

**WHITE LAKE TOWNSHIP
INTER-OFFICE MEMORANDUM**

COMMUNITY DEVELOPMENT DEPARTMENT

DATE: July 9, 2021

TO: Rik Kowall, Supervisor
Township Board Members

FROM: Sean O'Neil, AICP
Planning Director

SUBJECT: Elizabeth Lake Retail (Rezoning Request & Preliminary Site Plan Approval)

Located on the south side of Highland Road, west of Elizabeth Lake Road. Consisting of 69 acres, of which 8.61 net acres of the northeast portion of the property are to be rezoned. Currently zoned Agricultural (AG), the applicant wishes to rezone the portion of the property to Planned Business District (PB) or any other appropriate zoning district. Identified as vacant parcel number 12-21-426-004

The above project has **not been considered by the Planning Commission** and further correspondence will be sent to you under separate cover after the Planning Commission meets next Thursday, July 15, 2021.

- ❑ Review letter prepared by DLZ Traffic Engineer, Mr. Leigh Merrill, dated 07/07/2021
- ❑ Review letter prepared by the Township Engineering Consultant, Mr. Michael Leuffgen, dated 07/07/2021.
- ❑ Review letter prepared by the Township Planning Consultant, Ms Kathleen Jackson, dated 06/09/2021.
- ❑ Review letter prepared by the White Lake Township Fire Chief, dated 07/07/2021.
- ❑ Memo prepared by the White Lake Township Assessor, dated 06/23/2021
- ❑ Review letter prepared by the Township Assessor, dated 06/22/2021.

Please place this matter on the next available Township Board agenda. Contact me should you require additional information.



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

July 7, 2021

Sean O'Neil, Director
Community Development Department
Charter Township of White Lake
7525 Highland Road
White Lake, Michigan 48383

**Re: White Lake Plaza Development
Traffic Impact Assessment Review**

Ref: DLZ File No. 2145-7233-05

Date of Study: 3/10/20

Design Professional: Brandon M. Hayes, PE and
Alyssa M. Wambold, PE; Rowe Professional Services

The applicant has submitted a Traffic Impact Assessment (TIA) for the White Lake Plaza Multi-Use Development located in the southwest quadrant of the Elizabeth Lake Road and Highland Road (M-59) intersection. The proposed development in the TIA includes 8,300 square feet of restaurants with drive throughs and 31,800 square feet of retail space. The TIA utilized turning movement traffic counts at the Elizabeth Lake Road and Highland Road intersection and the Elizabeth Lake Road and Kroger Driveway on Wednesday, February 12, 2020.

DLZ has reviewed the analysis and believes there is some missing information that should be included in the analysis and has the potential to change the results of Level of Service (LOS) calculations at Site Driveway 1 and Site Driveway 3. The TIA fails to account for any estimated traffic volumes resulting from the potential future development located to the southwest of White Lake Plaza. As the only ingress/egress for the large land-bound lot, including traffic volumes from this potential future development would provide a more accurate assessment of the traffic mitigation needs for White Lake Plaza. This is of significant concern due to the LOS E and F at Site Driveway 1 in the AM and PM Peak Hours from the traffic generated solely by White Lake Plaza.

While the TIA indicates Site Driveway 1 does not meet a signal warrant with the projected traffic volumes, it indicates it is very close in the PM Peak Hour. DLZ feels that including the additional traffic volumes from the potential future development will result in a signal being required at Site Driveway 1. Also, the TIA mentions "the simulation revealed vehicles attempting to turn left onto M-59 have very few gaps in westbound traffic patterns due to the signal at M-59 (Highland Road) and Elizabeth Lake Road". This revelation also indicates a traffic signal could significantly improve the LOS for northbound traffic at Site Driveway 1. The results included in the TIA indicate a full signal warrant study should be undertaken once the development is constructed, but no mention of who would pay for the study or the potential signal is included.

Additionally, DLZ has concerns with Site Driveway 3 and its misalignment with the Kroger Driveway across Elizabeth Lake Road. Consider realigning Site Driveway 3 further to the south to align with the Kroger Driveway. Realigning the driveway would also place it closer to the required 360 feet from the Elizabeth Lake Road and Highland Road intersection.

DLZ also has concerns with the space of the site driveways along M-59. As mentioned in the TIA, driveway spacing for the 50 MPH speed limit along M-59 is required to be greater than or equal to 455 feet. Neither of the proposed Site Driveways along M-59 meets the 455 feet spacing requirement from the nearest drive. The ultimate jurisdiction of the entrances rests with the Michigan Department of Transportation (MDOT) and they will require MDOT approval prior to construction.

The study also evaluated the need for turn lanes or tapers at the proposed site driveways. Based on the trip generation peak hour's traffic, it was determined that right turn tapers are warranted at Site Driveways 1 and 2; however right turn tapers are not included in the attached site plan. Further, while Site Driveway 3 does not warrant a right turn taper based on the proposed traffic volumes, it should be re-evaluated with estimated future traffic from the potential development to the southwest of White Lake Plaza included. Additionally, while a right turn taper is not warranted with only White Lake Plaza generated traffic, the Road Commission for Oakland County (RCOC) often requires right turn tapers on developments of this nature. An RCOC permit will be required prior to construction.

Finally, we are aware that the included site plan is not reflective of the most up-to-date site plan, which includes a revised area of retail space, as well as an "Area For Future Development", for which no traffic volumes have been assigned. Traffic Volumes from this area, as well as the potential development to the southwest of White Lake Plaza should be included in the TIA.

A review of the internal turning movements in the development also reveals a concern with the proposed traffic circle at the center of the development. There is a very congested area in the southwest quadrant of the traffic circle, where the exit for the drive-thru must navigate not only the vehicles in the traffic circle, but also the vehicles heading eastbound toward the traffic circle. The traffic circle in the site plan should be considered for removal.

Respectfully,
DLZ, Inc.



Leigh Merrill, P.E.
Project Manager

Cc: Michael Leuffgen, P.E., DLZ *via email*



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

July 7, 2021

Sean O' Neil
Community Development Department
Charter Township of White Lake
7525 Highland Road
White Lake, Michigan 48383

RE: White Lake Plaza- Site Plan Review – 4th Review

Ref: DLZ No. 2145-7233-05

Design Professional: MA Archmaster

Dear Mr. O' Neil,

Our office has performed a Preliminary Site Plan review for the above-mentioned revised plan dated June 22, 2021. The plans were reviewed for feasibility based on general conformance with the Township Engineering Design Standards.

General Site Information

This site is located on the south side of M-59 at the southwest corner of Elizabeth Lake Road. Total site acreage is 8.61 acres.

Site Improvement Information:

- Construction of four (4) retail and restaurant space buildings totaling 28,840 square feet.
- Associated paved and curbed parking and maneuvering aisles. Eight ADA accessible parking spaces and associated loading spaces are also proposed.
- Internal traffic circle proposed.
- 8' wide concrete sidewalk is proposed along both M-59 and Elizabeth Lake Road frontages.
- Site to be serviced by watermain and sanitary sewer.
- Storm water runoff is proposed to be pretreated and detained in two (2) proposed detention basins with discharge to the adjacent existing wetlands near the south end of the property.

Note that comments from our June 10, 2021 review are in *italics*. Responses to those comments are in **bold**. New comments are in standard typeface.

The following items should be noted with respect to Planning Commission review:

- a) *It appears that based on the proposed design that it will be difficult for vehicles utilizing the drive thru for Building C to make a right hand turn into the proposed on site traffic circle. Of particular concern would be the ability of larger service style trucks (i.e. larger landscaping vehicles) to execute this turn into the traffic circle. Traffic maneuvering and turning radii for this area should be re-examined. The plans have been updated with a hatched area with a left turn only sign to help limit traffic from entering the traffic circle once leaving the drive through. This likely helps limit conflicts, however the left turn itself is in conflict with eastbound users in front of building C and users entering the site through the traffic circle.* **The plans have been further updated to include a stop sign in addition to the left turn only sign. Further discussion with the Planning Commission and Planning Director is warranted. Please also see the DLZ Traffic Impact Assessment Review dated 7-7-2021 for discussion on interior turning movements.**
 - b) *The exact limits of the wetlands should be shown. We are unclear as to whether a wetlands delineation has been performed. In addition, all natural water features on the site should be shown on the plan. Comment outstanding. Plan does not indicate whether a wetlands delineation has been performed. If it has, a note on plan indicating date of delineation and person(s) who performed delineation will suffice. Plans indicate that the wetland delineation was taken from another plan set related to offsite improvements and is outdated. A new wetland delineation shall be performed to demonstrate the current limits of the existing wetland. Plans propose the detention basins and access road to be constructed within the wetland buffer. We defer to the Township Building Department if this is allowable per the ordinance requirements.* **Comment partially addressed. A new wetland delineation dated June 16, 2021 has been included as part of this submittal. Proposed detention basins and access road are now shown to be located outside the wetland buffer. We note that all plan sheets should be updated to reflect the new wetland delineation, see wetland note on plan sheet SP-2.**
 - c) *The two (2) detention basin outlet end sections are proposed to encroach into the wetlands area. The end sections should be pulled back out of the wetlands and placed at the limits of the wetlands buffer.* **The plans show 8" discharge pipes with end sections and Rip-Rap extending into the wetland area. Township Zoning Ordinance section 6.1.F.vi.b indicates that areas identified as wetlands are not to be modified in any way. The proposed activities and stormwater discharge will require permit from EGLE inland lakes & streams.**
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- d) *The plans do not adequately represent the required sanitary sewer pump station that will be required for connection to the existing pressure sewer along Elizabeth Lake Road. Oakland County standard details for a duplex sanitary sewer pump station have been attached to this review for reference. The pump station cannot be located in the drive lane as presented. The top of the wet well and valve vault need to be 6 inches above surrounding grade to prevent infiltration. The pump station will consist of above grade appurtenances such as vent piping for wet well and valve vault and control panels, generator, transfer switches, transformer pad that should be located on the plan and protected from traffic. The proposed location does not provide sufficient area for these items as well as provide proposed parking for station maintenance vehicles. **Comment addressed for this level of review however further clarification will be required at time of final site plan regarding the location of all required appurtenances associated with the pump station.***
- e) *It should be verified by the owner/ applicant that an access easement for the proposed southern and western drives from Elizabeth Lake Road and M-59 all the way to the southwest property line (reference Preliminary Site Plan Sheet SP-2) shall be granted. This will enable access to the property to the southwest for future development. **Comment remains as a notation. The design engineer has stated that the property owner will provide an access easement for the proposed access road from Elizabeth Lake Road and M-59 all the way to the southwest property line.***
- f) *Questions were raised at the 6-3-2021 planning Commission Meeting regarding the survey that should be addressed by the applicant to insure there are no dimensional inconsistencies that would cause proposed elements to shift or be eliminated. See attached markups and clarify. **Comment outstanding. It does not appear that comments, on the marked up Sheet SP-2 sent with our previous review, have been addressed. We note that no response letter from the design engineer was received as part of the current submittal.***
- g) *White Lake Township Fire Department has deferred further comment to this office regarding turning radius for fire apparatus. The plan sheet SP-4 shows a fire truck “dropped” onto the plan in several areas. This does not sufficiently demonstrate space required for the turning movements. This is typically accomplished with AutoTURN software to show the required path of travel for a 40-foot-long vehicle to navigate the site. Please update the plans to show the path of travel required for a 40-foot vehicle to navigate the site. We also note there are outstanding items on the Fire Department review regarding fire hydrant coverage and placement. **Turning movements for fire apparatus has been provided on the plan set. Note that the traffic sign near the drive thru exit of Building C will need to be relocated as it will be damaged by the movements. DLZ continues to defer comment to the Fire Department regarding fire hydrant coverage.***
- h) *Please also refer to the 7-7-2021 DLZ letter regarding the Traffic Impact Assessment Review.*
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The following comments can be addressed at the time of Final Site Plan/ Final Engineering Plan submittal. Please note that these comments do not impact the Preliminary Site Plan layout or engineering feasibility. These comments have been provided to the applicant's engineer at this time as a courtesy as the plan moves forward to FSP and FEP review.

FSP/FEP Comments (for future submittal)-

General

1. *The plan sheets SP-2 and C-3 are a bit difficult to read. Please provide a larger view of plan at time of FSP/FEP submittal. The design engineer has indicated that the scale of the drawing has been increased to 1" = 40'. Please note that there is a conflict between the scale listed of 1" = 40' and the graphic scale on the plans of 1" = 50'. Please clarify. **Comment addressed.***
2. *Benchmarks shall be on NAVD 88 datum. No assumed datum is accepted per Township Ordinance. Comment partially addressed. Please add NAVD 88 reference to the Benchmark Table. **Comment addressed. Reference to NAVD 88 is now shown on Sheet SP-1.***

Watermain

1. *We defer to the Fire Department with regard to items related to fire suppression including proposed hydrant locations. **Comment remains.***

Sanitary Sewer

1. *Sanitary sewer pump station revisions are required as referenced above. **Comment addressed to the degree necessary on PSP submittal. Further detail will be required for FSP/FEP.***
2. *Sanitary sewer shall be centered in a 20' wide easement. A 20' wide easement is proposed; however, it is not clear as to whether the sanitary sewer centered. In addition, an easement will be required for the Pump Station. **Comment partially addressed. Comment regarding an easement for the pump station remains.***

Stormwater Management

1. *Sheet C-5 notes that storm sewer and detention basins shall be the maintenance responsibility of White Lake Township. We note that all storm sewer, detention basins, and associated appurtenances shall be privately maintained by the property owner. A Storm Sewer and Detention Basin*
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Maintenance Agreement with the Township shall be required. Comment remains. The plan has been updated with a maintenance agreement. Please note White Lake Township will require a standardized agreement be in place prior to pre-construction meeting.

- 2. A County Drain easement may be required by Oakland County for the Brendal Drain which runs in close proximity to the western property line for this project. Please provide verification from the County with respect to the jurisdiction and easement requirements relative to the Drain. Comment remains.*

Recommendation

Comments relative to the site plan regarding the interior turning movements, survey, and wetland delineation/impact are minor but still remain. The Planning Commission should be satisfied with a plan for resolution of these items prior to preliminary site plan approval. The comments listed under 'FSP/FEP Comments' can be addressed at the time of Final Site Plan/ Final Engineering Plan submittal.

Please feel free to contact our office should you have any questions.

Sincerely,

DLZ Michigan



Michael Leuffgen, P.E.
Department Manager



Victoria Loemker, P.E.
Senior Engineer

Cc: Justin Quagliata, Community Development, *via email*
Hannah Micallef, Community Development, *via email*
Aaron Potter, DPS Director, White Lake Township, *via email*
John Holland, Fire Chief, White Lake Township, *via email*



MCKENNA

June 9, 2021

Planning Commission
Charter Township of White Lake
7525 Highland Road
White Lake, MI 48383

Subject: Elizabeth Lake Retail – Planned Development
Rezoning (review number 1) from AG (Agricultural) to PB (Planned Business District)
Preliminary Site Plan Review number 3

Applicant(s): MA Archmaster

Location: South side of Highland Road, west of Elizabeth Lake Road

Dear Planning Commissioners:

The petitioner has submitted plans to develop a four building multi-use development including retail and restaurants on a site consisting of 7.9 net acres for PD zoning. Currently zoned Agriculture, the site is designated as “Lakes Town Center” on the Township’s Future Land Use Map.



Source: Oakland County Property Gateway

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REZONING

The initial stage of the PD review process also effectuates the rezoning of the land to PB. Section 7.13 of the Zoning Ordinance provides standards for the review of rezoning proposals. The following review criteria are specified in Section 7.13 (A) through (N):

A. **Consistency with the goals, policies and future land use map of the White Lake Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area.** The Mater Plan places this site in the Lakes Town Center Area. Additionally, it is located in the proposed Civic Center Area. The Master Plan characterizes the future land uses in this area as follows:

- To fully realize the vision of a “village” in this area, the land uses in Lakes Town Center must also include residential, institutional, entertainment and recreation. The Village must, in essence, represent a concentrated version of what makes the whole Township a successful community. Most importantly, the land use mix must result in a desirable gathering spot that can become an identifiable “place”, and one with which residents in the Township choose to be identified.

The proposed Planned Business District (PB), allows for several of these uses and the ability to conform to the vision described in the Lakes Town Center Area.

B. **Compatibility of the site's physical, geological, hydrological and other environmental features with the host of uses permitted in the proposed zoning district.** The site is fairly flat and can adequately sustain the uses and design concepts allowed by the PB District. There is a .45-acre wetland on the south end of the site. A detention pond, approximately 12,000 square feet in located just north of the wetland and a second, (approximately) 70,000 detention pond is proposed due west of the wetlands.

C. **Evidence the applicant cannot receive a reasonable return on investment through developing the property with one (1) of the uses permitted under the current zoning.** No such evidence has been submitted.

D. **The compatibility of all the potential uses allowed in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure and potential influence on property values.** Most of the permitted (potential) uses in the PB district are compatible with the surrounding uses and the nature of the uses anticipated in the Township Master Plan. However, the proposed development conflicts with several ideals expressed thus far in the proposed Civic Center Development Area plan and the Lakes Town Center Area. The subject site is a gateway to the Civic Center Development Area Plan.

E. **The capacity of the Township's utilities and services sufficient to accommodate the uses permitted in the requested district without compromising the "health, safety and welfare" of the Township.** The site is an area that is intended to be serviced by the public water and sanitary sewer service. We defer to the Township Engineer regarding this matter.



- F. ***The capability of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district.*** A traffic impact study is required to be submitted at preliminary site plan review. No study has been submitted. The subject site is part of an area planned to have an active mix of uses and be a center of Township activity. It is important to have a safe and efficient traffic and circulation pattern in order to accommodate the anticipated increase in vehicular and pedestrian activity.
- G. ***The apparent demand for the types of uses permitted in the requested zoning district in relation to the amount of land in the township currently zoned and available to accommodate the demand.*** Evidence of the demand in the Township for additional retail and restaurant uses has not been submitted. However; the location is appropriate for such uses, given the traffic, residential rooftops and general density in the project area.
- H. ***The boundaries of the requested rezoning district are reasonable in relationship to its surroundings, and construction on the site will be able to meet the dimensional regulations for the zoning district listed in the Schedule of Regulations.*** The property is adjacent to agricultural to the west White Lake Township Civic uses to the south, residential to the north and general business to the east. The proposed layout complies with the minimal, dimensional requirements of the PB District.
- I. ***The requested zoning district is considered to be more appropriate from the township's perspective than another zoning district.*** While the PD could provide greater flexibility in site design, the proposed site layout and architectural design are inconsistent with the Master Plan; specifically, the Lakes Town Center Planning Area. The uses allowed in the proposed zoning are appropriate however; the use of a Planned Development option (as outlined in the State Statute) is to: *Encourage innovation in land use and variety in design, layout and type of structures constructed, achieve economy and efficiency in the use of land, natural resources, energy and the provision of public services and utilities, encourage useful open space, and provide better housing, employment, and shopping opportunities particularly suited to the needs of the residents of this state.*
- The proposed development does not appear to meet the basic requirements of the Planned Development ordinance.
- J. ***If the request is for a specific use, is rezoning the land more appropriate than amending the list of permitted or special land uses in the current zoning district to allow the use?*** Rezoning would be the most appropriate way to allow for this sort of use. Amending the agricultural zoning district to allow for retail and restaurants would not be advised.
- K. ***The requested rezoning will not create an isolated and unplanned spot zone.*** Planned developments, by their nature stand on their own, but the uses allowed within the PD should be consistent with the use of land surrounding it. The proposed restaurant and retail uses are consistent with the surrounding land uses.



- L. ***The request has not previously been submitted within the past one (1) year, unless conditions have changed or new information has been provided.*** It is our understanding that this request had not been previously made.
- M. ***An offer of conditions submitted as part of a conditional rezoning request shall bear a reasonable and rational relationship to the property for which rezoning is requested.*** This standard is not applicable, as the application is not for a conditional rezoning.
- N. ***Other factors deemed appropriate by the Planning Commission and Township Board.*** If the Planning Commission or Township Board desire information on other considerations related to the proposal, we would be happy to assist them.

The petitioner should provide a narrative outlining exactly what the public benefits are of this project.

PLANNED DEVELOPMENT REVIEW PROCESS

Planned Development approval involves three (3) steps: Preliminary Site Plan Review, Final Site Plan Review, and Development Agreement Review. We have reviewed the application for compliance with the Township's Zoning Ordinance and Master Plan, as well as sound planning and design principles, and offer the following comments:

The Planned Development review process

1. Preliminary Site Plan Review: This is the step in which the number of units and road layout are established, the amount of open space is determined, and other project details are decided upon. At the preliminary review step the Planning Commission holds a public hearing. The Planning Commission must review the PD proposal and make a recommendation to the Township Board for the preliminary site plan. The Township Board is required to take action, approving or denying the preliminary site plan. The property is rezoned to PD, or in this case, PB (Planned Business District) at the end of this step.
2. Final Site Plan Review: Final site plan review is the step at which all of the details are included on the final site plan and all of the conditions of preliminary site plan review must be satisfied. The Planning Commission is required to review the final site plan and take action, approving or denying the final site plan. It is at this step where the Planning Commission also reviews the proposed Development Agreement and makes a recommendation to the Township Board.
3. Development Agreement Review: Upon recommendation of the Development Agreement by the Planning Commission, the Township Board takes final action on the Development Agreement.

Comments

1. **Existing Conditions.** The conditions of the site and the surrounding area are summarized below:



Location	Existing Land Use	Master Plan	Existing Zoning
Site	Vacant	Lakes Town Center	Agricultural
North	Single-Family Residential	Lakes Town Center	Suburban Farm/ Single-Family Residential
East	Commercial	Lakes Town Center	General Business
South	Vacant	Lakes Town Center	Agricultural
West	Vacant	Lakes Town Center	Agricultural

- Proposed Use.** The applicant is proposing four, one story buildings as part of a commercial plaza. One building will be dedicated as a restaurant, two buildings are retail and the fourth is a mixture of retail and restaurant uses. Additionally, the applicant has proposed two drive-thru lanes for the restaurants within the development and seating for twenty four outdoor dining patrons. Both the drive thru and outdoor dining are special land uses and as such, are subjected to special land use considerations. Most special land uses have the potential for adverse effects if they are not carefully examined. Though the underlying AG- Agriculture zoning does not support the retail or restaurant uses, the applicant has applied to rezone the area as a Planned Business. Further, the site is designated as the “Lakes Town Center” on the Township’s Future Land Use Map. This designation calls for a mix of commercial and residential options. The retail and restaurant uses align with this future land use designation, and are appropriate for the site. However, the site layout and building design are inconsistent with the Lakes Town Center Planning Area.
- Building Placement; Architecture and Design.** The site is not of a conforming size for a PD - the minimum lot area to be considered for a Planned Development is 10 acres. A waiver from this minimum size was approved in March, 2021.

The Township has invested significant resources in the development of the Lakes Town Center Area/Civic Center. This proposed development provides an opportunity to build on that success.

The principal characteristics of **Lakes Town Center’s** physical form should include at least the following elements:

- Higher density residential, often in the form of upper floors in mixed use retail or office development.
- Unifying visual development features, such as: special pedestrian pavements, light fixtures, landscaping, way-finding sign systems, highest quality architecture, timeless design that avoids “theme” concepts, and the like
- Unique and attractive roadway features that also promote pedestrian safety, such as: landscaped boulevards, special crossing features, refuge areas in the center of wide crossings, mast-arm signals incorporating lighting and signage systems, and on-street parking
- Terminated Vistas that provide attractive locations for civic anchors, such as major retailers or institutional, civic, museum, or religious uses



- Terminated Vistas also can be used to: screen less attractive elements, such as parking lots; and draw residents and visitors toward a destination, thereby encouraging pedestrians to walk and enjoy all that **Lakes Town Center** has to offer.
- Parking should be provided both on-street, to enhance the appearance of convenience and improve safety for pedestrians, and in convenient but thoughtfully-screened parking lots or parking structures that include landscaping for beauty and to provide shade, thereby reducing the “heat island” effect.
- Compact development allows buildings to be concentrated into a form that is more walkable.
- Sidewalk, alleys, and mid-block connections all contribute to a walkable area that is easy to navigate.

While the proposed site layout incorporates some of these concepts, there are a number of opportunities for modifications that would make the development of this site more consistent with the Township’s efforts for developing this area including:

- Develop a conceptual layout for the 1.47-acre future development area to ensure compatibility with the overall development of this site – consider a higher density residential development on this portion of the site.
- Reorient the buildings to Elizabeth Lake Road and Highland Road with minimal parking located in the front yards – maximum of one bay or perpendicular parking along Highland Road frontage plus a bay of parallel parking along the store fronts. A maximum of one bay of parallel parking along the storefronts facing Elizabeth Lake Road.
- The proposed drive-thru uses significantly detracts from the walkable nature of the project and in some cases directly conflict with safe site circulation. Section 6.10.A.ii of the Zoning Ordinance (General Standards for Special Land Uses) specifically states: *“The proposed use shall be of a nature that will make vehicular and pedestrian traffic no more hazardous than is normal for the district involved, taking into consideration vehicular turning movements in relation to routes of traffic flow, proximity and relation to intersections, adequacy of sight distances, location and access of off street parking and provisions for pedestrian traffic, with particular attention to minimizing child-vehicle interfacing.”*

If the Planning Commission determines drive-thru uses may be appropriate on this site, we recommend that the drive-thru windows and circulation be located in a way that does not conflict with on-site circulation and not along the Highland or Elizabeth Lake Road frontages.

- Eliminate the proposed traffic circle because it causes too many vehicular and pedestrian conflicts.



- Consider providing a central open space that could accommodate a variety of activities that also helped direct traffic flow.



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- All loading and service areas should be located to avoid negative visual impacts from adjacent roads and any on-site gathering areas.
- There are plazas located between buildings A and B and between C and D. The facades of these buildings facing the plazas should include more window and door openings so the plazas are more active and enjoyable places to be.
- Elevations have been submitted for each of the proposed buildings. Generally, they will be comprised of brick, cultured stone, dryvit, and a moderate amount of glazing (windows) along the storefronts. The buildings will also feature fabric awnings and a cornice atop each building. The elevation sheets note that some colors are still to be selected. Finalized colors should be noted and material samples provided for Planning Commission review at the time of Final Site Plan.

The left elevation of Building A only has one window, which services the drive thru. This elevation should be modified to account for its prominent location adjacent to Elizabeth Lake Road. A blank expanse of a wall on a prominent elevation is contrary to good planning and design principals. In general, we recommend the buildings have “four-sided” architecture which means that each of the building facades contains attractive architectural details, window and door openings.

4. **Site Circulation and Parking.** Restaurant uses require one parking space per 75 square feet of gross floor area, while the retail uses require one parking space per 200 square feet of gross floor area. Based on the square footage provided for each use, a total of 193 parking spaces are required on site. As submitted, the site plan proposes a total of 193 parking spaces, including eight ADA accessible spaces.



Separately, the two drive-thru operations require a total of eight (8) stacking spaces each. The applicant has met this standard, as demonstrated on sheet SP-2.

The applicant has proposed two rows of 17-foot-long parking spaces in front of the buildings. Employee parking is located in the rear of the site. Parking space lengths are required to be 19 feet but may be reduced to 17' where a vehicle will overhang a sidewalk or landscaped area. Sidewalks proposed with this overhang must be at least 8'-wide. The sidewalk is proposed to be 14 feet in width but the site plan details outdoor seating tables in these overhang areas which must also accommodate five-foot barrier free access and pedestrian amenities such as street lights and trees. We recommend the applicant increase the width of these sidewalks to a minimum of 20 feet.

We note that while the proposed maneuvering lanes comply with the ordinance requirements (typically 24-26 feet,) there is at least one area of concern. There is a pinch point in the southeast corner of the development, where the stacking lane adjacent to Building A and the eastern most trash enclosure come together. We believe this will create a maneuvering lane which is too narrow for cars, delivery trucks, and most importantly fire department vehicles to pass. We defer to the Fire Department as to whether the layout is appropriate.

The applicant is proposing a 25' access drive from the northwest corner of the site (Highland Road) to the southeast corner of the site (Elizabeth Lake Road). On sheet SP-2 the petitioner has indicated that he will provide an access easement over the proposed access road for the benefit of the land-locked property to the southwest of the site.

5. **Pedestrian Circulation.** Per Section 5.21 of the Zoning Ordinance, an eight (8) foot wide public sidewalk is required along both Elizabeth Lake and Highland Roads. The applicant has proposed such a pathway along both of the frontages as required. Additionally, a four (4) foot walkway and seating area are proposed in the northeast corner of the site, where Elizabeth Lake and Highland Roads meet. Finally, sidewalks have been proposed around the buildings, including 14-foot-wide sidewalks adjacent to the front of the restaurant and retail uses. We recommend the applicant provide a visual entrance feature at the corner of Elizabeth Lake and Highland Roads and relocate the any proposed pedestrian amenities to somewhere in the site that is more conducive to pedestrian use.
6. **Landscaping and Screening.** A landscape plan was not provided with the submitted application materials and is not required until final site plan review. A landscape plan showing compliance with the standards within section 5.19 must be submitted at the time of the final site plan review. A 30" high decorative metal fence with brick columns is proposed along the Highland and Elizabeth Lake Road frontages.
7. **Lighting.** Section 5.18(G) of the Zoning Ordinance includes the standards for outdoor lighting. Currently, the application materials indicate there will be exterior lighting planned for the site. A lighting plan showing compliance with the standards within section 5.18(G) must be submitted at the time of final site plan review.



8. **Signs.** Section 5.9 of the Zoning Ordinance regulates signs. Sheet SP-3 details two proposed multi-tenant signs adjacent to both Highland Road and Elizabeth Lake Road. The 15-foot-tall sign has a total “sign area” of approximately 144 square feet, and otherwise complies with the regulations applied to similar signs in the GB and PB zoning districts.
9. **Trash Disposal.** Four trash enclosures are proposed in the rear of the buildings. Dumpster enclosure details have been provided. The enclosures are proposed to be 6 feet in height, in compliance with the Zoning Ordinance. All dumpsters are located on a six (6) inch concrete pad, extend ten (10) feet in front of the gate, with six (6) inch concrete-filled steel bollards to protect the rear wall and gates.
10. **Planning Commission Comments.** Recently, the Planning Commission considered the applicant’s request for a waiver from the minimum size requirements for a Planned Development. During this meeting, the Commission expressed concerns regarding the proposed preliminary layout of the site and its relation to the **Lakes Town Center Planning Area** in the Township Master Plan. Planned Developments are intended to permit, with Township approval, development in a coordinated and cohesive arrangement which may be more difficult to achieve under more conventional, piecemeal development designed to conform with standard zoning requirements. Development standards, as approved in a development plan, in this district shall result in a project that is superior to one constructed under standard zoning requirements and shall be mutually acceptable to the applicant and the Township.

Because the development is intended to both produce a product that is superior to that achievable under conventional zoning standards and serve as a cohesive agreement between the Township and applicant, it is vital that the applicant work to incorporate comments from the Planning Commission and Township Board into the overall design. Some of these comments, such as the pinch point adjacent to the southeast drive-thru, have already been incorporated into this letter. However, the Planning Commission also expressed concerns that the proposed project did not align with the master plan goals for the Lakes Town Center Planning Area south of Highland Road. Specifically, the Planning Commission expressed concerns that the proposed development does not emphasize walkability enough, or the desire to have buildings facing Elizabeth Lake Road. We recommend the applicant incorporate the recommendations from the Lakes Town Center “Forms and Physical Characteristics” subsection.

As proposed, we find the development is similar to one that would be proposed under more conventional zoning standards. Given that the applicant has requested a waiver from the size requirements of a Planned Development district, we believe it is important to work directly with Township Staff and Planning Commission to propose a development that incorporates the above comments, and will further the Master Plan’s goals and objectives.

RECOMMENDATION

1. Based on our review of the standards for rezoning the subject site, we recommend the Planning Commission consider the applicant’s request to rezoning the subject site to PB subject to addressing the



items listed below to the satisfaction of the Planning Commission. This recommendation is subject to preliminary site plan approval for the proposed PD.

2. As noted in our review letter, there are several issues, which we believe can be corrected or clarified. Once the Planning Commission finds their comments and concerns have been adequately addressed, we believe it would be appropriate to recommend approval of the project subject to the following conditions that have been outlined in this review:
 - A. The applicant addresses the outstanding items with respect to the Lakes Town Center “Forms and Physical Characteristics” subsection to the satisfaction of the Planning Commission.
 - B. The applicant providing a written narrative outlining the public benefit of the project.
 - C. Sidewalks intended to provide outdoor seating be widened to 20 feet and include additional amenities including trees and decorative light poles.
 - D. The applicant provide a visual entrance feature at the corner of Elizabeth Lake and Highland Roads and relocate the any proposed pedestrian amenities to somewhere in the site that is more conducive to pedestrian use.
 - E. Incorporate “four-sided” architecture and provide finalized colors and material samples for Planning Commission review at the time of Final Site Plan.
 - F. We defer to the Fire Department as to whether the layout is appropriate.
 - G. We defer to the Fire Department as to whether the proposed fire lane location is acceptable.
 - H. A landscape plan showing compliance with the standards within section 5.19 must be submitted at the time of the final site plan.
 - I. A lighting plan showing compliance with the standards within section 5.18(G) must be submitted at the time of the final site plan.
 - J. A community impact statement be submitted in accordance with Section 6.6 of the Zoning Ordinance.
 - K. A traffic impact study be submitted in accordance with Section 6.3 of the Zoning Ordinance.

If you have any questions about this report or require additional information, please do not hesitate to contact us.
Respectfully submitted,

McKENNA

Kathleen Jackson
Senior Principal Planner

cc: Mr. Sean O’Neal, AICP



Mr. Justin Quagliata
Ms. Hannah Micallef



Site / Construction Plan Review

To: Sean O'Neil, Planning Department Director

Date: 07/07/21

Project: Elizabeth Lake Retail

File #: Not Shown

Date on Plans: 06/22/21

The Fire Department has the following comments with regards to the revised preliminary site plans submitted for the project known as Elizabeth Lake Retail:

New comments: Black – Bold – Font. **Existing Comments: Gray Font**

1. Site Access
 - a. Sheet SP - 3 shows apparatus placement throughout the site, but no actual movement. The applicant shall submit a turn radius profile (based on a 40' truck) that demonstrates apparatus movement including the access drive around building "A"
Since no actual apparatus movement is shown, we defer this comment to the Township Engineer to evaluate the turn radiuses as they apply to a 40' cab over truck.
 - b. The drive-through on building "A" consumes most of the access drive, and has the potential to create a bottle neck within this area. The south side of the buildings presents as the loading and off-loading area, so larger truck traffic would be expected. **This comment is pending a response from the applicant**
2. Hydrants
 - a. Relocate the hydrant shown at the southwest corner of building "B" to the southeast side of building "A" at a minimum setback of 50'. This would put the hydrant on the north side of the dumpster enclosure. Impact protection shall be required.
This comment has been addressed.
 - b. The hydrants located on the north side of Highland Road cannot be considered for appropriate converge due to location and safe accessibility. At a minimum, add two (2) hydrants to the north side of the buildings (spacing not to exceed 300').
Two (2) hydrants have been added to the North side of the building as requested. However, until a hard copy of the plan is submitted, we are unable to scale the hydrant spacing, so the locations are subject to change.
 - c. Sheet C-2 is showing a proposed hydrant at the southwest corner, off of building "D". This hydrant is not shown on sheet S-P 2, or C-3.
3. Elevations
 - a. The elevations on Sheet A -1-2 are not scaled (**Unable to confirm if this deficiency has been corrected**).



Fire Department
Charter Township
of White Lake

John Holland
Fire Chief
Charter Township of White Lake
(248)698-3993
jholland@whitelaketwp.com

Plans are reviewed using the International Fire Code (IFC), 2015 Edition and Referenced NFPA Standards.

Memo

To: Sean O'Neil, Planning

From: Jeanine A Smith

Date: June 23, 2021

Re: Project Name: Elizabeth Lake Retail Parcel Number: 12-21-426-005

Comments:

This plan is part of a much larger parcel than is indicated on the plans. If the intent is to divide this parcel an application must be made at the Assessing Department. No division has been requested.

PROJECT: PROPOSED RESTAURANTS & RETAILS PLAZA

LOCATION:
(21-426-004) HIGHLAND RD. WHITE LAKE, MI 48386

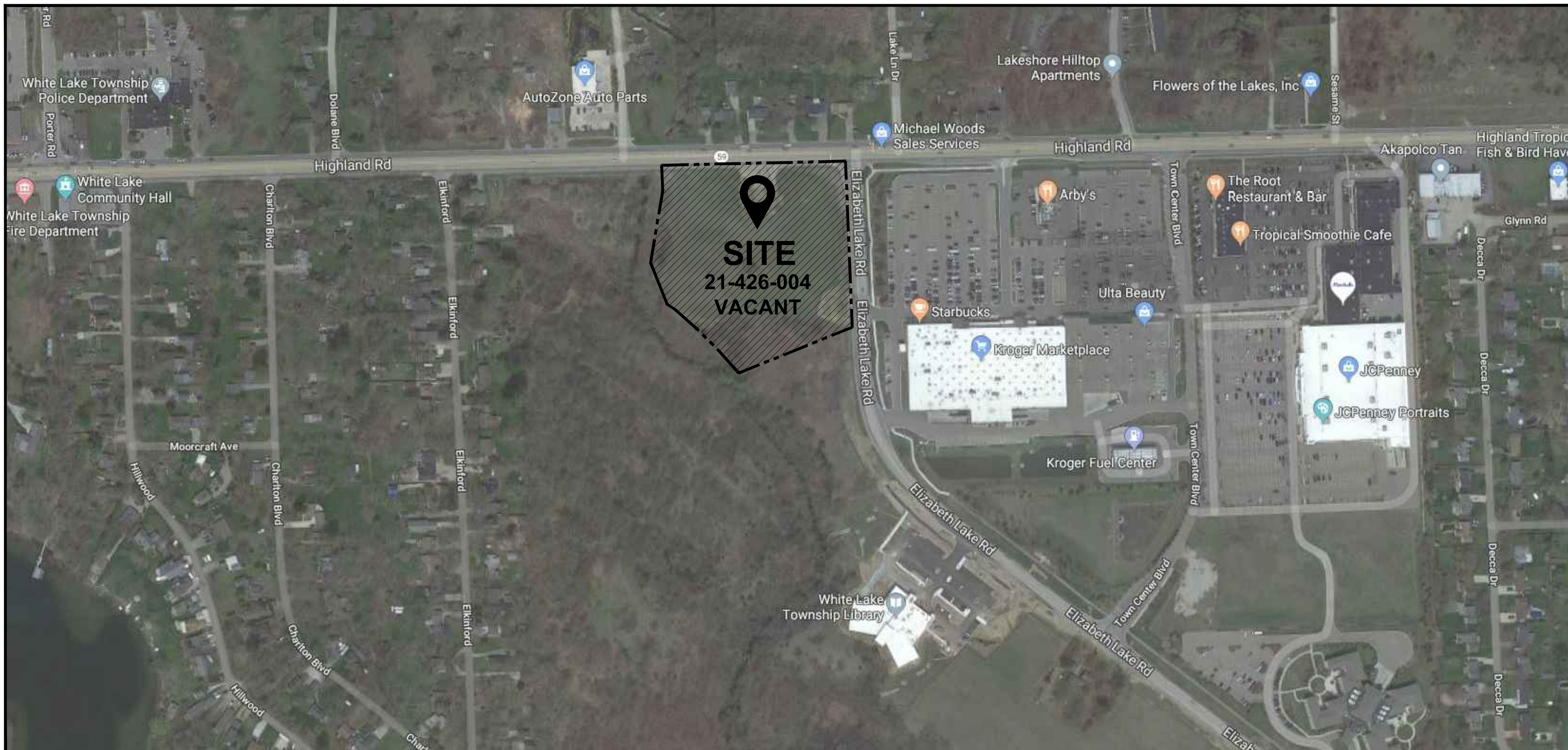
PRELIMINARY SITE PLAN



SHEET No.	SHEET TITLE
----	(COVER SHEET)
SP-1	EXISTING SITE PLAN/TOPO SURVEY
SP-2	PROPOSED SITE PLAN
SP-3	SITE PLAN DETAILS
SP-4	FIRE TRUCK CIRCULATION
C-1	MDOT DETAILS
C-2	PROPOSED GRADING PLAN
C-3	PROPOSED UTILITY PLAN
C-4	STORM DRAINAGE CALCULATIONS
C-5	STORM MAINTENANCE PLAN
A-1-1	BUILDING "A" - PROP. FLOOR PLAN
A-1-2	BUILDING "A" - PROP. ELEVATIONS
A-2-1	BUILDING "B" - PROP. FLOOR PLAN
A-2-2	BUILDING "B" - PROP. ELEVATIONS
A-3-1	BUILDING "C" - PROP. FLOOR PLAN
A-3-2	BUILDING "C" - PROP. ELEVATIONS
A-4-1	BUILDING "D" - PROP. FLOOR PLAN
A-4-2	BUILDING "D" - PROP. ELEVATIONS

LEGAL DESCRIPTION: (PARCEL C)

Land situated in the Township of White Lake, County of Oakland, State of Michigan. Part of the East 1/2 of the Southeast 1/4 of section 21, Town 3 North, Range 8 East, Township of White Lake, Oakland County, MI, described as beginning at a point distance South 89 degrees 25 minutes 19 seconds West 332.92 feet from the East 1/4 corner, section 21, Town 3 North, Range 8 East down the centerline of Highland Road, (M-59) to the intersection of Highland Road (100 Feet wide) and Elizabeth Lake Road (66 Feet Wide); thence down the centerline of Elizabeth Lake Road, (66 feet wide) South 00 degrees 25 feet 22 seconds East, 549.70 feet to a point; thence South 69 degrees 50 minutes 10 seconds West 404.63 feet to a point, also known as the centerline of the Creek; also known as Brendel Lake Creek; Thence North 43 degrees 16 minutes 04 seconds West 299.25 feet, Rad. = 1,681.04; Chd. = 298.86 feet; Thence continuing on centerline of the Creek, also known as Brendel Lake Creek; North 54 degrees 53 seconds 29 minutes West, 30 feet to a point, thence N. 19 degrees 57 minutes 07 seconds West 148 Feet; thence North 11 degrees 17 minutes 59 seconds East 241 feet; thence North 00 degrees 32 minutes 16 seconds West 85 feet to the centerline of Highland Road, (M59 100 feet wide); thence South 89 degrees 25 minutes 19 seconds East 609.27 feet back to the point of beginning; except the portion of 50 feet on Highland Road (100 feet wide) and that portion of 33 feet on Elizabeth Lake Road (66 feet wide) for road and public utilities, containing 8.61 acres more or less.



AERIAL VIEW FROM GOOGLE MAPS
N.T.S.

GOVERNING CODE: MICHIGAN BUILDING CODE 2015 AND CHARTER TOWNSHIP OF WHITE LAKE, MI ZONING ORDINANCE	
USE GROUP :	M (MERCANTILE) & A-2 (ASSEMBLY GROUP)
PROPOSED USE:	RETAILS & RESTAURANTS PLAZA
AREA OF THE PROPERTY:	344,865 SQ. FT. = 7.917 ACRES (EXCLUDING R.O.W.)
ZONING	AG (AGRICULTURAL)
BUILDING DATA:	
PROP. TOTAL BUILDINGS AREA= RESTAURANTS(3,560+2,280)+RETAILS (8,400+8,400+6,200)	= 28,840 SQ. FT.
PROP. BUILDINGS HEIGHT	= 25 FT. (REQUIRED: 35 FT. MAX)
LOT COVERAGE	
REQUIRED = 30% MAX.	PROPOSED = 8.36%
SETBACK REQUIREMENTS	
REQUIRED:	PROPOSED:
FRONT: 35.0 FT.	FRONT: 146.0 FT.
SIDE: 25 FT. ONE SIDE (50 FT. TOTAL)	EAST SIDE: 46.0 FT. WEST SIDE: 43.0 FT.
REAR: 50.0 FT.	REAR: 277.0 FT.
PARKING SPACES REQUIREMENTS	
REQUIRED PARKING SPACES FOR 2 RESTAURANTS:	
1 SPACE/75 SQ. FT. OF GROSS FLOOR AREA: (3,560+2,280)/75= 78 PARKING SPACES	
REQUIRED PARKING SPACES FOR 2 RETAILS:	
1 SPACE/200 SQ. FT. OF GROSS FLOOR AREA: (8,400+8,400+6,200)/200= 115 PARKING SPACES	
TOTAL PARKING SPACES = 193 PARKING SPACES INCL. 6 H.C. PARKING SPACE	
PROVIDED PARKING SPACES:	
193 PARKING SPACES INCLUDING 8 H.C. PARKING SPACE	
LOADING UNLOADING SPACES	
(3) LOADING UNLOADING AREAS ARE PROVIDED	
CODES CURRENTLY IN EFFECT	
- 2015 MICHIGAN BUILDING CODE, MBC 2015 - 2015 MICHIGAN MECHANICAL CODE MMC 2015 - 2015 MICHIGAN PLUMBING CODE, MPC 2015 - 2017 NATIONAL ELECTRICAL CODE, 2017 CONSTRUCTION CODE -- PART 8. ELECTRICAL CODE RULES - ACCESSIBILITY: MICHIGAN BARRIER FREE DESIGN LAW, P.A. 1966 AS AMENDED AND THE 2009 ICC/ANSI A117.1 STANDARD AS REFERENCED FROM CHAPTER 11 OF THE 2015 MICHIGAN BUILDING CODE.	

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA

ADDRESS: (21-426-004) HIGHLAND RD. WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

REVISIONS:	
---	05/03/2021
---	05/25/2021
---	06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE: COVER SHEET

SHEET #: ----

APPROVED BY:



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LEGAL DESCRIPTION: (PARCEL C)

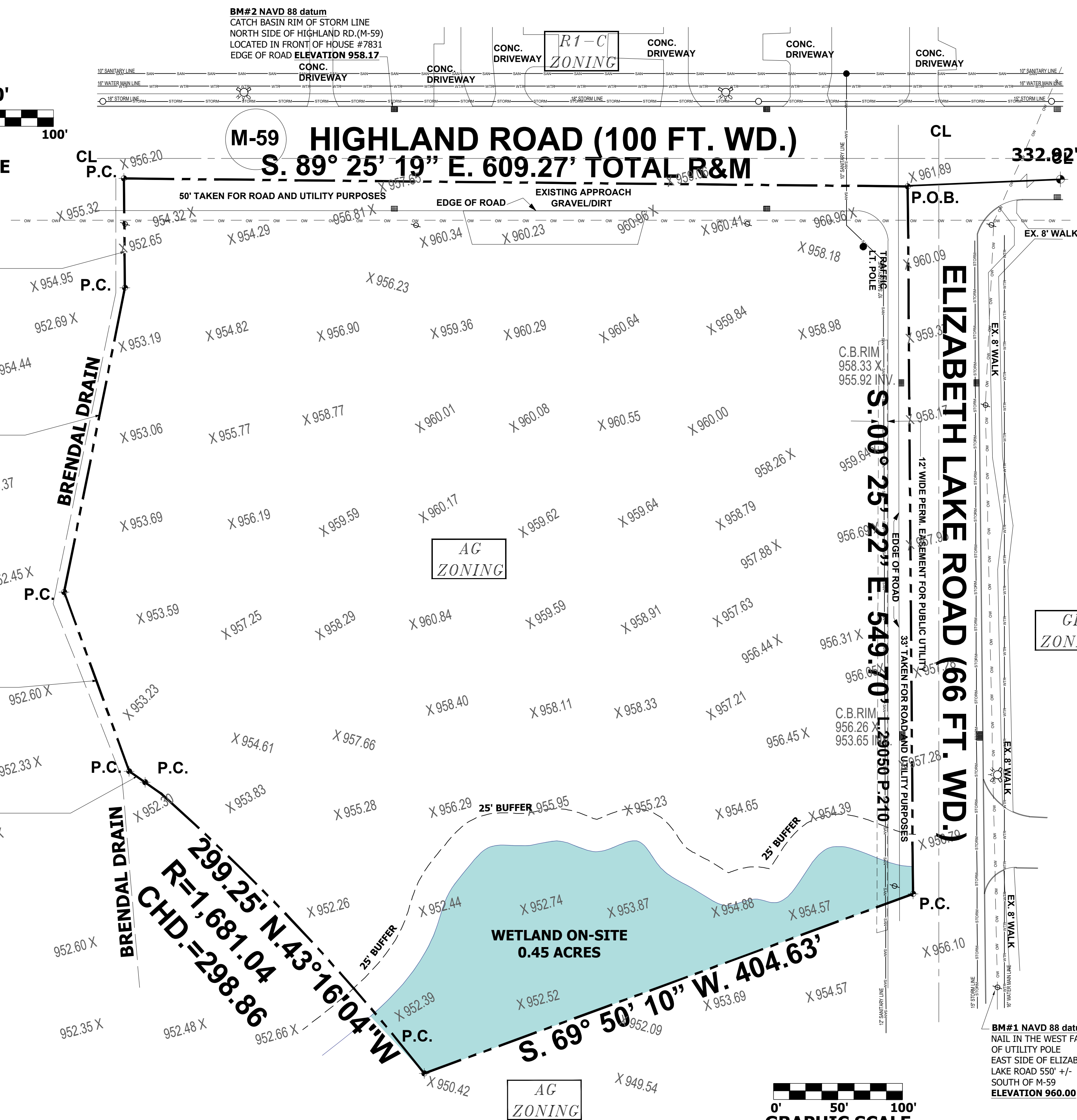
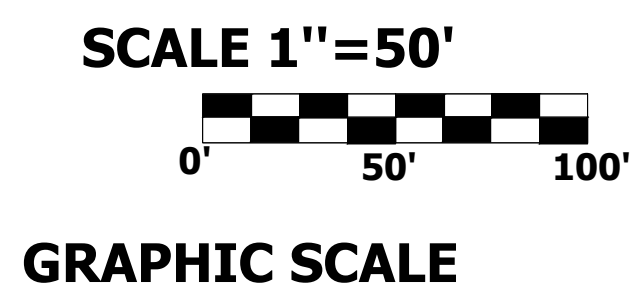
Land situated in the Township of White Lake, County of Oakland, State of Michigan.
 Part of the East 1/2 of the Southeast 1/4 of section 21, Town 3 North, Range 8 East, Township of White Lake, Oakland County, MI, described as beginning at a point distance South 89 degrees 25 minutes 19 seconds West 332.92 feet from the East 1/4 corner, section 21, Town 3 North, Range 8 East down the centerline of Highland Road, (M-59) to the intersection of Highland Road (100 Feet wide) and Elizabeth Lake Road (66 Feet Wide); thence down the centerline of Elizabeth Lake Road, (66 feet wide) South 00 degrees 25 feet 22 seconds East, 549.70 feet to a point; thence South 69 degrees 50 minutes 10 seconds West 404.63 feet to a point, also known as the centerline of the Creek; also known as Brendel Lake Creek; Thence North 43 degrees 16 minutes 04 seconds West 299.25 feet, Rad. = 1,681.04; Chd. = 298.86 feet; Thence continuing on centerline of the Creek, also known as Brendel Lake Creek; North 54 degrees 53 seconds 29 minutes West, 30 feet to a point, thence N. 19 degrees 57 minutes 07 seconds West 148 Feet; thence North 11 degrees 17 minutes 59 seconds East 241 feet; thence North 00 degrees 32 minutes 16 seconds West 85 feet to the centerline of Highland Road, (M59 100 feet wide); thence South 89 degrees 25 minutes 19 seconds East 609.27 feet back to the point of beginning; except the portion of 50 feet on Highland Road (100 feet wide) and that portion of 33 feet on Elizabeth Lake Road (66 feet wide) for road and public utilities, containing 8.61 acres more or less.



LOCATION MAP
N.T.S.

MA ARCHMASTER
Residential & Commercial Designs

Cell Phone: (313) 505-7744
Email: alahwalmoneer@gmail.com



ZONING AND SETBACK INFORMATION

Zoning and Setback information was obtained From the Municipal official, it is the responsibility Of the client to insure that this information is Correct.

THIS PROPERTY IS ZONED AS:
AG AGRICULTURAL

LOT SIZE
MIN. AREA 5 ACRES
MIN. LOT WIDTH 300.0' FEET

LOT COVERAGE
MAX LOT COVERAGE 30%

MINIMUM SETBACKS:
Front Yard: 35 FT.(BUILDING)
Side Yards: 25 FT. ONE SIDE
50 FEET TOTAL OF TWO SIDES
Rear Yard 50 FT. (BUILDING)

BUILDING HEIGHT
MAXIMUM STORIES 2.5
MAXIMUM HEIGHT 35 FT.

BENCHMARKS (NAVD 88 datum)
BM#1 NAIL IN THE WEST FACE OF UTILITY POLE EAST SIDE OF ELIZABETH LAKE ROAD 550' +/- SOUTH OF M-59 ELEVATION 960.00
BM#2 CATCH BASIN RIM OF STORM LINE NORTH SIDE OF HIGHLAND RD.(M-59) LOCATED IN FRONT OF HOUSE #7831 EDGE OF ROAD ELEVATION 958.17

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA

ADDRESS: (21-426-004) HIGHLAND RD, WHITE LAKE, MI 48386

CLIENT'S NAME: NAZIR JAWICH

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REVISIONS:

05/03/2021	
05/25/2021	
06/22/2021	

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE: - TOPO SURVEY

SHEET #: SP-1

APPROVED BY:

MOHAMED NASRI BAZNA
ENGINEER
No. 32351

WETLAND LIMIT NOTE:
WETLAND DELINEATION HAS BEEN PERFORMED AND PROVIDED BY ALAN F. SAWALHA OF LANDWISE CIVIL ENGINEERS. LAND SURVEYORS, DATED ON 6/16/2021.



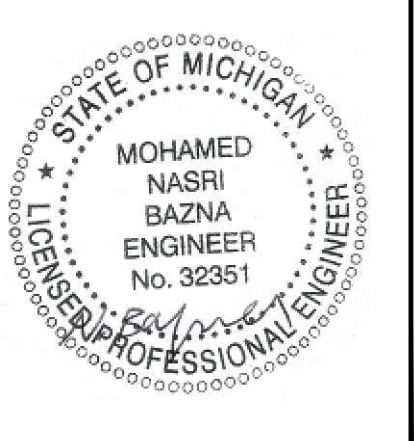
LOCATION MAP
N.T.S.

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA
ADDRESS: (21-426-004) HIGHLAND RD., WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

REVISIONS:

05/03/2021
05/25/2021
06/22/2021

DATE: 03/26/2021
DRAWN BY: MONEER ALAHWAL
SCALE: AS NOTED
SHEET TITLE: PROPOSED SITE PLAN
SHEET #: **SP-2**
APPROVED BY:



BM#2 NAVD 88 datum
CATCH BASIN RIM OF STORM LINE
NORTH SIDE OF HIGHLAND RD.(M-59)
LOCATED IN FRONT OF HOUSE #7831
EDGE OF ROAD ELEVATION 958.17

M-59 HIGHLAND ROAD (100 FT. WD.)

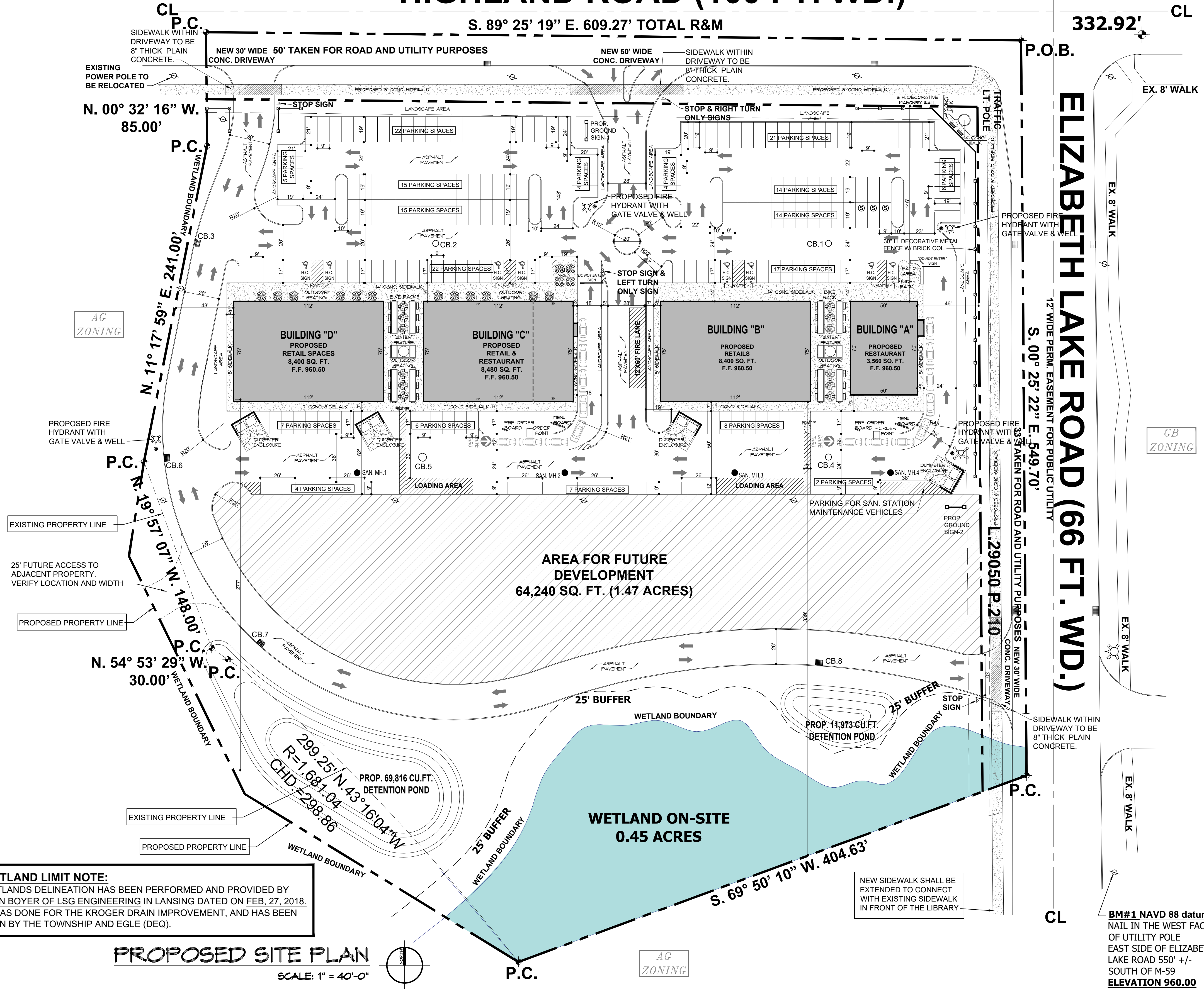
S. 89° 25' 19" E. 609.27' TOTAL R&M

CL 332.92' CL

ELIZABETH LAKE ROAD (66 FT. WD.)

S. 00° 25' 22" E. 549.70'

L. 29050 P. 210



PROPOSED SITE PLAN
SCALE: 1" = 40'-0"

GOVERNING CODE:
MICHIGAN BUILDING CODE 2015 AND CHARTER TOWNSHIP OF WHITE LAKE, MI ZONING ORDINANCE

USE GROUP: M (MERCANTILE) & A-2 (ASSEMBLY GROUP)

PROPOSED USE: RETAILS & RESTAURANTS PLAZA

AREA OF THE PROPERTY: 344,865 SQ. FT. = 7.917 ACRES (EXCLUDING R.O.W.)

ZONING: AG (AGRICULTURAL)

BUILDING DATA:
PROP. TOTAL BUILDINGS AREA= RESTAURANTS(3,560+2,280)+RETAILS (8,400+8,400+6,200) = 28,840 SQ. FT.

PROP. BUILDINGS HEIGHT: = 25 FT. (REQUIRED: 35 FT. MAX)

LOT COVERAGE: REQUIRED = 30% MAX. PROPOSED = 8.36%

SETBACK REQUIREMENTS:

REQUIRED FRONT:	35.0 FT.	PROPOSED FRONT:	146.0 FT.
REQUIRED SIDE:	25 FT. ONE SIDE (50 FT. TOTAL)	PROPOSED EAST SIDE:	46.0 FT.
REQUIRED REAR:	50.0 FT.	PROPOSED WEST SIDE:	43.0 FT.
		PROPOSED REAR:	277.0 FT.

PARKING SPACES REQUIREMENTS:

REQUIRED PARKING SPACES FOR 2 RESTAURANTS:
1 SPACE/75 SQ. FT. OF GROSS FLOOR AREA:
(3,560+2,280)/75= 78 PARKING SPACES

REQUIRED PARKING SPACES FOR 2 RETAILS:
1 SPACE/200 SQ. FT. OF GROSS FLOOR AREA:
(8,400+8,400+6,200)/200= 115 PARKING SPACES

TOTAL PARKING SPACES = 193 PARKING SPACES INCL. 6 H.C. PARKING SPACE

PROVIDED PARKING SPACES: 193 PARKING SPACES INCLUDING 8 H.C. PARKING SPACE

LOADING UNLOADING SPACES: (3) LOADING UNLOADING AREAS ARE PROVIDED

CODES CURRENTLY IN EFFECT:

- 2015 MICHIGAN BUILDING CODE, MBC 2015
- 2015 MICHIGAN MECHANICAL CODE MMC 2015
- 2015 MICHIGAN PLUMBING CODE, MPC 2015
- 2017 NATIONAL ELECTRICAL CODE, 2017 CONSTRUCTION CODE - PART 8, ELECTRICAL CODE RULES
- ACCESSIBILITY: MICHIGAN BARRIER FREE DESIGN LAW, P.A. 1966 AS AMENDED AND THE 2009 ICC/ANSI A117.1 STANDARD AS REFERENCED FROM CHAPTER 11 OF THE 2015 MICHIGAN BUILDING CODE.

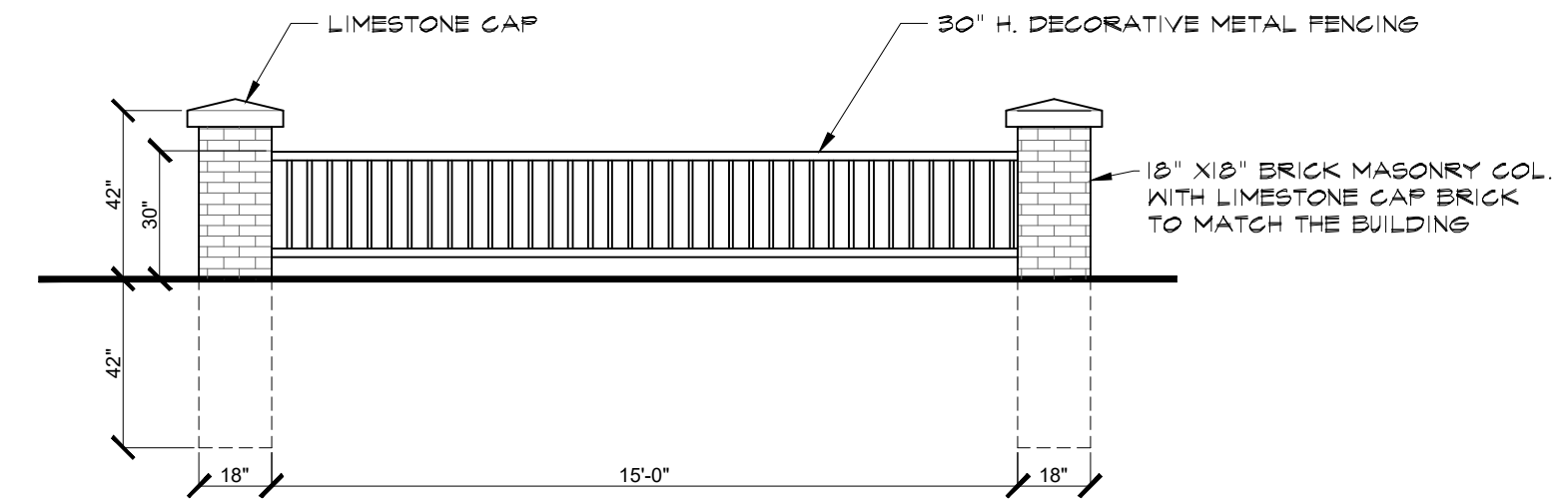
WHITE LAKE TOWNSHIP ENGINEERING DESIGN STANDARDS

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWNSHIP'S CURRENT STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION, 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- CONTRACTOR SHALL CONTACT MISS DIG AT 800-482-7171, 72 HOURS IN ADVANCE OF CONSTRUCTION, FOR EXISTING UNDERGROUND UTILITY LOCATIONS.
- IN ORDER TO VERIFY COMPLIANCE WITH APPROVED PLANS, FULL-TIME CONSTRUCTION OBSERVATION WILL GENERALLY BE REQUIRED DURING ALL PHASES OF UNDERGROUND SITE CONSTRUCTION INCLUDING INSTALLATION OF SANITARY SEWER, STORM SEWERS, DRAINS, WATERMANS AND APPURTENANCES AS WELL AS PRIVATE STREET CURBING AND PAVING CONSTRUCTION. INTERMITTENT OBSERVATIONS WILL BE MADE FOR SITE GRADING, PARKING LOT CURBING AND PAVING, RETAINING WALL CONSTRUCTION AND OTHER SURFACE ACTIVITY.

ACCESS ROAD NOTES:

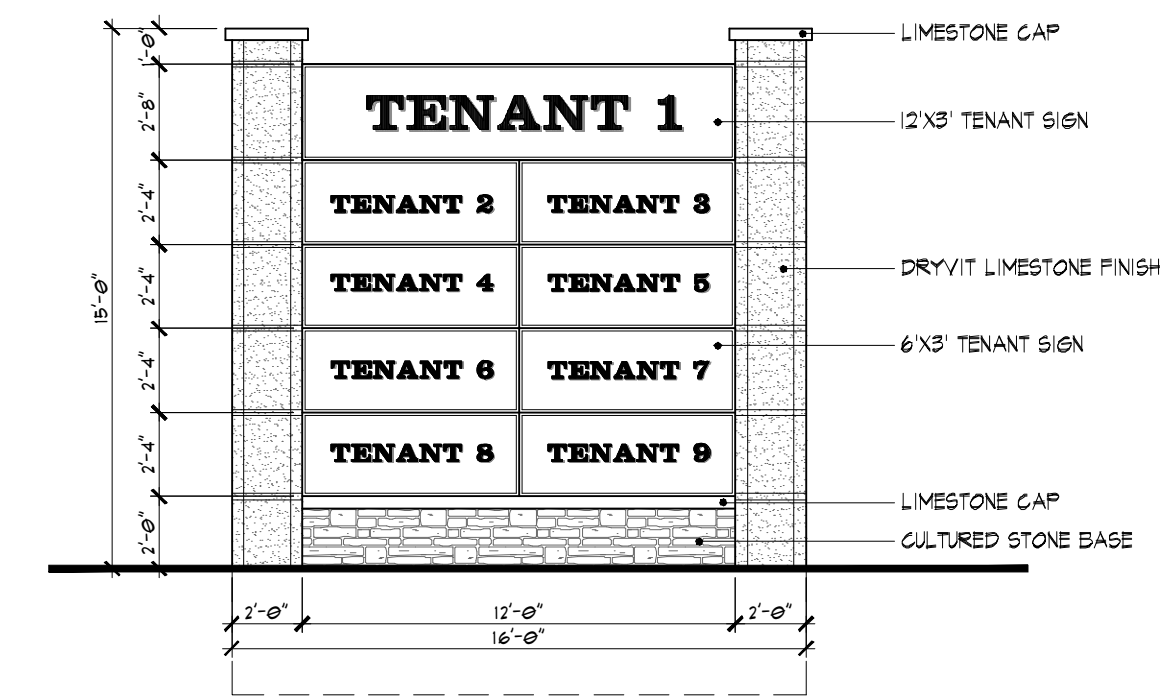
- THE PROPERTY OWNER WILL PROVIDE ACCESS EASEMENT FOR THE PROPOSED ACCESS ROAD FROM ELIZABETH LAKE ROAD AND M-59 ALL THE WAY TO THE SOUTHWEST PROPERTY LINE.
- A VARIANCE MIGHT BE REQUIRED AS A PART OF THE PROPOSED ACCESS ROAD IS TO BE CONSTRUCTED WITHIN THE WETLAND BUFFER.

BM#1 NAVD 88 datum
NAIL IN THE WEST FACE OF UTILITY POLE EAST SIDE OF ELIZABETH LAKE ROAD 550' +/- SOUTH OF M-59
ELEVATION 960.00



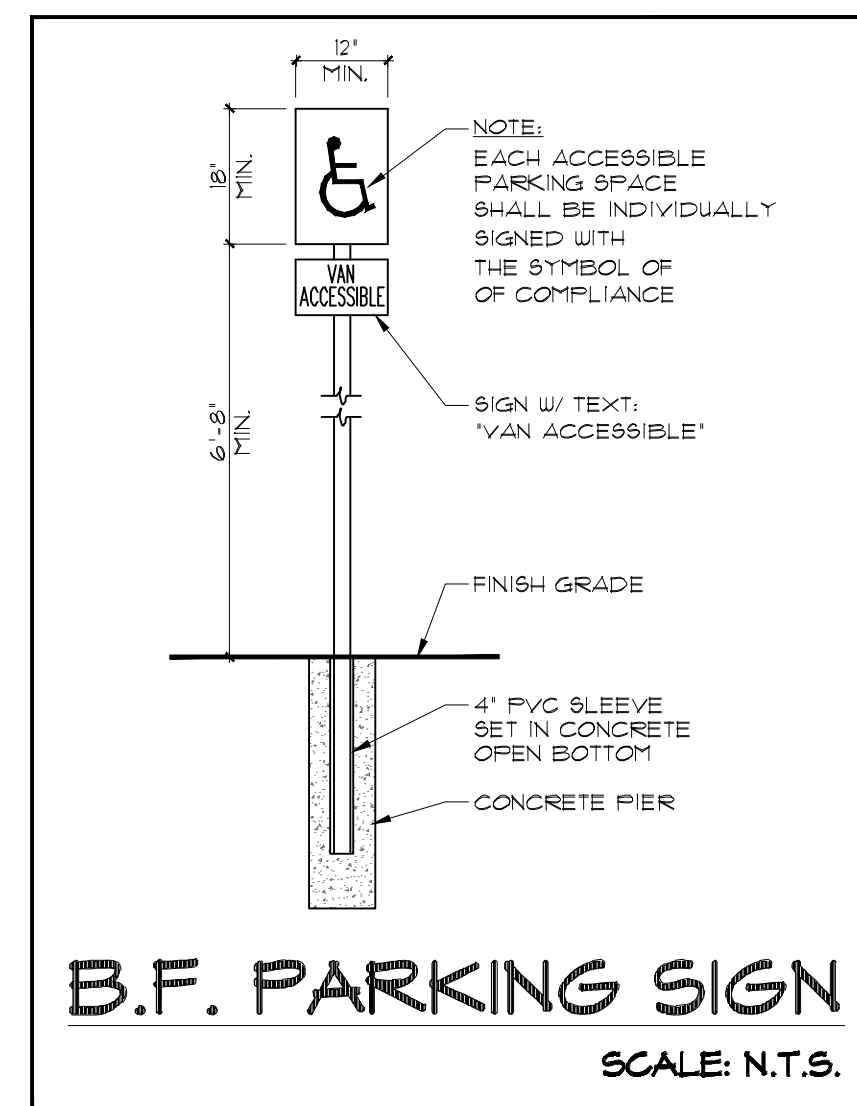
DECORATIVE METAL FENCE W/BRICK COL.

N.T.S.



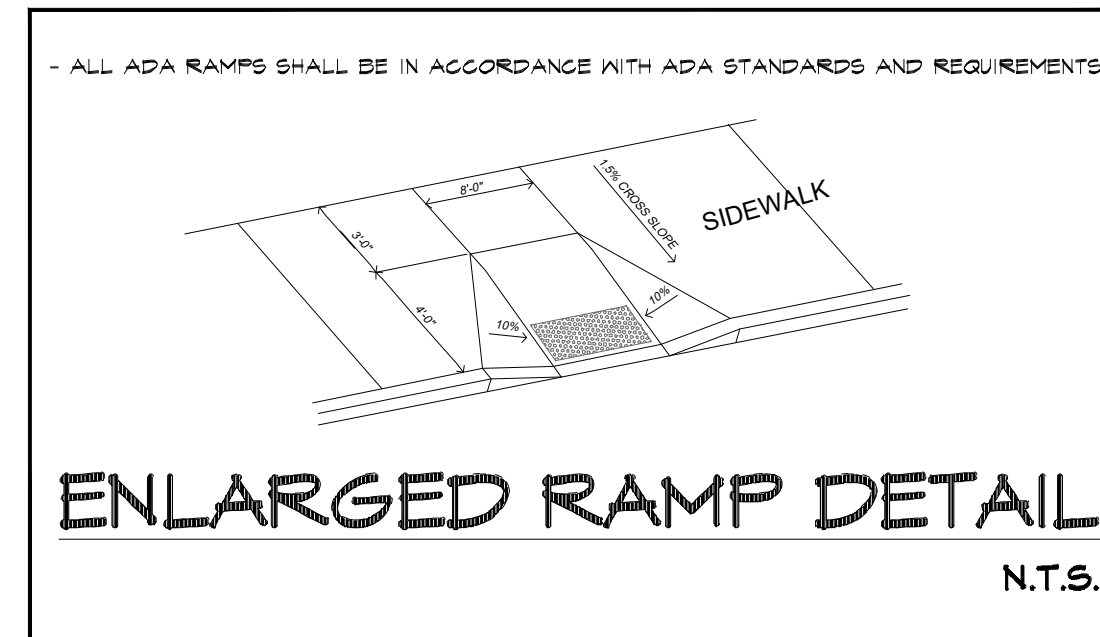
PROPOSED MULTI TENANT MONUMENT SIGNS

SCALE: 3/16" = 1'-0"



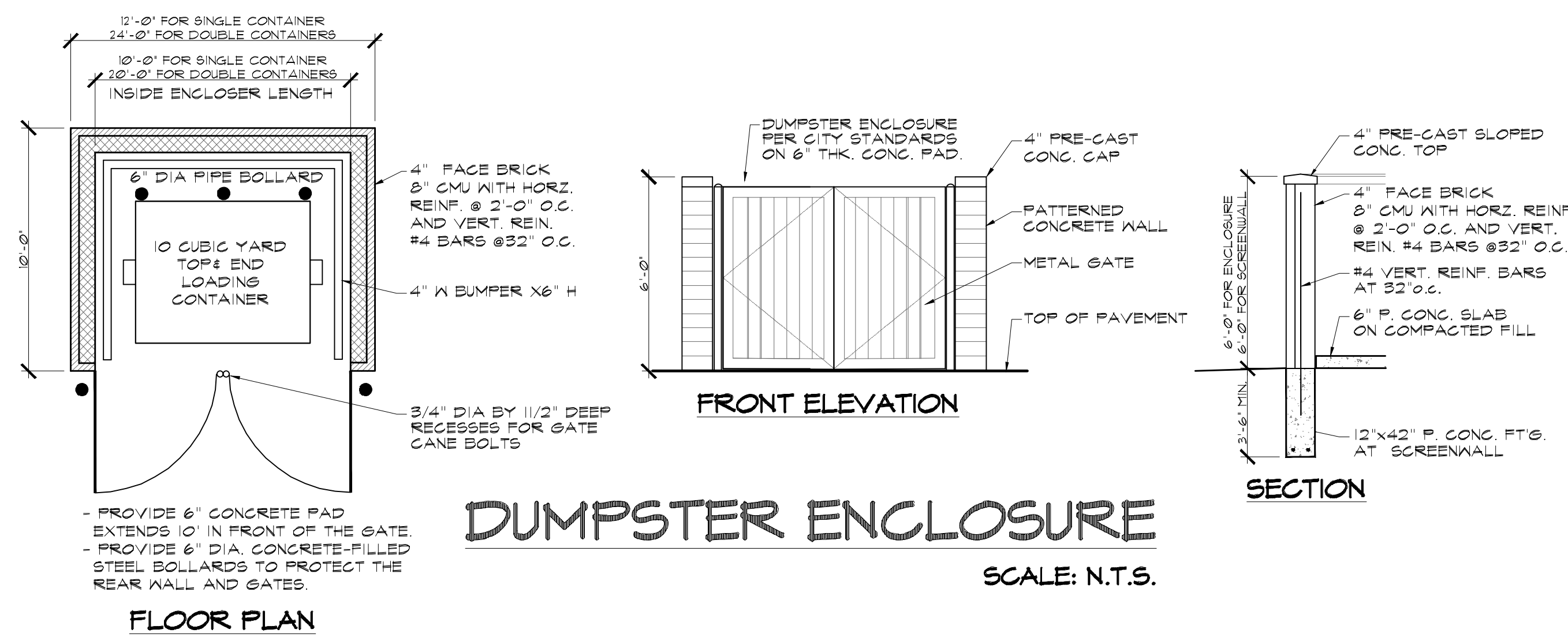
B.F. PARKING SIGN

SCALE: N.T.S.



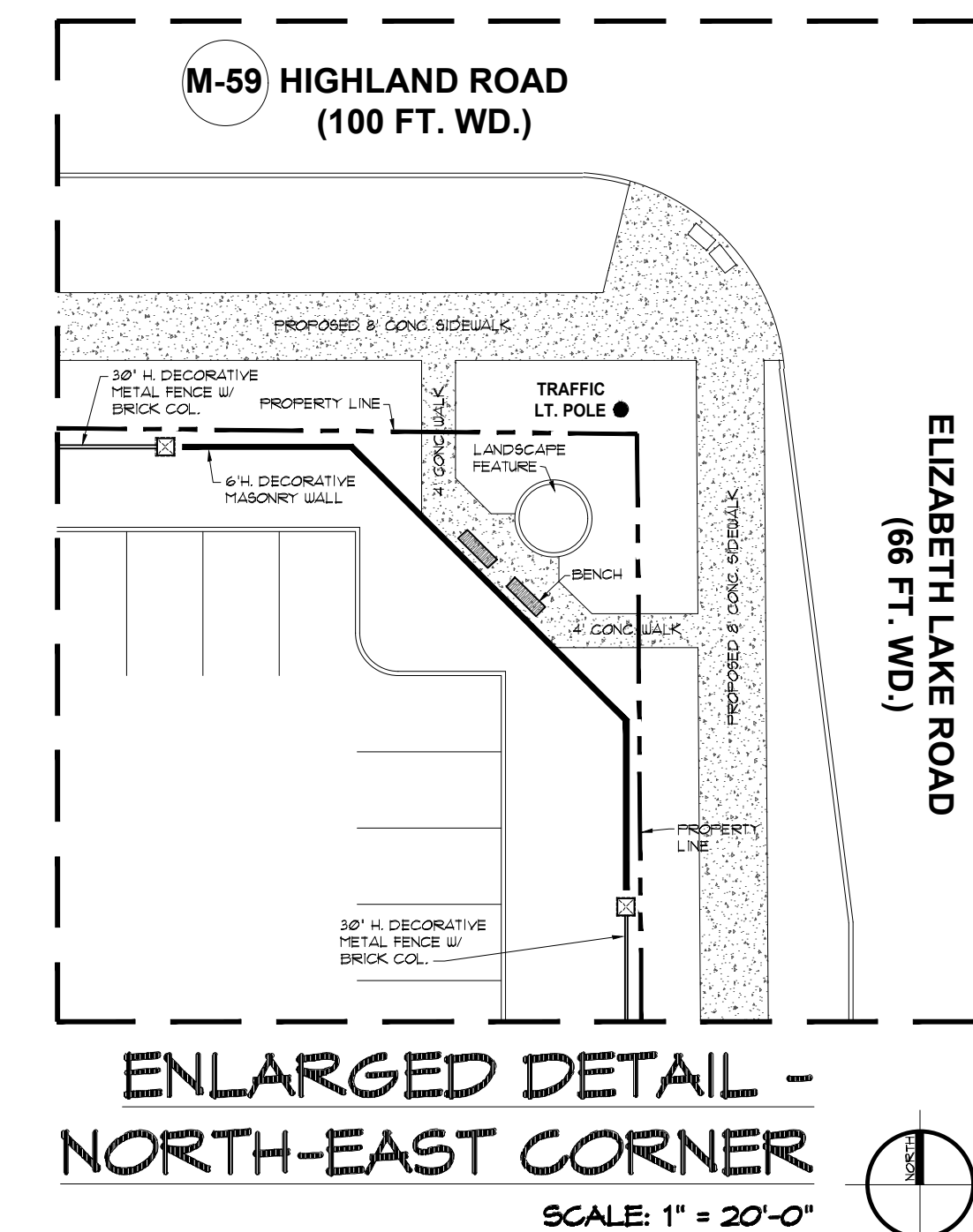
ENLARGED RAMP DETAIL

N.T.S.



DUMPSTER ENCLOSURE

SCALE: N.T.S.



ENLARGED DETAIL - NORTH-EAST CORNER

SCALE: 1" = 20'-0"

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA

ADDRESS: (21-426-004) HIGHLAND RD. WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

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REVISIONS:

_____	05/03/2021
_____	05/25/2021
_____	06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE: SITE PLAN DETAILS

SHEET #: SP-3

APPROVED BY:



PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA

ADDRESS: (21-426-004) HIGHLAND RD, WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

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REVISIONS:

_____	05/03/2021
_____	05/25/2021
_____	06/22/2021

DATE: 03/26/2021

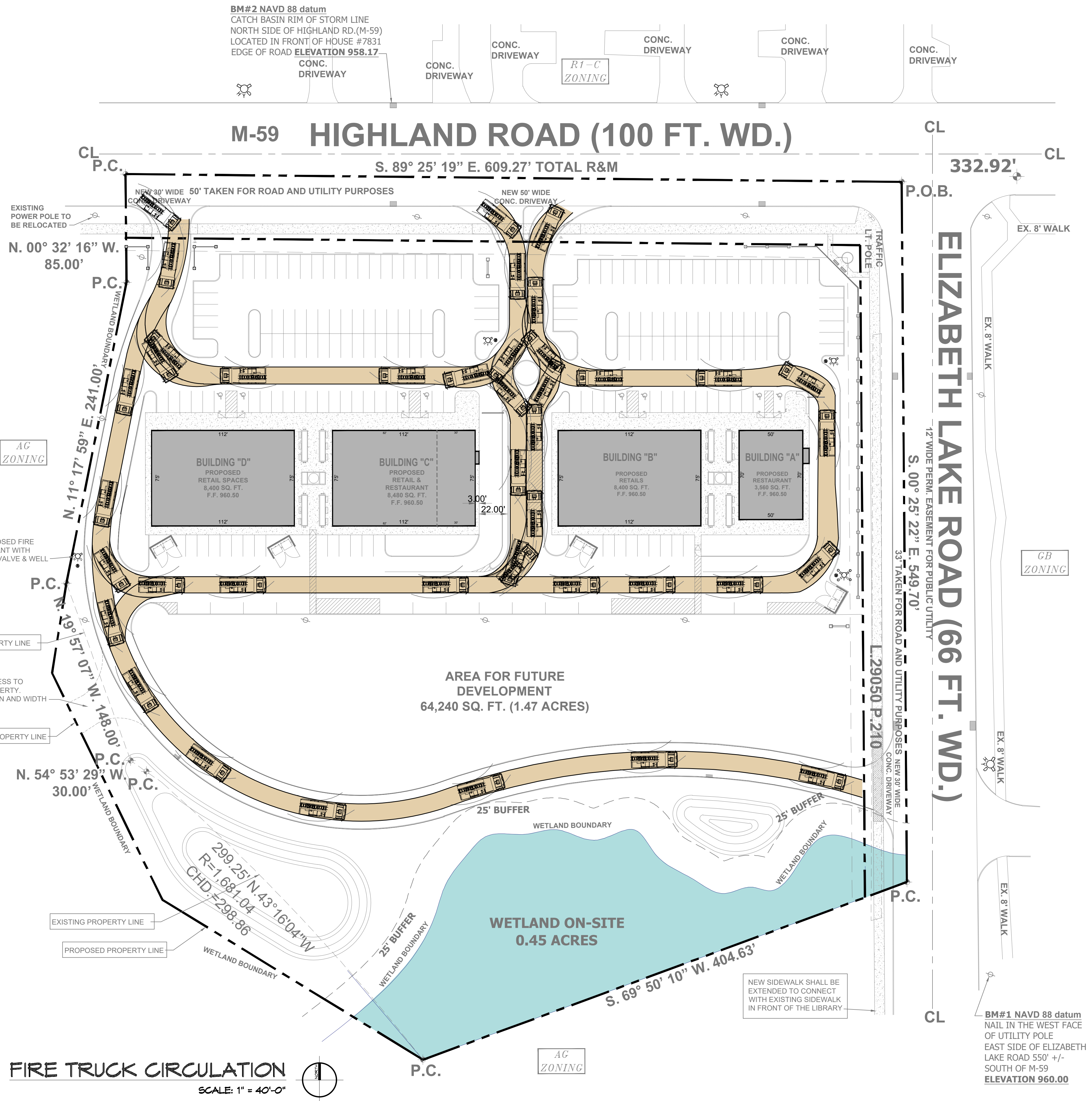
DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
- FIRE TRUCK CIRCULATION

SHEET #:
SP-4

APPROVED BY:



Pierce Turning Performance Analysis 1/8/2010

Parameters:	Value:
Inside Cramp Angle:	45.00°
Axle Track:	82.92 in.
Wheel Offset:	4.68 in.
Tread Width:	17.40 in.
Chassis Overhang:	68.99 in.
Additional Bumper Depth:	19.90 in.
Front Overhang:	87.99 in.
Wheelbase:	299.00 in.

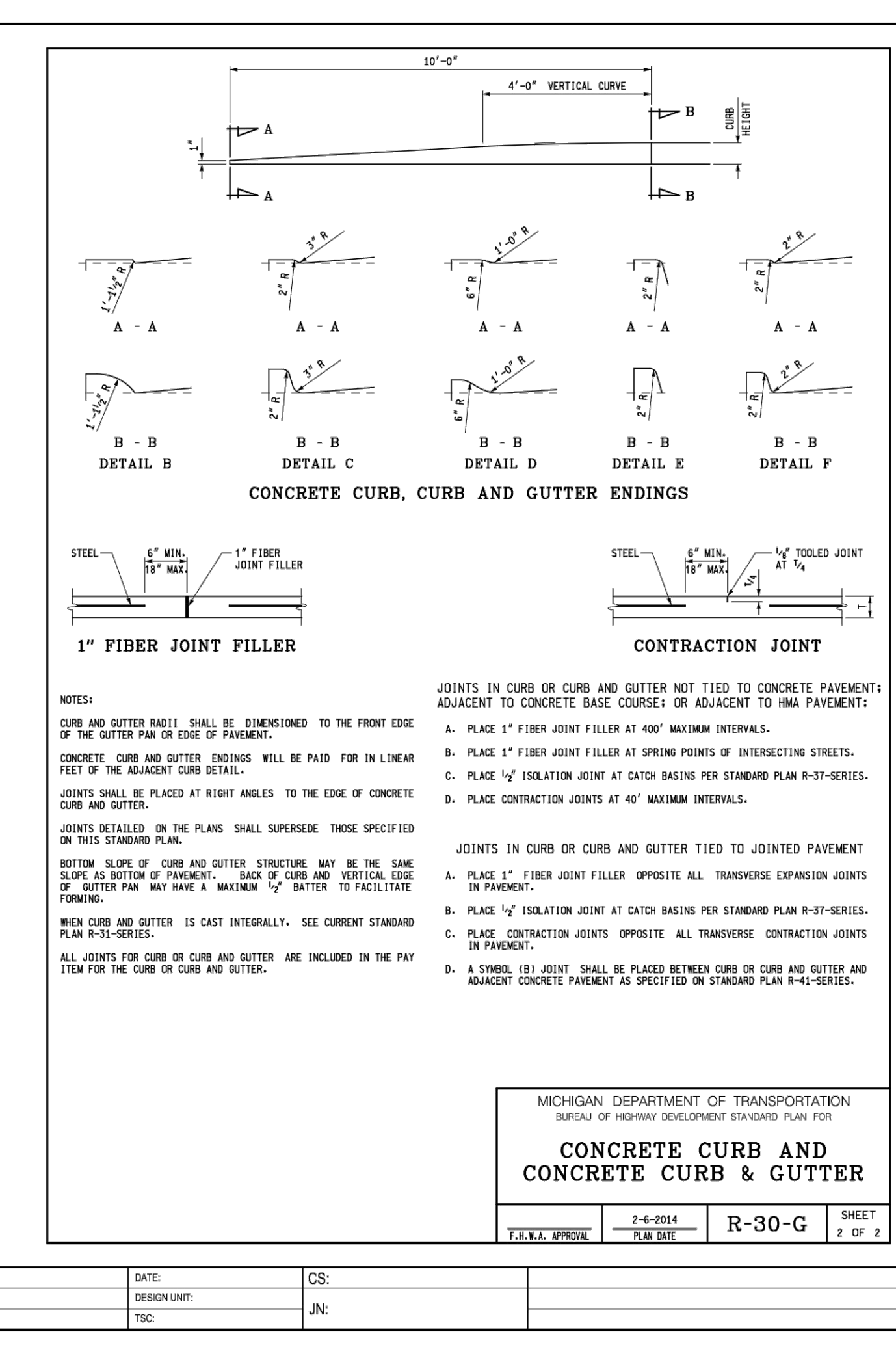
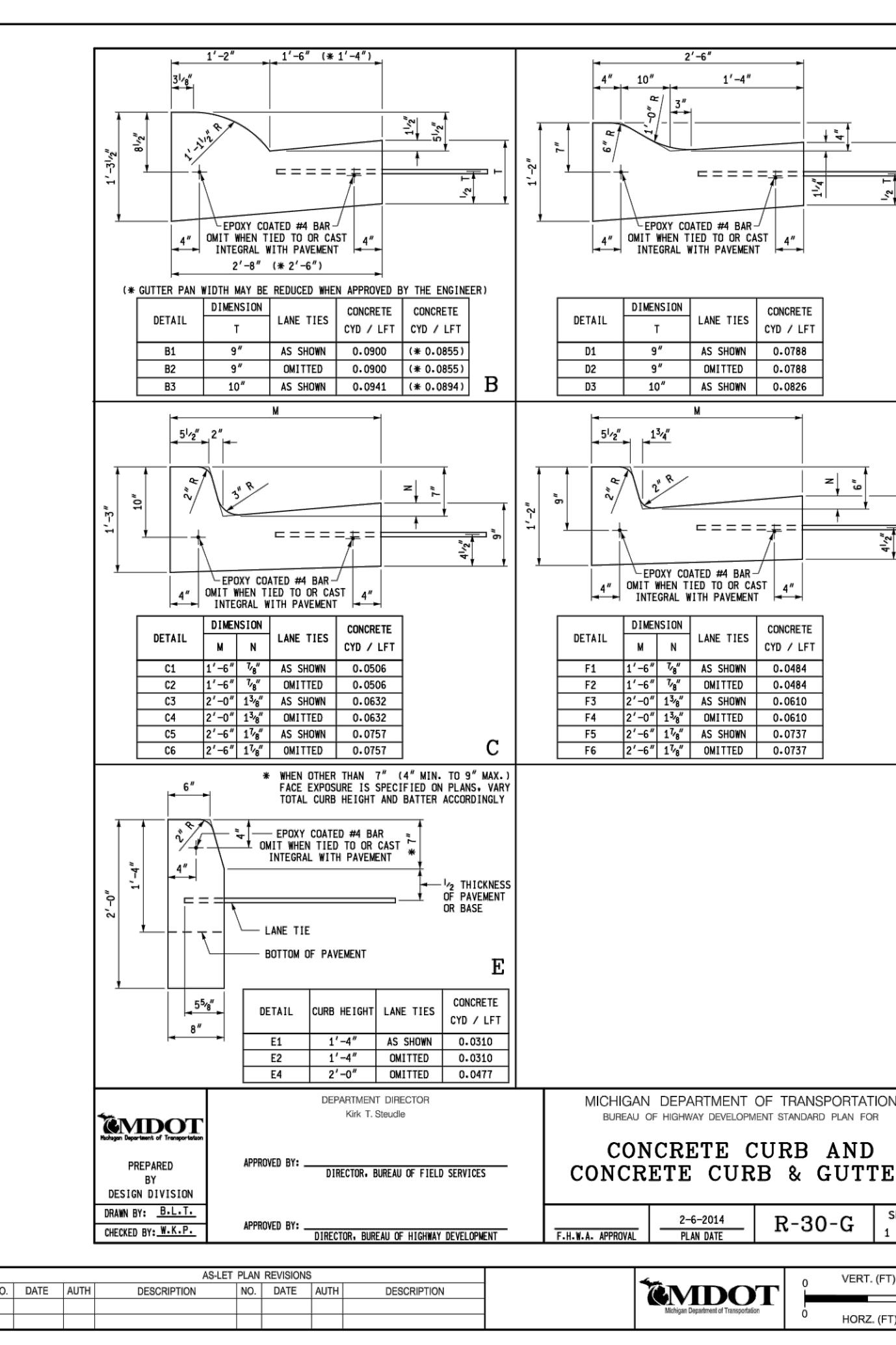
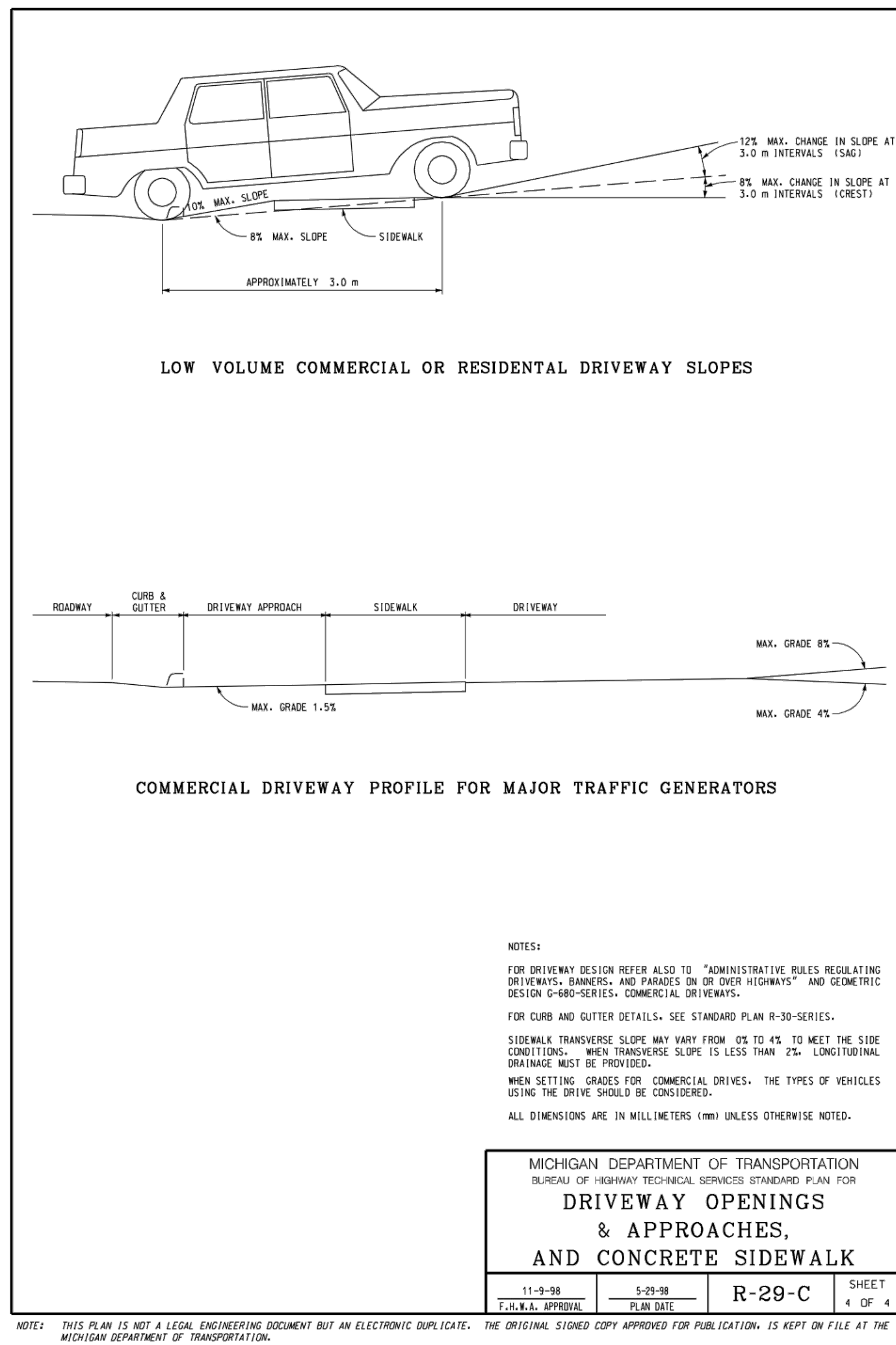
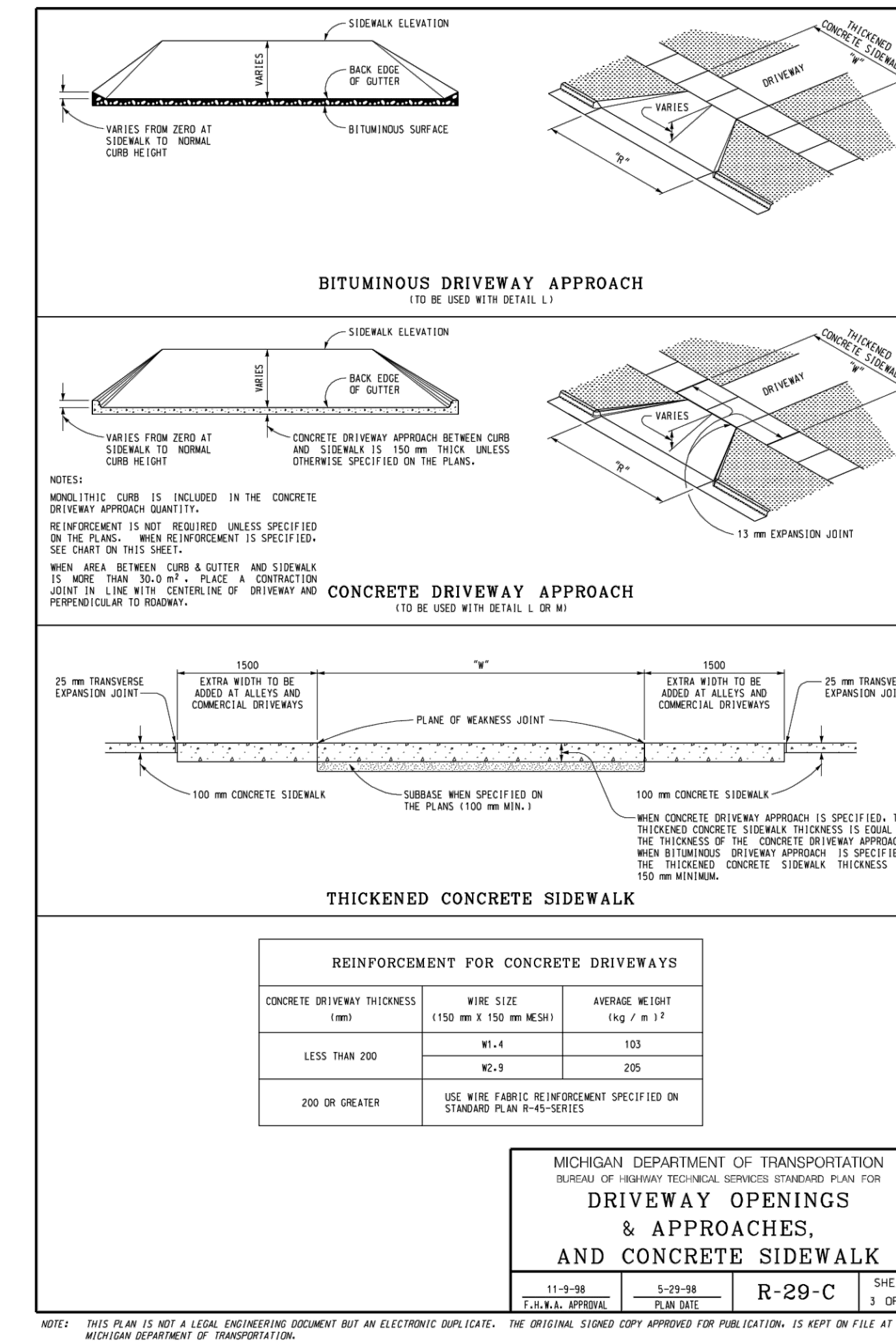
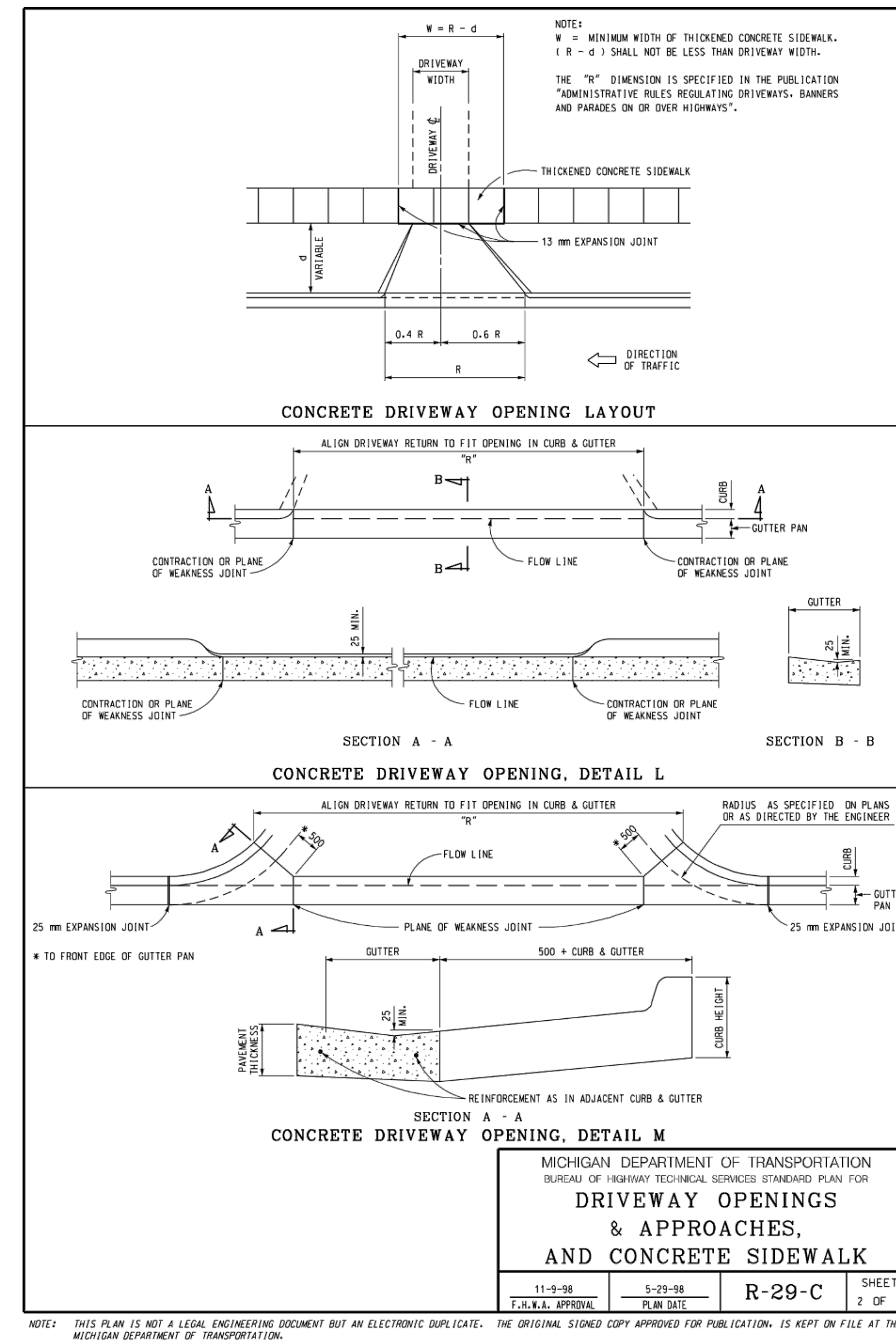
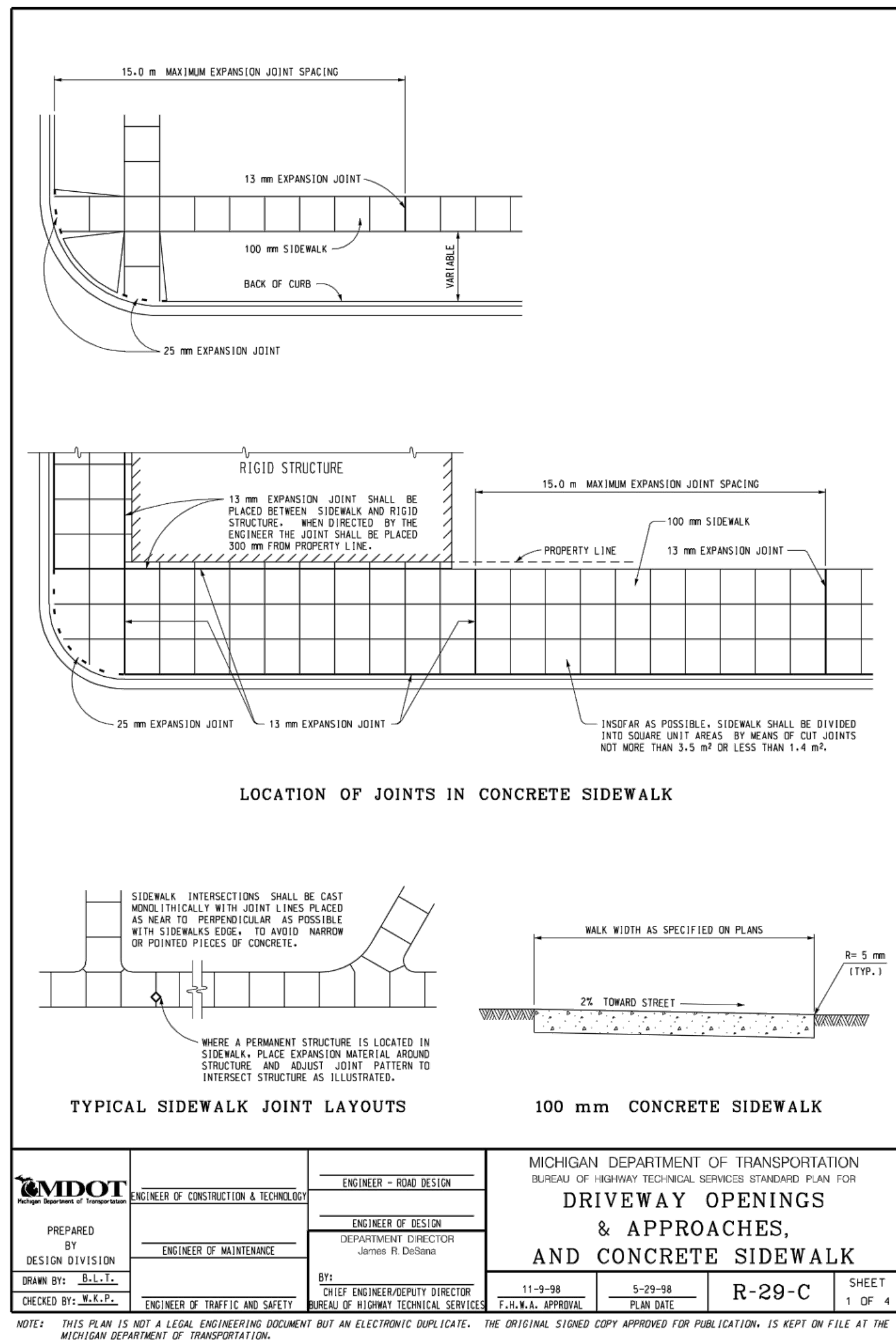
Calculated Turning Radii:	Value:
Inside Turn:	20 ft. 6 in.
Curb to Curb:	36 ft. 10 in.
Wall to Wall:	41 ft. 8 in.

Comments:	Value:
Aerial Application:	Turn radius report Pierce Job # 17506

Components	PRICE #	Description
Front Axle	026849	Acid. Front, Oilbath TAK-4, Non Drive, 22,800 lb. IntyVcl
Front Wheels	0019611	Wheel, Fl. Alum, Alloy, 22.50" x 12.25" (424 & 385)
Front Tires	0053978	Tire, Goodyear, 42565R22.50 20 ply G236 road
Chassis	0050507	Arrow-ST Chassis, Aerial/Flasher, Tandem, 49K (Big Block)
Front Bumper	0012245	Bumper, 19" extend - all class
Aerial Device	0120955	Aerial, 105' Heavy Duty Ladder

Notes:
Actual Inside Cramp Angle may be less due to highly specialized options.
Curb to Curb turning radius calculated for a 9.00 inch curb.

Page 1 of 2



REVISIONS:

05/03/2021	
05/25/2021	
06/22/2021	

DATE: 03/26/2021

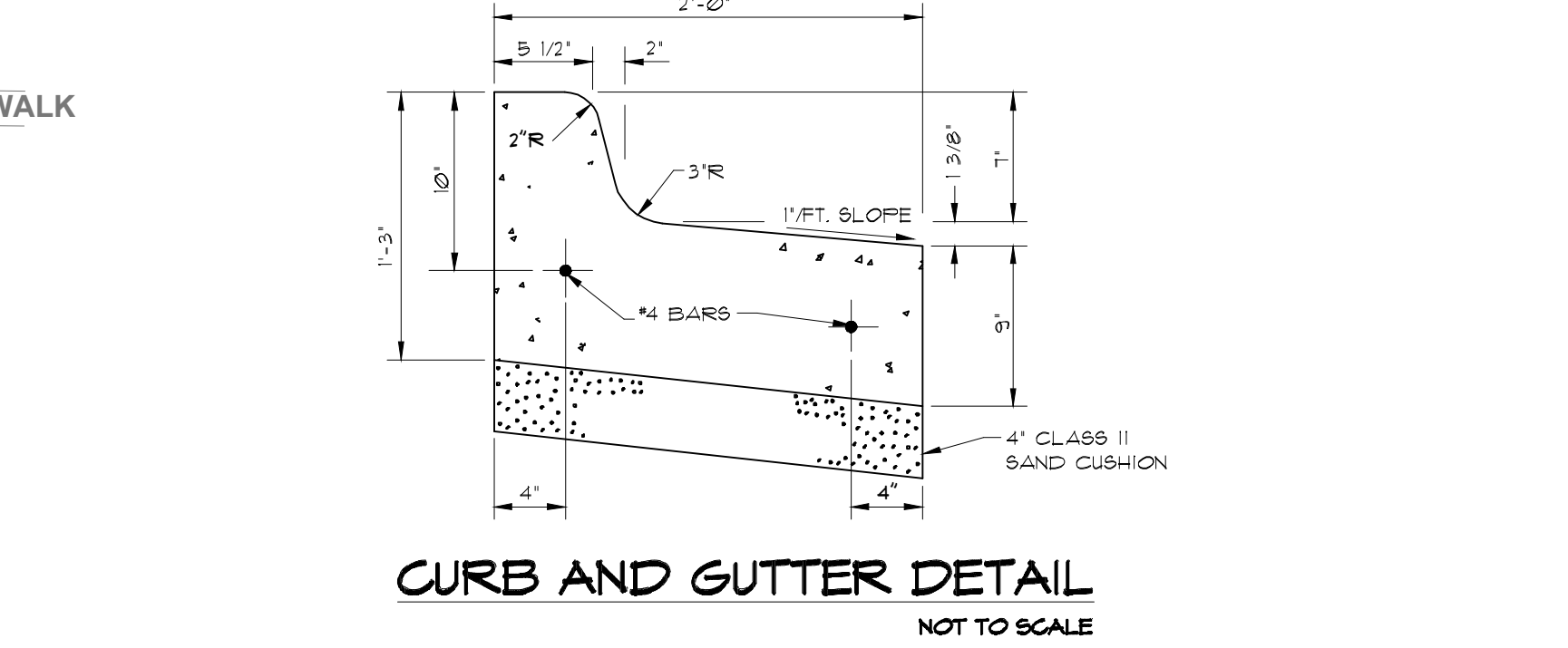
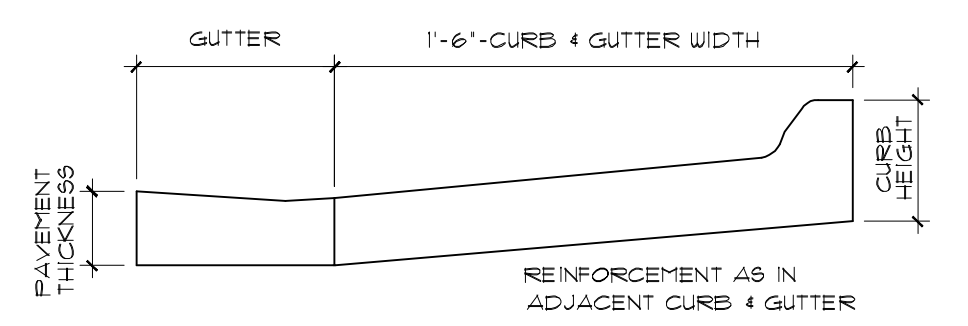
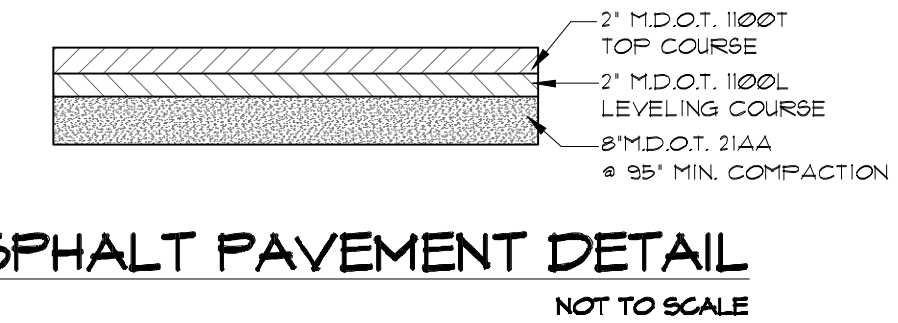
DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
PROPOSED GRADING PLAN

SHEET #:
C-2

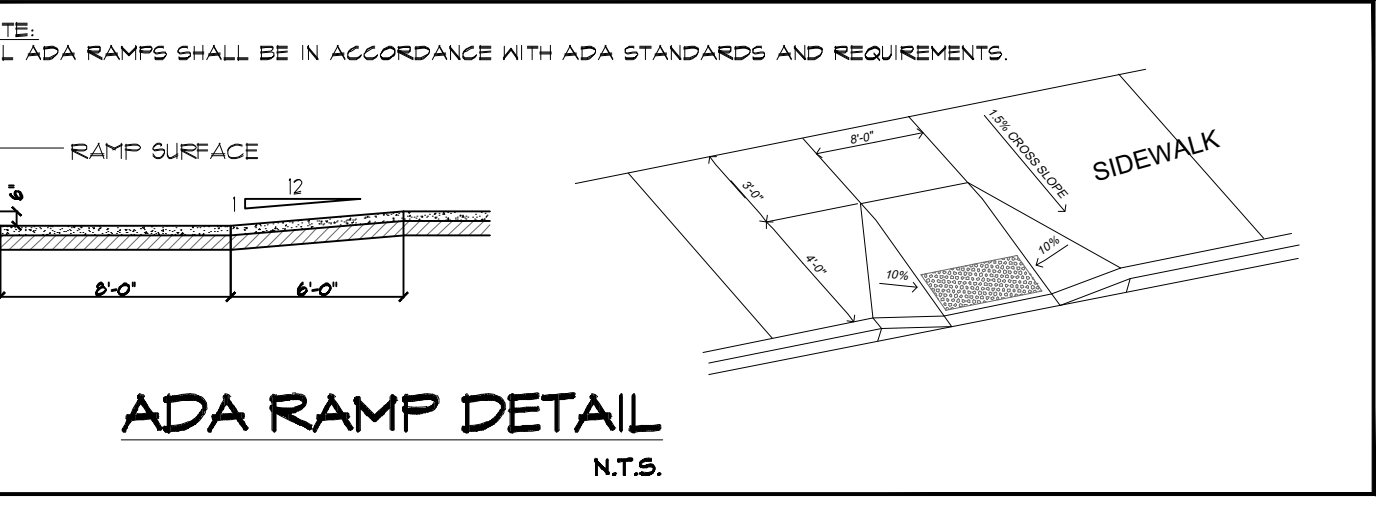
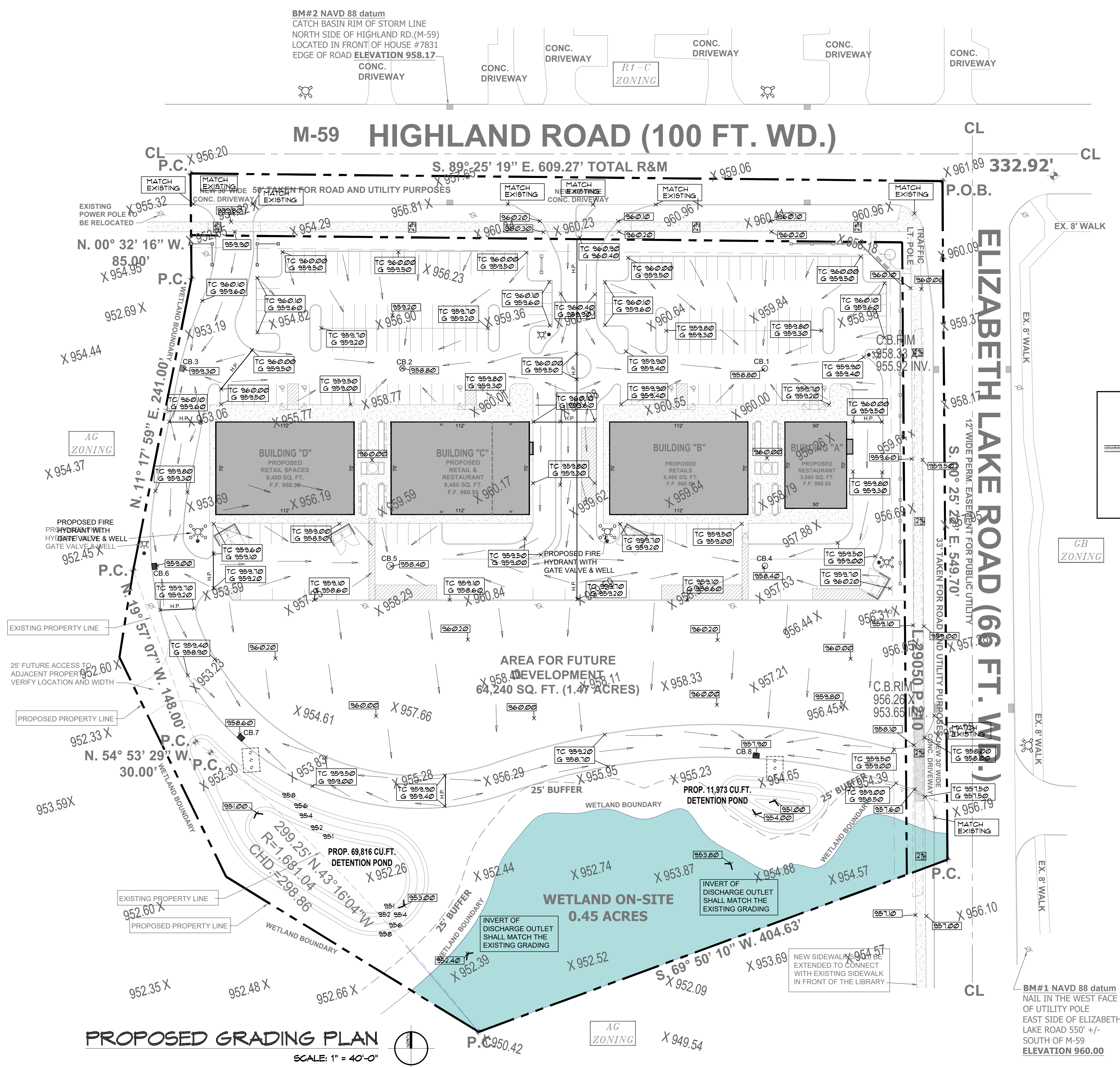
APPROVED BY:



BENCHMARKS
BM#1 NAIL IN THE WEST FACE OF UTILITY POLE EAST SIDE OF ELIZABETH LAKE ROAD 550' +/- SOUTH OF M-59 **ELEVATION 960.00**
BM#2 CATCH BASIN RIM OF STORM LINE NORTH SIDE OF HIGHLAND RD.(M-59) LOCATED IN FRONT OF HOUSE #7831 EDGE OF ROAD **ELEVATION 958.17**

LEGEND

PROPERTY LINE	---
EASEMENT LINE	---
EX. GAS LINE	---
PROP. GAS LINE	---
EX. WATER MAIN	---
PROP. WATER MAIN	---
EX. SANITARY LINE	---
PROP. SANITARY LINE	---
EX. STORM LINE	---
PROP. STORM LINE	---
FENCE	---
OVER-HEAD WIRES	---
SANITARY SEWER MAN HOLE	●
STORM SEWER CATCH BASIN	○
POWER POLE	⊗
LIGHT POLE	⊙
FIRE HYDRANT	⊗
WATER SHOT-OFF	●
EXISTING ELEVATION	X 961.89
PROPOSED ELEVATION	X 960.00
TOP OF CURB	TC
GUTTER	G
TOP OF WALK	TW
PAVEMENT	P
DRAINAGE DIRECTION	→



BENCHMARKS
BM#1 NAIL IN THE WEST FACE OF UTILITY POLE EAST SIDE OF ELIZABETH LAKE ROAD 550' +/- SOUTH OF M-59 **ELEVATION 960.00**
BM#2 CATCH BASIN RIM OF STORM LINE NORTH SIDE OF HIGHLAND RD.(M-59) LOCATED IN FRONT OF HOUSE #7831 EDGE OF ROAD **ELEVATION 958.17**

LEGEND

PROPERTY LINE	---
EASEMENT LINE	---
EX. GAS LINE	---
PROP. GAS LINE	---
EX. WATER MAIN	---
PROP. WATER MAIN	---
EX. SANITARY LINE	---
PROP. SANITARY LINE	---
EX. STORM LINE	---
PROP. STORM LINE	---
FENCE	---
OVER-HEAD WIRES	---
SANITARY SEWER MAN HOLE	●
STORM SEWER CATCH BASIN	○
POWER POLE	⊗
LIGHT POLE	⊙
FIRE HYDRANT	⊗
WATER SHOT-OFF	●
EXISTING ELEVATION	X 961.89
PROPOSED ELEVATION	X 960.00
TOP OF CURB	TC
GUTTER	G
TOP OF WALK	TW
PAVEMENT	P
DRAINAGE DIRECTION	→

DEFERRED SUBMITTALS:
- FIRE SUPPRESSION SUPPLIES PLAN. *BY OTHER.*

NOTES:
- A STORM SEWER AND DETENTION BASIN MAINTENANCE AGREEMENT WITH THE TOWNSHIP SHALL BE PROVIDED UPON THE FINAL SITE PLAN SUBMISSION.
- A COUNTY DRAIN EASEMENT WILL BE VERIFIED AND/OR PROVIDED WITH OAKLAND COUNTY FOR THE DRAIN WHICH RUNS IN CLOSE PROXIMITY TO THE WESTERN PROPERTY LINE.

WHITE LAKE TOWNSHIP ENGINEERING DESIGN STANDARDS

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWNSHIP'S CURRENT STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION, 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- CONTRACTOR SHALL CONTACT MISS DIG AT 800-482-7171, 72 HOURS IN ADVANCE OF CONSTRUCTION, FOR EXISTING UNDERGROUND UTILITY LOCATIONS.
- IN ORDER TO VERIFY COMPLIANCE WITH APPROVED PLANS, FULL-TIME CONSTRUCTION OBSERVATION WILL GENERALLY BE REQUIRED DURING ALL PHASES OF UNDERGROUND SITE CONSTRUCTION INCLUDING INSTALLATION OF SANITARY SEWER, STORM SEWERS, DRAINS, WATERMANS AND APPURTENANCES AS WELL AS PRIVATE STREET CURBING AND PAVING CONSTRUCTION. INTERMITTENT OBSERVATIONS WILL BE MADE FOR SITE GRADING, PARKING LOT CURBING AND PAVING, RETAINING WALL CONSTRUCTION AND OTHER SURFACE ACTIVITY.

BENCHMARKS
BM#1 NAIL IN THE WEST FACE OF UTILITY POLE EAST SIDE OF ELIZABETH LAKE ROAD 550' +/- SOUTH OF M-59 **ELEVATION 960.00**

BM#2 CATCH BASIN RIM OF STORM LINE NORTH SIDE OF HIGHLAND RD.(M-59) LOCATED IN FRONT OF HOUSE #7831 EDGE OF ROAD **ELEVATION 958.17**

LEGEND	
PROPERTY LINE	---
EASEMENT LINE	- - - - -
EX. GAS LINE	--- GAS --- GAS --- GAS --- GAS --- GAS --- GAS ---
PROP. GAS LINE	---
EX. WATER MAIN	--- WTR --- WTR --- WTR --- WTR ---
PROP. WATER MAIN	---
EX. SANITARY LINE	--- SAN --- SAN --- SAN --- SAN ---
PROP. SANITARY LINE	---
EX. STORM LINE	--- STORM --- STORM --- STORM ---
PROP. STORM LINE	---
FENCE	--- FENCE --- FENCE --- FENCE ---
OVER-HEAD WIRES	--- OW --- OW --- OW --- OW ---
SANITARY SEWER MAN HOLE	●
STORM SEWER CATCH BASIN	○
POWER POLE	⊙ P.P.
LIGHT POLE	⊙ L.P.
FIRE HYDRANT	⊙
WATER SHOT-OFF	●
EXISTING ELEVATION	X 961.89
PROPOSED ELEVATION	X 360.00
TOP OF CURB	TC
GUTTER	G
TOP OF WALK	TW
PAVEMENT	P
DRAINAGE DIRECTION	→

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA

ADDRESS: (21-426-004) HIGHLAND RD., WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

REVISIONS:

05/03/2021	
05/25/2021	
06/22/2021	

DATE: 03/26/2021

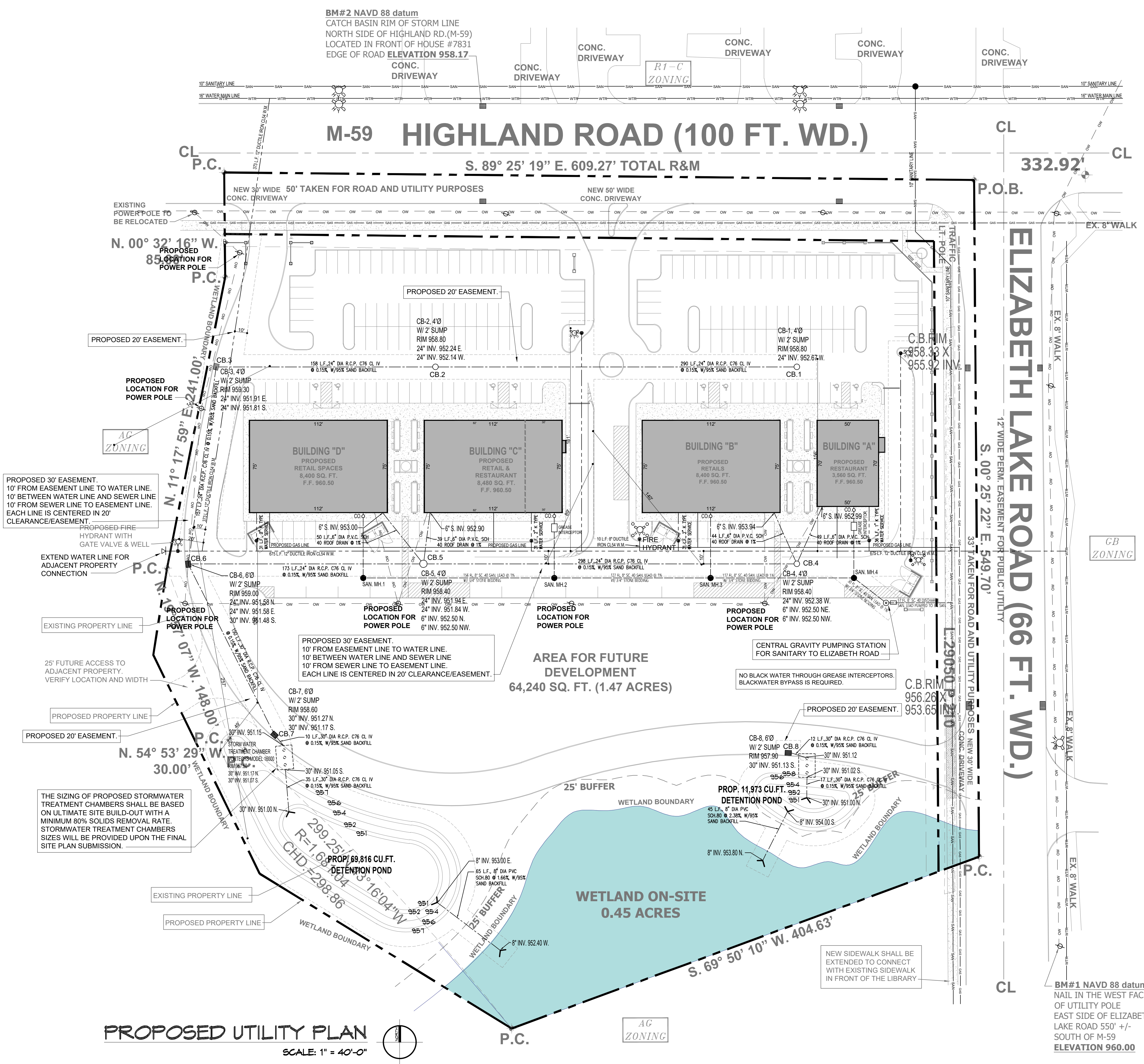
DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE: PROPOSED UTILITY PLAN

SHEET #: C-3

APPROVED BY:



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C FACTORS FOR SURFACES	
GRASS	0.20
PAVEMENT	0.80
ROOF	0.90
OPEN WATER	1.00



STORAGE PROVIDED IN DETENTION BASIN #2			
ELEVATION	AREA (SQ.FT.)	VOLUME (CU.FT.)	CUMULATIVE VOLUME (CU.FT.)
951	A1= 5,263	0	0
952	A2= 6,259	5,754	5,754
954	A3= 9,269	15,430	21,184
956	A4= 12,622	21,805	42,989
957	A5= 14,221	26,827	69,816

STORAGE PROVIDED IN DETENTION BASIN #1			
ELEVATION	AREA (SQ.FT.)	VOLUME (CU.FT.)	CUMULATIVE VOLUME (CU.FT.)
951	A1= 223	0	0
952	A2= 515	415	415
954	A3= 1,401	2,041	2,456
956	A4= 2,481	3,866	6,322
957	A5= 3,105	5,651	11,973

DEVELOPED AREA = 233,046 SQ.FT. = 5.35 ACRES
 C(BUILDING) = 0.90, C(PAVEMENT) = 0.80, C(LAWN) = 0.20
 A(LAWN) = 1.67 ACRES, A(PAVEMENT) = 4.77 ACRES, A(BUILDING) = 0.75
 C(AVE.) = ((1.67x0.20)+(4.77x0.80)+(0.75x0.90))/5.35 = 0.90
 Qo = 0.2x5.35 = 1.07 CFS

$Qo = \frac{Qo}{CA} = \frac{1.07}{0.90x5.33} = 0.22$

$T100 = -25 + \sqrt{\frac{10,313}{0.22}} = -25 + \sqrt{46,877} = 191 \text{ MIN.}$

$Vs100 = \frac{-16,500L}{T+25} - 40QoT = \frac{-16,500x191}{191+25} - 40x0.22x191 = 12,909 \text{ CU.FT.}$

$Vs100 = 12,909 \text{ CU. FT./acre imperviousness}$

$Vt100 = VsAC = 12,909x5.33x0.90 = 61,926 \text{ CU.FT.}$

TOTAL VOLUME REQUIRED = 61,926 CU.FT.

PROVIDED DETENTION STORAGE = 69,816 CU.FT.

NOTE: BIGGER VOLUME PROVIDED w/ FUTURE DEVELOPMENT

OUTLET DESIGN
 Qpeak = Allowable = 1.07 CFS
 Pipe Size = 8 in
 n = 0.012
 Area = 0.35 SQ.FT.
 R = 0.168 FT
 Min. Slope = 0.6%

WATER TREATMENT CHAMBER
 QUANTITY OF RUNOFF = 9.30 CFS
 USE MECHANICAL TREATMENT UNIT VORTECHS MODEL 9000

DEVELOPED AREA = 111,819 SQ.FT. = 2.56 ACRES
 C(BUILDING) = 0.90, C(PAVEMENT) = 0.80, C(LAWN) = 0.20
 A(LAWN) = 1.93 ACRES, A(PAVEMENT) = 0.45 ACRES, A(BUILDING) = 0.18
 C(AVE.) = ((1.93x0.20)+(0.45x0.80)+(0.18x0.90))/2.56 = 0.35
 Qo = 0.2x2.56 = 0.51 CFS

$Qo = \frac{Qo}{CA} = \frac{0.51}{0.35x2.56} = 0.55$

$T100 = -25 + \sqrt{\frac{10,313}{0.55}} = -25 + \sqrt{18,733} = 112 \text{ MIN.}$

$Vs100 = \frac{-16,500L}{T+25} - 40QoT = \frac{-16,500x112}{112+25} - 40x0.55x112 = 11,025 \text{ CU.FT.}$

$Vs100 = 11,025 \text{ CU. FT./acre imperviousness}$

$Vt100 = VsAC = 11,025x2.56x0.35 = 9,878 \text{ CU.FT.}$

TOTAL VOLUME REQUIRED = 9,878 CU.FT.

PROVIDED DETENTION STORAGE = 11,973 CU.FT.

NOTE: BIGGER VOLUME PROVIDED w/ FUTURE DEVELOPMENT

OUTLET DESIGN
 Qpeak = Allowable = 0.29 CFS
 Pipe Size = 8 in
 n = 0.012
 Area = 0.35 SQ.FT.
 R = 0.168 FT
 Min. Slope = 0.1%

WATER TREATMENT CHAMBER
 QUANTITY OF RUNOFF = 6.10 CFS
 USE MECHANICAL TREATMENT UNIT VORTECHS MODEL 5000

REVISIONS:	
_____	05/03/2021
_____	05/25/2021
_____	06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
- STORM DRAINAGE CALCULATIONS

SHEET #: **C-4**

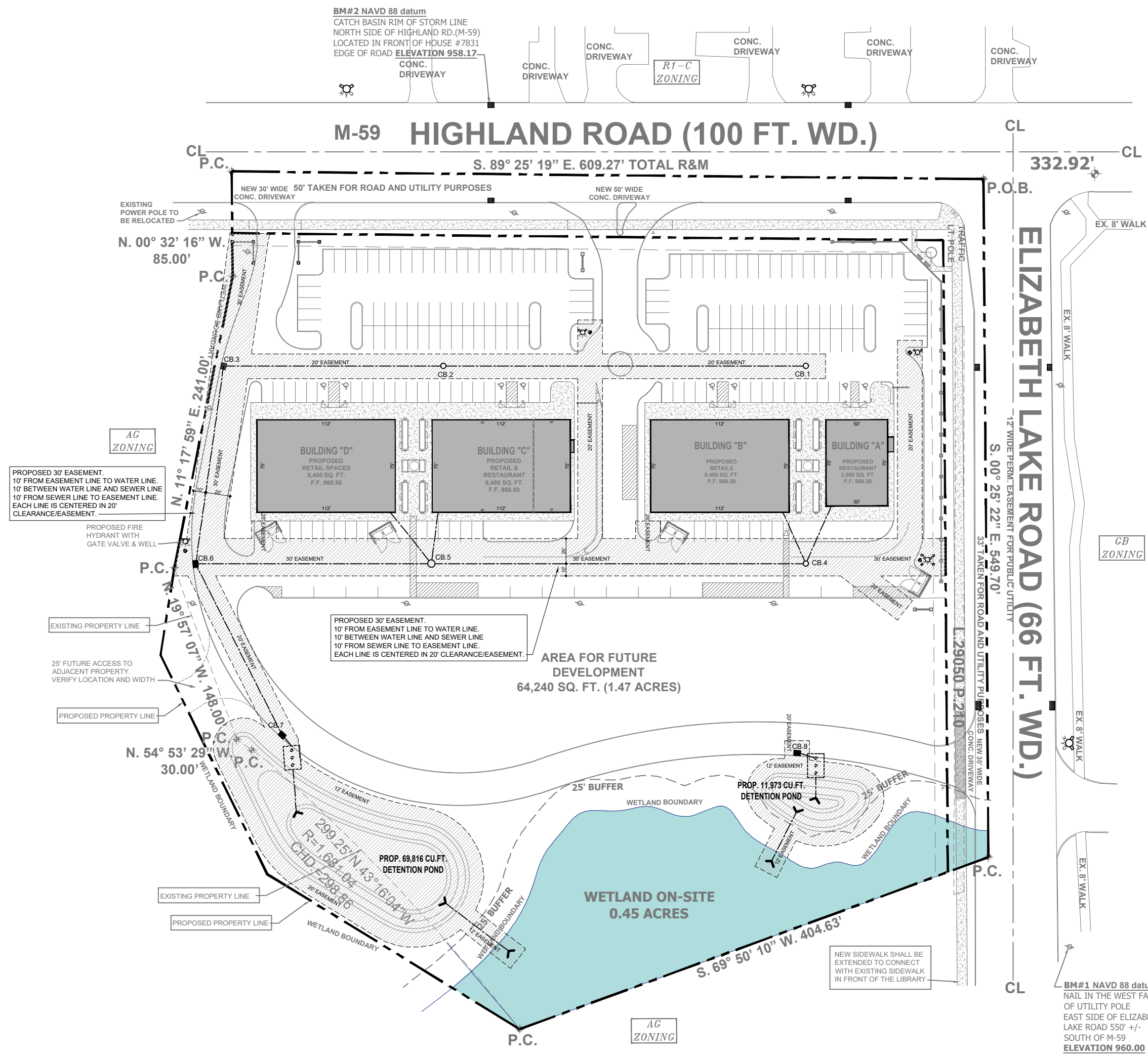
APPROVED BY:



PHYSICAL LIMITS OF STORM WATER MANAGEMENT SYSTEM

LEGAL DESCRIPTION: (PARCEL C)

Land situated in the Township of White Lake, County of Oakland, State of Michigan. Part of the East 1/4 of the Southeast 1/4 of section 21, Town 3 North, Range 8 East, Township of White Lake, Oakland County, MI, described as beginning at a point distance South 89 degrees 25 minutes 19 seconds West 332.92 feet from the East 1/4 corner, section 21, Town 3 North, Range 8 East down the centerline of Highland Road, (M-59) to the intersection of Highland Road (100 Feet wide) and Elizabeth Lake Road (66 Feet Wide); thence down the centerline of Elizabeth Lake Road, (66 feet wide) South 00 degrees 25' 22" seconds East, 549.70 feet to a point; thence South 69 degrees 50 minutes 10 seconds West 404.63 feet to a point, also known as the centerline of the Creek; also known as Brendel Lake Creek; Thence North 43 degrees 16 minutes 04 seconds West 299.25 feet, Rad. = 1,681.04; Chd. = 298.86 feet; Thence continuing on centerline of the Creek, also known as Brendel Lake Creek; North 54 degrees 53 seconds 29 minutes West, 30 feet to a point, thence N. 19 degrees 57 minutes 07 seconds West 148 Feet; thence North 11 degrees 17 minutes 59 seconds East 241 feet; thence North 00 degrees 32 minutes 16 seconds West 85 feet to the centerline of Highland Road, (M59 100 feet wide); thence South 89 degrees 25 minutes 19 seconds East 609.27 feet back to the point of beginning; except the portion of 50 feet on Highland Road (100 feet wide) and that portion of 33 feet on Elizabeth Lake Road (66 feet wide) for road and public utilities, containing 8.61 acres more or less.



LEGEND:

- WHITE LAKE CHARTER TOWNSHIP MAINTENANCE RESPONSIBILITY
- STORM SEWER LINE
- WATER MAIN LINE

STORM WATER MANAGEMENT SYSTEM LONG-TERM MAINTENANCE PLAN

PROPERTY INFORMATION: RESTAURANTS & RETAILS PLAZA
(PARCEL C) Highland Rd, White Lake, MI 48386

PROPERTY OWNER:
PERMIT NO. / REVIEW NO:

A. PHISICAL LIMITS OF THE STORM WATER MANAGEMENT SYSTEM

The storm water management system (SWMS) subject to this long-term maintenance plan (plan) is depicted on Exhibit A to the permit and include without limitation the storm sewers, swales, manholes, catch basins, storm water inlets, manufactured treatment system, detention system, outlet structure and closed conduits that convey flow from the detention system into a storm manhole within the CHARTER TOWNSHIP OF WHITE LAKE right-of-way.

For purpose of this plan, this storm water management system and all of its components as shown on Exhibit A is referred to as RETAIL/RESTAURANT BUILDINGS.

B. TIME FRAME FOR LONG-TERM MAINTENANCE RESPONSIBILITY

PROPERTY OWNER is responsible for maintaining the RETAIL/RESTAURANT BUILDINGS including complying with applicable requirements of the local of the OAKLAND COUNTY soil erosion and sedimentation control program, until OAKLAND COUNTY releases the construction permit. Long-term maintenance responsibility for the RETAIL/RESTAURANT BUILDINGS Development commence when defined by the maintenance permit issued by the County. Long-term maintenance continues in perpetuity.

C. MANNER OF ENSURING MAINTENANCE RESPONSIBILITY

PROPERTY OWNER has the responsibility for long-term maintenance of RETAIL/RESTAURANT BUILDINGS Development. PROPERTY OWNER to perform any necessary maintenance, repairs, restoration and any necessary construction of the storm water maintenance system (The "Maintenance Agreement") with WHITE LAKE CHARTER TOWNSHIP.

To ensure that the RETAIL/RESTAURANT BUILDINGS is maintained in perpetuity, the map of the physical limit of the storm water management system (Exhibit A), this plan (Exhibit B), the resolution attached as Exhibit C, and the maintenance agreement between the WHITE LAKE CHARTER and the PROPERTY OWNER will be recorded with the OAKLAND COUNTY register of deeds. Upon recording, a copy of the recorded document will be provided to the County.

D. LONG TERM MAINTENANCE PLAN AND SCHEDULE

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

SYSTEM COMPONENTS	MANUFACTURED TREATMENT SYSTEM*	UNDERGROUND DETENTION SYSTEM*	STORM STRUCTURES (CATCH BASINS & MANHOLES)	STORM SEWER (COLLECTION SYSTEMS)	OUTLET CONTROL STRUCTURE	PAVEMENT AREAS	FREQUENCY
MAINTENANCE ACTIVITIES							
INSPECT FOR SEDIMENT ACCUMULATION	X	X	X	X	X		ANNUALLY
INSPECT FOR FLOATABLES, DEAD VEGETATION AND DEBRIS	X	X	X	X	X		ANNUALLY & AFTER MAJOR EVENTS
INSPECT ALL COMPONENTS DURING WET WEATHER AND COMPARE TO AS-BUILT PLANS.	X	X	X	X	X		ANNUALLY
PREVENTATIVE MAINTENANCE							
REMOVE ACCUMULATED SEDIMENT BY VACUUM TRUCK	X	X	X	X	X		AS NEEDED *
REMOVE FLOATABLE, DEAD VEGETATION AND DEBRIS	X	X	X	X	X		AS NEEDED
SWEEPING OF PAVEMENT SURFACES (STREETS AND PARKING AREAS)					X		AS NEEDED
REMEDIAL ACTIONS							
STRUCTURAL REPAIRS OR REPLACEMENT IN KIND	X	X	X	X	X		AS NEEDED
MAKE ADJUSTMENTS, REPAIRS TO ENSURE PROPER FUCTIONING	X	X	X	X	X		AS NEEDED
OIL AND GASOLINE SPILLS					X		CLEAN OUT IMMEDIATELY
<p>NOTES:</p> <p>* INSPECT AND MAINTAIN THE THE MANUFACTURED TREATMENT STRUCTURE AND DETENTION SYSTEMS PER MANUFACTURER'S RECOMMENDATIONS, AT A MINIMUM WHEN SEDIMENT ACCUMULATES TO A DEPTH OF 6-12 INCHES OR IF SEDIMENT RESUSPENSION IS OBSERVED</p>							

Residential & Commercial Designs

Cell Phone: (313) 505-7744
Email: alahwalmoneer@gmail.com

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA
ADDRESS: (21-426-004) HIGHLAND RD, WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

REVISIONS:

05/03/2021
05/25/2021
06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE: STORM MAINTENANCE PLAN

SHEET #: C-5

APPROVED BY:



REVISIONS:

05/03/2021	
05/25/2021	
06/22/2021	

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
- BUILDING 'A' - PROP. FLOOR PLAN

SHEET #: **A-1-1**

APPROVED BY:



MICHIGAN BUILDING CODE 2015

BUILDING DATA:

USE GROUP: RESTAURANT
CONSTRUCTION CLASSIFICATION: A-2 (ASSEMBLY)
BUILDING HEIGHT: 25 FEET
SPRINKLER SYSTEM: SPRINKLER SYSTEM SHALL BE PROVIDED BY OTHERS. VERIFY REQUIREMENT GROSS AREA: 3560 SQ. FT.

OCCUPANCY CALCULATIONS:

WAITING AREA & DINING AREAS: (10 NET/PERSON) = 1590 SQ. FT./5 = 106 OCCUPANTS
KITCHEN AREAS: (200 GROSS/PERSON) = 1345 SQ. FT./200 = 8 OCCUPANTS
OTHER AREAS: (340 GROSS/PERSON) = 425 SQ. FT./200 = 2 OCCUPANTS
TOTAL OCCUPANT LOAD = 116 OCCUPANTS

EGRESS WIDTH PER OCCUPANT: 0.2 INCH PER OCCUPANT OR 36" MINIMUM OF 2 EXITS REQUIRED.
NUMBER OF EXIT DOOR PROVIDED: 2 EGRESS EXITS

MAX. TRAVEL DISTANCE: 100' (WITH SPRINKLER SYSTEM)
MAX TRAVEL DISTANCE PROVIDED: LESS THAN 12' FEET

CODES CURRENTLY IN EFFECT

- 2015 MICHIGAN BUILDING CODE, MBC 2015
- 2015 MICHIGAN MECHANICAL CODE, MMC 2015
- 2015 MICHIGAN PLUMBING CODE, MPC 2015
- 2017 NATIONAL ELECTRICAL CODE, 2017 CONSTRUCTION CODE - PART 8, ELECTRICAL CODE RULES
- ACCESSIBILITY: MICHIGAN BARRIER FREE DESIGN LAW, P.A. 1966 AS AMENDED AND THE 2009 ICC/ANSI A117.1 STANDARD

GENERAL NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND ORDINANCES, INCLUDING 2015 MICHIGAN BUILDING CODE, NFPA, NEC & MICHIGAN BARRIER FREE DESIGN.
- CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. SUBMITTAL OF A BID SIGNIFIES THE ACCEPTANCE OF SUCH CONDITIONS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY BRACING AND SHORING OF STRUCTURES DURING DEMOLITION AND CONSTRUCTION, AS REQUIRED.
- CONTRACTOR SHALL REMOVE OR CAP ALL EXISTING ELECTRICAL LINES THAT WILL NOT BE USED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF DEBRIS FROM THE JOB SITE AND SHALL KEEP THE JOB SITE IN A CLEAN AND ORDERLY MANNER AT ALL TIMES.
- CONTRACTOR SHALL VERIFY ANY ADDITIONAL OWNER REQUIREMENTS NOT NOTED ON DRAWINGS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL INCLUDE THE COST OF ALL REQUIRED PERMITS IN HIS BID AND SHALL SECURE SAME.
- ALL DIMENSIONS ARE TO ROUGH FRAMING UNLESS NOTED OTHERWISE (U.N.O.).
- ALL INTERIOR PARTITIONS ARE 3/8" STEEL STUDS @ 16" O.C., U.N.O.
- DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS ONLY.
- INSTALL SOLID WOOD BLOCKING AS REQUIRED FOR MOUNTING OF GRAB BARS, MIRRORS, SHELVES, COUNTERS, ETC.

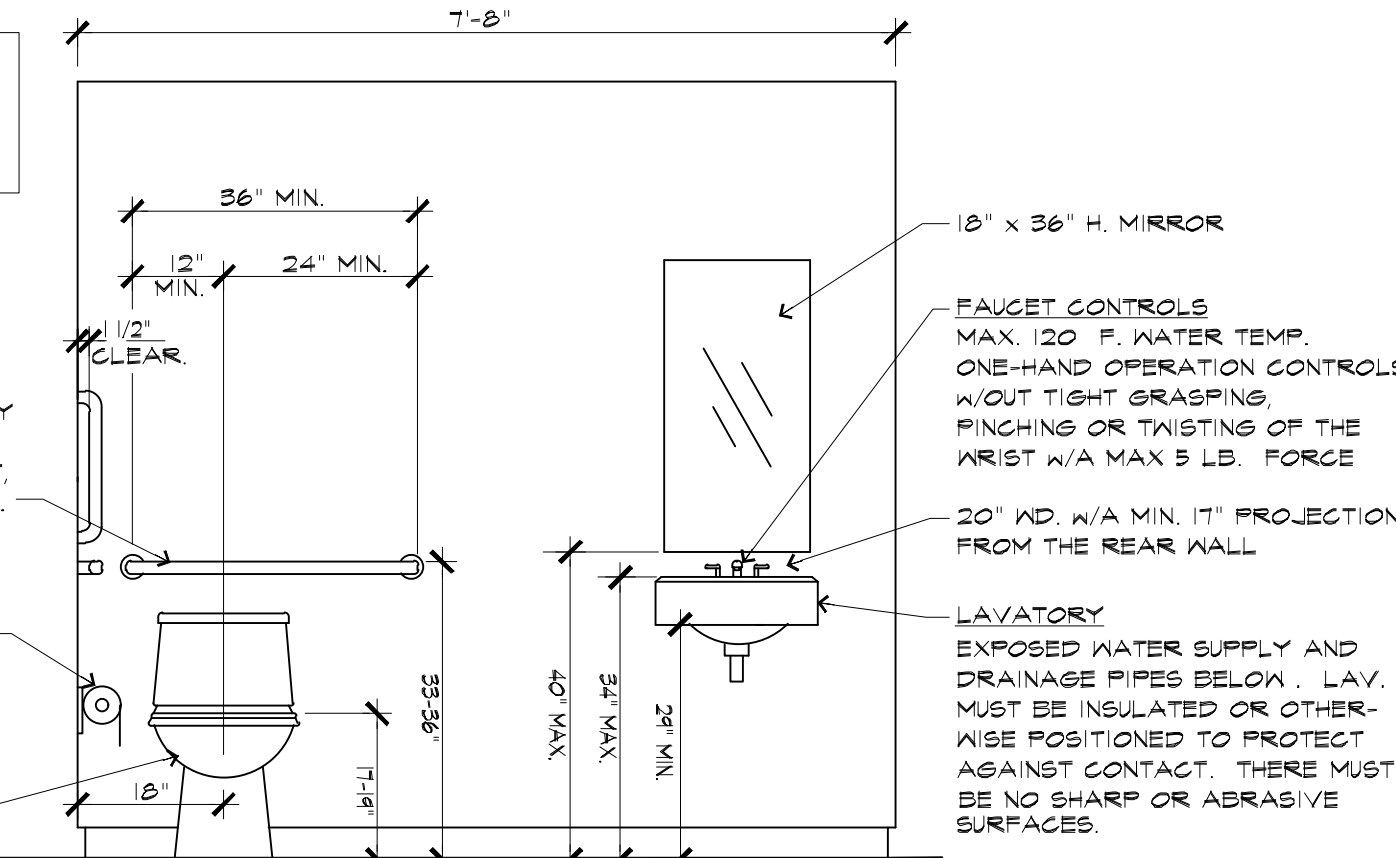
DOOR SCHEDULE

DOOR NO.	DIMENSIONS	DESCRIPTION	FRAME
D1	3'-0" X 7'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ SELF CLOSING DEVICE, PRIVACY LOCK & KICK PLATE, MARBLE THRESH	METAL FRAME
D2	3'-0" X 7'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D3	3'-0" X 7'-0" X 1 3/4"	1" TEMPERED INSULATED GLASS DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D4	3'-0" X 7'-0" X 1 3/4"	HOLLOW METAL DOOR W/ SELF CLOSING DEVICE, PANIC BAR & DEAD BOLT LOCK	METAL FRAME

- NOTES:
- ALL HARDWARE SETS TO BE SELECTED BY OWNER.
- ALL LOCKS SHALL BE READILY OPENED FROM INSIDE W/O THE USE OF A KEY.
- ALL MEANS OF EGRESS DOORS ARE READILY OPENABLE FROM INSIDE, AND MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR SPECIAL EFFORT.

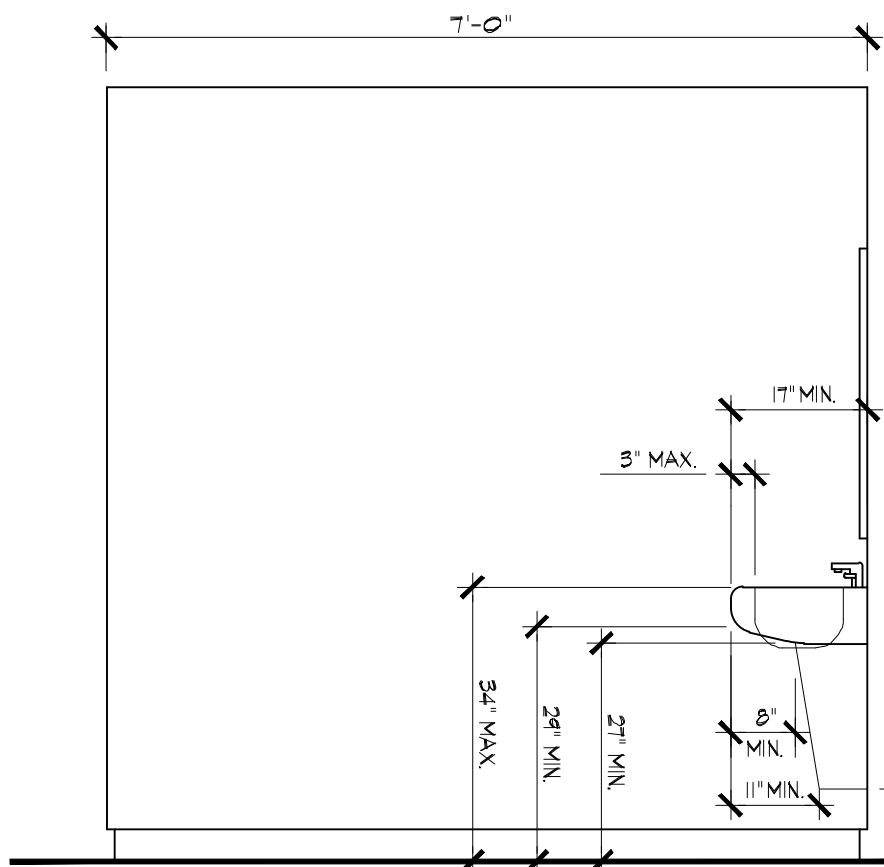
NOTE:
ALL FIXTURES, ACCESSORIES, AND SPACING SHALL MEET ALL APPLICABLE PROVISIONS OF THE MICHIGAN BARRIER FREE CONSTRUCTION CODE AND AMERICANS WITH DISABILITIES ACT.

GRAB BAR- 1 1/2" DIA. STRENGTH: ALLOW STRESSES IN BENDING SHEAR & TENSION CANNOT BE EXCEEDED FOR MATERIALS USED WHEN A FORCE OF 250 LBS. APPLIED VERTICALLY OR HORIZONTALLY IS APPLIED AT ANY POINT ON A GRAB BAR, SEAT, FASTENER, OR SUPPORTING STRUC.
T.F. DISPENSER CANNOT HAVE A CONTROLLED DELIVERY OR NOT ALLOW CONTINUOUS PAPER FLOW.
N.C. APPROVED A.D.A. COMPLIANCE- SEAT MAY NOT BE SPRUNG TO RETURN TO AN UP POSITION.



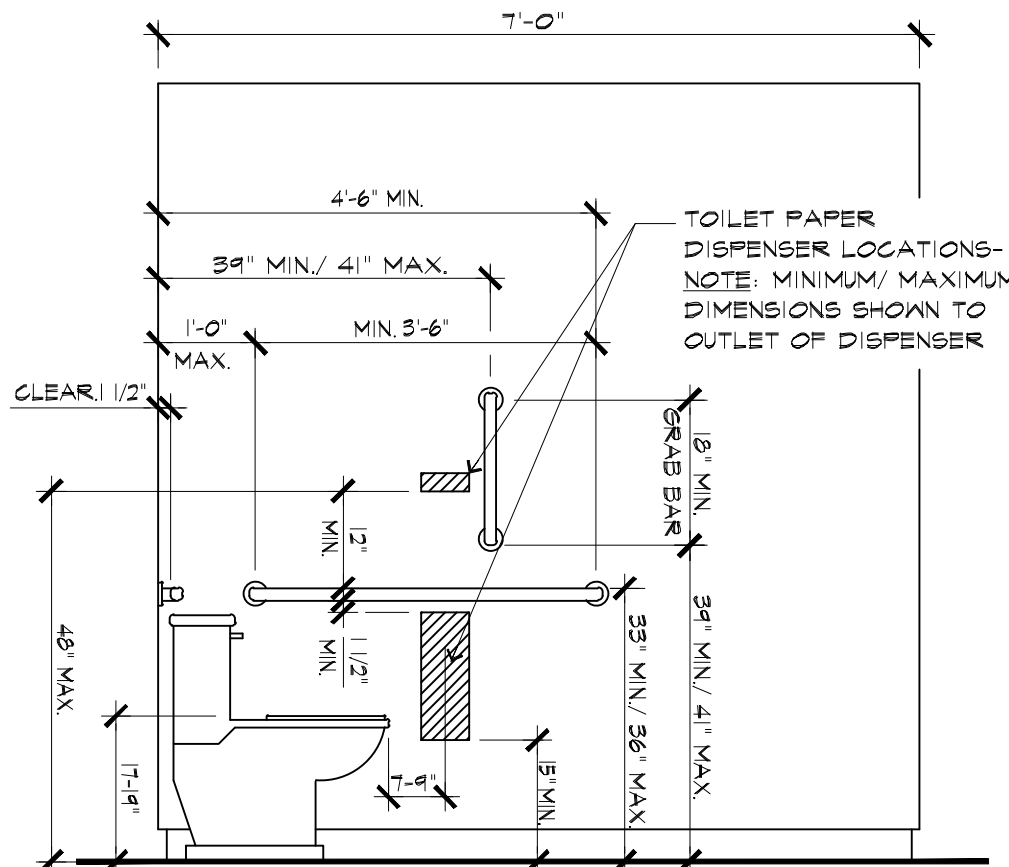
P.H. TOILET & SINK ELEV.

N.T.S.



P.H. SINK SIDE ELEV.

N.T.S.

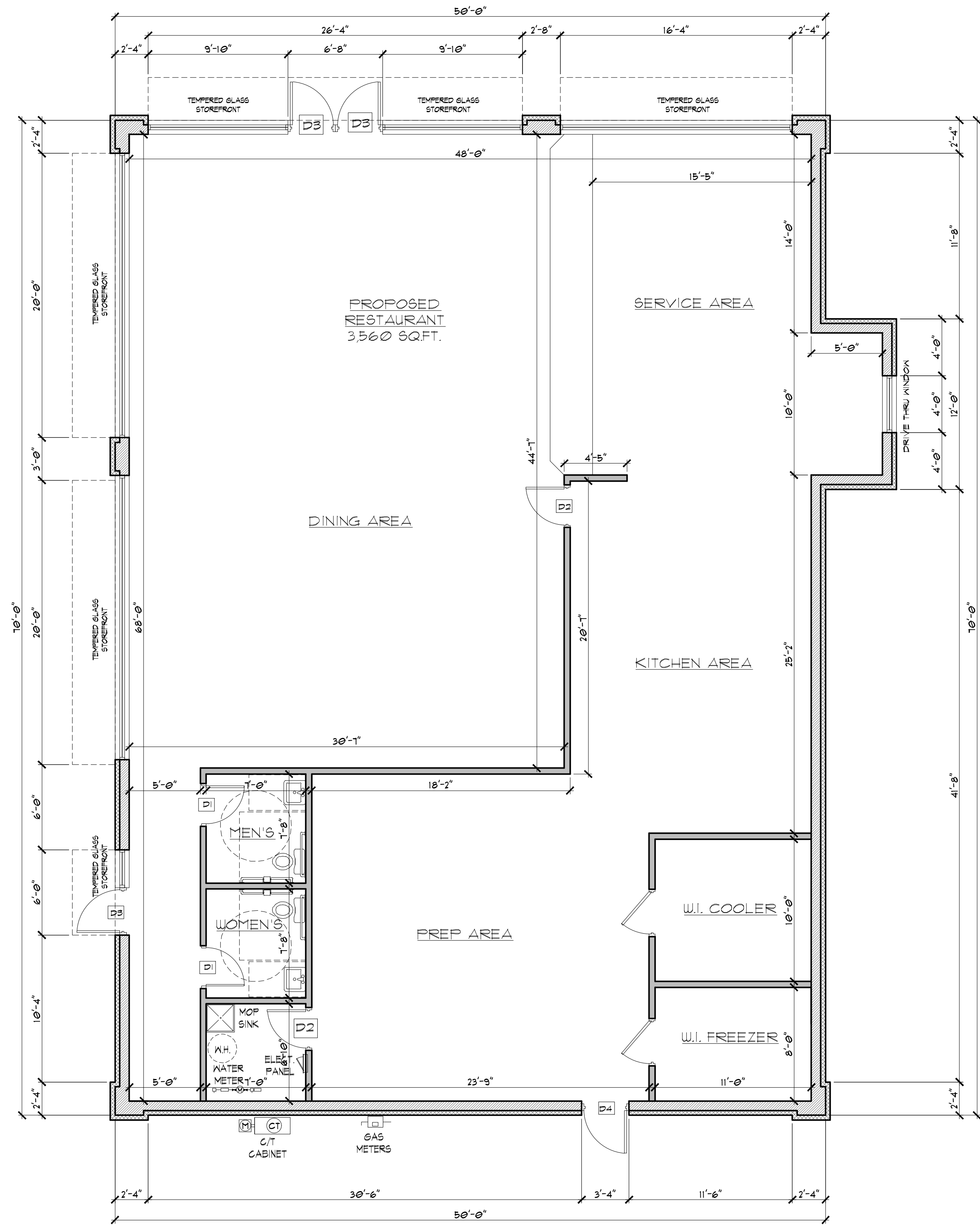


P.H. TOILET SIDE ELEV.

N.T.S.

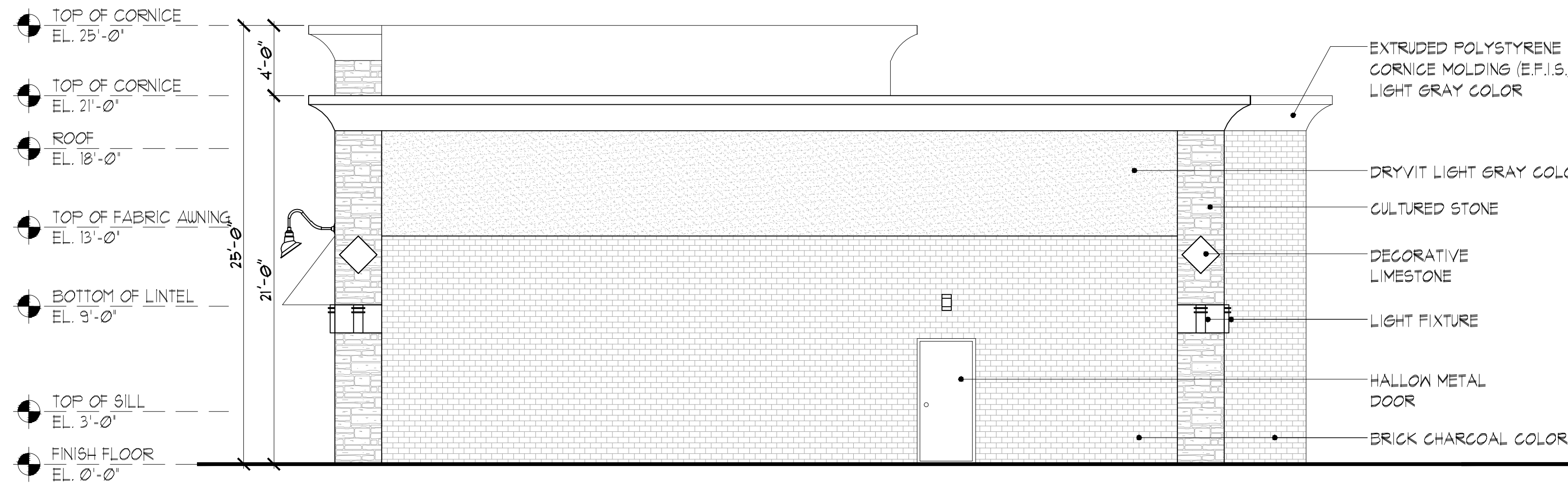
WALL LEGEND

- EXTERIOR WALL:
SEE BUILDING'S ELEVATIONS FOR EXTERIOR FINISH
- 8" CMU W/ HORIZONTAL JOINT REINFORCEMENT @ 16" O.C. DONEL, AND W/ #6 REBAR INTO FOOTING AND THROUGHOUT WALL HEIGHT
- INTERIOR PARTITIONS:
5/8" DRYWALL ON 3/8"-20 GA. METAL STUDS @ 16" O.C.



BUILDING "A" - PROP. FLOOR PLAN

SCALE: 3/16" = 1'-0"

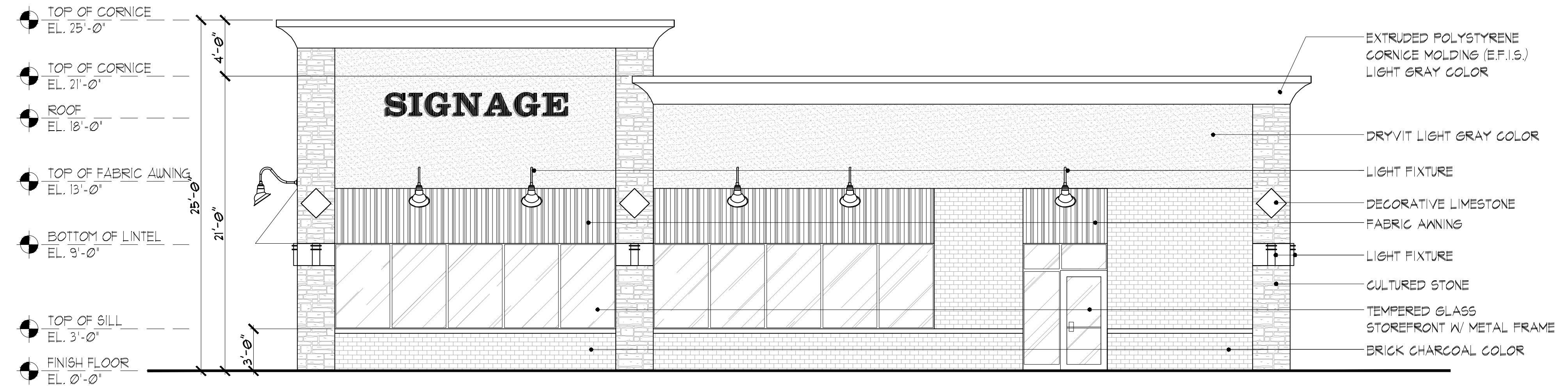


BUILDING "A" - PROP. REAR ELEVATION
SCALE: 3/16" = 1'-0"

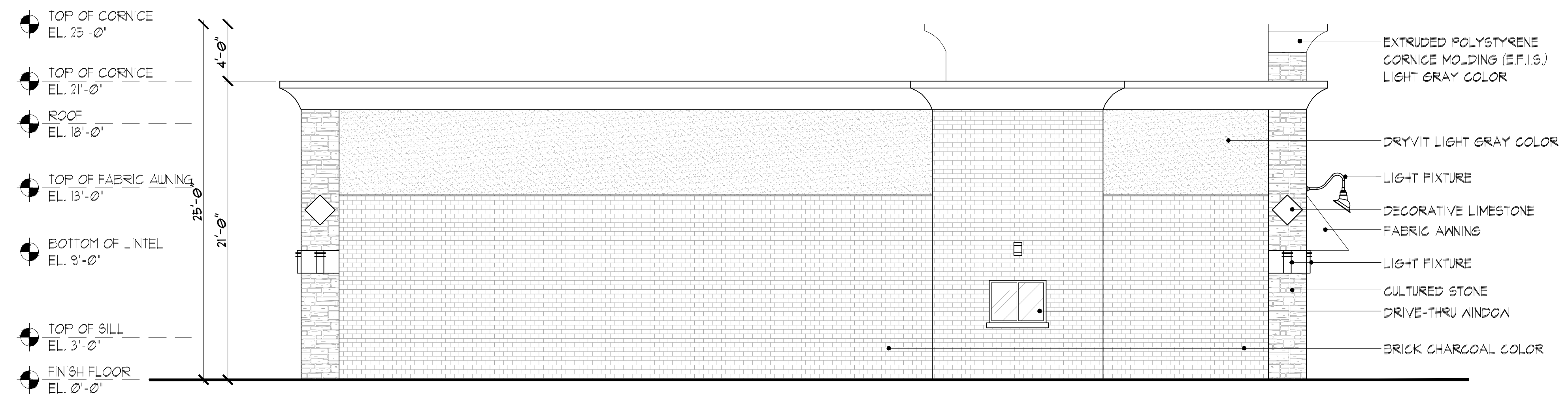


BUILDING "A" - PROP. FRONT ELEVATION
SCALE: 3/16" = 1'-0"

NOTE:
ALL FINALIZED COLORS WILL BE NOTED, AND MATERIAL SAMPLES WILL BE PROVIDED FOR PLANNING COMMISSION REVIEW AT THE TIME OF FINAL SITE PLAN.



BUILDING "A" - PROP. RIGHT ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING "A" - PROP. LEFT ELEVATION
SCALE: 3/16" = 1'-0"



Cell Phone: (313) 505-7744
Email: alahwalmoneer@gmail.com

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA
ADDRESS: (21-426-004) HIGHLAND RD, WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

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REVISIONS:	DATE:
_____	05/03/2021
_____	05/25/2021
_____	06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
- BUILDING 'A' - PROP. ELEVATIONS

SHEET #:
A-1-2

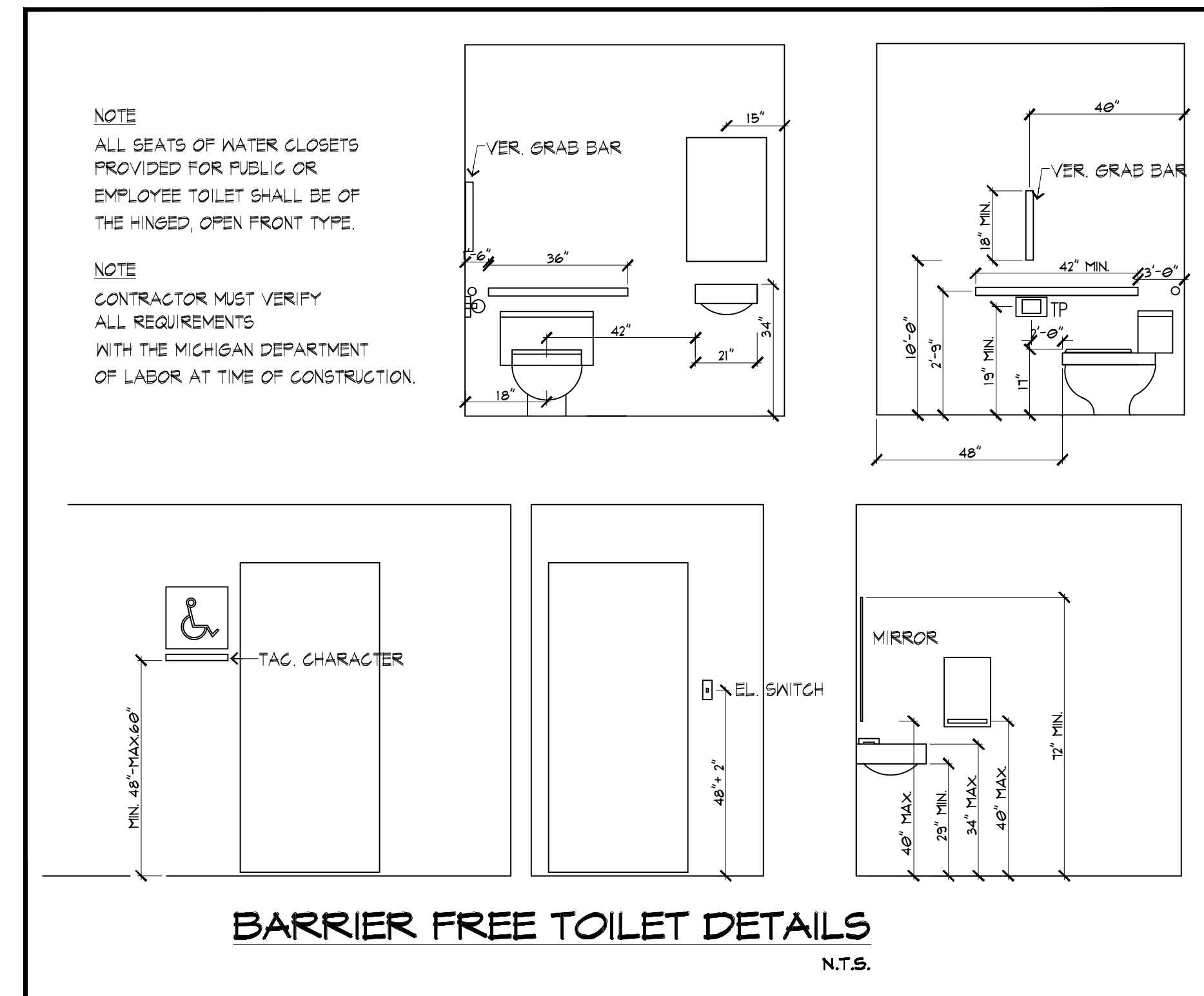
APPROVED BY:



DOOR SCHEDULE			
DOOR NO.	DIMENSIONS	DESCRIPTION	FRAME
D1	3'-0" X 7'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ SELF CLOSING DEVICE, PRIVACY LOCK & KICK PLATE MARBLE THRESH	METAL FRAME
D2	3'-0" X 7'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D3	3'-0" X 7'-0" X 1 3/4"	1" TEMPERED INSULATED GLASS DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D4	3'-0" X 7'-0" X 1 3/4"	HOLLOW METAL DOOR W/ SELF CLOSING DEVICE, PANIC BAR & DEAD BOLT LOCK	METAL FRAME

NOTES:
- ALL HARDWARE SETS TO BE SELECTED BY OWNER
- ALL LOCKS SHALL BE READILY OPENED FROM INSIDE W/O THE USE OF A KEY
- ALL MEANS OF EGRESS DOORS ARE READILY OPENABLE FROM INSIDE, AND MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR SPECIAL EFFORT.

WALL LEGEND	
	EXTERIOR WALL: SEE BUILDING'S ELEVATIONS FOR EXTERIOR FINISH - 8" CMU W/ HORIZONTAL JOINT REINFORCEMENT @ 16" O.C. DOVEL AND W/ #6 REBAR INTO FOOTING AND THROUGHOUT WALL HEIGHT
	INTERIOR PARTITIONS: 5/8" DRYWALL ON 3 1/2"-20 GA. METAL STUDS @ 16" O.C.
	2-HOUR FIRE RATED WALL: (2) LAYERS 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE OF 3 1/2" METAL STUDS @ 16" O.C.



MICHIGAN BUILDING CODE 2015

BUILDING DATA:

USE GROUP:	RETAIL SPACES
CONSTRUCTION CLASSIFICATION:	M (MERCANTILE)
BUILDING HEIGHT:	25 FEET
SPRINKLER SYSTEM:	SPRINKLER SYSTEM SHALL BE PROVIDED BY OTHERS, VERIFY REQUIREMENT
GROSS AREA:	8,400 SQ. FT.

OCCUPANCY CALCULATIONS:

FOR EACH RETAIL = 1,680 SQ. FT./60 = 28 OCCUPANTS

TOTAL OCCUPANT LOAD = 28 X 5 = 140 OCCUPANTS

NUMBER OF EXIT DOOR REQUIRED FOR EACH RETAIL: 1 EGRESS EXIT REQUIRED FOR EACH TENANT

NUMBER OF EXIT DOOR PROVIDED FOR EACH RETAIL: 2 EGRESS EXITS FOR EACH TENANT

MAX. TRAVEL DISTANCE FOR EACH RETAIL: 75' (WITH SPRINKLER SYSTEM)

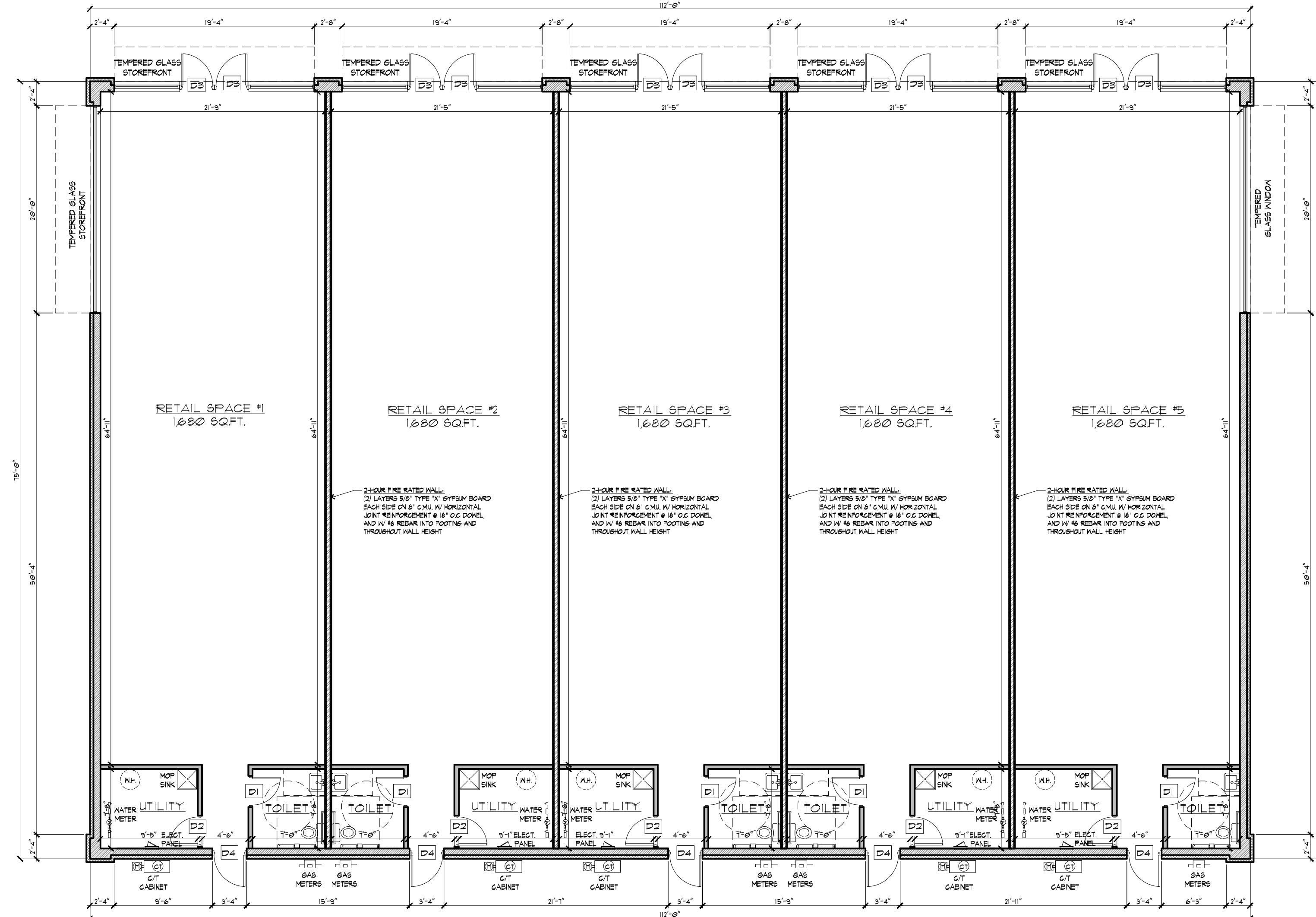
MAX TRAVEL DISTANCE PROVIDED FOR EACH RETAIL: LESS THAN 52 FEET

CODES CURRENTLY IN EFFECT

- 2015 MICHIGAN BUILDING CODE, MBC 2015
- 2015 MICHIGAN MECHANICAL CODE MMC 2015
- 2015 MICHIGAN PLUMBING CODE, MPC 2015
- 2017 NATIONAL ELECTRICAL CODE, 2017 CONSTRUCTION CODE - PART 8 ELECTRICAL CODE RULES
- ACCESSIBILITY, MICHIGAN BARRIER FREE DESIGN LAW P.A. 1966 AS AMENDED AND THE 2009 ICC/ANSI A117.1 STANDARD

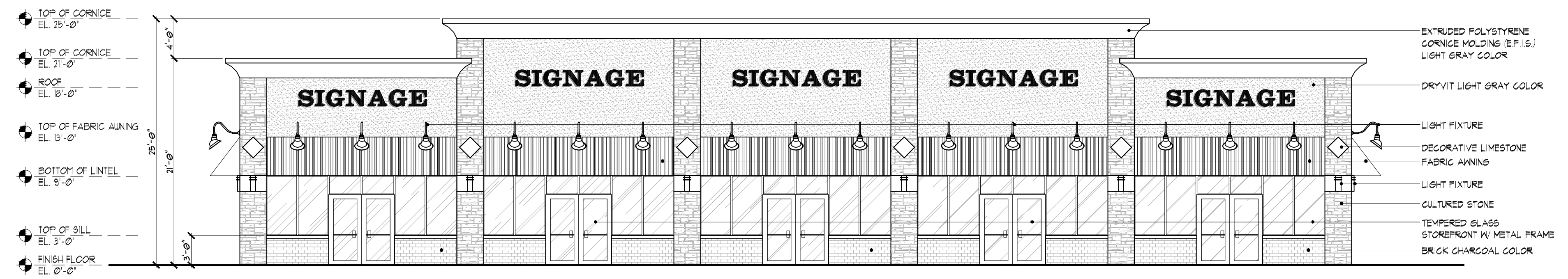
GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND ORDINANCES, INCLUDING 2015 MICHIGAN BUILDING CODE, NFPA, NEC & MICHIGAN BARRIER FREE DESIGN.
2. CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. SUBMITTAL OF A BID SIGNIFIES THE ACCEPTANCE OF SUCH CONDITIONS.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY BRACING AND SHORING OF STRUCTURES DURING DEMOLITION AND CONSTRUCTION, AS REQUIRED.
5. CONTRACTOR SHALL REMOVE OR CAP ALL EXISTING ELECTRICAL LINES THAT WILL NOT BE USED.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF DEBRIS FROM THE JOB SITE AND SHALL KEEP THE JOB SITE IN A CLEAN AND ORDERLY MANNER AT ALL TIMES.
7. CONTRACTOR SHALL VERIFY ANY ADDITIONAL OWNER REQUIREMENTS NOT NOTED ON DRAWINGS PRIOR TO CONSTRUCTION.
8. CONTRACTOR SHALL INCLUDE THE COST OF ALL REQUIRED PERMITS IN HIS BID AND SHALL SECURE SAME.
9. ALL DIMENSIONS ARE TO ROUGH FRAMING UNLESS NOTED OTHERWISE (N.O.).
10. ALL INTERIOR PARTITIONS ARE 3 1/2" STEEL STUDS @ 16" O.C., U.N.O.
11. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS ONLY.
12. INSTALL SOLID WOOD BLOCKING AS REQUIRED FOR MOUNTING OF GRAB BARS, MIRRORS, SHELVES, COUNTERS, ETC.



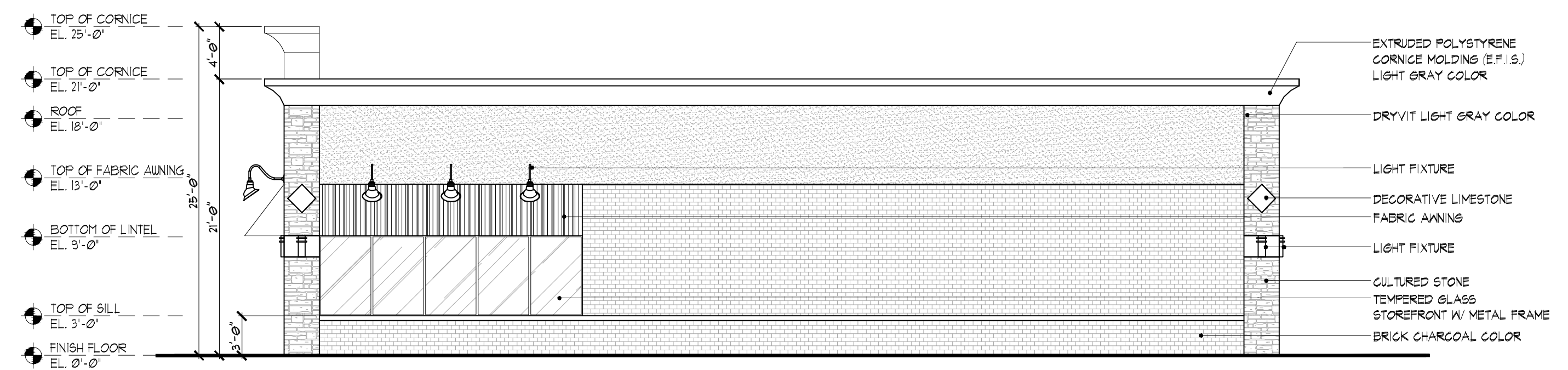
BUILDING "B" - PROP. FLOOR PLAN

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

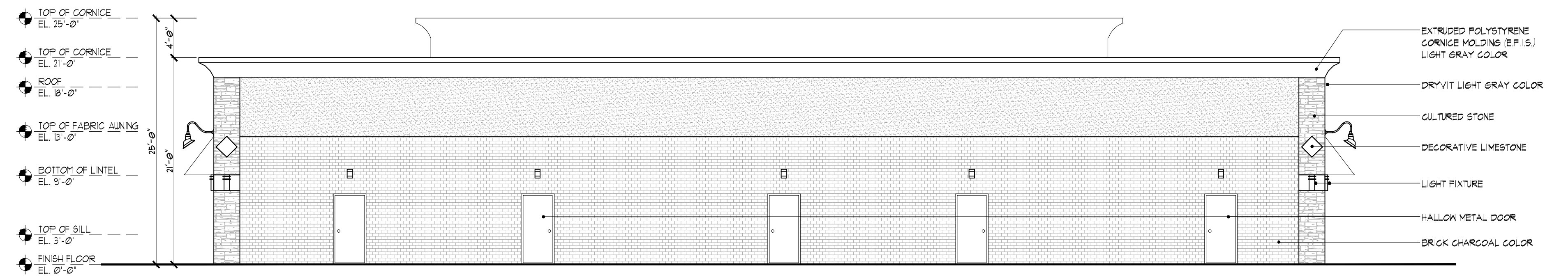


BUILDING "B" - PROP. FRONT ELEVATION
SCALE: 1/8" = 1'-0"

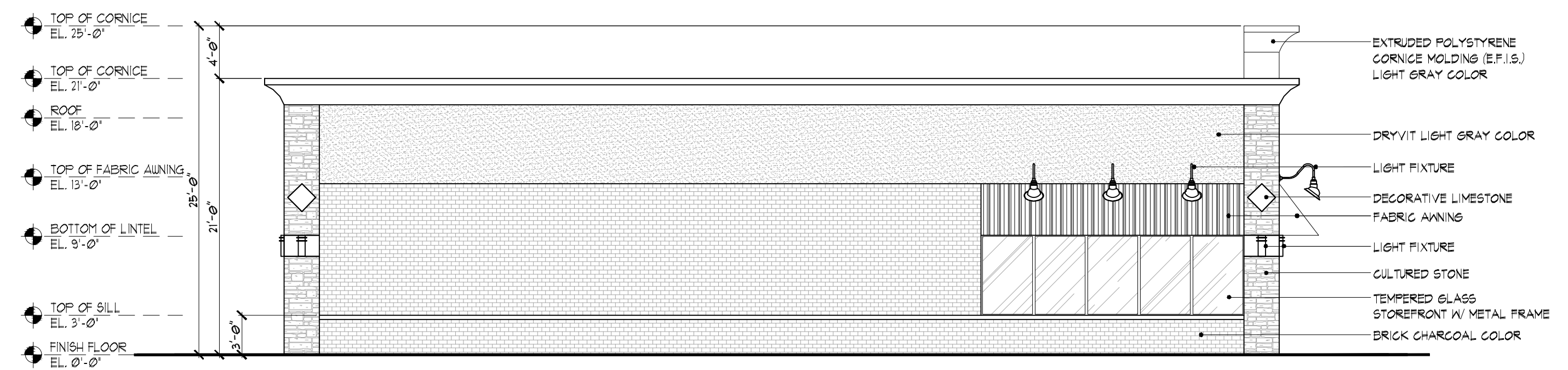
NOTE:
ALL FINALIZED COLORS WILL BE NOTED AND MATERIAL SAMPLES WILL BE PROVIDED FOR PLANNING COMMISSION REVIEW AT THE TIME OF FINAL SITE PLAN.



BUILDING "B" - PROP. RIGHT ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING "B" - PROP. REAR ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING "B" - PROP. LEFT ELEVATION
SCALE: 1/8" = 1'-0"

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA
ADDRESS: (21-426-004) HIGHLAND RD. WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

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REVISIONS:	DATE:
_____	05/03/2021
_____	05/25/2021
_____	06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
- BUILDING 'B' PROP. ELEVATIONS

SHEET #:
A-2-2

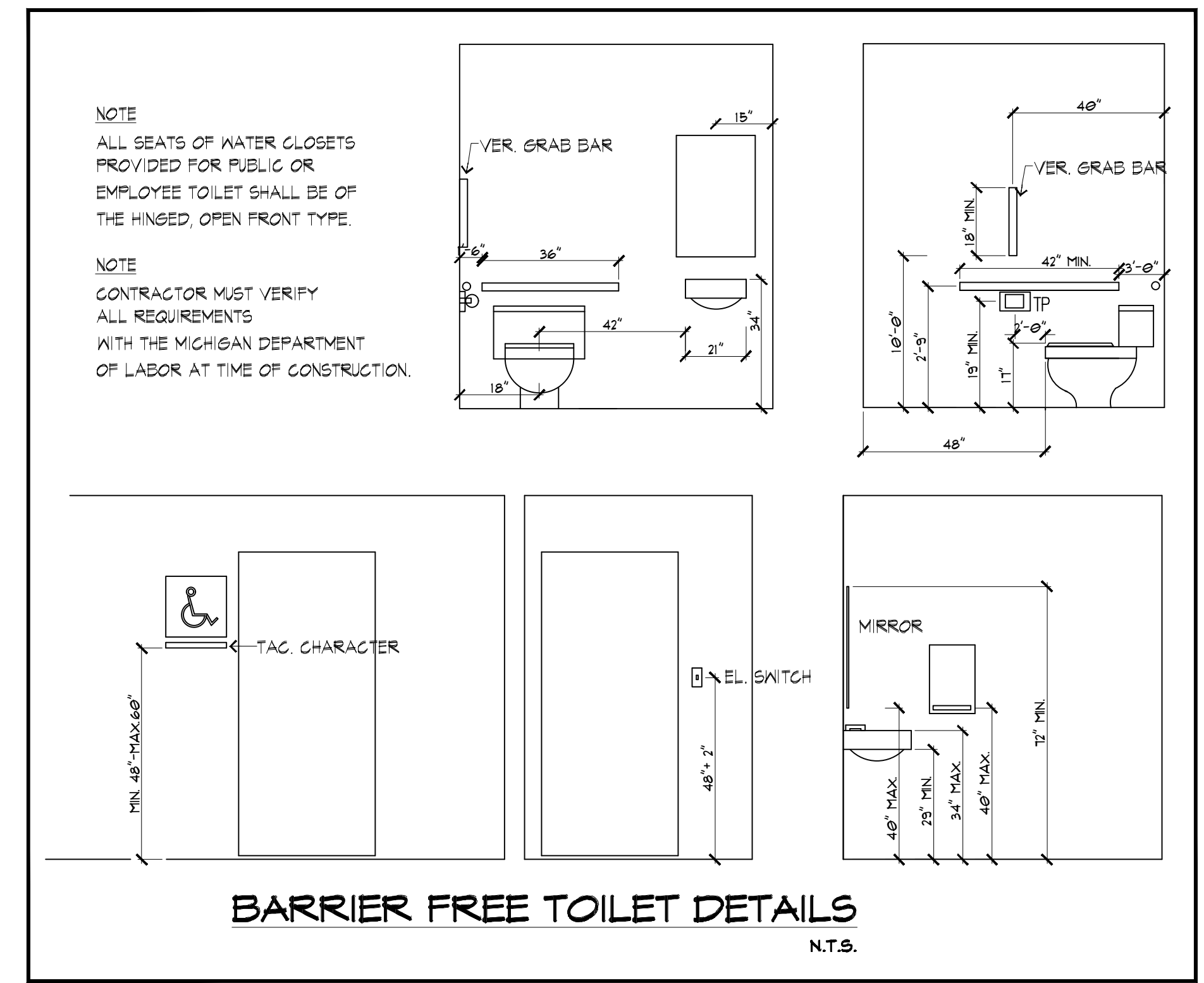
APPROVED BY:



DOOR SCHEDULE			
DOOR NO.	DIMENSIONS	DESCRIPTION	FRAME
D1	3'-0" X 1'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ SELF CLOSING DEVICE, PRIVACY LOCK & KICK PLATE, MARBLE THRESH	METAL FRAME
D2	3'-0" X 1'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D3	3'-0" X 1'-0" X 1 3/4"	1" TEMPERED INSULATED GLASS DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D4	3'-0" X 1'-0" X 1 3/4"	HOLLOW METAL DOOR W/ SELF CLOSING DEVICE, PANG BAR & DEAD BOLT LOCK	METAL FRAME

NOTES:
- ALL HARDWARE SETS TO BE SELECTED BY OWNER.
- ALL LOCKS SHALL BE READILY OPENED FROM INSIDE W/O THE USE OF A KEY.
- ALL MEANS OF EGRESS DOORS ARE READILY OPENABLE FROM INSIDE, AND MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR SPECIAL EFFORT.

WALL LEGEND	
	EXTERIOR WALL: SEE BUILDING'S ELEVATIONS FOR EXTERIOR FINISH - 3" CMU, W/ HORIZONTAL JOINT REINFORCEMENT @ 16" O.C. DOVEL AND W/ #6 REBAR INTO FOOTING AND THROUGHOUT WALL HEIGHT
	INTERIOR PARTITIONS: 5/8" DRYWALL ON 3 3/8" x 20 GA METAL STUDS @ 16" O.C. 2-HOUR FIRE RATED WALL: (2) LAYERS 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE OF 3 3/8" METAL STUDS AT 16" O.C.



MICHIGAN BUILDING CODE 2015

BUILDING DATA:
 USE GROUP: RETAIL SPACES & RESTAURANT, M (MERCANTILE) & A-2 (ASSEMBLY)
 CONSTRUCTION CLASSIFICATION: IIB
 BUILDING HEIGHT: 25 FEET
 SPRINKLER SYSTEM: SPRINKLER SYSTEM SHALL BE PROVIDED BY OTHERS. VERIFY REQUIREMENT
 GROSS AREA: 2,280 SQ. FT. (RESTAURANT) + 6,200 SQ. FT. (RETAILS) = 8,480 SQ. FT.

OCCUPANCY CALCULATIONS:
FOR RESTAURANT SPACE:
 WAITING AREA & DINING AREAS: (10 NET/PERSON) = 1016 SQ. FT./15 = 68 OCCUPANTS
 KITCHEN AREAS: (200 GROSS/PERSON) = 1010 SQ. FT./200 = 5 OCCUPANTS
 OTHER AREAS: (340 GROSS/PERSON) = 254 SQ. FT./300 = 1 OCCUPANTS
TOTAL OCCUPANT LOAD = 74 OCCUPANTS

FOR RETAILS SPACES:
 - FOR TENANT #1 = 2,020 SQ. FT./60 = 35 OCCUPANTS
 - FOR TENANT #2 = 2,060 SQ. FT./60 = 35 OCCUPANTS
 - FOR TENANT #3 = 2,060 SQ. FT./60 = 35 OCCUPANTS
TOTAL OCCUPANT LOAD = 105 OCCUPANTS

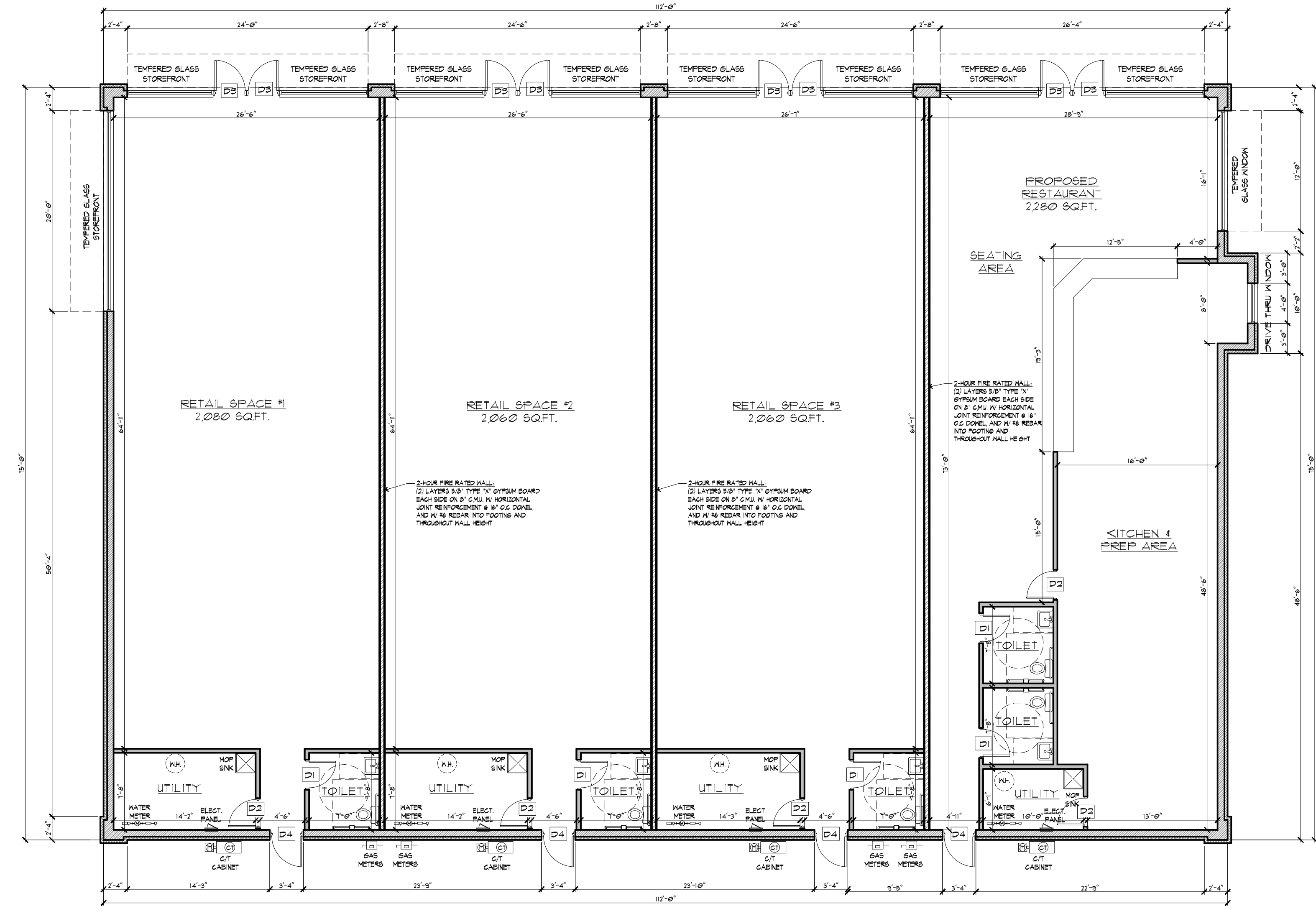
EGRESS WIDTH PER OCCUPANT: 0.2 INCH PER OCCUPANT OR 36" MINIMUM OF 2 EXITS REQUIRED.
 NUMBER OF EXIT DOOR PROVIDED: 2 EGRESS EXITS
 MAX. TRAVEL DISTANCE: 100' (WITH SPRINKLER SYSTEM)
 MAX TRAVEL DISTANCE PROVIDED: LESS THAN 12 FEET

NUMBER OF EXIT DOOR REQUIRED FOR EACH RETAIL: 1 EGRESS EXIT REQUIRED FOR EACH TENANT
 NUMBER OF EXIT DOOR PROVIDED FOR EACH RETAIL: 2 EGRESS EXITS FOR EACH TENANT

MAX. TRAVEL DISTANCE FOR EACH RETAIL: 75' (WITH SPRINKLER SYSTEM)
 MAX TRAVEL DISTANCE PROVIDED FOR EACH RETAIL: LESS THAN 41 FEET

CODES CURRENTLY IN EFFECT
 - 2015 MICHIGAN BUILDING CODE, MBC 2015
 - 2015 MICHIGAN MECHANICAL CODE, MMC 2015
 - 2015 MICHIGAN PLUMBING CODE, MPC 2015
 - 2017 NATIONAL ELECTRICAL CODE, 2017 CONSTRUCTION CODE - PART 8, ELECTRICAL CODE RULES
 - ACCESSIBILITY: MICHIGAN BARRIER FREE DESIGN LAW, P.A. 1966 AS AMENDED AND THE 2009 ICG/ANSI A117.1 STANDARD

GENERAL NOTES:
 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND ORDINANCES, INCLUDING 2015 MICHIGAN BUILDING CODE, NFPA, NEC & MICHIGAN BARRIER FREE DESIGN.
 2. CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. SUBMITTAL OF A BID SIGNIFIES THE ACCEPTANCE OF SUCH CONDITIONS.
 3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION.
 4. CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY BRACING AND SHORING OF STRUCTURES DURING DEMOLITION AND CONSTRUCTION, AS REQUIRED.
 5. CONTRACTOR SHALL REMOVE OR CAP ALL EXISTING ELECTRICAL LINES THAT WILL NOT BE USED.
 6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF DEBRIS FROM THE JOB SITE AND SHALL KEEP THE JOB SITE IN A CLEAN AND ORDERLY MANNER AT ALL TIMES.
 7. CONTRACTOR SHALL VERIFY ANY ADDITIONAL OWNER REQUIREMENTS NOT NOTED ON DRAWINGS PRIOR TO CONSTRUCTION.
 8. CONTRACTOR SHALL INCLUDE THE COST OF ALL REQUIRED PERMITS IN HIS BID AND SHALL SECURE SAME.
 9. ALL DIMENSIONS ARE TO ROUGH FRAMING UNLESS NOTED OTHERWISE (U.O.).
 10. ALL INTERIOR PARTITIONS ARE 3 3/8" STEEL STUDS @ 16" O.C., U.O.
 11. DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS ONLY.
 12. INSTALL SOLID WOOD BLOCKING AS REQUIRED FOR MOUNTING OF GRAB BARS, MIRRORS, SHELVES, COUNTERS, ETC.



BUILDING "C" - PROP. FLOOR PLAN
SCALE: 1/8" = 1'-0"

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA
ADDRESS: (21-426-004) HIGHLAND RD., WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

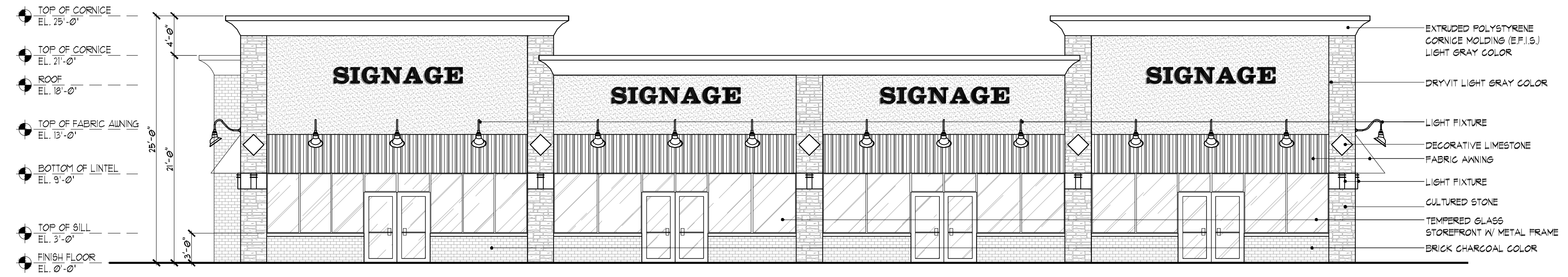
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REVISIONS:

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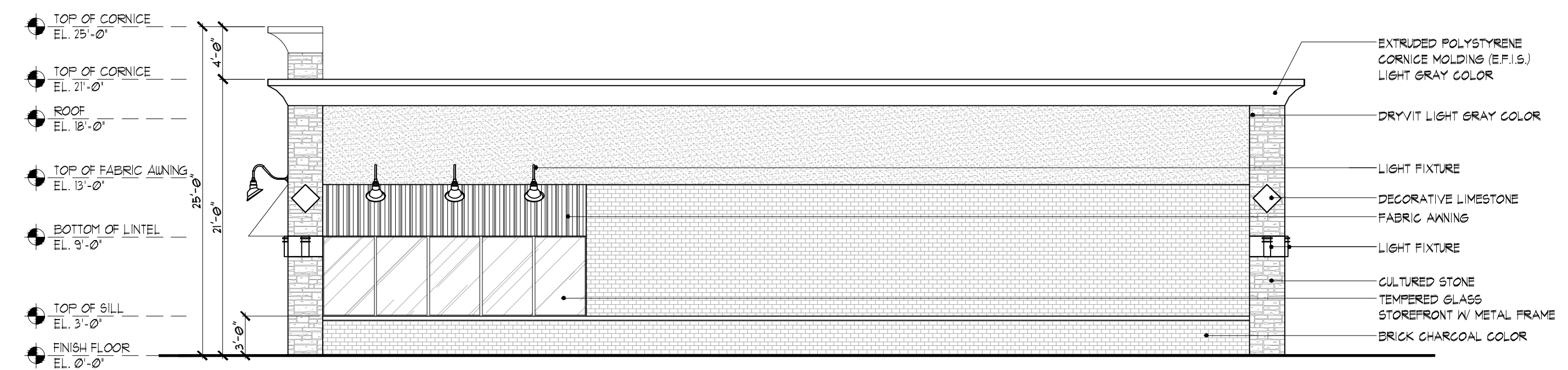
DATE: 03/26/2021
DRAWN BY: MONEER ALAHWAL
SCALE: AS NOTED
SHEET TITLE: BUILDING 'C' PROP. FLOOR PLAN
SHEET #: A-3-1
APPROVED BY:



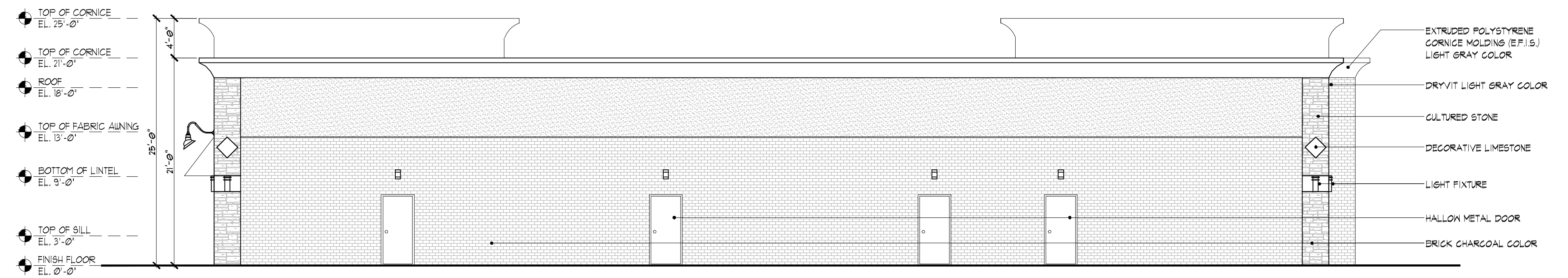


BUILDING "C" - PROP. FRONT ELEVATION
SCALE: 1/8" = 1'-0"

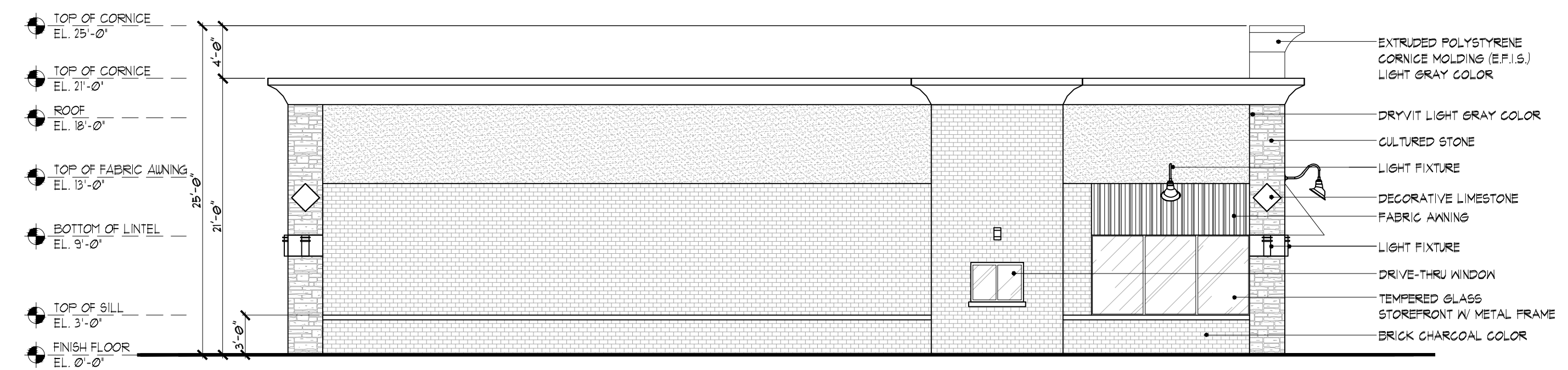
NOTE:
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BUILDING "C" - PROP. RIGHT ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING "C" - PROP. REAR ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING "C" - PROP. LEFT ELEVATION
SCALE: 1/8" = 1'-0"

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA

ADDRESS: (21-426-004) HIGHLAND RD, WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

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_____	06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
- BUILDING 'C' PROP. ELEVATIONS

SHEET #:
A-3-2

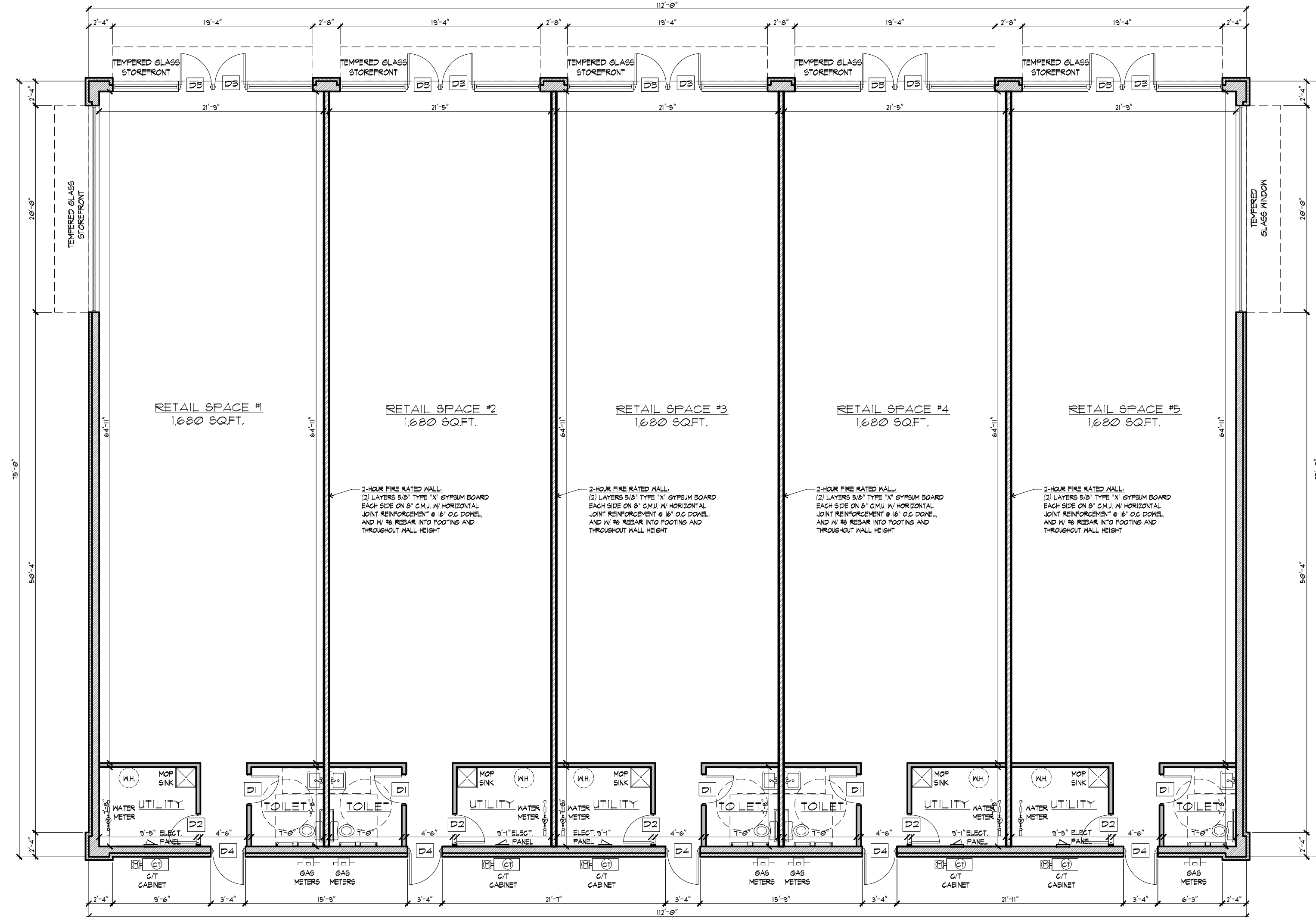
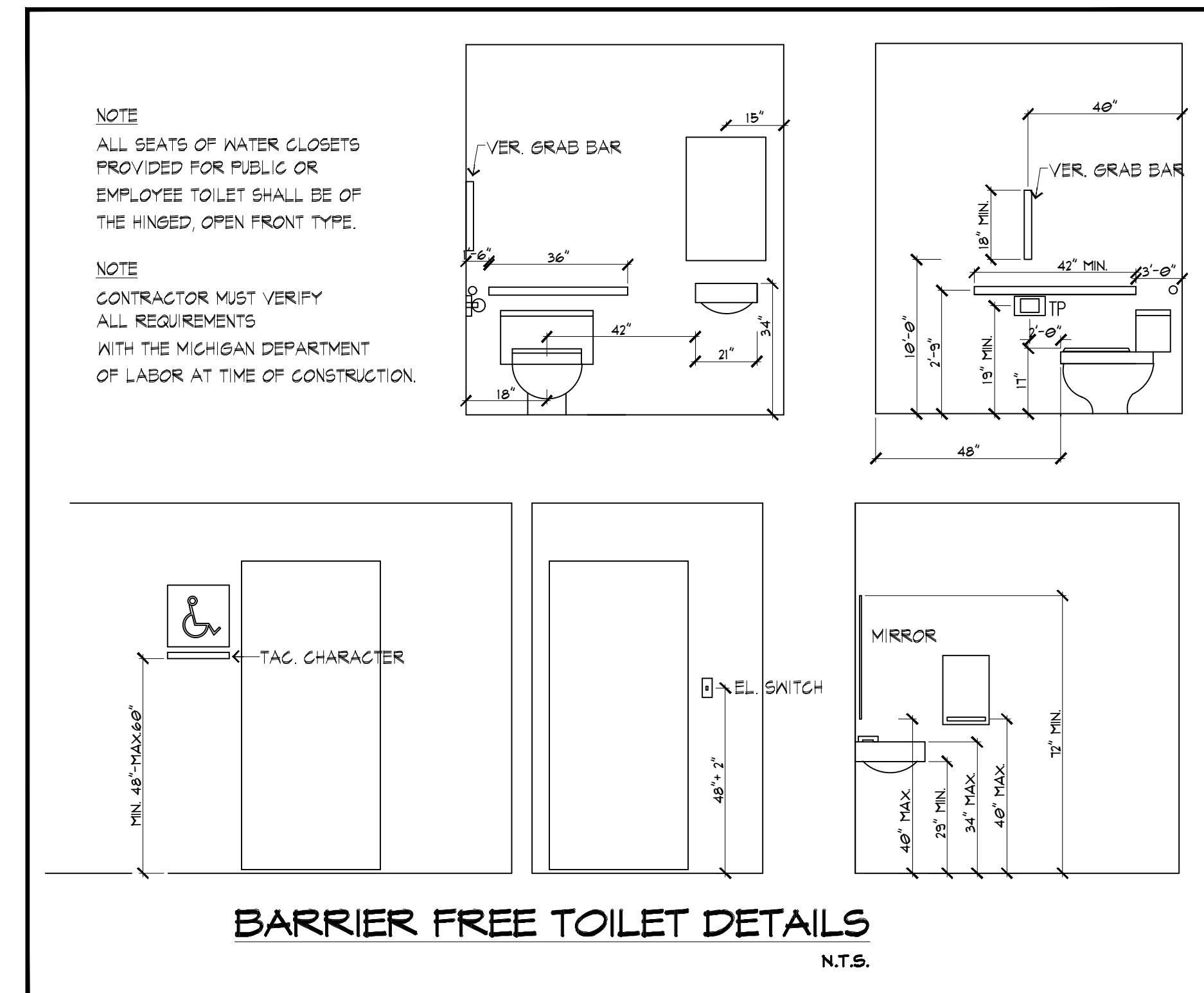
APPROVED BY:



DOOR SCHEDULE			
DOOR NO.	DIMENSIONS	DESCRIPTION	FRAME
D1	9'-0" X 7'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ SELF CLOSING DEVICE, PRIVACY LOCK & KICK PLATE, MARBLE THRESH	METAL FRAME
D2	9'-0" X 7'-0" X 1 3/4"	SOLID CORE WOOD-STAINED OAK VENEER DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D3	9'-0" X 7'-0" X 1 3/4"	1" TEMPERED INSULATED GLASS DOOR W/ KEY LOCK AND SELF CLOSING DEVICE	METAL FRAME
D4	9'-0" X 7'-0" X 1 3/4"	HOLLOW METAL DOOR W/ SELF CLOSING DEVICE, PANIC BAR & DEAD BOLT LOCK	METAL FRAME

NOTES:
- ALL HARDWARE SETS TO BE SELECTED BY OWNER.
- ALL LOCKS SHALL BE READILY OPENED FROM INSIDE W/O THE USE OF A KEY.
- ALL MEANS OF EGRESS DOORS ARE READILY OPENABLE FROM INSIDE, AND MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR SPECIAL EFFORT.

WALL LEGEND	
	EXTERIOR WALL: SEE BUILDING'S ELEVATIONS FOR EXTERIOR FINISH - 3" C.M.U. W/ HORIZONTAL JOINT REINFORCEMENT @ 16" O.C. DOWN, AND W/ #6 REBAR INTO FOOTING AND THROUGHOUT WALL HEIGHT
	INTERIOR PARTITIONS: 5/8" DRYWALL ON 3 3/8"-20 GA. METAL STUDS @ 16" O.C.
	2-HOUR FIRE RATED WALL: (2) LAYERS 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE OF 3 3/8" METAL STUDS @ 16" O.C.



BUILDING "D" - PROP. FLOOR PLAN
SCALE: 1/8" = 1'-0"

MICHIGAN BUILDING CODE 2015

BUILDING DATA:

USE GROUP:	RETAIL SPACES
CONSTRUCTION CLASSIFICATION:	M (MERCANTILE)
BUILDING HEIGHT:	11B
SPRINKLER SYSTEM:	25 FEET.
GROSS AREA:	SPRINKLER SYSTEM SHALL BE PROVIDED BY OTHERS. VERIFY REQUIREMENT
	8,400 SQ. FT.

OCCUPANCY CALCULATIONS:

FOR EACH RETAIL = 1,680 SQ. FT./60 = 28 OCCUPANTS

TOTAL OCCUPANT LOAD = 28 X 5 = 140 OCCUPANTS

NUMBER OF EXIT DOOR REQUIRED FOR EACH RETAIL: 1 EGRESS EXIT REQUIRED FOR EACH TENANT

NUMBER OF EXIT DOOR PROVIDED FOR EACH RETAIL: 2 EGRESS EXITS FOR EACH TENANT

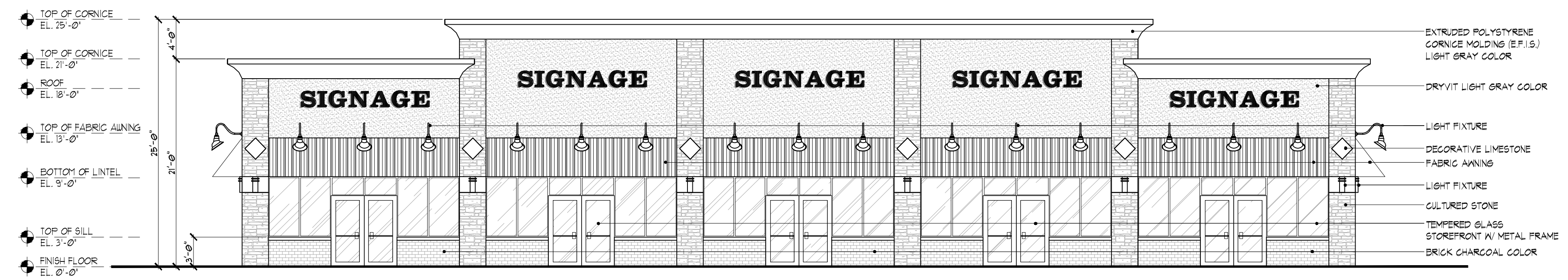
MAX. TRAVEL DISTANCE FOR EACH RETAIL: 75' (WITH SPRINKLER SYSTEM)

MAX TRAVEL DISTANCE PROVIDED FOR EACH RETAIL: LESS THAN 52 FEET

CODES CURRENTLY IN EFFECT

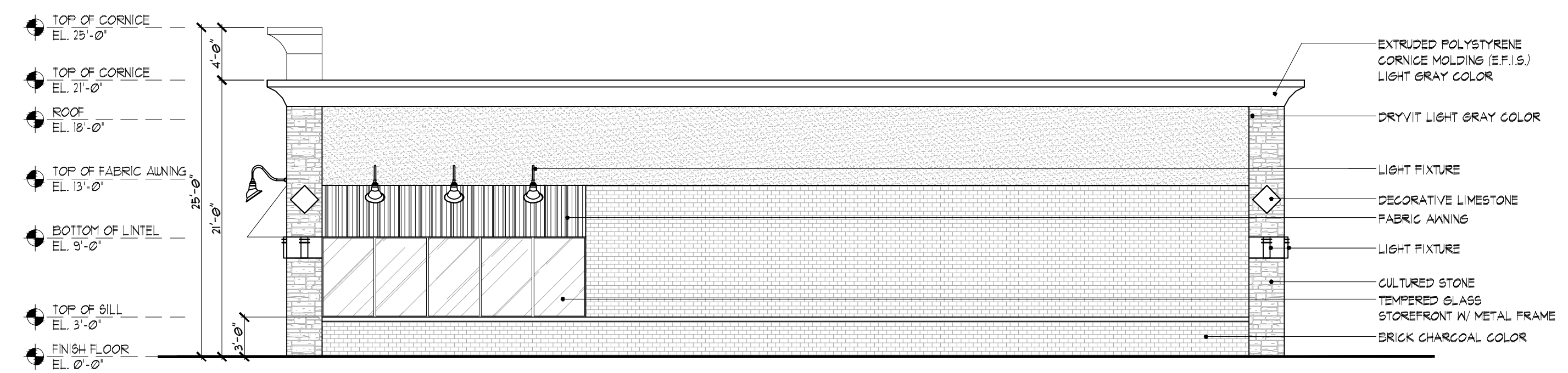
- 2015 MICHIGAN BUILDING CODE, MBC 2015
- 2015 MICHIGAN MECHANICAL CODE, MMC 2015
- 2015 MICHIGAN PLUMBING CODE, MPC 2015
- 2017 NATIONAL ELECTRICAL CODE, 2017 CONSTRUCTION CODE - PART 8, ELECTRICAL CODE RULES
- ACCESSIBILITY: MICHIGAN BARRIER FREE DESIGN LAW, P.A. 1966 AS AMENDED AND THE 2009 ICC/ANSI A117.1 STANDARD

- GENERAL NOTES:**
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 - INSTALL SOLID WOOD BLOCKING AS REQUIRED FOR MOUNTING OF GRAB BARS, MIRRORS, SHELVES, COUNTERS, ETC.

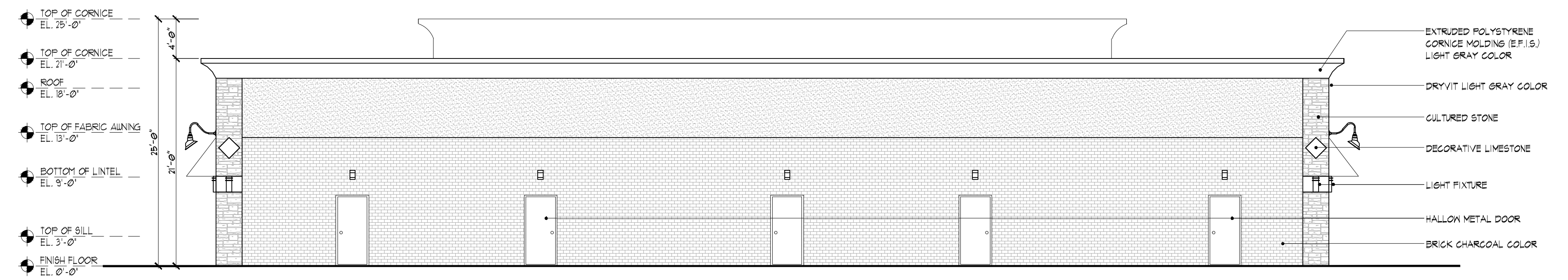


BUILDING "D" - PROP. FRONT ELEVATION
SCALE: 1/8" = 1'-0"

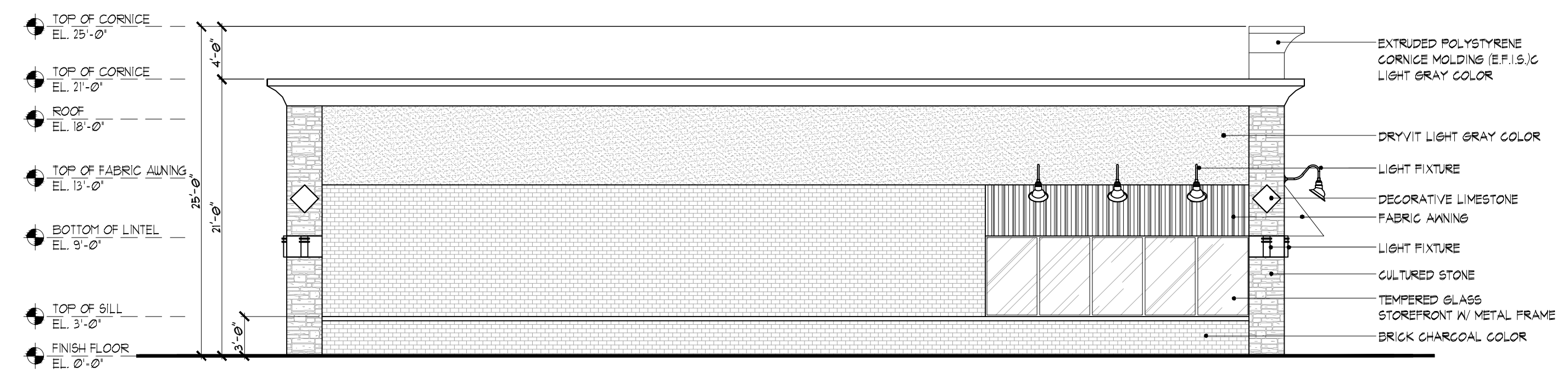
NOTE:
ALL FINALIZED COLORS WILL BE NOTED, AND MATERIAL SAMPLES WILL BE PROVIDED FOR PLANNING COMMISSION REVIEW AT THE TIME OF FINAL SITE PLAN.



BUILDING "D" - PROP. RIGHT ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING "D" - PROP. REAR ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING "D" - PROP. LEFT ELEVATION
SCALE: 1/8" = 1'-0"

PROJECT: PROPOSED RESTAURANTS AND RETAILS PLAZA
ADDRESS: (21-426-004) HIGHLAND RD. WHITE LAKE, MI 48386
CLIENT'S NAME: NAZIR JAWICH

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REVISIONS:

_____	05/03/2021
_____	05/25/2021
_____	06/22/2021

DATE: 03/26/2021

DRAWN BY: MONEER ALAHWAL

SCALE: AS NOTED

SHEET TITLE:
- BUILDING 'D' - PROP. ELEVATIONS

SHEET #:
A-4-2

APPROVED BY:

