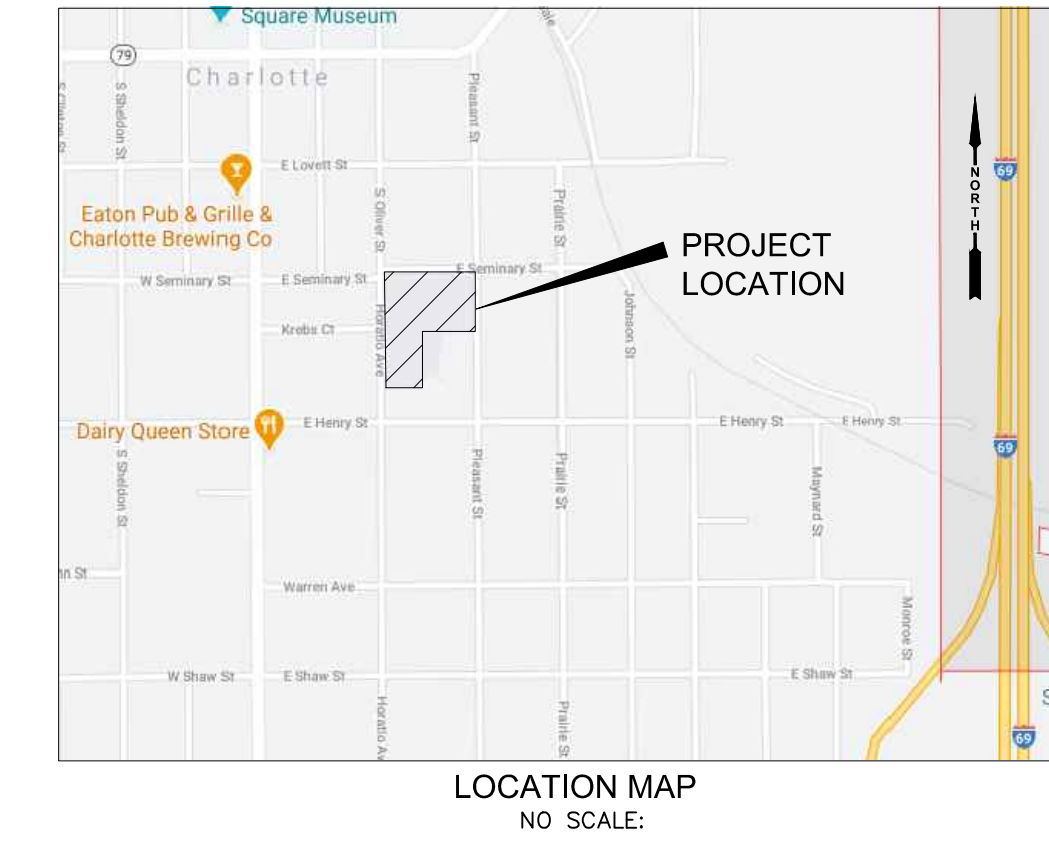
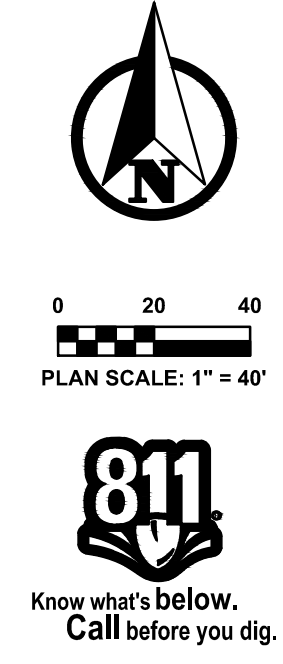


**BENCH MARKS (NAVD88 DATUM)**

- #1 ELEV 904.60**  
SPIKE IN SOUTH SIDE OF POWER POLE, SW CORNER HORATIO @ SEMINARY STREET
- #2 ELEV 902.95**  
RAILROAD SPIKE IN N SIDE OF POWER POLE, E SIDE OF HORATIO AVENUE, 160' N OF C/L OF HENRY STREET.
- #3 ELEV 904.60**  
BLUE "X" ON W SIDE OF LIGHT POLE, 197' E OF C/L HORATIO AVENUE & 313' N OF C/L OF HENRY STREET.

**UNDERGROUND UTILITY INFORMATION**

- |   |   |
|---|---|
| STM CB 1<br>RIM 900.94'<br>8" W INV 898.44  | STM MH 14<br>RIM 902.36<br>12" N INV 899.46<br>12" S INV 899.46   |
| STM MH 2<br>RIM 9001.95<br>12" N INV 898.25<br>12" S INV 898.00<br>8" E INV 898.35  | STM CB 15<br>RIM 902.22<br>12" S INV 900.02<br>12" N INV 899.72   |
| SAN MH 4<br>RIM 902.49<br>8" N INV 893.01<br>8" S INV 892.99  | STM CB 16<br>RIM 901.15<br>12" E INV 897.20   |
| STM MH 5<br>RIM 902.59<br>10" E INV 899.59<br>12" S INV 899.94<br>10" W INV 899.59  | STM MH 17<br>RIM 901.94<br>12" N INV 897.39<br>12" S INV 897.42   |
| STM CB 6<br>RIM 901.83<br>10" W INV 900.48  | SAN MH 18<br>RIM 901.54<br>8" W INV 895.19<br>8" N INV 895.24<br>8" NE INV 894.64                       |
| STM CB 7<br>RIM 902.48<br>12" SE INV 899.58<br>STM MH 8<br>RIM 902.97<br>12" NW INV 898.25<br>12" S INV 898.27<br>18" E INV 898.22<br>18" SW INV 898.27 | STM MH 19<br>RIM 901.38<br>18" W INV 896.18<br>30" N INV 895.97<br>30" S INV 895.46<br>18" E INV 896.18 |
| SAN MH 9<br>RIM 902.98<br>TOP OF SEDIMENT 897.49<br>NO OTHER PIPES VISIBLE  | STM MH 21<br>RIM 901.81<br>6" W INV 896.71<br>30" N INV 895.46<br>30" S INV 895.46                      |
| SAN MH 10<br>RIM 903.14<br>10" NW INV 900.32<br>TOP OF SEDIMENT 897.49<br>NO OTHER PIPES VISIBLE  | SAN MH 22<br>RIM 902.10<br>8" N INV 893.95<br>8" S INV 893.79   |
| STM MH 11<br>RIM 903.08<br>12" E INV 899.03<br>12" NE INV 898.13<br>12" N INV 898.21<br>12" NW INV 899.34<br>12" W 898.04                               | STM CB 23<br>RIM 902.22<br>6" S INV 899.07<br>6" N INV 899.07   |
| STM CB 12<br>RIM 902.35<br>10" E INV 900.10<br>10" SE INV 900.10  | STM CB 24<br>RIM 901.90<br>10" W INV 899.33   |
| SAN MH 13<br>RIM 902.57<br>6" E INV 896.99<br>8" W INV 896.99   |   |



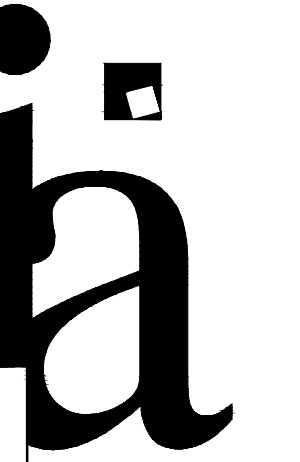
**PROPERTY DESCRIPTION AS PROVIDED**

- PARCEL 1:** THE NORTH 42 FEET OF LOT 19, ALSO LOTS 20, 21, 22, 23, 24, 25 AND 26, LAWRENCE'S SUBDIVISION OF OUT LOTS TO THE CITY OF CHARLOTTE, EATON COUNTY, MICHIGAN, AS RECORDED IN LIBER 1 OF PLATS, PAGE 72, EATON COUNTY RECORDS.
  - PARCEL 2:** THE SOUTH 5.5 FEET OF LOT 26 AND THE NORTH 40 FEET OF LOT 27, GALE'S ADDITION, A SUBDIVISION, AS RECORDED IN LIBER 1 OF PLATS, PAGES 47 A & B, EATON COUNTY RECORDS.
  - PARCEL 3:** LOTS 11, 12, AND 25, ALSO LOT 26 EXCEPT THE SOUTH 5.5 FEET THEREOF, GALE'S ADDITION, A SUBDIVISION, AS RECORDED IN LIBER 1 OF PLATS, PAGES 47 A & B, EATON COUNTY RECORDS.
- COMMONLY KNOWN AS: HORATIO, PLEASANT, CHARLOTTE, MICHIGAN 48813.

**PRELIMINARY NOT FOR CONSTRUCTION**

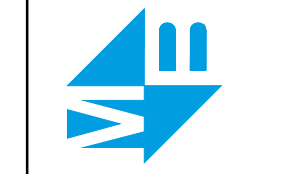
Existing Conditions Plan  
335 Horatio Avenue  
City of Charlotte  
Eaton County, MI

Design	JFL
PM / PA	/
Drawn	FEF
IA Project Number	20201009



Integrated Architecture  
4090 Lake Drive SE  
Grand Rapids, MI 49546  
616.574.0220 P  
616.574.0953 F  
www.intarch.com

**Moore+Bruggink**  
Consulting Engineers  
2020 Monroe Ave NW  
Grand Rapids, MI 49503  
(616) 933-9801  
mailto:info@mbce.com



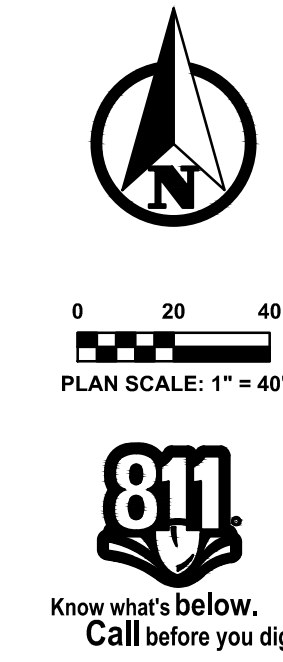
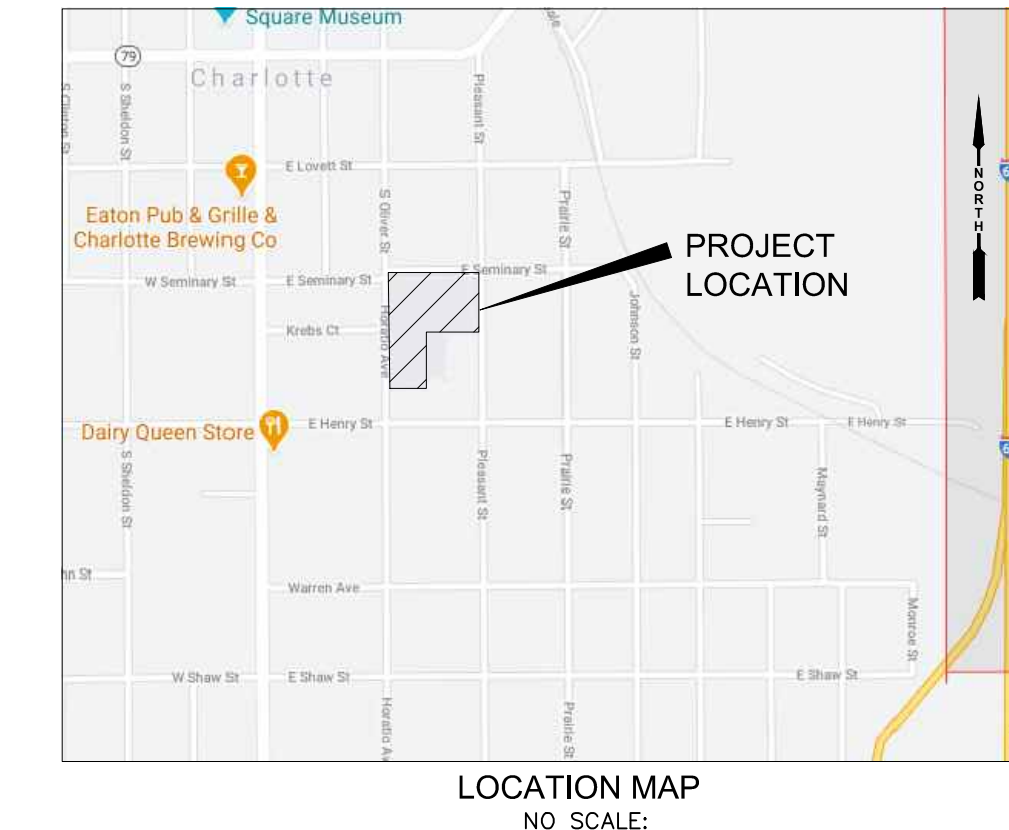
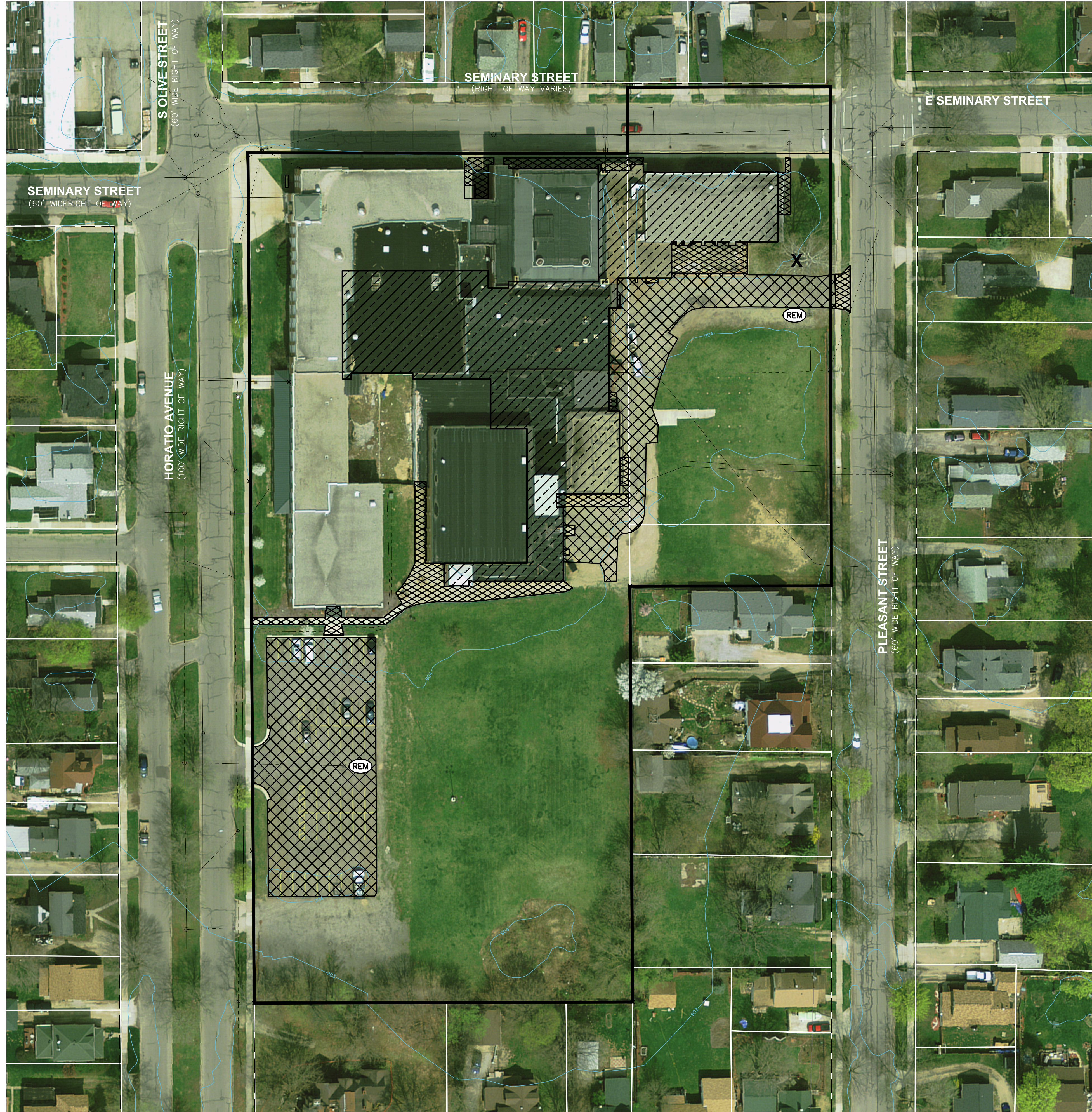


**BENCH MARKS (NAVD88 DATUM)**

- #1 ELEV 904.60**  
SPIKE IN SOUTH SIDE OF POWER POLE, SW CORNER HORATIO @ SEMINARY STREET
- #2 ELEV 902.95**  
RAILROAD SPIKE IN N SIDE OF POWER POLE, E SIDE OF HORATIO AVENUE, 160' N OF C/L OF HENRY STREET.
- #3 ELEV 904.60**  
BLUE "X" ON W SIDE OF LIGHT POLE, 197' E OF C/L HORATIO AVENUE & 313' N OF C/L OF HENRY STREET.

**UNDERGROUND UTILITY INFORMATION**

STM CB 1 RIM 900.94 8" W INV 898.44	STM MH 14 RIM 902.36 12" N INV 899.46 12" S INV 899.46
STM MH 2 RIM 9001.95 12" N INV 898.25 12" S INV 898.00 8" E INV 898.35	STM MH 15 RIM 902.22 12" S INV 900.02 12" N INV 899.72
STM MH 3 RIM 902.57 12" N INV 898.57 12" S INV 898.57 10" E INV 898.57	STM CB 16 RIM 901.15 12" E INV 897.20
SAN MH 4 RIM 902.49 8" N INV 893.01 8" S INV 892.99	STM MH 17 RIM 901.94 12" N INV 897.39 12" S INV 897.42
STM MH 5 RIM 902.59 10" E INV 899.59 12" S INV 899.94 10" W INV 899.59	SAN MH 18 RIM 901.54 8" W INV 895.19 8" N INV 895.24 8" NE INV 894.64 STM MH 19 RIM 901.38
STM CB 6 RIM 901.83 10" W INV 900.48	STM CB 20 RIM 900.66 12" S INV 898.27 18" E INV 898.22 18" SW INV 898.27
STM CB 7 RIM 902.48 12" SE INV 899.58 STM MH 8 RIM 902.97 12" NW INV 898.25 12" S INV 898.27 18" E INV 898.22 18" SW INV 898.27	STM MH 21 RIM 901.81 6" W INV 896.71 30" N INV 895.46 30" S INV 895.46
SAN MH 9 RIM 902.88 TOP OF SEDIMENT 897.49 NO OTHER PIPES VISABLE	SAN MH 22 RIM 902.10 8" N INV 893.95 8" S INV 893.79
SAN MH 10 RIM 903.14 10" NW INV 900.32 TOP OF SEDIMENT 897.49 NO OTHER PIPES VISABLE	STM CB 23 RIM 902.22 6" S INV 899.07 6" N INV 899.07
STM MH 11 RIM 903.08 12" E INV 899.03 12" NE INV 898.13 12" N INV 898.21 12" NW INV 899.34 12" W 898.04	STM CB 24 RIM 901.90 10" W INV 899.33
STM CB 12 RIM 902.35 10" E INV 900.10 10" SE INV 900.10	
SAN MH 13 RIM 902.57 8" E INV 896.99 8" W INV 896.99	



- GENERAL DEMOLITION NOTES:**
1. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND SURETY AS PART OF THIS WORK.
  2. THE CONTRACTOR SHALL CALL MISS DIG 3 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
  3. THE CONTRACTOR SHALL REMOVE ALL CONCRETE, BIT PAVEMENT, STORM SEWER STRUCTURES, STORM SEWER PIPE, LIGHT POLES, FENCING, UNDERGROUND ELECTRIC, VEGETATION AND SO ON TO PREPARE THE SITE FOR IMPROVEMENTS. CASTINGS, VALVE BOXES AND/OR OTHER UTILITY STRUCTURES TO REMAIN SHALL BE ADJUSTED AND PROTECTED FROM DAMAGE.
  4. ALL SOIL EROSION CONTROL MEASURES SHALL COMPLY ACT 451 OF PUBLIC ACTS OF 1997, SOIL EROSION AND SEDIMENTATION CONTROL, NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT.
  5. ALL SOIL EROSION CONTROL MEASURE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF EARTHWORK ACTIVITIES.
  6. THE CONTRACTOR SHALL CLEAN PUBLIC STREETS DAILY OF ANY DIRT AND/OR DEBRIS FROM CONSTRUCTION SITE.

**REMOVAL LEGEND**

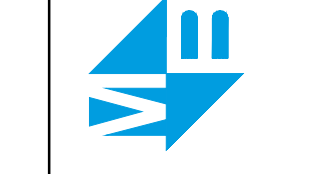
	REMOVE BUILDING
	REMOVE BITUMINOUS
	REMOVE CONCRETE
	REMOVE CURB & GUTTER
	REMOVE SANITARY SEWER
	REMOVE WATERMAIN
	REMOVE STORM SEWER
	TREE REMOVAL
	RELOCATE BY OTHERS
	REMOVE & SALVAGE
	REMOVE ITEM
	DRAINAGE STRUCTURE ADJUST

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Integrated Architecture  
4090 Lake Drive SE  
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616.574.0220 P  
616.574.0653 F  
www.inarch.com

Moore + Bruggink  
Consulting Engineers  
2020 Monroe Ave  
Charlotte, NC 28205  
(616) 363-9801  
mailto:mb@moorebruggink.com



Removal Plan  
335 Horatio Avenue  
City of Charlotte  
Eaton County, MI

Design	JFL
PM / PA	JFL
Drawn	FEF
IA Project Number	20201009

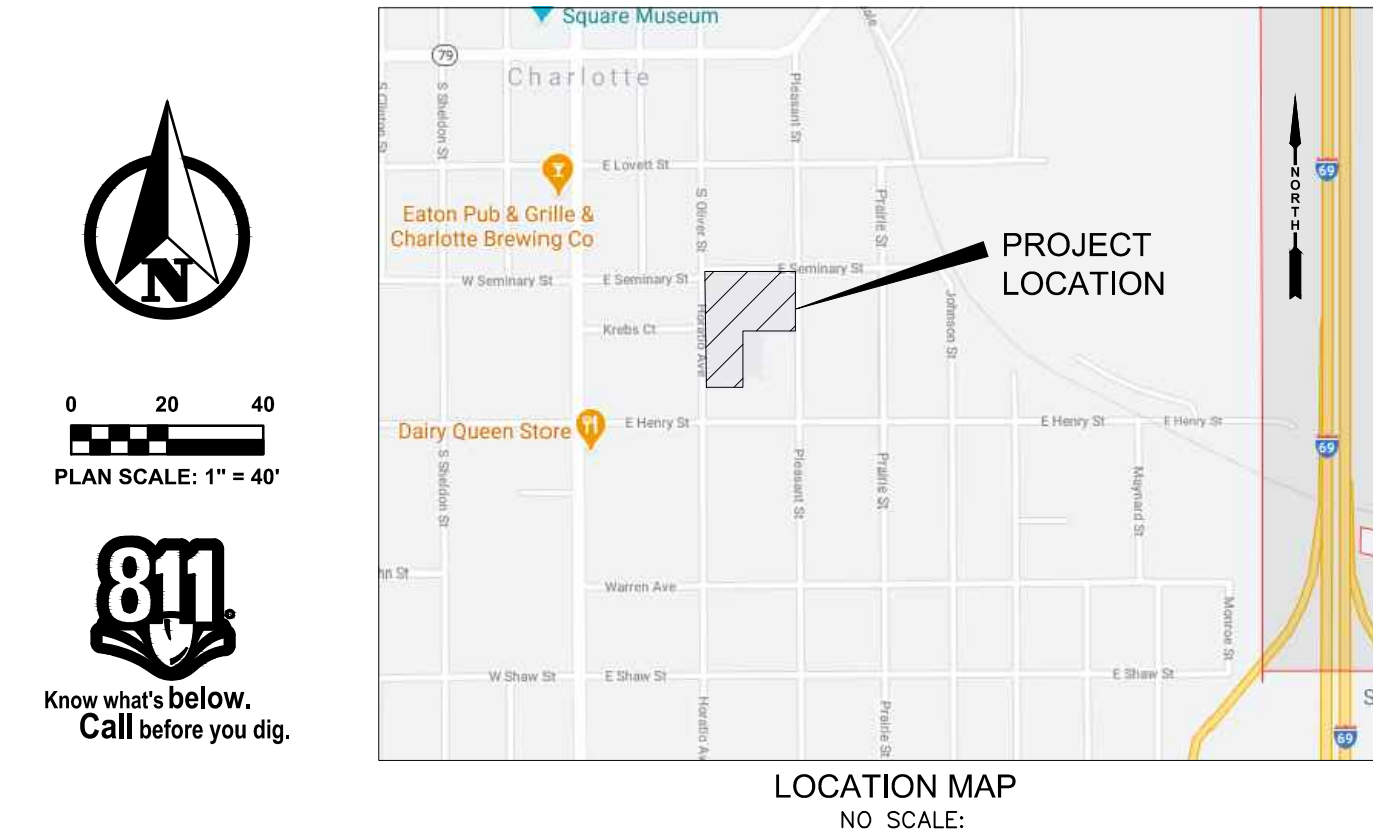
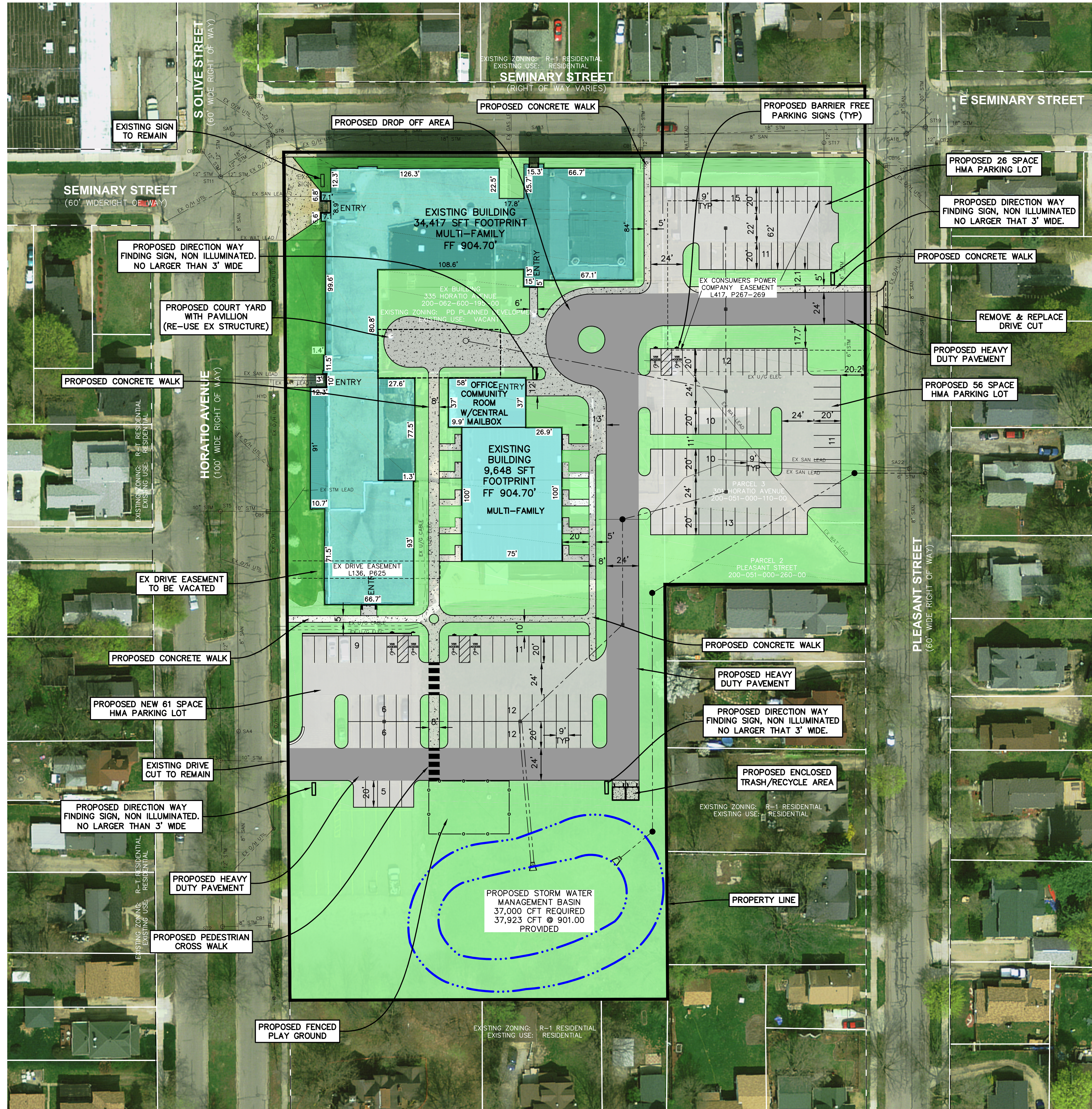


**BENCH MARKS (NAVD88 DATUM)**

- #1 ELEV 904.60  
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HORATIO & SEMINARY STREET
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BLUE "X" ON W SIDE OF LIGHT POLE, 197' E OF C/L  
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**UNDERGROUND UTILITY INFORMATION**

- |   |  |
|---|--|
| STM CB 1<br>RIM 900.94<br>8" W INV 898.44   | STM MH 14<br>RIM 902.36<br>12" N INV 899.46<br>12" S INV 899.46  |
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| STM MH 3<br>RIM 902.57<br>12" N INV 898.57<br>12" S INV 898.57<br>10" E INV 898.57  | STM CB 16<br>RIM 901.15<br>12" E INV 897.20  |
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| STM CB 6<br>RIM 901.83<br>10" W INV 900.48  | STM CB 20<br>RIM 900.66<br>12" N INV 897.91  |
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| SAN MH 9<br>RIM 902.88<br>TOP OF SEDIMENT<br>897.49<br>NO OTHER PIPES<br>VISIBLE  | SAN MH 22<br>RIM 902.10<br>8" N INV 893.95<br>8" S INV 893.79  |
| SAN MH 10<br>RIM 903.14<br>10" NW INV 900.32<br>TOP OF SEDIMENT<br>897.49<br>NO OTHER PIPES<br>VISIBLE  | STM CB 23<br>RIM 902.22<br>6" S INV 899.07<br>6" N INV 899.07  |
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| STM CB 12<br>RIM 902.35<br>10" E INV 900.10<br>10" SE INV 900.10  |  |
| SAN MH 13<br>RIM 902.57<br>8" E INV 896.99<br>8" W INV 896.99   |  |



- SITE PLAN GENERAL NOTES:**
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND SURETY AS PART OF THIS WORK.
  - THE CONTRACTOR SHALL CALL MISS DIG 3 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
  - THE CONTRACTOR SHALL FURNISH AND PLACE THE DRIVE APPROACH WITHIN THE PUBLIC RIGHT OF WAY IN ACCORDANCE WITH THE CITY OF CHARLOTTE STANDARD CONSTRUCTION SPECIFICATIONS.
  - ALL STORM SEWER PIPE SHALL BE ADS N-12 PLASTIC PIPE UNLESS OTHERWISE SPECIFIED.
  - ALL CATCH BASINS AND MANHOLES SHALL BE MINIMUM 4' DIAMETER PRECAST CONCRETE, UNLESS NOTED OTHERWISE.
  - THE PAVED AREAS SUBJECT TO TRUCK TRAFFIC SHALL BE CONSTRUCTED WITH:  
12" MDT CL-2 SAND SUBBASE (C.I.P)  
8" 21-AA GRAVEL BASE (C.I.P)  
2"-3C HMA LEVELING COURSE  
2"-4E1 HMA WEARING COURSE
  - ALL OTHER PAVED AREAS SHALL BE CONSTRUCTED WITH:  
12" MDT CL-2 SAND SUBBASE (C.I.P)  
6" 21-AA GRAVEL BASE (C.I.P)  
2" 3C HMA LEVELING COURSE  
1 1/2" 13A HMA WEARING COURSE
  - THE CONTRACTOR SHALL BED AND BACKFILL ALL UNDERGROUND PIPING WITH MDOT CL-2 SAND TO A MINIMUM OF 95% MAXIMUM DRY DENSITY PER ASTM - 1557.
  - THIS SITE PLAN SHALL NOT BE USED TO STAKE THE LOCATION OF PROPOSED BUILDING COLUMN LINES. THE SURVEYORS ARE TO USE THE BUILDING FOUNDATION PLANS.
  - THE CONTRACTOR SHALL PLACE AND COMPACT FILL UNDER THE PROPOSED BUILDING AREA TO A MINIMUM OF 90% MAXIMUM DRY DENSITY PER ASTM - 1557. ALL OTHER AREAS SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DRY DENSITY.
  - THE CONTRACTOR SHALL PIPE ALL BUILDING ROOF WATER TO THE STORM WATER DETENTION POND AS SHOWN AND SPECIFIED.
  - THE CONTRACTOR SHALL REQUEST CONSTRUCTION STAKING BY EMAIL USING THE MOORE & BRUGGINK, INC. CONTRACTORS CONSTRUCTION STAKING REQUEST FORM. ONLY COMPLETED REQUESTS WILL BE SCHEDULED. NOTE THE PROJECT OWNER WILL PAY THE SURVEYOR TO PLACE STAKES ONLY ONCE. ALL LOST AND DAMAGED STAKES ARE THE CONTRACTORS RESPONSIBILITY.

- RE-DEVELOPMENT NOTES:**
- PROPERTY OWNER:** CHARHIAN DEVELOPMENT LLC  
3210 DARLIS WAY  
CHARLOTTE, MI 48813
- DEVELOPER:** PK DEVELOPMENT  
1784 HAMILTON ROAD  
OKEMOS, MI 48864
- ARCHITECT:** INTEGRATED ARCHITECTURE  
4090 LAKE DRIVE, SE  
GRAND RAPIDS, MI 49546
- CIVIL ENGINEER:** MOORE & BRUGGINK, INC  
2020 MONROE AVENUE, NW  
GRAND RAPIDS, MI 49505
- EXISTING ZONING:** "PD" PLANNED DEVELOPMENT
- PROPOSED ZONING:** "RM-2 MULTI FAMILY RESIDENTIAL"
- MIN FRONT YARD: 30'  
MIN SIDE YARD: 30'  
MIN REAR YARD: 30'  
MAX LOT COVERAGE: 25% BY BUILDING  
MIN LOT SIZE PER DWELLING UNIT: 189 ROOMS  
(MAX OF LOT AREA IN SQ FT/1200 = 189)  
MAX LOT WIDTH: N/A
- APPROX LOT AREA: 234,484 SFT INCLUDING RIGHT OF WAY  
227,150 SFT EXCLUDING RIGHT OF WAY
- FLOOR COVERAGE RATIO: 19.4%
- FLOOR AREA RATIO: 43.3%
- 44,065 GSF APPROX. TOTAL GROUND FLOOR AREA  
36,550 GSF APPROX. TOTAL SECOND FLOOR AREA  
17,826 GSF APPROX. TOTAL THIRD FLOOR AREA  
98,441 GSF APPROX. TOTAL AREA OF PROJECT
- THE PROJECT WILL RESULT IN TWO BUILDING TOTAL.  
THE BUILDING WILL REMAIN THREE FLOORS AND EXISTING BUILDING HEIGHT WILL NOT CHANGE.
- THE PROJECT WILL BE SINGLE PHASE.
- THE RESULTING UNITS WILL BE AS FOLLOWS:
- 13 SINGLE  
49 DOUBLE  
9 TRIPLE  
71 TOTAL UNITS  
209 TOTAL ROOMS
- PARKING REQUIRED: 2 SPACES PER UNIT x 71 UNITS=  
142 SPACES REQUIRED  
143 SPACES PROVIDED

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2020 Monroe Ave. NW  
Grand Rapids, MI 49505  
(616) 352-9891 m.bruggink@mbos.com



Site Plan  
335 Horatio Avenue  
City of Charlotte  
Eaton County, MI

Design JFL  
PM/PA /  
Drawn FEF  
IA Project Number 20201009

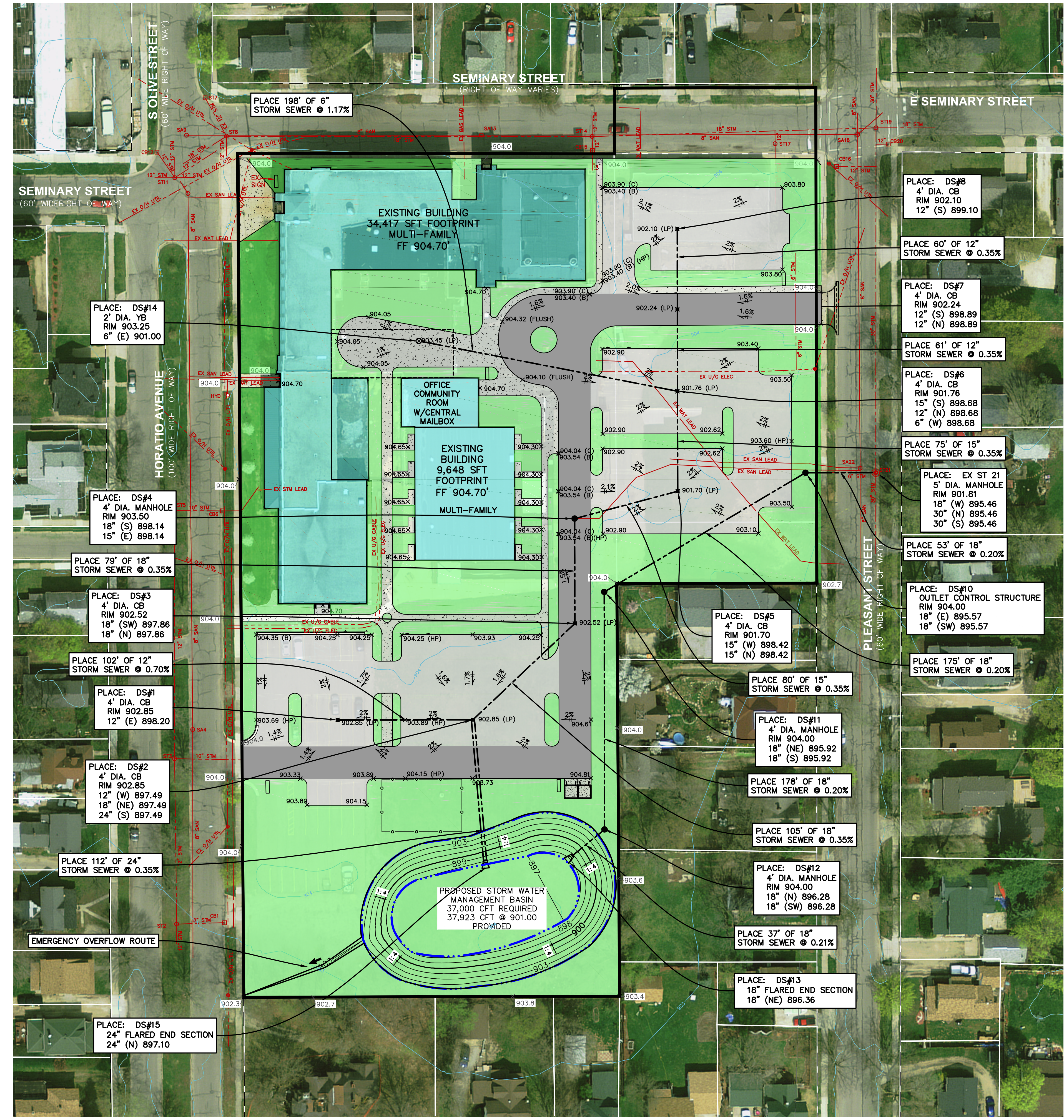
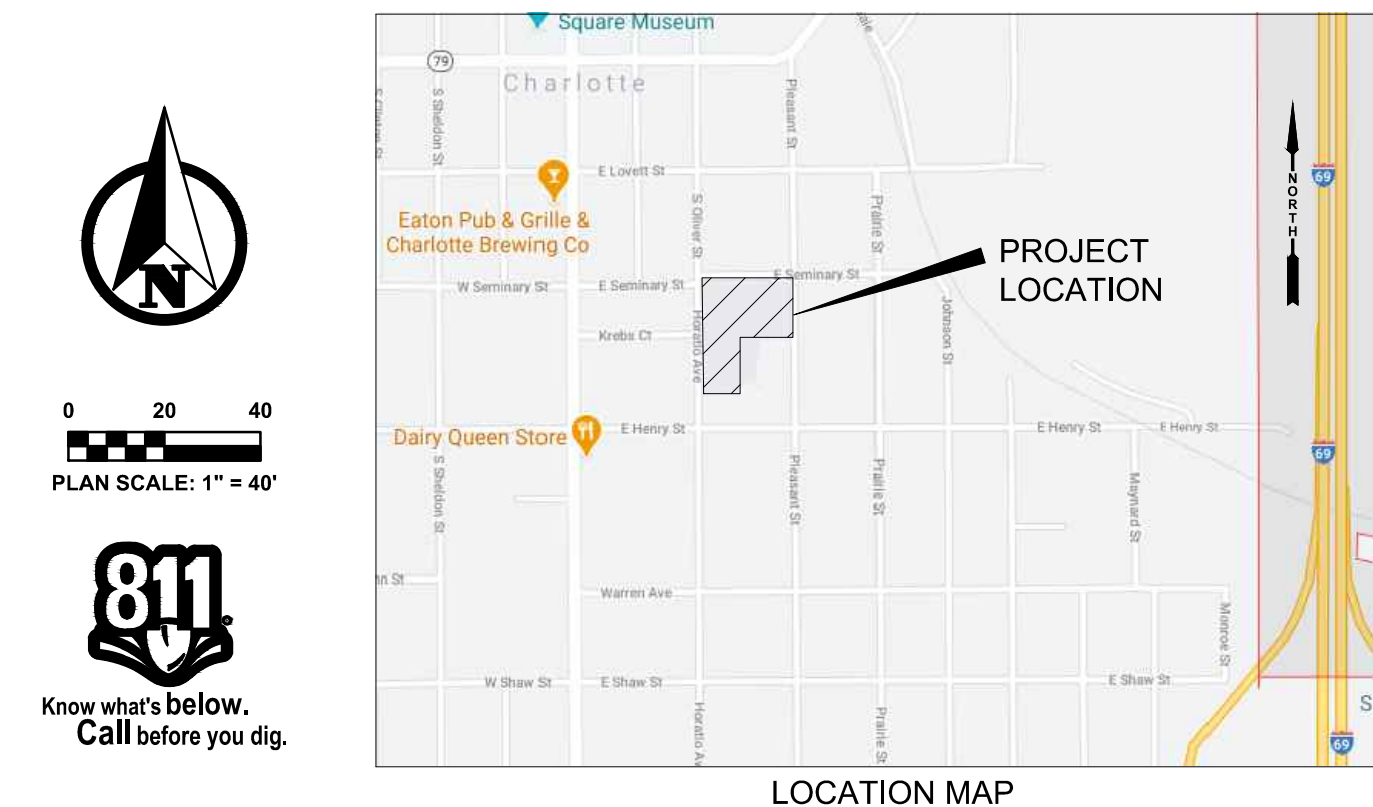


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STM MH 3 RIM 902.57 12" N INV 898.57 12" S INV 898.57 10" E INV 898.57	STM CB 15 RIM 902.22 12" S INV 900.02 12" N INV 899.72
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SAN MH 9 RIM 902.88 TOP OF SEDIMENT 897.49 NO OTHER PIPES VISIBLE	STM CB 20 RIM 900.66 12" W INV 896.91
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  - EXISTING PUBLIC AND PRIVATE UTILITY SERVICES ARE TO REMAIN AND BE UTILIZED.

- SOIL EROSION CONTROL NOTES:**
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND SURETY AS PART OF THIS WORK.
  - THE CONTRACTOR SHALL CALL MISS DIG 3 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
  - THE CONTRACTOR SHALL REQUEST CONSTRUCTION STAKING BY EMAIL USING THE MOORE & BRUGGINK, INC. CONTRACTORS CONSTRUCTION STAKING REQUEST FORM. ONLY COMPLETED REQUESTS WILL BE SCHEDULED. NOTE THE PROJECT OWNER WILL PAY THE SURVEYOR TO PLACE STAKES ONLY ONCE. ALL LOST AND DAMAGED STAKES ARE THE CONTRACTORS RESPONSIBILITY.
  - THE CONTRACTOR SHALL REMOVE ALL CONCRETE, BIT PAVEMENT, STORM SEWER STRUCTURES, STORM SEWER PIPE, LIGHT POLES, FENCING, UNDERGROUND ELECTRIC, VEGETATION AND SO ON TO PREPARE THE SITE FOR IMPROVEMENTS. CASTINGS, VALVE BOXES AND/OR OTHER UTILITY STRUCTURES TO REMAIN SHALL BE ADJUSTED AND PROTECTED FROM DAMAGE.
  - NORTH AMERICAN GREEN DS-150 EROSION CONTROL BLANKET SHALL BE PLACED ON ALL SLOPES 1:3 OR GREATER. SECURE BLANKET TO SLOPE PER MANUFACTURERS SPECIFICATIONS.
  - ALL SILT FENCING SHALL BE TRENCHED IN PRIOR TO COMMENCEMENT OF EARTHWORK ACTIVITIES.
  - SILT FENCING IS REQUIRED ALONG ALL DOWNSTREAM EDGES OF THE GRADING LIMITS AND MUST REMAIN IN PLACE UNTIL VEGETATION IS UNIFORMLY RE-ESTABLISHED.
  - ALL SOIL EROSION CONTROL MEASURES SHALL COMPLY WITH ACT 451 OF PUBLIC ACTS OF 1997, SOIL EROSION AND SEDIMENTATION CONTROL, NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT.
  - NEW & EXISTING STORM SEWER INLET POINTS SHALL BE PROTECTED FROM SEDIMENT INFILTRATION WITH INLET FABRIC DROP (SILT SACK) PER CITY OF GRAND RAPIDS APPROVED MANUFACTURERS (H-FLOW AND/OR ACF BRANDS). CONTRACTOR SHALL PROVIDE PRODUCT INFORMATION TO THE CITY PRIOR TO INSTALLATION.
  - ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS, AND IMMEDIATELY FOLLOWING EVERY SIGNIFICANT RAINFALL EVENT.
  - ALL EXCESS SPILLS ARE TO BE REMOVED FROM THE SITE. OTHERWISE STOCKPILES MUST BE PROVIDED WITH TEMPORARY AND PERMANENT STABILIZATION MEASURES.
  - IF EXCESS DIRT IS TO BE PLACED ON SITE, THE LOCATION SHALL BE APPROVED BY THE PROPERTY OWNER & ENGINEER.
  - ALL TEMPORARY EROSION CONTROLS MUST REMAIN IN PLACE UNTIL VEGETATION IS UNIFORMLY RE-ESTABLISHED.
  - DUST CONTROL SHALL BE PROVIDED BY MEANS OF WATER DISTRIBUTION ON A REGULAR BASIS OVER AREAS THAT COULD POTENTIALLY PRODUCE DUST CONDITIONS.
  - A TRACKING PAD MUST BE PROVIDED AT CONSTRUCTION ACCESS POINTS TO PREVENT SOILS FROM BEING TRACKED OFF-SITE, PER DETAIL THIS SHEET.
  - CONTRACTOR SHALL SWEEP PAVED AREAS EACH DAY (OR MORE AS NEEDED) BY MECHANICAL MEANS FOR ALL PAVED AREAS IN AND AROUND THE PERIMETER OF THE PROJECT AFFECTED BY TRUCKING OPERATIONS.
  - ALL DISTURBED AREAS SHALL BE RESTORED WITH 4" TOPSOIL (MIN), SEED, FERTILIZER AND MULCH UNLESS OTHERWISE NOTED.
  - CONSTRUCTION ENTRANCE SHALL BE PROVIDED FROM HORATIO AVENUE
  - EXISTING SOIL CONDITIONS: LOAMY SAND

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**PRELIMINARY NOT FOR CONSTRUCTION**

Grading & Utility Plan  
335 Horatio Avenue  
City of Charlotte  
Eaton County, MI

**Moore + Bruggink**  
Consulting Engineers  
2020 Monroe Ave  
Grand Rapids, MI 49505  
(616) 965-9801  
mailto:mail@moorebruggink.com  
www.moorebruggink.com



Design JFL  
PM / PA  
Drawn FEF  
IA Project Number 20201009