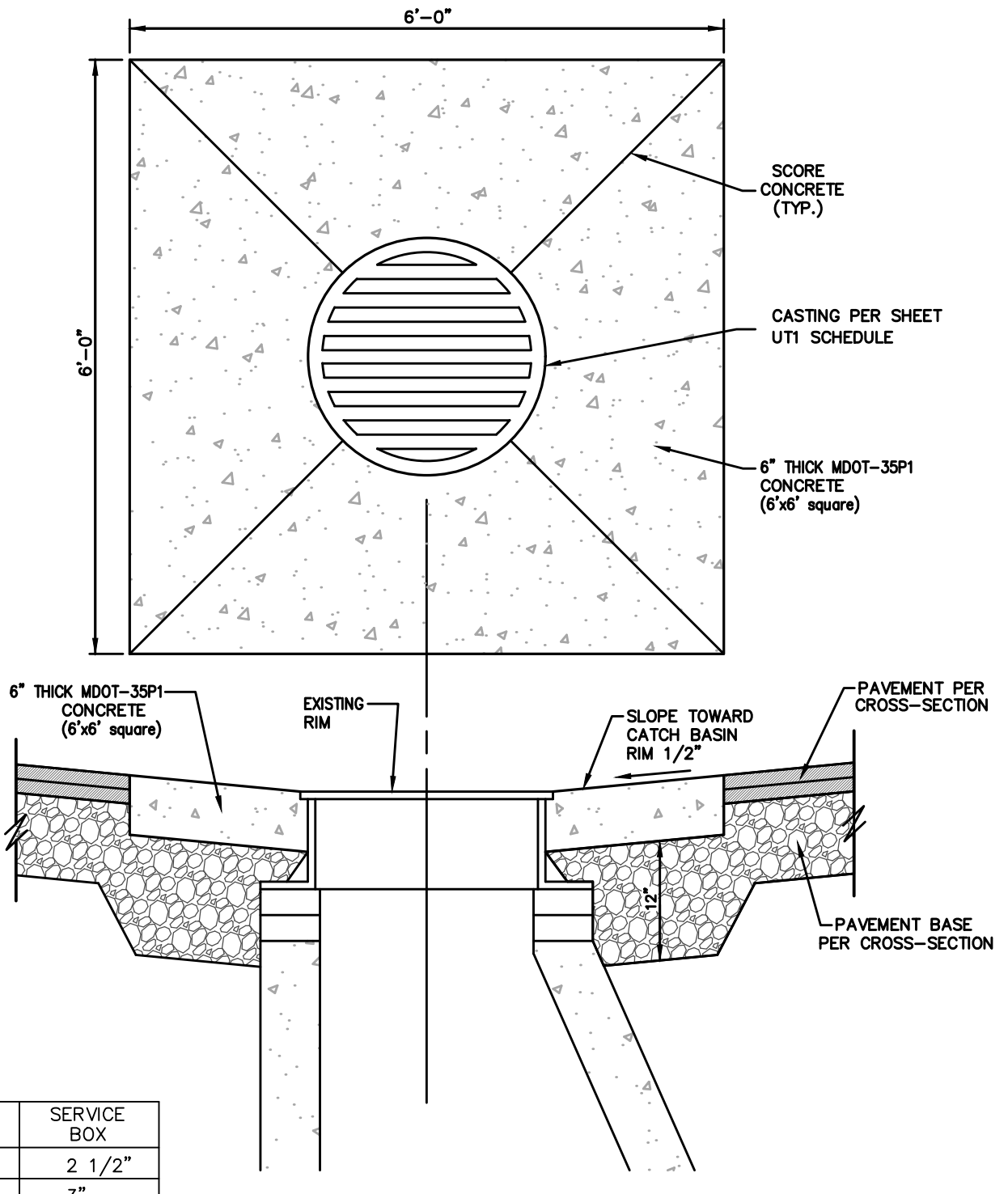
**MAINTENANCE GUIDELINES**

- ALL GREASE INTERCEPTOR TANKS WILL REQUIRE PERIODIC MAINTENANCE DEPENDING ON SPECIFIC SITE CONDITIONS.
- TYPICAL GREASE INTERCEPTOR CLEANING FREQUENCY CAN BE WEEKLY, MONTHLY, QUARTERLY, OR AS DICTATED BY THE ESTABLISHMENTS NEEDS. THIS WILL BE BASED ON THE BUILDING WASTE EFFLUENT DISCHARGE CAPACITY AND CONCENTRATION. NOTE, MATERIAL IS REMOVED EASIER WHEN IT IS REMOVED ON A REGULAR BASIS.
- DISPOSAL OF MATERIAL FROM THE GREASE INTERCEPTOR ARE SIMILAR TO THAT OF ANY OTHER BEST MANAGEMENT PRACTICES (BMP). LOCAL GUIDELINES SHOULD BE CONSULTED PRIOR TO DISPOSAL OF THE GREASE INTERCEPTOR CONTENTS. WASTE PRODUCTS SHOULD BE REMOVED BY A LICENSED WASTE MANAGEMENT COMPANY.
- AFTER CLEANING THE UNIT - MANUFACTURER RECOMMENDS REFILLING THE GGGI UNIT WITH WATER.

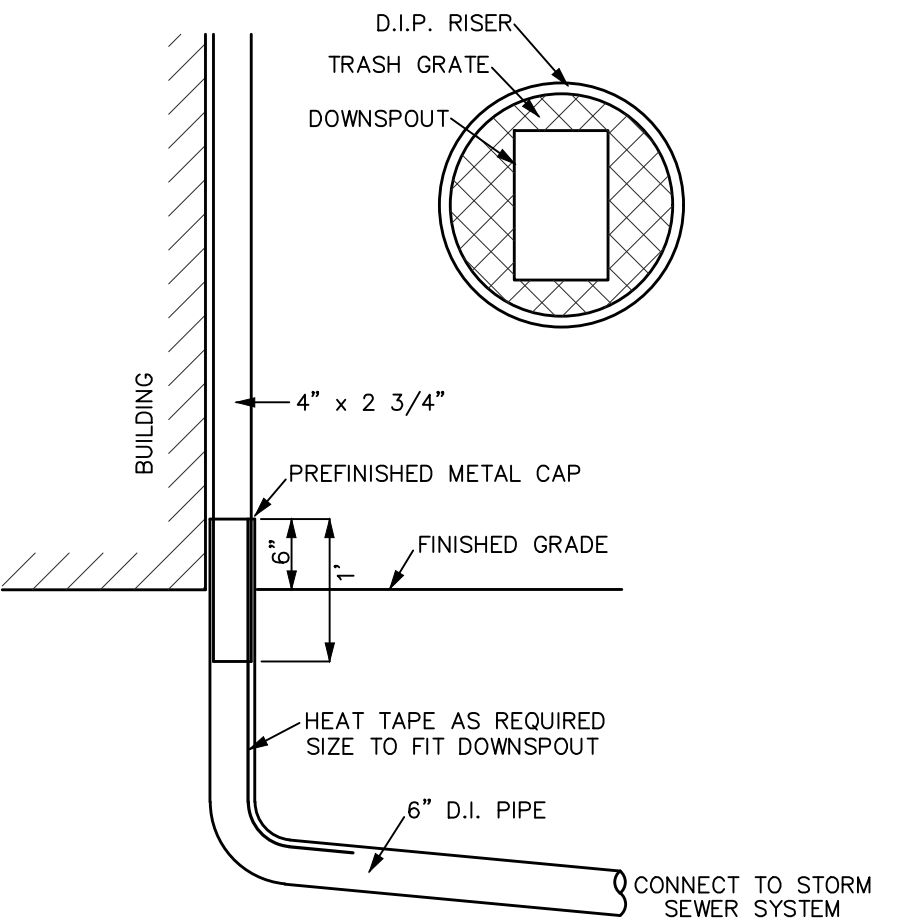


**WATER SERVICE CONNECTION**  
NOT TO SCALE

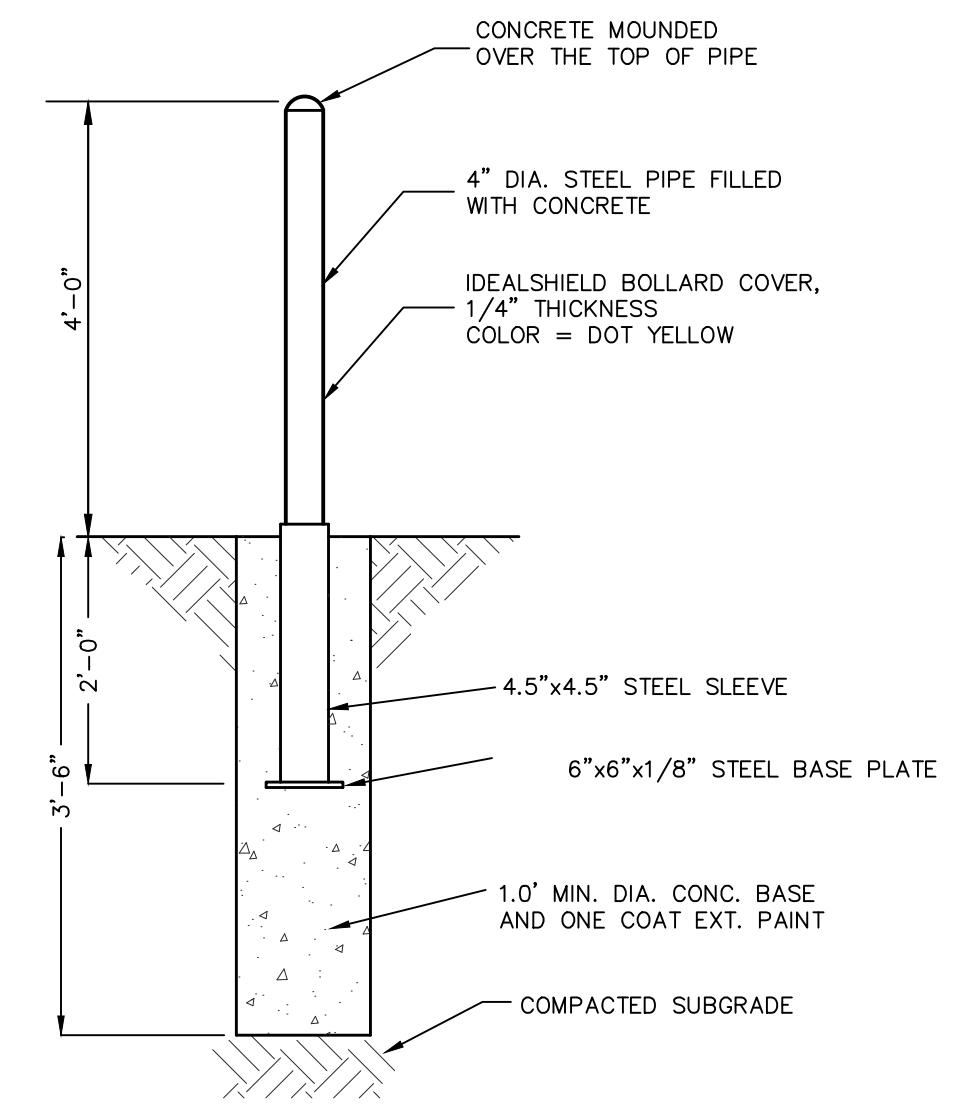
SERVICE PIPE	CORP. STOP	CURB STOP	SERVICE BOX
1"	1"	1"	2 1/2"
1 1/2"	1 1/4" X 1 1/2"	1 1/2"	3"
2"	1 1/2" X 2"	2"	3"
1 1/4"	1 1/4"	1 1/4"	3"



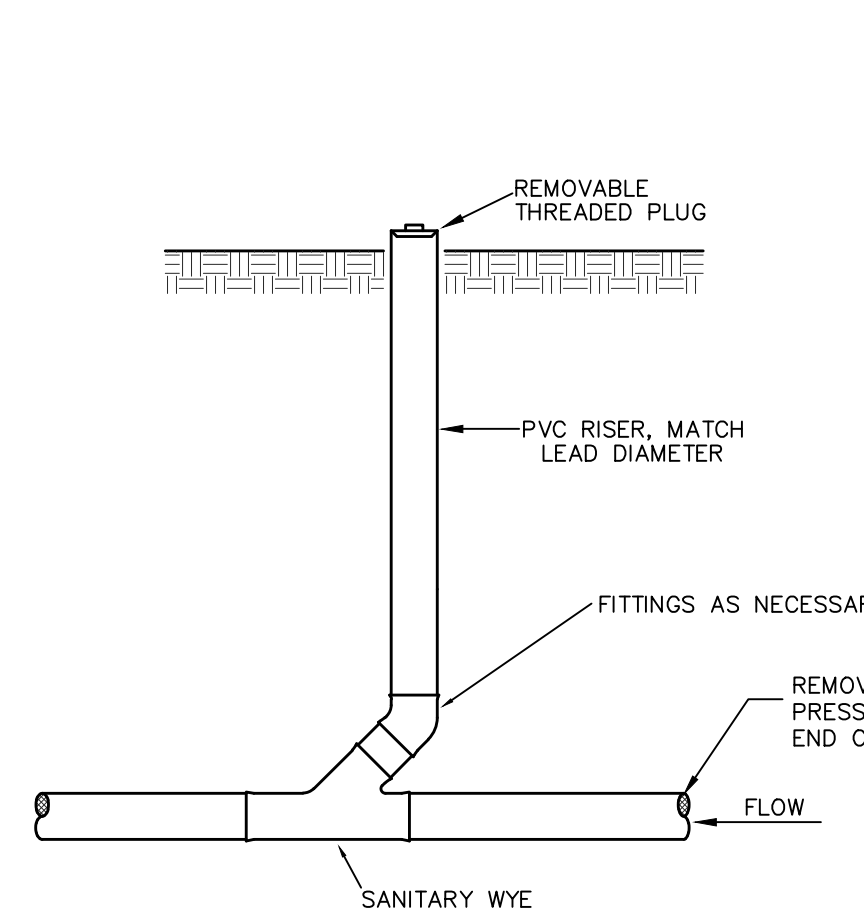
**CONCRETE COLLAR FOR PAVEMENT DETAIL**  
NO SCALE



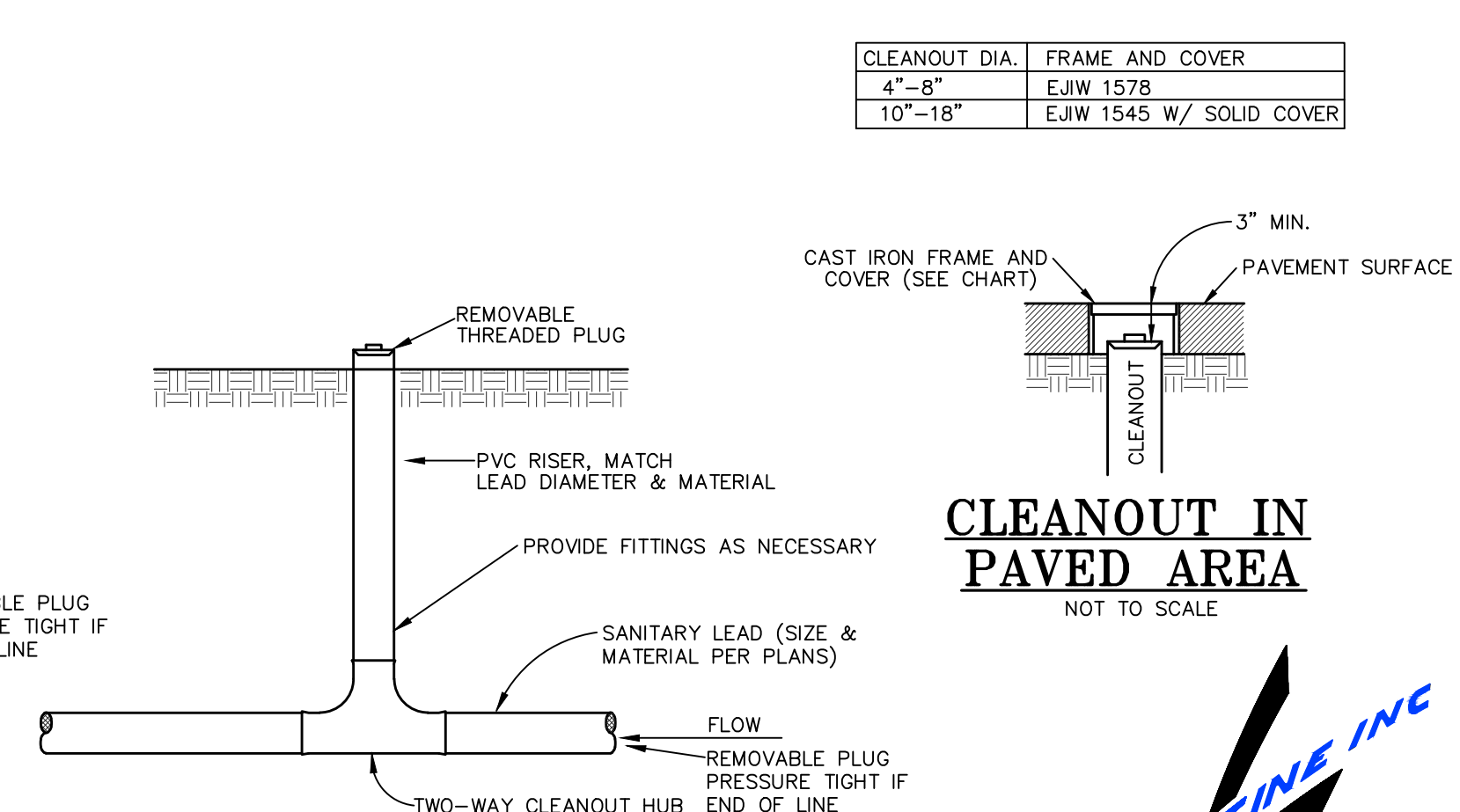
**DOWNSPOUT CONNECTION DETAIL**  
NOT TO SCALE



**GUARD POST DETAIL**  
NOT TO SCALE



**STANDARD CLEANOUT FOR SANITARY LEAD**  
NOT TO SCALE



**TWO-WAY CLEANOUT FOR SANITARY LEAD**  
NOT TO SCALE

CLEANOUT DIA.	FRAME AND COVER
4"-8"	EJW 157B
10"-18"	EJW 1545 W/ SOLID COVER

**CLEANOUT IN PAVED AREA**  
NOT TO SCALE



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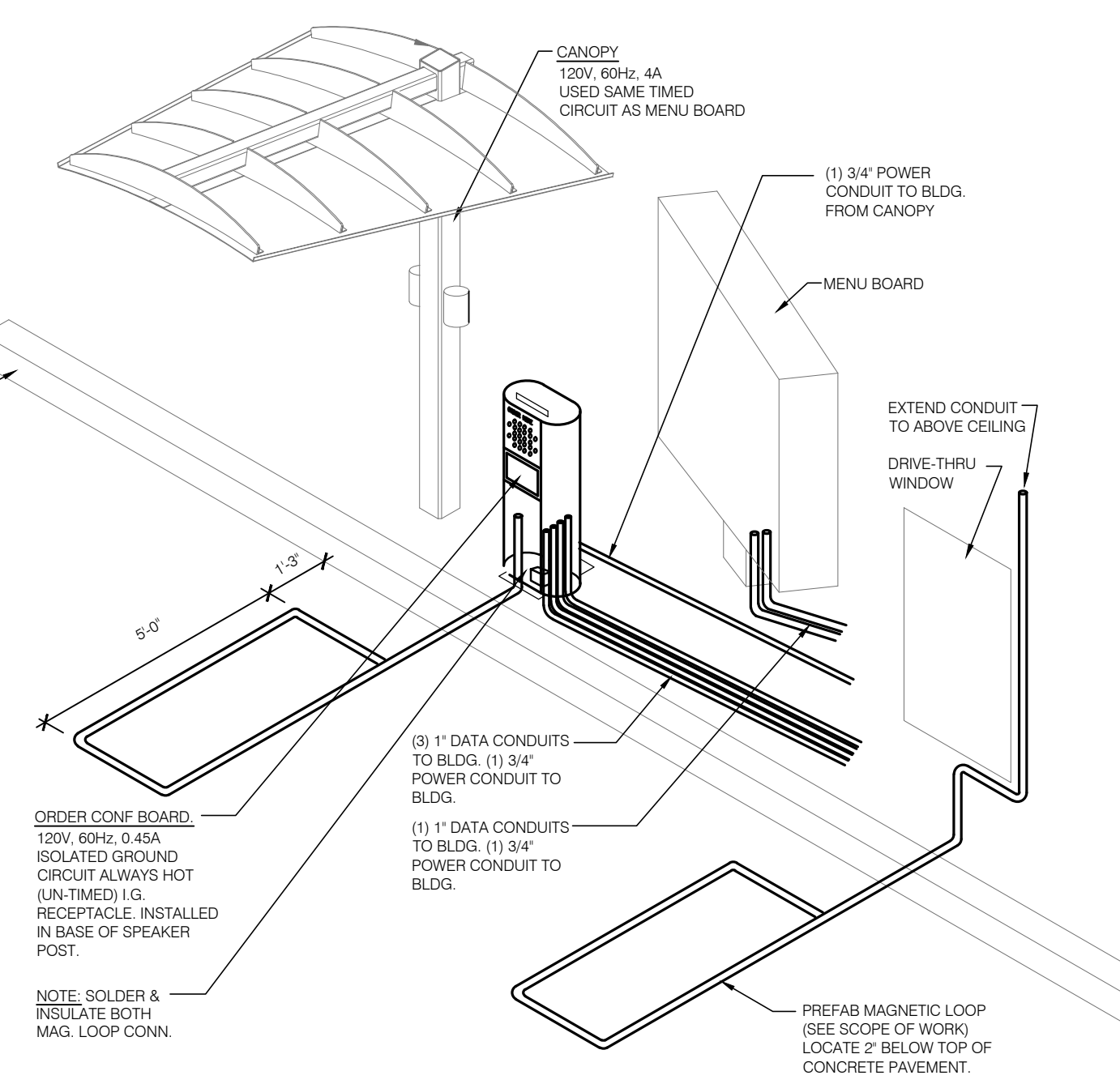
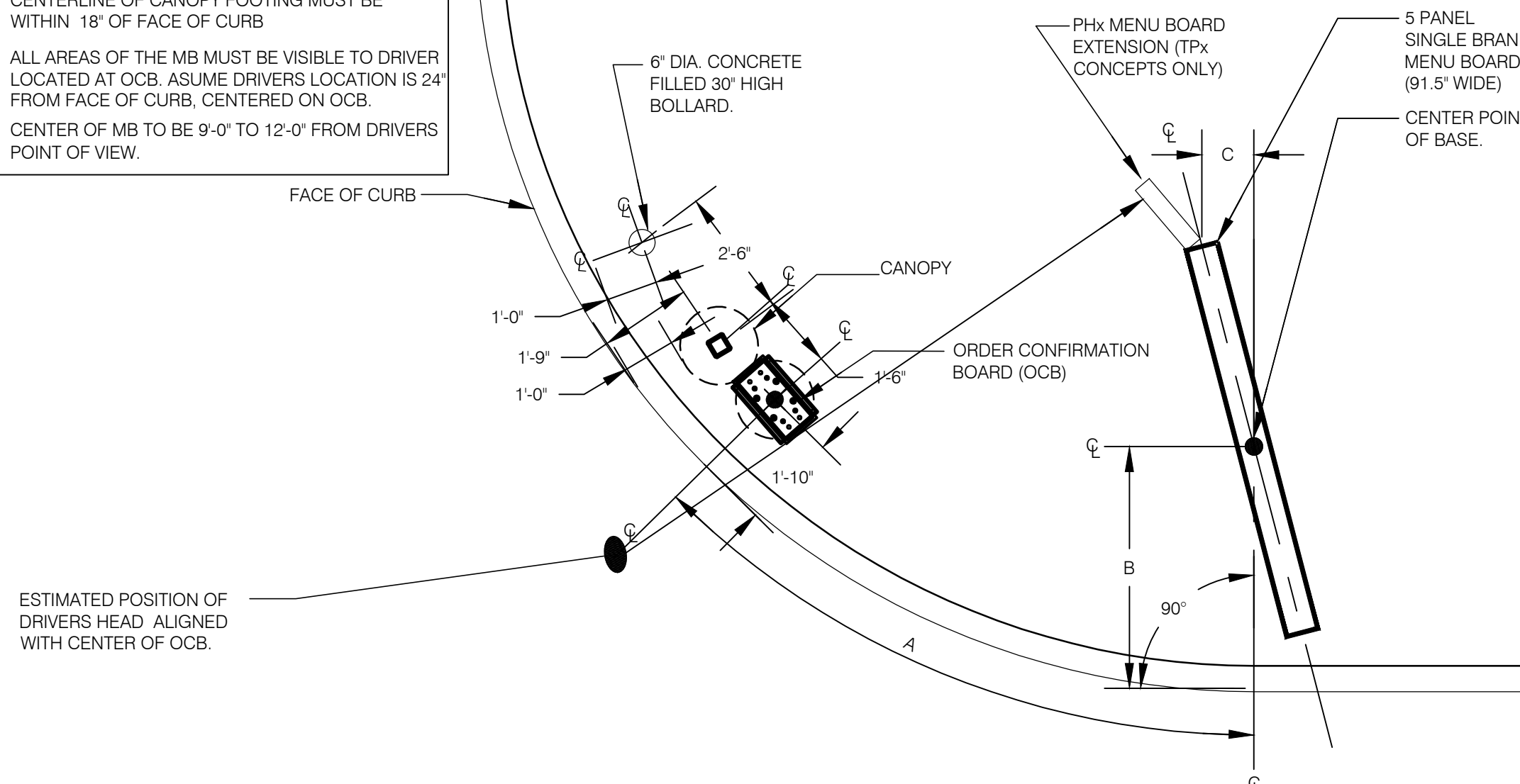
660 LANSING ST.  
TACO BELL

SITE DEVELOPMENT  
NOTES  
AND DETAILS

CLIENT: SUNDANCE INC. 7915 KENSINGTON CT BRIGHTON, MI 48116 (248) 446-0100	SCALE: AS NOTED PROJECT No.: 183393 DWG NAME: 2815 DT ISSUED: NOV. 30, 2018	DT2
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CORNER DIMENSIONS				
RADIUS	A	B	C	
15'-0"	12'-5"	4'-8"	1'-0"	
18'-0"	12'-6"	4'-8"	1'-3"	
20'-0"	12'-7"	4'-8"	1'-5"	

- NOTES
- IF EXISTING OCB LOCATION IS TO BE REUSED, CENTERLINE OF OCB FOOTING CAN BE BETWEEN 1'-10" AND 2'-10" FROM THE FACE OF CURB.
  - CENTERLINE OF CANOPY FOOTING MUST BE WITHIN 18" OF FACE OF CURB
  - ALL AREAS OF THE MB MUST BE VISIBLE TO DRIVER LOCATED AT OCB. ASSUME DRIVERS LOCATION IS 24" FROM FACE OF CURB, CENTERED ON OCB.
  - CENTER OF MB TO BE 9'-0" TO 12'-0" FROM DRIVERS POINT OF VIEW.



sound pressure levels from the menu board or speaker post are as follows:

- Sound pressure level (SPL) contours (A weighted) were measured on a typical HME SPP2 speaker post. The test condition was for pink noise set to 84 dBA at 1 foot in front of the speaker. All measurements were conducted outside with the speaker post placed 8 feet from a non-absorbing building wall and at an oblique angle to the wall. These measurements should not be construed to guarantee performance with any particular speaker post in any particular environment. They are typical results obtained under the conditions described above.
- The SPL levels are presented for different distances from the speaker post:

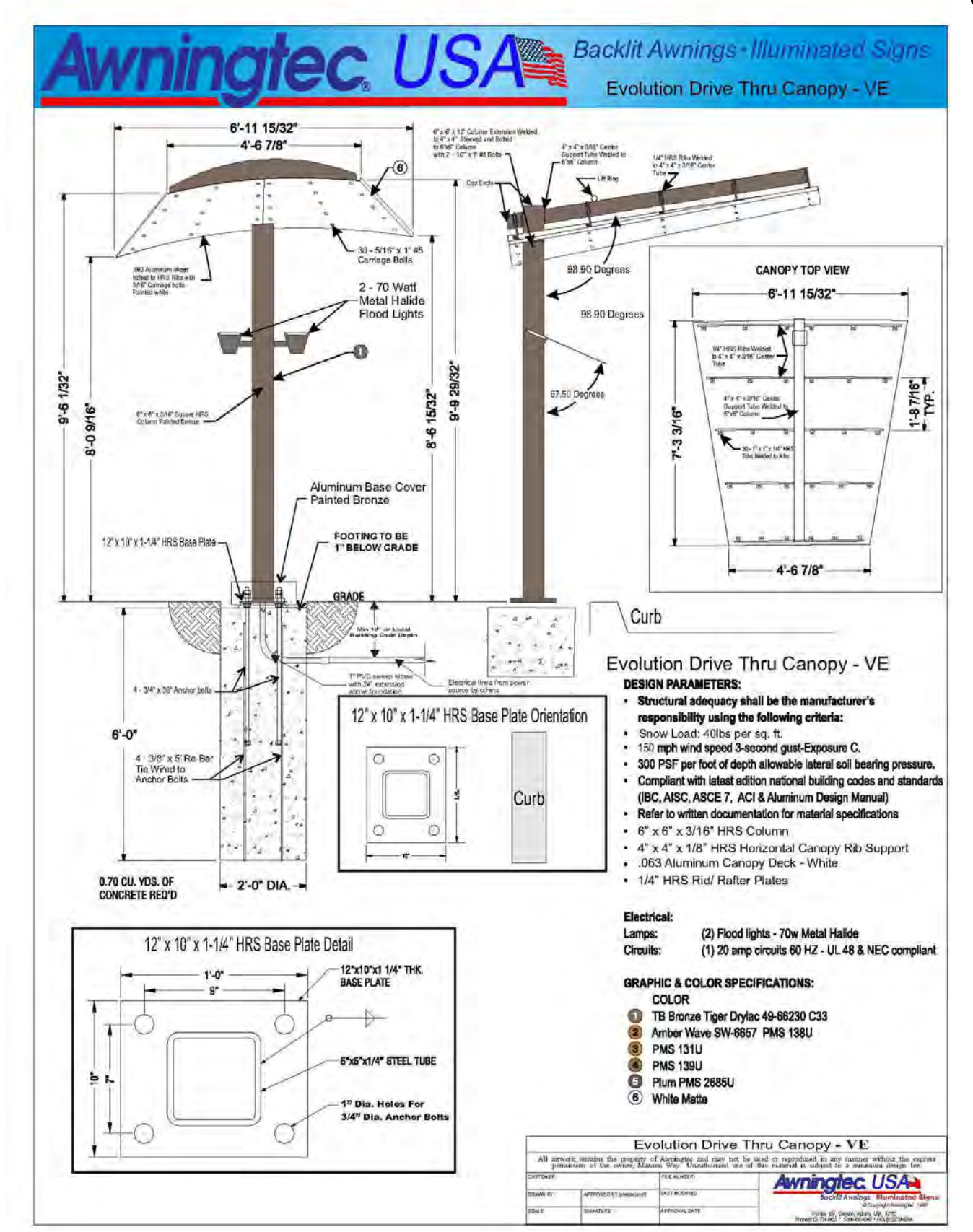
Distance from the Speaker (Feet)	SPL (dBA)
1 foot	84 dBA
2 feet	78 dBA
4 feet	72 dBA
8 feet	66 dBA
16 feet	60 dBA
32 feet	54 dBA

- The above levels are based on factory recommended operating levels, which are preset for HME components and represent the optimum level for drive-thru operations in the majority of the installations.

HME incorporates automatic volume control (AVC) into many of our Systems. AVC will adjust the sound volume based on the outdoor, ambient noise level. When ambient noise levels naturally decrease ght, AVC will reduce the outbound volume on the system. See below for example:

Distance from Outside Speaker	Decibel Level of standard system with 45 dB of outside noise without AVC	Decibel level of standard system with 45 dB of outside noise with AVC active
1 foot	84 dBA	60 dBA
2 feet	78 dBA	54 dBA
4 feet	72 dBA	48 dBA
8 feet	66 dBA	42 dBA
16 feet	60 dBA	36 dBA

For any further questions regarding this issue please contact HME customer service at 1-800-848-4468.



**ENLARGED MENU BOARD DETAIL @ CURB**

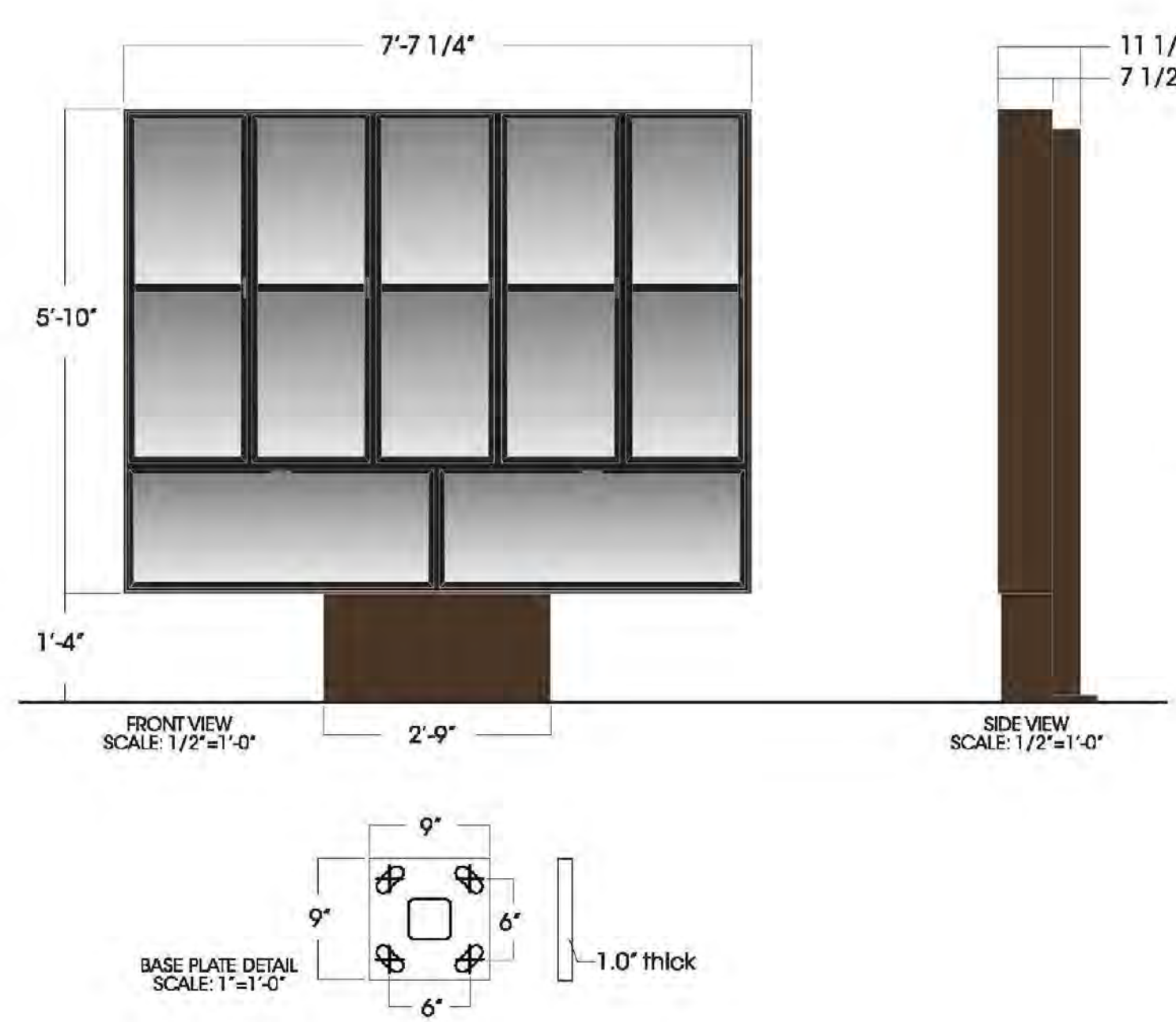
NOT TO SCALE

PYLON SIGN NOTES:

- The existing pylon sign cabinet shall be salvaged in accordance with the project plans. The existing pylon sign posts and foundation shall be salvaged for reuse. The existing pylon sign electric supply shall be salvaged for reuse unless noted otherwise.
- The existing pylon sign post shall be refinished. Remove all existing rust, scale, chipped and/or peeling finish. Paint color shall match the replacement sign cabinet.
- The proposed pylon sign shall be replaced with a new TACO BELL logo face panel in accordance with the pylon sign cabinet manufacturer's recommendations. The existing internal fluorescent illumination system shall be upgraded to an internal LED illumination system in accordance with the sign manufacturer's recommendations.
- No digital elements are being proposed for the existing "Taco Bell" Pylon sign.



**EXISTING PYLON SIGN DETAIL LANSING STREET**  
NOT TO SCALE



Everbrite LLC  
4949 S 110th Street, Greenfield, WI 53220  
Phone: 414-529-3500 • Fax: 414-529-7191  
Website: www.everbrite.com

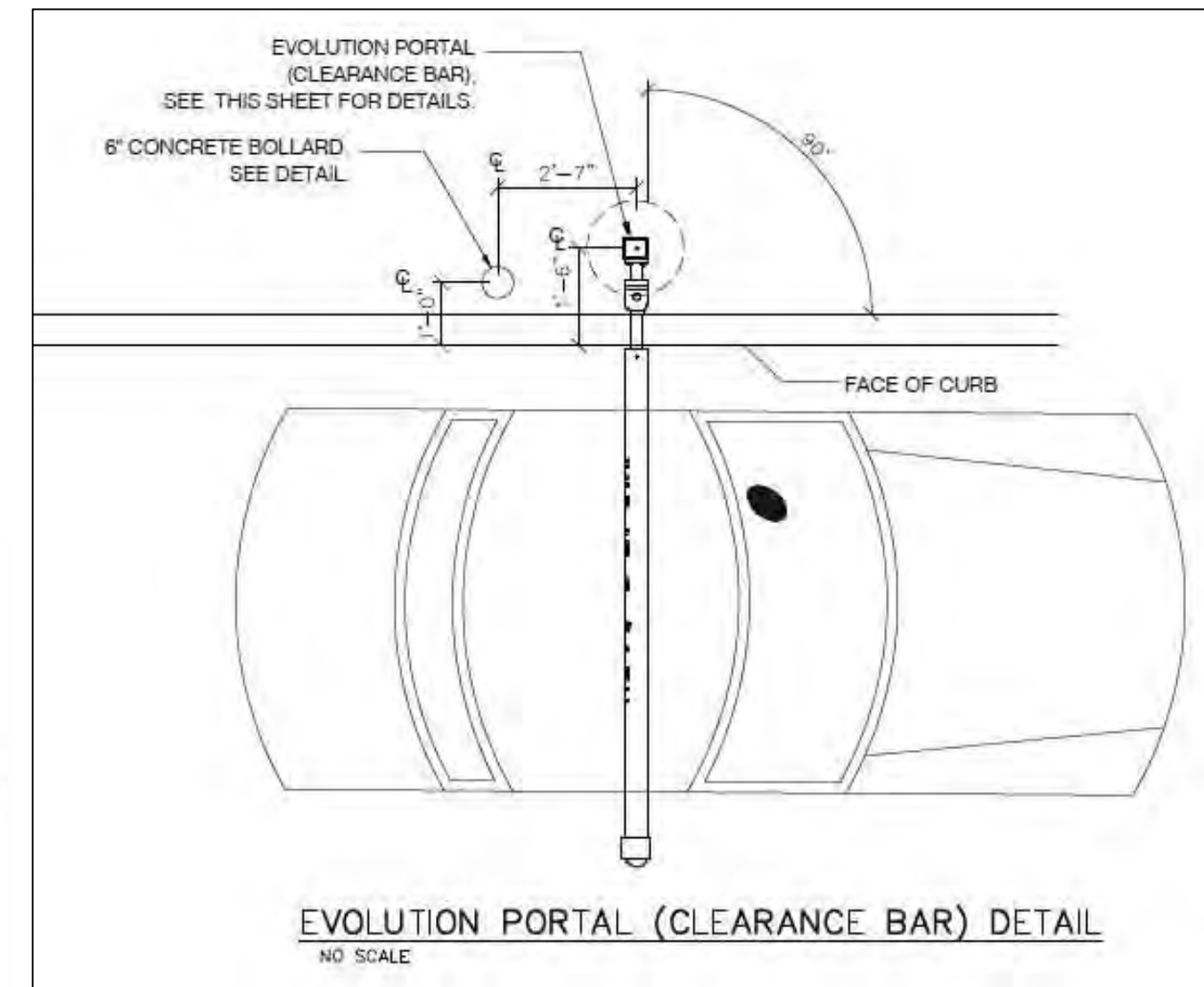
Part No: E00334P  
Description: Drive Thru Evolution LED VE Menuboard

V-993

**ENLARGED MENU BOARD DETAIL**  
NOT TO SCALE

**DRIVE-THRU COMMUNICATIONS ISOMETRIC**

NOT TO SCALE



**EVOLUTION PORTAL (CLEARANCE BAR) DETAIL**  
NOT TO SCALE

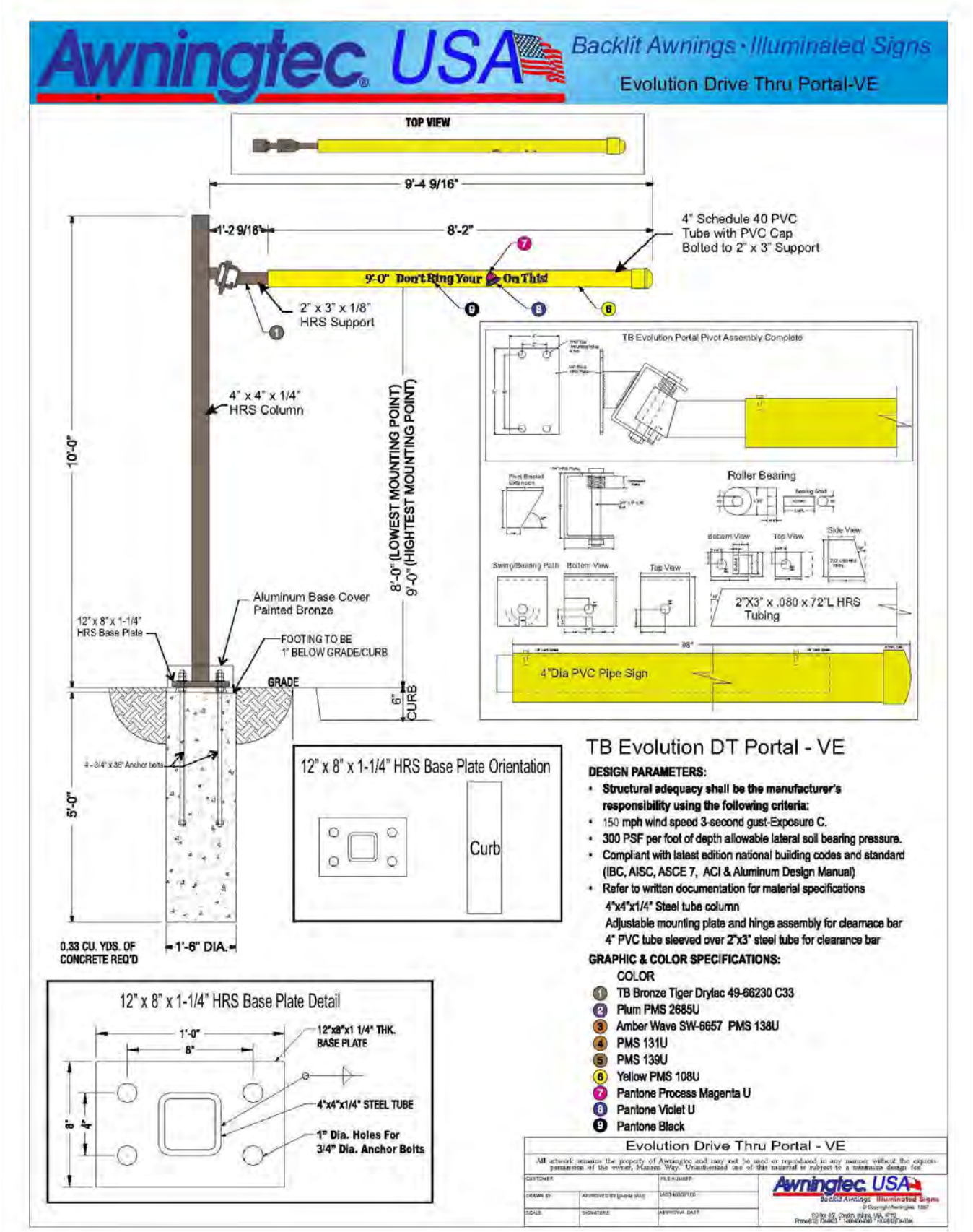
**GENERAL SPECIFICATIONS:**  
Materials: Aluminum sheets & steel tubes  
Decoration: Powder coat Taco Bell Bronze & black  
Menu Board Area Squared: 44.50 Sq. Ft.  
Weight (Est.):  
• 745 lbs. (crated)  
• 545 lbs. (uncrated)

**ELECTRICAL**  
Illumination:  
• White LEDs  
Power Supplies:  
• (2) 062-00008 Electronic LED Power Supplies  
Line Load:  
• 1.92 amps @ 120 vac 60Hz  
• (1) 20 Amp circuit

**COLORS:**  
Exterior:  
Doors & Mullions: Powder coat Taco Bell Black  
Cabinet: Powder coat Taco Bell Bronze



**TACO BELL: NEW RAILING SYSTEM**



CLIENT: SUNDANCE INC.  
7915 KENSINGTON CT  
BRIGHTON, MI 48116  
(248) 446-0100

SCALE: AS NOTED  
PROJECT No.: 183393  
DWG NAME: 3393 DT  
ISSUED: NOV. 30, 2018

**DESIGN INC.**  
(810) 227-9533  
CIVIL ENGINEERS  
LAND SURVEYORS  
2183 PLESS DRIVE  
BRIGHTON, MICHIGAN 48114

**DT3**

DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: JHG						
CHECK: JMB						

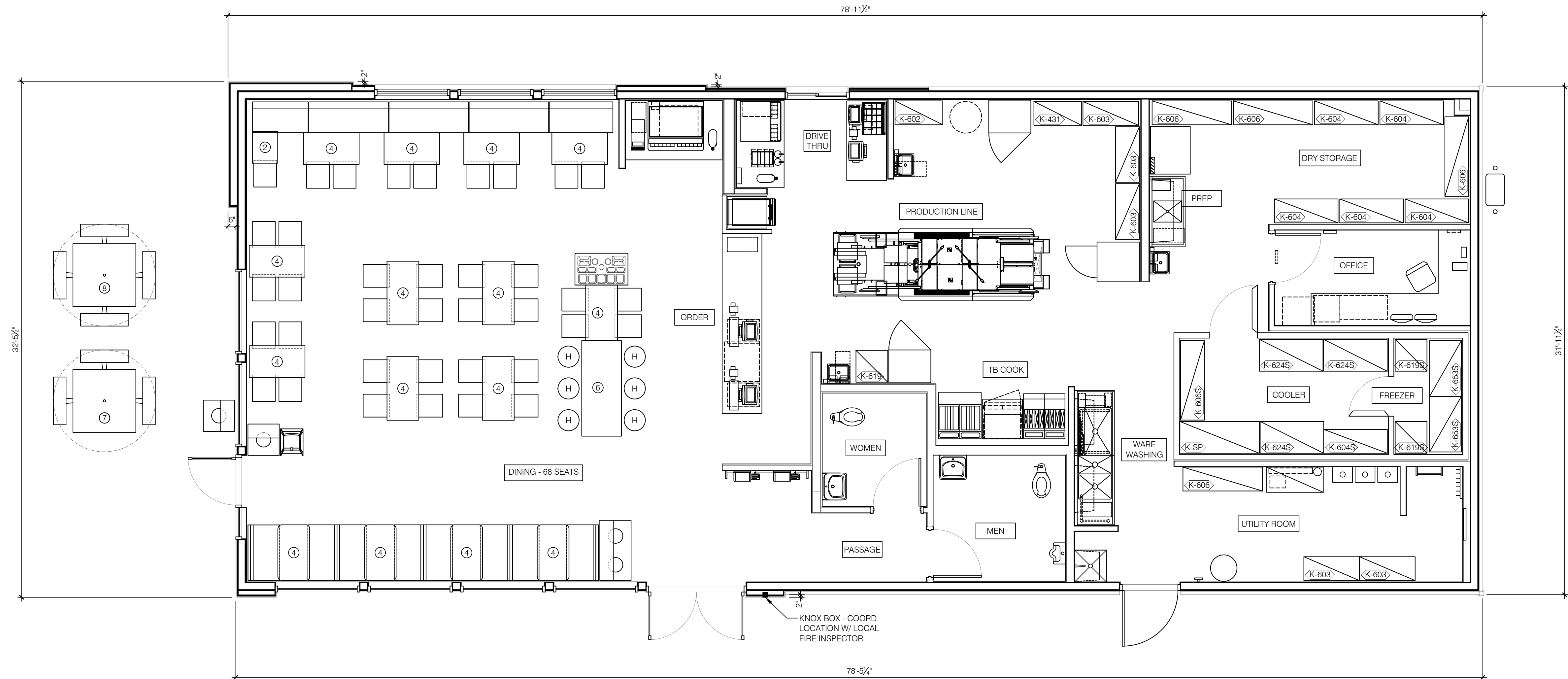
660 LANSING ST.  
TACO BELL

TACO BELL CORPORATE  
NOTES  
AND DETAILS

CLIENT: SUNDANCE INC.  
7915 KENSINGTON CT  
BRIGHTON, MI 48116  
(248) 446-0100

SCALE: AS NOTED  
PROJECT No.: 183393  
DWG NAME: 3393 DT  
ISSUED: NOV. 30, 2018

**DT3**



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

**GREASE INTERCEPTOR CALCULATIONS**

SOUTHWEST / MEXICAN FOOD - SEE MENU FOR MORE INFORMATION	
M = MEALS PER DAY	1,100
G = GALLONS PER MEALS	0.5
H = HOURS OPERATION PER DAY	16
P = MEAL PERIODS PER DAY	3
PAPER SERVICE: 1. NO FLATWARE 2. NO DISH MACHINE 3. NO DISPOSER	
REQUIRED MAINTENANCE SCHEDULE =	30 DAYS
REQUIRED CAPACITY =	(M x G x H) / (2 x P)
REQUIRED CAPACITY =	1,467 GALLONS

MINIMUM NUMBER OF PLUMBING FACILITIES PER THE 2015 MICHIGAN PLUMBING CODE - TABLE P403.1				
OCCUPANCY AND OCCUPANT LOAD (P.403.2 - SEPARATE FACILITIES REQ. PER SEX)	WATER CLOSETS	LAVATORIES	DRINKING FOUNTAINS	SERVICE SINKS
ASSEMBLY (A-2) RESTAURANT = 76 OCCUPANTS PATIO SEATING = 13 OCCUPANTS 89 TOTAL OCCUPANTS FOR PLUMBING CALCS.	REQUIRED = 1/75 = 89/75 = 1.19 = 2 1 REQ. FOR EACH SEX	REQUIRED = 1/200 = 89/200 = 0.45 = 1 1 REQ. FOR EACH SEX	NOT REQUIRED IN RESTAURANTS PER P410.4	1 REQUIRED PER BUILDING
NUMBER OF FIXTURES PROVIDED	1 W.C. PER SEX	1 LAV. PER SEX	0	1

2015 MICHIGAN BUILDING CODE REVIEW	
<b>GENERAL BUILDING INFORMATION:</b> RESTAURANT = 2,521 GROSS SQ. FT. (PER THE ZONING ORDINANCE) (1) STORY / MAX. HEIGHT 22'-1" NOT SPRINKLED	<b>CHAPTER 9 - FIRE PROTECTION SYSTEMS:</b> 903.2.1.2 - THIS BUILDING IS NOT REQUIRED TO BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC FIRE SUPPRESSION SYSTEM. 907.2.1 - A FIRE ALARM SYSTEM IS NOT REQUIRED FOR GROUP 'A' OCCUPANCIES WITH AN OCCUPANT LOAD LESS THAN 300.
<b>CHAPTER 3 - OCCUPANCY: A-2 RESTAURANT (303.3)</b>	<b>CHAPTER 10 - MEANS OF EGRESS:</b>
<b>CHAPTER 5 - GENERAL BUILDING LIMITATIONS (USE GROUP A-2 / CONSTRUCTION TYPE VB):</b> ALLOWABLE HEIGHT (T.504.3) = 40'-0" ALLOWABLE STORIES (T.504.4) = 1 STORY PROPOSED HEIGHT = 22'-1"/STORY (COMPLIES) ALLOWABLE AREA FACTOR (T.506.2) = NS ALLOWABLE AREA = 6,000 SQ. FT. PROPOSED AREA = 2,335 SQ. FT. (PER THE BUILDING CODE - COMPLIES)	<b>OCCUPANT LOAD (TABLE 1004.1.2):</b> ASSEMBLY WITH FIXED SEATS - TABLES AND CHAIRS (1004.4): TOTAL NUMBER OF SEATS = 88 OCCUPANTS <b>BUSINESS AREAS:</b> 100 GSF. PER OCCUPANT 74 GSF. 100 GSF./OCCUPANT = 1 OCCUPANT MINIMUM <b>KITCHEN AREAS:</b> 200 GSF. PER OCCUPANT 635 GSF. 200 GSF./OCCUPANT = 5 OCCUPANTS MINIMUM <b>STORAGE/UTILITY AREAS:</b> 300 GSF. PER OCCUPANT 324 GSF. 300 GSF./OCCUPANT = 2 OCCUPANT MINIMUM <b>TOTAL OCCUPANT LOAD = 68 + 1 + 5 + 2 = 76 OCCUPANTS</b>
<b>CHAPTER 6 - CONSTRUCTION TYPE:</b> CONSTRUCTION TYPE = TYPE VB, COMBUSTIBLE/UNPROTECTED (SECTION 602.5) FIRE-RATED ASSEMBLIES PER TABLE 601 = 0-HOUR FIRE-RATED ASSEMBLIES PER TABLE 602 = 0-HOUR	<b>MIN. EGRESS WIDTH REOD. (1005.3.2):</b> EGRESS COMPONENTS = .2" PER OCCUPANT REQUIRED DOOR WIDTH = (2)(76) = 16" PROVIDED = (3) @ 32" + (1) @ 38" = 134" (COMPLIES) <b>CORRIDOR/AISLE WIDTH = 44" MIN. (T.1020.2)</b>
<b>CHAPTER 7 - FIRE-RESISTANCE-RATED CONSTRUCTION</b> 720.3 - EXPOSED INSULATION MATERIALS SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 450.	<b>NUMBER OF EXITS (1006.2.1):</b> (2) EXITS REQUIRED (3) EXITS PROVIDED (COMPLIES) <b>DOOR SWING (1010.1.2.1):</b> DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL WHERE SERVING A ROOM OR AREA CONTAINING AN OCCUPANT LOAD OF 50 OR MORE PERSONS.
<b>CHAPTER 8 - INTERIOR FINISHES:</b> 803.2 - ALL FINISH MATERIALS LESS THAN .036" THICK DIRECTLY APPLIED TO SURFACES OF WALLS OR CEILINGS SHALL NOT BE REQUIRED TO BE TESTED. <b>TABLE 803.11 - WALL AND CEILING FINISHES:</b> EXITS + CORRIDORS = CLASS 'A' FLAME SPREAD = 0-25. SMOKE DEVELOPED = 0-450. ROOMS AND ENCLOSED SPACES = CLASS 'C' (SEE NOTE 'e'). FLAME SPREAD = 0-200. SMOKE DEVELOPED = 0-450. <b>FLOOR FINISHES (SECT. 804.4.2):</b> EXITS = CLASS II PER NFPA 253 (0.22 WATTS/CM <sup>2</sup> OR GREATER) ALL OTHER ROOMS SHALL COMPLY WITH DOC FF-1 'PILL TEST' (CPSC 16 CFR) OR WITH ASTM D 2859.	<b>806.3 - DECORATIONS AND TRIM INCLUDING BLINDS/DRAPERIES ETC. ARE REQUIRED TO BE FLAME RESISTANT COMPLYING WITH NFPA 701, OR NON-COMBUSTIBLE.</b> <b>806.7 - ALL INTERIOR TRIM SHALL HAVE A MINIMUM CLASS 'C' FLAME SPREAD = 76-200 AND SMOKE-DEVELOPED INDEX = 0-450</b> <b>806.8 - WALL BASE = CLASS I MINIMUM.</b>



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PHONE (810) 225-2930  
www.pv-a.com



PROJECT: **TACO BELL - CHARLOTTE**  
660 LANSING STREET  
CHARLOTTE, MICHIGAN  
SHEET TITLE: **FLOOR PLAN**

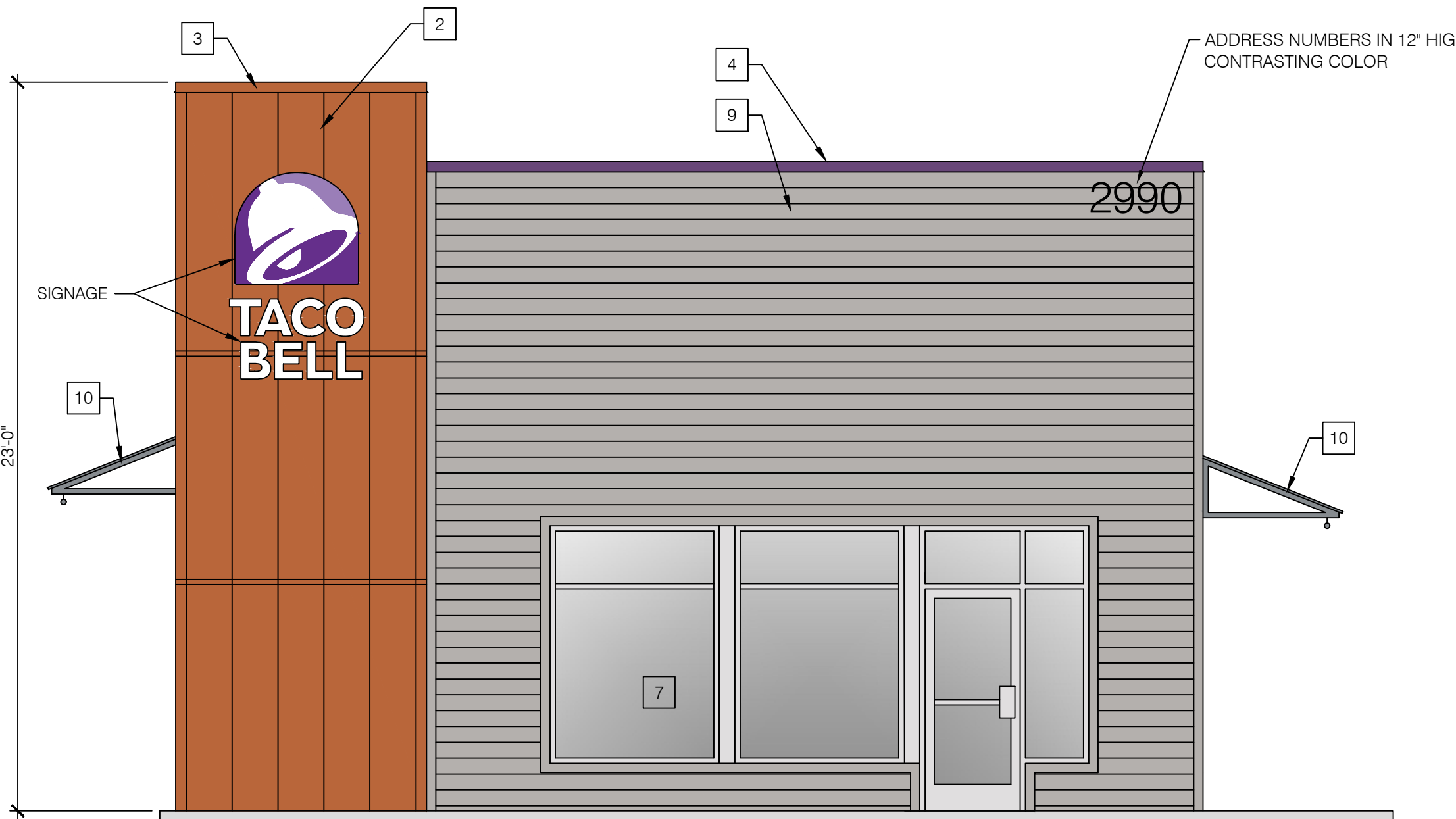
DATE:	11-5-2018	SITE PLAN APPROVAL	11-5-2018
ISSUED FOR:	7-12-2018	DAC SUBMITTAL	7-12-2018

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APPROVED BY: KV  
PROJECT: 1823  
SHEET: **A1.0**



**WALK-UP ELEVATION MATERIAL PERCENTAGES**  
 TOTAL AREA = 1,571 S.F.  
 GLASS AND DOORS = 259 S.F.  
 NET FACADE AREA = 1,571 - 259 = 1,312 S.F.  
 METAL PANEL = 33 S.F./1,312 = 3%  
 BRICK = 792 S.F./1,312 = 60%  
 CEMENT BOARD SIDING = 487 S.F./1,312 = 37%

**WALK-UP (SOUTH) ELEVATION**  
 1/4" = 1'-0"

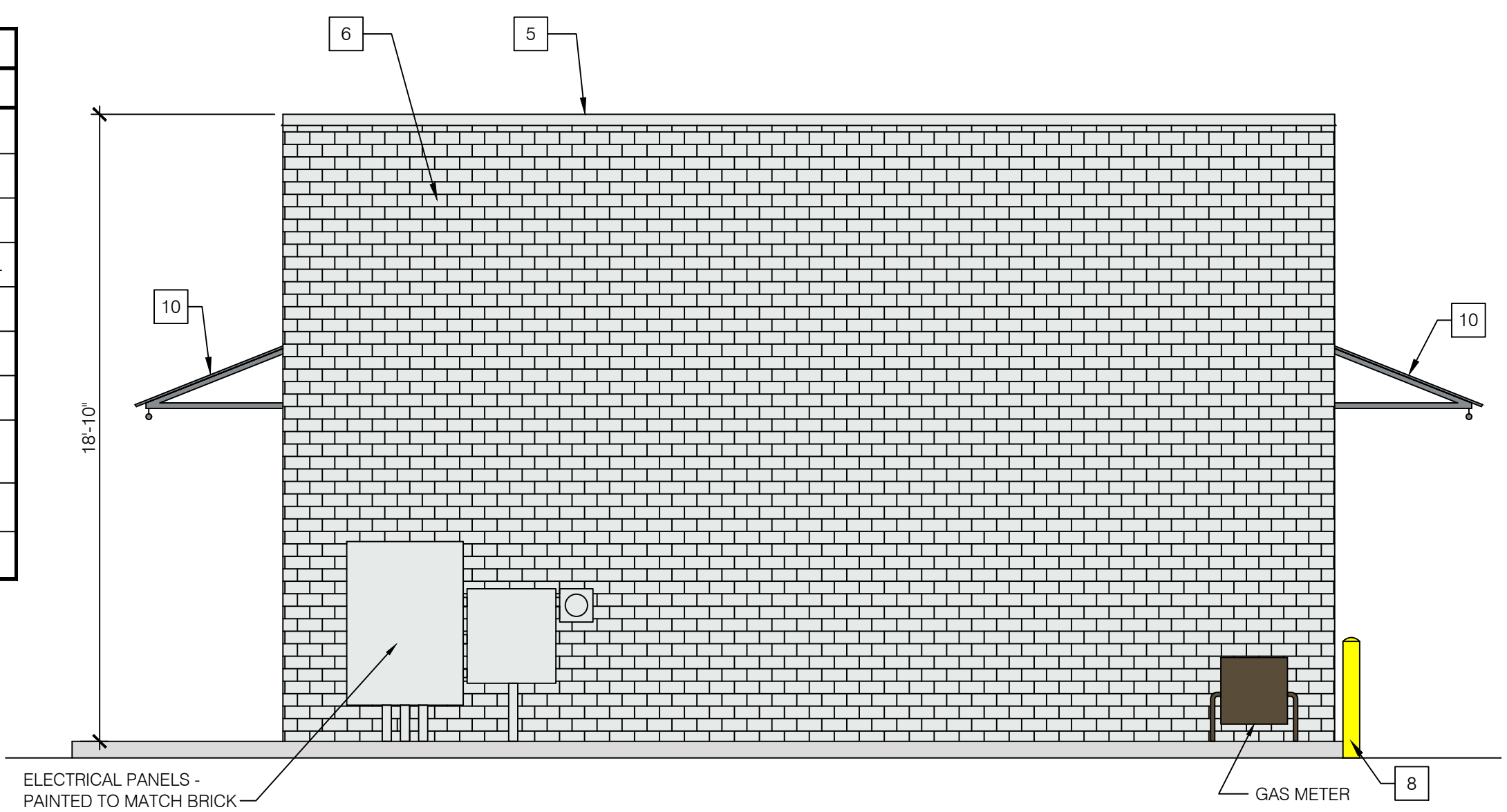


**FRONT ELEVATION MATERIAL PERCENTAGES**  
 TOTAL AREA = 684 S.F.  
 GLASS AND DOORS = 133 S.F.  
 NET FACADE AREA = 684 - 133 = 551 S.F.  
 METAL PANEL = 182 S.F./551 = 33%  
 CEMENT BOARD SIDING = 370 S.F./551 = 67%

**FRONT (WEST) ELEVATION**  
 1/4" = 1'-0"

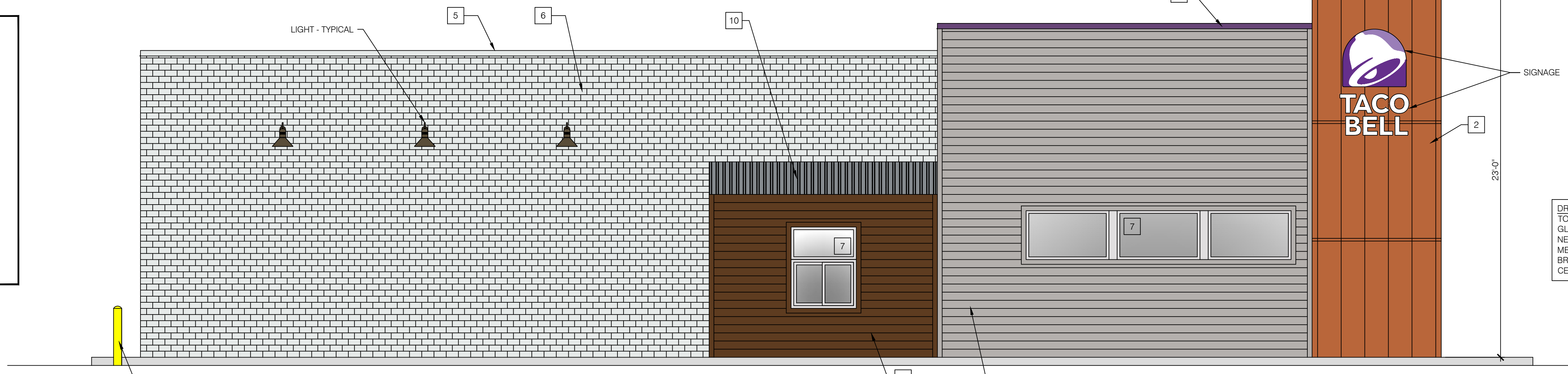
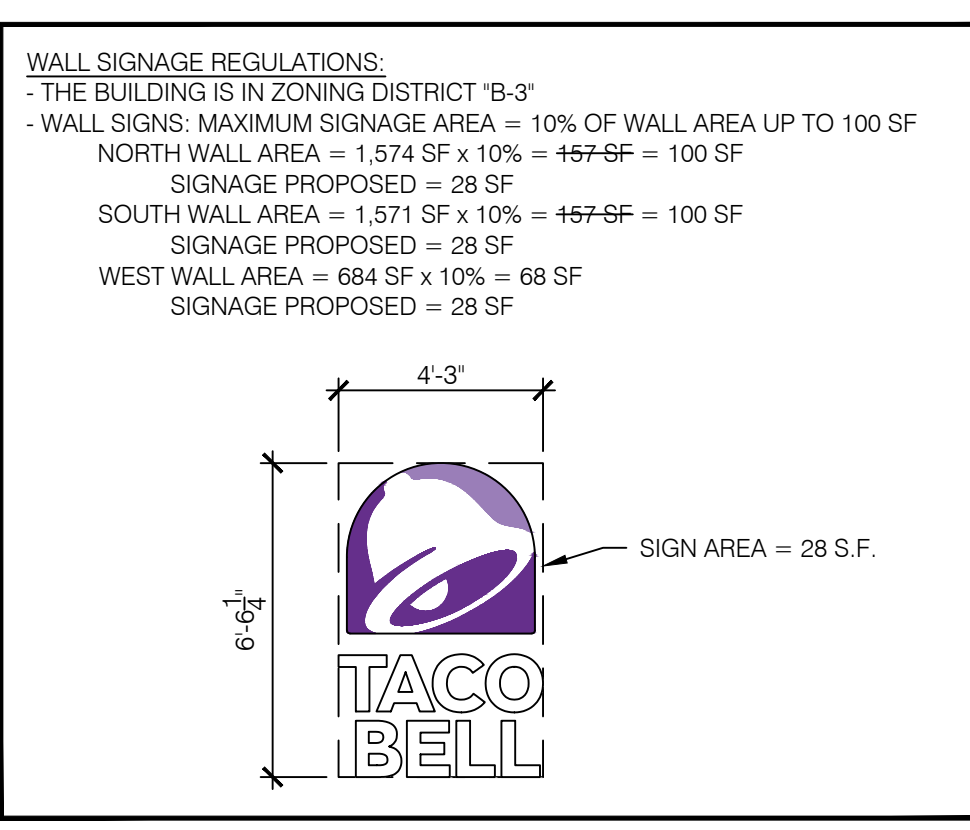
MATERIAL SPECIFICATIONS			
SYMBOL	AREA	MANUFACTURER	COLOR/NOTES
1	FIBER CEMENT BOARD AND TRIM	NICHIHA	VINTAGE WOOD, 'CEDAR', 6\"/>

**GENERAL NOTES:**  
 1) ALL ROOF TOP MECHANICAL EQUIPMENT IS SHIELDED FROM VIEW BY THE PARAPET WALLS.  
 2) ALL LIGHTING SHALL BE DIRECTED DOWNWARD.



**REAR ELEVATION MATERIAL PERCENTAGES**  
 TOTAL AREA = 595 S.F.  
 BRICK = 595 S.F./595 = 100%

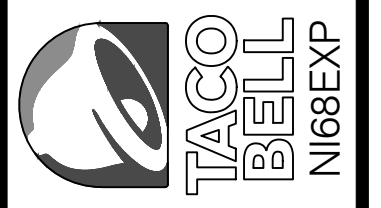
**REAR (EAST) ELEVATION**  
 1/4" = 1'-0"



**DRIVE THRU ELEVATION MATERIAL PERCENTAGES**  
 TOTAL AREA = 1,574 S.F.  
 GLASS AND DOORS = 69 S.F.  
 NET FACADE AREA = 1,574 - 69 = 1,505 S.F.  
 METAL PANEL = 182 S.F./1,505 = 12%  
 BRICK = 752 S.F./1,505 = 50%  
 CEMENT BOARD SIDING = 570 S.F./1,505 = 38%

**DRIVE-THRU (NORTH) ELEVATION**  
 1/4" = 1'-0"

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**PROJECT:** TACO BELL - CHARLOTTE  
 600 LANSING STREET  
 CHARLOTTE, MICHIGAN

**SHEET TITLE:** EXTERIOR ELEVATIONS

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**PROJECT:** 1823

**SHEET:** A2

11-5-2018 SITE PLAN APPROVAL  
 7-12-2018 DAC SUBMITTAL  
 DATE: ISSUED FOR: