BRIGHTON AREA SCHOOLS 2019 BOND PROJECT **BECC CONCESSIONS / SLOAN FIELD**

ISSUED FOR CONSTRUCTION: MAY 26, 2020

PREPARED BY:





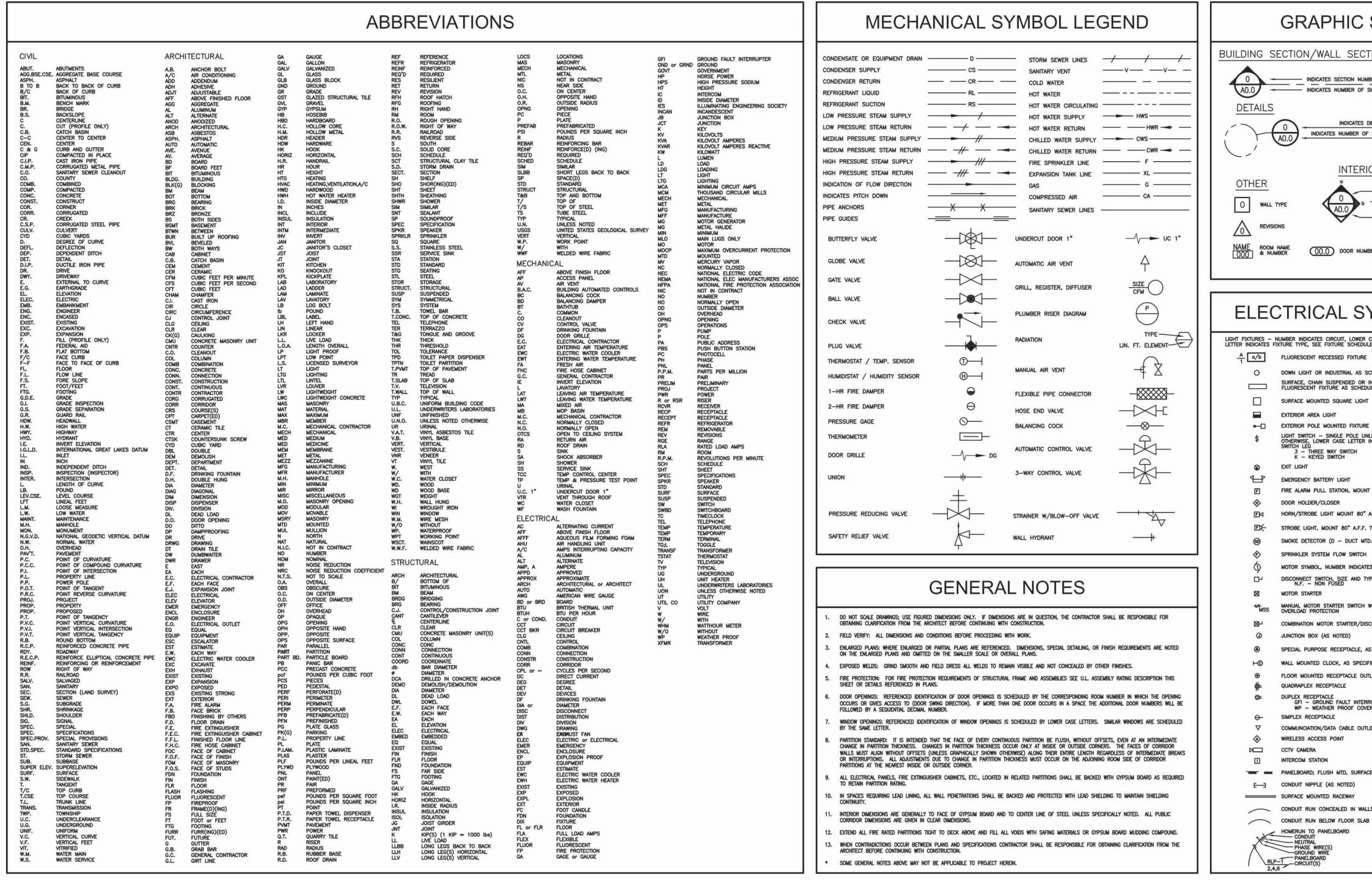


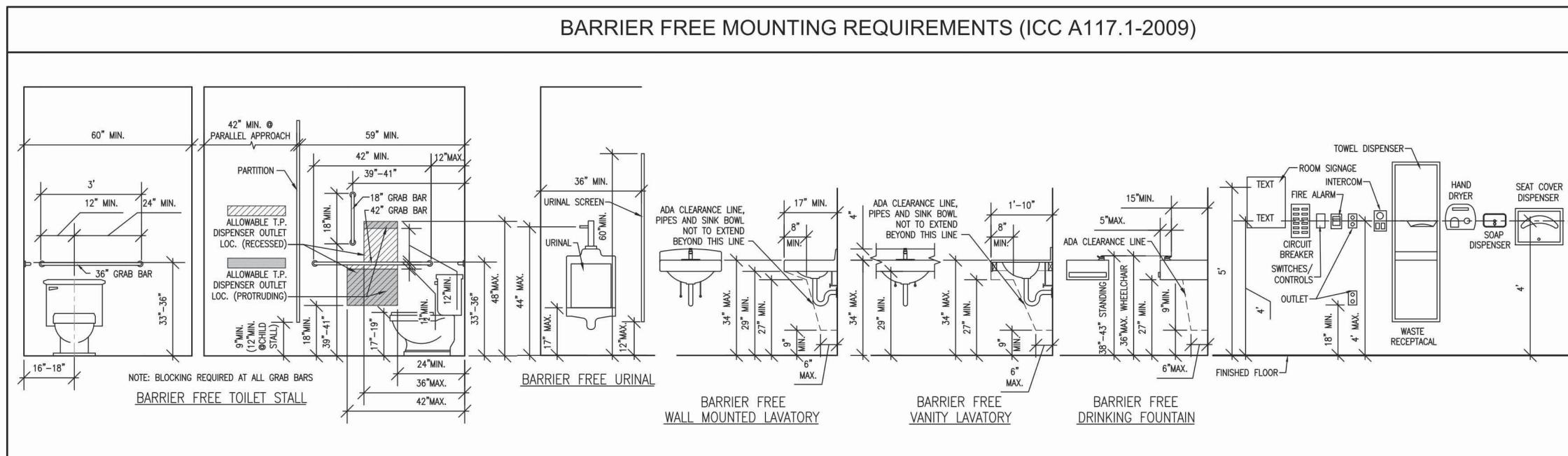


BRIGHTON BECC 125 SOUTH CHURCH STREET BRIGHTON, MI 48116

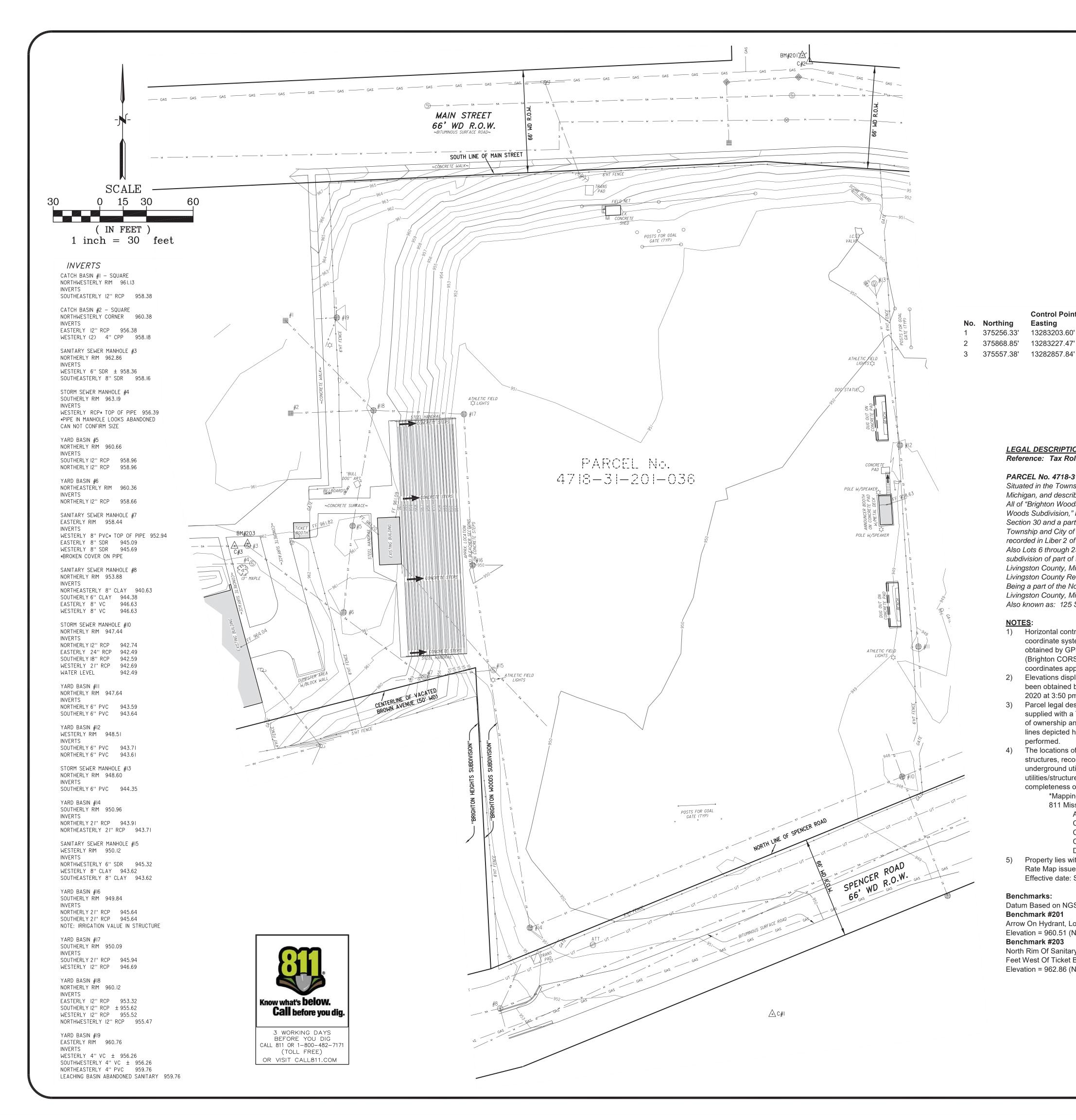


IDI PROJECT NO. 18-785





SYMBOLS	CODE SUMMARY	8-7524 600
10N	CODES 2015 MICHIGAN BUILDING CODE FIRE MARSHALL RULES STATE OF MICHIGAN BARRIER FREE MICHIGAN DEPARTMENT OF LABOR	NUE 5 FAX: (906)228-7524 AVE., SUITE 600 FAX: (810)229-6767
BER	ACCESS DESIGN RULES (2009 ICC/ANSI A117.1) CONSTRUCTION CODE COMMISION GENERAL RULES NATIONAL FIRE PROTECTION 2015 MICHIGAN MECHANICAL CODE	MARQUETTE OFFICE: 1201 W. BARAGA AVENUE MARQUETTE, MI 49855 PHONE: (906)228-4480 FAX: (9 BRIGHTON OFFICE: 8571 W. GRAND RIVER AVE., S BRIGHTON, MI 48816 PHONE: (810)229-2701 FAX: (8
HEET SECTION IS FOUND	ASSOCIATION (NFPA) 2015 MICHIGAN PLUMBING CODE MICHIGAN UNIFORM ENERGY CODE	
ETAIL NUMBER	NATIONAL ELECTRICAL SAFETY CODE 2017 NATIONAL ELECTRIC CODE (NEC) CODES FIRE RESISTIVE ANALYSIS CLASSIFICATIONS: CLASSIFICATIONS: CONSTRUCTION PROTECTION: - STORIES 0	URE ING
OR ELEVATION	OCCUPANCY TYPE 0 STRUCTRAL FRAME CONSTRUCTION TYPE 0 EXTERIOR NON-BEARING WALLS OPPINICIENT	
NUMBER INDICATES ELEVATION & SHADING INDICATES INDICATES DIRECTION(S) OF VIEW	- SPRINKLER SYSTEM 0 ROOF	III SUI
- Letter(s) designate elev. Where multiple -Indicates number of sheet elevation is found	DRAWING SHEET INDEX	ARCHIT ENGIN CONSI
er a window type 0 keynote	A0.0 COVER	EN AR
	I1.0 INDEX SHEET	
	CIVIL CO SITE SURVEY	
YMBOL LEGEND	C1.0SITE DEMOLITION PLANC1.1SITE DEMOLITION PLANC1.2SITE DEMOLITION PLAN	INTEGRATED DESIGNS, INC.
CASE LETTER INDICATES SWITCH LEG, UPPER CASE E. DARKENED SYMBOL INDICATES NIGHT LIGHT.	C2.0 SITE PLAN C2.1 SITE PLAN	
CHEDULED	C2.2 SITE PLAN C3.0 SITE GRADING C3.1 SITE GRADING	
LED	C4.0 UTILITY PLAN C4.1 UTILITY PLAN	
	C5.0 SITE DETAILS C5.1 SITE DETAILS C5.2 SITE DETAILS	
LESS NOTED NDICATES	C5.3 SITE DETAILS C5.4 SOCCER FIELD LAYOUT	
	STRUCTURAL S0.1 STRUCTURAL TESTING	SCHOOLS ' SLOAN FIEL OJECT .785
48" A.F.F. TO TOP	S0.1 STRUCTURAL NOTES S1.0 FOUNDATION PLAN	SCHOOL / SLOAN ROJECT 8-785
A.F.F. TO BOTTOM	S2.0FRAMING PLANS3.0FOUNDATION DETAILSS4.0FRAMING DETAILS	
I. TYPE)	ARCHITECTURAL	ON AREA ESSIONS BOND PF
s horsepower, F — Fractional horsepower Pe as noted	A1.0 FLOOR PLAN & ROOF PLAN A1.1 REFLECTED CEILING PLAN	HTON AR VCESSIOI 19 BOND PROJECT NO.
VITH THERMAL	A2.0INTERIOR ELEVATIONSA3.0EXTERIOR ELEVATIONSA4.0BUILDING SECTIONS	20 COI
CONNECT DEVICE	A4.1 BUILDING SECTIONS A5.0 WALL SECTIONS	BECC
8 NOTED IED, MOUNT 8'-3" A.F.F. TO CENTER	A7.0WINDOW & DOOR SCHEDULESA9.0DETAILSA10.0ALTERNATE #2 - HAWKINS ELEMENTARY CONCESSIONS ROOFING	
LET OR JUNCTION BOX AS NOTED.	A10.1 ALTERNATE #3 - HIGH SCHOOL STORAGE BUILDING ROOFING	
UPTER R	MECHANICAL M1.0 MECHANICAL HVAC PLAN M2.0 MECHANICAL DETAILS	
et.	M3.0 MECHANICAL DETAILS M3.0 MECHANICAL SCHEDULES M4.0 TEMPERATURE CONTROLS	
x. 2019.	PLUMBING P1.0 PLUMBING PLANS	DATE 3-31-20 5-11-20 5-26-20
e mtd	P2.0 PLUMBING DETAILS P3.0 PLUMBING SCHEDULES	do N
S OR ABOVE CEILING OR GRADE	ELECTRICAL E1.0 LIGHTING PLAN	NS N DEVELO REVIEW IRUCTION
	E1.0 EIGHTING PLAN E2.0 POWER AND COMMUNICATION PLAN ES1.0 ELECTRICAL SITE PLAN	NS ⁻
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	BCOTT T. HOEFT	
		DATE: 00.00.00 00.00.00 00.00.00 00.00.00
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DISPENSER 22 X		X SH
3'-4" MAX. TO 3'-4" MAX. TO REFLECTIVE SURFACE		INDEX SHE
REFLE		INDEX SHEET
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Control Points

13283203.60'

13283227.47

Easting

LEGAL DESCRIPTION OF RECORD Reference: Tax Roll

PARCEL No. 4718-31-201-036

Situated in the Township of Brighton and City of Brighton, County of Livingston and State of Michigan, and described as follows: All of "Brighton Woods Subdivision," that lies between Main Street and Spencer Road, said "Brighton Woods Subdivision," being a of part of the Northeast 1/4 of Section 31, a part of the Southeast 1/4 of Section 30 and a part of the Southwest 1/4 of Section 29, Town 2 North, Range 6 East, Brighton Township and City of Brighton, Livingston County, Michigan, according to the plat thereof, as recorded in Liber 2 of Plats, Page 71, Livingston County Records, Also Lots 6 through 25 and vacated alleys and streets East of Church Street of "Brighton Heights," a subdivision of part of the Northeast 1/4 of Section 31, Town 2 North, Range 6 East, City of Brighton, Livingston County, Michigan, according to the plat thereof, as recorded in Liber 2 of Plats, Page 37 Livingston County Records.

Being a part of the Northeast 1/4 of Section 31, Town 2 North, Range 6 East, City of Brighton, Livingston County, Michigan. Also known as: 125 S. Church Street, Brighton, Michigan 48116

NOTES:

- coordinates apply Combined Scale Factor of 1.00012.
- 2) 2020 at 3:50 pm)
- performed.
- 4) completeness of said underground utility lines.

 - AT & T
 - City of Brighton
 - Comcast
 - Detroit Edison
- Effective date: September 17, 2008.

Benchmarks:

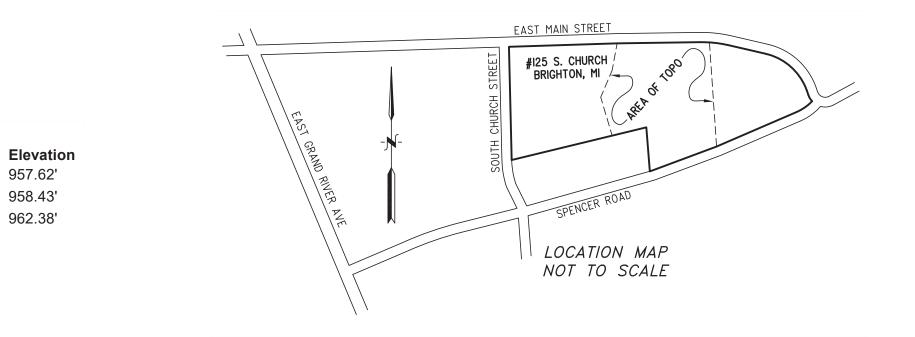
Datum Based on NGS Opus Solution Report, Dated February 17, 2020 at 3:50 pm Benchmark #201 Arrow On Hydrant, Located Near The North Side Of Main Street And East Of Hillcrest. Elevation = 960.51 (NAVD 88)

Benchmark #203 North Rim Of Sanitary Sewer Manhole, Located 27± Feet Northeasterly Of Building Corner And 30± Feet West Of Ticket Building. Elevation = 962.86 (NAVD 88)

Topographical Survey

A Part of the Northeast 1/4 of Section 31 Town 2 North, Range 6 East City of Brighton, Livingston County, Michigan

Brighton Area Schools Education and Community Center



1) Horizontal control points coordinate values provided hereon are on grid North, Michigan coordinate system of 1983, South Zone (as defined in MCL 54.235a(c)) and have been obtained by GPS RTK observations. The NOAA/NGS published point (designated as AJ5553 (Brighton CORS)) has been used for locations determination. To convert from grid to ground

Elevations displayed hereon are related to North American Vertical Datum of 1988 and have been obtained by static GPS observations (NGS Opus Solution Report, Dated February 17,

3) Parcel legal description has been obtained from available public records. Surveyor was not supplied with a Title Search at this time. Refer to the current policy for title insurance for proof of ownership and all encumbrances affecting title to the surveyed parcel. Parcel boundary lines depicted hereon are for informational purposes only; no boundary survey has been

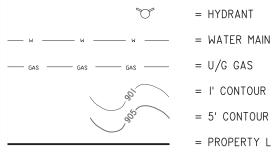
The locations of underground utility lines are based on field observations of the above ground structures, record drawings* and markings left by various utility companies. Actual locations of underground utilities/structures may vary from locations shown hereon. Additional buried utilities/structures may be encountered. No warranty is extended thereof as to accuracy and *Mappings requested by the surveyor pursuant to an

811 MissDig DESIGN Ticket Program, Ticket No. B000420683-00B:

- Responded with Mapping
- Responded with Mapping Consumers Energy Responded with Mapping
 - Responded with Mapping
 - Responded with Mapping

Property lies within Flood Zone X of Flood Hazard Area, as depicted on Flood Insurance Rate Map issued by Federal Emergency Management Agency, Map No. 26093C03450D,

0 \odot $\triangle 00$ A UT → ··· → ··· → ··· → ··· → = OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE) ____ рн _____ рн _____ рн ____ — DPT _____ DPT ____ DPT ____ — EL ____ EL ____ EL ____ EL ____ — CTV ____ CTV ____ CTV ____ CTV ____ (S) 00_____ SA ______ SA ______ SA _____ ⊞00 ⊕00



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LEGEND

- = MISC. STRUCTURE (AS LABELED)
- = SURVEYOR'S MONUMENTATION (AS LABELED)
- = BOLLARD
- = SIGN / MONUMENT SIGN
- = FLAG POLE
- = CONTROL / BENCHMARK W/IDENTIFIER
- = LIGHT BASE
- E G W P M M U = UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX, UTIL. BOX)
 - = AIR CONDITIONER UNIT
 - = UTILITY MANHOLE (AS LABELED)

 - = U/G UTILITY LINES (PHONE/FIBER OPTIC/ELECTRIC/CABLE TV/MISC UTILITIES)
- = FENCE (CHAIN LINK UNLESS OTHERWISE STATED)
 - = CONCRETE CURB (UNLESS OTHERWISE STATED)
 - = SANITARY SEWER MANHOLE W/IDENTIFIER
 - = SANITARY SEWER PIPE
 - \bigcirc 00 = STORM WATER MANHOLE W/IDENTIFIER
 - = CATCH BASIN W/IDENTIFIER
- ______ ST ______ ST _____ = STORM WATER DRAINAGE PIPE
 - = HYDRANT

 - = I' CONTOUR
 - = 5' CONTOUR
 - = PROPERTY LINE

REVISED

REVISED: 04/27/20 PER CLIENT REQUEST - BLEACHER AREA

= STEPS/STAIRS DOWN



SCALE: 1" = 30'

SHEET No.: 1 OF 1

DATE:

PROJECT No.: 1-09-31-203841

03/13/20

DWG NAME: 203841-BR ED

CLIENT: Brighton Area Schools 125 South Church Street Brighton, Michigan 48116

GENERAL NOTES

- I. ALL WORK SHALL CONFORM TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION. 2012 EDITION AND SUPPLEMENTAL SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND SITE CONDITIONS BEFORE PROCEEDING WITH WORK. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ENGINEER BEFORE PROCEEDING
- 3. THE CONTRACTOR SHALL BE REQUIRED TO RESTORE ALL EXISTING TURF AREAS WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES THROUGHOUT THE PROJECT OR AS SPECIFIED. TURF AREAS SHALL MATCH ADJACENT GRADES IN ADDITION TO GRADES SPECIFIED. TURE RESTORATION CONSISTS OF: SCREENED TOPSOIL SURFACE, 6 INCH: CHEMICAL FERTILIZER NUTRIENT, IF REQUIRED: MDOT SEED MIXTURE TDS; STRAW MULCH BLANKETS AND MULCH ANCHORING. THE CONTRACTOR SHALL BE REQUIRED TO WATER TURF AREAS TO PROMOTE HEALTHY GROWTH UNTIL THE FIRST CUTTING. AT THAT TIME THE OWNER SHALL TAKE ALL RESPONSIBILITY FOR MAINTENANCE.
- 4. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY AND ALL AREAS DISTURBED OR DAMAGED OUTSIDE OF THE OWNERS PROPERTY, AS A RESULT OF THE CONTRACTORS OPERATIONS, AT NO ADDITIONAL COST TO THE PROJECT.
- 5. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL REGULATIONS AND ORDINANCES FOR WORK AT THE SITE. THIS SHALL INCLUDE ALL M.I.O.S.H.A. REGULATIONS.
- 6. THE CONTRACTOR SHALL CONTROL NOISE. CARRY OUT A PROGRAM FOR DUST CONTROL AND SHALL ALLOW NO ONSITE BURNING, WITHOUT PRIOR APPROVAL FROM THE OWNER, ENGINEER AND THE LOCAL FIRE DEPARTMENT.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FEES AND OBTAINING ANY REQUIRED PERMITS FOR WORKING WITHIN THE RIGHT-OF-WAY INCLUDING SEWER TAPS, OFF STREET PARKING, SIDEWALK AND/OR ROAD CLOSURES, SIDEWALK AND CURB REPLACEMENT, ETC. THE CONTRACTOR SHALL PROVIDE THE LOCAL MUNICIPALITY WITH ANY ROAD CLOSURE AND DETOUR PLAN, IF REQUIRED, PRIOR TO PROCEEDING WITH WORK. CONTACT LOCAL MUNICIPALITY FOR REQUIREMENTS BEFORE PROCEEDING WITH WORK.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND LAYOUT FOR THIS PROJECT. THE CONTRACTOR SHALL PROTECT OR PLACE NEW BENCHMARKS AND/OR CONTROL POINTS, AS REQUIRED. AN ELECTRONIC COPY OF THE AUTOCAD ".DWG" FILE SHALL BE PROVIDED TO THE CONTRACTOR OR THEIR SURVEYOR.
- 9. ANY PROPERTY IRONS DAMAGED OR REMOVED BY THE CONTRACTORS OPERATIONS, SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE OF MICHIGAN AT NO COST TO THE PROJECT.
- 10. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE THEIR WORK WITH THE BUILDING CONTRACTORS OR UTILITY COMPANIES' WORK AT NO ADDITIONAL COST TO THE PROJECT.
- 11. SITE CLEARING SHALL INCLUDE SURFACE DEBRIS, REMOVING ABOVE AND BELOW GROUND IMPROVEMENTS, ROCKS, DESIGNATED TREES, SHRUBS AND OTHER VEGETATION AND ABANDONED UTILITIES AS NECESSARY TO PERFORM THE WORK IN THE CONTRACT. ALL REMOVAL ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINTS, BENCHMARKS AND/OR EXISTING STRUCTURES TO REMAIN FROM DAMAGE OR DISPLACEMENT.
- 12. TREES IN THE INFLUENCE OF THE PROPOSED NEW WORK SHALL BE REMOVED. TREE REMOVAL SHALL INCLUDE COMPLETE REMOVAL OF THE STUMP AND INCLUDE REMOVAL OF ANY ROOTS WHICH ARE LOCATED WITHIN THE INFLUENCE OF THE SUBBASE EXCAVATION. BUILDING CONSTRUCTION AND UTILITY TRENCH EXCAVATION. WHEN EXCAVATING THROUGH ROOTS, PERFORM WORK BY HAND AND CUT ROOTS WITH A SHARP AXE.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF REMOVED, SURPLUS AND/OR WASTE MATERIAL FROM THE SITE. ALL TRANSPORTATION AND DISPOSAL OF THE REMOVED ITEMS SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATION AND ALL LOCAL, STATE AND FEDERAL LAWS.
- 14. SAW CUT EXISTING PAVEMENT TO FULL DEPTH PRIOR TO REMOVAL. WHERE SAW CUT IS REQUIRED IN CONCRETE SLABS AND/OR CURB & GUTTER, SAW CUT FULL DEPTH AT THE NEAREST JOINT. IF A SAWCUT EDGE BECOMES DAMAGED PRIOR TO THE INSTALLATION OF NEW WORK, THE EDGE SHALL BE RECUT, AS DIRECTED BY THE ENGINEER, AND THE PAVEMENT REPLACED AT NO ADDITION COST TO THE PROJECT.

TRAFFIC CONTROL AND MAINTENANCE

- 1. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD), 2011 EDITION AND ALL CURRENT MDOT STANDARD PLANS, AS REQUIRED. THE CONTRACTOR SHALL SUBMIT A TRAFFIC MAINTENANCE PLAN TO THE ENGINEER FOR APPROVAL, 10 DAYS PRIOR TO BEGINNING WORK.
- 2. ALL SIGNS. BARRICADES, WARNING LIGHTS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MMUTCD. SIGNING FOR STREET CLOSURES SHALL BE IN ACCORDANCE WITH THE MMUTCD. ANY SIGNS TEMPORARILY REMOVED DUE TO CONSTRUCTION ACTIVITIES, SHALL BE TEMPORARILY RELOCATED, AS DIRECTED BY THE ENGINEER, UNTIL FINAL RESTORATION IS COMPLETED AND THEN RETURNED TO THEIR ORIGINAL LOCATION.
- 3. DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PLACE THE PROPER CONSTRUCTION SIGNING IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND ALL CURRENT MDOT STANDARD PLANS, AS REQUIRED.
- 4. THE CONTRACTOR SHALL PROVIDE THE LOCAL MUNICIPALITY WITH ANY ROAD CLOSURE AND DETOUR PLAN, IF REQUIRED, PRIOR TO PROCEEDING WITH WORK. CONTACT LOCAL MUNICIPALITY FOR REQUIREMENTS BEFORE PROCEEDING WITH WORK.

UTILITY NOTES

- 1. UTILITIES AND UTILITY SERVICE INFORMATION, SHOWN ON THE PLANS, ARE BASED ON UTILITY STAKING AND IS FOR INFORMATION ONLY, AS ACTUAL LOCATIONS MAY VARY. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY LOCATIONS BEFORE PROCEEDING WITH WORK.
- 2. FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR IS REQUIRED TO CONTACT "MISS DIG" BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG, A MINIMUM OF 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) IN ADVANCE OF ANY EXCAVATION.
- 3. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE ALL OF THEIR WORK WITH THE UTILITY COMPANIES WORK, IF ANY, AT NO ADDITIONAL COST TO THE PROJECT.
- 4. COSTS AND FEES CHARGED BY THE UTILITY COMPANIES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE MADE A PART OF THE CONTRACT.
- 5. DAMAGE TO EXISTING UTILITIES, OUTSIDE THE SCOPE OF WORK SHOWN ON THE PLANS, IS THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIR, AS SUCH, SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.
- 6. IN CASES WHERE EXISTING SEWERS, DRAINS, GAS SERVICE CONNECTIONS, TELEPHONE OR ELECTRICAL FACILITIES, WATER SERVICE CONNECTIONS, ETC. ARE ENCOUNTERED, THE CONTRACTOR SHALL PERFORM THEIR WORK IN SUCH A MANNER THAT THE SERVICE WILL BE UNINTERRUPTED. THE CONTRACTORS METHOD FOR MAINTAINING AND SUPPORTING THE EXISTING UTILITIES AND THEIR SERVICE CONNECTIONS, IF REQUIRED, SHALL BE AS SUCH TO AVOID SETTLEMENT OF THE UTILITIES BEFORE AND AFTER PLACING BACKFILL.
- 7. STORM SEWER MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY OF BRIGHTON STANDARD SPECIFICATION FOR STORM WATER COLLECTION SYSTEMS.
- 8. SANITARY SEWER MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY OF BRIGHTON STANDARD SPECIFICATION FOR SANITARY SEWER COLLECTION SYSTEMS.
- 9. SEE ELECTRICAL, MECHANICAL AND PLUMBING PLANS FOR EXACT CONNECTIONS TO PROPOSED BUILDING UTILITIES.
- 10. UTILITY DISINFECTION AND ALL OTHER TESTING AS REQUIRED BY THE GOVERNING CODE IS THE RESPONSIBILITY OF THE CONTRACTOR.



- OPERATOR ASSIGNED TO THIS PROJECT
- ACTIVITY, AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE PROJECT.
- CONTROL DEVICES AND ANY ACCUMULATED SEDIMENT.
- 7. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS AS SOON AS POSSIBLE.

	SOIL	EROSION AND S	EDIMENTATION CONTROL
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
	SEDIMENT CONTROLS		
E2	GRUBBING OMITTED		FOR USE ON STEEP SLOPES TO PREVENT RILLING, GULLYING AND REDUCE SHEET FLOW VELOCITY OR WHERE CLEAR VISION CORRIDORS ARE NECESSARY.
E5	DUST CONTROL		FOR USE ON CONSTRUCTION SITES, UNPAVED ROADS, ETC. TO REDUCE DUST AND SEDIMENTATION FROM WIND AND CONSTRUCTION ACTIVITIES.
E6	MULCH		FOR USE ON IN AREAS SUBJECT TO EROSIVE SURFACE FLOWS OR SEVERE WIND OR ON NEWLY SEEDED AREAS.
E7	TEMPORARY SEEDING	AND	STABILIZATION METHOD UTILIZED ON CONSTRUCTION SITES WHERE EARTH CHANGE HAS BEEN INITIATED BUT NOT COMPLETED WITHIN A 2 WEEK PERIOD.
E8	PERMANENT SEEDING		STABILIZATION METHOD UTILIZED ON SITES WHERE EARTH CHANGE HAS BEEN COMPLETED (FINAL GRADING ATTAINED).
E9	MULCH BLANKETS		ON EXPOSED SLOPES, NEWLY SEEDED AREAS, NEW DITCH BOTTOMS OR AREAS SUBJECT TO EROSION.
E10	SODDING	.\SESC Key\Sodding.JPG	ON AREAS AND SLOPES WHERE IMMEDIATE STABILIZATION IS REQUIRED.
E12	RIPRAP	.\SESC Køy∖Riprap.JPG	USE ALONG SHORELINES, WATERWAYS, OR WHERE CONCENTRATED FLOWS OCCUR. SLOWS VELOCITY, REDUCES SEDIMENT LOAD, AND REDUCES EROSION.
	EROSION CONTROLS		
S31	CHECK DAM		USED TO REDUCE SURFACE FLOW VELOCITIES WITHIN CONSTRUCTED AND EXISTING FLOW CORRIDORS.
S51	SILT FENCE		USED ADJACENT TO CRITICAL AREAS, TO PREVENT SEDIMENT LADEN SHEET FLOW FROM ENTERING THESE AREAS.
S53	STABILIZED CONSTRUCTION ENTRANCE		USED AT EVERY POINT WHERE CONSTRUCT TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE.
S55	SEDIMENT BASIN		AT THE OUTLET OF DISTURBED AREAS AND AT THE LOCATION OF A PERMANENT DETENTION BASIN.
S56	SEDIMENT TRAP		IN SMALL DRAINAGE AREAS, ALONG CONSTRUCTION SITE PERIMETERS AND ABOVE CHECK DAMS OR DRAIN INLETS.
S57	VEGETATED BUFFER/ FILTER STRIP		USE ALONG SHORELINES, WATERWAYS, OR OTHER SENSITIVE AREAS. SLOWS VELOCITY, REDUCES SEDIMENT LOAD, AND REDUCES EROSION IN AREAS OF SHEET FLOW.
S58	INLET PROTECTION FABRIC DROP	¥	USE AT STORM WATER INLETS, ESPECIALLY AT CONSTRUCTION SITES.
S61	TURBIDITY CURTAIN		USED DURING CONSTRUCTION ADJACENT TO A WATER RESOURCE, TO CONTAIN SEDIMENT WITHIN THE WORK AREA WHEN OTHER BMP'S CANNOT BE USED.

PROPOSED SITE WORK

- UNLESS OTHERWISE SPECIFIED.
- 2. AGGREGATE BASE MATERIAL SHALL MEET MDOT 21AA SPECIFICATIONS AND SHALL BE COMPACTED TO 98% OF MAXIMUM DENSITY, ACCORDING TO THE SPECIFICATIONS.
- 3. SUBBASE AND EMBANKMENT MATERIAL SHALL MEET MDOT CLASS II SPECIFICATIONS AND SHALL BE COMPACTED TO 95% MAXIMUM DENSITY, ACCORDING TO THE SPECIFICATIONS.
- JOINTS AT 20' O.C. OR AS DIRECTED BY THE ENGINEER.
- AND CATCH BASINS. PLACE CONTRACTION JOINTS AT 40' MAXIMUM INTERVALS.
- THE CONTRACT UNIT PRICE FOR "SUBGRADE UNDERCUTTING".

- BUILDINGS A MINIMUM OF 2 INCHES IN 10 FEET.
- 3. MAINTAIN OPTIMUM MOISTURE CONTENT OF MATERIALS WHEN GRADING.

NOTE: THE CONSTRUCTION AND DIMENSIONS FOR ALL ATHLETIC FACILITIES SHALL CONFORM TO THE NATIONAL FEDERATION OF STATE HIGH SCHOOL ASSOCIATIONS (NFHS) "COURT AND FIELD DIAGRAM GUIDE", CURRENT EDITION. THE CONTRACTOR SHALL REFERENCE THIS GUIDE BEFORE STARTING CONSTRUCTION.

EROSION CONTROL NOTES

1. APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF EARTH DISTURBING ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL ALL AREAS ARE FULLY RESTORED. 2. ALL SOIL EROSION & SEDIMENT CONTROL (SESC) MEASURES PLACED BY THE CONTRACTOR SHALL BE IN FULL COMPLIANCE WITH PUBLIC

ACT 347 OF 1972 AS AMENDED AND THE ADMINISTRATIVE RULES. THE CONTRACTOR SHALL HAVE A DEQ CERTIFIED STORM WATER

3. A TRACKING PAD IS REQUIRED AT ANY CONTRACTOR INGRESS AND/OR EGRESS LOCATION WHERE SEDIMENT MAY BE TRACKED OFF-SITE. THE CONTRACTOR IS REQUIRED TO CLEAN ADJACENT STREETS OF ACCUMULATED SEDIMENT AS A RESULT OF THE CONTRACTORS

4. INSTALL SEDIMENT CONTROL, INLET PROTECTION, FABRIC DROP (S58) AT EXISTING AND NEWLY CONSTRUCTED CATCH BASINS. AFTER RAIN EVENTS AND AT THE COMPLETION OF THE PROJECT, REMOVE AND CLEAN ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS. 5. AT THE COMPLETION OF THE PROJECT, ONCE ALL DISTURBED AREAS HAVE BEEN FULLY RESTORED, REMOVE ALL TEMPORARY EROSION

6. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF THE SITE HAS BEEN ESTABLISHED.

MICHIGAN UNIFIED KEYING SYSTEM

1. CONCRETE FOR SIDEWALKS, DUMPSTER PADS, CURB & GUTTER, ETC. SHALL MEET EITHER MDOT GRADE P1 OR S2 SPECIFICATION,

4. PLACE 🔏 "EXPANSION JOINT BETWEEN SIDEWALKS AND ANY STRUCTURE. CUT CONTROL JOINTS AT 5' O.C. AND PLACE EXPANSION

5. PLACE 1" FIBER JOINT AT 400' MAXIMUM INTERVAL IN CURB AND GUTTER. PLACE 1/2" EXPANSION JOINT BETWEEN CURB AND GUTTER

6. AREAS OF UNSTABLE SUBBASE NOT MEETING COMPACTION REQUIREMENTS, SHALL BE UNDERCUT AND BACKFILLED, IN ACCORDANCE WITH MDOT SUBGRADE UNDERCUTTING, TYPE II. THIS WORK SHALL BE MEASURED BY THE CUBIC YARD (CYD) AND SHALL BE PAID FOR AT

7. CURB AND GUTTER RADII ARE DIMENSIONED FROM THE FRONT EDGE OF THE GUTTER PAN.

GRADING

1. FINAL GRADING SHALL PROVIDE POSITIVE DRAINAGE ACROSS THE ENTIRE SITE AWAY FROM BUILDINGS.

2. THE CONTRACTOR SHALL GRADE THE SITE ACCORDING TO THE GRADING PLAN. IN THE ABSENCE OF A PLAN, THE CONTRACTOR IS TO GRADE THE SITE SO THAT THE NEW GRADES BLEND GENTLY INTO THE EXISTING GRADES. CONTRACTOR TO SLOPE GRADE AWAY FROM

NOTES APPLYING TO STANDARD PLANS & SPECIAL DETAILS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON THE PLANS., THEY ARE TO BE CONSTRUCTED ACCORDING TO THE MICHIGAN DEPARTMENT C TRANSPORTATION (MDOT) STANDARD PLAN LISTED BELOW, UNLESS NOTED OTHERWISE. COPIES OF THESE MDOT STANDARD PLANS CAN BE OBTAINED FROM THE MOOT WEBSITE (WWW.MICHIGAN.GOV/MDOT).

ROAD STANDARD PLA	DRIVEWAY OPENINGS & APPROACHES AND CURB AND GUTTER
R-30-G	CONCRETE CURB AND CONCRETE CURB & GUTTER
R-37-B R-74-D	ISOLATION JOINT DETAILS BUMPER & PARKING RAILS AND MISC. WOOD POSTS
R-80-E	GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BU
R-82-D	BEDDING AND FILLING AROUND PIPE CULVERTS
R-83-C	UTILITY TRENCHES
R-95-F	CULVERT SLOPED END SECTION
R-96-E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES
R-100-H	SEEDING AND TREE PLANTING
R-107-H	SUPERELEVATION AND PAVEMENT CROWNS
ROAD SPECIAL DETAIL	<u>S:</u>
R-1-G	DRAINAGE STRUCTURES
R-28-J	SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
PAVEMENT MARKING	STANDARD PLANS:
PAVE-900-F	PAVEMENT ARROW AND MESSAGE DETAILS
PAVE-905-D	LONGITUDINAL LINE TYPES AND PLACEMENT
PAVE-930-C	PAVEMENT MARKINGS FOR NON-SIGNALIZED INTERSECTIONS
PAVE-935-D	LEFT TURN LANE MARKINGS
PAVE-940-C	RIGHT TURN LANE AND ISLAND PAVEMENT MARKINGS
PAVE-945-C	INTERSECTION, STOP BAR AND CROSSWALK MARKINGS
PAVE-955-B	ON-STREET PARKING ZONE MARKINGS
PAVE-956-C	PARKING AREA PAVEMENT MARKINGS
PAVE-957-A	BACK-IN ANGLE PARKING
PAVE-960-B	SCHOOL MARKINGS
PAVE-965-D	RAILROAD GRADE CROSSING PAVEMENT MARKINGS
TRAFFIC SIGNING STAL	
SIGN-115-C	SIGN LOCATION CODES PLACEMENT
SIGN-130-B	RAILROAD CROSSING SIGN
SIGN-150-D	SIGN SUPPORT SELECTION CHARTS
SIGN-200-D	STEEL POSTS
SIGN-210-B	WOOD POSTS
SIGN-230-A	FOUNDATION (BREAK-AWAY)
SIGN-740-B	MISCELLANEOÙS SIGN CONNÉCTION DETAILS
TRAFFIC SIGNING SPE	
SIGN-100-G	
SIGN-120-E	ROADSIDE SIGN LOCATIONS AND SUPPORT SPACING
SIGN-205-A	PERFORATED STEEL SQUARE TUBE SIGN BREAKAWAY SYS PERFORATED STEEL SQUARE TUBE SIGN BREAKAWAY SYS
SIGN-207-D	

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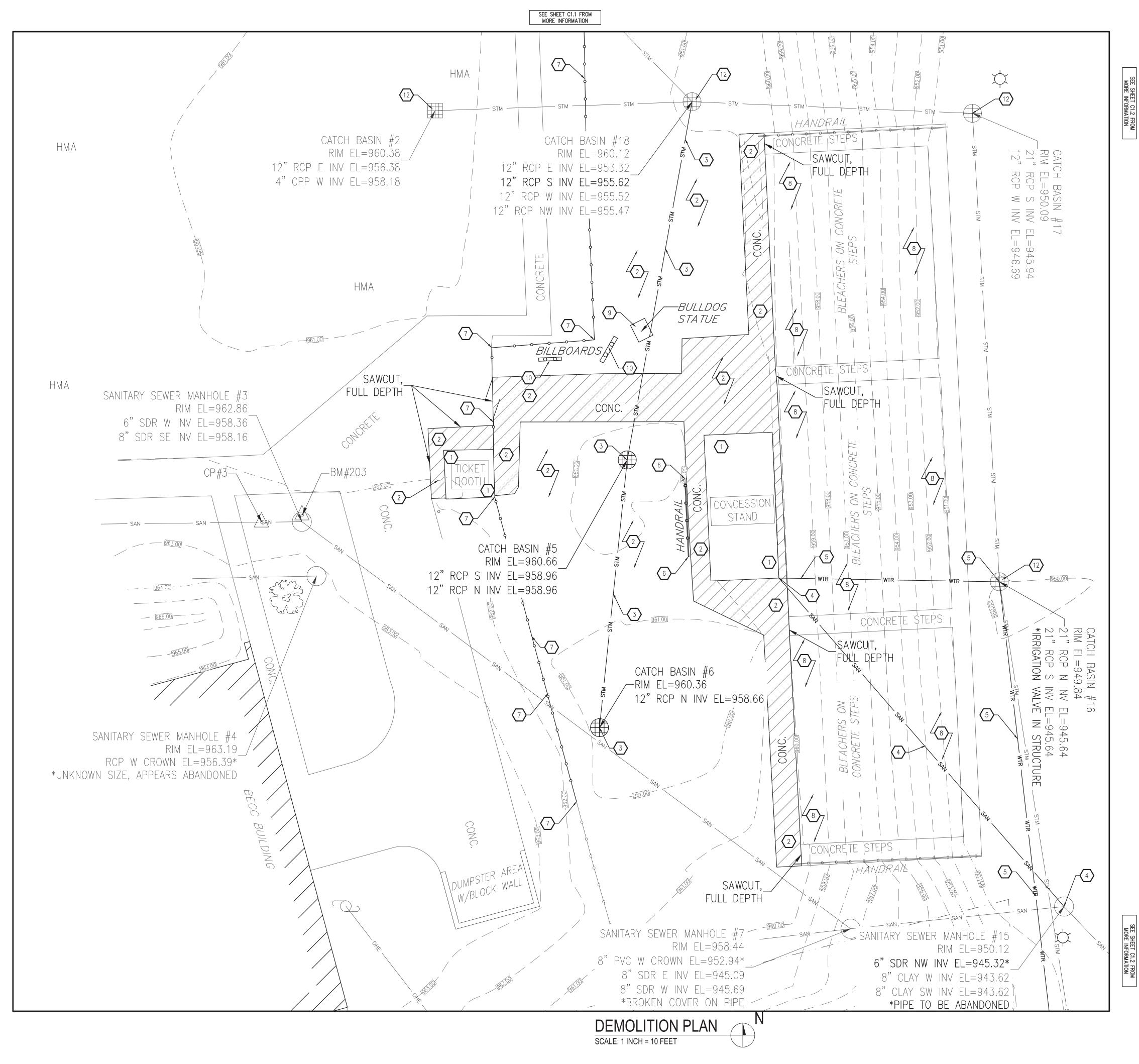
1. PROJECT LOCATION: SECTION 31, TOWNSHIP 2N, RANGE 6E CITY OF BRIGHTON, LIVINGSTON COUNTY, MICHIGAN 2. <u>STREET ADDRESS:</u> 125 S. CHURCH STREET BRIGHTON, MI 48116

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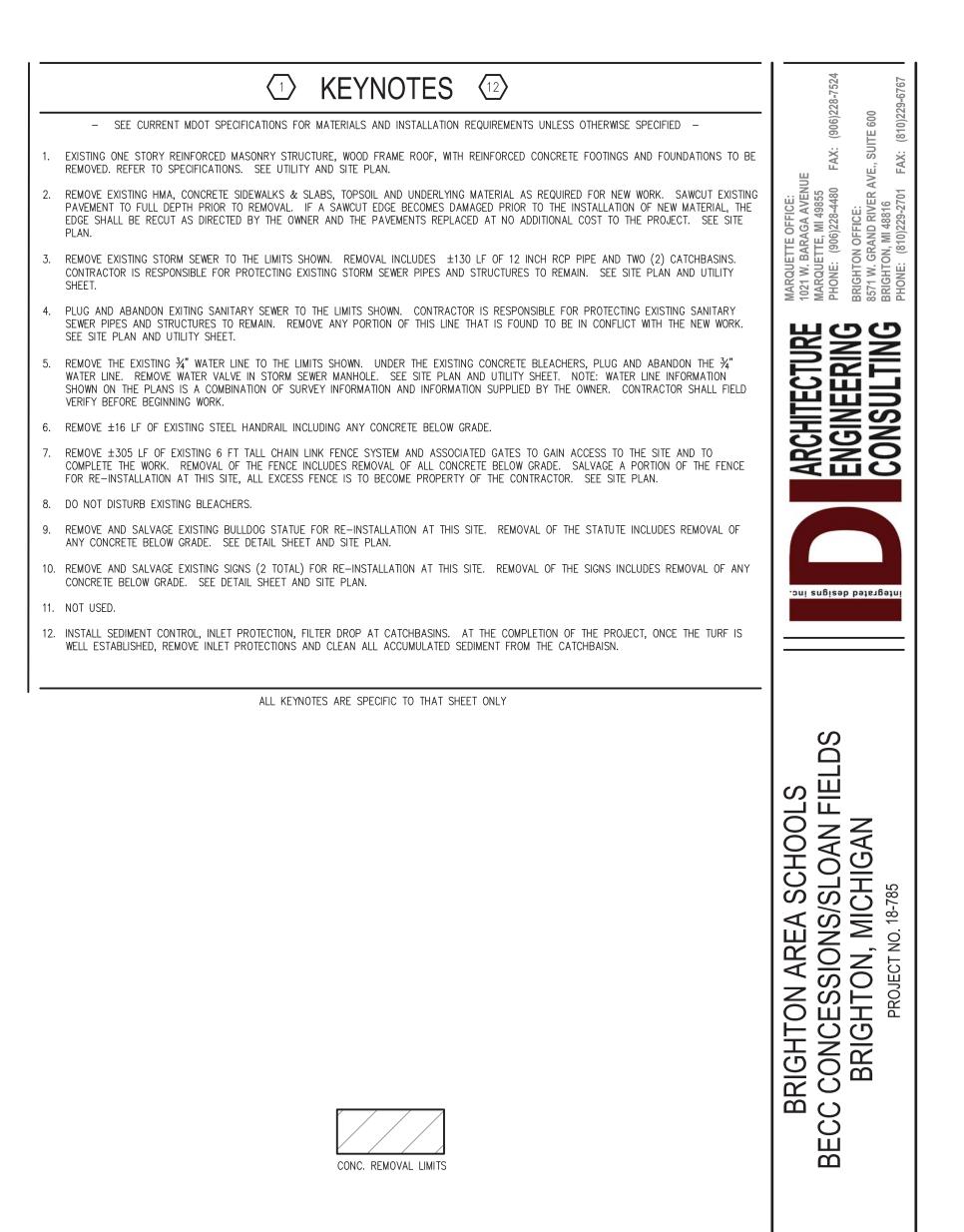
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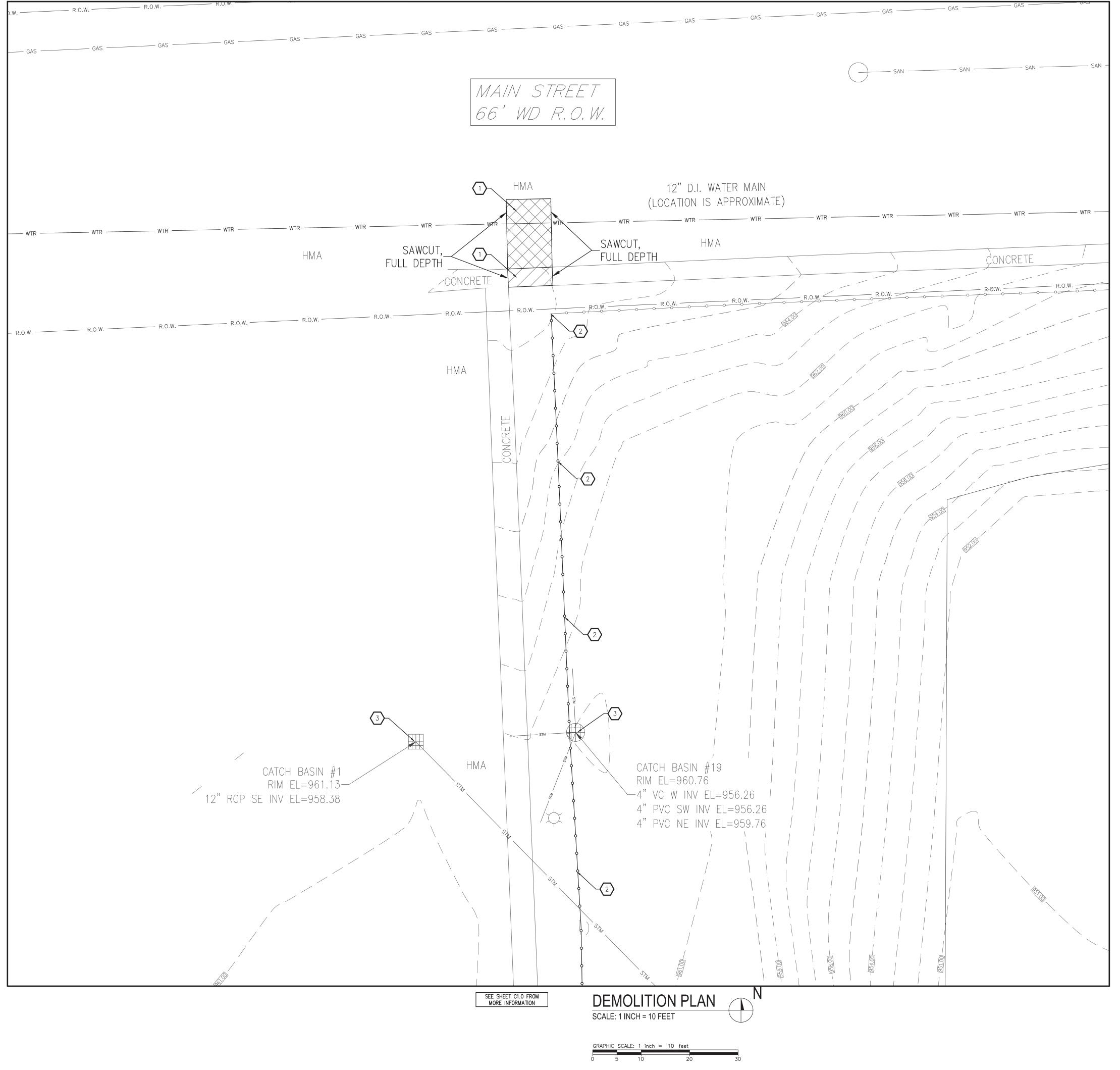
DATE 03.31.20 05.11.20 05.26.20

NO. REVISIONS A DD's B FINAL REVIEW 0 FOR CONSTRUCTION 0

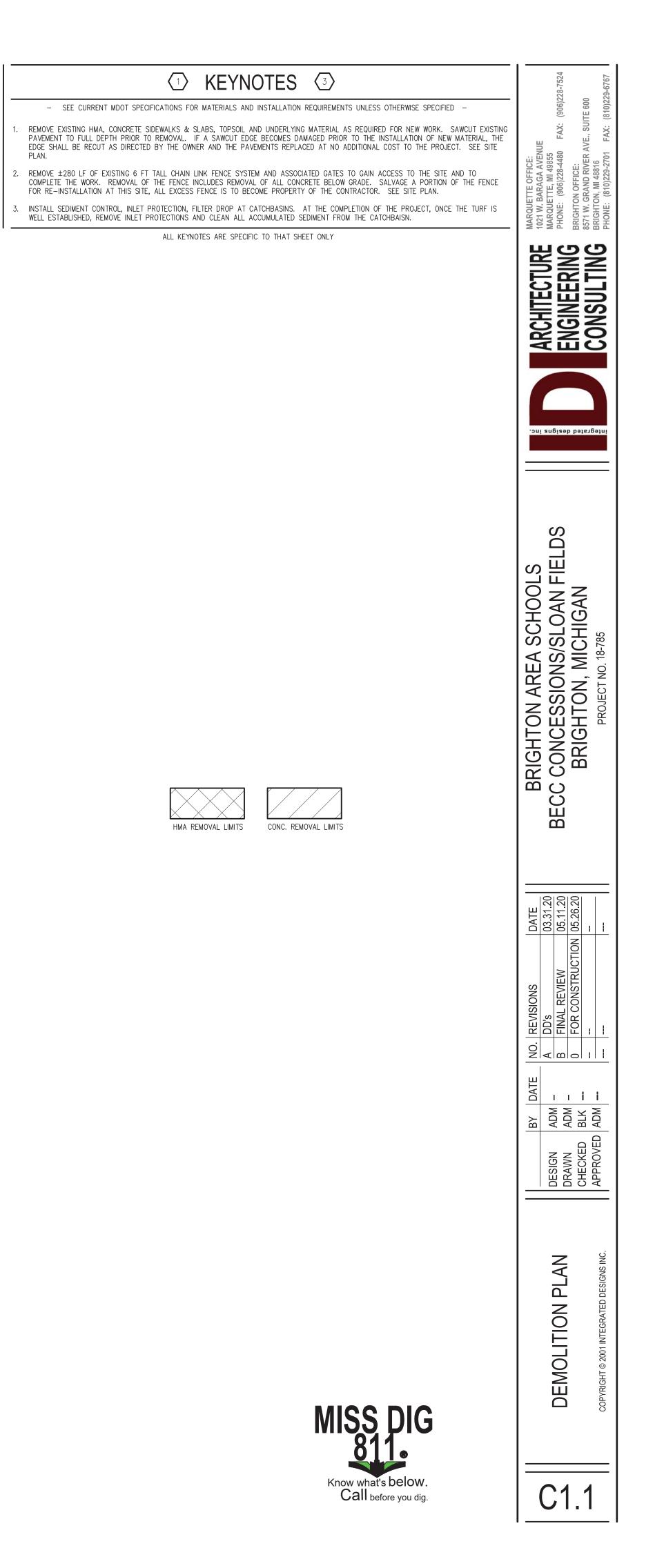
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PLAN



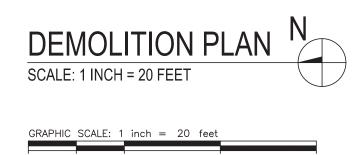
SEE SHEET C1.2 FROM MORE INFORMATION

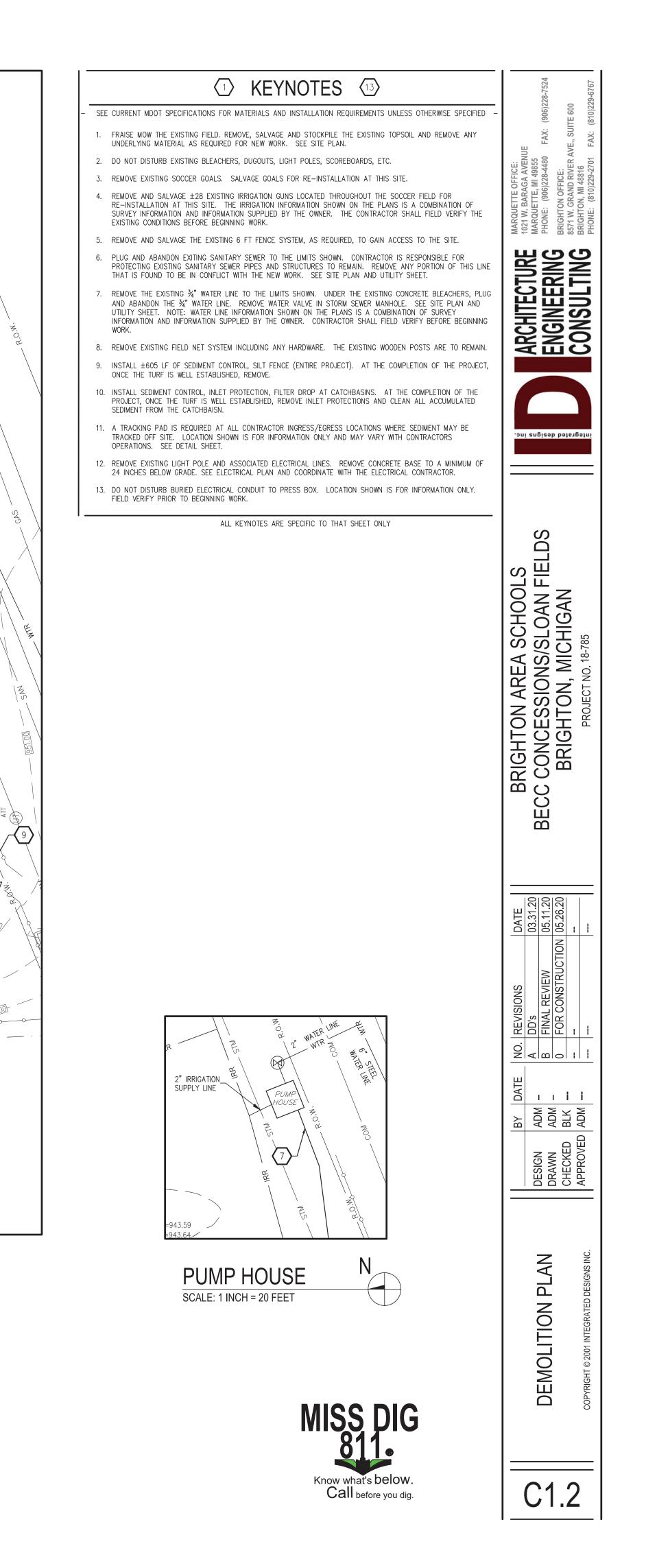




SEE SHEET C1.0 FROM MORE INFORMATION

SEE SHEET C1.0 FROM MORE INFORMATION

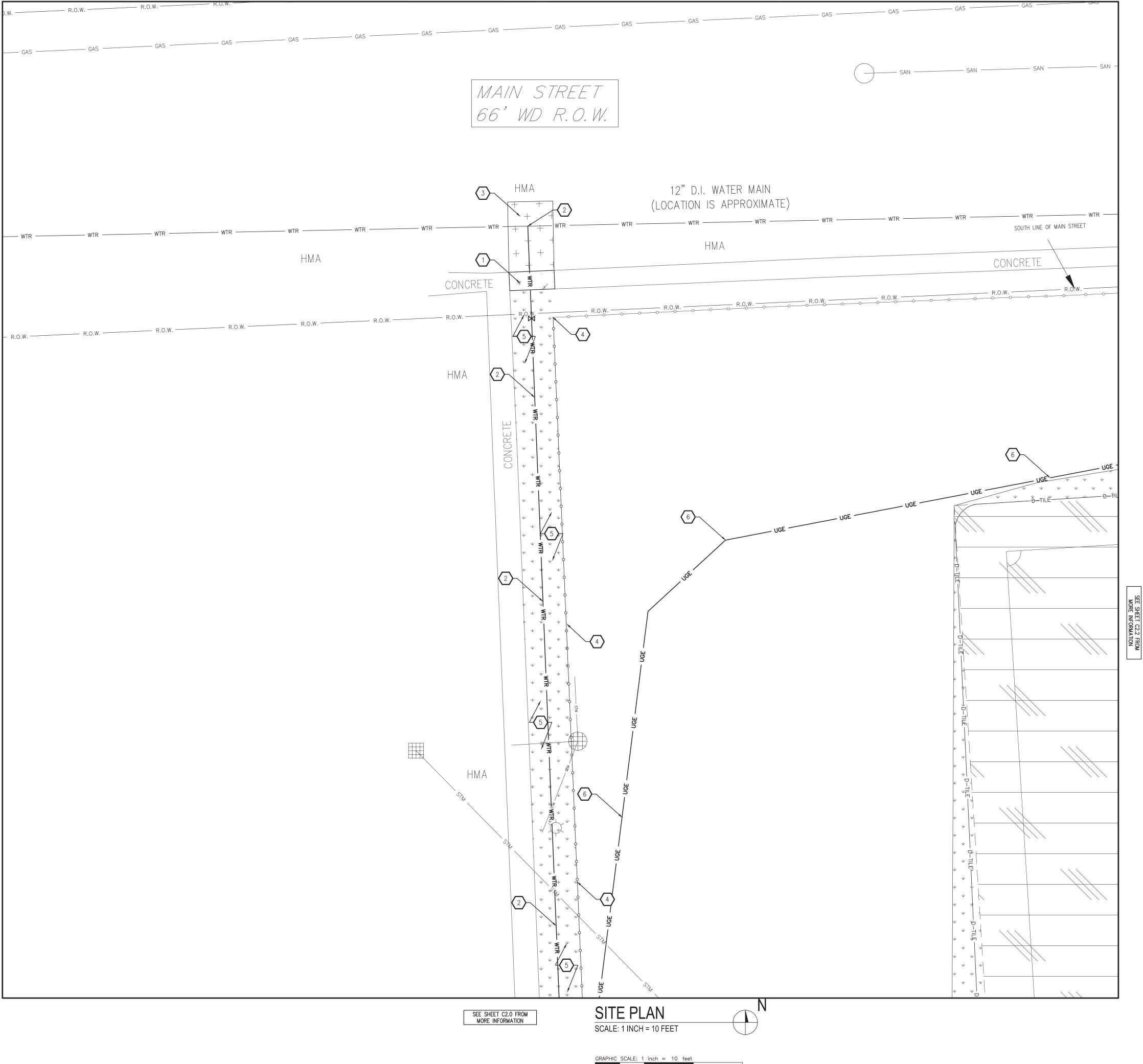






SEE SHEET C2.2 FROM MORE INFORMATION

1 KEYNOTES (17)	(906)228-7524 TE 600 (810)229-6767
 SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED PROPOSED 1-STORY CONCESSION STAND. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR MORE INFORMATION. 	
 CONSTRUCT 4 INCH THICK REINFORCED CONCRETE SIDEWALK ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W1.4XW1.4. SEE DETAIL SHEET. 	E: FENUE (55 480 FAX: 480 FAX: 01 FAX: 701 FAX:
 CONSTRUCT 4 INCH THICK REINFORCED CONCRETE MONOLITHIC FACED SIDEWALK ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W1.4XW1.4. SEE DETAIL SHEET. 	ETTE OFFICE: BARAGA AVENUE ETTE, MI 49855 (906)228-4480 ON OFFICE: ON MI 48816 ON, MI 48816 (810)229-2701 I
4. PROPOSED STORM SEWER AND ASSOCIATED STRUCTURES. SEE UTILITY AND DETAIL SHEET. 5. PROPOSED SANITARY SEWER. SEE UTILITY AND DETAIL SHEET.	MARQUETTE OFFICE: 1021 W. BARAGA AVEN MARQUETTE, MI 49855 PHONE: (906)228-4480 BRIGHTON OFFICE: 8571 W. GRAND RIVER BSIGHTON, MI 48816 PHONE: (810)229-2701
5. PROPOSED WATER SERVICE. SEE UTILITY AND DETAIL SHEET.	MA MA BRI BRI PH
 CONSTRUCT SUPPORTED SLAB FOR PROPOSED DOOR. SEE STRUCTURAL AND ARCHITECTURAL PLANS. INSTALL ±38 LF OF 6 FT TALL CHAIN LINK FENCE SYSTEM. INSTALLATION SHALL INCLUDE FENCE AND GATES SALVAGED FROM THIS SITE. 	
ANY NEW FENCE COMPONENTS SHALL MATCH THE EXISTING FENCE SYSTEM. SEE DETAIL SHEET.	
IO. NOT USED.	NGIN SCH
LOCATION. 2. PROPOSED LOCATION OF THE RELOCATED BILLBOARDS. CONTRACTOR CONTRACTOR SHALL COORDINATE WITH THE OWNERS REPRESENTATIVE FOR	
THE FINAL LOCATION. 3. INSTALL ±218 LF OF 8 FT TALL ARCHITECTURAL FENCE (AMERISTAR MONTAGE PLUS, 3 RAIL, COLOR BLACK, OR APPROVED EQUAL) WITH ONE FT WIDE DOUBLE SWING GATE AS SHOWN. FENCE SHALL BE INSTALLED AFTER THE PAVING IS COMPLETE AND FENCE INSTALLATION SHALL INCLUDE ANY CORING AND PATCHING THE PAVEMENT.	
4. PROPOSED TURF RESTORATION. SEE DETAIL SHEET. 15. APPROXIMATE LOCATION OF PROPOSED UNDERGROUND ELECTRICAL POWER FEED. SEE ELECTRICAL PLANS AND COORDINATE WITH THE	.oni engiseb besergesini
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17 BID ALTERNATE #4 (17)	-
17 CONSTRUCT 4 INCH THICK REINFORCED CONCRETE SIDEWALK ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF,	-
6X6, W1.4XW1.4. SEE DETAIL SHEET. IF ALTERNATE IS CHOSEN, SWAP MDOT TYPE G MANHOLE COVER FOR COVER, TYPE M-1 WITHIN PAVEL AREA AND ADD FOUR 10' LENGTHS OF 4" PERFORATED DRAIN TILE. SEE DETAIL SHEET.	
ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY	BRIGHTON AREA SCHOOLS BECC CONCESSIONS/SLOAN FIE BRIGHTON, MICHIGAN PROJECT NO. 18-785
*** CONTRACTOR RESPONSIBLE FOR ** EMPLOYING AN MODT CERTIFIED TECHNICIAN FOR ALL MATERIAL AND COMPACTION TESTS. COMPACTION TESTS. PROPOSED CONCRETE BID ALTERNATE #1 Image: Comparison of the state of the stat	BYDATENO.REVISIONSDATEDESIGNADM-ADD's03.31.20DRAWNADMBFINAL REVIEW05.11.20DRAWNADM0FOR CONSTRUCTION05.26.20APPROVEDADMAPPROVEDADM
MISS DIG	SITE PLAN COPYRIGHT © 2001 INTEGRATED DESIGNS INC.
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\bigcirc KEYNOTES \bigcirc - SEE CURRENT MOOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED -CONSTRUCT 4 INCH THICK REINFORCED CONCRETE SIDEWALK ON SUB-BASE, 6 INCH CIP MDOT CLASS II. REINFORCEMENT SHALL BE WWF, 6X6, W1.4XW1.4. SEE DETAIL SHEET. 2. PROPOSED WATER SERVICE. SEE UTILITY AND DETAIL SHEET. 3. PATCH EXISTING STREET MATCHING ADJACENT SURFACING DEPTH. COORDINATE WITH THE CITY OF BRIGHTON. 4. INSTALL ±218 LF OF 8 FT TALL ARCHITECTURAL FENCE (AMERISTAR MONTAGE PLUS, 3 RAIL, COLOR BLACK, OR APPROVED EQUAL) WITH ONE 8 FT WIDE DOUBLE SWING GATE AS SHOWN. FENCE SHALL BE INSTALLED AFTER THE PAVING IS COMPLETE AND FENCE INSTALLATION SHALL INCLUDE ANY CORING AND PATCHING THE PAVEMENT, IF REQUIRED. ETT BAI BAI ETT ETT ETT CON GR 5. PROPOSED TURF RESTORATION. SEE DETAIL SHEET. 6. APPROXIMATE LOCATION OF PROPOSED UNDERGROUND ELECTRICAL POWER FEED. SEE ELECTRICAL PLANS AND COORDINATE WITH THE ELECTRICAL CONTRACTOR. ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

** CONTRACTOR RESPONSIBLE FOR ** EMPLOYING AN MDOT CERTIFIED TECHNICIAN FOR ALL MATERIAL AND COMPACTION TESTS.

· . 🛆 PROPOSED CONCRETE

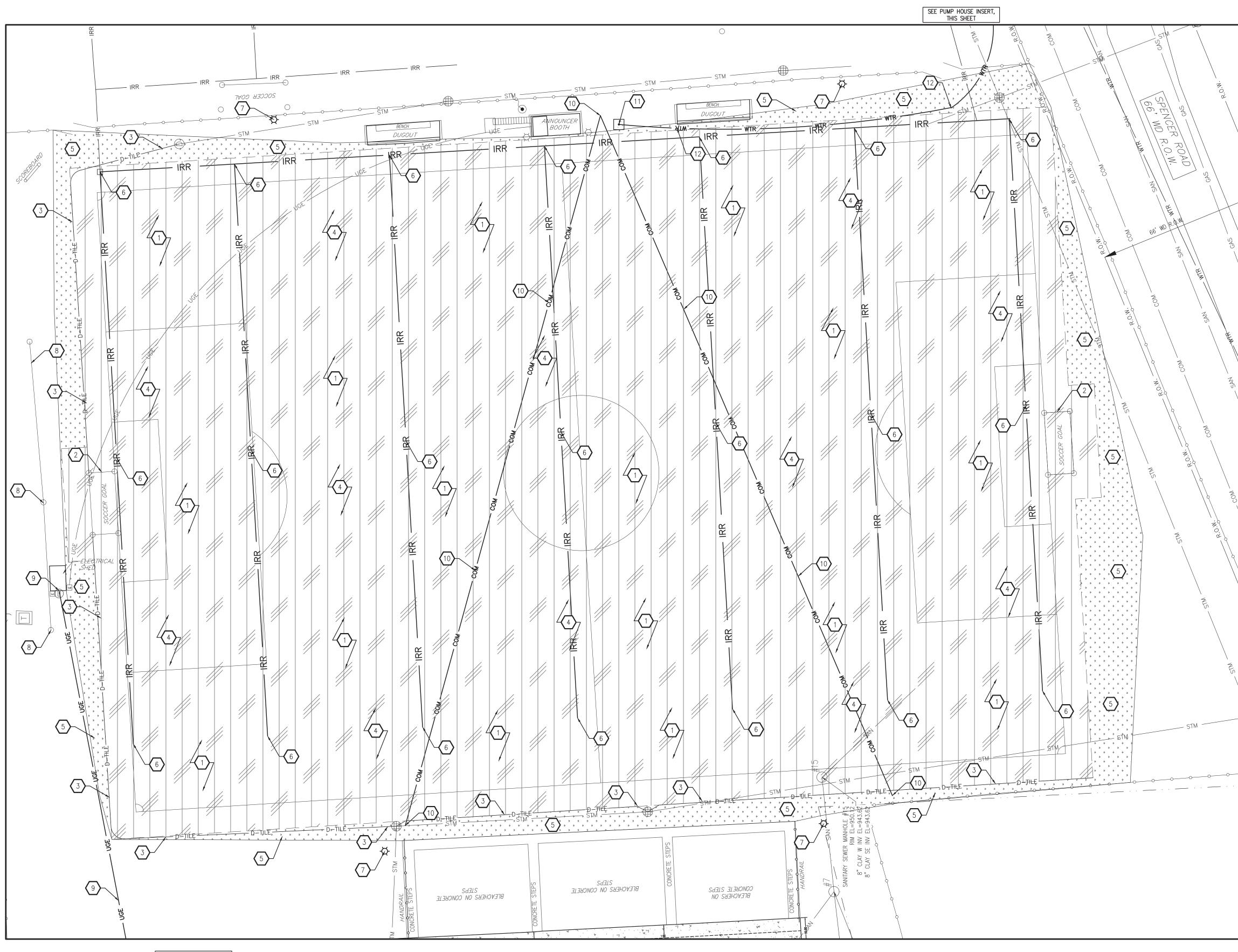
+PAVEMENT RESTORATION

PROPOSED TURF RESTORATION



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BRIGHTON AREA SCHOOLS	BECC CONCESSIONS/SLOAN FIELDS	BRIGHTON, MICHIGAN PROJECT NO. 18-785
DATE	03.31.20 05.11.20	0N 05.26.20
NO. REVISIONS	A DD's B FINAL REVIEW	0 FOR CONSTRUCTION 05.26.20
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	SITE PLAN	COPYRIGHT © 2001 INTEGRATED DESIGNS INC.

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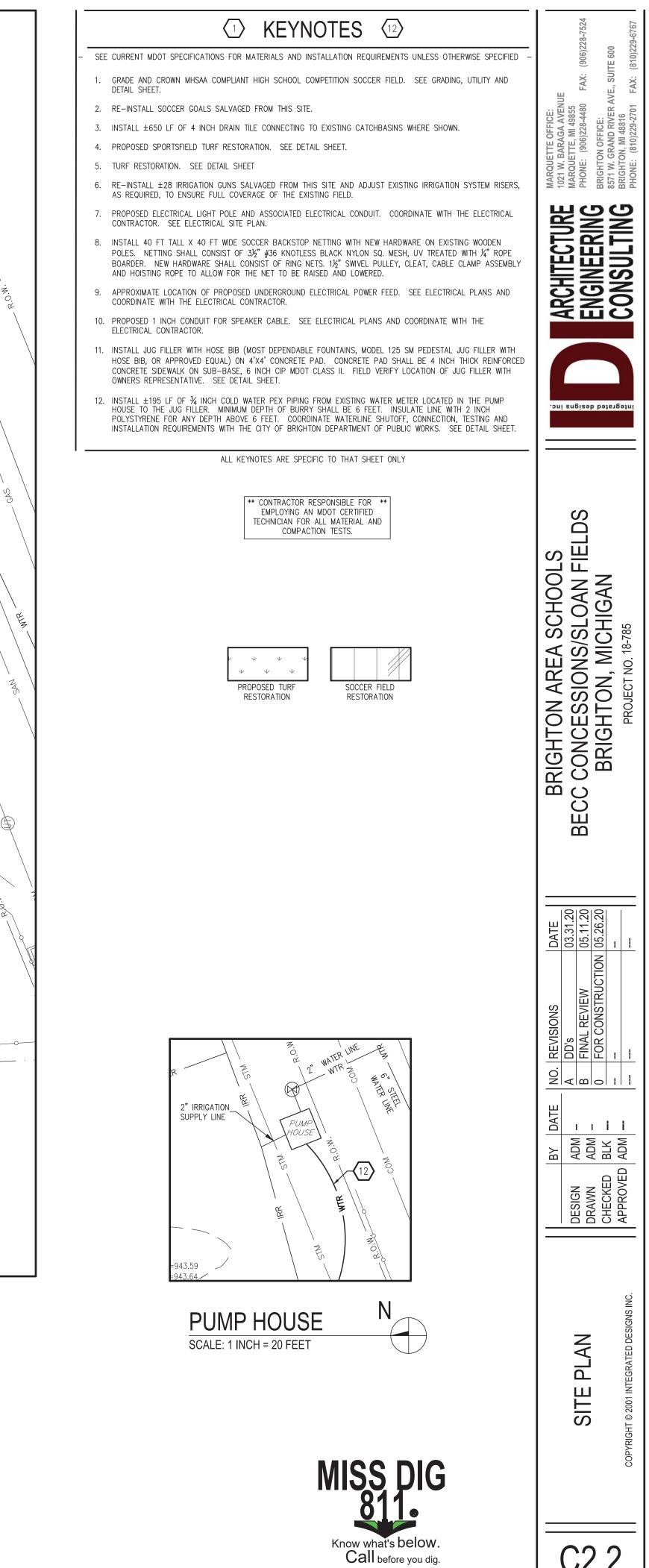


SEE SHEET C2.0 FROM MORE INFORMATION

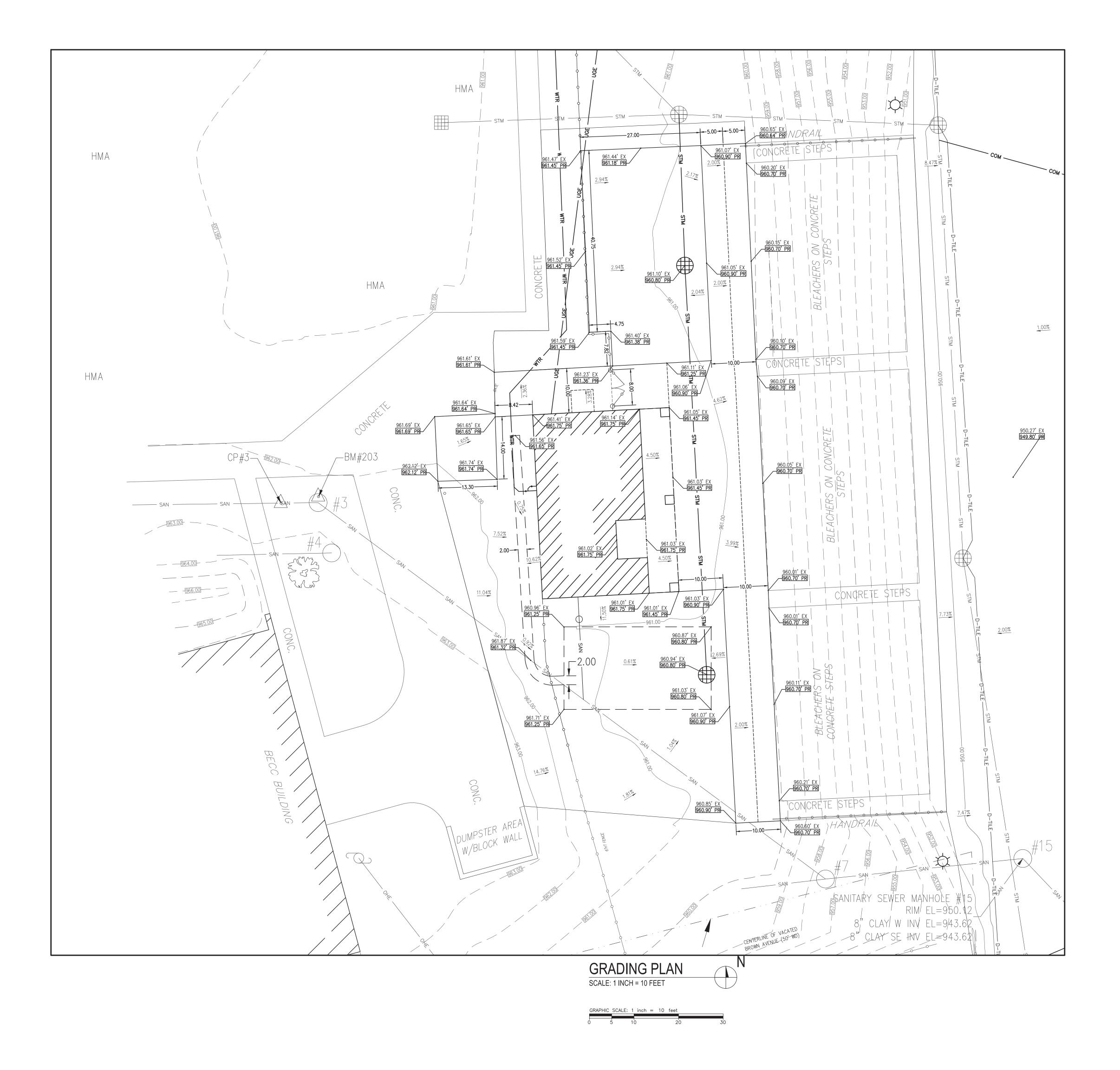
SEE SHEET C2.0 FROM MORE INFORMATION

N SITE PLAN SCALE: 1 INCH = 20 FEET GRAPHIC SCALE: 1 inch = 20 feet

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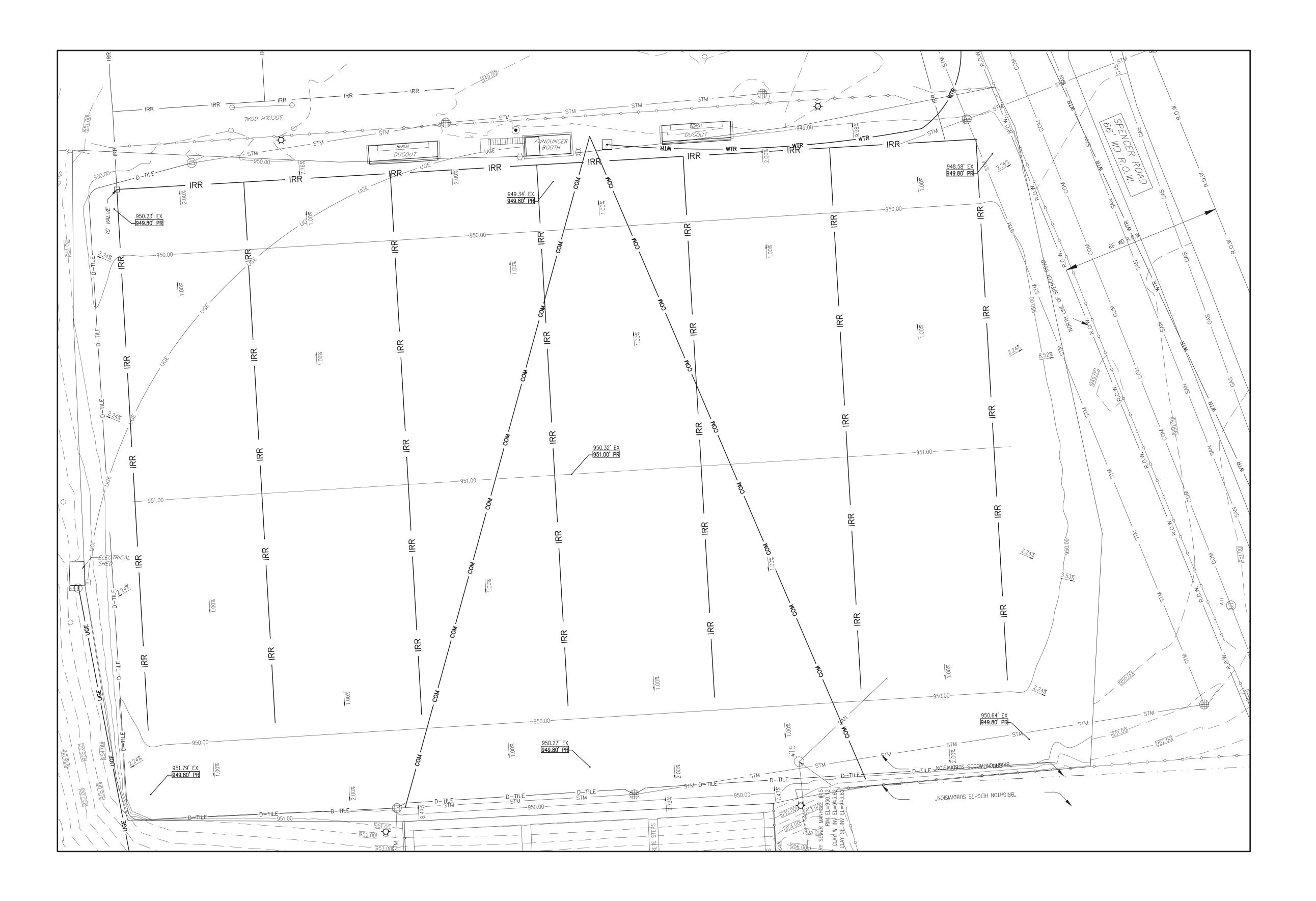
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** CONTRACTOR RESPONSIBLE FOR ** EMPLOYING AN MDOT CERTIFIED TECHNICIAN FOR ALL MATERIAL AND COMPACTION TESTS.







 GRAPHIC SCALE:
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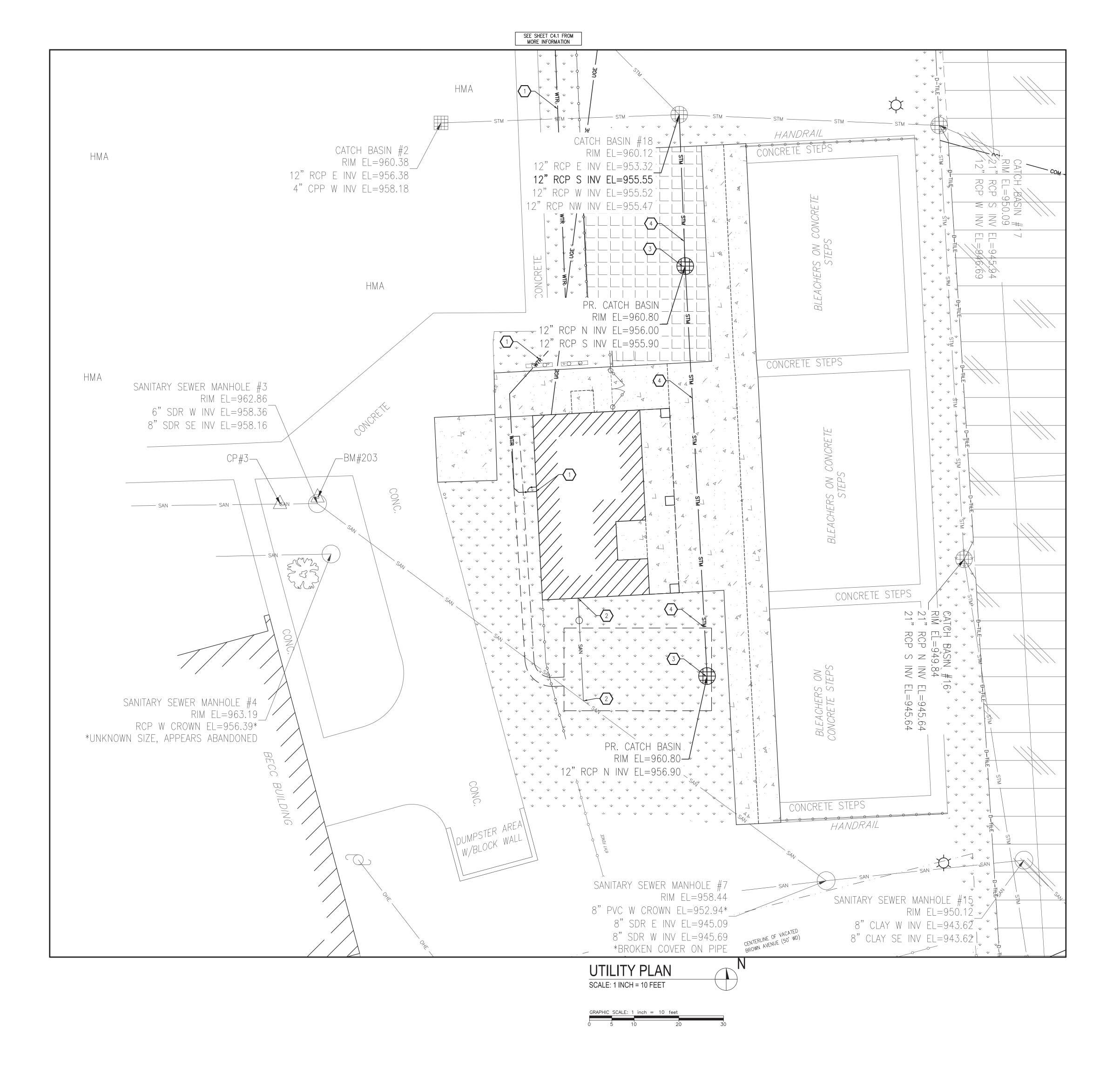
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** CONTRACTOR RESPONSIBLE FOR ** EMPLOYING AN MDOT CERTIFIED TECHNICIAN FOR ALL MATERIAL AND COMPACTION TESTS.





1 KEYNOTES 5

- SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED

- I. INSTALL ±260 LF OF 2 INCH TYPE 'K' COPPER WATER LINE WITH 2 INCH RESILENT SEAT GATE VALVE AND BOX AT THE ROW LINE. WATER LINE INSTALLATION SHALL INCLUDE A TRACER WIRE SYSTEM (RHINO TRIVIEW FLEX, OR APPROVED EQUAL). CONNECT TO EXISTING 12 INCH DUCTILE IRON WATER MAIN WITH A CORPORATION TAP. MINIMUM DEPTH OF BURY SHALL BE 6 FEET. INSULATE LINE WITH 2 INCH RIGID POLYSTYRENE FOR ANY DEPTH ABOVE 6 FEET. SITE CONTRACTOR SHALL TERMINATE NEW WATER LINE INSIDE BUILDING FOOTPRINT AND PROVIDE TWO (2) CURB STOPS AND PIPING AS SHOWN FOR WINTERIZING THE BUILDING. COORDINATE WITH PLUMBING CONTRACTOR AND SEE PLUMBING PLANS. CONTRACTOR SHALL VERIFY SIZE, LOCATION, MATERIAL AND DEPTH OF EXISTING WATERMAIN PRIOR TO BEGINNING WORK. COORDINATE WATERMAIN SHUTOFF, CONNECTION, TESTING AND INSTALLATION REQUIREMENTS WITH THE CITY OF BRIGHTON DEPARTMENT OF PUBLIC WORKS. SEE DETAIL SHEET.
- 2. INSTALL ±23 LF OF 6" SDR-26 SANITARY SEWER LATERAL WITH ONE (1) CLEANOUT AS SHOWN. CONNECT PROPOSED SANITARY SEWER LATERAL TO EXISTING SANITARY PIPE WITH A WYE CONNECTION. SITE CONTRACTOR SHALL TERMINATE NEW SANITARY SEWER LATERAL 5 FEET OUTSIDE OF THE PROPOSED BUILDING WITH A CLEANOUT AS SHOWN. SEE DETAIL SHEET. COORDINATE WITH THE PLUMBING CONTRACTOR AND THE CITY OF BRIGHTON DEPARTMENT OF PUBLIC WORKS. FIELD VERIFY EXISTING SANITARY SEWER PIPE ELEVATION BEFORE BEGINNING WORK.
- 3. INSTALL TWO (2) 4 FT DIA PRECAST CONCRETE STORM SEWER CATCH BASIN (EJIW #1040 FRAME WITH MDOT TYPE G GRATE, OR APPROVED EQUAL) WITH 2 FT SUMP. SEE GRADING AND DETAIL SHEETS.
- 4. INSTALL ±125 LF OF 12 INCH RCP PVC STORM SEWER PIPE. SEE DETAIL SHEET.
- 5. PROPOSED UNDERGROUND ELECTRIC AND COMMUNICATION LINES. SEE ELECTRICAL PLANS FOR MORE INFORMATION AND COORDINATE WITH ELECTRICAL CONTRACTOR AND UTILITY COMPANIES.

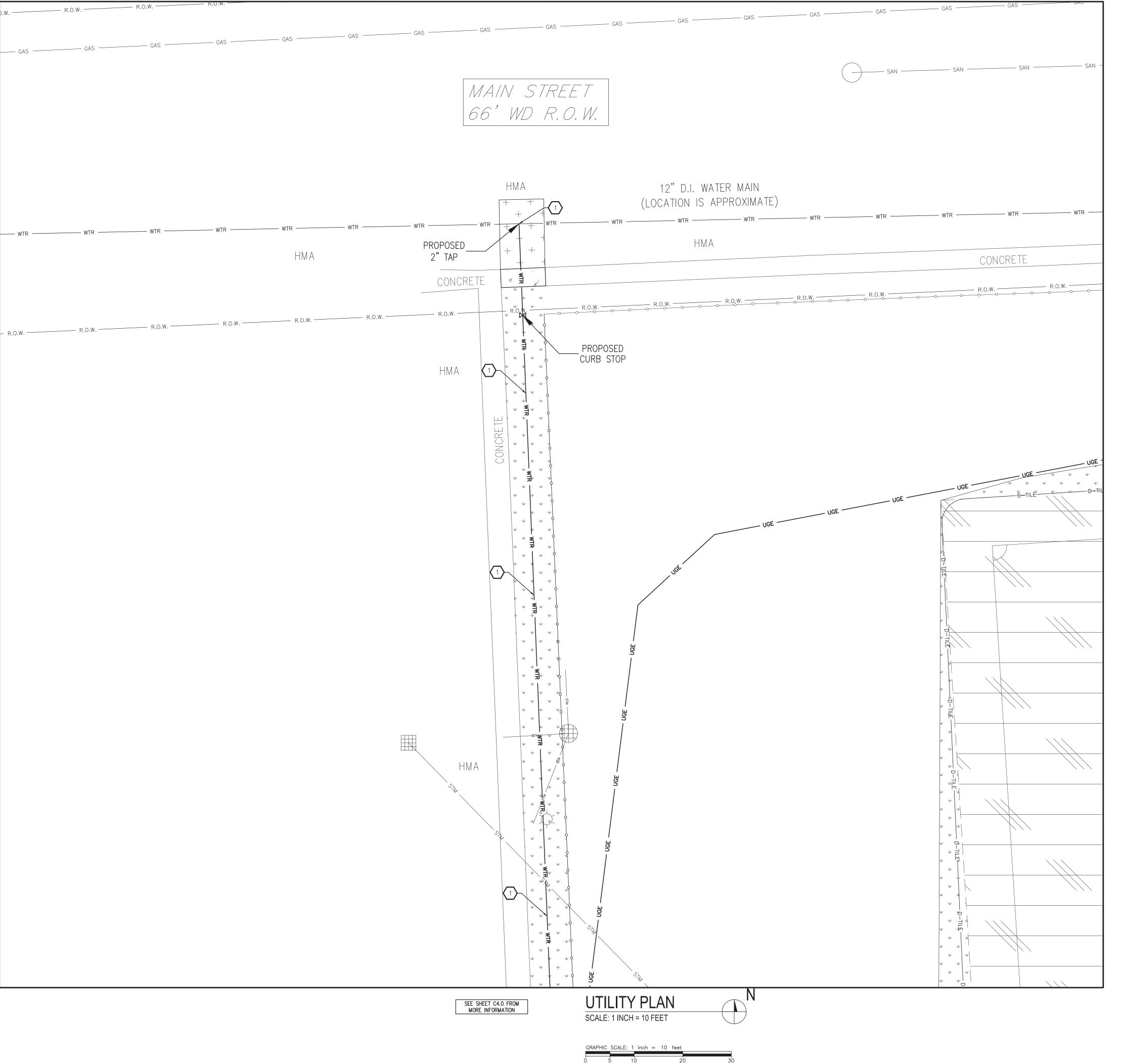
ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY

** CONTRACTOR RESPONSIBLE FOR ** EMPLOYING AN MDOT CERTIFIED TECHNICIAN FOR ALL MATERIAL AND COMPACTION TESTS.



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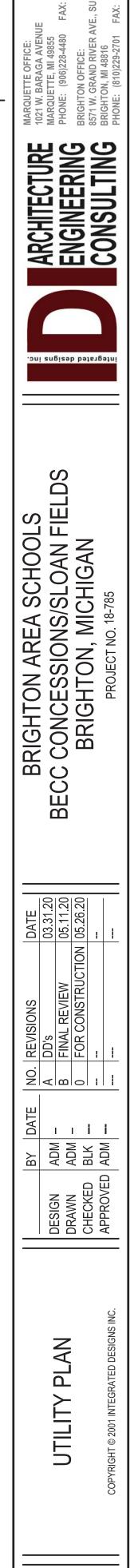
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\bigcirc KEYNOTES \bigcirc

- SEE CURRENT MDOT SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS UNLESS OTHERWISE SPECIFIED -

INSTALL ±260 LF OF 2 INCH TYPE 'K' COPPER WATER LINE WITH 2 INCH RESILENT SEAT GATE VALVE AND BOX AT THE ROW LINE. WATER LINE INSTALLATION SHALL INCLUDE A TRACER WIRE SYSTEM (RHINO TRIVIEW FLEX, OR APPROVED EQUAL). CONNECT TO EXISTING 12 INCH DUCTILE IRON WATER MAIN WITH A CORPORATION TAP. MINIMUM DEPTH OF BURY SHALL BE 6 FEET. INSULATE LINE WITH 2 INCH RIGID DUCTILE INON WATER MAIN WITH A CORPORATION TAP. MINIMUM DEPTH OF BORY SHALL BE 6 FEET. INSULATE LINE WITH 2 INCH RIGID POLYSTYRENE FOR ANY DEPTH ABOVE 6 FEET. SITE CONTRACTOR SHALL TERMINATE NEW WATER LINE INSIDE BUILDING FOOTPRINT AND PROVIDE TWO (2) CURB STOPS AND PIPING AS SHOWN FOR WINTERIZING THE BUILDING. COORDINATE WITH PLUMBING CONTRACTOR AND SEE PLUMBING PLANS. CONTRACTOR SHALL VERIFY SIZE, LOCATION, MATERIAL AND DEPTH OF EXISTING WATERMAIN PRIOR TO BEGINNING WORK. COORDINATE WATERMAIN SHUTOFF, CONNECTION, TESTING AND INSTALLATION REQUIREMENTS WITH THE CITY OF BRIGHTON DEPARTMENT OF PUBLIC WORKS. SEE DETAIL SHEET.

ALL KEYNOTES ARE SPECIFIC TO THAT SHEET ONLY



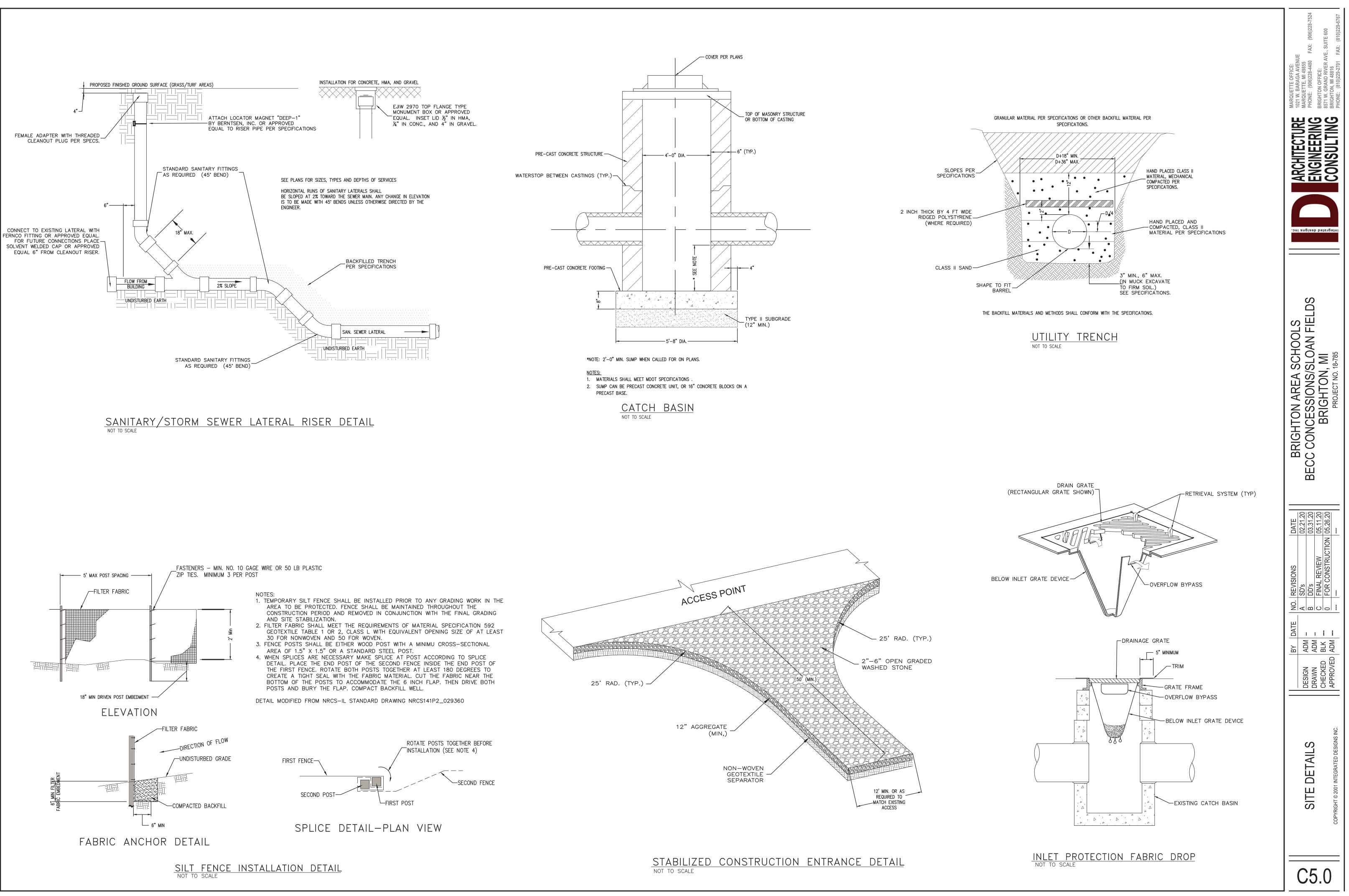
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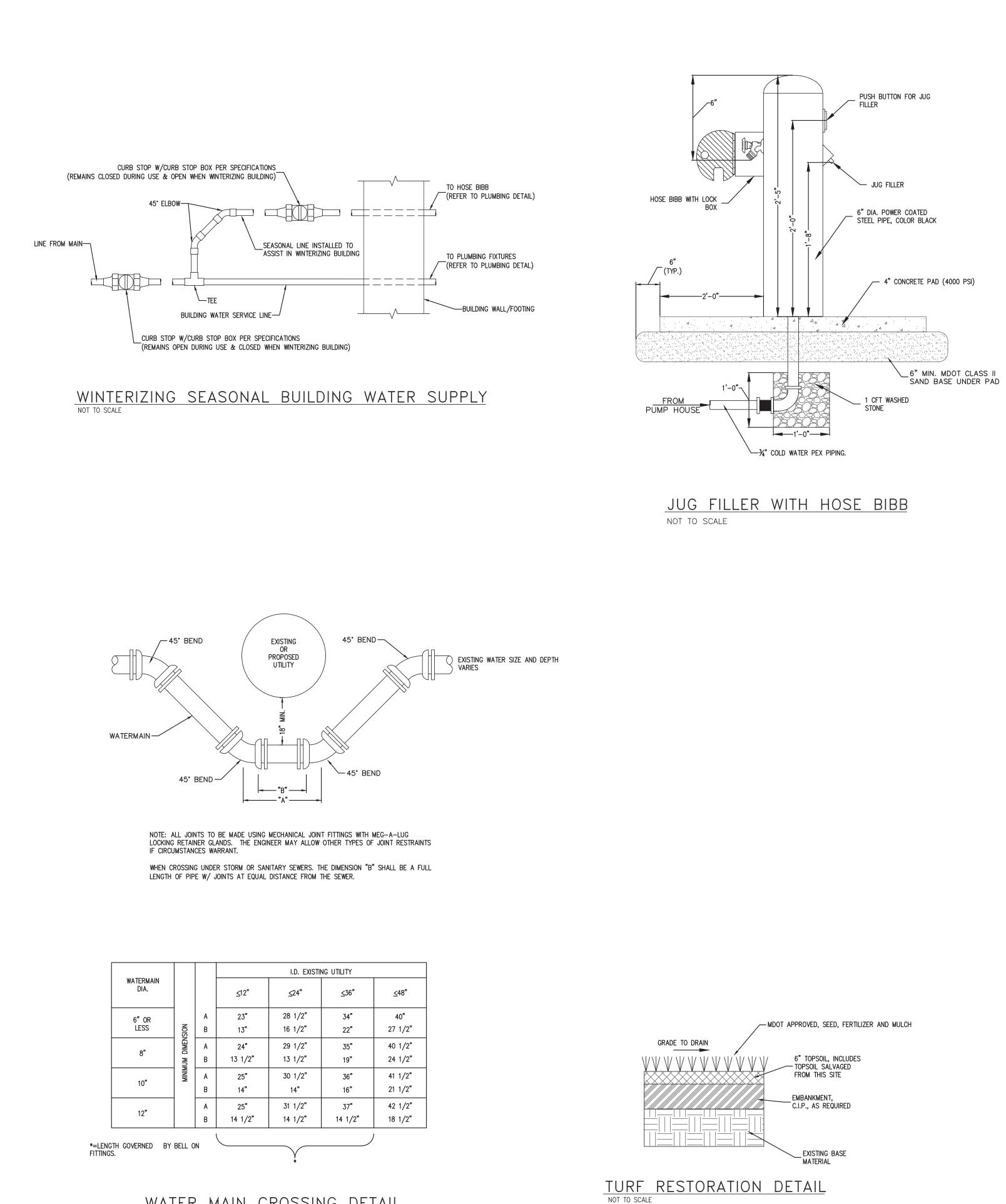
** CONTRACTOR RESPONSIBLE FOR ** EMPLOYING AN MDOT CERTIFIED TECHNICIAN FOR ALL MATERIAL AND COMPACTION TESTS.

· ./ PROPOSED CONCRETE

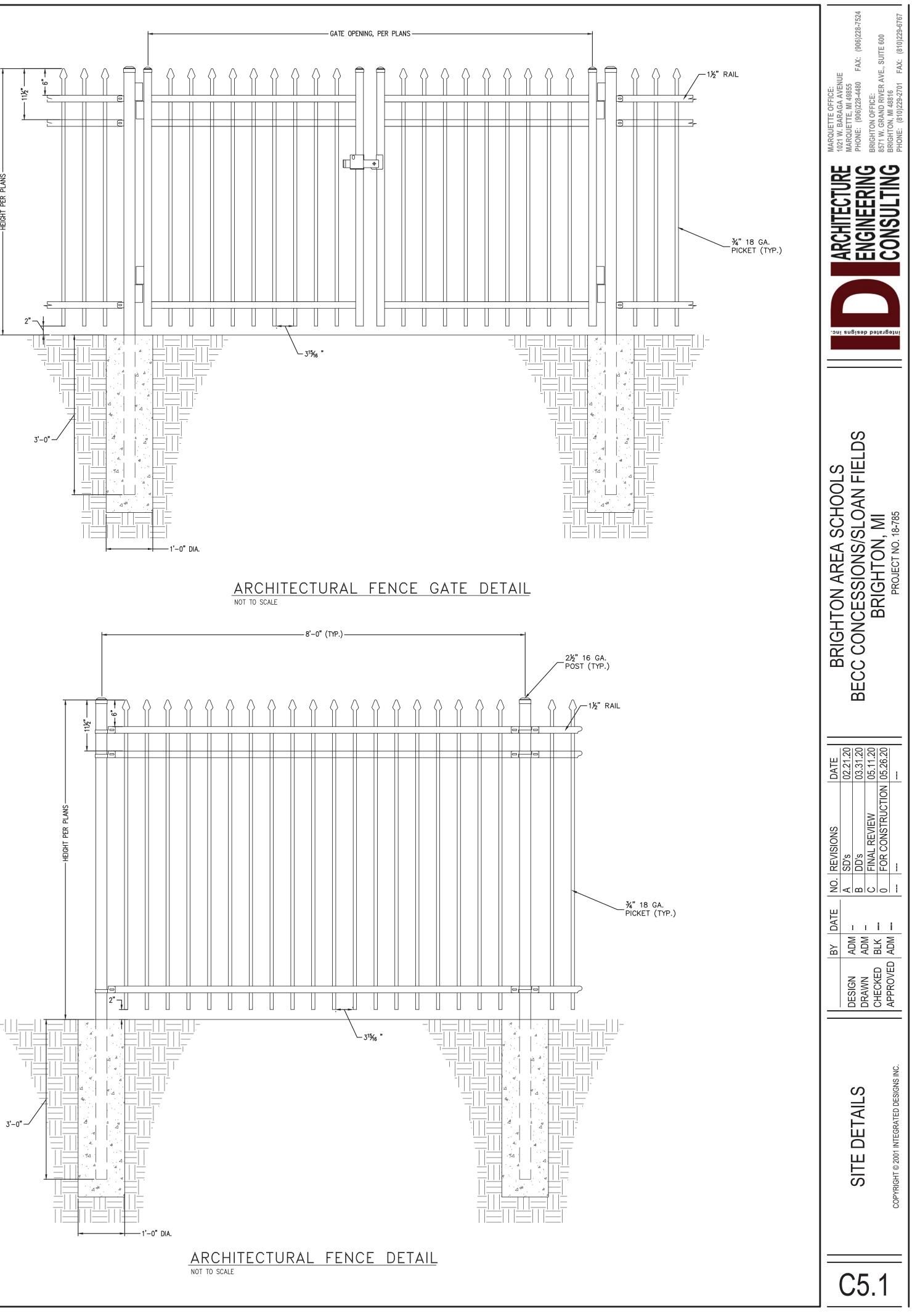
+PAVEMENT RESTORATION

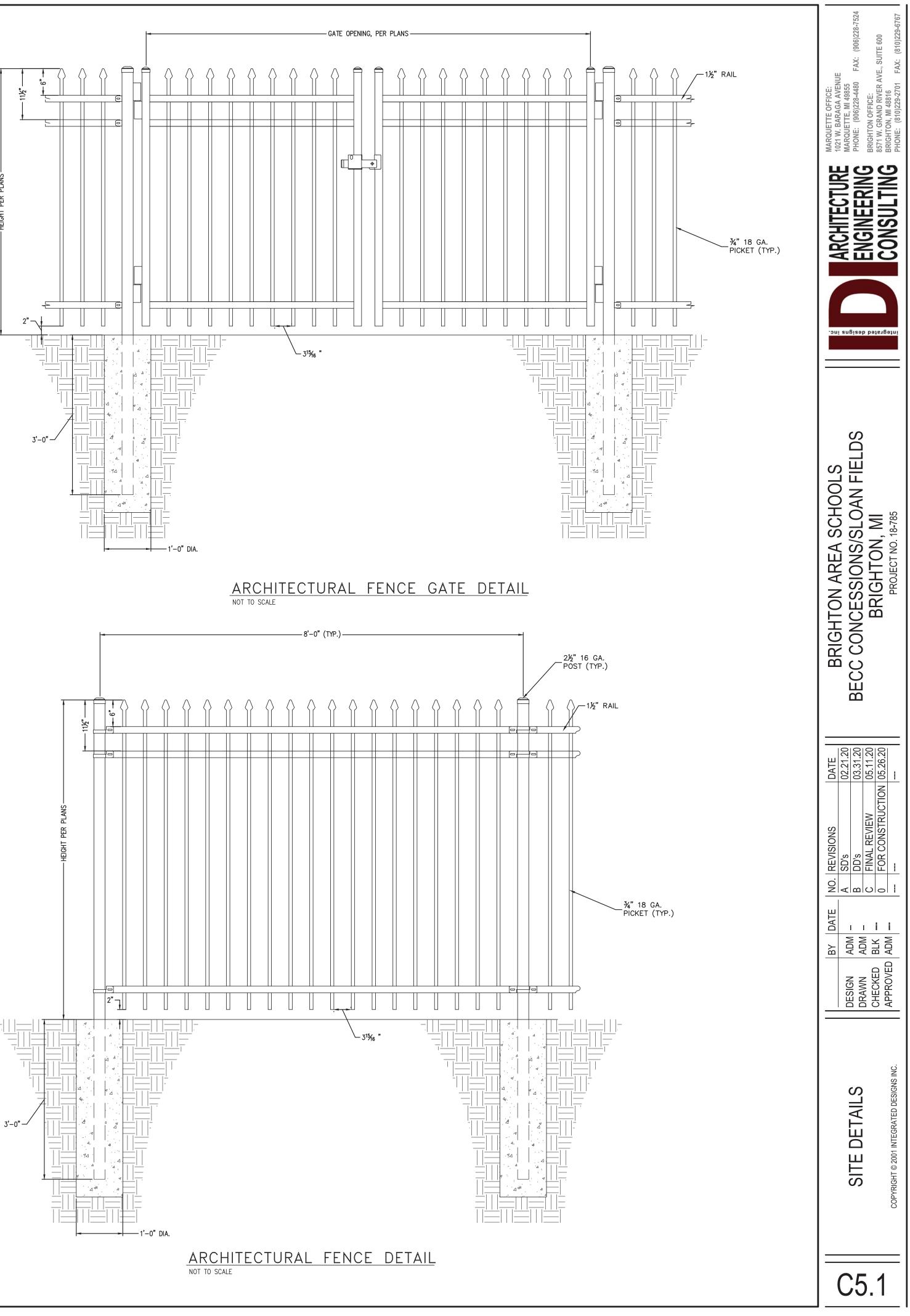






WATER MAIN CROSSING DETAIL NOT TO SCALE





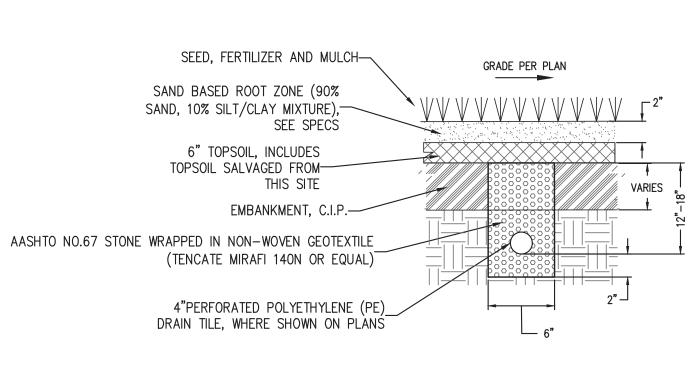


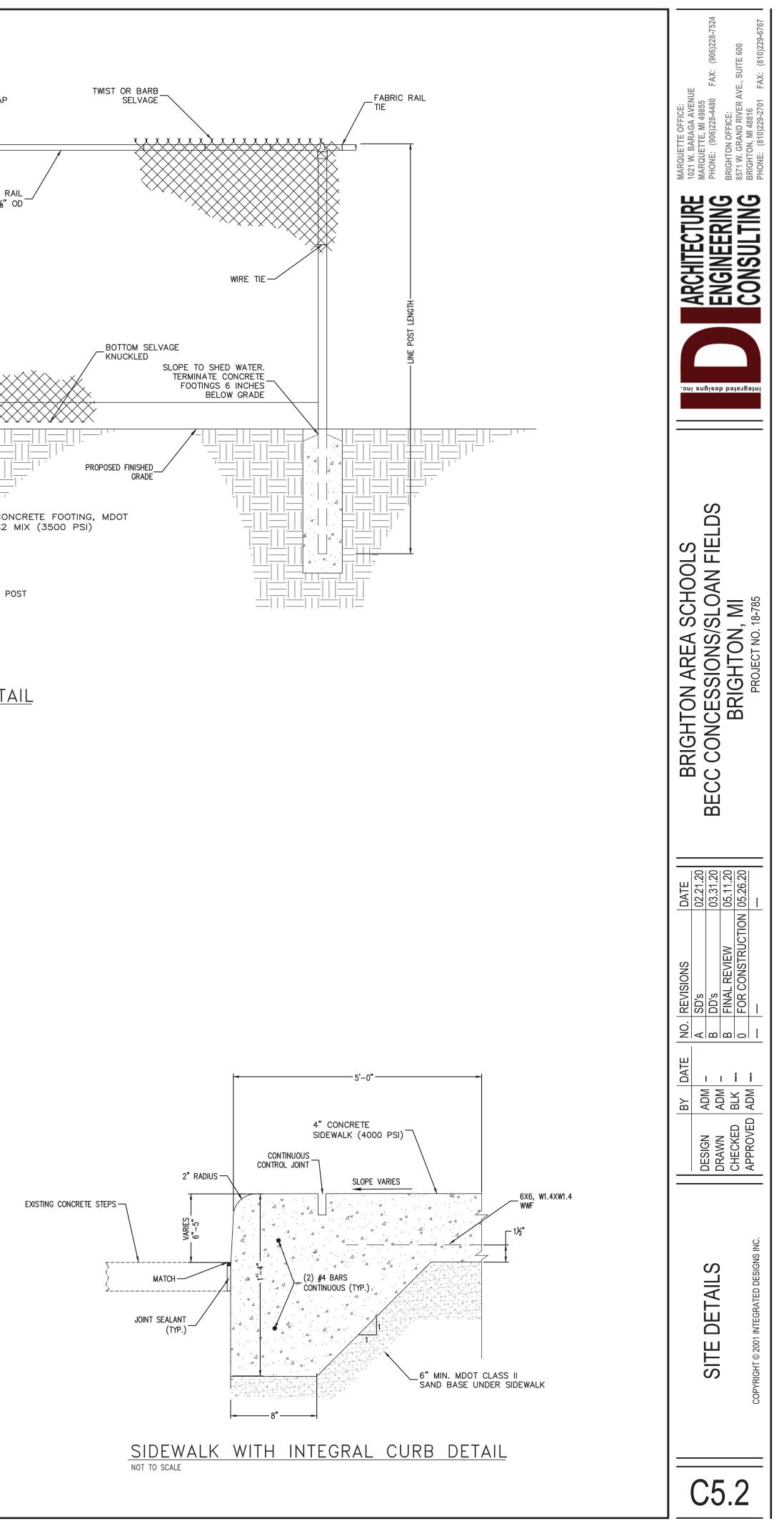
EXISTING SIGN (TYP.) - TO BE RELOCATED

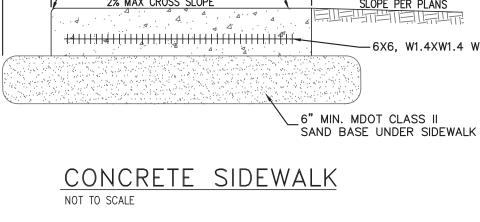


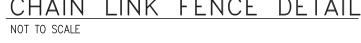
EXISTING BULLDOG STATUE - TO BE RELOCATED

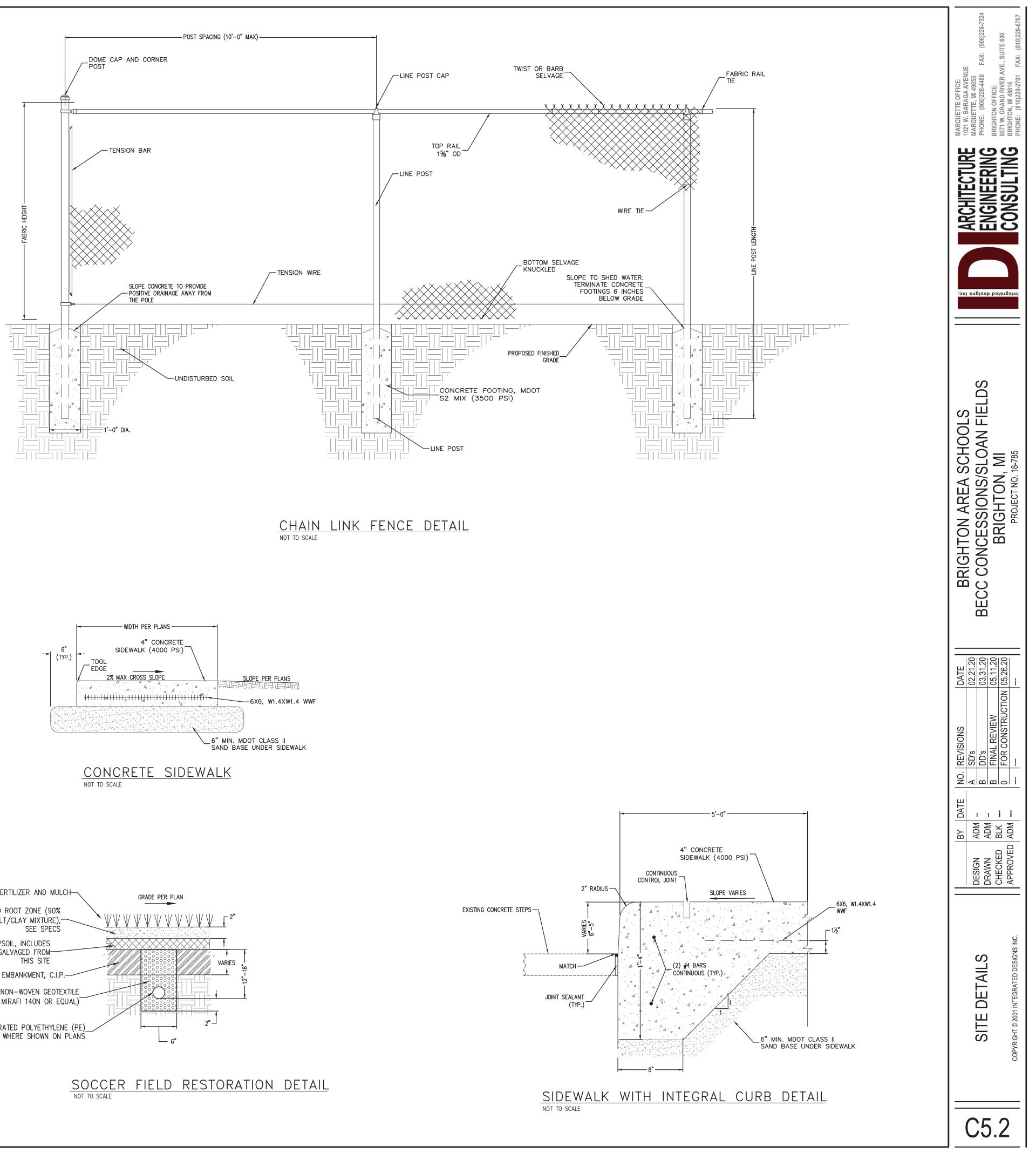






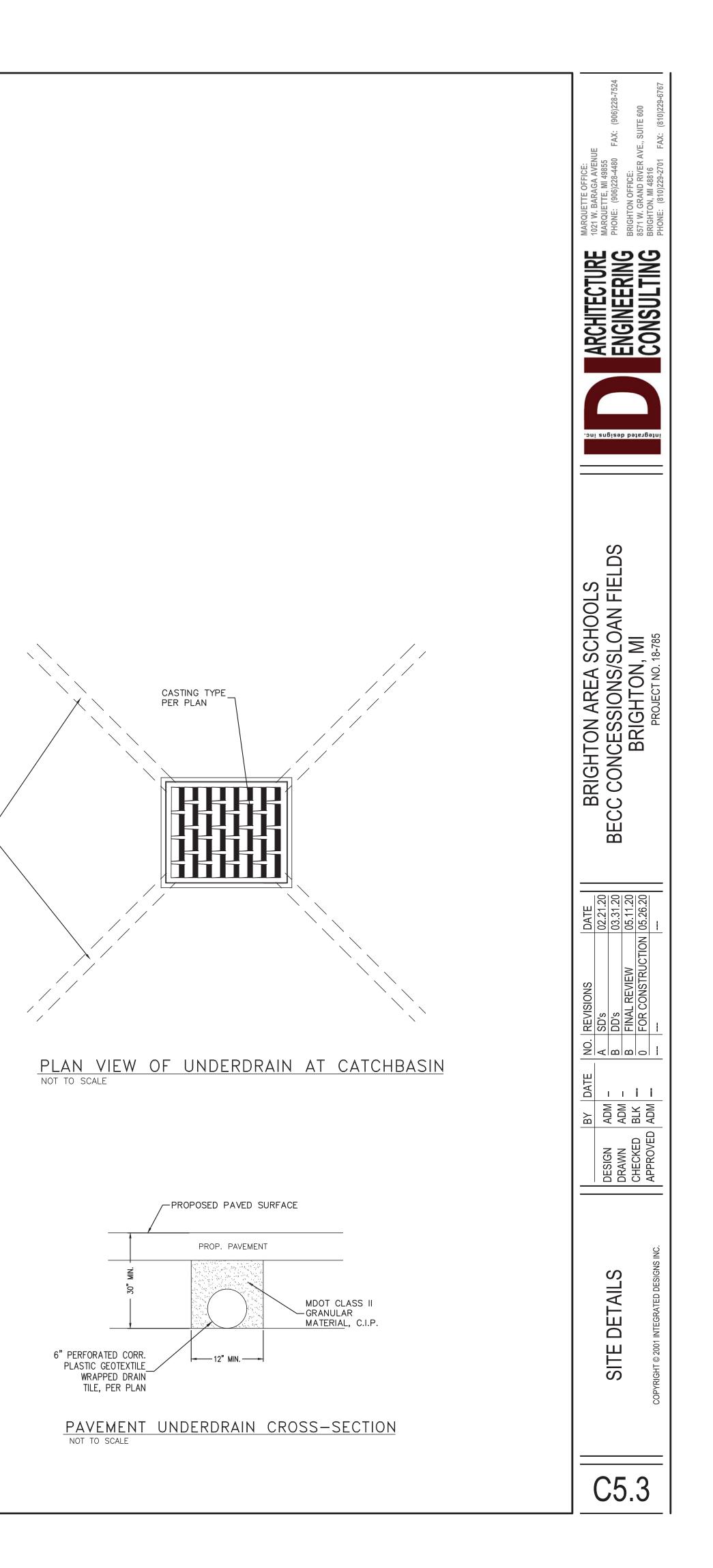


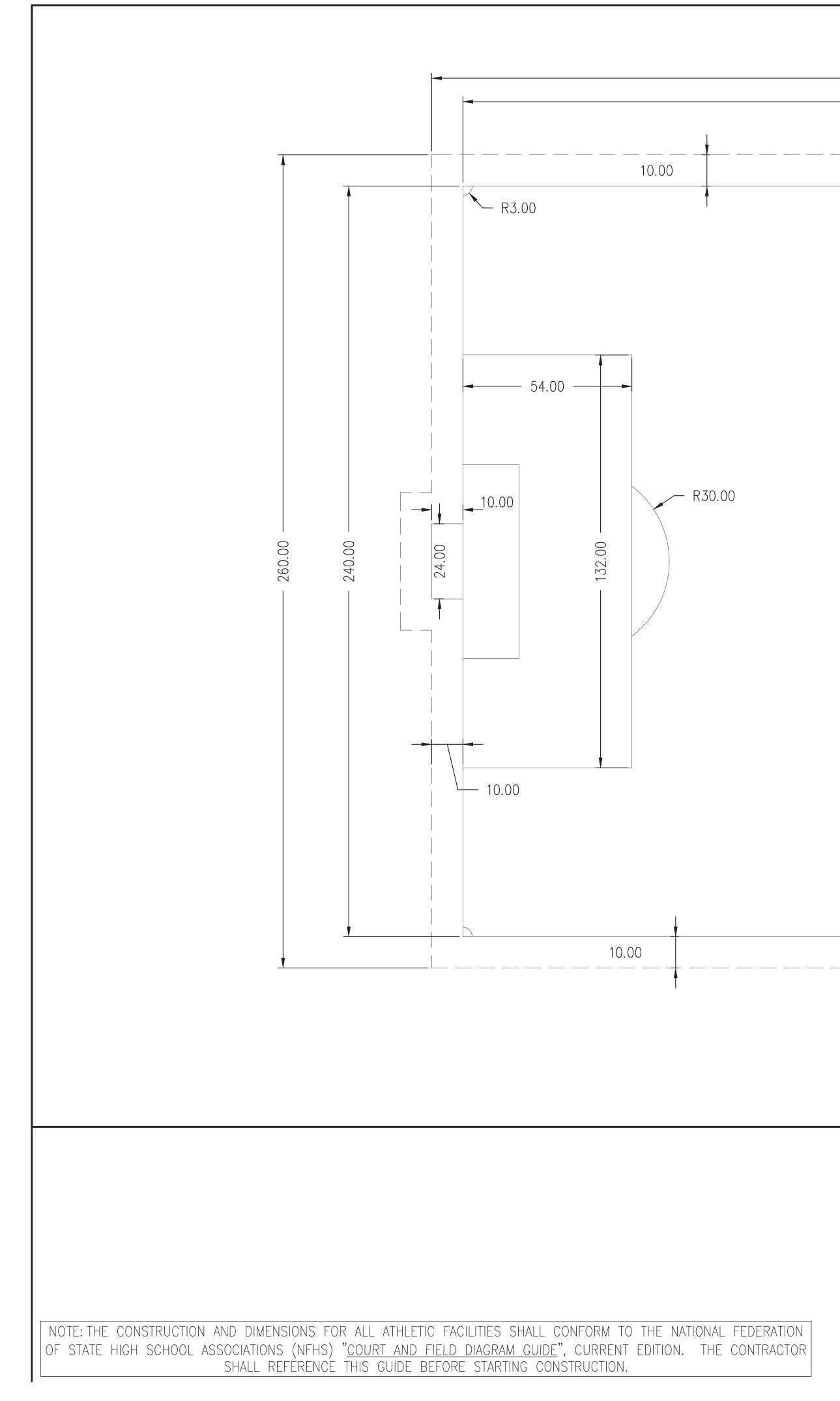






PLACE 6" SUBGRADE UNDERDRAINS UNDER PROPOSED PAVEMENT (TYP.) LENGTH PER PLAN.





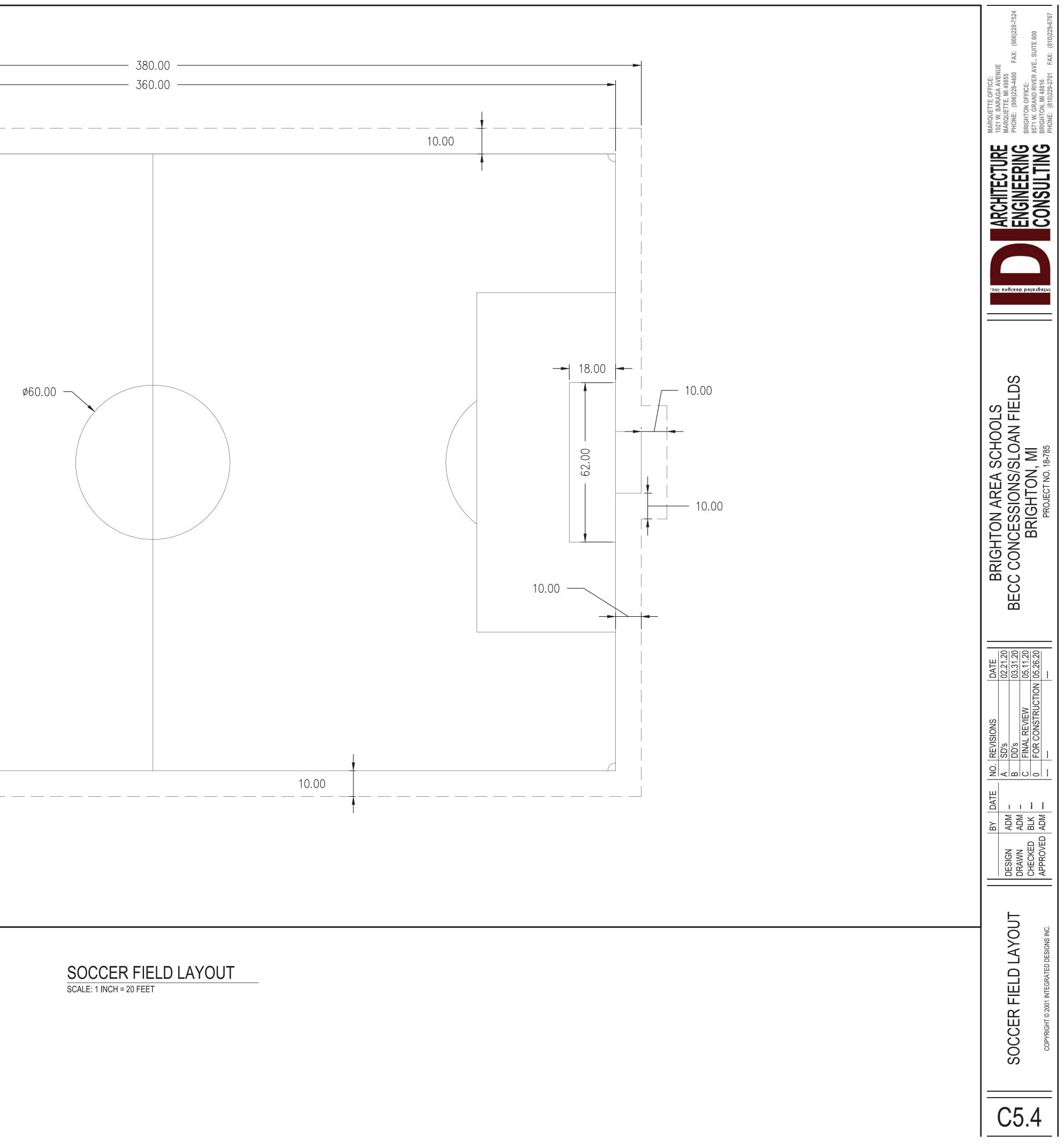


TABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	Х	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERFLY.	-	X

TABLE 1705.3 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCED
1. INSPECTION OF REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	Х	ACI 318:CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	х	AWS D1.4	
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND c. INSPECT ALL OTHER WELDS	- X	- X	ACI 318: 26.6.4	
3. INSPECT ANCHORS CAST IN CONCRETE	-	Х	ACI 318: 17.8.2	
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINTED TENSION	x	-	ACI 318: 17.8.2.4	
LOADS. b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	-	Х	ACI 318: 17.8.2	
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	Х	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2,
6. PRIOR TO CONCRETE PLACEMENT, FABIRCATE SPECIFMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C 172, ASTM C 31 ACI 318: 26.4, 26.12	1908.3 1908.10
7. INSPECT CONCRETE AND SHORTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND THECNIQUES.	-	Х	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR: a. APPLICATION OF PRESTRESSING FORCE; AND b. GROUTING OF BONDED PRESTRESSING TENDONS.	x x	-	ACI 318: 26.10	
10. ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: CH 26.8	
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	
12. INSPECT FROMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE BEING FORMED.	-	Х	ACI 318: 26.11.1.2(b)	

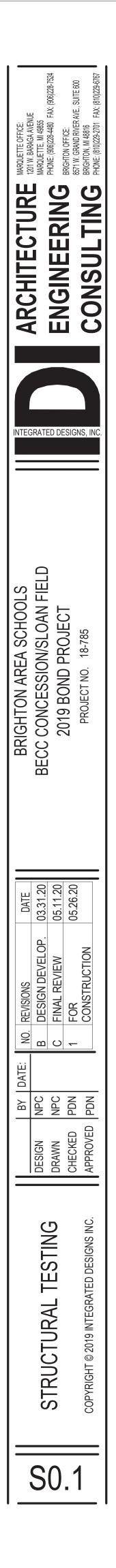
3. VERIFICA FOR SELF-0 4. THE FOL a. PF b. GR ANCH c. PL MOR d. LC PRE e. PR f. PRO 3. PRIOR TO a. GF b. GF ANC ANC c. PL PRE d. PF PRES e. CC 4. VERIFY a. Sl b. Slž DETA MEMI c. WE d. PF MAS 40 °F (32.2 e. AF f. PL/ BON g. Pl OF 1 5. OBSERVI SPECIMENS

	FREQUENCY O	F INSPECTION	REF	ERENCE FOR C	RITERIA
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	IBC SECTION	TMS 402/ACI 530/ASCE 5	TMS 602/ACI 530.1/ASCE 6
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.	-	x	-	-	ART 1.5
2. VERIFICATION OF I'm AND I'aac PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE.	-	x	-	-	ART 1.4B
3. VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT.	х	-	-	-	ART 1.5B.1.b.3
4. THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. PROPORTIONS OF SITE-PREPARED MORTAR	-	Х	-	-	ART 2.1, 2.6A
b. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	-	Х	-	-	ART 2.4B, 2.4H
C. PLACEMENT OF MASONRY UNITS AND CONSTRUCTIONS OF MORTAR JOINTS	-	Х	-	-	ART 3.3B
d. LOCATION OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	-	Х	-	-	ART 3.4, 3.6A
e. PRESTRESSING TECHNIQUE	-	Х	-	-	ART 3.6B
f. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	X ^(a)	X ^(b)	-	-	ART 2.1C
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIA	ANCE: -				
a. GROUT SPACE	-	Х	-	-	ART 3.2D, 3.2F
b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES	Х	-	-	SEC 1.16	ART 2.4, 3.4
c. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	-	Х	-	SEC. 1.16	ART. 3.2E, 3.4, 3.
d. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	-	Х	-	-	ART 2.6B, 2.4G.1
e. CONSTRUCTION OF MORTAR JOINTS	-	Х	-	-	ART 3.3B
4. VERIFY DURING CONSTRUCTION:					
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	-	Х	-	-	ART 3.3F
b. SIZE, TYPE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	-	Х	-	SEC 1.16.4.3, 1.17.1	-
c. WELDING OF REINFORCENT	Х	-	-	SEC 2.1.7.7.2, 3.3.3.4(c), 8.3.3.4(b)	-
d. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 °F (4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90° F (32.2°C))	-	Х	-	-	ART 1.8C, 1.8E
e. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	X	-	-	-	ART 3.6B
f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	Х	-	-	-	ART 3.5,3.6C
g. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	X ^(a)	X ^(b)	-	-	ART 2.1C
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	-	х	-	-	ART 1.4B.2.a.3 1.4B.2.b.3, 1.4B.2.c.3,1.4B.3

(a) REQUIRED FOR THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF AAC MASONRY. (b) REQUIRED AFTER THE FIRST 5000 SQUARE FEET (465 SQUARE METERS) OF AAC MASONRY.

Т	ABLE 1705	52		
REQUIRED VERIFICATION AND			TEEL CONSTRU	JCTION
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCED
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL	-	х		
2. INSPECTION TASKS FOR STRUCTURAL STEEL WELDING:	1	· · · · · · · · · · · · · · · · · · ·		
a. PRIOR TO WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-1)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-1, AISC N5.4	
b. DURING WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 N5.4-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-2, AISC N5.4	
c. AFTER WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 N5.4-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-3, AISC N5.4	
d. NONDESTRUCTIVE TESTING (NDT) OF WELDED JOINTS:				
1) COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY III OR IV	-	Х	AISC 360, SECTION N5.5, AISC N5.5	
2) COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY II 3) THERMALLY CUT SURFACES OF	-	X X		
ACCESS HOLES WHEN MATERIAL T>2" 4) WELDED JOINTS SUBJECTED TO FATIGUE WHEN	_	X	AISC 360, APPENDIX 3	
REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1 5) MANUFACTURERS NDT REPORTS WHEN				
PERFORMED	-	Х		
2. INSPECTION TASKS FOR STRUCTURAL STEEL BOLTING: a. PRIOR TO BOLTING (OBSERVE, OR PERFORM TASKS FOI	R			
EACH BOLTED CONNECTION, IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, N5.6-1)	'SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-2, AISC N5.6	
b. DURING BOLTING (OBSERVE THE QA TASKS LISTED IN AISC 360, TABLE N5.6-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6	
1) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCH MARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	-	Х	——TABLE N5.6-2, AISC — N5.6	
2) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	x	-	AISC 360, SECTION M2.5	
3) SNUG TIGHT JOINTS.	-	х		
c. AFTER BOLTING (PERFORM TASKS FOR EACH BOLTED CONNECTION IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-3, AISC N5.6	
3. REINFORCING STEEL:		<u> </u>		
a. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-	Х		
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCMENT.	x	-		
3) SHEAR REINFORCEMENT.	X	-		
4) OTHER REINFORCING STEEL.	-	Х		
4. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COM a. DETAILS SUCH AS BRACING AND STIFFENING.	PLIANCE:	X		
b. MEMBER LOCATIONS.	x	~		
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	X		
5. MATERIAL VERIFICATION OF COLD-FORMED STEEL DEC	K:			
a. IDENTIFICATION MARKINGS b. MANUFACTURERS CERTIFIED TEST REPORTS		X X		
6. CONNECTION OF COLD-FORMED DECK TO SUPPORTING	STRUCTURE:			
a. WELDING	-	Х		
b. OTHER FASTENERS 1) VERIFY FASTENERS ARE IN CONFORMANCE WITH		X		
APPROVED SUBMITTAL 2) VERIFY FASTENER INSTALLATION IS IN CONFORMANCE WITH APPROVED SUBMITTAL		X	AISC 360, SECTION N6	
AND MANUFACTURER'S RECOMMENDATIONS	-	^		

REQUIRED VERIFICATION AND	ABLE 1705 INSPECT		TEEL CONSTRU	JCTION
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCED
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL	-	х		
2. INSPECTION TASKS FOR STRUCTURAL STEEL WELDING:	<u> </u>	<u> </u>		
a. PRIOR TO WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 TABLE N5.4-1)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-1, AISC N5.4	
b. DURING WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 N5.4-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-2, AISC N5.4	
c. AFTER WELDING (OBSERVE, OR PERFORM FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360 N5.4-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.4 TABLE N5.4-3, AISC N5.4	
d. NONDESTRUCTIVE TESTING (NDT) OF WELDED JOINTS:				
1) COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY III OR IV	-	Х	AISC 360, SECTION N5.5, AISC N5.5	
2) COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY II 3) THERMALLY CUT SURFACES OF	-	X X		
4) WELDED JOINTS SUBJECTED TO FATIGUE WHEN	-		AISC 360, APPENDIX 3	
REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1	-	Х		
5) MANUFACTURERS NDT REPORTS WHEN PERFORMED	-	Х		
2. INSPECTION TASKS FOR STRUCTURAL STEEL BOLTING:	Ļ			
a. PRIOR TO BOLTING (OBSERVE, OR PERFORM TASKS FO EACH BOLTED CONNECTION, IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, N5.6-1)	REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-2, AISC N5.6	
b. DURING BOLTING (OBSERVE THE QA TASKS LISTED IN AISC 360, TABLE N5.6-2)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-2, AISC —	
1) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCH MARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	-	Х	N5.6	
2) PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	-	AISC 360, SECTION M2.5	
3) SNUG TIGHT JOINTS.	-	Х		
c. AFTER BOLTING (PERFORM TASKS FOR EACH BOLTED CONNECTION IN ACCORDANCE WITH QA TASKS LISTED IN AISC 360, TABLE N5.6-3)	SEE REFERENCED TABLE	SEE REFERENCED TABLE	AISC 360, SECTION N5.6 TABLE N5.6-3, AISC N5.6	
3. REINFORCING STEEL:	1	<u> </u>		
a. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-	X		
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCMENT.	x	-		
3) SHEAR REINFORCEMENT.	Х	-		
4) OTHER REINFORCING STEEL.	-	Х		
4. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COM a. DETAILS SUCH AS BRACING AND STIFFENING.	PLIANCE:	X		
b. MEMBER LOCATIONS.	x	_		
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	Х		
5. MATERIAL VERIFICATION OF COLD-FORMED STEEL DEC a. IDENTIFICATION MARKINGS	-	X		
b. MANUFACTURERS CERTIFIED TEST REPORTS	-	Х		
6. CONNECTION OF COLD-FORMED DECK TO SUPPORTING	STRUCTURE:	·		
a. WELDING	-	Х		
b. OTHER FASTENERS 1) VERIFY FASTENERS ARE IN CONFORMANCE WITH APPROVED SUBMITTAL	-	Х		
2) VERIFY FASTENER INSTALLATION IS IN CONFORMANCE WITH APPROVED SUBMITTAL AND MANUFACTURER'S RECOMMENDATIONS	-	х	AISC 360, SECTION N6	



LIGHT GAUGE STEEL **TRUSS NOTES**

DESIGN LOADS-IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE & SEI/ASCE 7-10. SEE "STRUCTURAL LOADS" NOTES ELSEWHERE ON PLANS, U.N.O.

PRE-ENGINEERED COLD-FORMED STEEL TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING CRITERIA:

DEAD LOADS-
TOP CHORD10 PSF
BOTTOM CHORD10 PSF
LIVE LOADS-
TOP CHORD20 PSF-ROOF SNOW LOAD
TOP CHORDUNBALANCED SNOW LOAD-SEE
ASCE 7-10.
TOP CHORD20 PSF-WIND LOAD

WHERE UNBALANCED SNOW LOADS, SLIDING SNOW LOADS OR DRIFT LOADS CREATE LARGER REACTIONS FOR THE PRIMARY ROOF TRUSSES THAN DOES THE UNIFORM SNOW LOAD. ANY GIRDER TRUSSES, OR OTHER FRAMING CARRYING PRIMARY TRUSSES, INCLUDING CONNECTION HARDWARE, SHALL BE DESIGNED BASED UPON THE LARGER REACTIONS.

DEFLECTION(LIVE LOAD)-SPAN/360

COLD-FORMED STEEL TRUSS SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.

- TRUSS TO TRUSS CONNECTIONS SHALL BE DESIGNED BY THE TRUSS SUPPLIER AND SHALL BE CLEARLY SHOWN ON THE ERECTION PLANS.
- INCLUDED WITH THE SHOP DRAWING SUBMITTAL SHALL BE DETAILS OF ANY TRUSS-TO-TRUSS CONNECTIONS, SHOWING DIMENSIONS AND LOAD CAPACITIES. SHOP DRAWINGS SHALL BE BEAR THE STAMP OF AN
- ENGINEER LICENSED IN THE STATE OF MICHIGAN. **ERECTION PLANS WHICH CALL OUT TRUSS-TO-TRUSS** CONNECTIONS & HARDWARE SHALL BE BEAR THE STAMP OF AN ENGINEER LICENSED IN THE STATE OF MICHIGAN. THE DESIGN OF ALL COLD-FORMED FRAMING SHALL BE IN ACCORDANCE WITH THE 2001 AISI "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL
- STRUCTURAL MEMBERS".

SITE PREP NOTES

- REFER TO THE GEOTECHNICAL REPORT BY FK ENGINEERING ASSOCIATES IN SPECIFICATION SECTION 02010-GEOTECHNICAL REPORT. THOSE PORTIONS OF THE GEOTECHNICAL REPORT INDICATED IN THESE "SITE PREPARATION NOTES" SHALL BE CONSIDERED REQUIRED WORK FOR THE PROJECT.
- WITHIN THE BUILDING FOOTPRINT AND 5 FEET BEYOND, REMOVE ALL MATERIAL IDENTIFIED AS TOPSOIL AND EXISTING FILL BY THE GEOTECHNICAL REPORT(SEE SECTIONS 5.3 & 5.4 OF THE GEOTECHNICAL REPORT).
- FOOTINGS ARE DESIGNED TO BEAR ON NATURAL MATERIALS/ENGINEERED FILL WITH A NET ALLOWABLE BEARING CAPACITY OF 1500 PSF AS DESCRIBED IN SECTION 5.4 OF THE GEOTECHNICAL REPORT(CONTRACTOR TO VERIFY BY QUALIFIED TESTING AGENCY IN THE FIELD). IF MATERIAL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE LOWERED OR ENLARGED AT THE DIRECTION OF THE ARCHITECT.
- TO ACHIEVE PROPER GRADE FOR THE BUILDING, STRUCTURAL FILL SHALL BE PROVIDED AS DESCRIBED IN SECTION 5.3 OF THE GEOTECHNICAL REPORT.
- THE FINAL 6" OF SOIL DIRECTLY BELOW FLOOR SLABS SHALL BE WELL GRADED MATERIAL COMPACTED TO 95% OF MODIFIED PROCTOR AS DESCRIBED IN SECTION 6.0 OF THE GEOTECHNICAL REPORT
- DO NOT UNDERMINE THE EXISTING FOUNDATIONS WHEN EXCAVATING ADJACENT TO THE EXISTING BUILDING. SHOULD IT BECOME NECESSARY TO EXCAVATE TO AN ELEVATION BELOW THE EXISTING FOOTINGS, THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING & DESIGNING TEMPORARY SHORING OF EXISTING FOOTINGS, OR OTHER MEANS OF SAFEGUARDING THE EXISTING FOUNDATIONS.

7.

THE GEOTECHNICAL REPORT CONSTITUTES ALL INFORMATION AVAILABLE REGARDING SUBSURFACE CONDITIONS. THE CONTRACTOR SHALL READ AND BECOME FAMILIAR WITH THE GEOTECHNICAL REPORT. WITH PARTICULAR REGARD FOR THE IMPACT OF SUBSURFACE CONDITIONS ON THE CONSTRUCTION PROCESS. ANY MEASURES NECESSARY TO FACILITATE THE CONSTRUCTION PROCESS ITSELF, INCLUDING, BUT NOT LIMITED TO, TEMPORARY SHORING OF EXCAVATIONS AND TEMPORARY DEWATERING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE BID PRICE.

STEEL NOTES

- EXISTING STRUCTURAL INFORMATION, LOCATIONS AND ELEVATIONS ARE BASED ON RECORD DRAWINGS AND/OR FIELD OBSERVATIONS. THE CONTRACTOR SHALL FIELD VERIFY THIS INFORMATION PRIOR TO BEGINNING CONSTRUCTION.
- STEEL MEMBER DESIGN IS BASED UPON THE ALLOWABLE STRENGTH(LOAD & RESISTANCE FACTOR) DESIGN METHOD OF THE 13TH/ EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.
- STRUCTURAL STEEL WIDE FLANGE("W") SHAPES-ASTM A992(50 KSI 3. STEEL) ALL OTHER STRUCTURAL STEEL PLATES & RODS ASTM A36 STEEL PIPE WITH WALL THICKNESS GREATER THAN 5/8" ASTM A53, GRADE B. ALL OTHER ROUND. SQUARE & RECTANGULAR HOLLOW STRUCTURAL SECTIONS ASTM A500 GRADE B
- BEAM CONNECTIONS SHALL BE DESIGNED TO SUPPORT HALF THE MAXIMUM TOTAL UNIFORM LOAD, FOR THE SPAN OF THE BEAM SHOWN ON THE PLANS. MAXIMUM TOTAL UNIFORM LOADS ARE PROVIDED IN TABLE 3-6 OF THE AISC MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION.

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- ALL STEEL TO STEEL CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER ASTM A325_N HEAVY HEX HEAD, TYPE 1, HIGH STRENGTH BOLTS OR E70XX ELECTRODES, U.N.O. ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS SPECIFICATIONS. MINIMUM WELD SIZE SHALL BE 3/16", U.N.O.
- ALL BOLTS SHALL BE TIGHTENED TO "SNUG TIGHT"(PER 8.1 OF 6. AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS), U.N.O. BOLTS DESIGNATED ON THE PLANS TO BE "FULLY TENSIONED" SHALL BE TIGHTENED TO THE REQUIRED LOAD BY THE "TURN OF THE NUT" METHOD.
- ALL FIELD CONNECTIONS SHALL BE BOLTED, U.N.O.
- MEMBER CONNECTIONS SHALL BE DETAILED FOR A MINIMUM FORCE OF NO LESS THAN 10 KIPS.
- ALL JOISTS AND JOIST GIRDERS SHALL CONFORM TO SJI STANDARDS. EXTEND BOTTOM CHORDS TO CONNECT AT ALL COLUMNS. PROVIDE BRIDGING PER SJI STANDARDS. JOIST CAMBER FOR FLOOR JOISTS SHALL BE PER SJI SPECIFICATIONS. ROOF JOISTS SHALL BE CAMBERED NO MORE THAN REQUIRED TO OFFSET DEFELECTION DUE TO THE JOIST'S OWN WEIGHT.
- METAL ROOF DECK SHALL BE ASTM A611, GRADES C, D OR E, AS 10. APPLICABLE, FOR UNCOATED OR PAINTED DECK. FOR GALVANIZED ROOF DECK, CONFORM TO ASTM A653 STRUCTURAL QUALITY GRADE 33 OR HIGHER; WITH G60 GALVANIZED COATING CONFORMING TO ASTM A525. ALL ROOF DECK SHALL CONFORM TO SDI STANDARDS, AND BE PAINTED, EXCEPT WHERE SPRAYED ON FIREPROOFING IS TO BE APPLIED, WHERE DECK SHALL BE UNCOATED.
- OPENINGS THROUGH ROOF DECK MAY OR MAY NOT BE SHOWN ON 11. FRAMING PLANS. GENERAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES AND PROVIDE FOR OPENINGS AND FRAMES/REINFORCING AS FOLLOWS:
 - OPENINGS UP TO 18"x18"-PROVIDE L2x2x3/16 ANGLES PERPENDICULAR TO DECK FLUTES, ON BOTH SIDES OF OPENING. EXTEND ANGLES A MINIMUM OF 2 FLUTES BEYOND EDGE OF OPENING. FASTEN ANGLES TO EACH FLUTE WITH #10 TEK SCREWS.
 - OPENINGS LARGER THAN 18"x18"-PROVIDE A WELDED L4x4x1/4 FRAME SUPPORTED BY STEEL JOISTS OR BEAMS AS SHOWN IN "TYPICAL JOIST REINFORCING DETAIL" (SEE SHEET S4.0). REINFORCE STEEL JOISTS PER THE SAME DETAIL.
- PROVIDE CONTINUOUS 12 GAUGE, 12"(MINIMUM) WIDE COVER 12. PLATE WHERE ROOF DECK CHANGES DIRECTION. FASTEN TO DECK ON BOTH SIDES OF JOINT WITH #10 TEK SCREWS AT 12" O.C.
- 13. METAL FORM DECK SHALL BE ASTM A653 STRUCTURAL QUALITY GRADE 33 OR HIGHER; WITH G60 GALVANIZED COATING CONFORMING TO ASTM A525 OR PAINTED FINISH, AS INDICATED ON PLANS.
- 14. UNLESS NOTED OTHERWISE. METAL DECK SHALL BE FASTENED TO SUPPORT MEMBERS AT 18" O.C. PROVIDE TWO SIDELAP FASTENERS EVENLY SPACED BETWEEN SUPPORT MEMBERS. SUPPORT MEMBER FASTENERS SHALL BE #12 TEK SCREWS. SIDELAP FASTENERS SHALL BE #10 TEK SCREWS. METAL DECK SHALL NOT BE WELDED.
- 15. STEEL PAINTING PROVIDE RED OXIDE SHOP COAT.
- LOADS INDICATED ON PLANS ARE FULLY ADJUSTED CONNECTION 16. DESIGN LOADS DO NOT INCREASE ALLOWABLE STRESSES FOR WIND, ETC.
- 17. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. FABRICATOR SHALL PRODUCE ERECTION DRAWINGS WITHOUT PHOTOCOPYING OR OTHERWISE REPRODUCING THE ARCHITECT'S DESIGN PLANS.

MASONRY NOTES

- ALL CONCRETE MASONRY SHALL CONFORM TO ASTM C90. HOLLOW LOADBEARING BLOCK UNITS, LAY BLOCK IN RUNNING BOND. ADD "DRY-BLOCK" BLOCK ADMIXTURE TO THE MIX FOR ALL CMU TO BE USED IN THE EXTERIOR WYTHE FOR ALL WALLS. ALL MORTAR FOR CONCRETE MASONRY SHALL CONFORM TO ASTM C270, TYPE S. JOINTS SHALL BE TOOLED CONCAVE. ADD "DRY-BLOCK" MORTAR ADMIXTURE TO THE MIX FOR ALL MORTAR TO BE USED IN THE EXTERIOR WYTHE FOR ALL WALLS. ALL GROUT SHALL CONFORM TO ASTM C476. MORTAR SHALL NOT BE SUBSTITUTED FOR GROUT. CORES CONTAINING REBAR SHALL BE GROUTED SOLID. REBAR LAPS VERTICAL WALL REINFORCING-48 BAR DIAMENTERS BOND BEAMS-30 BAR DIAMETERS REBAR SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. HORIZONTAL JOINT REINFORCEMENT SHALL BE LADDER TYPE GALVANIZED FINISH, COLD DRAWN STEEL WITH 9 GAUGE SIDE RODS AND CROSS TIES. INSTALL JOINT REINFORCEMENT AT 16" O.C., VERTICALLY. SEE LINTEL SCHEDULE FOR STEEL LINTELS. PROVIDE BOND BEAM MASONRY LINTELS OVER ALL WALL OPENINGS NOT SCHEDULED FOR STEEL LINTELS. BOND BEAM LINTELS SHALL BE 8" HIGH WITH TWO #5 BOTTOM BARS, U.N.O. IN SINGLE WYTHE AND MULTI-WYTHE SOLID WALLS, STEEL LINTELS SHALL BE CENTERED ON THE WALL. IN MULTI-WYTHE CAVITY WALLS, STEEL LINTELS SHALL BE CENTERED ON THE CONCRETE MASONRY WYTHE AND THE BOTTOM PLATE FOR VENEER SUPPORT SHALL BE OFFSET AS REQUIRED. STEEL BOTTOM PLATES SHALL BE WELDED TO BEAM SECTIONS TO CARRY MASONRY. PLATE WIDTH SHALL BE THE NOMINAL WALL THICKNESS MINUS 1". PLATE THICKNESS SHALL BE 1/4" FOR PLATES 12" AND LESS WIDE, AND 5/16" FOR PLATES WIDER THAN 12". ALL LINTELS SHALL BEAR 8" EACH END, UNLESS A BEARING PLATE IS CALLED FOR ON THE PLANS. FIELD WELD LINTELS TO BEARING PLATES. 11. GROUT MASONRY CORES DIRECTLY BELOW JOIST, BEAM AND LINTEL BEARINGS IN NEW AND EXISTING MASONRY A MINIMUM OF ONE COURSE, U.N.O. 12. PROVIDE VERTICAL CONTROL JOINTS AT THE FOLLOWING LOCATIONS: AS SHOWN ON THE PLANS IF CONTROL JOINTS ARE NOT SHOWN ON THE PLANS, LOCATE AS FOLLOWS: INTERSECTIONS OF PERPENDICULAR WALLS а. CHANGES IN WALL HEIGHT CHANGES IN WALL THICKNESS TRANSITION BETWEEN SLAB & FOOTING SUPPORTED d. WALLS SPACED NO MORE THAN 40 FEET OR TWICE THE WALL HEIGHT APART, WHICHEVER IS LESS 13. DO NOT PLACE VERTICAL CONTROL JOINTS THROUGH BOND BEAM MASONRY LINTELS, OR WITHIN 16" OF A BEAM OR JOIST BEARING POINT. ALL "CAST IN" ANCHOR RODS FOR STRUCTURAL STEEL COLUMNS 14 SHALL BE ASTM F1554, GRADE 36. ALL FOUNDATION ANCHORS FOR WOOD CONSTRUCTION SHALL BE ASTM A307 STEEL, U.N.O. GALVANIZE TO G60 COATING PER ASTM A153 FOR EXTERIOR AND HIGH HUMIDITY LOCATIONS: GALVANIZE TO G185 COATING PER ASTM A153 FOR ITEMS IN CONTACT WITH PRESERVATIVE TREATED WOOD; PLAIN FINISH FOR ALL OTHER LOCATIONS. 16. DRILLED IN CONCRETE ANCHORS(DCA'S) FOR GROUTED MASONRY SHALL BE AS FOLLOWS: HILTI HEAVY DUTY "KWIK BOLTS" RAMSET/REDHEAD "DYNABOLT SLEEVE" POWERS/RAWL "POWERBOLT" SIMPSON STRONG-TIE "WEDGE-ALL" APPROVED EQUAL PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD. 17. DRILLED IN CONCRETE ANCHORS(DCA'S) FOR HOLLOW MASONRY SHALL BE AS FOLLOWS: HILTI "SLEEVE ANCHORS" RAMSET/REDHEAD "DYNABOLT SLEEVE" POWERS/RAWL "LOK/BOLT" SIMPSON STRONG-TIE "SLEEVE-ALL" APPROVED EQUAL PROVIDE STAINLESS STEEL OR GALVANIZED TO G185 COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD. 18. NO FILL SHALL BE PLACED AGAINST CONCRETE MASONRY WALLS UNTIL MORTAR HAS REACHED 75% OF DESIGN STRENGTH OR UNTIL DIRECTED BY THE ARCHITECT. ALL INTERSECTING MASONRY WALLS(LOAD AND NONLOADBEARING) SHALL BE ANCHORED OR BONDED TOGETHER BY ONE OF THE METHODS DESCRIBED IN THE 2006 MICHIGAN BUILDING CODE 2109.7.2.1 THROUGH 2109.7.2.5, U.N.O. MASONRY WALLS INTERSECTING A PERPENDICULAR WALL OF DIFFERENT MATERIAL SHALL BE ANCHORED TO THAT WALL BY MEANS OF STEEL CONNECTORS PER THE 2006 MICHIGAN BUILDING CODE 2109.7.2.2 OR 2109.7.2.5, U.N.O. INTERIOR NONLOADBEARING MASONRY WALLS, WITH AN 20. UNSUPPORTED LENGTH BETWEEN INTERSECTING PERPENDICULAR WALLS GREATER THAN 36 TIMES THE WALL THICKNESS, SHALL BE BRACED TO THE FLOOR OR ROOF STRUCTURE ABOVE AT INTERVALS NOT EXCEEDING 36 TIMES THE WALL THICKNESS, U.N.O. ALL COLD WEATHER MASONRY WORK SHALL BE DONE IN 21.
- THE CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED, INDEPENDENT, INSPECTION FIRM TO PERFORM ON-SITE INSPECTIONS OF MASONRY AS REQUIRED BY TABLE 1704.5.1 OF THE 2003 MICHIGAN BUILDING CODE. THE INSPECTION FIRM SHALL PERFORM THE FOLLOWING INSPECTION TASKS FROM THAT TABLE: 1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c, 3d AND 4a.

2.

3.

4.

6.

8.

ACCORDANCE WITH "IMIAWC: RECOMMENDED PRACTICES AND GUIDE SPECIFICATION FOR COLD WEATHER MASONRY CONSTRUCTION". THE "IMIAWC" PROVISIONS SHALL BE CONSIDERED TO BE MANDATORY.

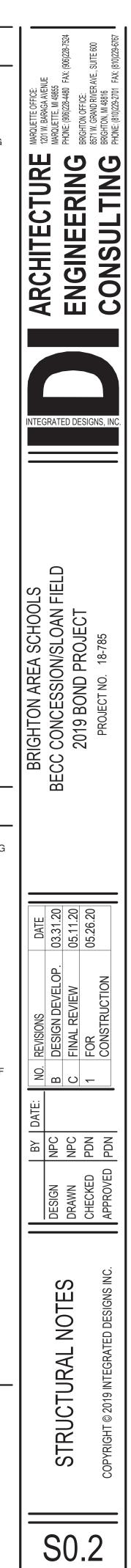
CONCRETE NOTES

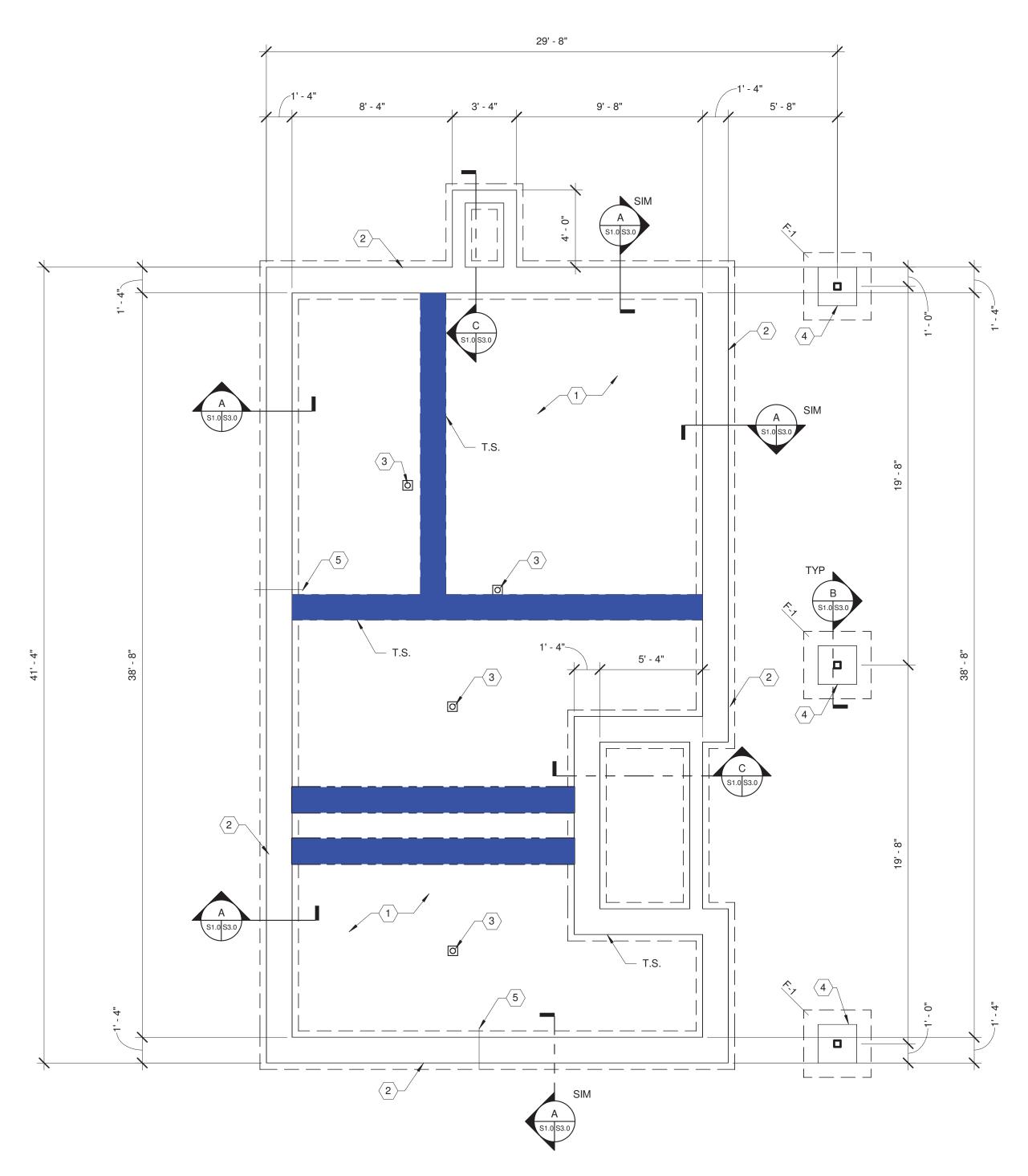
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WITH MINIMUM LAPS OF 8".
- PROVIDE CORNER BARS TO MATCH ALL HORIZONTAL REINFORCING IN WALLS AND FOOTINGS. ALL LAPS SHALL BE A MINIMUM OF 30 BAR DIAMETERS, U.N.O.
- PROVIDE DOWELS BETWEEN ALL FOOTINGS, WALLS, AND PIERS TO MATCH SIZE AND SPACING OF VERTICAL REINFORCING. ALL LAPS SHALL BE A MINIMUM OF 30 BAR DIAMETERS, U.N.O.
- ALL "CAST IN" ANCHOR RODS FOR STRUCTURAL STEEL COLUMNS SHALL BE ASTM A307.
- ALL FOUNDATION ANCHORS FOR WOOD CONSTRUCTION SHALL BE ASTM A307 STEEL, U.N.O. GALVANIZE TO G60 COATING PER ASTM A153 FOR EXTERIOR AND HIGH HUMIDITY LOCATIONS; GALVANIZE TO G185 COATING PER ASTM A153 FOR ITEMS IN CONTACT WITH PRESERVATIVE TREATED WOOD; PLAIN FINISH FOR ALL OTHER LOCATIONS.
- ALL CONCRETE SHALL ATTAIN THE FOLLOWING 28 DAY COMPRESSIVE STRENGTHS: FOOTINGS, WALLS, PIERS... ..3000 PSI SLABS ON GRADE OR METAL DECK......4000 PSI
- 7. PROVIDE AIR ENTRAINING FOR ALL CONCRETE EXCEPT INTERIOR SLABS AND INTERIOR FOOTINGS.
 - CONCRETE SHALL CONFORM TO THE FOLLOWING: ACI 301: SPECIFICATIONS FOR STRUCTURAL CONCRETE ACI 305: HOT WEATHER CONCRETING ACI 306: COLD WEATHER CONCRETING
 - NO FILL SHALL BE PLACED AGAINST CONCRETE WALLS UNTIL CONCRETE HAS REACHED 75% OF DESIGN STRENGTH OR UNTIL DIRECTED BY THE ARCHITECT.
- 10. DRILLED IN CONCRETE ANCHORS(DCA'S) SHALL BE AS FOLLOWS: HILTI HEAVY DUTY "KWIK BOLTS"
 - RAMSET/REDHEAD "DYNABOLT SLEEVE"
 - POWERS/RAWL "POWERBOLT" SIMPSON STRONG-TIE "WEDGE-ALL"
 - APPROVED EQUAL PROVIDE STAINLESS STEEL OR GALVANIZED TO G185
 - COATING PER ASTM A153 FOR DCA'S IN CONTACT WITH PRESERVATIVE TREATED WOOD.
- 11. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4".
- 12. ELECTRICAL CONDUITS, PIPES, DRAINS, ETC. SHALL BE IN PLACE BEFORE CONCRETE IS PLACED.
- 13. FIBER REINFORCING FOR SLABS ON GRADE SHALL BE SYNTHETIC POLYPROPYLENE FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE SLABS, COMPLYING WITH ASTM C 1116, TYPE III, 1/2 TO 1-1/2 INCHES LONG.
- REBAR SHOP DRAWINGS SHALL BE SUBMITTED TO THE 14. ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL.

STRUCTURAL LOADS

- DESIGN LOADS IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE & SEI/ASCE 7-10. SNOW LOAD INFORMATION 2. Pg=25 PSF Is=1.0(CATEGORY II) Ce=1.0(EXPOSURE B) Ct=1.0Pf=17.5 PSF=(25 PSF)(0.7)(1.0)(1.0)(1.0) ROOF DEAD LOAD=20 PSF ROOF SNOW LOAD=17.5 PSF UNIFORM (20 PSF MIN ROOF LL) ALSO SEE DRIFT LOAD AND UNBALANCED SNOW LOAD DIAGRAMS ON PLANS DESIGN STRUCTURAL ELEMENTS FOR SNOW LOAD CASE WHICH PRODUCES THE MAXIMUM FORCES IN THE MEMBER WIND LOAD INFORMATION 3. VULT=115 MPH Vasd= 93 MPH lw=1.0(CATEGORY III) EXPOSURE C GCpi=+0.18 & -0.18 COMPONENTS & CLADDING DESIGN WIND PRESSURE=20 PSF BASIC WIND PRESSURE=17 PSF 4. SEISMIC LOAD INFORMATION OCCUPANCY CATERGORY II(le=1.0) SPECTRUAL RESPONSE ACCELERATIONS
 - Ss=0.085a S1=0.046a SITE CLASS D
 - SPECTRAL RESPONSE COEFFICIENTS D. Sds=0.091a Sd1=0.073g
 - SEISMIC DESIGN CATEGORY B BASIC SEISMIC FORCE RESISTING SYSTEM=ORDINARY
 - **REINFORCED MASONRY SHEAR WALLS** DESIGN BASE SHEAR=7,700 lbs. (PER 2015 MBC 1613.1) SEISMIC RESPONSE COEFFICIENT Cs=0.045
 - **RESPONSE MODIFICATION FACTOR R=2.0** ANALYSIS PROCEDURE USED-EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7-10 SECTION 12.8.
 - LIVE LOAD INFORMATION
 - MECHANICAL ATTIC SPACE... ...40 PSF ERV, COORD. W/ MECH200lb

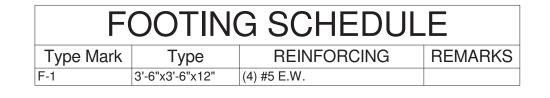
5.





FOUNDATION PLAN 1/4" = 1'-0" T/SLAB = 100'-0" U.N.O. T/FTG. = 96'-0" U.N.O.

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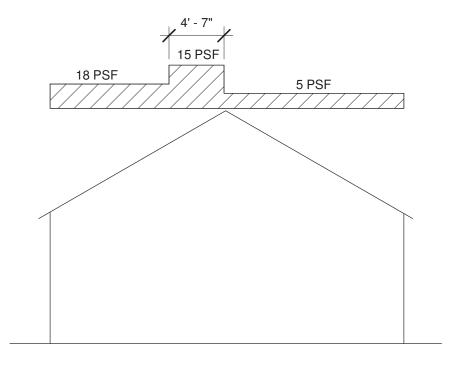
N

	UE FAX: (906)228-7524 AVE., SUITE 600 FAX: (810)229-6767
 4" CONCRETE GRADE SLAB W/ W.W.F., 6x6-W1.4xW1.4 IN TOP 1/3 OF SLAB ON 6 MIL VAPOR BARRIER OVER 6" COMPACTED GRANULAR FILL. REINFORCED CONCRETE FOUNDATION WALL W/ CONT. STRIP FOOTING. FLOOR DRAIN, RE: PLUMBING PLAN. 24"x24" REINFORCED CONCRETE PIER, RE: DTL. THRU WALL FOUNDATION WALL PIPE SLEEVE, COORD. W/ PLUMBING PLAN 	ARCHITECTURE ARQUETTE OFFICE: 201 W. BARGA AVENUE MARQUETTE, M. 4885 PHONE: (906)228-4480 FAX: (906)228-7524 PHONE: (906)228-7524 BRIGHTON OFFICE: 3571 W. GRAND RIVER AVE. SUITE 600 BRIGHTON, MI 48816 PHONE: (910)229-2701 FAX: (910)229-5767
	BRIGHTON AREA SCHOOLS BECC CONCESSION/SLOAN FIELD 2019 BOND PROJECT PROJECT NO. 18-785
	BYDATE:NO.REVISIONSDATEDESIGNNPC02.18.20BDESIGN DEVELOP.03.31.20DRAWNNPC02.1820CFINAL REVIEW05.11.20CHECKEDPDN1FOR05.26.20APPROVEDPDNCONSTRUCTION05.26.20
F.S. FOOTING STEP T/ "TOP OF" EXIST. EXISTING F-X FOOTING MARK T.S. THICKENED SLAB TYP. TYPICAL L-X LINTEL MARK C.J. CONTROL/CONSTRUCTION JOINT SIM. SIMILAR T/S TOP OF STEEL F.V. FIELD VERIFY N.T.S. NOT TO SCALE U.N.O. UNLESS NOTED OTHERWISE	FOUNDATION PLAN COPYRIGHT © 2019 INTEGRATED DESIGNS INC.

LINTEL SCHEDULE				
Mark	Туре	Comments		
L-1	W8x10 W/ 15" BOTTOM PLATE	PROVIDE 1/4" TRIANGULAR STIFFENERS @ 2'-0" O.C. FROM TOP FLANGE TO BOTTOM PLATE.		
L-2	2L3-1/2X3-1/2X1/4			

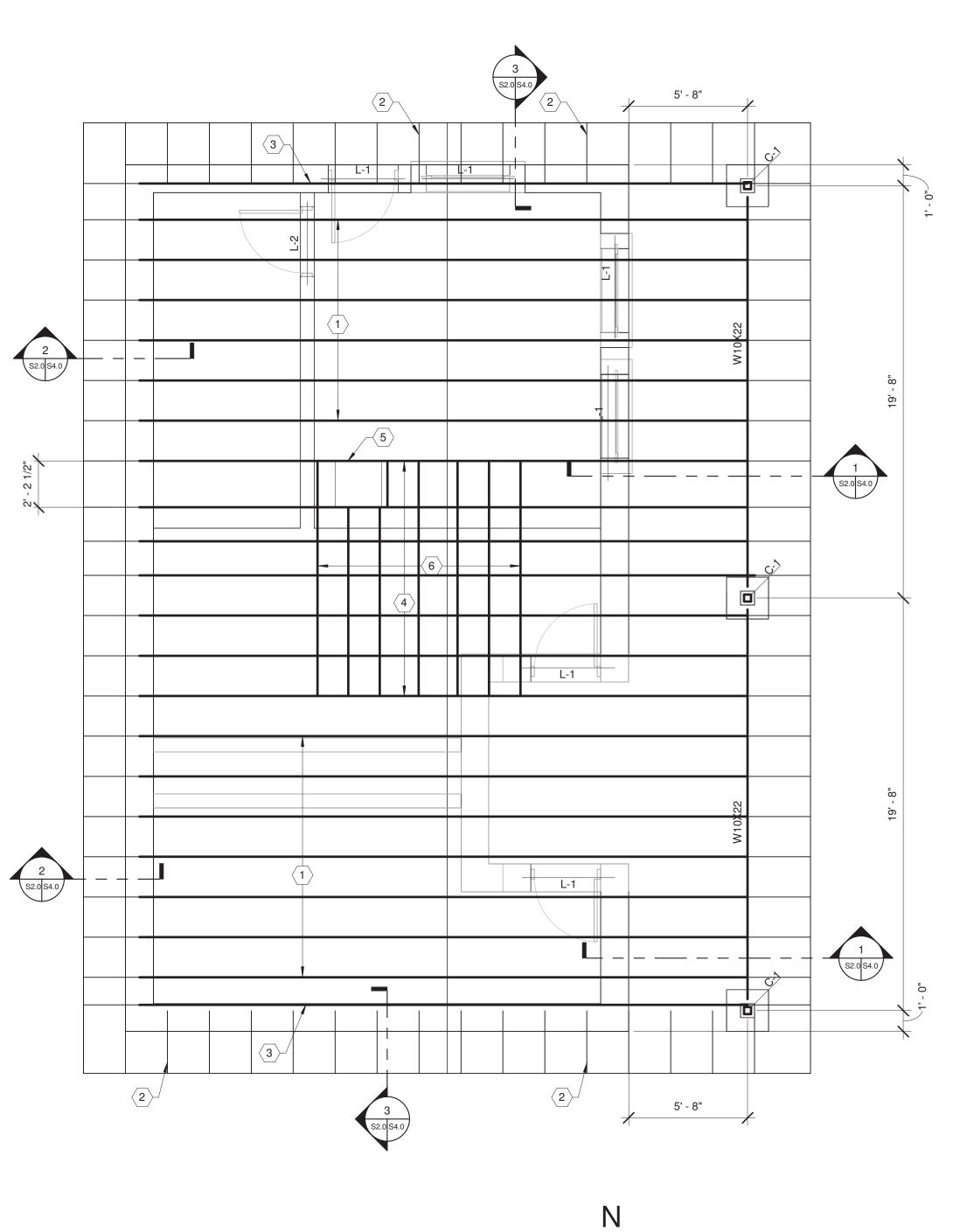
2 52.0 54.0

2' - 2 1/2"



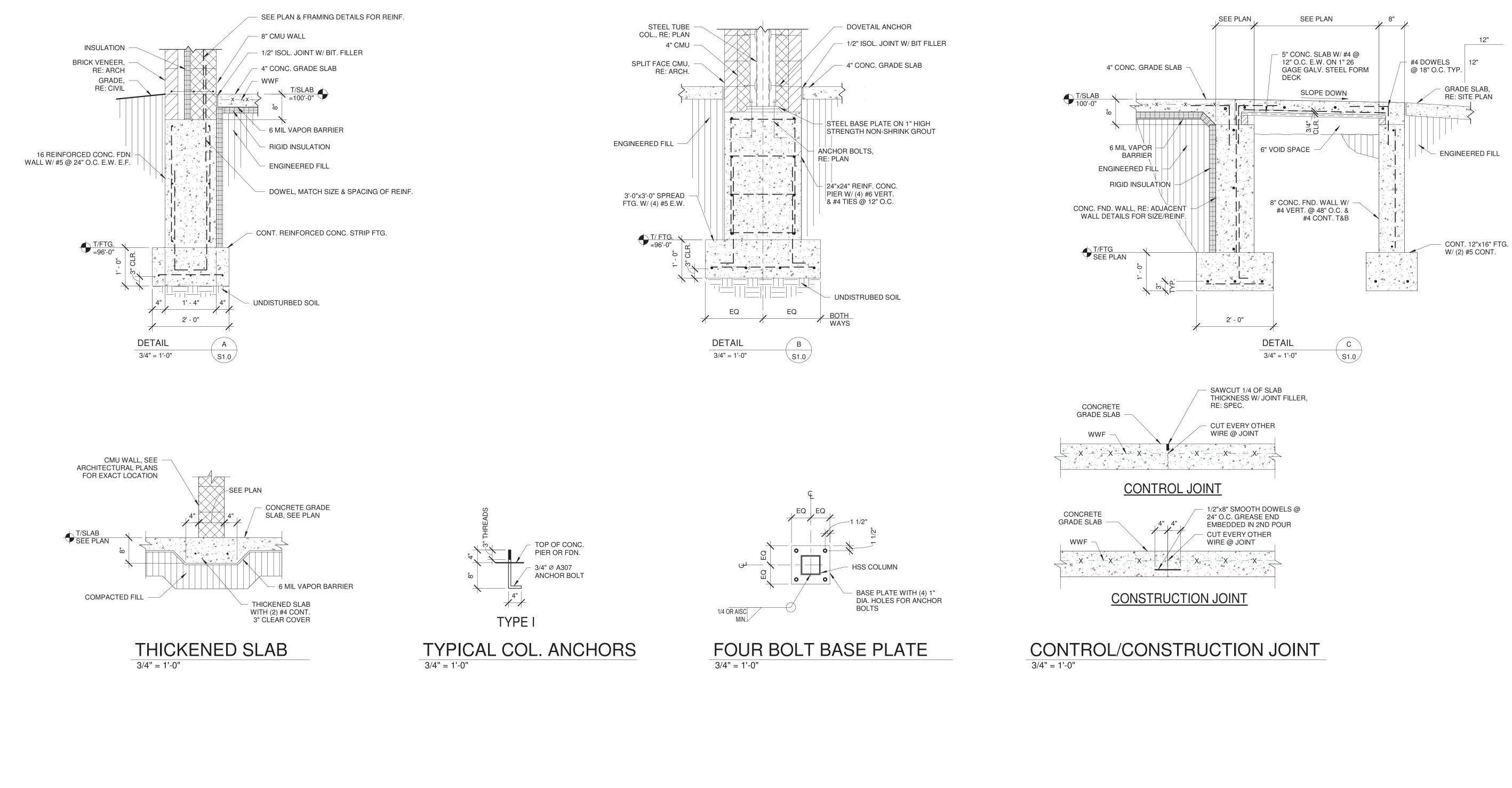
UNBALANCED SNOW LOAD

C:\Usi 5/21/2

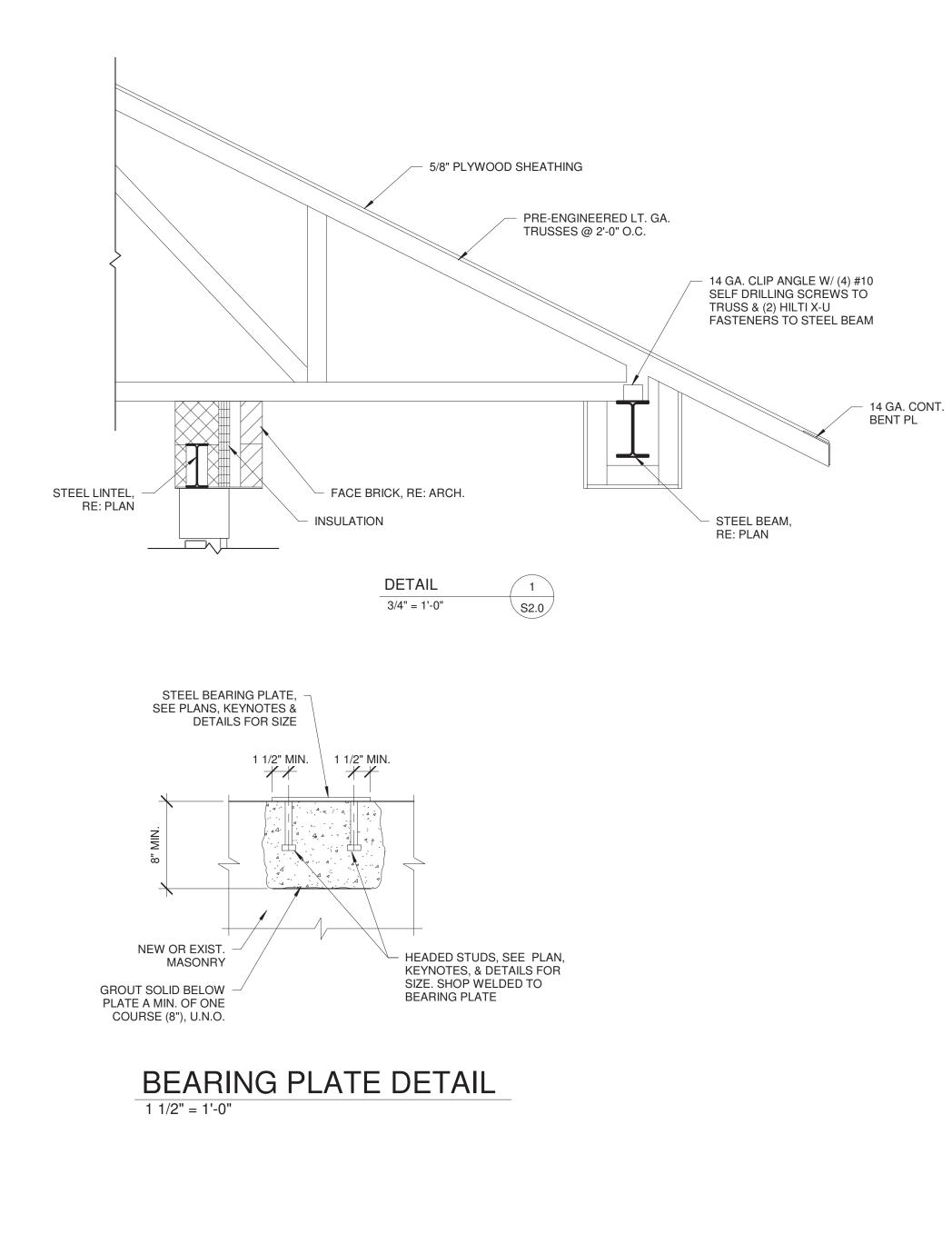


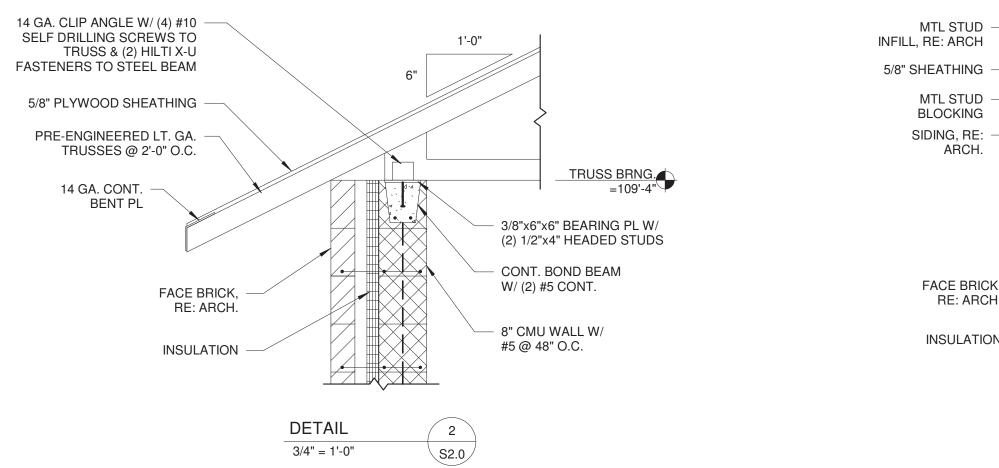


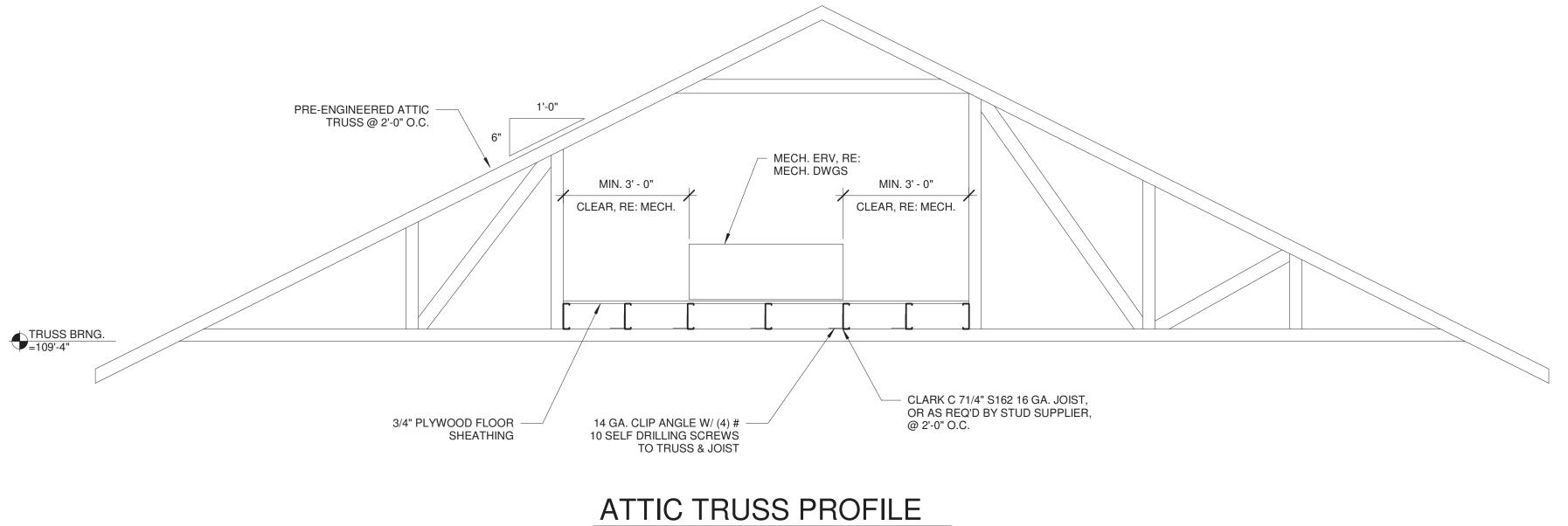
	JE FAX: (906)228-7524 AVE., SUITE 600
 PRE-ENGINEERED LIGHT GAGE STEEL TRUSS @ 24" O.C. OUTRIGGERS @ 2'0" O.C. GABLE END TRUSS. PRE-ENGINEERED LIGHT GAGE STEEL ATTIC TRUSS @ 24" O.C. ATTIC ACCESS, RE: ARCH. CLARK C 71/4" S162 16 GA. JOIST, OR AS REQ'D BY STUD SUPPLIER, AT 2'0" O.C. 	ARQUETTE OFFICE: ARQUETTE OFFICE: ARQUETTE OFFICE: 1201 W. BARAGA AVENUE MARQUETTE, M. 48855 PHONE: (906)228-4480 FAX: (906)228-7524 BRIGHTON OFFICE: 877 W. GRAUD RIVER AVE., SUITE 600 BRIGHTON, M. 48816 DAVIE: 040000 5781 FAVE, SUITE 600 BRIGHTON, M. 48816 DAVIE: 040000 5781 FAVE, SUITE 600
	BRIGHTON AREA SCHOOLS BECC CONCESSION/SLOAN FIELD 2019 BOND PROJECT PROJECT NO. 18-785
	BYDATE:NO.REVISIONSDATEDESIGNNPC02.18.20BDESIGN DEVELOP.03.31.20DRAWNNPC02.18.20CFINAL REVIEW05.11.20DRAWNNPC02.18.20TFOR05.26.20APPROVEDPDNCONSTRUCTION05.26.20
F.S. FOOTING STEP T/ "TOP OF" EXIST. EXISTING F-X FOOTING MARK T.S. THICKENED SLAB TYP. TYPICAL L-X LINTEL MARK C.J. CONTROL/CONSTRUCTION JOINT SIM. SIMILAR T/S TOP OF STEEL	ROOF FRAMING PLAN COPYRIGHT © 2019 INTEGRATED DESIGNS INC.
F.V. FIELD VERIFY N.T.S. NOT TO SCALE U.N.O. UNLESS NOTED OTHERWISE	S2.0



		FNDINFFRING PHONE: (906)228-7524	BRIGHTON OFFICE: 8571 W GRAND RIVER AVE SUITE 600	CONCLETING BRIGHTON, MI 4816	PHONE: (810)229-2701 FAX: (810)229-6767
BRIGHTON AREA SCHOOLS	BECC CONCESSION/SLOAN FIELD			PROJECT NO. 18-785	
DATE	05.11.20	05.26.20			
: NO. REVISIONS	C FINAL REVIEW	1 FOR	CONSTRUCTION		
BY DATE:	DESIGN Designer	DRAWN Author	CHECKED Checker	APPROVED Approver	
		LUUNDAIIUN DEIAILO		COPYRIGHT © 2019 INTEGRATED DESIGNS INC	
		LUUNL		COPYRIGHT ©)

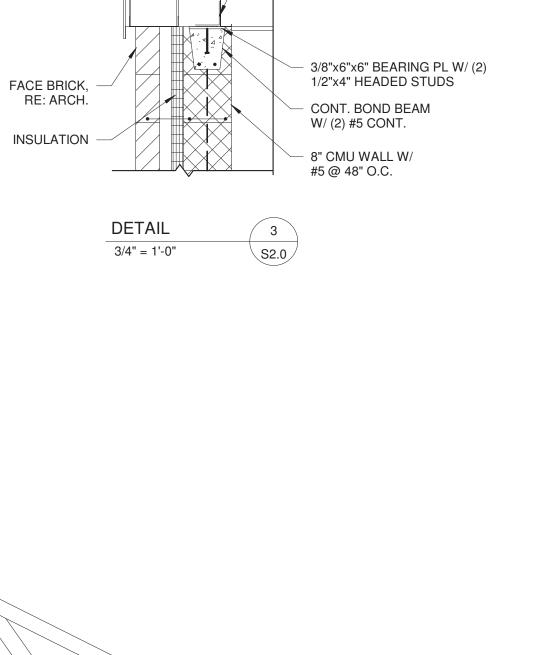






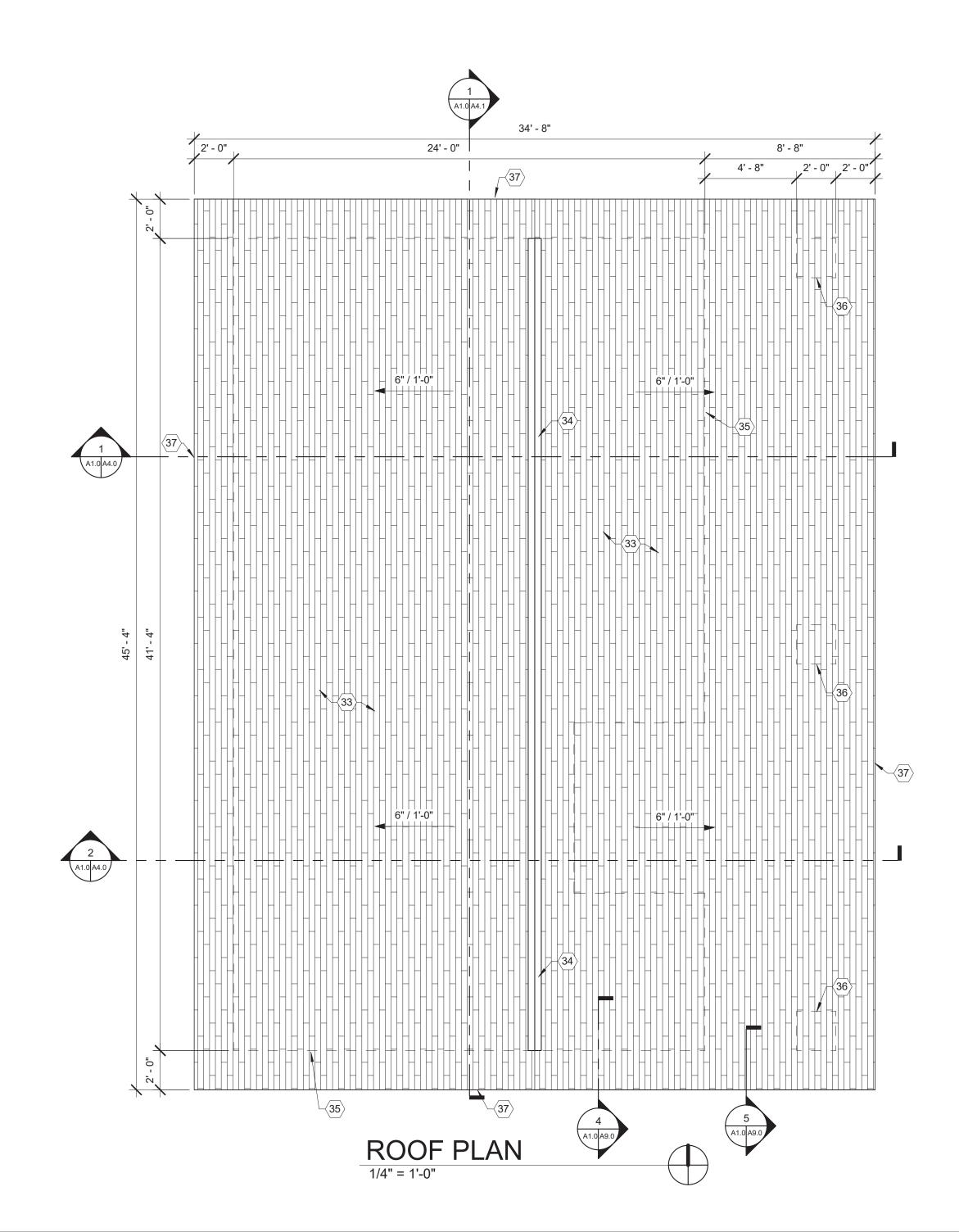
1/2" = 1'-0"

ARCHITECTURE MARQUETTE OFFICE: CONTRACTOR CONCUTTE OFFICE: CONTRACTOR CONCUTTE OFFICE: CONTRACTOR CONCUTTE OFFICE: CONCUTTE OFFICE: CONCUTTE OFF
BRIGHTON AREA SCHOOLS BECC CONCESSION/SLOAN FIELD 2019 BOND PROJECT PROJECT NO. 18-785
BYDATE:NO.REVISIONSDATEesignerCFINAL REVIEW05.11.20Author1FOR05.26.20heckerCONSTRUCTION05.26.20oproverCONSTRUCTION05.26.20
FRAMING DETAILS DESIGN BY D DESIGN DESIGN Designer DRAWN Author CHECKED CHECKED CHECKER COPYRIGHT © 2019 INTEGRATED DESIGNS INC. APPROVED Approver
S4.0

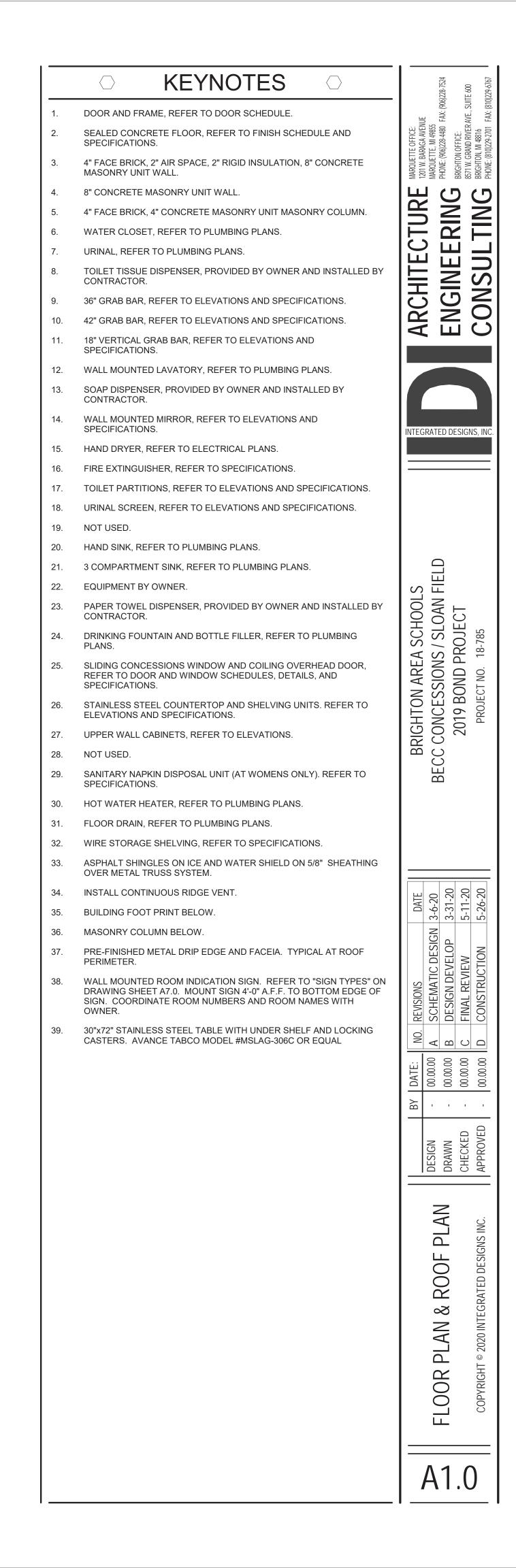


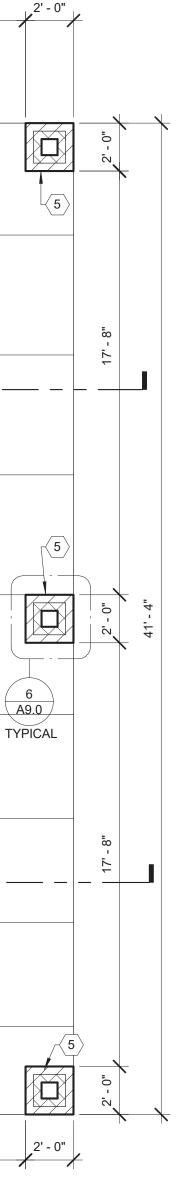
- PRE-ENGINEERED LT. GA. MTL GABLE END TRUSS

14 GA. CLIP ANGLE W/ (4) #10
 SELF DRILLING SCREWS TO
 TRUSS & (2) HILTI X-U FASTENERS
 TO STEEL BEAM @ 24" O.C.



_⟨3⟩ _**∕**3 **∖**(3) **├**(38⟩C 103 $\times \times \times \times \times \times \times \times \times$ (116 A) $\langle 26 \rangle$ $\langle 1 \rangle$ $\langle 32 \rangle$ (104 CONCESSIONS STORAGE 103 104 3 A2.0 2 **\ \ 4 ** WOMEN 4 4 A2.0 102 〔102〕 (38)A 5' - 3" 3' - 5" | 3' - 0" ō ⟨38⟩B 〔101〕 MEN 101 **3** 1' - 4" 4' - 8" FIRST FLOOR PLAN





1' - 4"〜

4' - 4"

4' - 8"

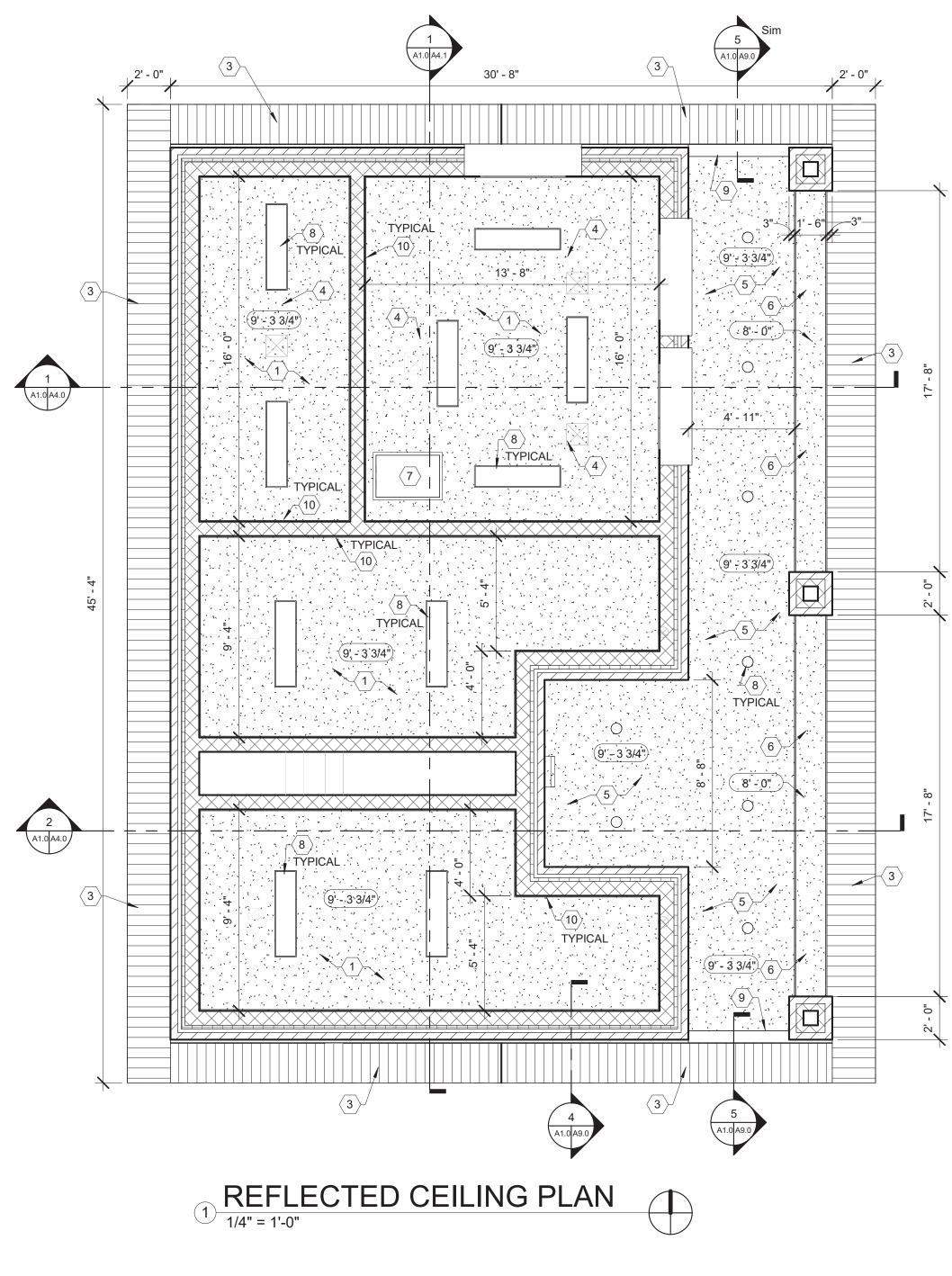
13' - 8"

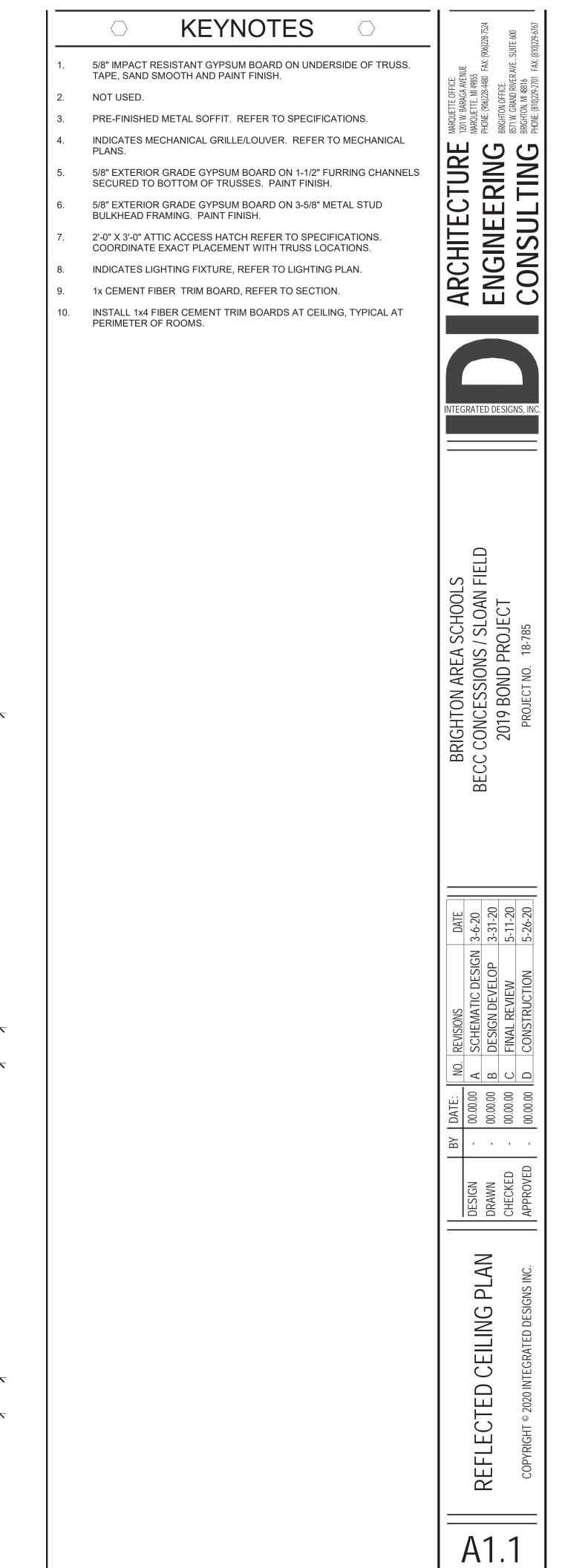
1' - 4", 4' - 0"

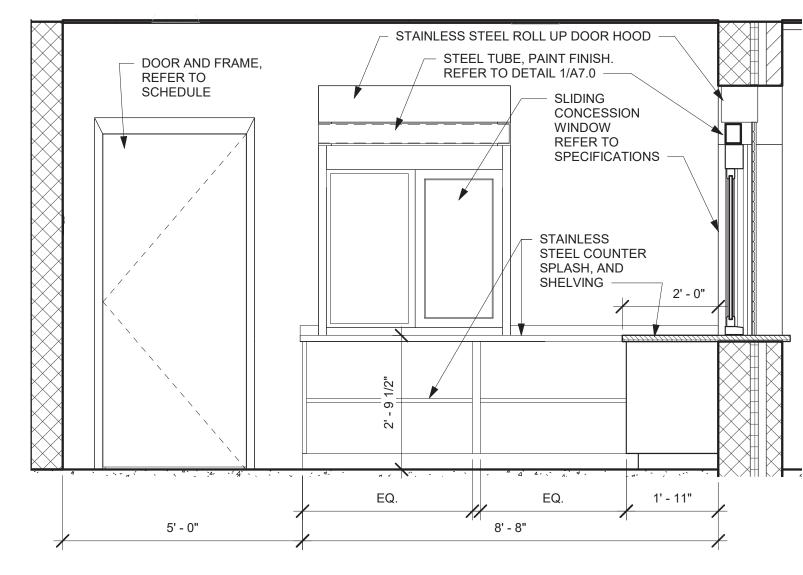
++

8"

3' - 4"

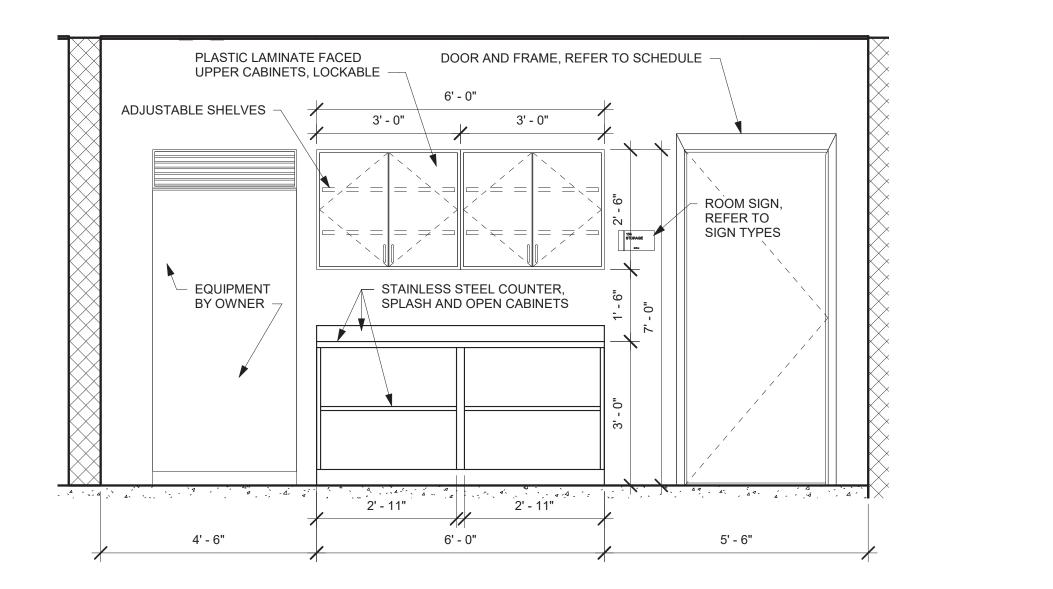


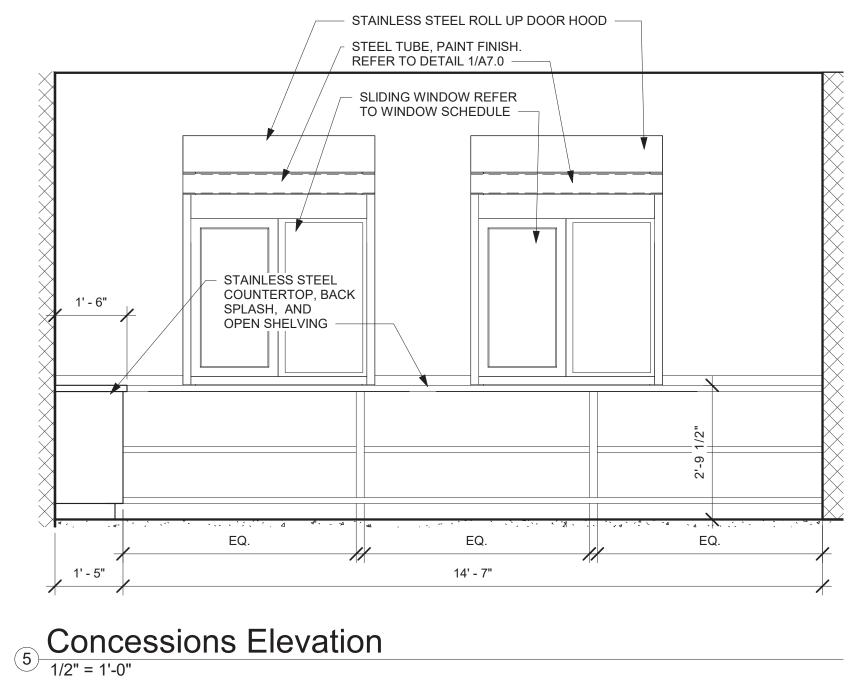




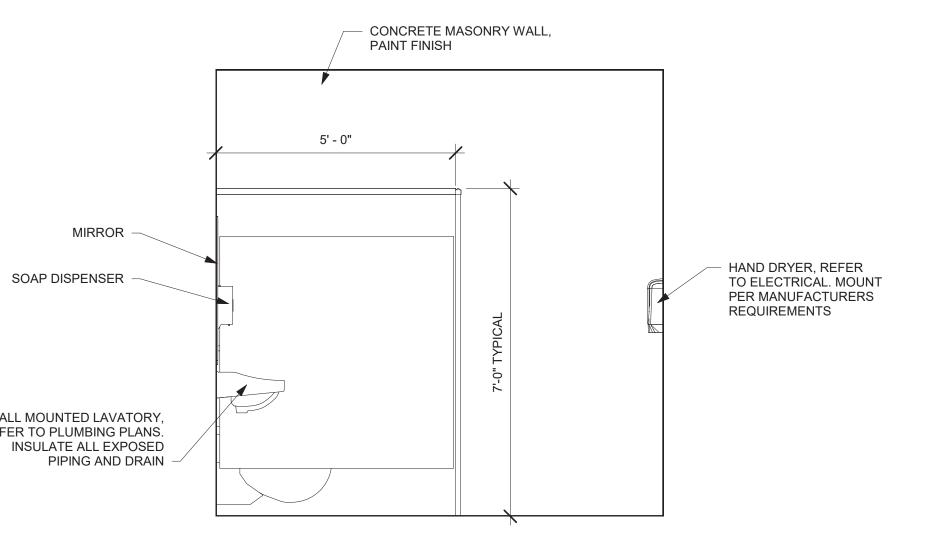


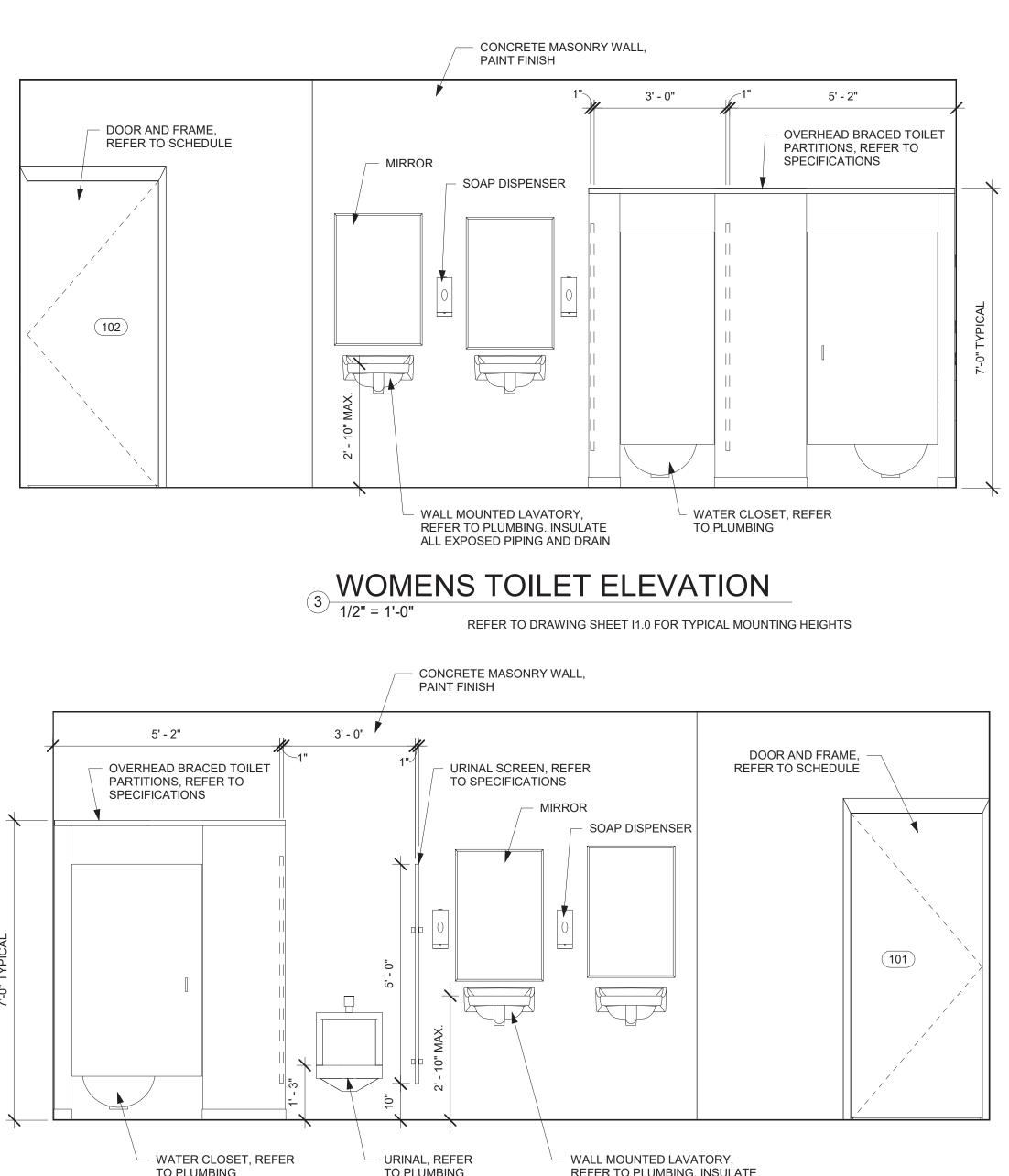
WALL MOUNTED LAVATORY, REFER TO PLUMBING PLANS. INSULATE ALL EXPOSED PIPING AND DRAIN -





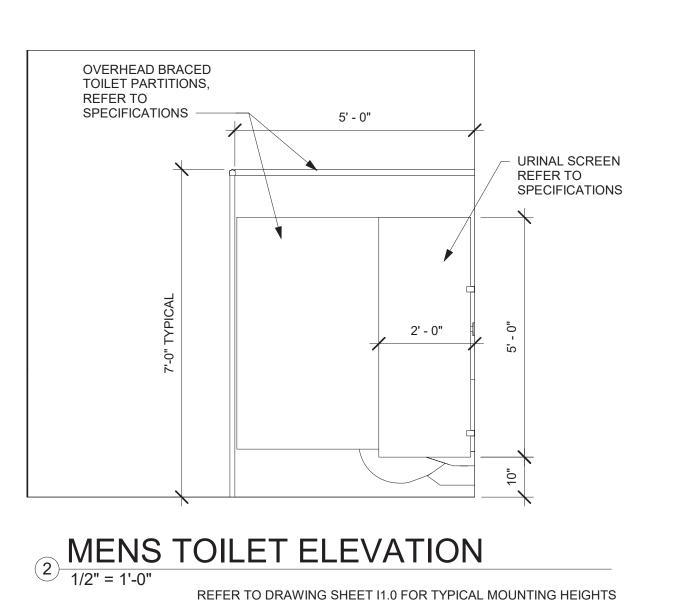


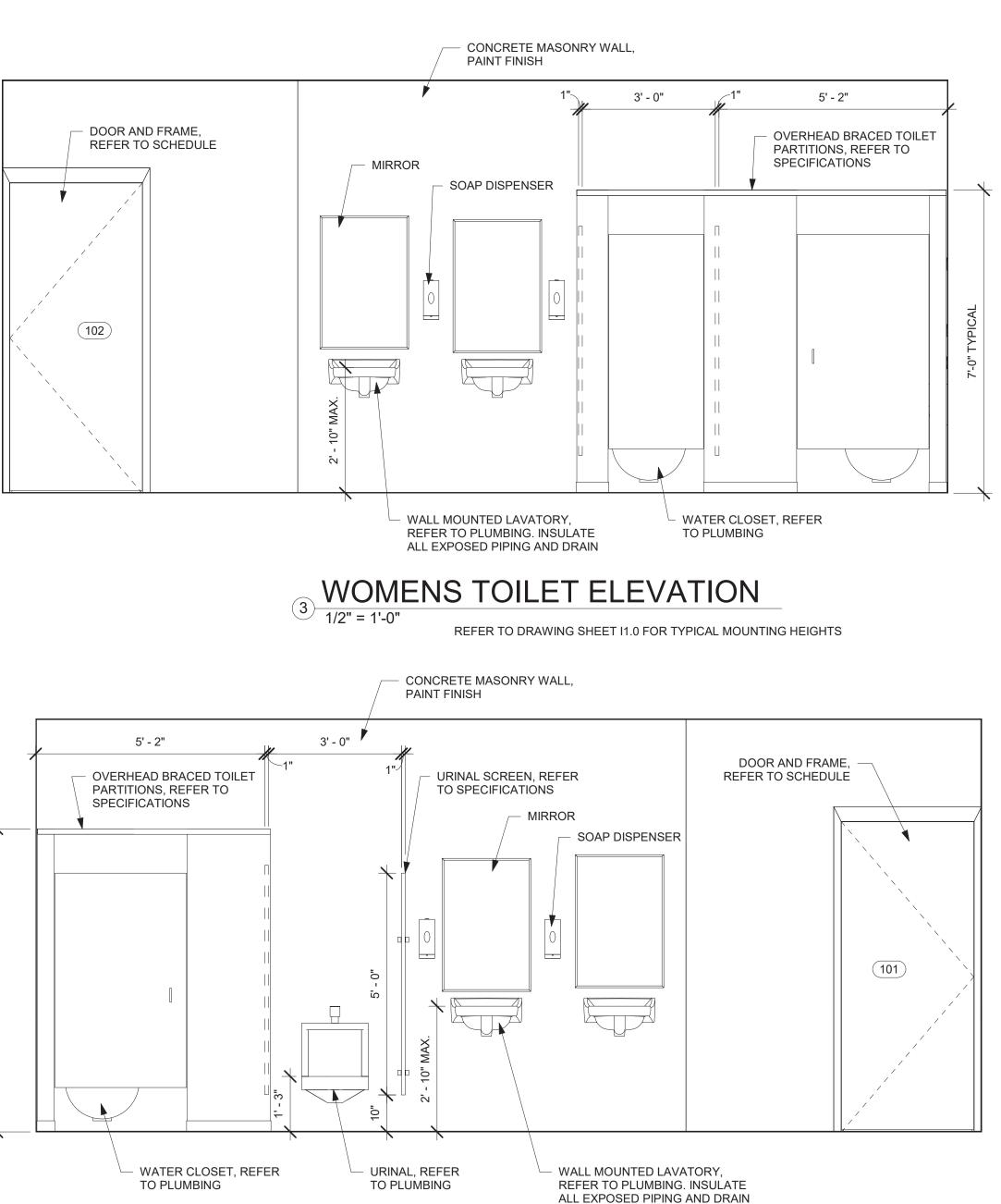






REFER TO DRAWING SHEET I1.0 FOR TYPICAL MOUNTING HEIGHTS

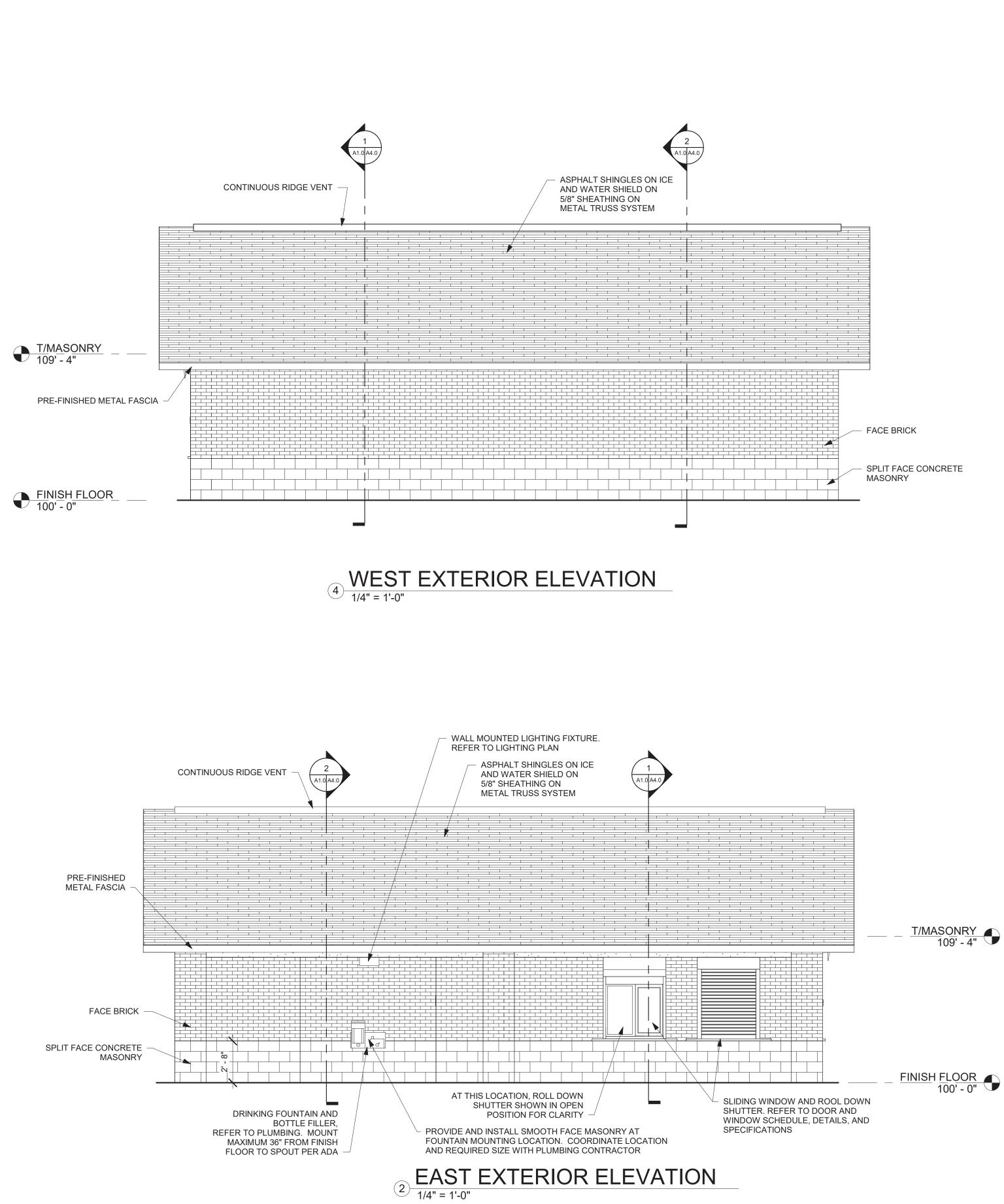




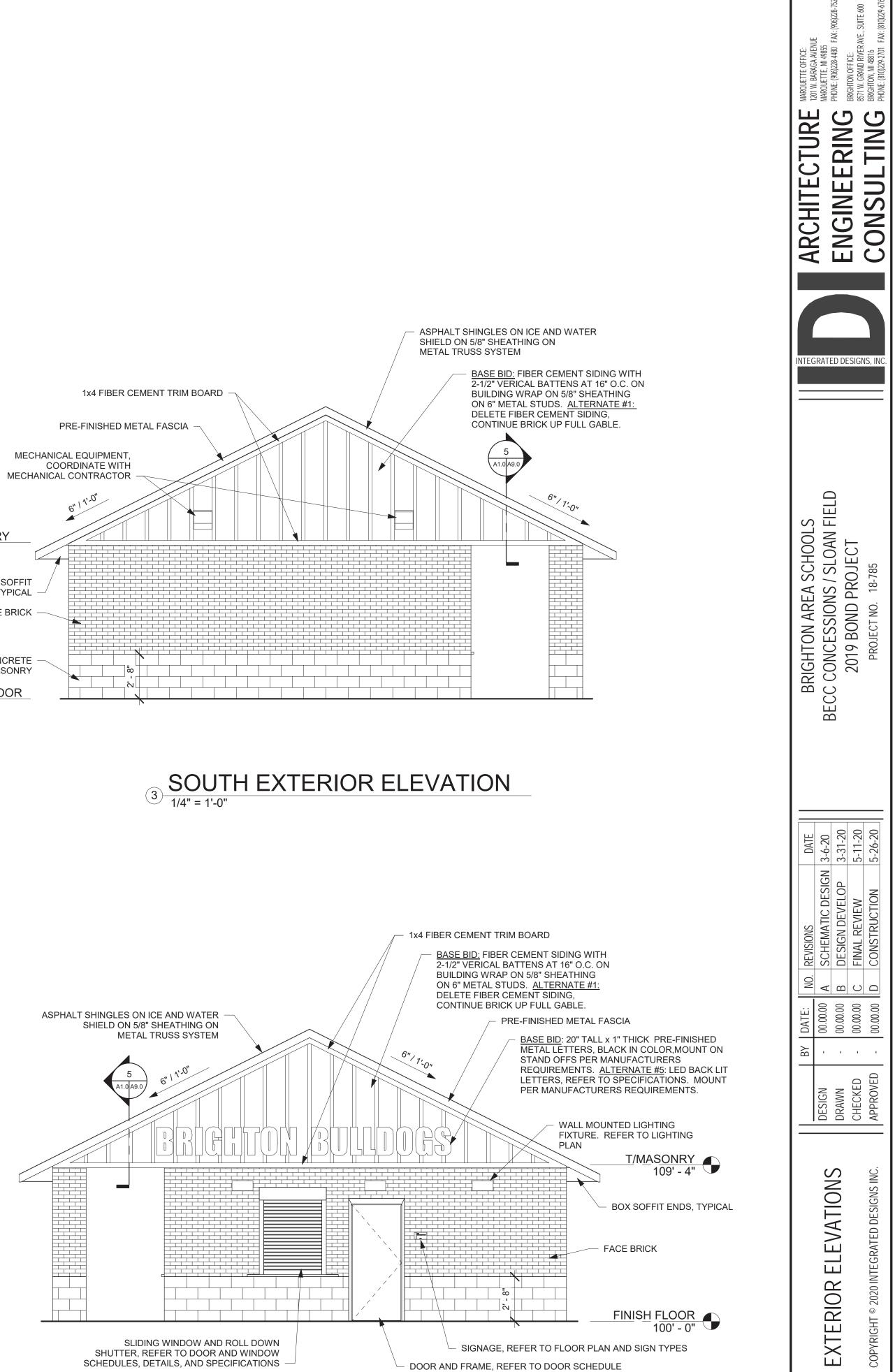
1 MENS TOILET ELEVATION 1/2" = 1'-0"
REFER TO DRAWING SHEET 11 0 FOR TYPIC

REFER TO DRAWING SHEET I1.0 FOR TYPICAL MOUNTING HEIGHTS

		ELUCIONE: (906)228-4480 FAX: (906)228-7524			
BRIGHTON AREA SCHOOLS	RECC CONCESSIONS / SLOAN FIELD		2019 BOND PROJECT	PROJECT NO. 18-785	
BY DATE: NO. REVISIONS DATE	DESIGN - 00.00.00 A SCHEMATIC DESIGN 3-6-20	DRAWN - 00.00.00 B DESIGN DEVELOP 3-31-20	CHECKED - 00.00.00 C FINAL REVIEW 5-11-20	APPROVED - 00.00.00 D CONSTRUCTION 5-26-20	-
				COPYRIGHT © 2020 INTEGRATED DESIGNS INC.	



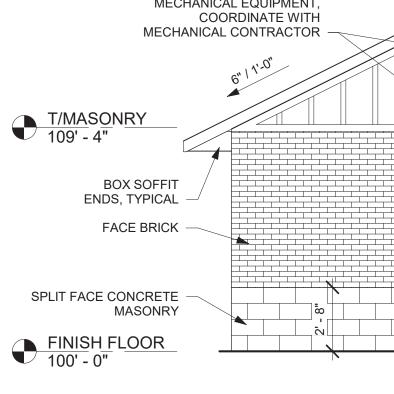
SCHEDULES, DETAILS, AND SPECIFICATIONS -



SPLIT FACE CONCRETE MASONRY

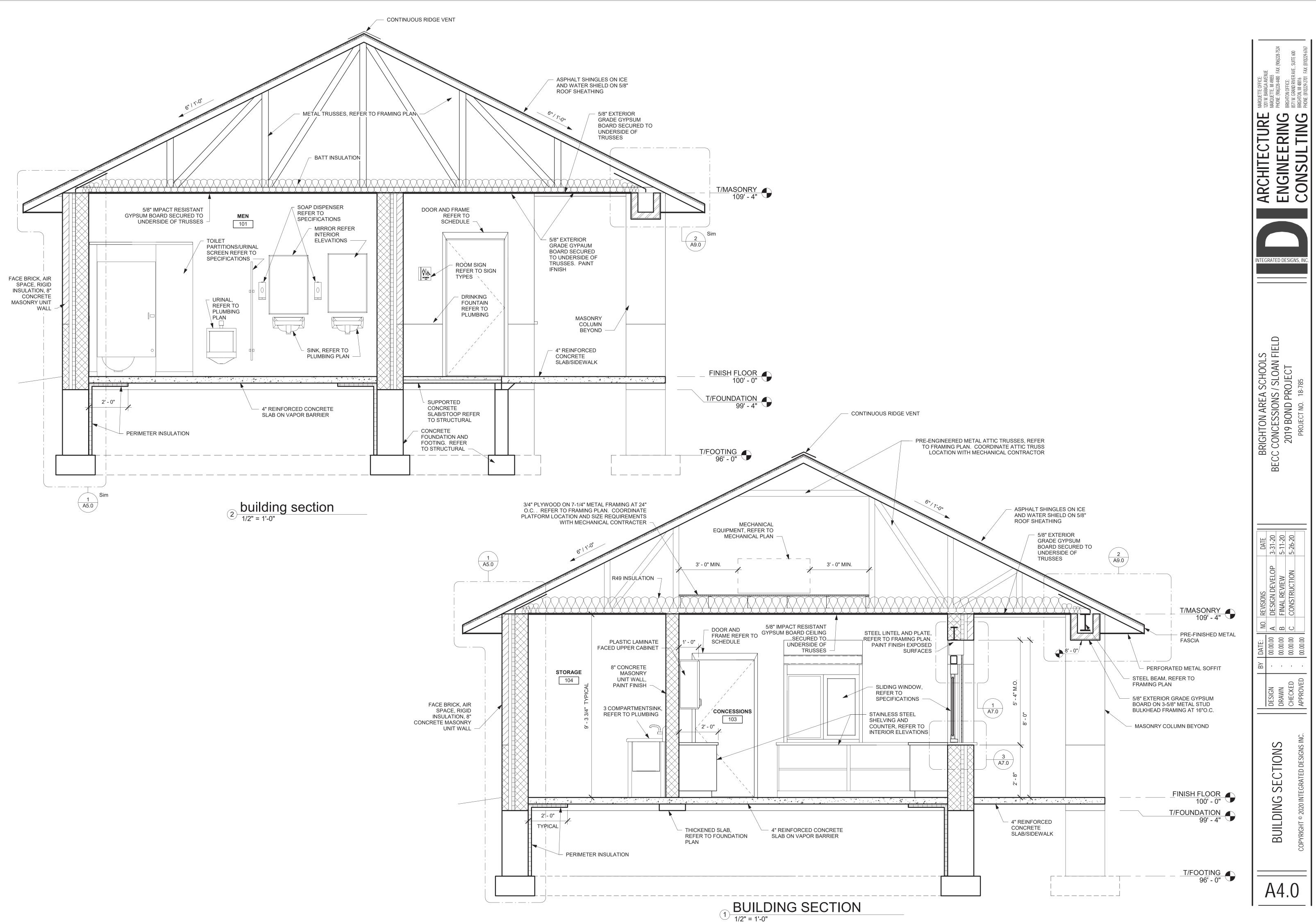
T/MASONRY 109' - 4"

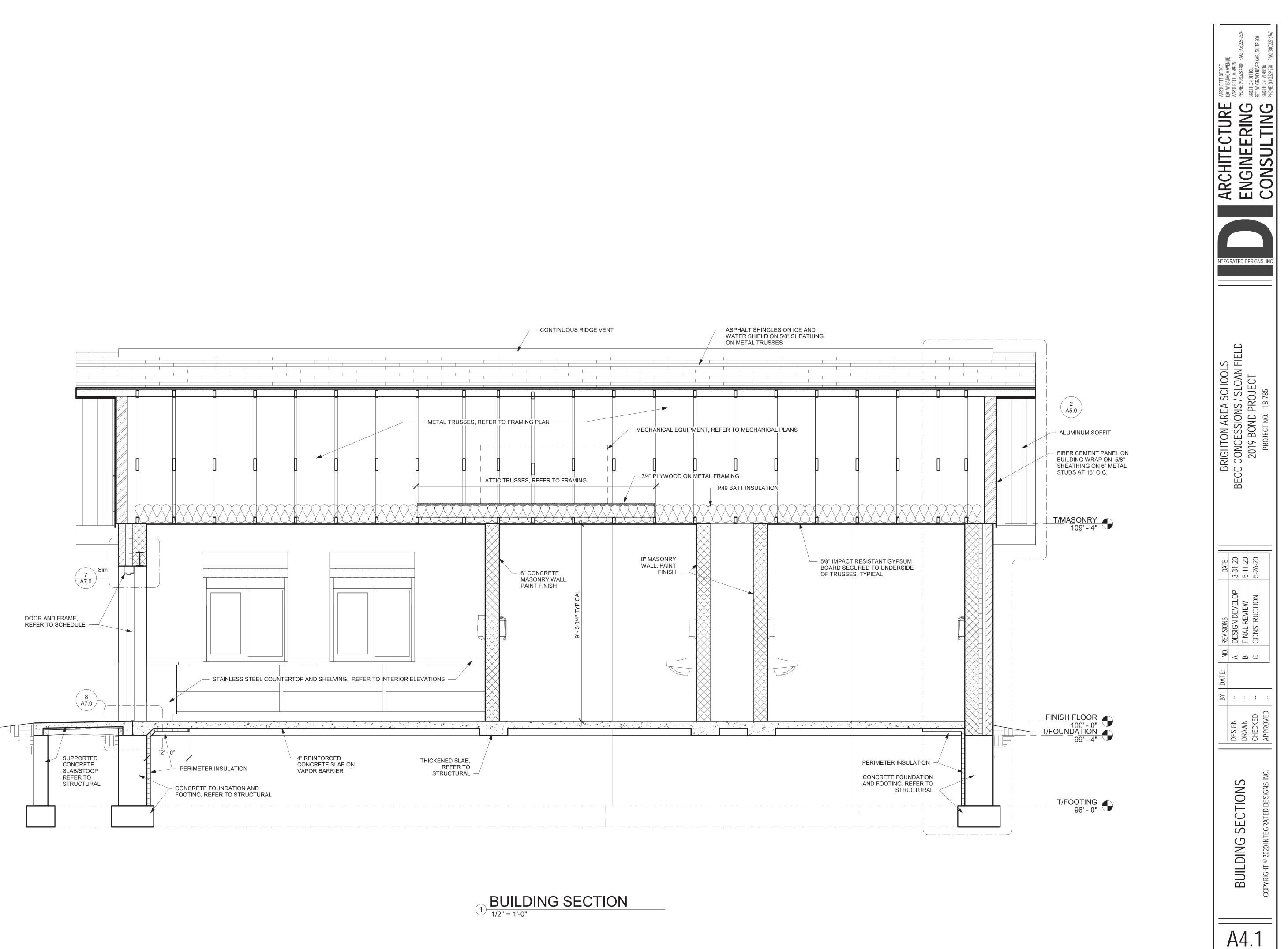
FACE BRICK



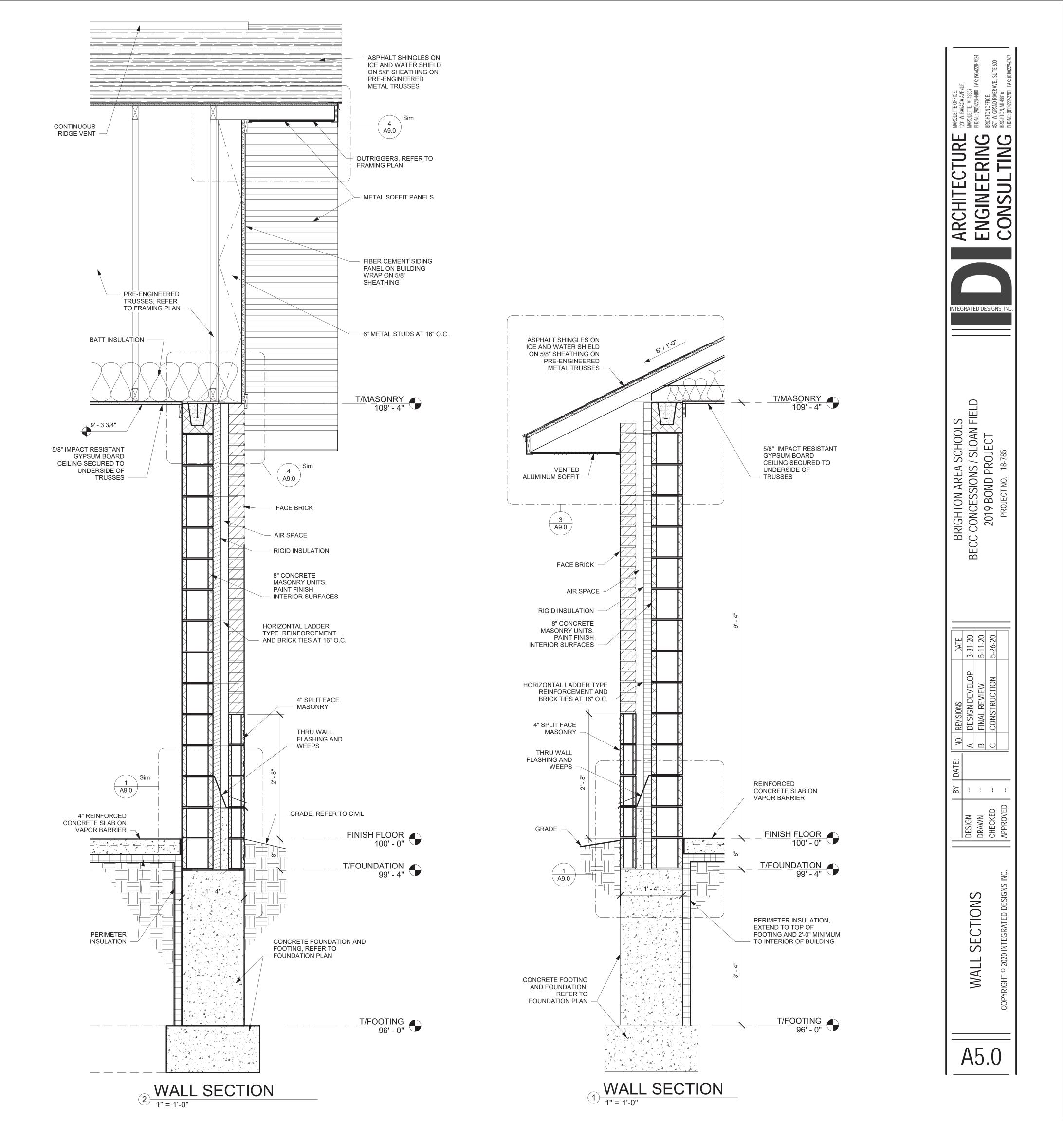
1 NORTH EXTERIOR ELEVATION

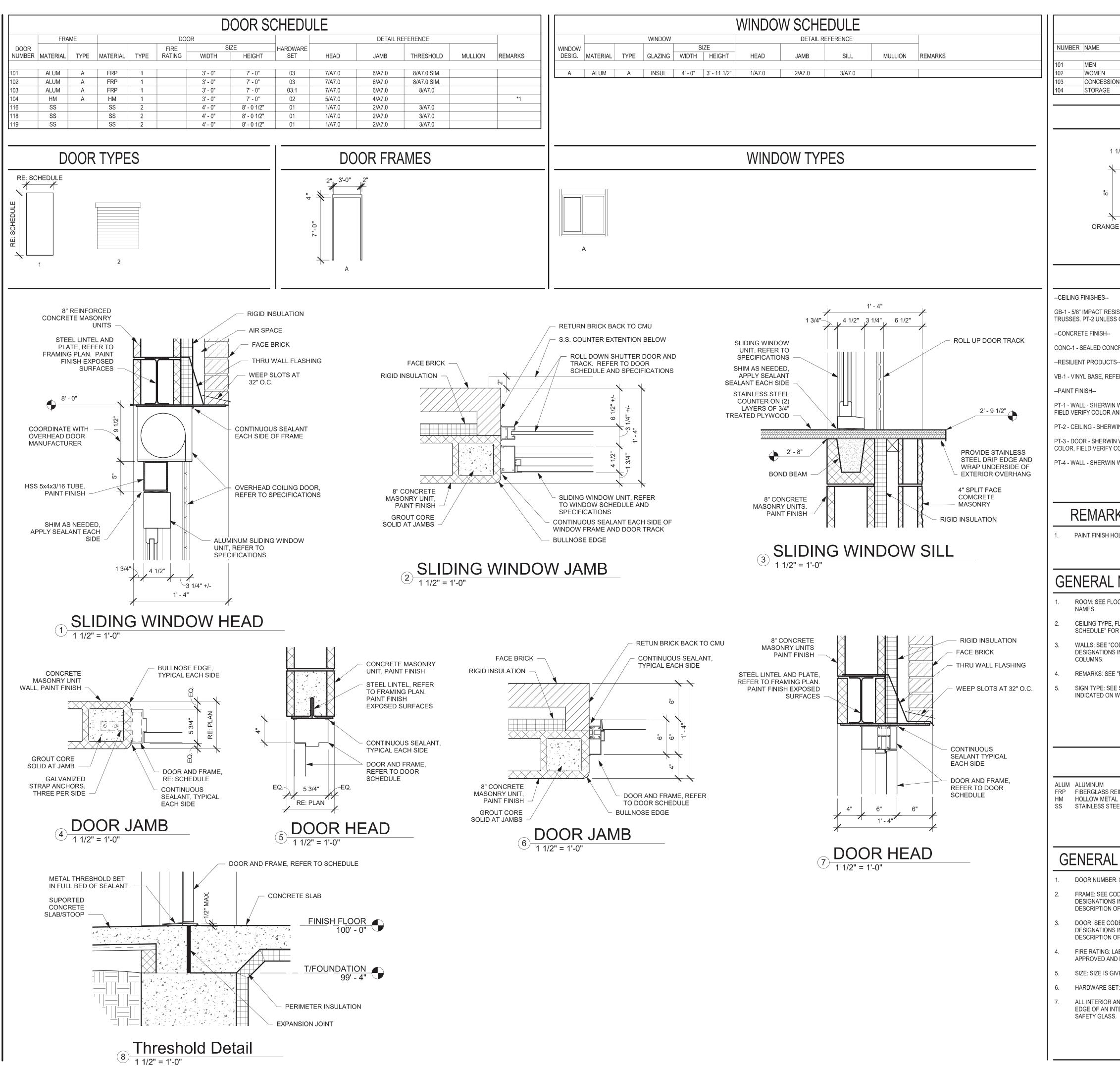
A3.0





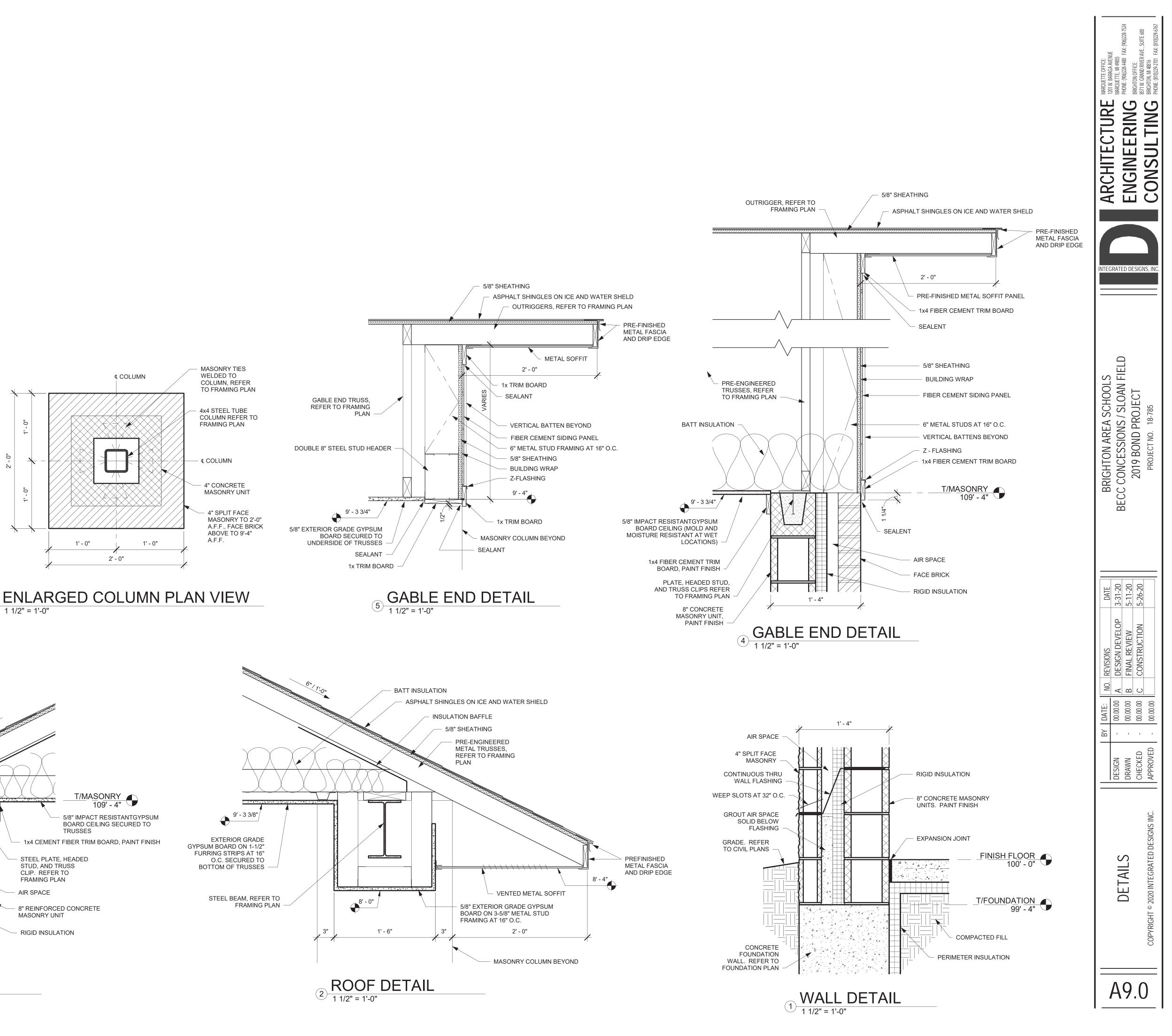


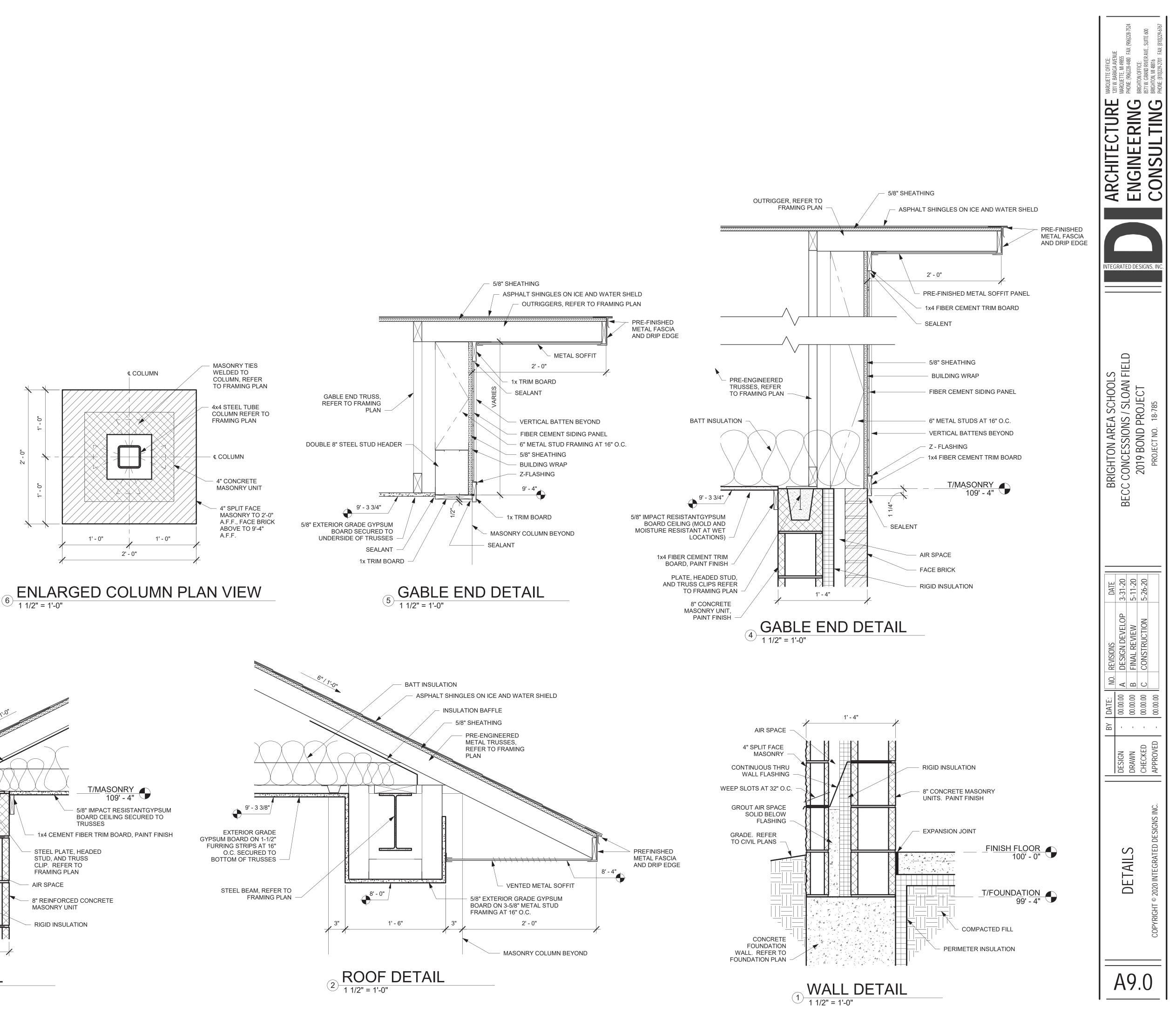


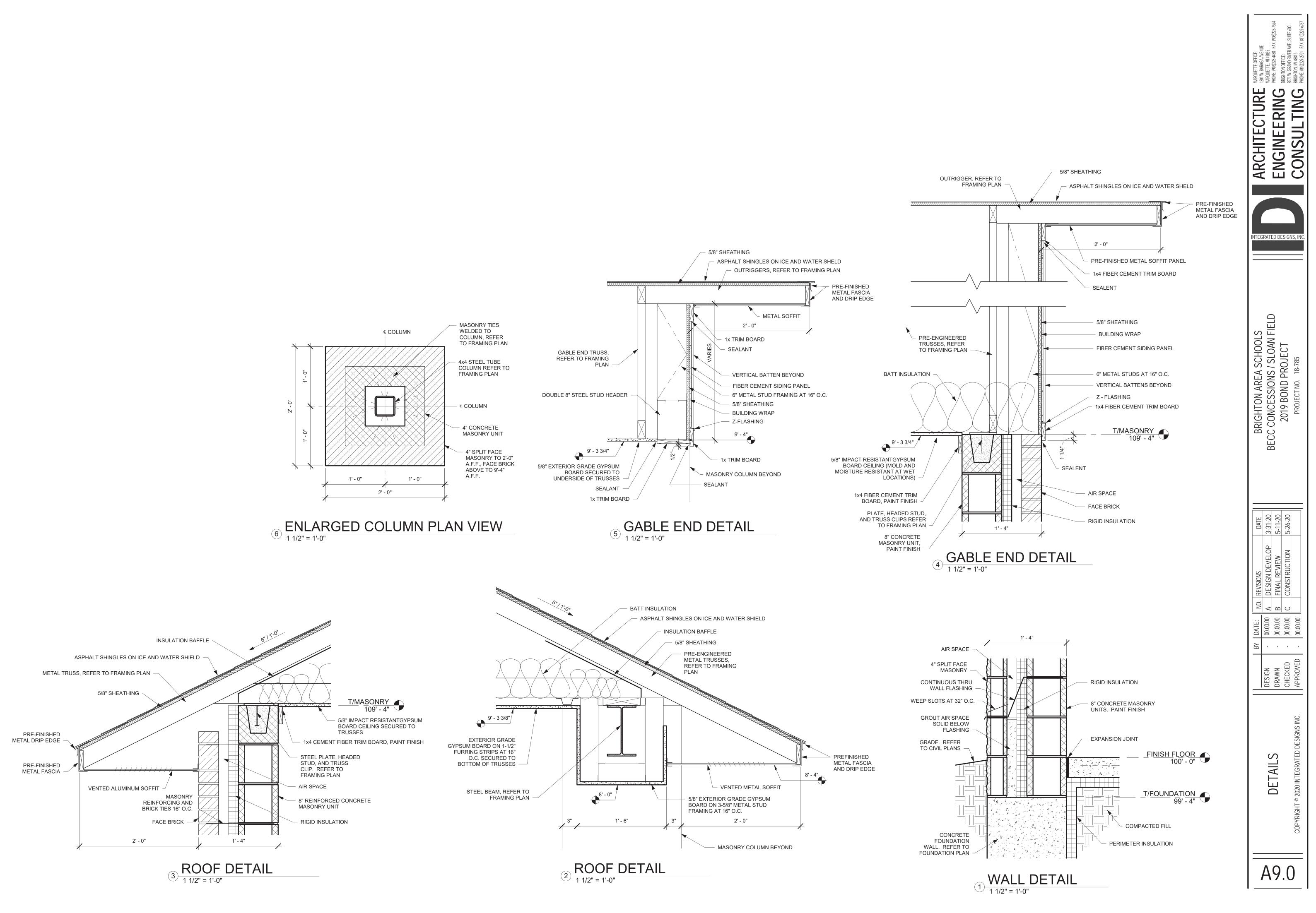


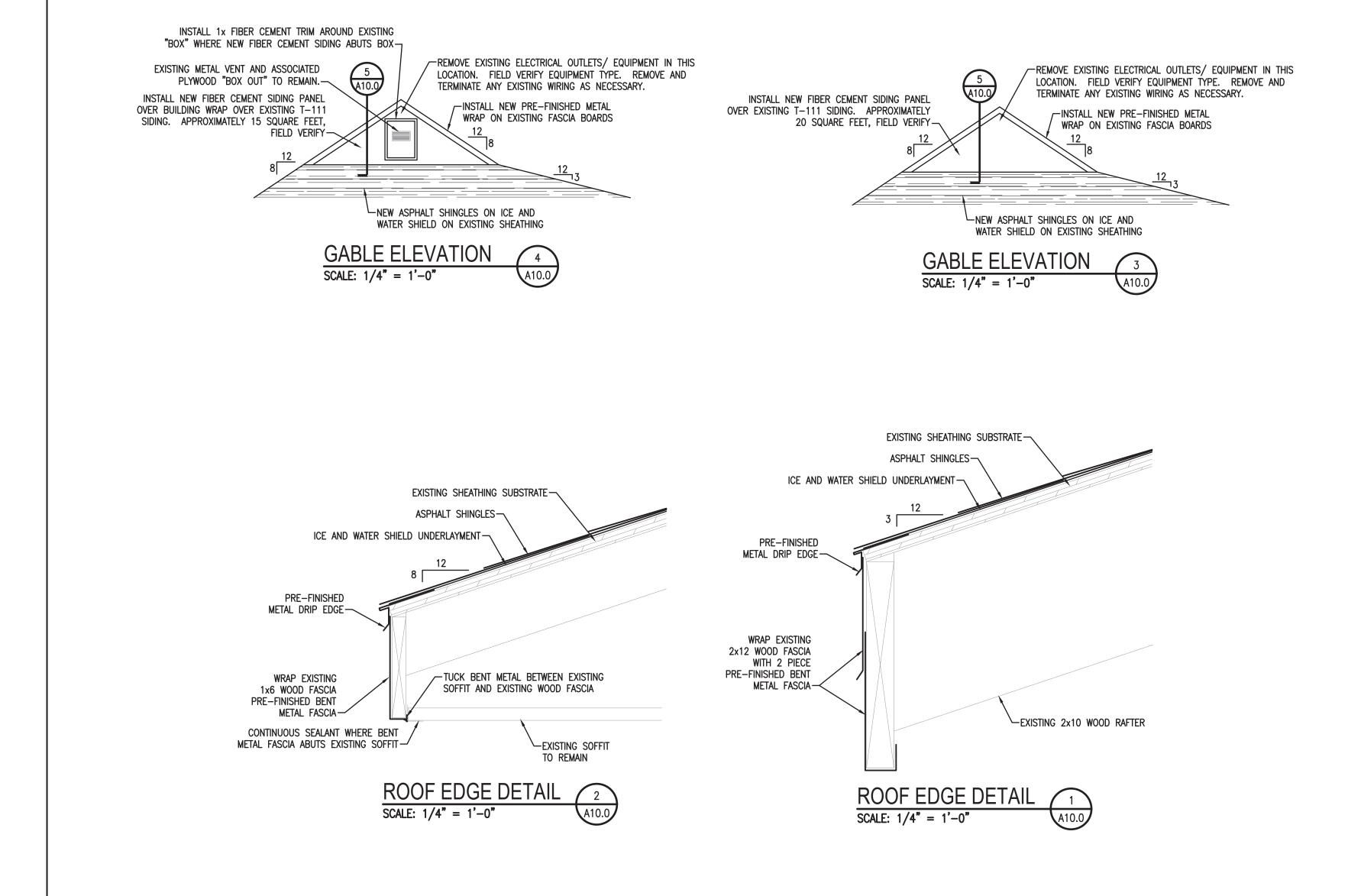
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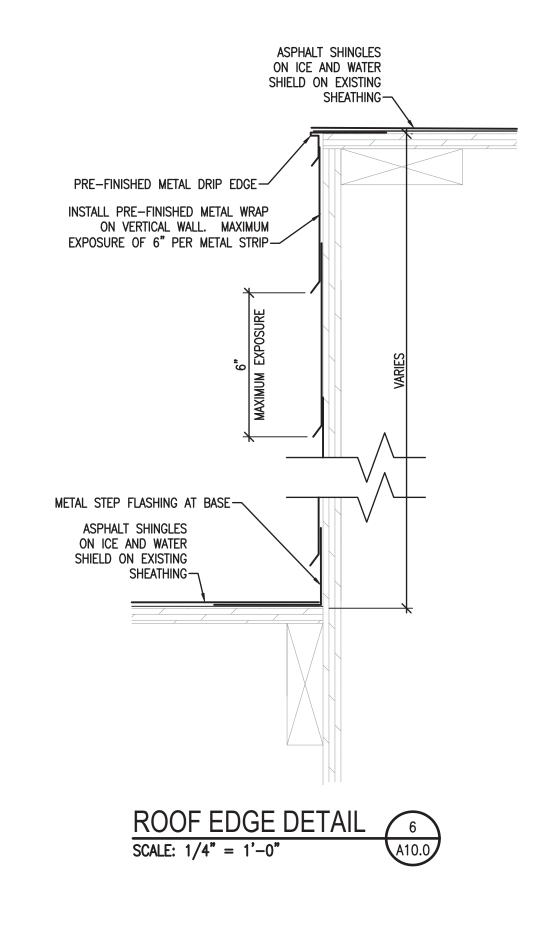
ROOM FINISH S	SCHEDULE	3.7524 500
ROOMCEILING TYPEFLOORBASEGB-1CONC-1GB-1CONC-1ISGB-1CONC-1VB-1GB-1CONC-1VB-1	WALLSTYPICALNORTHEASTSOUTHWESTREMARKSPT-1 </td <td>MARQUETTE OFFICE: 1201 W. BARAGA AVENUE MARQUETTE, MI 49855 PHONE: (906)228-4480 FAX: (906)228-7524 BRIGHTON OFFICE: 8571 W. GRAND RIVER AVE., SUITE 600 BRIGHTON, MI 48816 PHONE: (810)229-2701 FAX: (810)229-6767</td>	MARQUETTE OFFICE: 1201 W. BARAGA AVENUE MARQUETTE, MI 49855 PHONE: (906)228-4480 FAX: (906)228-7524 BRIGHTON OFFICE: 8571 W. GRAND RIVER AVE., SUITE 600 BRIGHTON, MI 48816 PHONE: (810)229-2701 FAX: (810)229-6767
SIGN 1	TYPES	NG NG
	9" 9" 1 1/4" 7 1/2" 1/4" 7 1/2" 1/4" 1/4" 103 CONCESSIONS 104 STORAGE 104 STORAGE 4.LE LETTERING, 4 ALLE LETTERING, SIGN TYPES SIGN TYPE 'C' SIGN TYPE 'D'	ARCHITECTI ENGINEERI CONSULTI
CODE TO ROOM FI	NISH SCHEDULES	INTEGRATED DESIGNS, INC.
STANT GYPSUM BOARD APPLIED TO BOTTOM CHORD OF OTHERWISE NOTED.	CABINETRY PL-1 - PLASTIC LAMINATE - WILSONART, COLOR:	
RETE, REFER TO SPECIFICATIONS.		
- R TO SPECIFICATIONS.		IELD
VILLIAMS, COLOR: DISTRICT STANDARD WALL COLOR, D FINISH WITH OWNER, EPOXY PAINT ON BLOCK FILLER N WILLIAMS, STANDARD CEILING PAINT, WHITE, FLAT FINISH WILLIAMS, COLOR: DISTRICT STANDARD DOOR/FRAME DLOR AND FINISH WITH OWNER VILLIAMS, COLOR: NAVEL SW6887		BRIGHTON AREA SCHOOLS C CONCESSIONS / SLOAN FI 2019 BOND PROJECT PROJECT NO. 18-785
KS TO DOOR SCHEDULE	REMARKS TO FINISH SCHEDULE	BI
LLOW METAL DOOR AND FRAME PT-3		BE
NOTES TO FIN. SCHEDULE DR PLAN(S) FOR LOCATION OF ROOM NUMBERS AND	REMARKS TO WINDOW SCHEDULE	
LOOR, AND BASE: SEE "CODE TO ROOM FINISH DEFINITION OF DESIGNATIONS. DE TO ROOM FINISH SCHEDULE" FOR DEFINITION OF N TYPICAL, NORTH, SOUTH, EAST, AND WEST		DATE ESIGN 3-6-20 LOP 3-31-20 N 5-11-20 DN 5-26-20
REMARKS TO FINISH SCHEDULE". SPECIFICATIONS FOR SIGN TYPES. LOCATE SIGN /ALL OUTSIDE ROOM NEAR MAIN ROOM DOOR.		NO. REVISIONS A SCHEMATIC D B DESIGN DEVE C FINAL REVIEW D CONSTRUCTIO
CODE TO DOOR & W	INDOW SCHEDULES	Y DATE: 00.00.00 00.00.00 00.00.00
NFORCED PLASTIC	IG INSULATED GLAZING	DESIGN - DRAWN - CHECKED - APPROVED -
NOTES TO DOOR SCHED.	GENERAL NOTES TO WDW. SCHED.	OR S Designs inc.
SEE FLOOR PLAN(S) FOR LOCATION OF DOORS. DE TO "DOOR/WINDOW SCHEDULE" FOR DEFINITION OF N MATERIAL COLUMN. SEE "DOOR FRAMES" FOR DESIGNATIONS IN FRAME TYPE COLUMN. E TO "DOOR/WINDOW SCHEDULE" FOR DEFINITION OF N MATERIAL COLUMN. SEE "DOOR TYPES" FOR DESIGNATIONS IN DOOR TYPE COLUMN. BELING INDICATED IS PER NFPA 80. LABELS SHALL BE PERMANENTLY AFFIXED. EN AS WIDTH x HEIGHT. SEE HARDWARE SPECIFICATIONS FOR DESCRIPTIONS. ID EXTERIOR WINDOWS WITHIN 24" TO THE VERTICAL ERIOR OR EXTERIOR DOOR MUST CONTAIN TEMPERED	 WINDOW DESIGNATION: SEE FLOOR PLAN(S) FOR LOCATION OF WINDOWS. FRAME: SEE CODE TO "DOOR/WINDOW SCHEDULE" FOR DEFINITION OF DESIGNATIONS IN MATERIAL COLUMN. SEE "WINDOW TYPES" FOR DESCRIPTION OF DESIGNATIONS IN FRAME TYPE COLUMN. WINDOW: SEE CODE TO "DOOR/WINDOW SCHEDULE" FOR DEFINITION OF DESIGNATIONS IN GLAZING COLUMN. SIZE: SIZE IS GIVEN AS WIDTH x HEIGHT. HARDWARE SET: SEE HARDWARE SPECIFICATIONS FOR DESCRIPTIONS. ALL INTERIOR AND EXTERIOR WINDOWS WITHIN 24" TO THE VERTICAL EDGE OF AN INTERIOR OR EXTERIOR DOOR MUST CONTAIN TEMPERED SAFETY GLASS. 	WINDOW & DOOF SCHEDULES COPYRIGHT © 2020 INTEGRATED DESIG
		A7.0

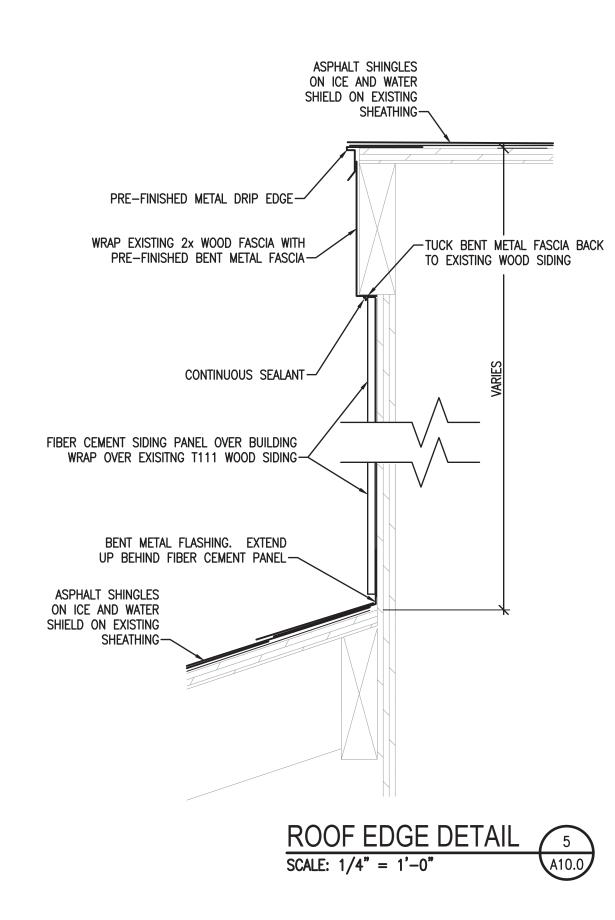


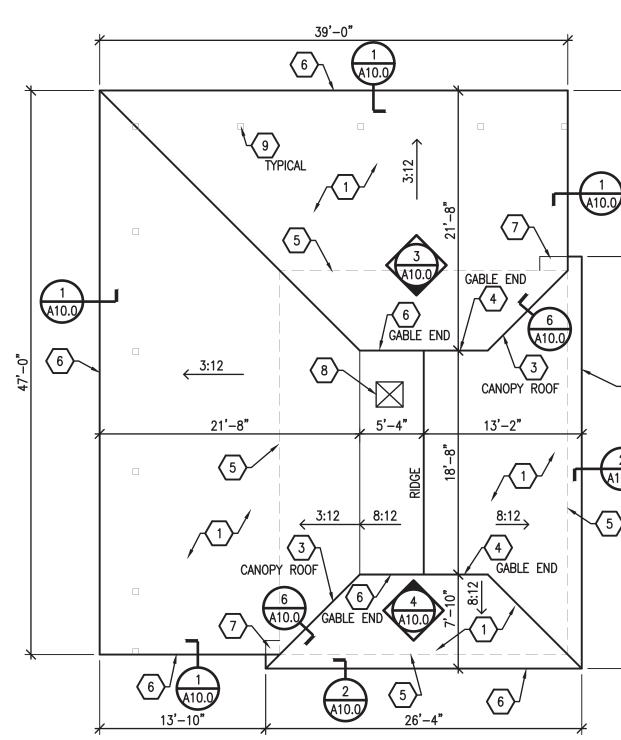






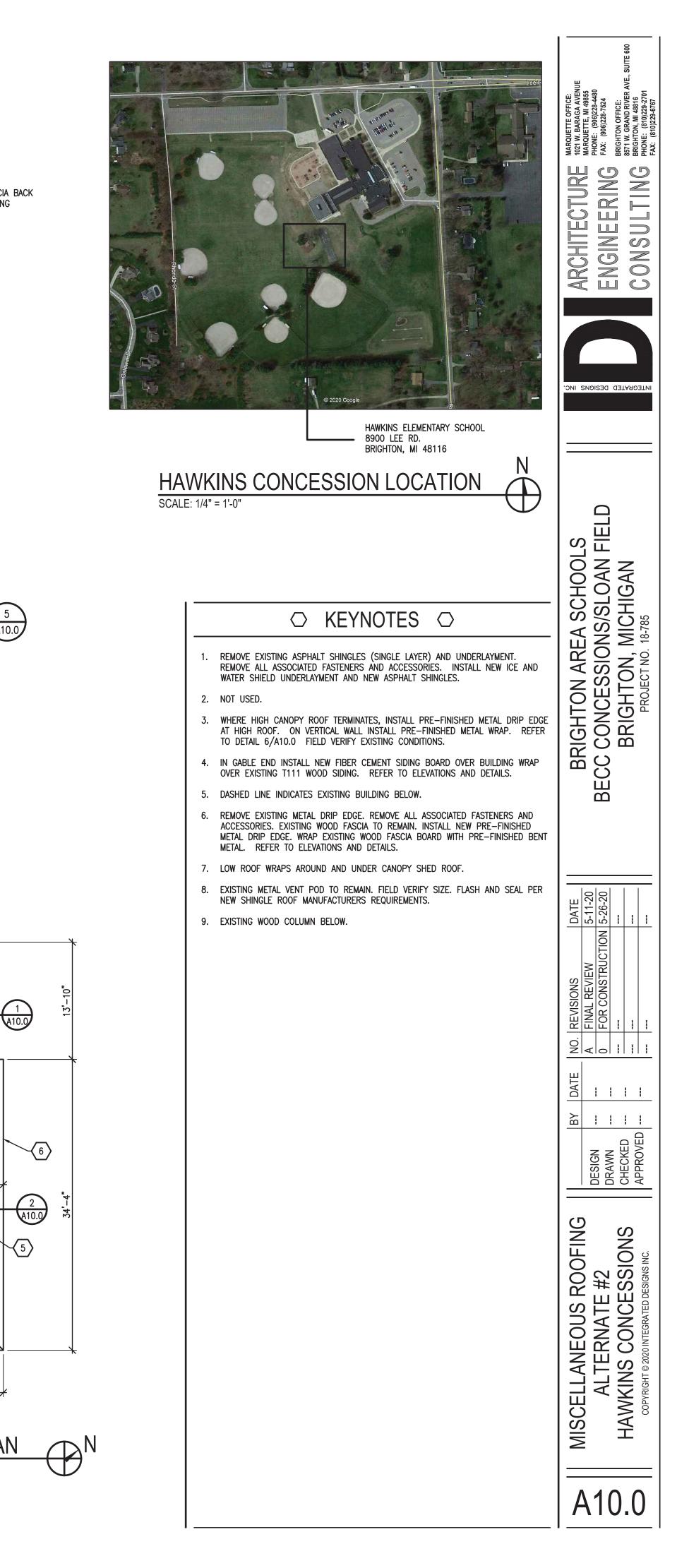




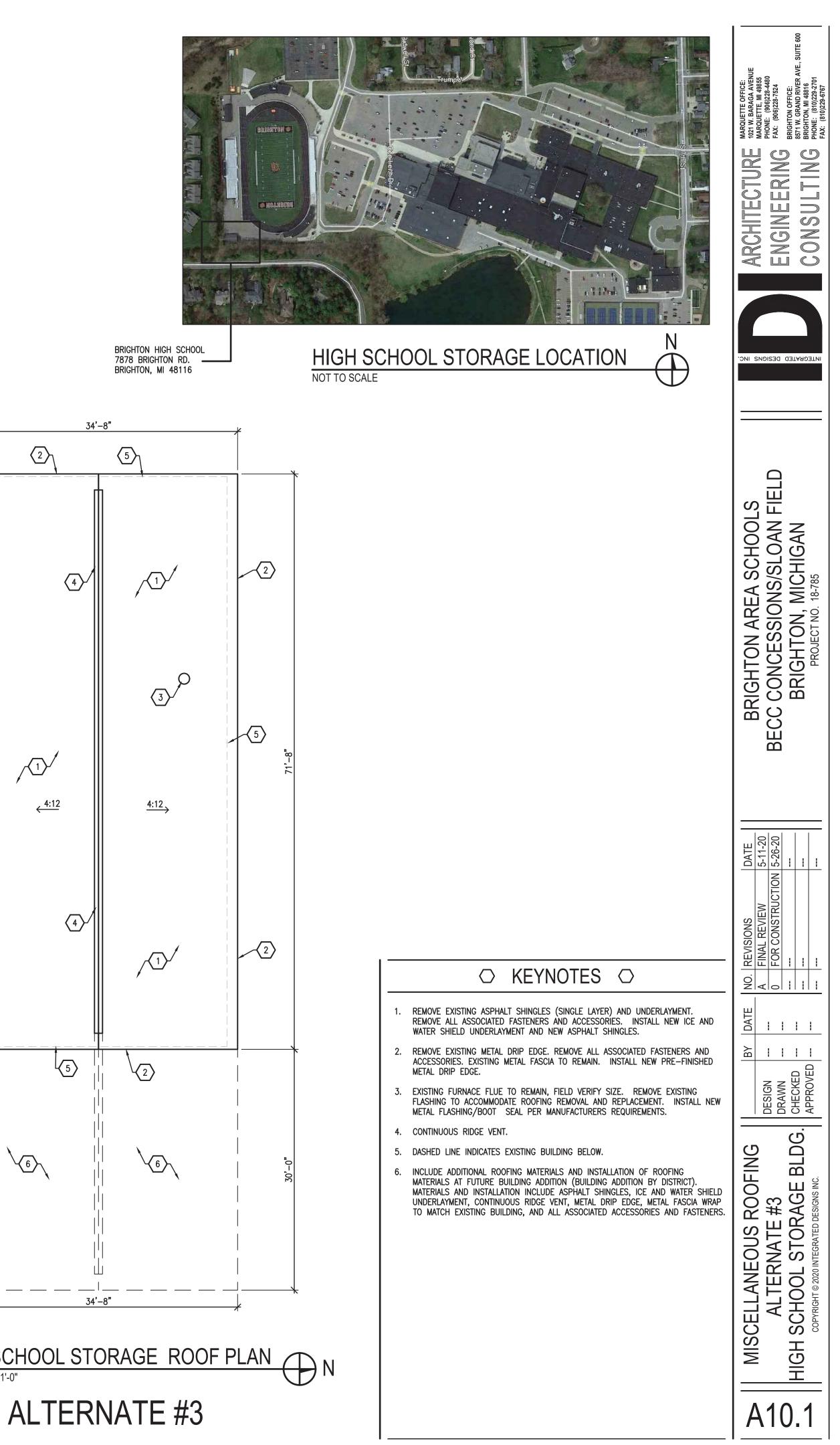


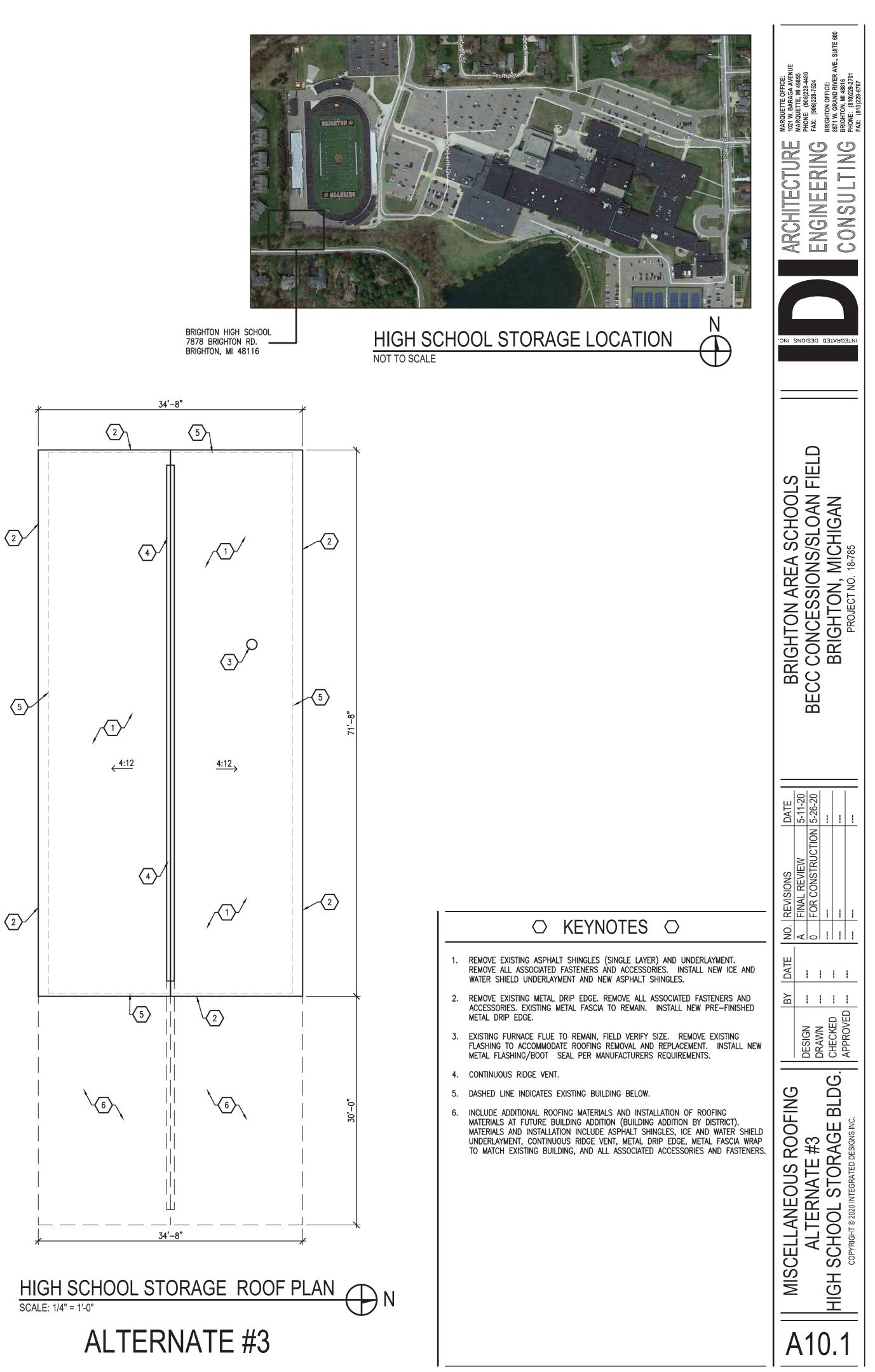
HAWKINS CONCESSION ROOF PLAN SCALE: 1/4" = 1'-0"

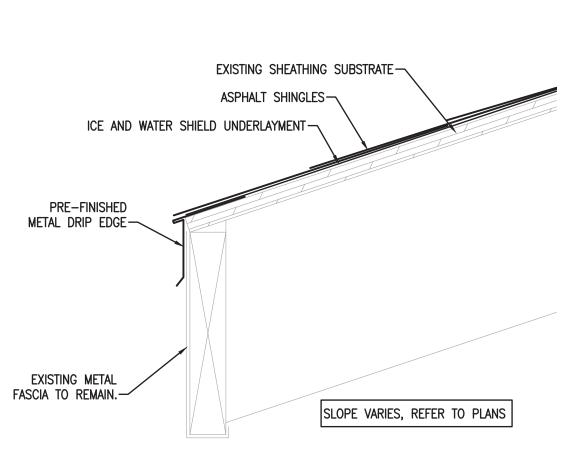
ALTERNATE #2





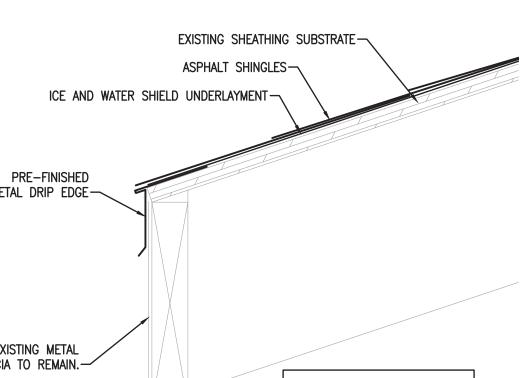


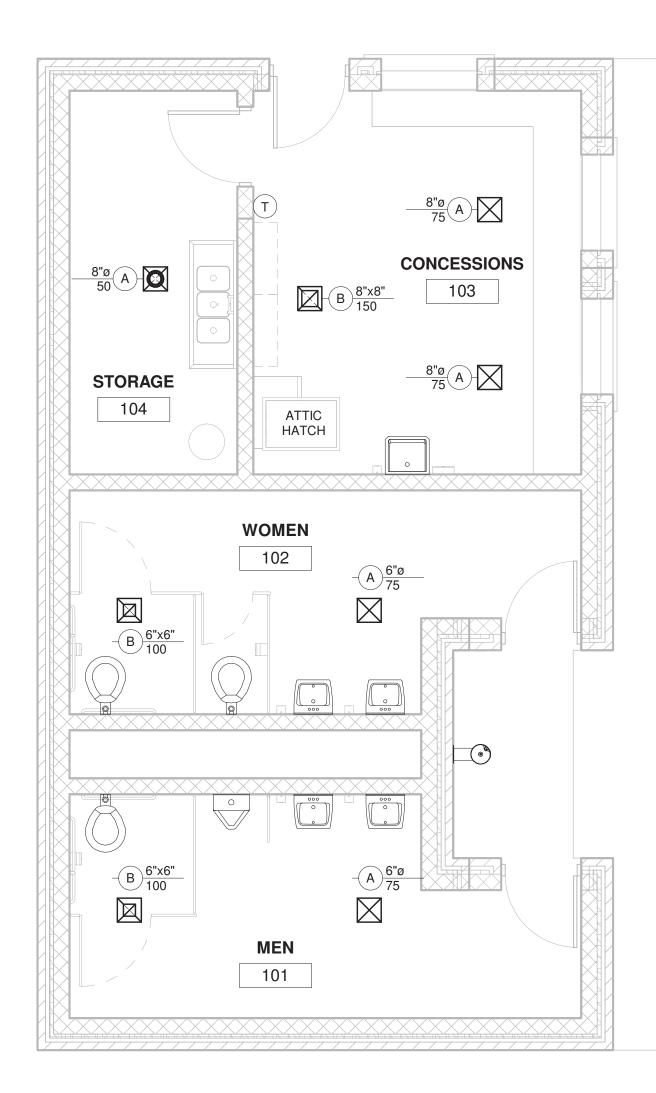




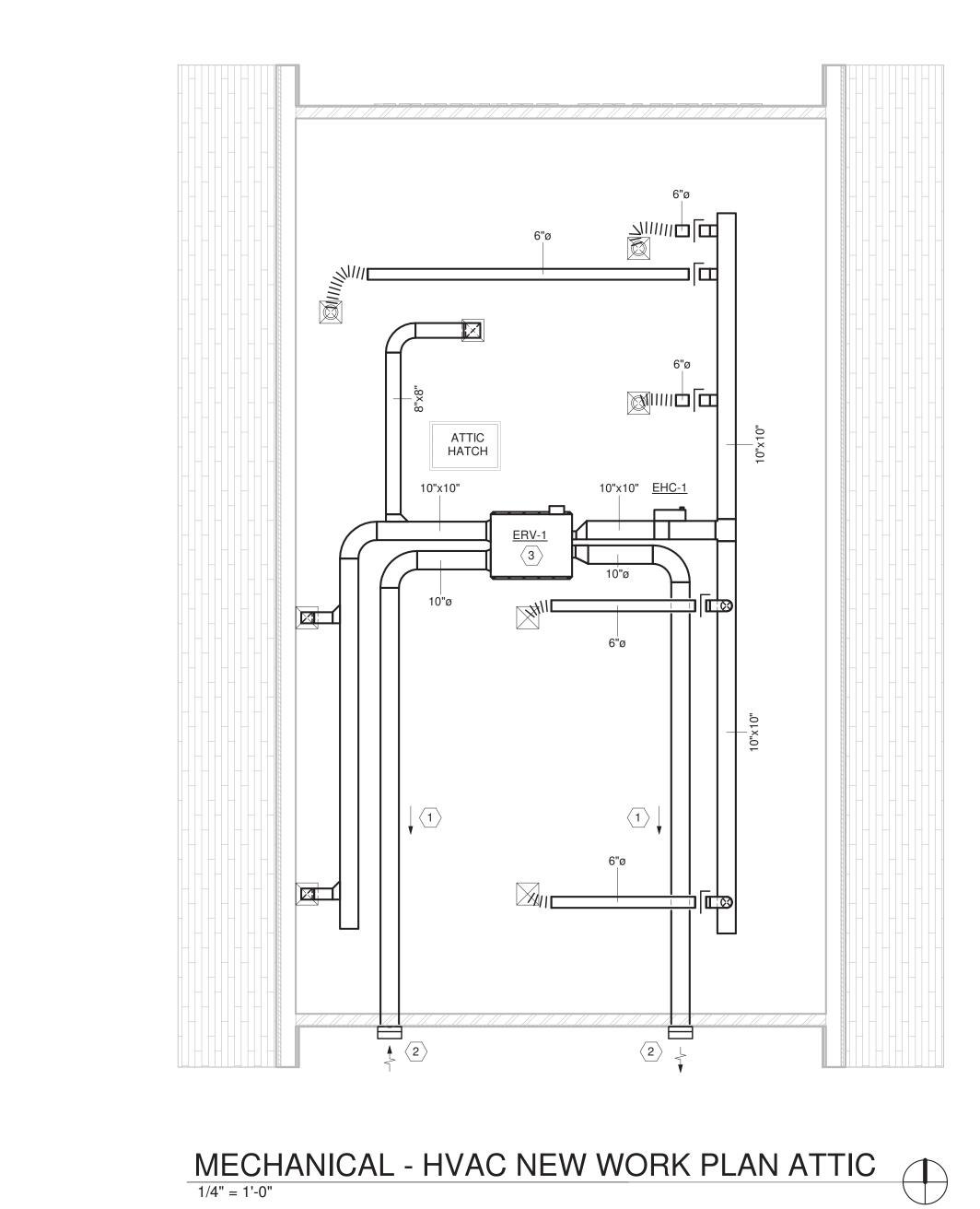
TYPICAL ROOF EDGE DETAIL

SCALE: 3" = 1'-0"





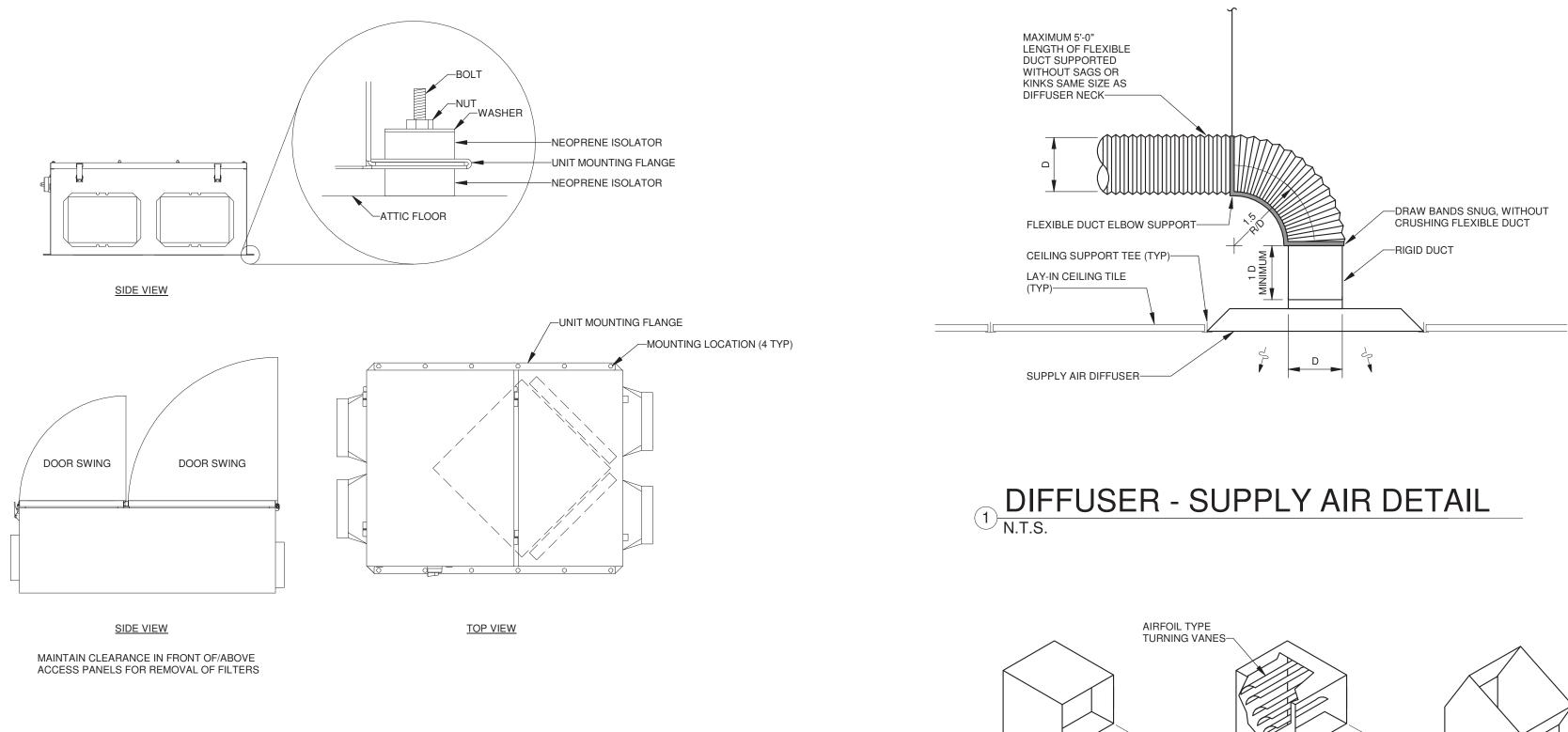
MECHANICAL - HVAC NEW WORK PLAN



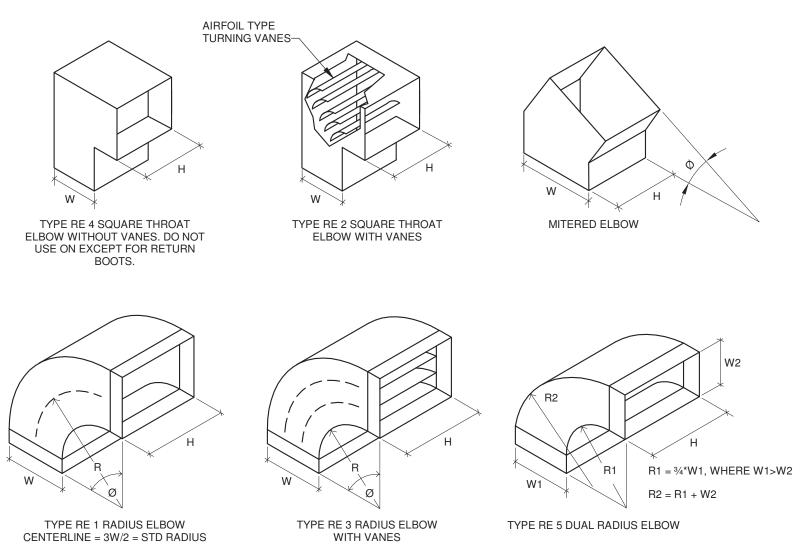


	$\langle \rangle$	KEYNOTES	\bigcirc	JE FAX: (906)228-7524 4VE., SUITE 600 FAX: (8101229-6767
1.		SIDE AIR AND EXHAUST DUCTS DOWN AUST WALL CAPS AT A MINIMUM OF 1/		01 ER / EN(
2.		NIZED, PRE-PAINTED STEEL, HOODED EEN AND BACKDRAFT DAMPER.	WALL VENTS WITH	MARQUETTE OFFICE: 1201 W. BARAGA AVENUE MARQUETTE, MI 49855 PHONE: (906)228-4480 FA BRIGHTON OFFICE: 8571 W. GRAND RIVER AV BRIGHTON, MI 48816 PHONE: (810)229-2701 FA
3.		COVERY UNIT SHALL BE MOUNTED TO SOLATION CONSISTING OF NEOPREN		MARQI MARQI PHONE BRIGH BRIGH PHONE
4.		ORK SHALL BE INSULATED WITH A SEA		ARCHITECTUR ARCHITECTUR INTEGRATED DESIGNS' INC
				BRIGHTON AREA SCHOOLS BECC BUILDING BRIGHTON, MICHIGAN PROJECT NO. 18-819
				DATE DATE 03.31.20 /IEW 05.11.20 05.26.20 CTION
				REVISIONS DD FINAL REVIEW FOR CONSTRUCTION
				3 2 1 <u>NO</u>
			-0	<u>N</u>
		GENERAL NOTE		<u>.</u>
	THESE DRAV EXTENT OF COMPLETE F APPLICABLE SPECIAL RAI TO SPACE C CONTRACTO	SENERAL NOTE WINGS ARE DIAGRAMMATIC AND INDIC THE WORK. PROVIDE PLUMBING AND PER SPECIFICATION, SMACNA STANDA CODES INCLUDING ALL NECESSARY DIUS OR MITERED ELBOWS WHICH AF ONTRAINTS OR OTHER STRUCTURAL ON SHALL COORDINATE THEIR WORK TRADES. VERIFY ALL CLEARANCES PF	CATE THE GENERAL HVAC SYSTEMS ARDS, AND PER OFFSETS, FITTINGS, RE REQUIRED DUE CONDITIONS. WITH THE WORK OF	DATE: NO. 02.18.20 02.18.20 05.07.20 05.07.20
	THESE DRAV EXTENT OF COMPLETE F APPLICABLE SPECIAL RAI TO SPACE C CONTRACTO ALL OTHER T FABRICATIOI DUCTWORK/ EQUIPMENT/ OR ABOVE E	WINGS ARE DIAGRAMMATIC AND INDIC THE WORK. PROVIDE PLUMBING AND PER SPECIFICATION, SMACNA STAND/ CODES INCLUDING ALL NECESSARY DIUS OR MITERED ELBOWS WHICH AF ONTRAINTS OR OTHER STRUCTURAL DR SHALL COORDINATE THEIR WORK ' TRADES. VERIFY ALL CLEARANCES PF N OF ANY WORK. ('PIPING SHALL NOT BE LOCATED OVE ('PANELS. PROVIDE REQUIRED CLEAR/ LECTRICAL EQUIPMENT. DUCTWORK/	CATE THE GENERAL HVAC SYSTEMS ARDS, AND PER OFFSETS, FITTINGS, RE REQUIRED DUE CONDITIONS. WITH THE WORK OF RIOR TO THE R ELECTRICAL ANCE IN FRONT OF (PIPING SHALL NOT	BY DATE: NO. DESIGN CRP 02.18.20 1 DRAWN CRP 02.18.20 2 CHECKED SLB 05.07.20 3 APPROVED SLB 05.07.20 3
<u>.</u>	THESE DRAV EXTENT OF COMPLETE F APPLICABLE SPECIAL RAI TO SPACE C CONTRACTO ALL OTHER T FABRICATIOI DUCTWORK/ EQUIPMENT/ OR ABOVE E INTERFERE V THE CONTR/ REQUIRED F	WINGS ARE DIAGRAMMATIC AND INDIC THE WORK. PROVIDE PLUMBING AND PER SPECIFICATION, SMACNA STAND/ CODES INCLUDING ALL NECESSARY DIUS OR MITERED ELBOWS WHICH AF ONTRAINTS OR OTHER STRUCTURAL DR SHALL COORDINATE THEIR WORK TRADES. VERIFY ALL CLEARANCES PF N OF ANY WORK. 'PIPING SHALL NOT BE LOCATED OVE 'PANELS. PROVIDE REQUIRED CLEAR	CATE THE GENERAL HVAC SYSTEMS ARDS, AND PER OFFSETS, FITTINGS, RE REQUIRED DUE CONDITIONS. WITH THE WORK OF NOR TO THE R ELECTRICAL ANCE IN FRONT OF (PIPING SHALL NOT RANCE. TAL STEEL AS	PLANBYDATE:DESIGNCRP02.18.20DRAWNCRP02.18.20CHECKEDSLB05.07.20GNS INC.APPROVEDSLB
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).	THESE DRAV EXTENT OF COMPLETE F APPLICABLE SPECIAL RAI TO SPACE C CONTRACTO ALL OTHER T FABRICATION DUCTWORK/ EQUIPMENT/ OR ABOVE E INTERFERE V THE CONTR/ REQUIRED F SYSTEMS. COORDINAT PAD LOCATION ALL THERMO EXTERIOR W REFER TO A LOCATIONS PIPING SHAL THE ACCESS PIPING RUN- FINNED TUB CONNECTIO PROVIDE CO	WINGS ARE DIAGRAMMATIC AND INDIC THE WORK. PROVIDE PLUMBING AND PER SPECIFICATION, SMACNA STAND/ CODES INCLUDING ALL NECESSARY DIUS OR MITERED ELBOWS WHICH AF ONTRAINTS OR OTHER STRUCTURAL OR SHALL COORDINATE THEIR WORK TRADES. VERIFY ALL CLEARANCES PF N OF ANY WORK. (PIPING SHALL NOT BE LOCATED OVE (PANELS. PROVIDE REQUIRED CLEAR, LECTRICAL EQUIPMENT. DUCTWORK, WITH ELECTRICAL EQUIPMENT CLEAF ACTOR SHALL PROVIDE SUPPLEMENT OR THE PROPER SUPPORT OF ALL MI E FLOOR, WALL, ROOF PENETRATION ONS, ETC. WITH ARCHITECTURAL TRA DISTATS OR TEMPERATURE SENSORS (ALLS SHALL BE PROVIDED WITH INSU RCHITECTURAL REFLECTED CEILING OF GRILLES, REGISTERS, AND DIFFUS L NOT BE INSTALLED IN A LOCATION	CATE THE GENERAL HVAC SYSTEMS ARDS, AND PER OFFSETS, FITTINGS, RE REQUIRED DUE CONDITIONS. WITH THE WORK OF RIOR TO THE R ELECTRICAL ANCE IN FRONT OF /PIPING SHALL NOT RANCE. AL STEEL AS ECHANICAL S, LOUVER SIZES, ADES. MOUNTED ON JLATED BASES. PLANS FOR EXACT SERS. THAT RESTRICTS IG ACCESS. NIT HEATERS AND HE EQUIPMENT	HVAC PLAN BY DATE: NO. HVAC PLAN DESIGN CRP 02.18.20 1 DRAWN CRP 02.18.20 2 3 CHECKED SLB 05.07.20 3 SRATED DESIGNS INC. APPROVED SLB 05.07.20
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•	THESE DRAW EXTENT OF COMPLETE F APPLICABLE SPECIAL RAI TO SPACE C CONTRACTO ALL OTHER T FABRICATION DUCTWORK/ EQUIPMENT/ OR ABOVE E INTERFERE N THE CONTR/ REQUIRED F SYSTEMS. COORDINAT PAD LOCATION ALL THERMO EXTERIOR W REFER TO A LOCATIONS PIPING SHAL THE ACCESS PIPING RUN- FINNED TUBI CONNECTION PROVIDE CC DAMPERS, V HARD CEILIN STORM OR S ARCHITECT. REFER TO A FOR EQUIPW REFER TO P	VINGS ARE DIAGRAMMATIC AND INDIC THE WORK. PROVIDE PLUMBING AND PER SPECIFICATION, SMACNA STANDA CODES INCLUDING ALL NECESSARY DIUS OR MITERED ELBOWS WHICH AF ONTRAINTS OR OTHER STRUCTURAL OR SHALL COORDINATE THEIR WORK TRADES. VERIFY ALL CLEARANCES PF N OF ANY WORK. (PIPING SHALL NOT BE LOCATED OVER (PANELS. PROVIDE REQUIRED CLEAR) LECTRICAL EQUIPMENT. DUCTWORK WITH ELECTRICAL EQUIPMENT CLEAF ACTOR SHALL PROVIDE SUPPLEMENT OR THE PROPER SUPPORT OF ALL MI E FLOOR, WALL, ROOF PENETRATION ONS, ETC. WITH ARCHITECTURAL TRA OSTATS OR TEMPERATURE SENSORS (ALLS SHALL BE PROVIDED WITH INSU RCHITECTURAL REFLECTED CEILING OF GRILLES, REGISTERS, AND DIFFUS L NOT BE INSTALLED IN A LOCATION OUTS TO UNIT HEATERS, CABINET UN E ARE THE LARGER OF 3/4" NPS OR TI N SIZE WHERE NO PIPE IS INDICATED. DDE REQUIRED CLEARANCE/ACCESS IT (ALVES, AND CLEANOUTS LOCATED IN IGS, AND LOCATIONS OF CLEANOUTS SANITARY PIPING. COORDINATE LOCA	CATE THE GENERAL HVAC SYSTEMS ARDS, AND PER OFFSETS, FITTINGS, RE REQUIRED DUE CONDITIONS. WITH THE WORK OF NOR TO THE RELECTRICAL ANCE IN FRONT OF (PIPING SHALL NOT ANCE. TAL STEEL AS ECHANICAL S, LOUVER SIZES, ADES. MOUNTED ON JLATED BASES. PLANS FOR EXACT SERS. THAT RESTRICTS IG ACCESS. JIT HEATERS AND HE EQUIPMENT DOORS FOR I WALLS OR ABOVE INSTALLED IN TIONS WITH DF ALL STACKS. TYPES. 'ING ARRANGEMENT	HVAC PLANBYDATE:NOCDESIGNCRP02.18.20DRAWNCRP02.18.201CHECKEDSLB05.07.203SRATED DESIGNS INC.APPROVEDSLB05.07.20

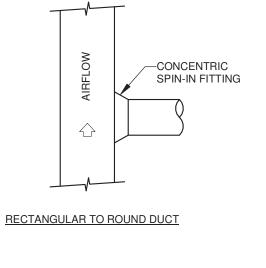
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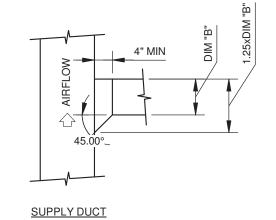


⁽⁴⁾ ENERGY RECOVERY UNIT MOUNTING DETAIL N.T.S.







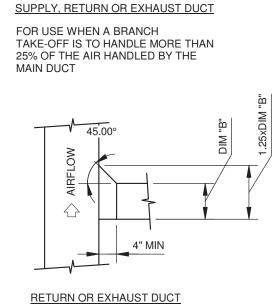




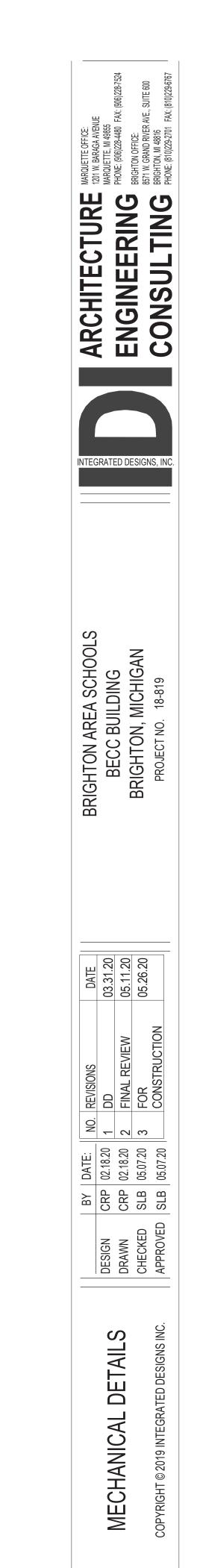
2 DUCT RECTANGULAR SHEETMETAL ELBOWS

SIZE THE LEADING END OF THE ELBOW IN THE SAME RATIO TO THE MAIN DUCT SIZE AS THE RATIO OF THE RELATIVE AIR

QUANTITIES HANDLED



RADIUS ELBOW



M2.0

3 DUCT RECTANGULAR BRANCH TAKE-OFF DETAILS N.T.S.

UNIT ID CFM ERV-1 350 NOTES:

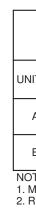
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ENERGY RECOVERY UNIT (CORE) SCHEDULE																												
SUPPI	SUPPLY FAN EXHAUST FAN SUMMER WINT			WINTE	R			ELE	CTRICAL		D	ISCONNECT		1	DIMENSIONS			MANUFACTURER /										
ESP	MOTOR	DRIVE		ESP	MOTOR	DRIVE		OUTSI	DE AIR		EXHAUST	OUTSIE	DE AIR	EXHAUST						FURNISHED	INSTALLED		LENGTH	WIDTH	HEIGHT	WEIGHT	MODEL NO.	REMARKS
(IN WG)	HP	TYPE	CFM	(IN WG)	HP	TYPE	EAT (DB°F)	EAT (WB°F)	LAT (DB°F)	LAT (WB°F)	EAT (DB°F)	EAT (DB°F)	LAT (DB°F)	EAT (DB°F)	FILTER TYPE	MCA	MOP	VOLTS	PHASE	BY	BY	TYPE	(IN)	(IN)	(IN)	(LBS)		
0.5	0.5	DIRECT	350	0.5	0.5	DIRECT	95	74	80	67	74	-10	50	70	(2) 2" MERV 8	18.2	25	120	1	MANUF.	MANUF.	FUSED SWITCH	49 1/8	23 3/4	35 5/8	200	RENEWAIRE HE1X	-

PROVIDE WITH FACTORY MOUNTED AND WIRED DISCONNECT.
 PROVIDE WITH EC MOTORS.
 PROVIDE WITH STANDALONE CONTROLLER.
 PROVIDE WITH VIBRATION ISOLATION KIT, OR ELASTOMERIC ISOLATION PADS/MOUNTS WITH MAXIMUM 0.25" DELFECTION.
 PROVIDE WITH FILTER MONITORS.

					EL	ECT	RIC T	EMPE	RING	i COI	IL SCHE	DULE			
					AIR				ELECTI	RICAL	C	ISCONNECT			
		CAPACITY		FLOW	EDB	LDB								MANUFACTURER /	
UNIT ID	SERVICE	(kW)	STAGES	(CFM)	(°F)	(°F)	MCA	MOCP	VOLTS	PHASE	FURN. BY	INST. BY	TYPE	MODEL NO.	REMARKS
EHC-1	ERV-1	5	1	350 CFM	50	96	7.5	15	480	3	MANUFACTURER	MANUFACTURER	SWITCH	RENEWAIRE EK	

NOTES: 1. PROVIDE WITH FACTORY MOUNTED DISCONNECT. 2. FIELD VERIFY DUCT SIZE REQUIREMENTS WITH SHEET METAL CONTRACTOR.



	GRILLE, REGISTER AND DIFFUSER SCHEDULE										
NIT ID	FACE SIZE	NECK SIZE	MOUNTING	FINISH	MATERIAL	TYPE	MODEL NO.				
A	12"x12"	SEE PLANS	NOTE 2	WHITE	STEEL	SQUARE PLAQUE	SPD				
В	12"x12"	SEE PLANS	NOTE 2	WHITE	STEEL	PERFORATED	PDDR				

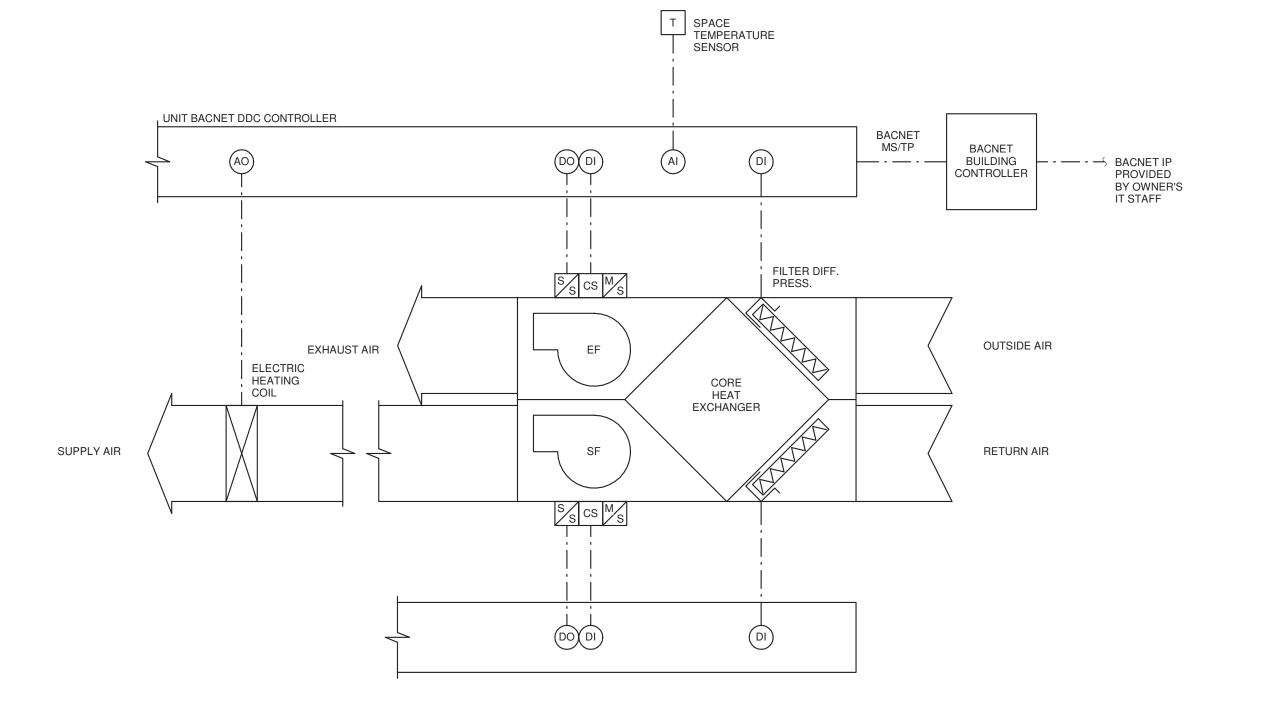
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 NOTES:
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 1. MODEL NUMBERS ARE PRICE UNLESS OTHERWISE NOTED.
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 2. REFER TO ARCHITECTURAL CEILING PLAN AND COORDINATE FRAME TYPE ACCORDINGLY.

				DNDI HND BRIGHTON, M 48816
NTEG	GRATE		ESIGN	
BRIGHTON AREA SCHOOLS			BRIGH I ON, MICHIGAN	PROJECT NO. 18-819
DATE	03.31.20	05.11.20	05.26.20	
NO. REVISIONS	DD	FINAL REVIEW	FOR	CONSTRUCTION
BY DATE: NO	CRP 02.18.20 1	CRP 02.18.20 2	SLB 05.07.20 3	APPROVED SLB 05.07.20
	DESIGN	DRAWN	CHECKED	APPROVED
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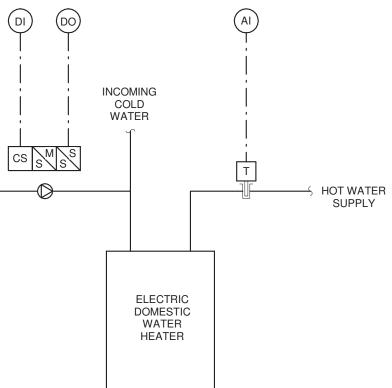


2 ENERGY RECOVERY UNIT CONTROL DIAGRAM

SECOND DELAY (ADJ.). SUPPLY FAN OPERATION: SUPPLY FAN STATUS: CIRCUMSTANCES. FIXED FAN SPEED OPERATION: BALANCE THE SUPPLY AIR FLOW RATE.

HEATING OPERATION:

- HOT WATER S



DOMESTIC HOT WATER SEQUENCE OF OPERATIONS: NOTE: ALL SETPOINTS AND TIME INTERVALS SHALL BE ADJUSTABLE BY THE SYSTEM OPERATOR. 1. THE MOTOR STARTER HAND-OFF-AUTO SWITCH SHALL NORMALLY BE IN THE "AUTO" POSITION. THE DOMESTIC WATER TEMPERATURE SENSOR ALARMS THE DDC/BAS WHEN THE TEMPERATURE EXCEEDS 120°F.

3. THE DOMESTIC HOT WATER CIRCULATION PUMP OPERATION IS CONTROLED BY THE DDC SYSTEM. THE DDC SYSTEM MONITORS PUMP STATUS BY A CURRENT SWITCH.

4. THE PUMP SHALL NORMALLY OPERATE CONTINUOUSLY BUT SHALL BE AUTOMATICALLY SWITCHED OFF DURING BUILDING UNOCCUPIED HOURS AS PROGRAMMED BY THE DDC/BAS TIME OF DAY SCHEDULE.

1 DOMESTIC WATER HEATER CONTROL DIAGRAM

ENERGY RECOVERY UNIT SEQUENCE OF OPERATIONS: NOTE: ALL SETPOINTS AND TIME INTERVALS SHALL BE ADJUSTABLE BY THE SYSTEM OPERATOR. ERV UNIT START COMMAND:

1. AN INPUT SIGNAL IS REQUIRED TO ENABLE THE UNIT OPERATION. THE UNIT WILL BE COMMANDED ON BY BMS COMMAND. ALL TYPES OF INPUT THAT ARE ENABLED MUST BE TRUE BEFORE THE UNIT WILL START.
 THE SUPPLY FAN STARTTS AFTER A 6 SECOND DELAY (ADJ.). THE SUPPLY FAN WILL NOT START UNTIL THE DAMPER ACTUATOR END SWITCH CLOSES. b. THE SUPPLY FAN, EXHAUST FAN, AND HEATING ARE CONTROLLED BASED ON THE CHOSEN UNIT OPERATING MODES AND AIR CONDITIONS. ERV UNIT STOP COMMAND (OR DE-ENERGIZED):

THE UNIT CAN THEN BE COMMANDED OFF BY BMS COMMAND.
 SUPPLY FAN AND EXHAUST FAN ARE DE-ENERGIZED.

3. ALL DAMPERS ARE UNPOWERED AND SPRING RETURN TO THEIR DEFAULT POSITION AFTER A 10

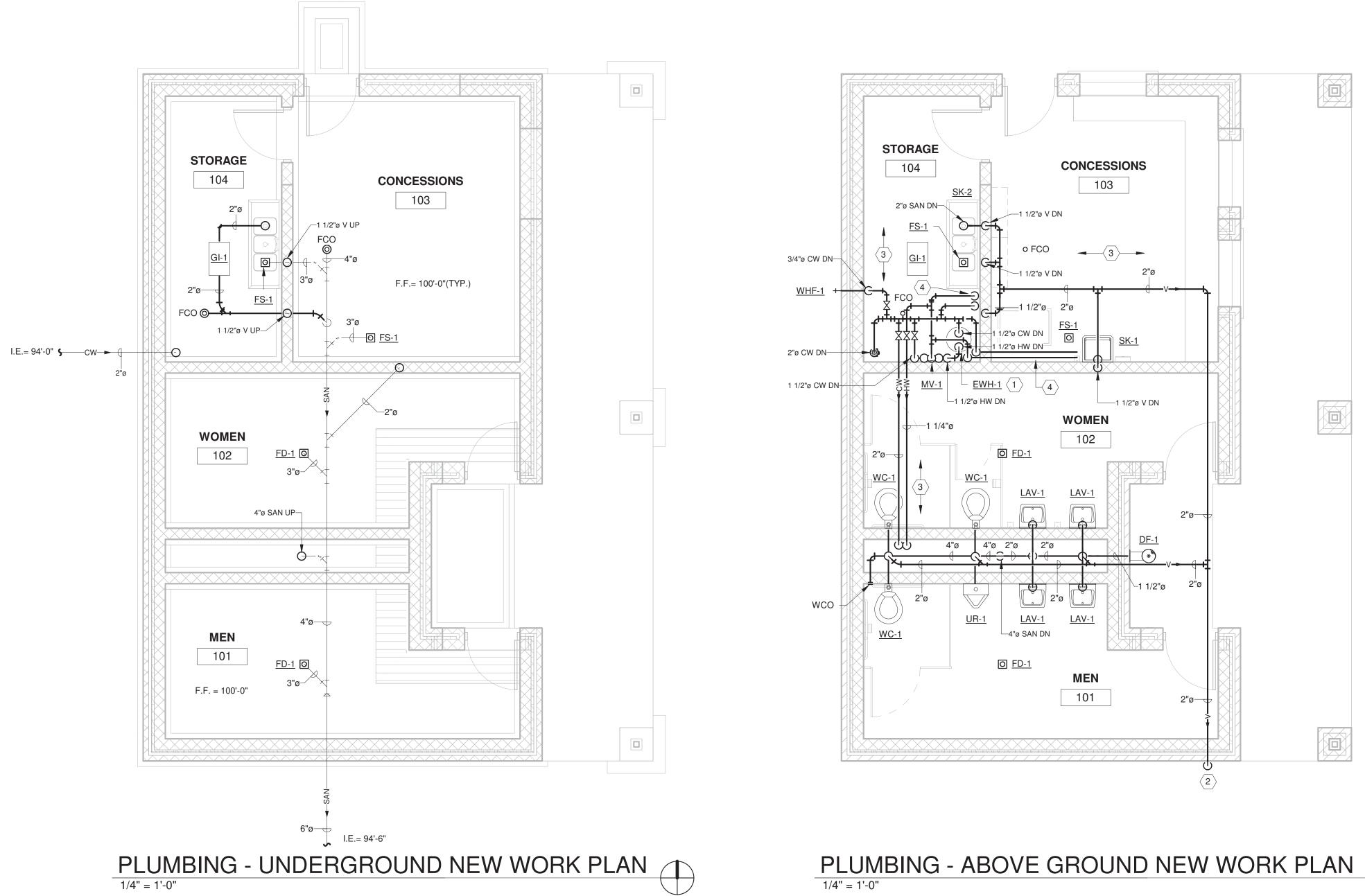
 THE SUPPLY FAN WILL OPERATE AT A CONSTANT SPEED.
 THE UNIT WILL ATTEMPT TO START THE SUPPLY FAN WHEN THE SUPPLY FAN DELAY TIMER EXPIRES. WHEN THE SUPPLY FAN STARTS THE SUPPLY FAN ADJUSTABLE CURRENT SWITCH SHOULD CLOSE AND REMAIN CLOSED UNTIL THE FAN IS TURNED OFF.

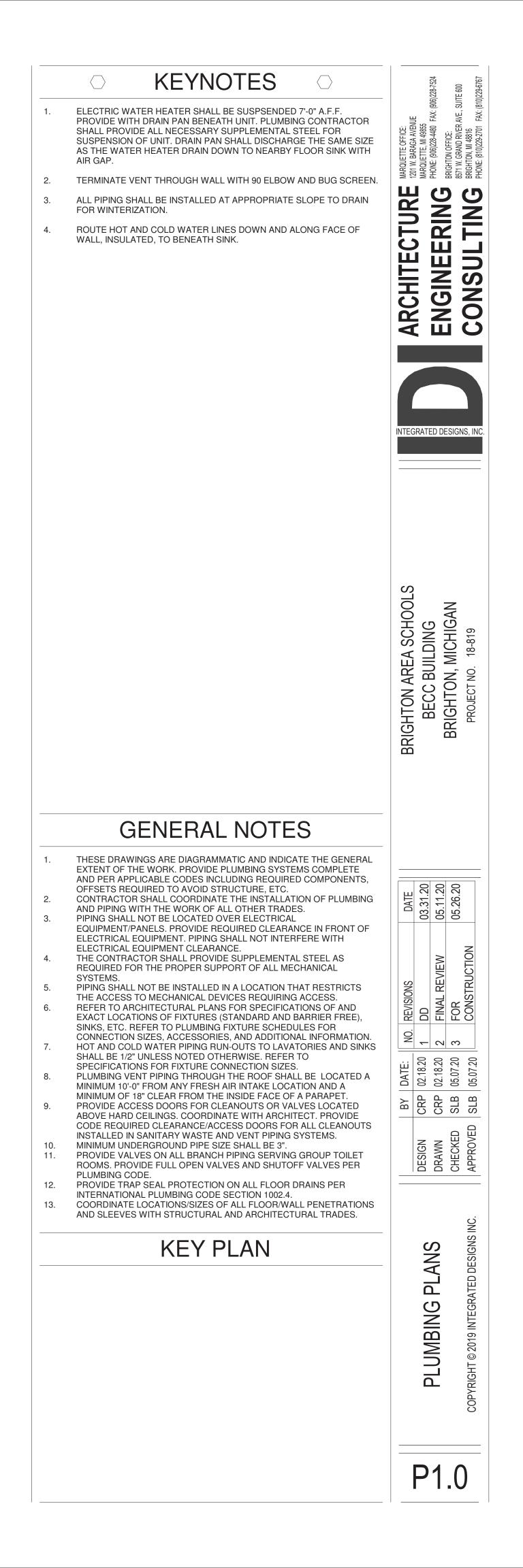
1. ONCE THE SUPPLY FAN CURRENT SWITCH CLOSES OPERATION IS ALLOWED. AFTER A DELAY OF 90 SECONDS (ADJ.) FROM SUPPLY FAN START SIGNAL, IF THE SUPPLY FAN CURRENT SWITCH IS STILL OPEN THE SUPPLY FANALARM SHOULD BE SET TO TRUE AND OPERATION SHALL BE PROHIBITED. THE SUPPLY FAN STATUS SHALL BE SET TO TRUE ONLY WHEN THE SUPPLY FAN OUTPUT IS ON AND SUPPLY FAN CURRENT SWITCH IS CLOSED. THE SUPPLY FAN STATUS SHALL BE FALSE IN ALL OTHER

1. THE ANALOG VOLTAGE COMMAND TO THE SUPPLY FAN ECM CANBE SET FROM THE UNIT CONTROLLER DISPLAY (OR BY THE BMS). THE ADJUSTABLE RANGE OF 0-100% CORRESPOND TO THE MINIMUM AND MAXIMUM FAN OPERATING SPEED. THIS SUPPLY FAN OPERATION MODE CAN BE USED TO FIELD

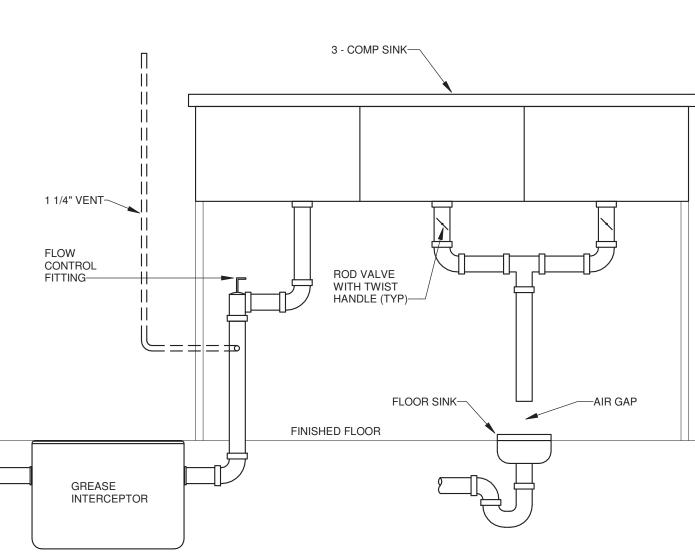
1. HEATING WILL BE LOCKED OUT IF THE OUTDOOR AIR TEMPERATURE IS ABOPVE 70 DEGREES (ADJ.), THE TEMPERATURE SETPOINT CANBE CONFIGURED AS CONSTANT (ADJUSTABLE) OR CAN BE RESET BY THE OUTSIDE AIR TEMPERATURE. HEATING WILL BE CONTROLLED USING THE SUPPLY AIR TEMPERATURE OR RETURN AIR TEMPERATURE.

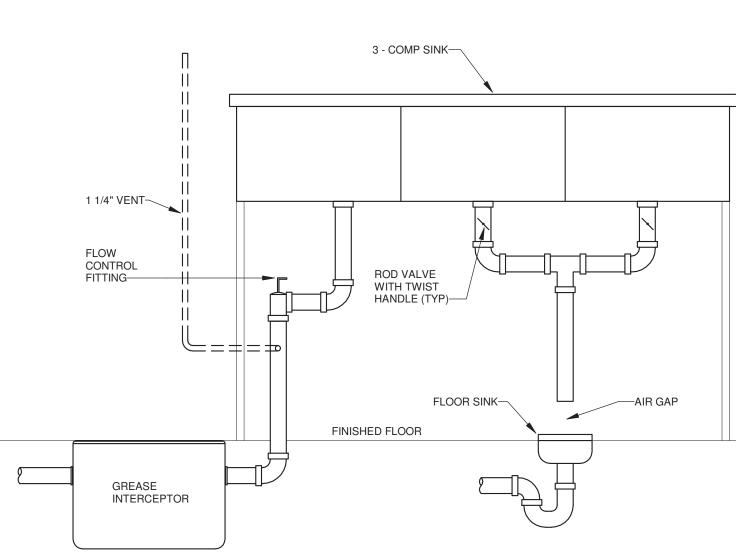
ARCHITECTURE ENGINEERING CONSULTING
BRIGHTON AREA SCHOOLS BECC BUILDING BRIGHTON, MICHIGAN PROJECT NO. 18-819
DATE 03.31.20 05.11.20 05.26.20
BYDATE:NO.REVISIONSDESIGNCRP02.18.201DDDRAWNCRP02.18.202FINAL REVIEWCHECKEDSLB05.07.203FORAPPROVEDSLB05.07.203FOR
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1 GREASE INTERCEPTOR - RECESSED DETAIL

VACUUM BREAKER (INSTALLED ABOVE WATER HEATER)

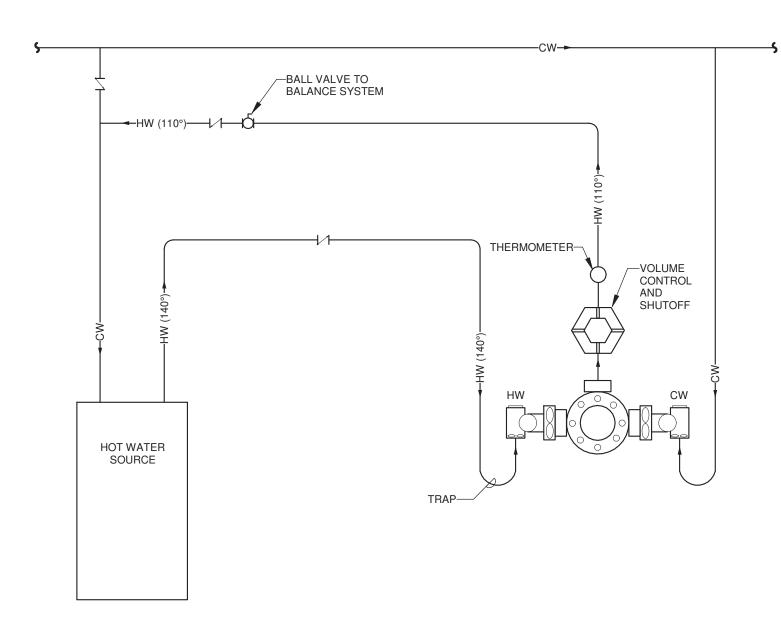
THERMOMETER (TYP)-

ISOLATION VALVE (TYP)-----UNION (TYP)-----

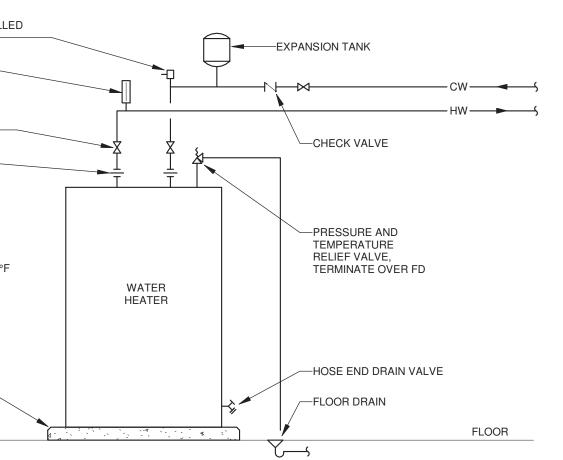
STORE HOT WATER AT 140°F

4" CONC HOUSEKEEPING PAD

2 WATER HEATER - ELECTRIC PIPING DIAGRAM

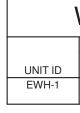


³ MASTER MIXING VALVE CONNECTION



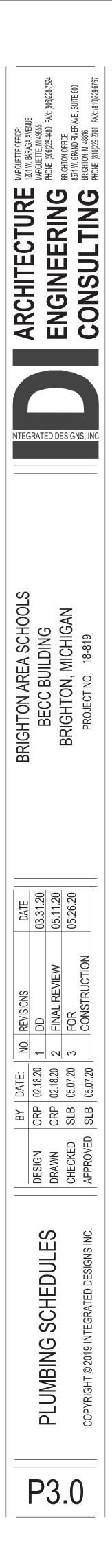
	MARQUETTE, M 49855		8571 W. GRAND RIVER AVE SUITE 600	CONSULTING BRIGHTON, MI 48816 PHONE: 1810)229-2701 FAX: (810)229-6767
SOLS			AN	
BRIGHTON AREA SCHOOLS			BRIGHION, MICHIGAN	PROJECT NO. 18-819
BR		L		
DATE	03.31.20	05.11.20	05.26.20	
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BY DATE: NO	CRP 02.18.20 1	CRP 02.18.20 2	SLB 05.07.20 3	3 05.07.20
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							IBING FIXTURE SC	
UNIT ID	BARRIER FREE	ITEM	WASTE	VENT	CTION SIZ	ZES HW	MANUFACTURER/ MODEL NO.	REMARKS
DF-1	Y	DRINKING FOUNTAIN (WALL MOUNTED)	1 1/2"	1 1/2"	1/2"	-	MOST DEPENDABLE FOUNTAINS, INC.: MODEL - 10495 WM	OUTDOOR COBINATION DRINKING FOUNTAIN AND BOTTLE FILLER, FILTERED, NON-REFRIGERATED, 316 STAINLESS, HEAVY DUTY VANDAL RESISTANT, FRONT BUBBLER BUTTON ACTIVATION. 1 1/4" "P" TRAP BY MANUFACTURER. PROVIDE SHUT OFF VALVE. COLOR: ORANGE POWDER COAT
FCO	-	FLOOR CLEAN OUT	SEE PLANS	-	-	-	ZURN: MODEL - Z1400	COATED CAST-IRON BODY WITH GAS AND WATERTIGHT TAPERED THREAD PLUG AND 6 1/8"Ø SCORIATED SECURED TOP, HEAVY-DUTY "LEVEL-TROL" ADJUSTABLE
FD-1	-	FLOOR DRAIN	3"	-	-	-	ZURN: MODEL - ZN-415	COATED CAST-IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS, AND POLISHED NICKEL BRONZE, 7"Ø LIGHT-DUTY STRAINER PROVIDE WITH TRAP SEAL.
FS-1	-	FLOOR SINK	3"	-	-	-	ZURN: MODEL - Z1900	12"x12"x6" CAST-IRON BODY FLOOR RECEPTOR WITH SQUARE, LIGHT-DUTY GRATE WITH 1/2" SLOTTED OPENINGS, WHITE ACID RESISTING PORCELAIN ENAMEL INTERIOR AND TOP, COMPLETE WITH WHITE ABS ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER. PROVIDE WITH TRAP SEAL.
GI-1	-	GREASE INTERCEPTOR	3"	-	-	-	JAY R. SMITH: MODEL - 8215	STEEL GREASE INTERCEPTOR WITH EXTENSION WITH GRAY DUCO COATING INSIDE AND OUTSIDE AND FL CONTROL FITTING. PROVIDE WITH NO-HUB ADAPTERS. 30 LB. GREASE STORAGE CAPACITY, 15 GPM FLOW RATE. PROVIDE WITH TOP EXTENSION AS REQUIRED.
LAV-1	Y	LAVATORY (WALL MOUNTED)	1 1/2"	1 1/2"	1/2"	1/2"	KOHLER: MODEL - GREENWICH K-2030	VITREOUS CHINA, 20 3/4"x18 1/4", 3-HOLE WITH 4" CENTERS. FAUCET - CHICAGO FAUCETS MODEL 802-VE2805-1000CP, CHROME PLATED SOLID BRASS, 0.5 GPM WITH VANDAL PROOF AERATOR, VANDAL PROOF 2" METAL CANOPY WING HANDLES WITH QUARTER TURN REBUILDABLE COMPRESSION CARTRIDGE, ADA COMPLIANT, MEETS ASME A112.18.1/CSAB125.1, AND NSF/ 61. PROVIDE P-TRAP WITH CO, PLUG AND WASTE ARM TO WALL WITH ESCUTCHEON, GRID STRAINER, LOC KEY ANGLE STOPS, INSULATE EXPOSED WASTE AND WATER PIPING.
MX-1	-	MASTER MIXING VALVE	-	-	-	-	POWERS: MODEL - LFMM430	ASSE 1017 LEAD FREE MASTER THERMOSTATIC MIXING VALVE, WITH TRIPLE DUTY CHECK STOPS AND SCREENS, 15 GPM.
SK-1	-	HAND SINK	1 1/2"	1 1/2"	3/4"	3/4"	JUST MANUFACTURING: MODEL- A544-FS	20 GAUGE 304 STAINLESS STEEL, WITH INTEGRAL SUPPORT BRACKET AND 14 GAUGE SS WALL BRACKET. FAUCET: JS-47-TGSA BACKSPLASH MOUNTED GOOSENECK FAUCET AND AERATOR, WITH 4-1/16" SPOUT REACH. 10-3/16" FROM INLET CENTERLINE TO TOP OF SPOUT (8" O.C. SUPPLY). J-15-FS CHROME PLATED BRASS DRAIN WITH FLAT GRID STRAINER. 1-1/2" OD CHROME PLATED TAILPIECE LONG.
SK-2	-	THREE COMPARTMENT SINK AND FAUCET	2"	1 1/2"	3/4"	3/4"	ELKAY: MODEL - 3C12X16-2-12-X	STAINLESS STEEL. FAUCET - T&S BRASS AND BRONZE WORKS, INC. MODEL B-2342. USE FOOD GRADE SILICONE ON THE BOT AND TOP OF THE 3-COMPARTMENT SINK RING (GASKET AND RING). PLUMBING CONTRACTOR TO PROVIDE AND INSTALL 2" DRAIN LINE CONNECTING TO LEVER HANDLE TAIL I FROM EACH SINK COMPARTMENT (BY OTHERS). WASH COMPARTMENT CONNECTS DIRECT TO SANITARY THROUGH FLOW CONTROL FITTING. RINSE AND SANITIZE COMPARTMENTS SPILL OVER TO FLOOR SINK. CONTRACTOR SHALL CONNECT CW AND HW TO SINK FAUCET.
TS-1	-	TRAP SEALER	SEE PLANS	-	-	-	SURESEAL	IN-LINE FLOOR DRAIN TRAP SEAL, PREASSEMBLED, ABS PLASTIC HOUSING, NEOPRENE RUBBER DIAPHRA WITH 2 SOFT RUBBER SEALING GASKETS. ASSE 1072
UR-1	Y	URINAL (WALL MOUNTED)	3"	1 1/2"	3/4"	-	KOHLER: MODEL - STANWELL K-4972-ET	BLOW-OUT, 1.0 GPF FLUSH VALVE: SLOAN ROYAL 180 MANUAL. REFER TO ARCHITECTURAL ELEVATIONS FOR BARRIER FREE A STANDARD MOUNTING HEIGHTS.
WC-1	Y	WATER CLOSET (WALL MOUNTED)	4"	2"	1 1/2"	-	KOHLER: MODEL - KINGSTON K-4325	SIPHON JET, 1.6 GPF FLUSH VALVE: SLOAN ROYAL 111 MANUAL. SEAT: OLSONITE 10CC-AM ELONGATED. REFER TO ARCHITECTURAL ELEVATIONS FOR BARRIER FREE ANI
WCO	-	WALL CLEAN OUT	SEE PLANS	-	-	-	ZURN: MODEL - Z-1448-A-VP-4NL	ROUND SMOOTH STAINLESS STEEL COVER WITH SCREW.
WHF-1		EXTERIOR WALL HYDRANT	_	-	3/4"	_	WOODFORD: MODEL - 65	AUTOMATIC DRAINING, FREEZELESS EXPOSED WITH ANTI-SIPHON HOSE CONNECTION VACUUM BREAKE BACKFLOW PROTECTION.

V	WATER HEATER SCHEDULE (ELECTRIC TANK TYPE)											
	STORAGE CAPACITY (GAL)	RECOVERY AT 100°F (GPH)	E INPUT (KW)	LECTRICA VOLTS	L PHASE	DI FURN. BY	SCONNEC INST. BY	TYPE	MANUFACTURER / MODEL NO.	REMARKS		
	50	98	24	480	3				BRADFORD WHITE CEHD50(A)24 3*CF			



LIGHTING FIXTURE SCHEDULE

AXSURFACE WRAPAROUNDLEDMETALUX #4WSNLEDLD440SLFUNVL840CD1-UA1XSURFACE WRAPAROUNDLEDMETALUX #4WSNLEDLD440SLFUNVEL14WL840CD1-UBXRECESSED DOWNLIGHTLEDHALO #SDL612840WHCXAREA LIGHTLEDLUMARK #XTOR3BPC1DXWALL MOUNTED REMOTELEDISOLITE #OWLACBZMBHX	TYPE	L E D	DESCRIPTION	LAMP NO./TYPE	MANUFACTURER	
BXRECESSED DOWNLIGHTLEDHALO #SDL612840WHCXAREA LIGHTLEDLUMARK #XTOR3BPC1DXWALL MOUNTED REMOTELEDISOLITE #OWLACBZMBHX	Α	Х	SURFACE WRAPAROUND	LED	METALUX #4WSNLEDLD440SLFUNVL840CD1-U	T
C X AREA LIGHT LED LUMARK #XTOR3BPC1 D X WALL MOUNTED REMOTE LED ISOLITE #OWLACBZMBHX	A1	X	SURFACE WRAPAROUND	LED	METALUX #4WSNLEDLD440SLFUNVEL14WL840CD1-U	
D X WALL MOUNTED REMOTE LED ISOLITE #OWLACBZMBHX	В	X	RECESSED DOWNLIGHT	LED	HALO #SDL612840WH	Γ
	С	X	AREA LIGHT	LED	LUMARK #XTOR3BPC1	Γ
	D	Х	WALL MOUNTED REMOTE	LED	ISOLITE #OWLACBZMBHX	Γ
E X EXIT LIGHT LED SURELITES #APX7R	E	X	EXIT LIGHT	LED	SURELITES #APX7R	Γ

NOTES TO LIGHTING FIXTURE SCHEDULE:

1. PROVIDE FIXTURE WITH EMERGENCY 1400 LUMENS MINIMUM.

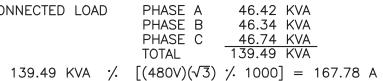
2. MOUNT FIXTURE AT 7'-6" A.F.F. TO BOTTOM.

0A, 277/480V, 3ø, 4W, MCB, SURF.	MTD, 30	POLE (EXIST	ING TO	REMA	IN)	E	ATON POW-R-LINE PRL4B PANELBOA
DESCRIPTION	CONN KVA	CCT BRKR AMP/POLES	CCT. NO.	CCT. NO.	CCT BRKR AMP/POLES	CONN KVA	DESCRIPTION
SPARE	-	200/3	1A	2A	60/3	_	TVSS
SPARE	-	—	3B	4B	—	—	TVSS
SPARE	-	—	5C	6C	—	—	TVSS
RP-SF TRANSFOMER	5.00	45/3	7A	8A	45/3	5.00	PRESS BOX TRANSFORMER
RP-SF TRANSFOMER	5.00	_	9B	10B	—	5.00	PRESS BOX TRANSFORMER
RP-SF TRANSFOMER	5.00	_	11C	12C	—	5.00	PRESS BOX TRANSFORMER
FIELD LIGHTS POLE S1	4.48	40/3	13A	14A	40/3	4.48	FIELD LIGHTS POLE S2
FIELD LIGHTS POLE S1	4.48	_	15B	16B	—	4.48	FIELD LIGHTS POLE S2
FIELD LIGHTS POLE S1	4.48	_	17C	18C	—	4.48	FIELD LIGHTS POLE S2
FIELD LIGHTS POLE S3	5.46	40/3	19A	20A	40/3	5.46	FIELD LIGHTS POLE S4
FIELD LIGHTS POLE S3	5.46	_	21B	22B	—	5.46	FIELD LIGHTS POLE S4
FIELD LIGHTS POLE S3	5.46	—	23C	24C	—	5.46	FIELD LIGHTS POLE S4
PUMP HOUSE	2.00	30/3	25A	26A	100/3*	14.53	PANEL 'CONCESSION'
PUMP HOUSE	2.00	—	27B	28B	_	14.46	PANEL 'CONCESSION'
PUMP HOUSE	2.00	_	29C	30C	—	14.86	PANEL 'CONCESSION'

-CIRCUIT(S)

PANELBOARD SCHEDULE

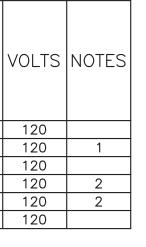
CONNECTED LOAD



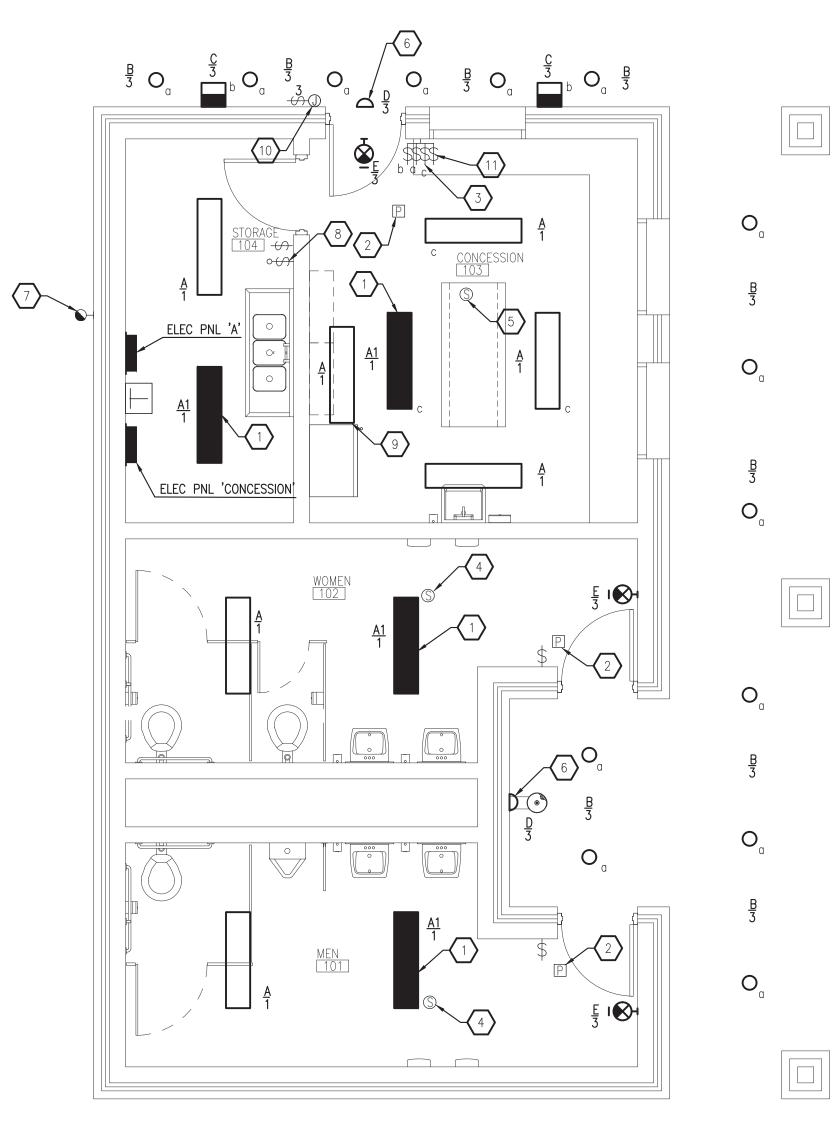
ELECTRICAL SYMBOL LEGEND LIGHT FIXTURES – NUMBER INDICATES CIRCUIT, LOWER CASE LETTER INDICATES SWITCH LEG, UPPER CASE LETTER INDICATES FIXTURE TYPE, SEE FIXTURE SCHEDULE. DARKENED SYMBOL INDICATES NIGHT LIGHT. COMBINATION MOTOR STARTER/DISCONNECT DEVICE \boxtimes A a/b FLUORESCENT OR LED RECESSED FIXTURE J JUNCTION BOX (AS NOTED) DOWN LIGHT OR INDUSTRIAL AS SCHEDULED \bigcirc SPECIAL PURPOSE RECEPTACLE, AS NOTED SURFACE, CHAIN SUSPENDED OR INDIRECT PENDANT MOUNTED FIXTURE AS SCHEDULED WALL MOUNTED CLOCK, AS SPECIFIED, MOUNT 84" A.F.F. TO CENTER НC SURFACE MOUNTED SQUARE LIGHT FLOOR MOUNTED RECEPTACLE OUTLET OR JUNCTION BOX AS NOTED. ۲ QUADRAPLEX RECEPTACLE and the second EXTERIOR AREA LIGHT EXTERIOR POLE MOUNTED FIXTURE DUPLEX RECEPTACLE GFI – GROUND FAULT INTERRUPTER •---÷ LIGHT SWITCH – SINGLE POLE UNLESS NOTED OTHERWISE, LOWER CASE LETTER INDICATES SWITCH LEG 3 – THREE WAY SWITCH K – KEYED SWITCH WP - WEATHER PROOF COVER SIMPLEX RECEPTACLE \ominus \bigtriangledown COMMUNCIATION/DATA CABLE OUTLET. \bigotimes EXIT LIGHT WIRELESS ACCESS POINT Z_P INTERCOM STATION EMERGENCY BATTERY LIGHT FIRE ALARM PULL STATION, MOUNT 48" A.F.F. TO TOP CCTV CAMERA F INTERCOM STATION $\langle H \rangle$ DOOR HOLDER/CLOSER HORN/STROBE LIGHT MOUNT 80" A.F.F. TO BOTTOM C – CEILING MOUNTED PANELBOARD; FLUSH MTD, SURFACE MTD F⊲ FX-STROBE LIGHT, MOUNT 80" A.F.F. TO BOTTOM SURFACE MOUNTED RACEWAY SMOKE DETECTOR (D - DUCT MTD. TYPE) (SD) CONDUIT RUN CONCEALED IN WALLS OR ABOVE CEILING SPRINKLER SYSTEM FLOW SWITCH (F) CONDUIT RUN BELOW FLOOR SLAB OR GRADE MOTOR SYMBOL, NUMBER INDICATES HORSEPOWER, F - FRACTIONAL HORSEPOWER HOMERUN TO PANELBOARD CONDUIT DISCONNECT SWITCH, SIZE AND TYPE AS NOTED N.F. – NON FUSED PHASE WIRE(S) \boxtimes MOTOR STARTER PANELBOARD

MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD PROTECTION

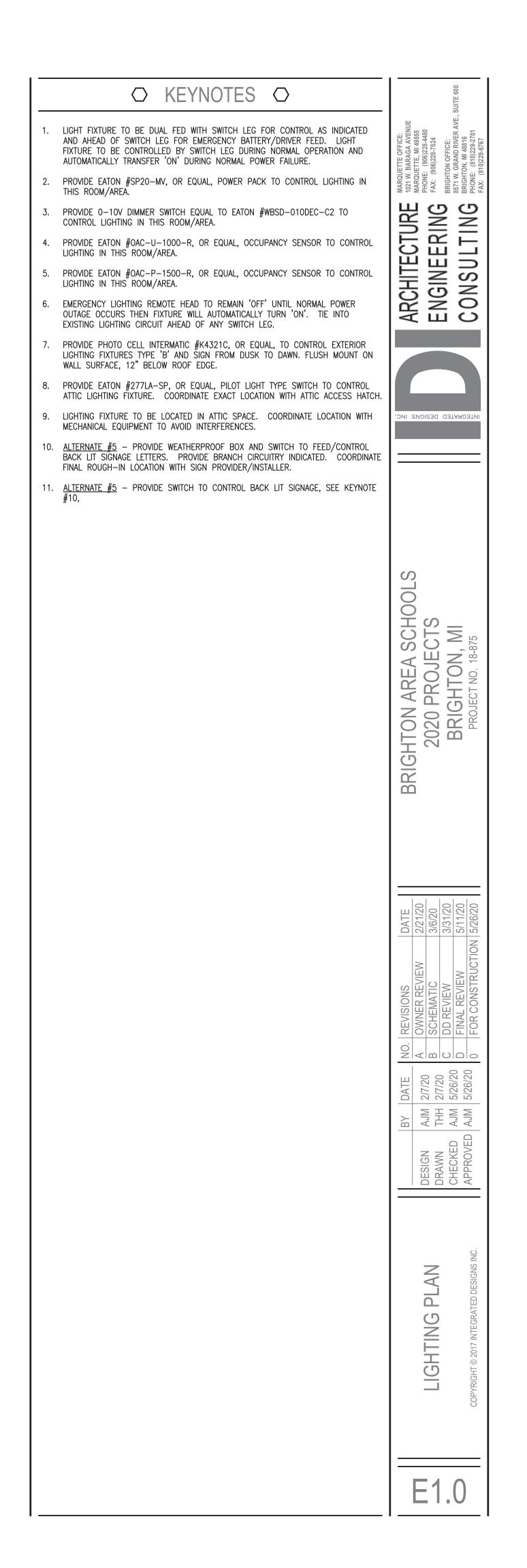
MSS

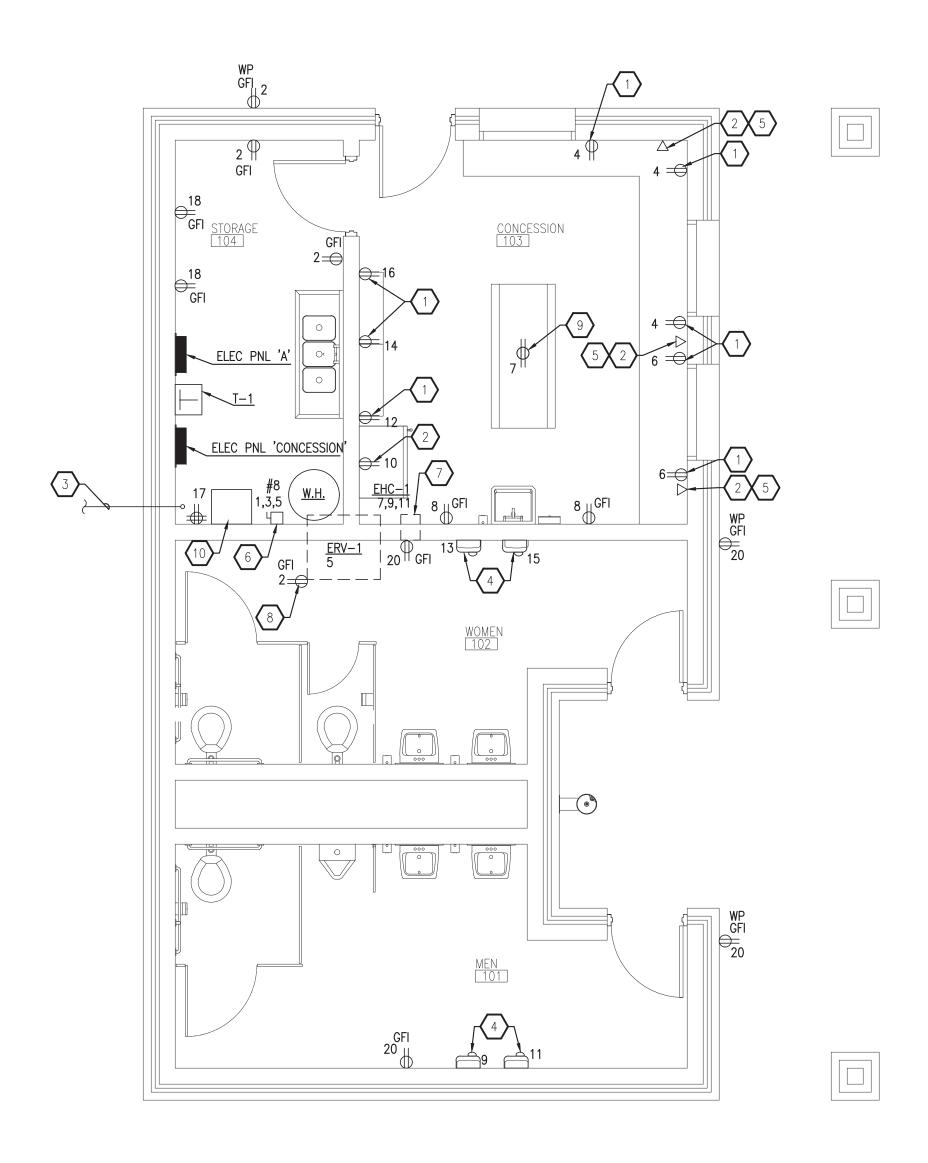






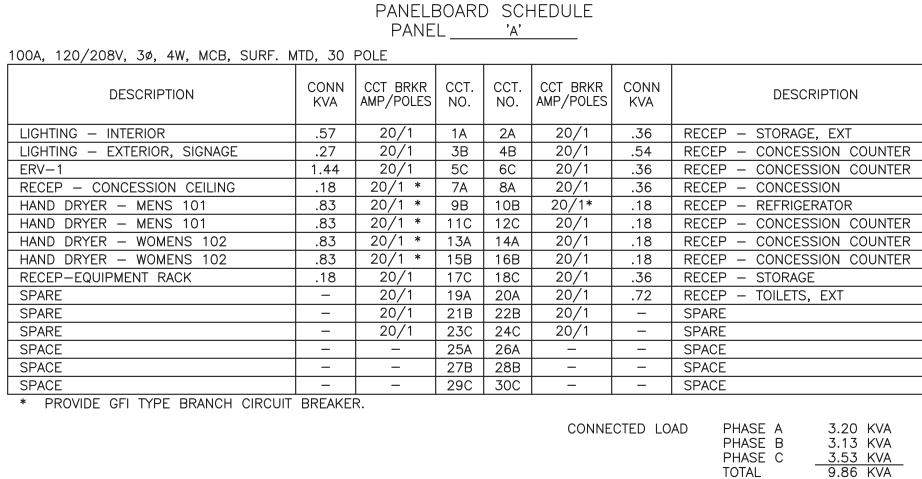






POWER & COMMUNICATION PLAN SCALE: 1/4" = 1'-0"





9.86 KVA \therefore [(208V)($\sqrt{3}$) \therefore 1000] = 27.37 A

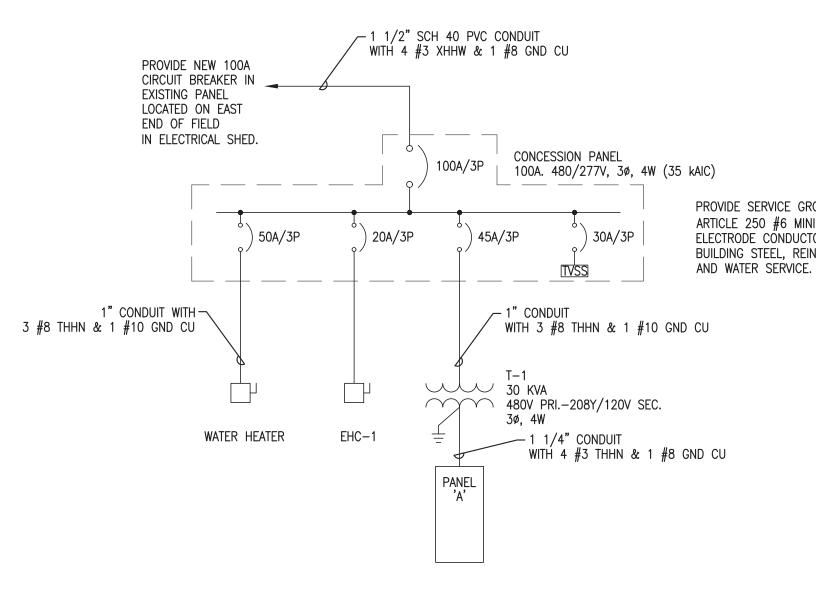
PANELBOARD SCHEDULE PANEL <u>'CONCESSION'</u> 100A, 277/480V, 3ø, 4W, MCB, SURF. MTD, 30 POLE CCT BRKR CCT. CCT. CCT BRKR CONN CONN DESCRIPTION DESCRIPTION KVA AMP/POLES NO. NO. AMP/POLES KVA WATER HEATER 8.00 50/3 | 1A | 2A | 45/3 | 3.20 | TRANSFORMER – 3B 4B – 3.13 TRANSFORMER WATER HEATER 8.00
 8.00
 5C
 6C

 3.33
 20/3
 7A
 8A
 WATER HEATER _ 3.53 TRANSFORMER – – SPACE EHC-1 – – SPACE - 9B 10B EHC-1 3.33 - | 11C | 12C | - | - | SPACE EHC-1 3.33 – 13A 14A SPACE _ - SPACE _ – – SPACE – 15B 16B SPACE _ _ SPACE – | 17C | 18C | - SPACE — SPACE - | 19A | 20A | - | - | SPACE _ – <u>21B</u> 22B _ _ SPACE - SPACE – 23C 24C – – SPACE SPACE _ SPACE – 25A 26A 30/3 – TVSS _ – 27B 28B – – TVSS SPACE -– – TVSS SPACE – 29C 30C —

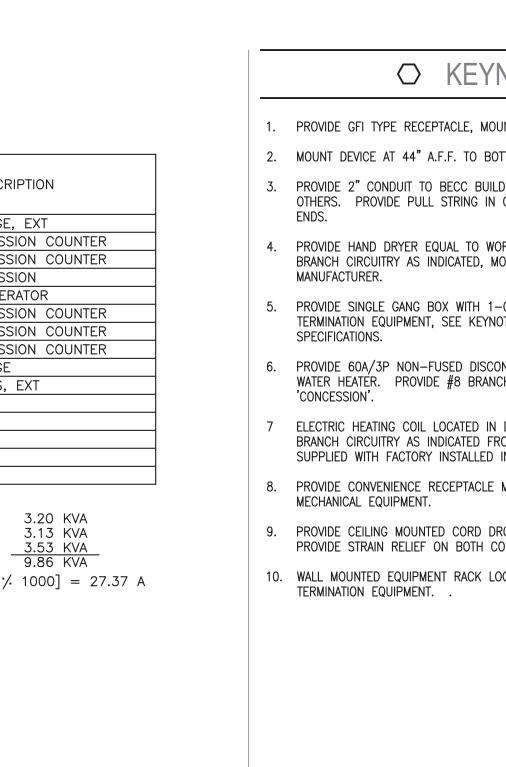
CONNECTED LOAD

PHASE C TOTAL

45.85 KVA \therefore [(480V)($\sqrt{3}$) \therefore 1000] = 52.83 A



CONCESSION BLDG ONE-LINE DIAGRAM N.T.S.



- PHASE A 14.53 KVA PHASE B 14.46 KVA 14.86 KVA 45.85 KVA

PROVIDE SERVICE GROUNDING PER NEC ARTICLE 250 #6 MINIMUM GROUNDING ELECTRODE CONDUCTOR. CONNECT TO BUILDING STEEL, REINFORCING STEEL,

\bigcirc KEYNOTES \bigcirc

- PROVIDE GFI TYPE RECEPTACLE, MOUNT AT 44" A.F.F. TO BOTTOM.
- 2. MOUNT DEVICE AT 44" A.F.F. TO BOTTOM.
- 3. PROVIDE 2" CONDUIT TO BECC BUILDING FOR FIBER OPTIC LINE INSTALLATION BY OTHERS. PROVIDE PULL STRING IN CONDUIT AND PLASTIC BUISHINGS ON CONDUIT
- 4. PROVIDE HAND DRYER EQUAL TO WORLD DRYER VERDEdri #Q-974A. PROVIDE BRANCH CIRCUITRY AS INDICATED, MOUNT AT HEIGHT RECOMMENDED BY
- PROVIDE SINGLE GANG BOX WITH 1-CATEGORY 6 CABLE TO DATA/COMMUNICATION TERMINATION EQUIPMENT, SEE KEYNOTE #10. TERMINATE BOTH ÉNDS PER
- PROVIDE 60A/3P NON-FUSED DISCONNECT SWITCH MOUNTED ON WALL NEAR WATER HEATER. PROVIDE #8 BRANCH CIRCUITRY AS INDICATED FROM PANEL
- ELECTRIC HEATING COIL LOCATED IN DUCTWORK ABOVE IN ATTIC SPACE. PROVIDE BRANCH CIRCUITRY AS INDICATED FROM PANEL 'CONCESSION'. EHC SHALL BE SUPPLIED WITH FACTORY INSTALLED INTEGRAL DISCONNECT SWITCH.
- PROVIDE CONVENIENCE RECEPTACLE MOUNTED IN ATTIC SPACE ABOVE NEAR
- 9. PROVIDE CEILING MOUNTED CORD DROP WITH DUPLEX RECEPTACLE 60" A.F.F. PROVIDE STRAIN RELIEF ON BOTH CORD ENDS.
- 10. WALL MOUNTED EQUIPMENT RACK LOCATION FOR DATA/COMMUNICATION



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ECTRICAL PLAN			021712	m	SCHEMATIC
				U	DESIGN DEV.
			07/07/0		FINAL REVIEW
RIGHT © 2017 INTEGRATED DESIGNS INC.	APPROVED AJM 2/20/20	MINI	N7/97/G		FOR CONSTRU

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