

**HOWELL TOWNSHIP  
PLANNING COMMISSION  
REGULAR MEETING**

3525 Byron Road  
Howell, MI 48855  
March 26, 2024  
6:30 pm

1. Call to Order
2. Roll Call:       Wayne Williams - Chair                    Denise Markham  
                      Robert Spaulding – Vice Chair    Paul Pominville  
                      Mike Newstead – Secretary        Tim Boal  
                      Matthew Counts – Board Rep.
3. Pledge of Allegiance
4. Approval of the Agenda:  
   Planning Commission Regular Meeting: March 26, 2024
5. Approval of the Minutes:  
   Regular Meeting December 19, 2023
6. Township Board Report:
7. Zoning Board of Appeals Report:
8. Zoning Administrator Report:
9. Old Business:  
   A. Solar Ordinance Discussion
10. New Business:  
   A. Old Glory, File # PC2024-03, 4120 W. Grand River Ave. Parcel # 4706-20-201-015.  
      Preliminary/Final Site Plan Review  
  
   B. ADU Ordinance Discussion
11. Other Business:
12. Call to the Public:
13. Adjournment

---

**HOWELL TOWNSHIP PLANNING COMMISSION**  
**UNAPPROVED MINUTES DECEMBER 19, 2023, 6:30 P.M.**  
**3525 BYRON RD. HOWELL TOWNSHIP HALL, HOWELL MI 48855 (517-546-2817)**

---

**MEMBERS PRESENT:**

Wayne Williams      Chairman  
 Robert Spaulding      Vice-Chair  
 Matthew Counts      Board Rep  
 Mike Newstead      Commissioner  
 Tim Boal      Commissioner

**MEMBERS ABSENT:**

Denise Markham      Commissioner  
 Paul Pominville      Commissioner

Also in attendance: Zoning Administrator Joe Daus, Township Planner Anna Wysocki

**The meeting was called to order at 6:30 p.m. The roll was called.**

**APPROVAL OF AGENDA: MOTION** by Spaulding, second by Boal, **“To approve the November 21, 2023 Planning Commission Agenda”** Motion carried.

**APPROVAL OF MINUTES: MOTION** by Newstead, second by Boal, **“To approve the October 24, 2023, November 14, 2023, and the November 21, 2023 Planning Commission minutes”** Motion carried.

**TOWNSHIP BOARD REPORT:** The synopsis of the Township Board Meeting were attached. Wayne Williams noted that the Board voted to deny the Special Use Permit for the gas station at Burkhart and Mason Road. There were no other questions.

**ZONING BOARD OF APPEALS REPORT:** Joe Daus reported that the ZBA had one item on the agenda, it was to allow for an accessory structure in front of the rear line of the house. It was approved.

**ZONING ADMINISTRATOR REPORT:** Monthly Permit list was attached, there were no questions

**OLD BUSINESS:**

**A.** Michigan Storage Barns, File# PC2023-06, 675 E. Highland Road, Howell, Parcel ID# 4706-25-200-011. Preliminary / Final Site Plan review.

Township Planner Anna Wysocki reviewed her report on the proposed site plan. Robert Spaulding had a question on parking. The applicant’s engineer Tim Zimmer & the applicant addressed the planners concerns, and the question on parking. A discussion followed.

**Motion** by Boal, second by Newstead **“To approve the preliminary / final site plan for Michigan Storage Barns, file# PC2023-06, 675 E Highland Road, Howell, parcel 4706-25-200-011 subject to the condition in the planers report date and the engineers report”** Motion carried, 5 yes, 0 no.

**B.** Mason & Burkhart, LLC. Request to amend Heritage Square approved Preliminary/PUD site plan, file# PC2023-13, Parcel #4706-32-400-013, vacant land on Mason Road and Burkhart Road.

Township Planner Anna Wysocki reviewed the proposed project, the EGLE report and BARR Engineering report. The applicant’s engineer Kevin McDevitt & the applicant addressed the planners concerns, and took question from the Board members. Discussion followed.

**Motion** by Counts second by Newstead **“To recommend approval to the Township Board for the amendment to the Heritage Square preliminary/PUD site plan File# PC2023-13, Parcel# 4706-32-400-013, subject to the planners report of November 19, 2023”** Spaulding – Yes, Boal – No, Williams – Yes, Newstead – Yes, Counts – Yes. Motion carried, 4 yes, 1 no.

**NEW BUSINESS:**

**A.** Public Hearing for Joss Construction, Requesting a rezoning from AR - Agricultural Residential to SFR – Single Family Residential. File #PC2023-011, Parcel #4706-22-100-014, and 4706-22-100-016. Vacant land located on Tooley and Bowen Roads.

**Motion** by Newstead second by Counts **“To open the public hearing.”** Motion carried, 5 yes, 0 no.

Township Planner Anna Wysocki presented her report on the request. Chairmen Williams invited comments from the public. Mark Gorski 2990 Bowen Rd, stated that we was concerned with the density, and the homes being built in his back yard. The applicant gave a brief over view of the proposed project. Steve Ripper 2851 Bowen Road, Stated is concerns with the extra traffic on the gravel road. Greg Lehr 2530 Tooley Road, concerned with the traffic at the intersection of Tooley and Bowen Roads. Michael Wetherbee 2520 Tooley, water draining from the airport, the power outages, and the infrastructure the will need work. Ron Rowse 2484 Tooley Road, also concerned with the infrastructure, and the water coming off the airport, and the power issues. George Hillman 3730 Bowen, ask about the past zoning, and if they would pay the same tap fees and assessments as the rest of the residents in the area.

**Motion** by Counts second by Newstead **“To close the Public Hearing”** Motion carried 5 yes. 0 no.

Discussion followed.

**Motion** by Newstead second by Spaulding **“To recommend approve Joss Construction request to rezone from AR-Agricultural Residential to SFR-Single Family Residential, File 3PC2023-011, Parcel ID #4706-22-100-014 & 4706-22-100-016”**

Motion did not carry, 3 yes, 2 no.

**B.** Public Hearing for Springborn Properties, Requesting a rezoning from OS – Office Service to NSC Neighborhood Service Commercial, File #PC2023-012, Parcel #4706-25-200-047, and 4706-25-200-048. Vacant land on Oak Grove Road and Highland Road.

Township Planner Anna Wysocki presented her report on the request.

**Motion** by Counts second by Newstead **“To open the public hearing.”** Motion carried, 5 yes, 0 no.

Patrick Cleary, the engineer for the applicant explained the need for the rezoning. There were question from the PC members. Chairmen Williams invited comments from the public. David lynch 195 E. Highland Road, he is concerned about noise and light. John Mills 1750 Oak Grove road, he is in favor of the propped use.

**Motion** by Newstead second by Counts **“To close the Public Hearing”** Motion carried, 5 yes, 0 no.

**Motion** by Newstead second by Spaulding **“To recommend approval of Springborn Properties to rezone from OS – Office Service to NSC – Neighborhood Service Commercial, File #PC2023-016, Parcel #4706-25-200-047 and 4706-25-200-048 based on the planners report dated December 15, 2023.”** Motion carried 5 yes. 0 no.

**C.** Soapy Bucket Carwash, File #PC2023-016, Parcel ID# 4706-25-200-048. Final Site Plan.

Township Planner Anna Wysocki presented her report on the proposed project. Patrick Cleary, the engineer for the applicant, and the applicant reported on the site plan and the planners concerns. Discussion followed.

**Motion** by Counts, second by Newstead **“To approve the final site plan for Springborn Properties, file# PC2023-016, parcel 4706-25-200-048 subject to the condition in the planers report date December 12, 2023 and the engineers report dated December 14, 2023 and accepting the landscape plan as presented”** Motion carried, 5 yes, 0 no.

**OTHER BUSINESS:** Discussion on sidewalks.

**CALL TO THE PUBLIC:** Evan Sasiela, introduced himself, he is a reporter for the Livingston Daily, if we ever have any information that we like to share we can contact him.

**ADJOURNMENT:** Meeting adjourned at 9:25 P.M.

Approved: \_\_\_\_\_

Mike Newstead, Secretary \_\_\_\_\_

As Presented: \_\_\_\_\_

Dated: \_\_\_\_\_

As Amended: \_\_\_\_\_

As Corrected: \_\_\_\_\_

## HOWELL TOWNSHIP BOARD

March 4, 2024

Regular Meeting

Synopsis

The March 4, 2024 Howell Township regular meeting, held at the Township Hall, 3525 Byron Road, was called to order by Supervisor Coddington at 6:30 PM. Members present: Coddington, Daus, Hohenstein, Melton, Wilson. The following actions were taken: 1) Approved the agenda 2) Approved the February 12, 2024 Regular Board meeting minutes as amended 3) Approved the bid from Sprungtown Outdoor Services for cemetery maintenance 4) Approved the 2024 road projects for Layton Road and Bowen Road 5) Approved the bid to treat the Township Hall walking path 6) Approved the water utility consent and franchise agreement with Oceola Township 7) Approved the sewer utility consent and franchise agreement with Oceola Township 8) Approved the extraterritorial sewer and water agreement with Operating Engineers Local 324 9) Accepted the HR Committee's recommendations 10) Approved sending the ADU Ordinance to the Planning Commission 11) Approved the contract for flag services for the Township 12) Accepted the disbursements and customary payments for the month 13) Adjourned at 8:00 pm

Tanya Davidson  
Recording Secretary



**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

**TO:** Howell Township Planning Commission

**FROM:** Paul Montagno, AICP, Principal Planner  
Grayson Moore, Community Planner

**DATE:** March 21, 2024

**RE:** New Renewable Energy Legislation

This memorandum is a brief overview of the state’s new renewable energy policies as we currently understand them. The policies are complex and include some gray areas that will hopefully be clarified in the coming months. Please note that this document should not be interpreted as legal advice.

On November 28, 2023, Governor Whitmer signed a package of bills meant to streamline the permitting process for large, utility-scale wind, solar and energy storage facilities, diversify Michigan’s sources of electricity, and promote the use of clean and renewable energy resources. The new legislation consists of three separate bills that are outlined in the table below.

PA 233 of 2023 is significant because it preempts local governments’ authority over the siting and permitting of utility-scale renewable energy facilities, which is typically exercised by zoning. As of Nov 29 2024, developers will have the option to apply directly to the Michigan Public Service Commission (MPSC) for review and approval under certain circumstances. Local governments may still regulate utility-scale wind, solar and energy storage facilities if they adopt a “compatible renewable energy ordinance” (CREO), which cannot be more restrictive than PA 235 of 2023. However, if the MPSC finds that a local government failed to comply with the Act’s requirements, the CREO status will be lost.

Act	Effective Date
<b>Public Act 233 of 2023:</b> Establishes the review procedures and siting requirements for utility scale wind, solar, battery storage facilities that both the state and local governments that retain review control must follow. (Part 8 of the Clean and Renewable Energy and Energy Waste Reduction Act)	November 29, 2024
<b>Public Act 234 of 2023:</b> Amends the Michigan Zoning Enabling Act (MCL 125.3205) so that zoning is subject to the new Part 8, grants nonconforming status to renewable facilities approved on or after January 1, 2021.	February 13, 2024
<b>Public Act 235 of 2023:</b> Sets benchmarks for the percentage of energy that must come from renewable or clean sources within the next decade and beyond.	February 27, 2024

Benjamin R. Carlisle, *President* Douglas J. Lewan, *Executive Vice President* John L. Enos, *Vice President*  
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal*  
Paul Montagno, *Principal*, Megan Masson-Minock, *Principal*, Laura Kreps, *Principal*  
Richard K. Carlisle, *Past President/Senior Principal*

Utility-scale facilities are defined by the following “nameplate capacity” thresholds, which are the facility’s designed sustained energy output. To provide context to the land required for these type of system, acreage estimates are provided after each system nameplate capacity. These areas are greatly influenced by site topography, wetlands and vegetation so sizes should be considered broad estimates.

- Any solar energy facility with a nameplate capacity of 50 megawatts or more. Approximately 400-500 acres.
- Any wind energy facility with a nameplate capacity of 100 megawatts or more. Approximately 650 acres

Any energy storage facility with a nameplate capacity of 50 megawatts or more and an energy discharge capability of 200 megawatt hours or more. Approximately 5 acres,

PA 235 of 2023 also appears to require an unprecedented level of coordination between all effected local governments. It is important to note that a single renewable energy facility may be located on more than one parcel of land, including noncontiguous parcels, and across municipalities. While still a gray area, the language in the Act suggests that *all* effected local units of governments (counties, townships, villages and cities) must have a CREO in effect in order to require local review.

Local governments are now faced with several considerations in light of the new legislation:

1. Should we adopt a CREO and retain local review authority over utility-scale renewable facilities and should it only mirror the states limited requirements?
2. Don’t adopt a CREO and leave utility-scale renewable facility review to the MPSC.
3. Should we adopt regulations for wind, solar, battery storage facilities that are under the PA 235 of 2023 capacities and if so, with what regulations/requirements in place?
  - Howell Township has ordinances for wind and solar that would apply to facilities that are under the capacities, but no regulations for battery energy storage. Previously we were working on updates to the wind and solar sections related to utility scale production and as accessories to commercial and residential use.

While there are many factors to consider, PA 235 of 2023 offers local governments two financial benefits for complying with the MPSC review process. Only one benefit is available under a compliant local review.

1. *Available only under MPSC review:* Applicants will be required to make a 1-time grant to each affected local unit for an amount not more than \$75,000 per affected local unit and not more than \$150,000 in total as determined by the MPSC.
2. *Available under MPSC review or compliant local review:* Applicants must enter into a host community agreement to pay each affected local unit \$2,000 per megawatt of nameplate capacity located within the affected local unit. The payment shall be used as determined by the affected local unit for police, fire, public safety, other infrastructure, or for other projects. If an affected local unit refuses to enter into a host community agreement after good-faith negotiations, the applicant may enter into a community benefits agreement with 1 or more community-based organizations within, or that serve residents of, the affected local unit.

We offer the following additional consideration:

- Howell could develop a two-tier ordinance that addresses both utility scale and sub utility scale renewable energy facilities.
- Facilities that are under the utility scale renewable energy facilities as defined by the act can be regulated with total local control so long as regulations are substantiated and reasonable.
- While not clear at this time, we feel municipalities could use zoning, overlay and special land use tools to regulate the placement of both facilities. Should it be determined that utility scale renewable energy facilities can be regulated by zoning mechanisms, the community will be prepared with regulations in place. If it is determined that these tools are not permissible for utility scale systems, the community can quickly amend that portion of the ordinance as opposed to being rushed into developing geographic designations for the sites.
- The act is also silent on screening. Screening requirements could also be added to a local CREO but could be quickly amended if it is determined that these regulations are not permissible for utility scale systems.


It is important for communities that want to retain local control to adopt the necessary regulations, and coordinate with their neighbors, before November 29, 2024.

Additionally, we are prepared to help Howell coordinate with its neighbors to draft consistent regulations under the new state requirements.

We have attached a draft ordinance that would take the two-tiered approach for you consideration if the township decides to do in this direction. Once you have provide direction we will coordinate the language that we have previously developed for accessory wind and solar with any changes to the production scale regulations and provide a complete proposed amendment.

We look forward to discussing this with you at the next Planning Commission meeting.

Respectfully submitted,

  
\_\_\_\_\_  
**CARLISLE/WORTMAN ASSOC., INC.**  
Paul Montagno, AICP  
Principal

  
\_\_\_\_\_  
**CARLISLE/WORTMAN ASSOC., INC.**  
Grayson Moore  
Community Planner



## Edit Schedule of Uses Section

## Edit Definitions Section

### *Renewable Energy Definitions*

1. *Abandonment*: Any renewable energy system or facility that is no longer producing power over a consecutive 12-month period of time.
2. *Decommission*: To remove and/or retire a renewable energy system or facility from active service.
3. *Facility Boundary*. The boundary around a parcel, multiple parcels, or portions thereof, leased or purchased for the purposes of operating a renewable energy facility.
4. *Nameplate Capacity*: The designed full-load sustained generating output of an energy facility. This is determined by reference to the sustained output of an energy facility even if components of the energy facility are located on different parcels, whether contiguous or noncontiguous.
5. *Nonparticipating Property*: A property that is adjacent to an energy facility and that is not a participating property.
6. *Occupied Community Building*: a school, place of worship, day-care facility, public library, community center, or other similar building that the applicant knows or reasonably should know is used on a regular basis as a gathering place for community members.
7. *Solar Array*: A collection of solar panels, wired together to generate electricity from the sun.
8. *Renewable Energy Facilities*: A facility where the principal design, purpose, or use is to provide renewable energy via wind, solar and/or storage to off-site uses or the wholesale or retail sale of generated electricity.
9. *Renewable Energy Systems*: A device, and/or components designed to generate renewable energy.
10. *Wind Energy Conversion System (WECS)*: Any device such as a turbine, windmill, or charger that converts wind energy to a usable form of energy.

**Section 16.23**

A. Intent. Renewable Energy Facilities may only be permitted in (choose existing zones or overlay / overlay recommended). The following regulations are intended to ensure the interests of the landowner and the Township are achieved harmoniously with no negative effect to the long-term viability of the subject property or those surrounding it. In the overlay or zoning districts where this special land use is permitted, facilities for the capture, storage, and distribution of renewable energy for commercial purposes are subject to the following standards:

1. Facility Boundary. The facility boundary may cross road rights-of-way, but required setbacks shall be provided and calculated on each side of any such road where pertinent.
2. Regulation Schedules. All renewable energy facilities with nameplate capacities at or above the thresholds defined below shall use Schedule A. All other renewable energy facilities shall use Schedule B.
  - Solar: 50 megawatt capacity or more.
  - Wind: 100 megawatt capacity or more.
  - Energy Storage: 50 megawatts or more and an energy discharge capacity of 200 megawatt hours or more.
3. Schedule A: Sites of this scale shall conform to the regulations outlined below.
  - a. Solar
    - i. Minimum Setbacks: Measured from the nearest edge of the perimeter fencing of the facility.

Occupied Community Building / Dwellings on Nonparticipating Properties	300 feet from nearest point on the outer wall
Public Road ROW	50 feet measured from the nearest edge of a public road ROW
Nonparticipating Parties	50 feet measured from the nearest shared property line

- ii. Fencing: Complies with the latest version of the National Electric Code as of the effective date of the amendatory act that added this section or any applicable successor standard approved by the Planning

Commission as reasonable and consistent with the purposes of this subsection.

- iii. Height: Solar panel components do not exceed a maximum height of 25 feet above ground when the arrays are at full tilt.
- iv. Sound: The solar energy facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A- weighted scale as designed by the American National Standards Institute.
- v. Dark Skys: The solar energy facility will implement dark sky-friendly lighting solutions.
- vi. Additional Planning Commission Requirements: The solar energy facility will comply with any more stringent requirements adopted by the Planning Commission. Before adopting such requirements, the Planning Commission must determine that the requirements are necessary for compliance with state or federal environmental regulations.

b. Wind

- i. Minimum Setbacks: Measured from the center of the base of the wind tower:

Occupied community buildings and residences on nonparticipating properties	2.1 times the maximum blade tip height to the nearest point on the outside wall of the structure
Residences and other structures on participating properties	1.1 times the maximum blade tip height to the nearest point on the outside wall of the structure
Nonparticipating property lines	1.1 times the maximum blade tip height
Public road right-of-way	1.1 times the maximum blade tip height to the center line of the public road right-of-way
Overhead communication and electric transmission, not including utility service lines to individual houses or outbuildings	1.1 times the maximum blade tip height to the center line of the easement containing the overhead line

- ii. Placement: Each wind tower is sited such that any occupied community building or nonparticipating residence will not experience more than 30 hours per year of shadow flicker under planned operating conditions as indicated by industry standard computer modeling.
- iii. Height: Each wind tower blade tip does not exceed the height allowed under a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR part 77.
- iv. Sound: The wind energy facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.
- v. Lighting: The wind energy facility is equipped with a functioning light-mitigating technology. To allow proper conspicuity of a wind turbine at night during construction, a turbine may be lighted with temporary lighting until the permanent lighting configuration, including the light-mitigating technology, is implemented. The Planning Commission may grant a temporary exemption from the requirements of this subparagraph if installation of appropriate light-mitigating technology is not feasible. A request for a temporary exemption must be in writing and state all of the following:
  - a. The purpose of the exemption.
  - b. The proposed length of the exemption.
  - c. A description of the light-mitigating technologies submitted to the Federal Aviation Administration.
  - d. The technical or economic reason a light-mitigating technology is not feasible.
  - e. Any other relevant information requested by the Planning Commission.
- vi. Radar: The wind energy facility meets any standards concerning radar interference, lighting, subject to subparagraph (v), or other relevant issues as determined by the Planning Commission.
- vii. Additional Planning Commission Requirements: The wind energy facility will comply with any more stringent requirements adopted by the Planning Commission. Before adopting such requirements, the Planning Commission must determine that the requirements are

necessary for compliance with state or federal environmental regulations.

c. Energy Storage Facilities

- i. Minimum Setbacks: Minimum setback requirements, with setback distances measured from the nearest edge of the perimeter fencing of the facility.

Occupied Community Building / Dwellings on Nonparticipating Properties	300 feet from nearest point on the outer wall
Public Road ROW	50 feet measured from the nearest edge of a public road ROW
Nonparticipating Parties	50 feet measured from the nearest shared property line

- ii. Installation: The energy storage facility complies with the version of NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems" in effect on the effective date of the amendatory act that added this section or any applicable successor standard adopted by the Planning Commission as reasonable and consistent with the purposes of this Subsection.
- iii. Sound: The energy storage facility does not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A weighted scale as designed by the American National Standards Institute.
- iv. Dark Skys: The energy storage facility will implement dark sky friendly lighting solutions.
- v. Additional Planning Commission Requirements: The energy storage facility will comply with any more stringent requirements adopted by the Planning Commission. Before adopting such requirements, the Planning Commission must determine that the requirements are necessary for compliance with state or federal environmental regulations.

- d. Site Plans. A site plan required under Public Act Section 223 or 225 shall meet application filing requirements established by Planning Commission

rule or order to maintain consistency between applications. The site plan shall include the following:

- i. The location and a description of the energy facility.
- ii. A description of the anticipated effects of the energy facility on the environment, natural resources, and solid waste disposal capacity, which may include records of consultation with relevant state, tribal, and federal agencies.
- iii. Additional information required by Planning Commission rule or order that directly relates to the site plan.

4. Regulation Schedule B / Special Land Uses

a. Solar and Storage Facilities

- i. Setbacks. The solar and storage renewable energy facility setback requirements are found in the table below. All accessory equipment shall be subject to the same requirements. Setback requirements for all yards may be increased or decreased by the Planning Commission based upon impacts to existing land uses and/or zoning of adjacent properties.

District	Insert with Overlay Requirements or refer to Zoning designation standards / Can separate storage and solar into different standards if needed		
Adjacent Properties	Residential Land Uses	Place of Worship or Public Institutional Land Uses	All Other Land Uses
Front Yard Setback (adjacent to right-of-way)	300ft from nearest dwelling unit or 100ft from property line whichever is greater	100ft from property line	50ft from property line
Side Yard Setback	300ft from nearest dwelling unit or 100ft from property line whichever is greater	100ft from property line	50ft from property line
Rear Yard Setback	300ft from nearest dwelling unit or 100ft from property line whichever is greater	100ft from property line	50ft from property line

In instances where the renewable energy facility is comprised of multiple parcels, these setbacks shall apply to the exterior perimeter of all adjoining parcels. All setback distances are measured from the

property line, or nearest point of a dwelling unit, to the closest point of the renewable energy system. Should the nearest component of the renewable energy system be a solar or photovoltaic array, the measurement shall be taken from the array at minimum tilt.

- ii. Lot Coverage. The area of the renewable solar energy facility and any associated accessory structures shall not exceed 75% of the square footage of the entire site within the facility boundary. Impervious surfaces for the purpose of calculating lot coverage for renewable solar energy systems include, but are not limited to, mounting pads, footings, concrete or asphalt driveways and walkways, and accessory structures.

The area of the renewable storage energy facility and any associated accessory structures shall not exceed 50% of the square footage of the entire site within the facility boundary. Impervious surfaces for the purpose of calculating lot coverage for renewable storage energy systems include, but are not limited to mountings pads or structure foundations, concrete or asphalt driveways and walkways, and accessory structures.

- iii. Height. The height of the renewable solar energy system and any mounts, buildings, accessory structures, and related equipment must not exceed twenty-five (25) feet when orientated at maximum tilt. Lightning rods may exceed twenty-five (25) feet in height, but they must be limited to the height necessary to protect the solar energy system from lightning and clearly shown in site plan proposals.

The height of the renewable storage energy system or any structure constructed to enclose the system shall not exceed thirty (30) feet.

- iv. Screening. Screening is required around the entire facility boundary perimeter to obscure, to the greatest extent possible, the solar or storage renewable energy system from all adjacent properties. Screening standards set forth in Section 28.03 A. shall be applied to all solar and storage renewable energy facilities. Each owner, operator, or maintainer of solar or storage renewable energy facility to which this ordinance applies shall utilize good husbandry techniques with respect to said vegetation, including but not limited to, proper pruning, proper fertilizer, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage.

Dead or diseased vegetation shall be removed and must be replanted at the next appropriate planting time. Applicant agrees to submit an acceptable and reasonable long term landscape maintenance plan prior to final approval. The Planning Commission may modify these requirements if it reasonable determines it necessary as it relates to proposed placement of renewable energy systems and adjacent land uses and/or zoning.

- v. Fencing. The facility boundary perimeter of a solar or storage renewable energy facility shall be completely enclosed by a lock gated perimeter fence at least eight (8) feet in height and in accordance with the other relevant Fencing and Protective Screening language of Section 14.26, 14.27, 28.08 and 28.09 of the Township Zoning Ordinance Additional fencing may be required for screening or security purposes in cases where the Planning Commission deems necessary. All fencing must comply with the latest version of the National Electrical Code.
- vi. Glare. Solar renewable energy systems must be placed and oriented such that concentrated solar radiation or glare does not project onto roadways and nearby properties. Applicants have the burden of proving any glare produced does not cause annoyance, discomfort, or loss in visual performance and visibility. An analysis by a qualified professional third-party, mutually agreeable by both the Township and applicant, shall be required to determine if glare from the Utility-scale solar energy system will be visible from nearby residents and roadways. The analysis shall consider the changing position of the sun throughout the day and year, and its influence on the solar renewable energy system.
- vii. Drainage and Stormwater. Renewable solar and storage energy facilities shall not increase stormwater runoff onto adjacent properties. The application shall include a drainage plan prepared by a registered civil engineer showing how stormwater runoff shall be managed and demonstrating that runoff from the site shall not cause undue flooding. Any necessary permits from outside agencies for off-site discharge shall be provided. It should also be demonstrated that maintenance procedures and products will not introduce chemicals or create detrimental impacts to the natural environment, groundwater, and wildlife.
- viii. Noise. Solar and storage facilities must conform to Section 14.45.B.



- ix. Code Compliance. All renewable storage energy facilities, all dedicated use buildings, and all other buildings or structures that (1) contain or are otherwise associated with a renewable storage energy facility and (2) subject to the Building Code shall be designed, erected, and installed in accordance with all applicable provisions of the Building Code, all applicable state and federal regulations, and industry standards as referenced in the Building Code and the Oxford Township Zoning Ordinance.
  
- b. Wind Energy Conversion System (WECS)
  - i. Design Safety Certification. The safety of the design of all WECS structures shall comply with all current applicable State of Michigan guidelines and standards.
  
  - ii. Interference. All WECS structures shall be certified by the manufacturer to minimize or mitigate interference with existing electromagnetic communications, such as radio, telephone, microwave or television signals.
  
  - iii. Setbacks. The distance between a WECS and the nearest property line and/or nearest road right of way shall be at least one and one-half (1.5) times the height of the WECS. No part of the WECS structure, including guy wire anchors, may extend closer than ten (10) feet to the owner's property line.

All accessory equipment shall at least one hundred (100) feet from the nearest property line. Setback requirements for all yards may be increased or decreased by the Planning Commission based upon impacts to existing land uses and/or zoning of adjacent properties.
  
  - iv. Shadow Flicker. Each wind tower is sited such that any occupied community building or nonparticipating residence will not experience more than 30 hours per year of shadow flicker under planned operating conditions as indicated by industry standard computer modeling.
  
  - v. Height. Each wind tower blade tip does not exceed the height allowed under a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR part 77.

- vi. Lighting. The WECS is equipped with a functioning light-mitigating technology. To allow proper conspicuity of a wind turbine at night during construction, a turbine may be lighted with temporary lighting until the permanent lighting configuration, including the light-mitigating technology, is implemented. The Planning Commission may grant a temporary exemption from the requirements of this subparagraph if installation of appropriate light-mitigating technology is not feasible. A request for a temporary exemption must be in writing and state all of the following:
  - a. The purpose of the exemption.
  - b. The proposed length of the exemption.
  - c. A description of the light-mitigating technologies submitted to the Federal Aviation Administration.
  - d. The technical or economic reason a light-mitigating technology is not feasible.
  - e. Any other relevant information requested by the Planning Commission
- vii. Guy Wires. If an on-site WECS is supported by guy wires, the wires shall be clearly visible to a height of at least six (6) feet above the guy wire anchors.
- viii. Fencing. Facilities shall be completely enclosed by a lock gated perimeter fence at least eight (8) feet in height and in accordance with the other relevant Fencing and Protective Screening language of Section 14.26, 14.27, 28.08 and 28.09 of the Township Zoning Ordinance. Additional fencing may be required for screening or security purposes in cases where the Planning Commission deems necessary. All fencing must comply with the latest version of the National Electrical Code.
- ix. Noise. WECS facilities must conform to Section 14.45.B.
- x. Color. Towers and blades shall be a non-reflective neutral color.
- xi. Controls and Brakes. All commercial WECS structures shall be equipped with manual and automatic controls to limit rotation of blades to a speed below the designed limits of the WECS. The Professional Engineer must certify that the rotor and overspeed control design and fabrication conform to applicable design standards. No changes or alterations from certified design shall be permitted unless accompanied by a Professional Engineer's statement of certification.

- xii. Compliance with FAA. It shall be the responsibility of the applicant to obtain the appropriate FAA permits for the WECS structure, or to obtain a determination of no significant impact to air navigation from the FAA.
  - xiii. Climb Prevention. All commercial WECS structures must be protected by anti-climbing devices.
  - xiv. Warning Signage. A visible warning sign of High Voltage is required to be placed at the base of all commercial WECS structures. Such signs shall also be located at all points of site ingress and egress.
- c. Standards for all Schedule B Renewable Energy Facilities
- i. Abandonment, Removal, Repowering and/or Maintenance. If a renewable energy facility ceases to perform its intended function (generating electricity) for more than 12 consecutive months, the operator shall remove all associated equipment and facilities no later than 90 days after the end of the 12-month period. Where the removal has not been lawfully completed as required above, and after at least 30 days' written notice, the Township may remove or secure the removal of the renewable energy facility and/or system or if due to abandonment and/or negligence to maintain, the Township shall have the right to enter the site for the reason of repowering the facility, in cases where repairs or replacements to the renewable energy system components are necessary, in order to properly maintain the system. The Township's actual cost and reasonable administrative charges to be covered by the operator's security bond. Charges may include the procurement of a contractor with the expertise to oversee and execute the entire set of repairs and/or maintenance to restore the site to its original capacity. Any costs incurred by the Township above and beyond the value of the security bond will be the responsibility of the operator.
  - ii. Decommissioning. The ground shall be restored to its original condition within 60 days of removal of structures. The restoration will include returning all soil within the facility to its original environmental state of which record must be taken prior to the commencement of construction. Acceptable ground covers include grasses, trees, crops, or other material demonstrated to be characteristic of the surrounding land. All above and below ground materials shall be removed when the renewable energy facility and/or system is decommissioned. All

installed landscaping and greenbelts shall be permitted to remain on the site as well as any reusable infrastructure as determined by the Township. These can include service drives, utilities, etc.

- iii. Surety. A letter of credit, cash deposit, or other security instrument found acceptable to the Township Board will be posted by the owner(s) and/or operator of the Utility-scale solar energy facility shall post a security instrument in a form acceptable to the Township equal to one-hundred fifty (150) percent of the total estimated decommissioning and/or reclamation costs. The cost of decommissioning shall be re-reviewed and submitted to the Township annually to ensure adequate funds are allocated for decommissioning. The Township shall have the right to evaluate the security instrument defined herein, at least every five (5) years to assess whether it should be appropriately adjusted to reflect the current decommissioning estimate.

The applicant shall engage a certified professional engineer acceptable to the Township to estimate the total cost of decommissioning all structures in the facility in accordance with the requirements of this Ordinance, including reclamation to the original site conditions.

A security bond, if utilized, shall be posted and maintained with a bonding company licensed in the State of Michigan or a Federal or State-chartered lending institution acceptable to the Township.

Any bonding company or lending institution shall provide the Township with 90 days' notice of the expiration of the security bond. Lapse of a valid security bond is grounds for the actions defined below.

If at any time during the operation of the renewable energy facility or prior to, during, or after the sale or transfer of ownership and/or operation of the facility the security instrument is not maintained, the Township may take any action permitted by law, revoke the special land use, order a cessation of operations, and order removal of the structure and reclamation of the site.

In the event of sale or transfer of ownership and/or operation of the renewable energy facility, the security instrument shall be maintained throughout the entirety of the process. The security instrument shall be maintained until decommissioning and

removal has been completed to the satisfaction of the Township.

- iv. Provision of Manufacturers' Safety Data Sheet(s). The applicant must submit manufacturer safety data sheets for all proposed equipment. If approval is granted, applicant must provide the Township with finalized manufacturer safety data sheets both to be kept on record at with the Township and on-site in a clearly marked waterproof container. Applicants must provide updated manufacturer data sheets whenever equipment is modified so that all records are up to date. Documentation shall include the type and quantity of all materials used in the operation of all equipment.
- v. Fire Response. All electrical equipment associated with and necessary for the operations of the facility shall comply with all local and state codes. All design and installation work shall comply with all applicable provisions of the National Electrical Code (NEC).

The applicant shall provide training, at no cost to the Township, before, approximately halfway through and after construction for all emergency service departments serving the Township. Including all other requirements for permits, all three trainings must have been completed to receive final permits. Trainings upon the completion and during the operation of the renewable energy facility will be conducted upon the request of all emergency service departments but not exceed four (4) trainings per any given twelve (12) month period.

The applicant shall provide a set of procedures and protocols for managing risk or fire and for responding in the event of an emergency at the facility. It will be the burden of the applicant to ensure said procedures and protocols provided to the various emergency service departments is the most up to date version.

Special equipment that may be required to ensure the safety of fire and rescue personnel when responding to an emergency at the facility shall be provided at no cost to the Township prior to commencement of construction of the facility. The authority to determine whether, and what type of, special equipment is needed shall be with the fire and/or rescue department(s) serving the Township.

The applicant shall provide for and maintain reasonable means of access for emergency services. Lock boxes and keys shall be provided

at locked entrances for emergency personnel access. If any adjoining properties are damaged as a result of ingress/egress to the facility, the applicant shall remedy all damages in full.

- vi. Anticipated Construction Schedule. Applicant must provide an anticipated construction schedule which highlights when potentially hazardous materials will be brought on-site and installed.
- vii. Permits. Applicant must coordinate with all applicable agencies for required permitting including but not limited to the Oakland County Road Commission and/or Michigan Department of Transportation (MDOT) Oakland County Drain Commission, Environmental Protection Agency (EPA), Michigan Department of Environment, Great Lakes and Energy (EGLE), etc.
- viii. Photographic Record. Applicant must submit a complete set of photos and video of the entire development area prior to construction. This will be used as historical documentation for the township to secure and refer to if/when decommissioning and redevelopment activities take place.
- ix. Site Security. A security plan shall be submitted with the special land use application and site plan application for a renewable energy facility. Additional fees may be required to cover specialized reviews of these plans and or the Township's building official inspection of the site. The security plan shall:
  - a. Show all points of secured access as well as the means for limiting access to authorized personnel only.
  - b. Along with other signage requirements in this Ordinance and the Township Sign Ordinance, install and maintain warning signage on all dangerous equipment and facility entrances.
  - c. Provide a schedule outlining the implementation and maintenance of site security as well as routine inspections to ensure site security infrastructure is intact and operating as intended.
- x. Indemnity. Applicant will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-scale solar energy facility and/or system, which is subject to the Township's review and approval.

- xi. **Ownership Changes:** If the owner of the Utility-scale solar energy facility changes or the owner of the property changes, the special use permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special use permit, site plan approval, and decommissioning responsibilities. A new owner or operator of the Utility-scale solar energy facility shall notify the Township of such change in ownership or operator within 30 days of the ownership change. A new owner or operator must provide such notification to the Township in writing. The special use permit and all other local approvals for the Utility-scale solar energy facility may be determined by the Township Board at a public meeting to be void if a new owner or operator fails to provide written notification to the Township in the required timeframe, unless the new owner or operator provides a reasonable explanation for any delay. Reinstatement of a void special use permit will be subject to the same review and approval processes for new applications under this Ordinance.
  
- d. **Schedule B Site Plans.** Applications for all schedule B renewable energy facilities must be accompanied by detailed site plans, drawn to scale and dimensioned and certified by a registered engineer licensed in the State of Michigan. All site plans shall conform to the requirements of Section 12. In addition they shall display the following information:
  - i. Horizontal and vertical to scale drawings (elevations) with dimensions that show the location of the proposed solar array(s), wind turbines and energy storage facilities, buildings, structures, electrical tie lines and transmission lines, security fencing and all above ground structures and utilities on the property.
  
  - ii. Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the renewable energy facility and within one hundred (100) feet of all facility boundary property lines. Use of above-ground lines shall be kept to a minimum.
  
  - iii. Planned security measures to prevent unauthorized trespass and access during the construction, operation, removal, maintenance or repair of the renewable energy facility. In no instance shall barbwire be used.

- iv. A written description of the maintenance program to be used for the renewable energy facility, including decommissioning and removal. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the renewable energy facility is decommissioned. Description should include the average useful life of all primary renewable energy system equipment and components being proposed.
  - v. Additional detail(s) and information as required by the Planning Commission and/or Township Board.
- e. Schedule B Required Studies. All studies/analyses listed below are required for all schedule B renewable energy facilities unless waived by the Planning Commission.
- i. Stormwater Study. An analysis by a qualified professional third-party, mutually agreeable by both the Township and applicant, shall be required to account for the proposed layout of the renewable solar or storage energy facility and how the spacing, row separation, and slope affects stormwater infiltration, including calculations for a 100-year rain-event (storm). Percolation tests or site-specific soil information shall be provided to demonstrate infiltration on-site without the use of engineered solutions.
  - ii. Wildlife Impact Analysis: The applicant shall provide an analysis by a qualified professional third-party, mutually agreeable by both the Township and applicant, to identify and assess any potential impacts on wildlife and endangered species. The applicant shall take appropriate measures to minimize, eliminate, or mitigate adverse impacts identified in the analysis. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts. Sites requiring special scrutiny include wildlife refuges, other areas where birds are highly concentrated, bat hibernacula, wooded ridge tops that attract wildlife, sites that are frequented by federally or state listed endangered species of birds and bats, significant bird migration pathways, and areas that have landscape features known to attract large numbers of raptors. At a minimum, the analysis shall include a thorough review of existing information regarding species and potential habitats in the vicinity of the project area. Where appropriate, surveys for bats, raptors, or general avian use should be conducted. The analysis shall include the



- potential effects on species listed under the federal Endangered Species Act and Michigan’s Endangered Species Protection Law. The applicant shall follow all pre-construction and post-construction recommendations of the United States Fish and Wildlife Service. The analysis shall indicate whether a post-construction wildlife mortality study will be conducted and, if not, the reasons why such a study does not need to be conducted. Power lines should be placed underground, when feasible, to prevent avian collisions and electrocutions. All aboveground lines, transformers, or conductors should follow any Avian Power Line Interaction Committee (APLIC, <http://www.aplic.org/>) guidelines to prevent avian mortality.
- iii. Natural Feature Preservation Study. The plan for installation of a renewable energy facility shall include a tree survey and plan for cutting of trees greater than 6” DBA. No such trees shall be cut in any required setback other than those reasonably required for the installation of a drive to access the facility. Retention of natural grades, soils, and groundcover material is encouraged where feasible.
  - iv. Environmental Impact Analysis. An analysis by a qualified professional third-party, mutually agreeable by both the Township and applicant, shall be required to identify and assess any potential impacts on the natural environment including, but not limited to, wetlands and other fragile ecosystems, historical and cultural sites, and antiquities. The applicant shall take appropriate measures to minimize, eliminate, or mitigate adverse impacts identified in the analysis.

An applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts. The applicant shall comply with applicable parts of the following:

- (a) Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, MCL 324.101 et seq.) including but not limited to:
- (b) Part 31 Water Resources Protection (MCL seq.),
- (c) Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et seq.),
- (d) Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.),

- (e) Part 303 Wetlands (MCL 324.30301 et seq.),
- (f) Part 323 Shoreland Protection and Management (MCL 324.32301 et seq.),
- (g) Part 325 Great Lakes Submerged Lands (MCL 324.32501 et seq.),
- (h) Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.).



**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: March 20, 2024

## Site Plan Review For Howell Township, Michigan

<b>Applicant:</b>	Old Glory LLC
<b>Project Name:</b>	Parking Lot Addition
<b>Plan Date:</b>	January 25, 2024
<b>Location:</b>	4120 W Grand River Ave
<b>Zoning:</b>	Regional Service Commercial District (RSC)
<b>Action Requested:</b>	Preliminary Site Plan Approval

### PROJECT AND SITE DESCRIPTION

The applicant has submitted a preliminary site plan dated January 25, 2024, that proposes several modifications to the site layout for an existing car wash located at 4120 W Grand River Ave otherwise known as parcel #4706-20-201-015. To accommodate the proposed addition of Touchless Wash Bays a 1,365 Square Feet building addition with landscaping island is proposed. Removal and replacement of 236 Square Feet dumpster pad and 22,225 Square Feet of asphalt to match existing elevations. Removal of two (2) twelve (12) inch storm sewers. Extensive expansion of the existing detention pond.

The site is currently zoned as part of the Regional Service Commercial District (RSC) and functions as a car wash. The submitted site plans continue to uphold this use and plan only to expand upon it. Figure 1 provides an arial image of the current site outlined in blue.

**Figure 1. Aerial Image of Subject Site and Vicinity**



*Items to be Addressed: None.*

**NEIGHBORING ZONING, LAND USE AND MASTER PLAN**

Neighboring zoning designations are summarized in Table 1.

**Table 1. Zoning, Land Use and Master Plan Designations**

	Zoning
<b>Subject Site</b>	RSC – Regional Service Commercial
<b>North</b>	RT – Research & Tech
<b>South</b>	Grand River Ave. R/W
<b>East</b>	SFR – Single Family Residential
<b>West</b>	RSC – Regional Service Commercial

*Items to be Addressed: None.*

**AREA, WIDTH, HEIGHT, SETBACKS**

The following table summarizes the Density, Placement, and Height Regulations for the site plan associated with the use.

**Table 2. Density, Placement, and Height Regulations**

	<b>Required</b>	<b>Provided</b>
<b>Lot Area</b>	2 Acres	2.039 Acres
<b>Lot Width</b>	200 Feet	240 Feet
<b>Front Setback</b>	35 Feet	35 Feet
<b>Side Setback</b>	10 – 25 Feet (10 ft. min with a combine total of 25 ft.)	51.7 Feet East 29.9 Feet West
<b>Rear Setback</b>	50 Feet	105.1 Feet
<b>Lot Coverage</b>	75 % Max	46 %
<b>Building Height</b>	70 Feet Max	Not Given

The setback standards listed on the site plan appear to alter slightly throughout and should be clarified to reflect the proposed extension of the detention pond. The proposed extension of the detention pond does not meet ordinance setbacks in both the front and side yards. The building height is not included on Sheet C.1.0 in the table Zoning Information, but is listed as 8ft in later elevation sheets.

**Items to be Addressed:** 1) The height of the proposed building should be clarified on Sheet C.1.0. 2) The applicant will need to revise plans or apply for a variance to approve the proposed structure setbacks of the detention pond.

**BUILDING LOCATION AND SITE ARRANGEMENT**

The proposed addition is to the west of the existing building. The proposed layout is the only logical place for expansion of the facility based on the location of the exiting building and the circulation needs for a car wash facility.

**Items to be Addressed:** None.

**PARKING, LOADING**

The applicant notes that the current site does not include any striped parking and does not include any in the site plan. Per section 18.02.G.5, which sets requirements for Gasoline filling and service stations, one (1) space for ea. service bay, plus one (1) space for ea. employee working during maximum employment (Sec. 18.02.G.5 – Gasoline Filling and Service Stations).

**Automatic Wash Bays**

There are two (2) existing automatic wash bays.

**Hand Wash Bays**

There are four (4) existing hand wash bays.

**Wash Bays**

There are two (2) proposed wash bays to be added.

### **Number of Employees**

There is no number of employees indicated on the plans.

Because the bays are self-service or drive through, there is no need to provide parking for them, however, the applicant must provide the number of employees at maximum employment and show adequate parking to meet the requirements of Section 18 accounting for maximum employee parking and service bays.

**Items to be Addressed:** *List number of employees at maximum employment. Demonstrate adequate parking is available for the number of employees at maximum employment and for each service bay.*

## **SITE ACCESS AND CIRCULATION**

The applicant provides a refuse vehicle circulation and emergency vehicle circulation plan which demonstrate proper vehicular traffic flow.

We defer to Engineering and the Fire Chief for further consideration.

**Items to be Addressed:** *None.*

## **NATURAL FEATURES**

The location and arrangement of the site will essentially be the same as it is currently with the exception of the addition on the Northwest side of the building and the extension of the existing detention pond.

The site plan calls out that the National Wetland Inventory notes no wetlands on the subject parcel and that wetland flagging was not observed during the field survey. The site plan also details the subject property appears to be entirely in zone (X) area determined to be outside of the 0.2% annual chance floodplain according to the flood insurance rate map for the County of Livingston Community Panel NO. (26093C0188D), effective date 9/17/2008.

Stamped approval from EGLE will not be required for construction as it is evident that there are no wetlands shown for the property through the EGLE wetland database.

**Items to be Addressed:** *None.*

**LANDSCAPING**

The applicant has provided a landscape plan, as shown in the following table.

**Table 3. Landscaping Requirements**

Landscaped Area	Requirement	Factor	Required	Provided
Road Frontages	1 deciduous or evergreen tree per 40 linear feet	210	5	5
	1 ornamental tree per 100 linear feet		2	2
	Min. of 8 shrubs per every 40 linear feet		42	42
Foundations	1 ornamental tree per 35 feet of building frontage	90	2	2
	5 shrubs per 35 feet of building frontage		5	5
Stormwater Detention/ Retention Areas	1 deciduous or evergreen tree per 50 feet of perimeter	253	5	5
	10 shrubs per 50 feet of perimeter		50	“Existing”
Residential Screening	1 canopy or evergreen tree per 40 linear feet	344	5	5
	1 ornamental tree per 100 feet		2	2
	8 shrubs per 40 linear feet		42	42

On sheet CD-1.0 two (2) existing pine trees are said to be removed. On sheet LS24.004.02 the same two (2) pine trees are listed as existing to remain and are counted towards landscaping requirements for the detention area. The above table reflects the count of the existing trees remaining. It should be clarified if the pine trees will remain or be removed with an updated count to reflect this. The “existing” number of shrubs should be clarified to show compliance with the ordinance following the expansion of the detention pond.

**Items to be Addressed:** 1) The number of existing shrubs surrounding the detention pond should be clarified. 2) The two (2) pine trees counted toward the stormwater detention pond should be clarified as to if they are to remain or be removed.

**LIGHTING**

Lighting plans are required for preliminary site plans. The applicant did not provide a lighting plan with their submission and will need to submit one before the final site plan review can be completed.

**Items to be Addressed:** *The applicant must provide light fixture details and a photometric plan that demonstrates compliance with Section 14.22.*

## SIGNS

Site plan references keeping an existing sign with no additional signage being added.

If added, signs will require a separate permit from the Zoning Administrator. A sign application must be filed with the Zoning Administrator, at which time the zoning administrator will determine if the signs meet the requirements of the ordinance.

**Items to be Addressed:** *None.*

## FLOOR PLAN AND ELEVATIONS

Floor plan and elevation sheets have been included in the site plan on sheets A-101, A-102, A-103, and A-201.

**Items to be Addressed:** *None.*

## TRASH ENCLOSURE

The applicant has indicated that garbage receptacle will be replaced and stored outside the building in the Northeast corner on a new concrete slab in the same position as the existing. The current plans do not outline the screening of the receptacle. Ordinance requirements for receptacles are as follows:

*Truck-lifted or transported receptacle areas. All such receptacle areas shall be enclosed by a six (6) foot high wooden or a masonry wall to prevent the unsightly deposit or collection of solid waste and prevent children and pets from having access to these areas.*

**Items to be Addressed:** *Clarify trash enclosure screening.*

## RECOMMENDATIONS

We recommend the following items be addressed before the Planning Commission takes action on the preliminary site plan:

1. The applicant shall request a variance to approve the proposed structure setbacks of the detention pond or revise plans to meet the Ordinance requirements.
2. The height of the proposed building should be listed on Sheet C.1.0.
3. List the number of employees at maximum employment.



4. Demonstrate adequate parking for the site as defined in Section 18.02.G.5 for Gasoline Filling and Service Stations.
5. The number of existing shrubs surrounding the detention pond should be clarified.
6. The two (2) pine trees currently counted toward the stormwater detention pond should be clarified if they are to remain or be removed.
7. The applicant shall provide light fixture details and a photometric plan that demonstrates compliance with Section 14.22.
8. The trash enclosure screening should be included in the plans with the height and material listed.



---

**CARLISLE/WORTMAN ASSOC., INC.**  
**Paul Montagno, AICP**  
**Principal**



---

**CARLISLE/WORTMAN ASSOC., INC.**  
**Grayson Moore**  
**Community Planner**

Wednesday, February 28, 2024

Joe Daus, Zoning Administrator  
Howell Township  
3525 Byron Road  
Howell, MI 48855

RE: Old Glory Car Wash  
4120 Grand River Avenue, Howell Township  
Preliminary Site Plan Review

Dear Mr. Daus,

We have received and reviewed the site plan for the proposed improvements to the existing car wash at 4120 Grand River Avenue. The plans were prepared by Monument Engineering Group Associates Inc. for Old Glory Carwash and are dated January 25, 2023. Based on our review, we offer the following comments:

**General**

The current and proposed site use is for a car wash. The parcel is zoned Regional Service Commercial (RSC). The Proposed site use is appropriate for this zoning. We defer all comments regarding zoning and the site's compliance to the Township Planner.

A location map is provided on the plans.

A legal description that closes within acceptable tolerances should be provided on the cover page.

The plans are signed and sealed by a professional engineer.

**Grading and Drainage**

The existing topography of the site indicates that surface runoff flows generally to the South. Existing grading is shown with 1-foot contours and spot elevations. The paved portion of the site drains to several catch basins located in the parking lot. These catch basins connect to a storm sewer system that drains to a detention pond in the southern portion of the site. The detention pond drains to the Grand River Avenue R.O.W.

Improvements to the storm sewer network are proposed on site. The proposed improvements include removal and replacement of the storm sewer on the west side of the site to convey additional surface runoff from the roof of the proposed expansion of the building, as well as expansion of the paved areas. The proposed improvements also include conversion of the existing detention pond to forebay and the addition of a new detention pond southwest of the forebay that ultimately outlets to the Grand River Avenue R.O.W.

February 28, 2024

Page 2 of 3

Sizing calculations of the detention system will be reviewed in the final site plan review. Sizing calculations of the storm sewer conveyance system will be reviewed in the construction review.

We defer to Livingston County Drain Commissioner's office and Livingston County Road Commission on additional comments relating to storm water management.

### **Parking and Landscaping**

The proposed hard surfaces included 4-inch HMA pavement for the drive and parking surfaces, 8-inch concrete surface under the proposed wash bays and concrete curb and gutter to the west of the proposed addition to the building. Details of the pavement will be reviewed in future site plan reviews.

The correct setbacks are listed and shown on the plans; however, the proposed detention ponds and security chain-linked fence are within the 35-foot front setback. The pond must be relocated outside of the influence of the 35-foot front setback, or a variance must be granted by the zoning board.

The site has one, two-way, drive that is assumed to be 29' wide to match the existing, this dimension should be included on the paving plan. The demolition plan shows the existing pavement being sawcut at the R.O.W. and leaving the existing approach. We defer further comment on the approach to Livingston County Road Commission.

A landscaping plan is provided for the site, includes various plants around the paved area on the south and west perimeters of the site. We defer to the Township Planner for comment on landscaping and lighting.

### **Utilities**

No new sanitary or water main improvements are proposed.

An existing water main is shown in the Grand River Avenue R.O.W. and connects to a hydrant on the northwest side of the roadway. No services are shown off this main. Services should be shown. We defer to MHOG and the Fire Marshal for comment on the proposed water distribution system.

Existing gravity sanitary sewer is shown to service the site. The existing sanitary sewer is shown to connect to the existing sanitary sewer main located in Grand River Avenue R.O.W.

February 28, 2024

Page 3 of 3

**Recommendations**

Should the Planning Commission decide to proceed with approval of this project, we recommend the following conditions be placed on the approval:

1. Plans should be reviewed and approved by:
  - a. Fire Marshal
  - b. Township Planner
  - c. Livingston County Drain Commissioner
  - d. Livingston County Road Commission
2. Please include a legal description of the site
3. Include all dimensions for evaluation of the proposed paving.
4. Include the location of all existing utilities.
5. Storm water pond location and fence impedance

If you have any questions or need anything further, please feel free to contact our office.

Sincerely,



**Adam C. Jacqmain**

Phone: (989) 598-6196

Mailto: adamj@spicergroup.com



**John W. Bradley**

Phone: (517) 719-5503

Mailto: johnbradley@spicergroup.com

**SPICER GROUP, INC.**

1595 W Lake Lansing Rd Suite 200

East Lansing, MI 48823

CC: SGI File  
Livingston County Road Commission  
Ken Recker, Livingston County Chief Deputy Drain Commissioner



# Howell Area Fire Department Fire Marshal Division

1211 W Grand River Ave Howell, MI 48843  
office: 517-546-0560 fax: 517-546-6011  
[firemarshal@howellfire.net](mailto:firemarshal@howellfire.net)

**DATE:** February 26, 2024

**TO:** Joe Daus  
Howell Twp Zoning Administrator  
3525 Byron Rd  
Howell, MI 48855

**FROM:** Bryan Hager-Fire Inspector

**PROJECT:** Old Glory Addition, **Howell Township**

**REF:** Site Plan Review - **Approved w/concerns noted**

## **CONCERNS:**

I have reviewed the above listed site plan and find that it is **satisfactory** as presented as long as the **following conditions** are met:

1. A Knox Box is required for this location. Application can be obtained from the Howell Area Fire Department or on-line at [www.knoxbox.com](http://www.knoxbox.com).
2. Where the road is 20' wide to 26' wide, "No Parking-Fire Lane" signs would be required on both sides of the lot. Where the road is between 27' and 32' wide, "No Parking this side of street" signs would be required on the building side of the street.
3. An approved fire apparatus access road shall be within 150 feet of all portions of the building(s)
4. The fire department access road shall meet the following conditions:
  - a. The minimum unobstructed width shall be 20 feet.
  - b. The minimum unobstructed height shall be 13 feet
  - c. The access drive shall be accessible at all times (i.e. snow removal) and posted as a fire lane.
  - d. The use of the Knox Rapid Entry system padlock or Knox key switch may be required, if a gate is going to be installed.
  - e. The access drive shall be constructed so it can support up to 100,000 pound fire apparatus.
  - f. The installation of security gates across a fire apparatus access road shall be approved by the fire department.
5. A final inspection of the whole building and site shall be performed by the fire department before C of O is issued.

Any changes in this site plan shall be submitted to the Howell Area Fire Department for additional approval. If there is anything further that you need, please feel free to give me a call.

**HOWELL TOWNSHIP**  
**Application for Site Plan Review**

3525 Byron Road Howell, MI 48855  
Phone: 517-546-2817 ext. 108  
Email: inspector@howelltownshipmi.org

File # PZE 2024-03

Parcel ID #: 4706-	<u>20 201 015</u>	Date	_____
Applicant Name	<u>Old Glory LLC</u>	Applicant Address	<u>PO Box 328</u>
Phone	<u>517-375-0555</u>	Fax	_____
Email	<u>carwashguy.mm@gmail.com</u>		
Property Owner Name	<u>Old Glory LLC</u>		
Phone	<u>517-375-0555</u>	Fax	_____
Email	<u>carwashguy.mm@gmail.com</u>		
Please list all recipients to receive information and/or reports:			
Name:	<u>Matt Martin</u>	Email	<u>carwashguy.mm@gmail.com</u>
Name:	<u>Allan Pruss</u>	Email	<u>apruss@monumentengineering.com</u>
Name:	_____	Email	_____

Location of Property	<u>North Side of Grand River Ave, just west of Burkhart</u>	Current Zoning Classification	<u>RSC</u>
Existing Use	<u>Car Wash</u>	Proposed Use	<u>Car Wash</u>

Check One:

- |   |  |
|---|--|
| <input type="checkbox"/> Preliminary Site Plan Review (20.06) | <input checked="" type="checkbox"/> Final Site Plan Review (20.07)   |
| <input type="checkbox"/> Temporary Use (14.34)                | <input type="checkbox"/> Commercial/Industrial Development   |
| <input type="checkbox"/> Subdivision/Site Plan Condo          | <input type="checkbox"/> Multi-Family/Condo  |
| <input type="checkbox"/> Planned Unit Development (PUD) Type: | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |

Applicant needs to provide the following site plan drawings: twelve (12) full size copies, eight (8) - 11" x 17" copies, and an electronic set (either on an USB drive or provide an online link) for the preliminary site plan drawings. Drawings shall be submitted with an application for site plan review (20.06 a) thirty (30) days prior to the meeting.

**LEGAL DESCRIPTION (AS PROVIDED)**

(PER SURVEY BY: CORNERSTONE ENGINEERING, JOB NO.: 02013.GIN, DATED: 02/18/2002)

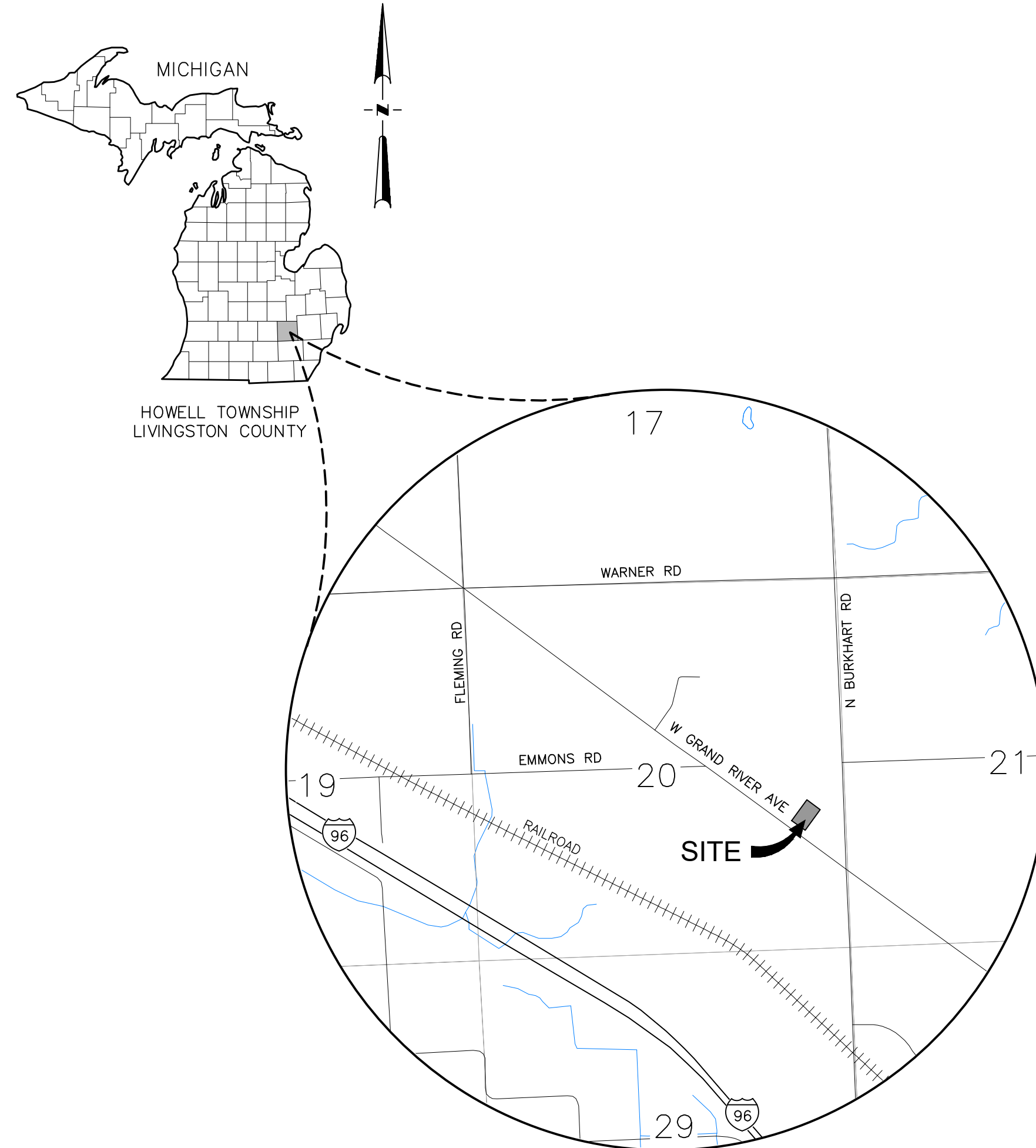
TAX ID: 4706-20-201-015

LOT 3 OF "NEWMAN'S GRAND VIEW ESTATES" A PART OF S. 1/2 N.E. 1/4 AND A PART OF N. 1/2 S.E. 1/4 SECTION 20, T. 3 N., R. 4 E., HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, AS RECORDED IN LIBER 8 OF PLATS, PAGE 24, LIVINGSTON COUNTY RECORDS. 2.04 ACRES

**BEARING REFERENCE**

BEARINGS ARE BASED ON PROJECT COORDINATE SYSTEM:  
MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83 (CONUS) (MOL) (GRS80), SOUTH ZONE 2113,  
INTERNATIONAL FEET, GROUND  
(LAT.: , LON.: , ELEV.: , SCALE FACTOR: ).

# PRELIMINARY SITE PLAN FOR NEW TOUCHLESS WASH BAYS



LOCATION MAP

**LAND USE SUMMARY**

LAND USE DATA	CHARACTERISTIC	EXISTING CONDITIONS	PROPOSED CONDITIONS
	TOTAL DEVELOPMENT AREA (AC)	X.XX AC	X.XX AC
	IMPERVIOUS AREA (AC)	X.XX AC	X.XX AC
	TOTAL PERVIOUS AREA (AC)	X.XX AC	X.XX AC
	<b>PERVIOUS AREA BREAKDOWN BY COVER TYPE</b>		
	MEADOW/FALLOW/NATURAL AREAS (NON-CULTIVATED)	X.XX AC	X.XX AC
	PREDOMINANT NRCS SOIL TYPE (A, B, C, OR D)	TYPE X = X.XX AC	TYPE X = X.XX AC
	IMPROVED AREAS (TURF GRASS, LANDSCAPE, ROW CROP)	X.XX AC	X.XX AC
	PREDOMINANT NRCS SOIL TYPE (A, B, C, OR D)	TYPE X = X.XX AC	TYPE X = X.XX AC
	WOODED AREAS	X.XX AC	X.XX AC
	PREDOMINANT NRCS SOIL TYPE (A, B, C, OR D)	TYPE X = X.XX AC	TYPE X = X.XX AC
	CPVC VOLUME CALCULATED (CF)		X.XXX CF
	CPVC VOLUME PROVIDED (CF)		X.XXX CF
	CPRC VOLUME PROVIDED (CF)		X.XXX CF

THE PROFESSIONAL ENGINEER WHO SIGNS AND SEALS THIS SITE PLAN CERTIFIES THAT THE VALUES IN THIS TABLE REFLECT THE WRC STORMWATER CALCULATIONS REQUIRED FOR THIS DEVELOPMENT AND THAT GEOTECHNICAL INVESTIGATIONS WERE PERFORMED THAT PROVIDE CONCLUSIVE DOCUMENTATION THAT DEMONSTRATES WHETHER INFILTRATION (I.E. CPVC VOLUME CONTROL) IS PRACTICABLE.

**DESIGN ENGINEER/SURVEYOR**



MONUMENT ENGINEERING GROUP ASSOCIATES, INC

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE,  
FOWLERVILLE, MI 48836  
PHONE: 517-223-3512

**CLIENT**



OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
PHONE: 517-375-0555

**ARCHITECT**

GILLET ASSOCIATES ARCHITECTURE  
32969 HAMILTON COURT, SUITE 211  
FARMINGTON HILLS, MI 48334  
POC: TIM MELVIN  
PHONE: 248-489-2344

SHEET INDEX	PLAN SUBMITTALS	
	DATE	DESCRIPTION
1/25/2024	SITE PLAN SUBMITTAL	

INCLUDED SHEETS	
<b>GENERAL</b>	
SHEET G-1.0	COVER
<b>SURVEY</b>	
SHEET V-1.0	TOPOGRAPHIC SURVEY
<b>CIVIL DEMOLITION</b>	
SHEET CD-1.0	DEMOLITION PLAN
<b>SITE PLAN</b>	
SHEET C-1.0	DIMENSION AND PAVING PLAN
<b>VEHICLE CIRCULATION</b>	
SHEET C-2.0	EMERGENCY VEHICLE CIRCULATION
SHEET C-2.1	REFUSE VEHICLE CIRCULATION
<b>UTILITY</b>	
SHEET C-6.0	STORM SEWER PLAN
SHEET C-6.1	STORM SEWER PROFILES
<b>GRADING</b>	
SHEET C-7.0	GRADING PLAN
<b>SOIL EROSION &amp; SEDIMENTATION CONTROL (SESC)</b>	
SHEET C-8.0	SESC PLAN
SHEET C-8.1	LCDC SESC NOTES AND DETAILS
SHEET C-8.2	LCDC SESC DETAILS
<b>STORM WATER MANAGEMENT</b>	
SHEET C-9.0	DRAINAGE AREA PLAN
SHEET C-9.1	STORM WATER CALCULATIONS
SHEET C-9.2	DETENTION BASIN DETAILS
<b>SPECIFICATIONS</b>	
SHEET C-12.0	SPECIFICATIONS
SHEET C-12.1	SPECIFICATIONS
<b>LANDSCAPE</b>	
SHEET X	LANDSCAPE PLAN (SHEET # & TITLE TO MATCH PLANS FROM LA)
SHEET X	LANDSCAPE DETAILS (SHEET # & TITLE TO MATCH PLANS FROM LA)

CITY/TOWNSHIP, COUNTY STANDARD DETAILS



Allan W. Pruss

Call MISS DIG  
3 full working days before you dig:  
Michigan's Utility Notification One-Call  
1-800-482-7171  
www.missdig.org

CLIENT:  
Old Glory Car Wash  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

COVER  
NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	DESCRIPTION
1/25/2024	SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE:

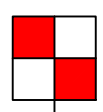
PROJECT NO: 22-177

SCALE: N/A  
0 1/2" 1"

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**G-10**

NOT FOR CONSTRUCTION



### BENCHMARKS

DATUM: NAVD88

BM A:  
CHISELED "X" ON NW SIDE CONCRETE PAD FOR LIGHT POLE, 208± EAST OF CENTERLINE W GRAND RIVER ROAD & 20± SOUTH OF CENTERLINE FOR ACCESS DRIVE TO SUBJECT'S PROPERTY.  
ELEV = 953.54

BM B:  
BENCH TIE IN NE SIDE UTILITY POLE, 32± EAST OF CENTERLINE W GRAND RIVER ROAD & 57± NORTH OF CENTERLINE FOR ACCESS DRIVE TO SUBJECT'S PROPERTY.  
ELEV = 953.25

### SOILS INFO

SOIL TYPES ARE ACCORDING TO THE USDA SOIL SURVEY WEB SITE (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>)

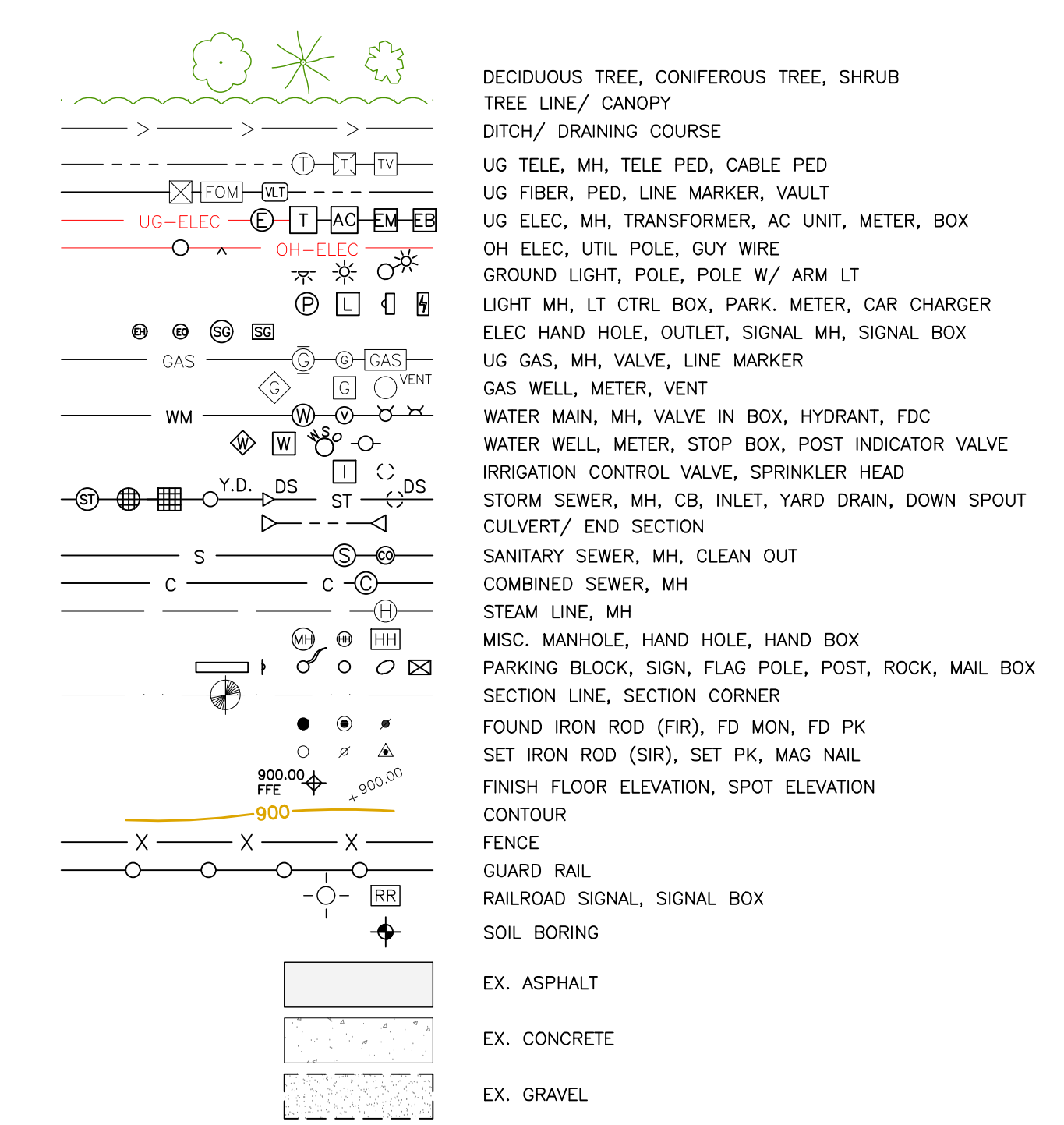
SOIL TYPE LIMIT AND LABEL

- CvraaB: CONOVER LOAM, 0-4% SLOPES
- MoB: WAWASEE LOAM, 2-6% SLOPES

### EXISTING PARKING

THERE ARE NO STRIPED PARKING SPACES ON THE SUBJECT PROPERTY.

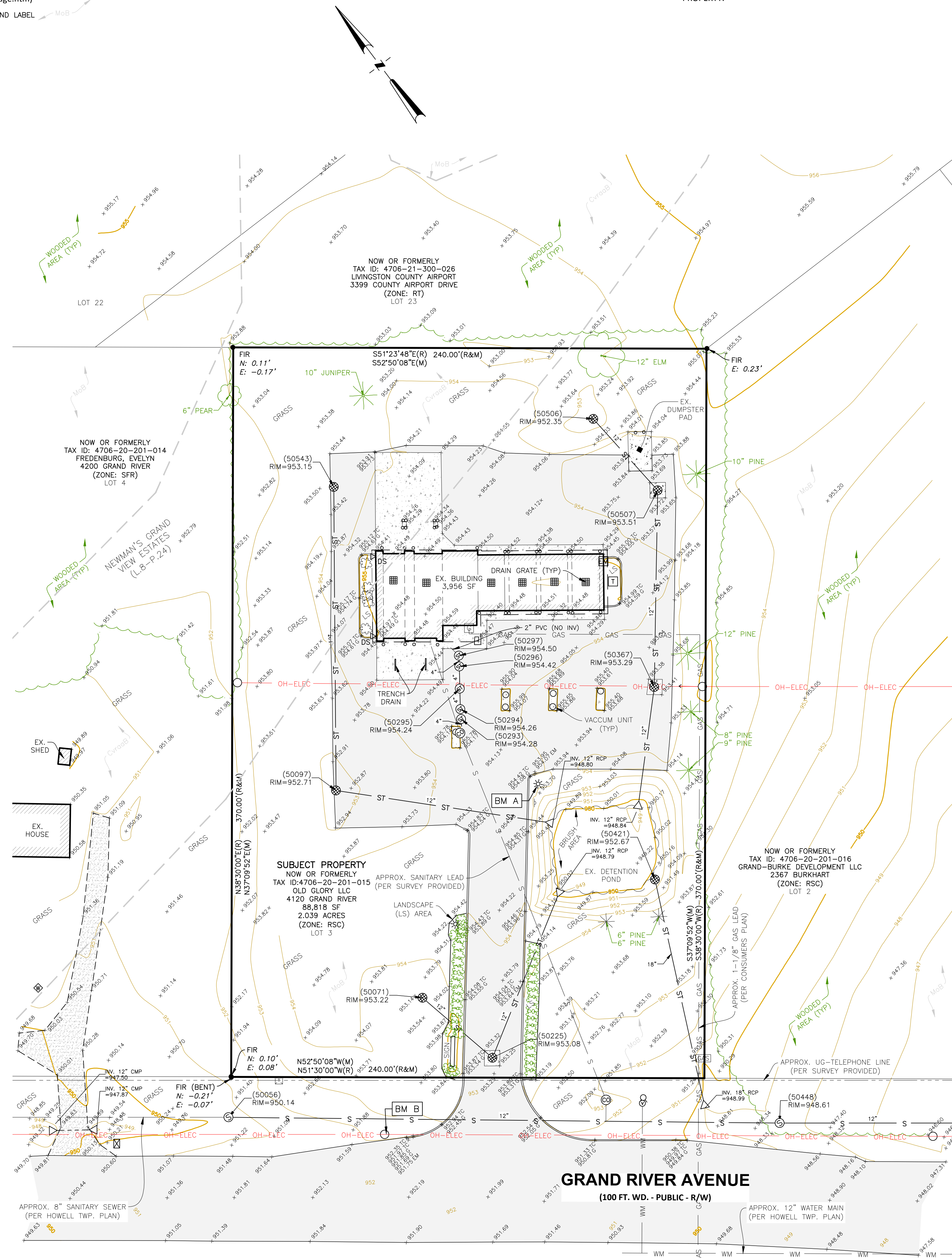
### EXISTING LEGEND



### STRUCTURE SCHEDULE

EX. STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
(50071) CBB	953.22	12" S IE= 949.35
(50097) CBR	952.71	12" NE IE= 949.16 12" SE IE= 948.68
(50225) CBR	953.08	12" NE IE= 949.13 12" N IE= 949.07
(50293) STMH	954.28	4" SW IE= 950.31
(50294) STMH	954.26	4" NE IE= 950.34
(50295) STMH	954.24	4" NE IE= 950.42
(50296) STMH	954.42	4" NE IE= 950.57
(50297) STMH	954.50	4" SW IE= 950.78
(50367) CBR	953.29	12" SW IE= 949.14 12" NE IE= 949.09
(50421) OCS	952.67	18" SW IE= 949.33
(50506) CBB	952.35	12" S IE= 949.81
(50507) CBR	953.51	12" SW IE= 949.64 12" N IE= 949.49
(50543) CBR	953.15	12" SW IE= 949.62

EX. SANITARY SEWER		
STRUCTURE	RIM ELEV.	PIPES
(50056) SMH	950.14	12" SE IE= 940.16
(50448) SMH	948.61	12" NW IE= 939.33 12" SE IE= 939.17



### WETLAND NOTE

ACCORDING TO THE NATIONAL WETLAND INVENTORY WEBSITE ([HTTP://WWW.FWS.GOV/WETLANDSDATAMAPPER.HTML](http://www.fws.gov/wetlandsdatamapper.html)), THERE ARE NO NOTED WETLANDS ON THE SUBJECT PARCEL.  
WETLAND FLAGGING WAS NOT OBSERVED DURING THE FIELD SURVEY. AN OFFICIAL STUDY FOR THE PRESENCE OF WETLANDS WAS NOT CONDUCTED BY MONUMENT ENGINEERING GROUP ASSOCIATES.

### FLOOD ZONE

FEMA MAP SCALES DO NOT SUPPLY SUFFICIENT LEVEL OF DETAIL TO PLOT ACCURATELY. ZONES IF PLOTTED HEREIN ARE APPROXIMATE.

BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THE SUBJECT PROPERTY APPEARS TO LIE ENTIRELY IN ZONE (X) AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP FOR THE COUNTY OF LIVINGSTON, COMMUNITY PANEL NO. (26093C0188D), EFFECTIVE DATE 9/17/2008.

### UTILITY NOTES

- ALL UNDERGROUND UTILITIES SHOWN ARE BASED ON DESIGN PLANS PROVIDED AT TIME OF SURVEY UNLESS NOTED OTHERWISE.
- THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN IN THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

### UTILITY REFERENCES

WM: HOWELL TOWNSHIP ~ MHOG  
RECEIVED: 8/5/22 ~ N/A

SAN: HOWELL TOWNSHIP  
RECEIVED: 8/5/22

STORM: LIVINGSTON COUNTY ROAD COMMISSION  
RECEIVED: N/A

GAS: CONSUMERS ENERGY  
RECEIVED: 8/11/22

ELEC: DTE ENERGY ~ TANGER PROPERTIES LIMITED PARTNERSHIP ELECTRIC  
RECEIVED: 8/8/22 ~ N/A

PHONE/CABLE: AT&T  
RECEIVED: 7/18/22

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

**MEGA**  
MONUMENT ENGINEERING GROUP ASSOCIATES

298 VETERANS DRIVE  
FOWLERVILLE  
MICHIGAN 48836  
(OFFICE) 517-223-3512  
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED  
SMALL BUSINESS (SDVOSB)

ALLAN W. PRUSS  
ENGINEER  
NO. 620143168

Call MISS DIG  
3 full working days before you dig.

Utility Notification Organization  
One-Call

1-800-482-7171  
www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

**Old Glory Car Wash**  
NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**TOPOGRAPHIC SURVEY**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	DESCRIPTION
1/25/2024	PLAN SUBMITTALS/REVISIONS
	SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE:

PROJECT NO: 22-177

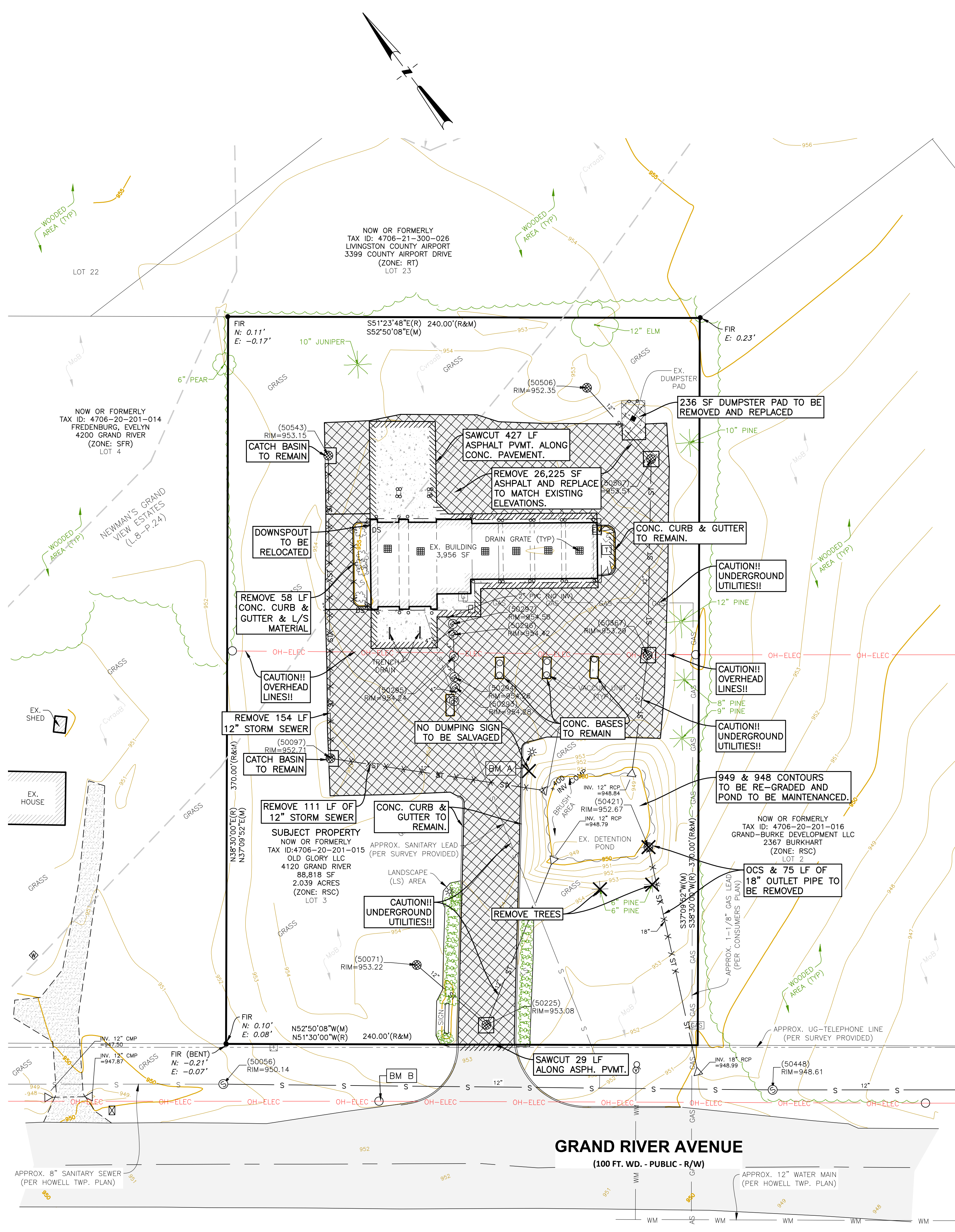
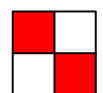
SCALE: 1" = 30'

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**V-10**

NOT FOR CONSTRUCTION





INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

**MEGA**

298 VETERANS DRIVE  
HOWELLVILLE, MICHIGAN 48836  
(OFFICE) 517-223-3512  
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED  
SMALL BUSINESS (SDVO58)

ALLAN W. PRUSS  
ENGINEER  
NO. 620143168

*Allan W. Pruss*

Call MISS DIG  
3 full working days before you dig:

Michigan's Utility One-Call Notification Organization

1-800-482-7171  
www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXERCISE RESPONSIBILITY FOR DETERMINING THE EXACT SHUTTER LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

**Old Glory Car Wash**

OLD GLORY CAR WASH  
PO BOX 328  
HOWELLVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**DEMOLITION PLAN**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE: 1/25/2024

PLAN SUBMITTALS/REVISIONS

SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE:

PROJECT NO: 22-177

SCALE: 1" = 30'

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**CD-1.0**

NOT FOR CONSTRUCTION

## ZONING INFORMATION

THIS ZONING INFORMATION IS TAKEN FROM HOWELL TOWNSHIP ZONING ORDINANCE  
DATED: APRIL 2015

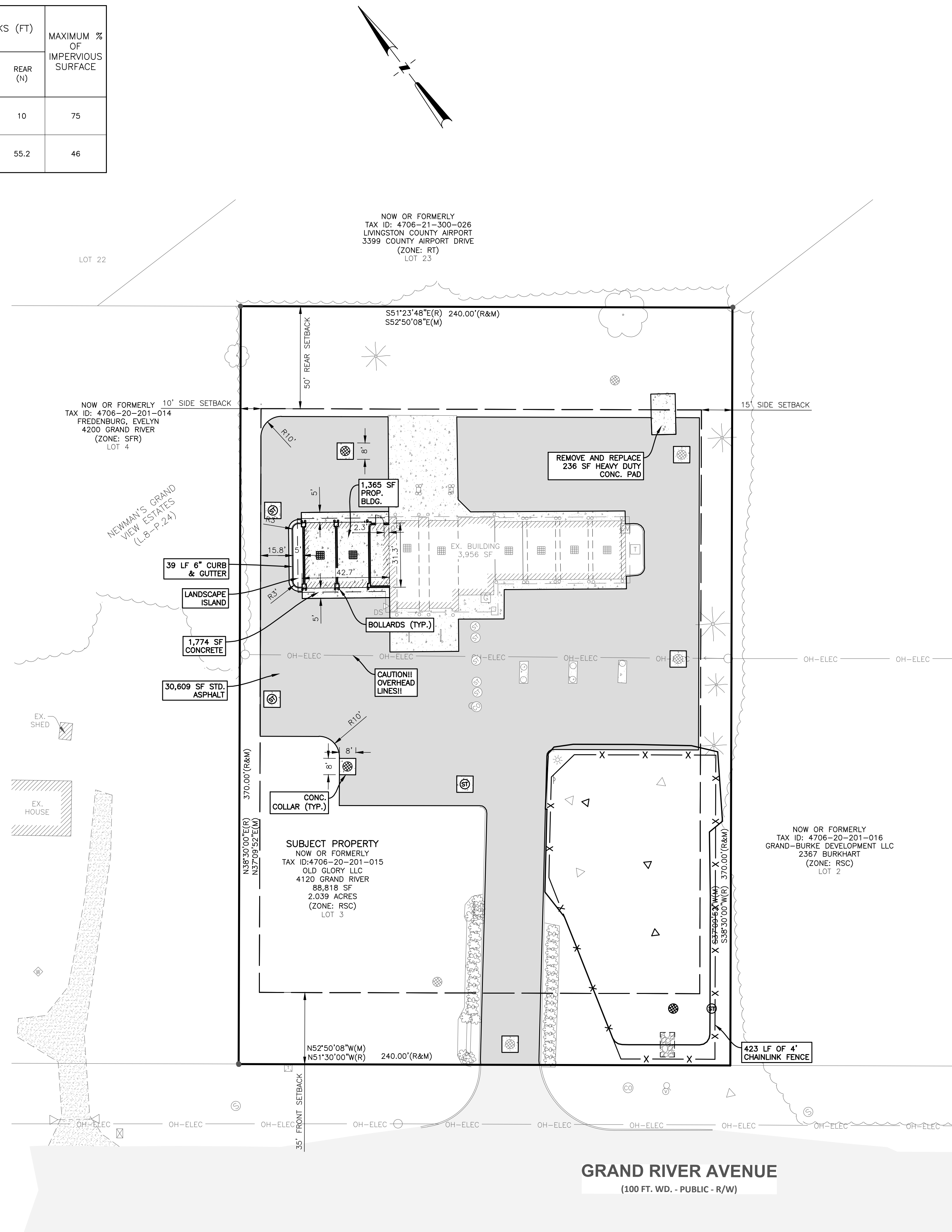
SUBJECT PARCEL ZONING: (RSC) REGIONAL SERVICE COMMERCIAL	SUBJECT PARCEL		PROPOSED BUILDING	MAXIMUM HEIGHT OF BUILDING		BUILDING SETBACKS (FT)			PARKING SETBACKS (FT)			MAXIMUM % OF IMPERVIOUS SURFACE
	AREA (AC)	WIDTH AT BUILDING SITE (FT)	BUILDING 'A' AREA (SF)	IN STORIES	IN FEET	FRONT (S)	SIDE (E,W)	REAR (N)	FRONT (S)	SIDE (E,W)	REAR (N)	
REQUIRED	2	200	-	NA	70	35	10 MIN. OR 25 FEET TOTAL	50	35	10 MIN. OR 25 FEET TOTAL	10	75
PROVIDED	2.039	240	1,365	NA	-	232.4	51.7, 29.9	105.1	181.8	40.1, 112.2	55.2	46

## ADJACENT ZONING

NORTH: (RT) RESEARCH AND TECH  
SOUTH: GRAND RIVER AVE. R/W  
EAST: (SFR) SINGLE FAMILY RESIDENTIAL  
WEST: (RSC) REGIONAL SERVICE COMMERCIAL

## % OF IMPERVIOUS SURFACES

BUILDINGS AND IMPERVIOUS SURFACES:  
40,860.12 SF/88,818.8 SF = 46.00%



## PAVEMENT LEGEND

	EX. ASPHALT
	EX. CONCRETE
	EX. GRAVEL
	PR. STANDARD DUTY ASPHALT
	PR. HEAVY DUTY ASPHALT
	PR. CONCRETE
	PR. GRAVEL
	STANDARD CURB AND GUTTER
	REVERSE CURB AND GUTTER

## NOTES

- SCREENING SHALL BE PROVIDED FOR ALL MECHANICAL EQUIPMENT.
- PARKING LOT ISLANDS SHALL BE FINISHED IN GRASS, GROUND COVER OR MULCH.

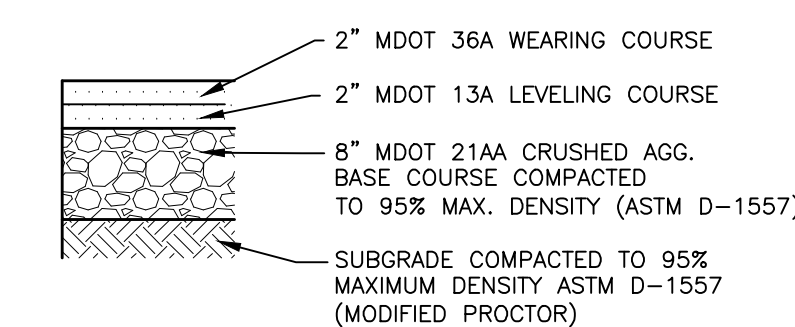
## DIMENSIONING NOTE

- DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE SPECIFIED.

FC = FACE OF CURB

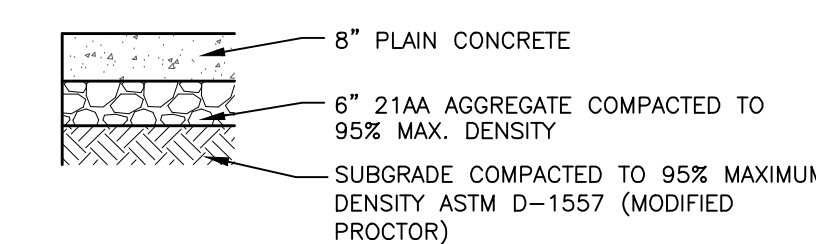
## STANDARD DUTY HMA PAVEMENT SECTION

Applies to: SITE



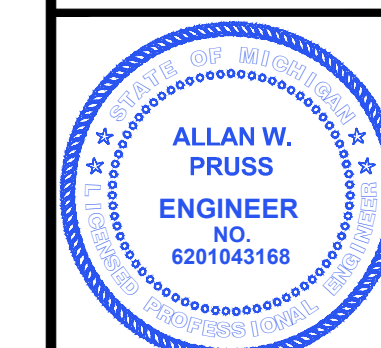
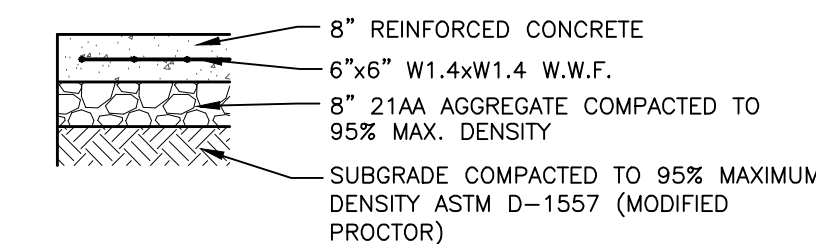
## STANDARD DUTY CONCRETE PAVEMENT SECTION

Applies to: SITE



## HEAVY DUTY CONCRETE PAVEMENT SECTION

Applies to: SITE



Allan W. Pruss

Call MISS DIG  
3 full working days before you dig:  
Michigan's Utility Notification One-Call  
1-800-482-7171  
www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

**Old Glory Car Wash**  
OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**DIMENSION AND PAVING PLAN**  
NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	REVISIONS
1/25/2024	

ORIGINAL ISSUE DATE:

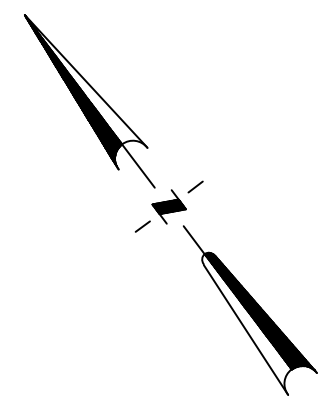
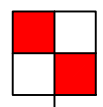
PROJECT NO: 22-177

SCALE: 1" = 30'  
0 1/2" 1"

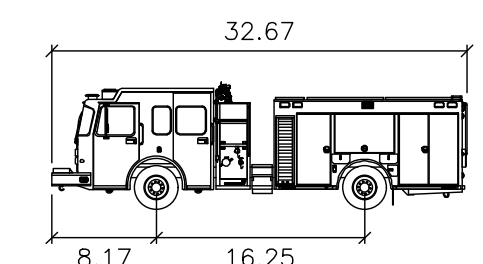
FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**C-10**

NOT FOR CONSTRUCTION



EMERGENCY VEHICLE



TOYNE PUMPER

FEET  
WIDTH : 8.35  
TRACK : 7.93  
LOCK TO LOCK TIME : 6.0  
STEERING ANGLE : 50.0

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE  
FOWLERVILLE, MICHIGAN 48836  
(OFFICE) 517-223-3512  
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED  
SMALL BUSINESS (SDVOSB)

ALLAN W. PRUSS  
ENGINEER  
NO. 6201043168

*Allan W. Pruss*

Call MISS DIG  
3 full working days before you dig:

Michigan's Utility One-Call Notification Organization

1-800-482-7171  
www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITIES, LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**EMERGENCY VEHICLE CIRCULATION**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/25/2024

ORIGINAL ISSUE DATE:

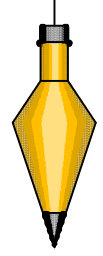
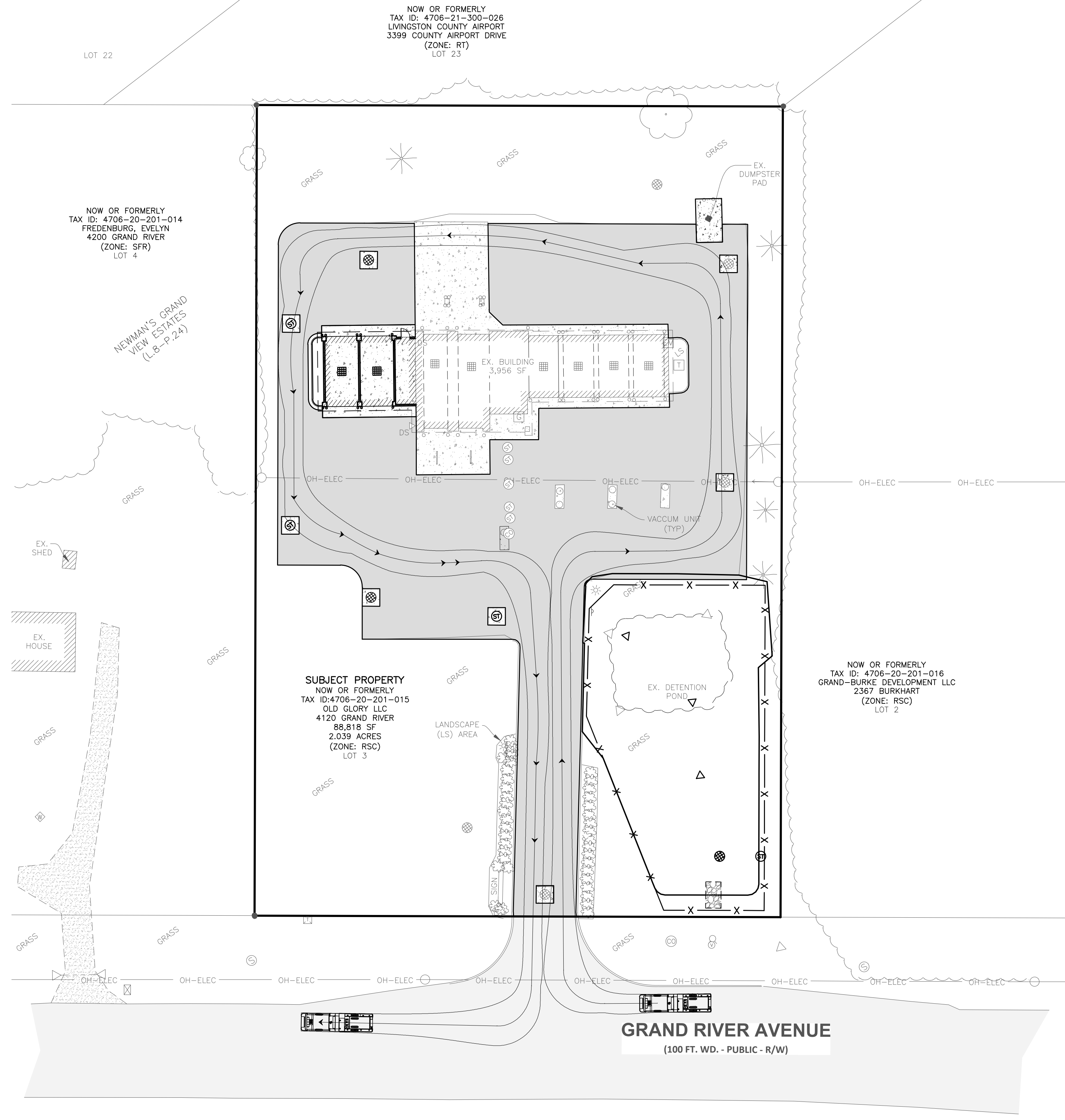
PROJECT NO: 22-177

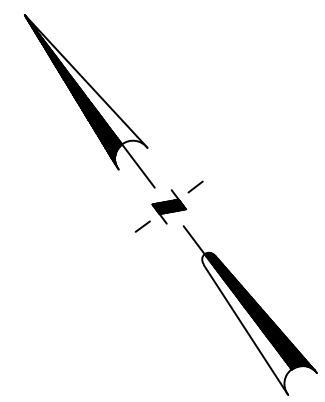
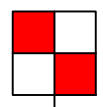
SCALE: 1" = 30'

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

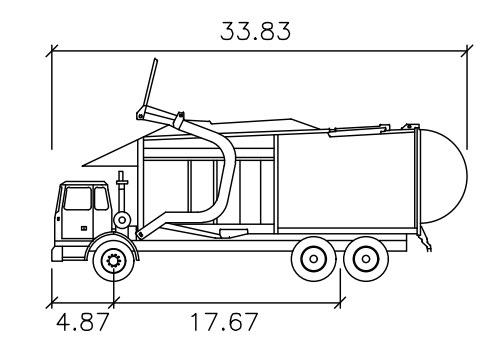
**C-2.0**

NOT FOR CONSTRUCTION





REFUSE VEHICLE



Wayne Titan  
FEET  
WIDTH : 8.46  
TRACK : 8.00  
LOCK TO LOCK TIME: 6.0  
STEERING ANGLE : 45.0

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE  
FOWLERVILLE, MICHIGAN 48836  
(OFFICE) 517-223-3512  
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED  
SMALL BUSINESS (SDVOSSB)

ALLAN W. PRUSS  
ENGINEER  
NO. 6201043168

Call MISS DIG  
3 full working days before you dig:

Michigan's Utility One-Call Notification Organization

1-800-482-7171  
www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITIES, LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**REFUSE VEHICLE CIRCULATION**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/25/2024

ORIGINAL ISSUE DATE:

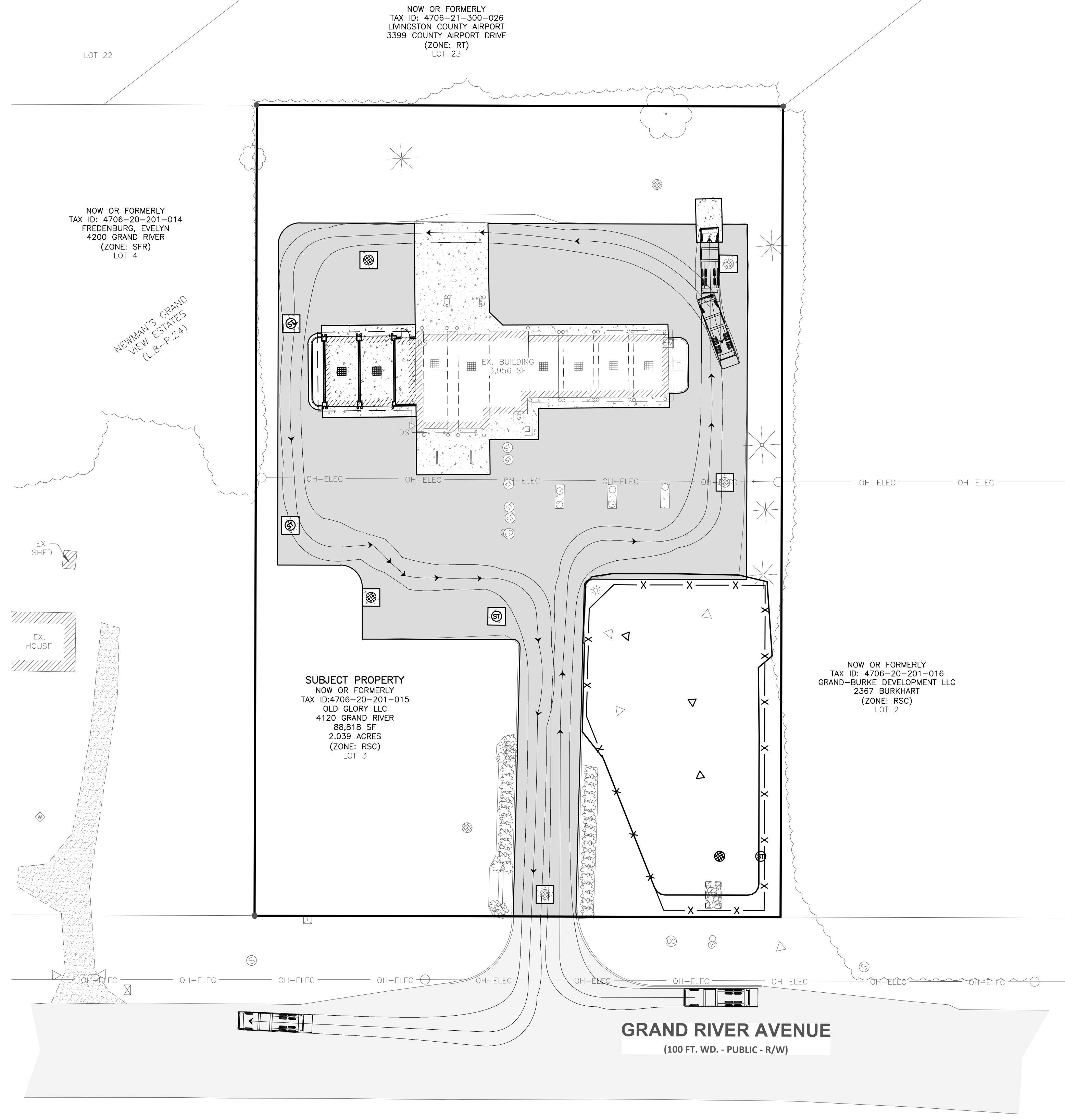
PROJECT NO: 22-177

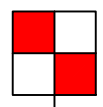
SCALE: 1" = 30'

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

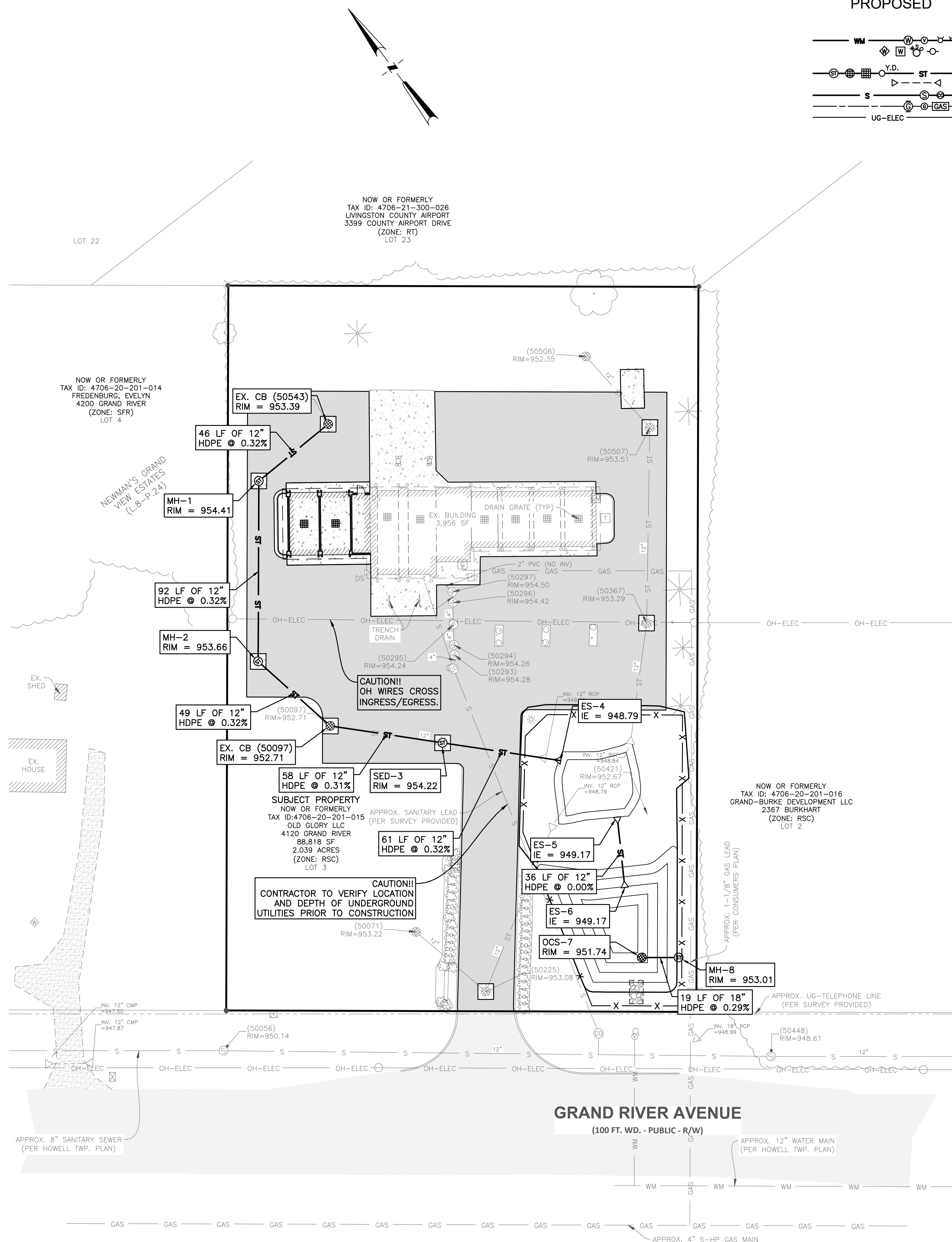
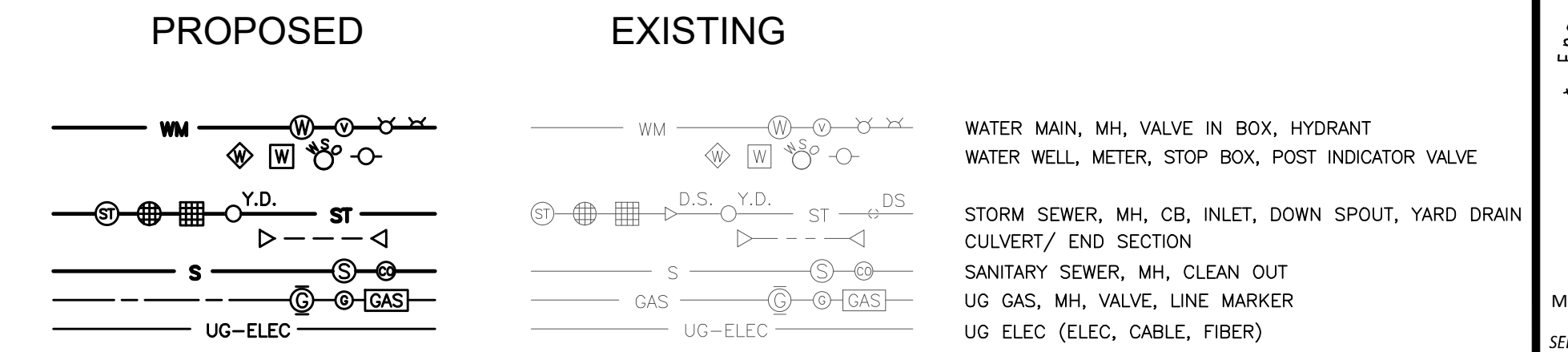
**C-2.1**

NOT FOR CONSTRUCTION





### UTILITY LEGEND



### STORM SEWER NOTES

- "IN" & "CB" STRUCTURES SHALL HAVE EIJW 1020 FRAME WITH TYPE M1 GRATE.
- CURB "IN" & "CB" STRUCTURES SHALL HAVE EIJW 7010 FRAME WITH TYPE M1 GRATE.
- STORM "MH" STRUCTURES SHALL HAVE EIJW 1040 FRAME WITH A TYPE A PERFORATED COVER.

### STORM SEWER QUANTITIES

QTY	UNIT	ITEM
2	EA	CATCH BASIN TAP
354	LF	12" HDPE @ 0.32%
51	LF	18" HDPE @ 0.29%
2	EA	4' MANHOLE
1	EA	4' MECHANICAL SEDIMENT SEPARATOR

### STRUCTURE SCHEDULE

STRUCTURE	RIM ELEV.	PIPES
ES-4	949.92	12" NW IE= 948.79
ES-5	950.30	12" SW IE= 949.17
ES-6	950.30	12" NE IE= 949.17
EX. CB (50097)	952.71	12" N IE= 949.16 12" SE IE= 949.16
EX. CB (50543)	953.39	12" W IE= 949.76
MH-1	954.41	12" E IE= 949.62 12" SW IE= 949.62
MH-2	953.66	12" NE IE= 949.32 12" S IE= 949.32
MH-8	953.01	18" NW IE= 949.12 18" SW IE= 949.12
OCS-7	951.74	18" SE IE= 949.17
SED-3	954.22	12" NW IE= 948.98 12" SE IE= 948.98

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

**MEGA**

298 VETERANS DRIVE FOWLERVILLE, MICHIGAN 48836 (OFFICE) 517-223-3512 MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED SMALL BUSINESS (SDVOSB)

ALLAN W. PRUSS ENGINEER NO. 6201043168

*Allan W. Pruss*

Call MISS DIG 3 full working days before you dig.

Michigan's Utility Notification One-Call

1-800-482-7171 www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR DETERMINING THE EXACT SHIFT LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

**Old Glory Car Wash**

OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**STORM SEWER PLAN**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	DESCRIPTION
1/25/2024	PLAN SUBMITTALS/REVISIONS
	SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE:

PROJECT NO: 22-177

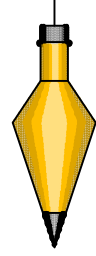
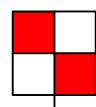
SCALE: 1" = 30'

0 1/2" 1"

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**C-6.0**

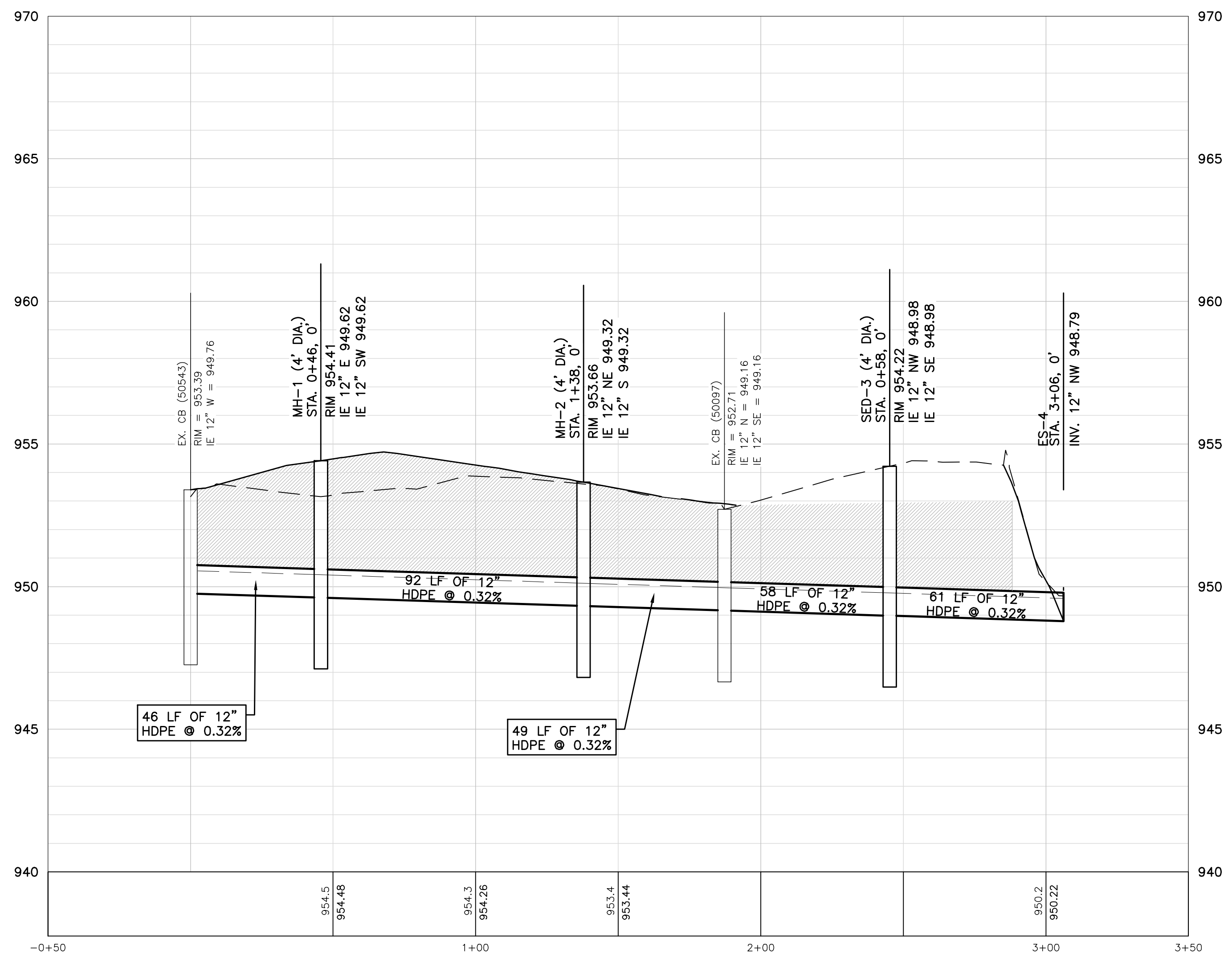
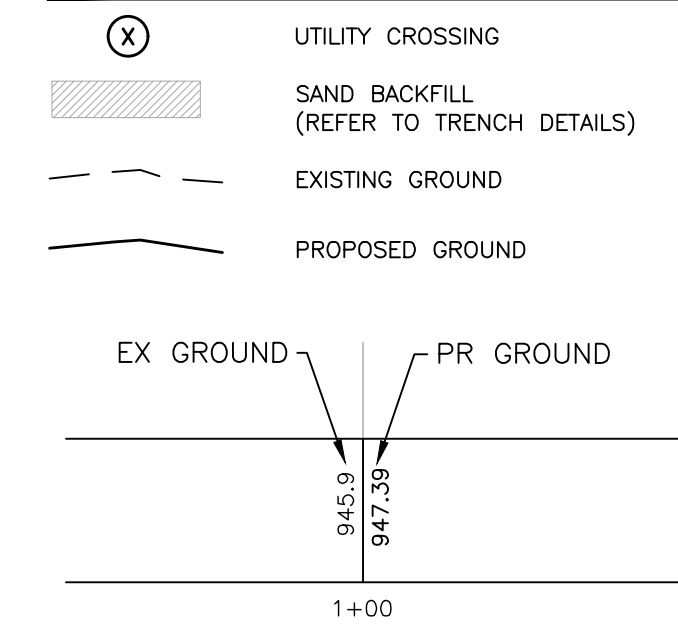
NOT FOR CONSTRUCTION



NOTES

- 1. SAND BACKFILL AND BEDDING TO BE MDOT CL II.
- 2. MAINTAIN MINIMUM 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES.

PROFILE LEGEND



EX CB (50543) TO ES-4

PROFILE SCALE  
HORIZ: 1"=30'  
VERT: 1"=3'

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE  
FOWLERVILLE, MICHIGAN 48836  
(OFFICE) 517-223-3512  
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED  
SMALL BUSINESS (SDVOSB)

ALLAN W. PRUSS  
ENGINEER  
NO. 6201043168

Call MISS DIG  
3 full working days before you dig:

Michigan's Utility Notification One-Call Organization  
1-800-482-7171  
www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**STORM SEWER PROFILES**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/25/2024

ORIGINAL ISSUE DATE:

PROJECT NO: 22-177

SCALE:  
0 1/2" 1"

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**C-6.1**

NOT FOR CONSTRUCTION



### BENCHMARKS

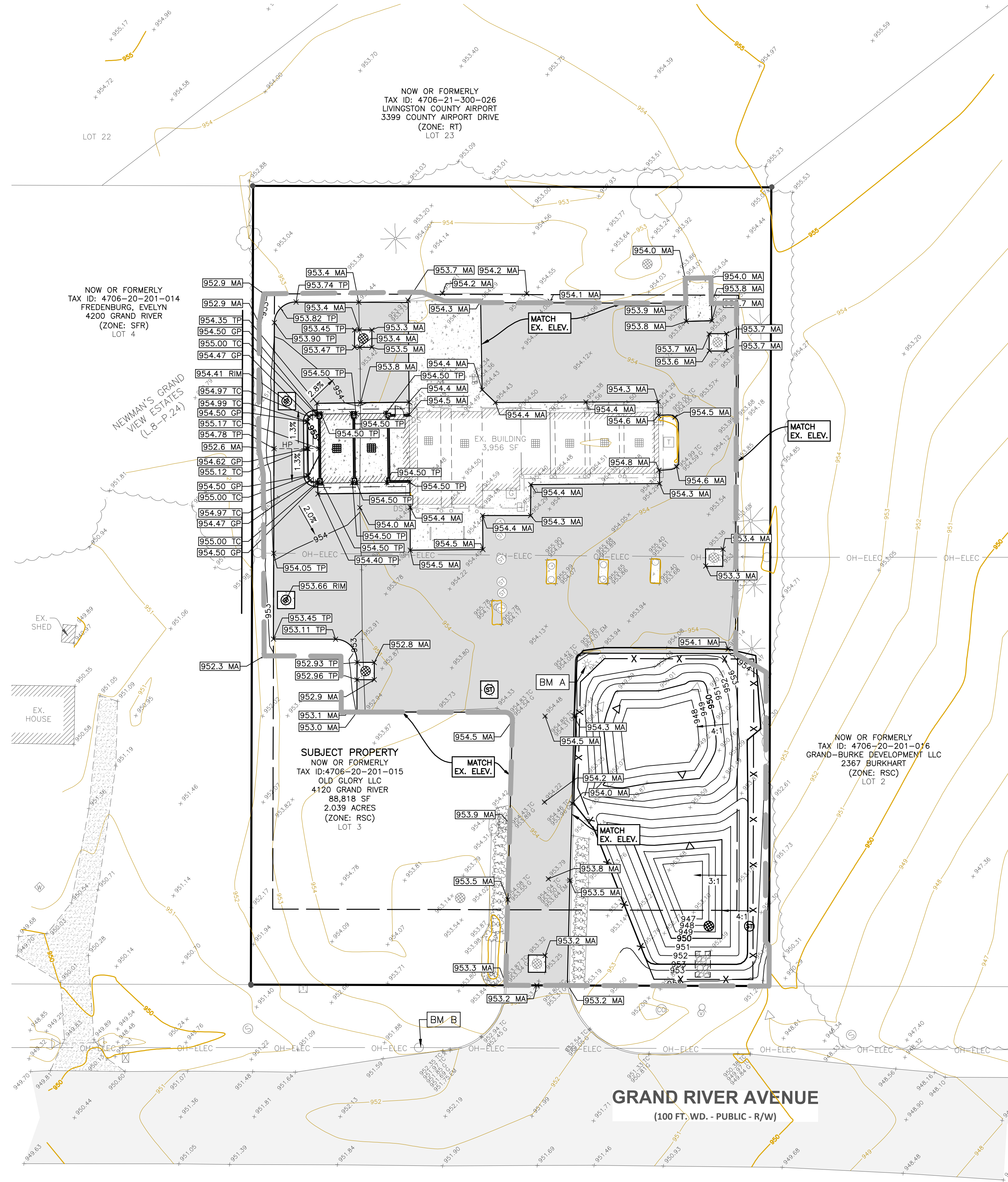
DATUM: NAVD88

**BM A:**  
CHISELED "X" ON NW SIDE CONCRETE PAD FOR LIGHT POLE, 208'± EAST OF CENTERLINE W GRAND RIVER ROAD & 20'± SOUTH OF CENTERLINE FOR ACCESS DRIVE TO SUBJECT'S PROPERTY.  
ELEV = 955.54

**BM B:**  
BENCH TIE IN NE SIDE UTILITY POLE, 32'± EAST OF CENTERLINE W GRAND RIVER ROAD & 57'± NORTH OF CENTERLINE FOR ACCESS DRIVE TO SUBJECT'S PROPERTY.  
ELEV = 953.25

### GRADING LEGEND

- X 940.00 TP PROPOSED TOP OF PAVEMENT GRADE
- X 940.00 SW PROPOSED SIDEWALK GRADE
- X 940.00 FG PROPOSED FINISH GRADE
- X 940.00 TC PROPOSED TOP OF CURB GRADE
- X 940.00 GP PROPOSED TOP OF GUTTER PAN GRADE
- X 940.00 TW PROPOSED TOP OF WALL GRADE
- X 940.00 BW PROPOSED BOTTOM OF WALL GRADE
- X 940.0 MA MATCH EXISTING GRADE
- X 940.0 FFE PROPOSED FINISH FLOOR GRADE
- X 940.0 RIM PROPOSED RIM GRADE
- X 940.00 ADJ-RIM ADJUSTED RIM GRADE
- X 940.0 INV PROPOSED INVERT GRADE
- R ADA COMPLIANT SIDEWALK RAMP
- L ADA COMPLIANT SIDEWALK LANDING
- 740.00 ± EXISTING ELEVATION
- 900 EXISTING CONTOUR
- 900 PROPOSED CONTOUR
- SOIL TYPE LIMIT AND LABEL (FROM USGS SOIL SURVEY)
- LIMITS OF DISTURBANCE
- OVERFLOW ROUTE



Allan W. Pruss

Call MISS DIG  
3 full working days before you dig:  
Utility Notification One-Call  
1-800-482-7171  
www.missdig.org

**CLIENT :**  
Old Glory Car Wash  
PO Box 328  
Fowlerville, MI 48836  
POC: MATT MARTIN  
517-375-0555

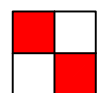
**GRADING PLAN**  
NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	DESCRIPTION
1/25/2024	PLAN SUBMITTALS/REVISIONS
	SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE:  
PROJECT NO: 22-177  
SCALE: 1" = 30'  
0 1/2" 1"  
FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

# C-7.0

NOT FOR CONSTRUCTION



CONSTRUCTION SEQUENCE	OPERATION TIME SCHEDULE -- BEGINNING APRIL 2024					
	APR	MAY	JUN	JUL	AUG	SEP
1 CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON APPROVED PLANS.						
2 DETENTION BASIN SHALL BE EXCAVATED, TOP SOILED, AND SEEDED IMMEDIATELY AFTER DEMOLITION WORK IS COMPLETED.						
3 REMOVE ALL TOPSOIL AND ORGANIC MATTER. TOPSOIL MAY BE STORED ON SITE IN DESIGNATED AREA TO BE USED FOR FUTURE PLANTING AND FILL AREAS. TRUCK REMAINING TOP SOIL OFFSITE AND PROPERLY DISPOSE.						
4 ROUGH GRADE AND INSTALL NEW UNDERGROUND UTILITIES. PLACE INLET FILTERS AT PROPOSED CATCH BASINS THROUGHOUT SITE.						
5 CONSTRUCT BUILDING(S).						
6 FINISH GRADE AROUND BUILDING(S) AND STABILIZE AS SOON AS POSSIBLE. STABILIZE ALL DISTURBED AREAS WITH CLASS A SEED AND MULCH. IN AREAS OF SLOPES OF 1:4 OR STEEPER, CONTRACTOR TO SEED AND INSTALL PEGGED IN PLACE EROSION CONTROL BLANKETS.						
7 REPAIR/CLEAN INLET FILTERS AS REQUIRED.						
8 INSTALL FINAL LANDSCAPING PER SEPARATE LANDSCAPE PLAN.						
9 STONE AROUND OUTLET STANDPIPE STRUCTURE SHALL BE REFRESHED.						
10 REMOVE TEMPORARY SOIL EROSION MEASURES ONCE SEEDED VEGETATION HAS BEEN ESTABLISHED. CLEAN ALL AFFECTED STORM STRUCTURES AS NECESSARY.						

### SOILS INFO

SOIL TYPES ARE ACCORDING TO THE USDA SOIL SURVEY WEB SITE (<https://websurveys.sc.egov.usda.gov/App/HomePage.htm>)

- CvrabB: CONOVER LOAM, 0-4% SLOPES
- MoB: WAWASEE LOAM, 2-6% SLOPES

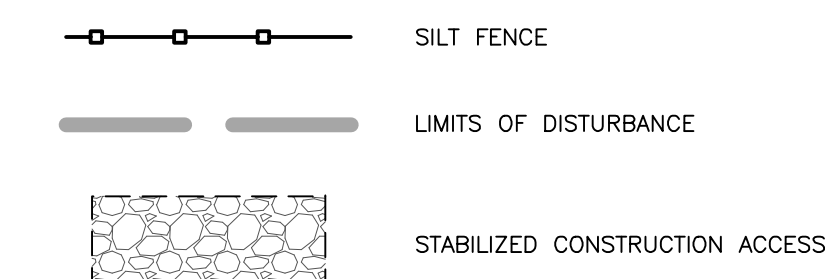
### EROSION CONTROL QUANTITIES

Disturbed Area: 35,376.1 SF = 0.81 Acres

QTY	UNIT	ITEM
1,105	LF	SILT FENCE
6	EA	INLET FILTER
1	EA	STABILIZED CONSTRUCTION ACCESS

NOTE: QUANTITIES ARE FOR ENTIRE SITE

### SESC LEGEND



### DTMB SOIL EROSION & SEDIMENTATION CONTROL MEASURES

MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT, AND BUDGET (DTMB)

EROSION CONTROLS			
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E6	MULCH		FOR USE IN AREAS SUBJECT TO EROSION SURFACE FLOWS OR SEVERE WIND OR ON NEWLY SEEDED AREAS.
E8	PERMANENT SEEDING		STABILIZATION METHOD UTILIZED ON SITES WHERE GROUND CHANGE HAS BEEN COMPLETED (FINAL GRADING ATTAINED).

SEDIMENT CONTROLS			
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
S51	SILT FENCE		USE ADJACENT TO CRITICAL AREAS, TO PREVENT SEDIMENT LADEN SHEET FLOW FROM ENTERING THESE AREAS.
S53	STABILIZED CONSTRUCTION ACCESS		USED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE.
S55	SEDIMENT BASIN		AT THE OUTLET OF DISTURBED AREAS AND AT THE LOCATION OF A PERMANENT DETENTION BASIN.
S58	INLET PROTECTION FABRIC DROP		USE AT STORMWATER INLETS, ESPECIALLY AT CONSTRUCTION SITES.

EROSION & SEDIMENT CONTROLS			
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
ES31	CHECK DAM		USED TO REDUCE SURFACE FLOW VELOCITIES WITHIN CONSTRUCTED AND EXISTING FLOW CORRIDORS.

XX TEMPORARY    
 XP PERMANENT

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE  
FOWLERVILLE, MICHIGAN 48836  
(OFFICE) 517-223-3512  
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED  
SMALL BUSINESS (SDVOSB)

Call MISS DIG  
3 full working days before you dig.

Utility Notification Organization  
1-800-482-7171  
www.missdig.org

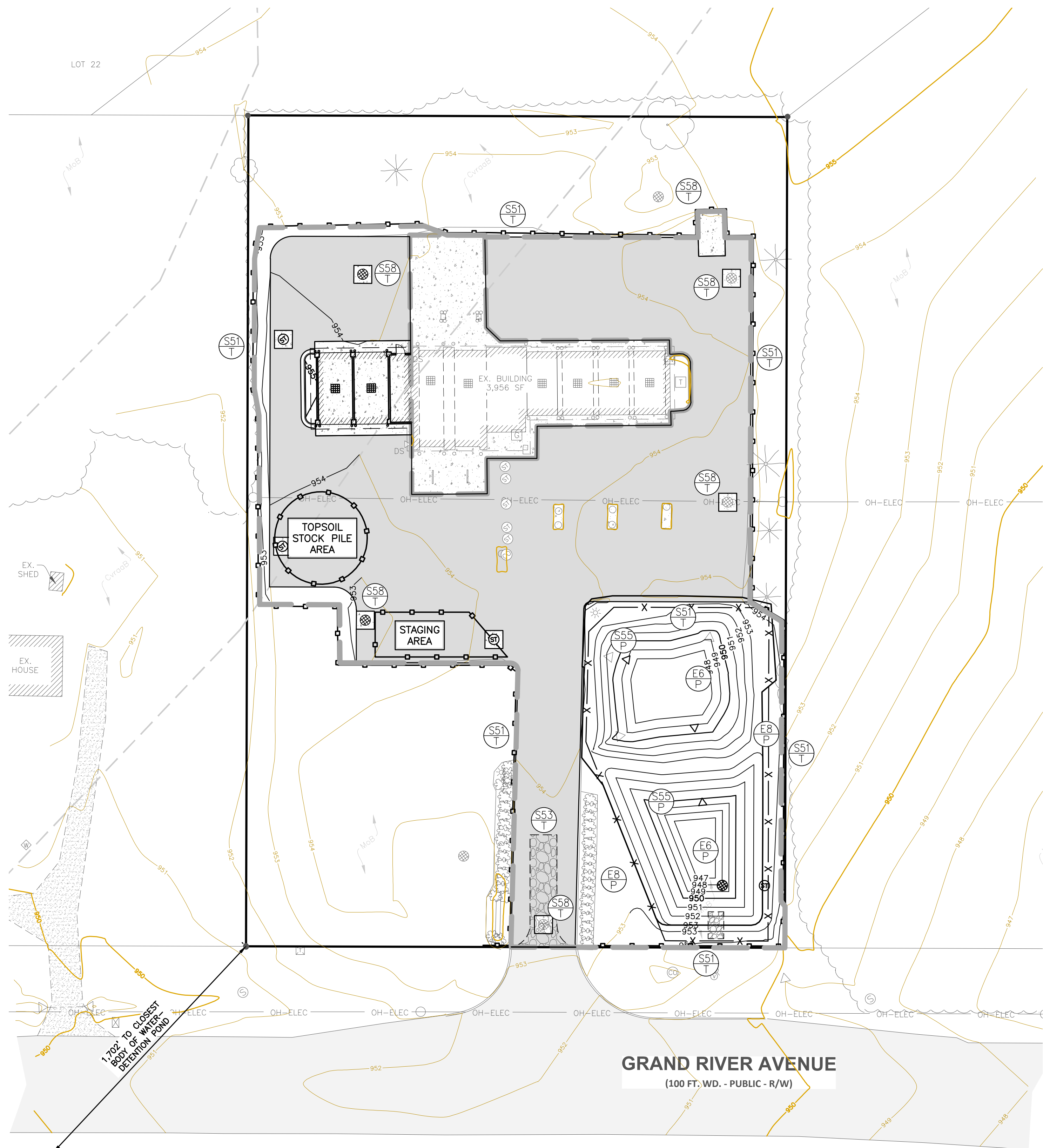
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLY RESPONSIBLE FOR DETERMINING THE EXACT UTILITIES LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

### EROSION CONTROL STANDARDS

- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE.
- DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR FOR EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER CHANGES HAS BEEN ACCOMPLISHED.
- STAGING OF THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLACES AND AS REQUIRED TO INSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS.
- SOIL EROSION CONTROL PRACTICES WILL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
- A CERTIFIED STORM WATER OPERATOR WILL BE NAMED ON THE EGLE NOTICE OF COVERAGE FOR NPDES AS REQUIRED.
- ALL DISTURBED AREAS ARE TO BE TOP SOILED AND SEEDED WITH THE FOLLOWING MIN RATIO:  
TOPSOIL TO BE SCREENED, 3" MIN. IN DEPTH. GRASS SEED 218 LBS PER ACRE, FERTILIZER 150 LBS PER ACRE, STRAW MULCH 3" DEPTH 1.5 TO 2 TONS PER ACRE.
- HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%. ON SLOPES OVER 1%, STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER, OR STRAW BLANKETS PEGGED IN PLACE.

### SOIL EROSION CONTROL MAINTENANCE SCHEDULE AND NOTES.

- CONTRACTOR MUST OBTAIN A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE PRIOR TO COMMENCING WORK.
- EARTHWORK SHALL BE LIMITED TO THE PROPOSED SITE AS SHOWN ON THE PLAN.
- CONTRACTOR SHALL INSPECT THE SOIL EROSION/SEDIMENTATION CONTROL DEVICES ONCE A WEEK AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT WHICH RESULTS IN A STORM WATER DISCHARGE FROM THE SITE. ANY DAMAGE TO EROSION CONTROL MEASURES MUST BE REPAIRED IMMEDIATELY.
- ALL MUD OR DEBRIS TRACKED ONTO EXISTING PUBLIC ROADS FROM THE SITE DUE TO CONSTRUCTION SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
- SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT-UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR RE-BACKFILL THE SILTATION FENCE SHOULD IT FAIL OR BE DAMAGED DURING CONSTRUCTION.
- PERMANENT STABILIZATION MUST BE COMPLETED WITHIN 30 DAYS OF FINAL GRADING.
- ACCESS ROADS MUST BE MAINTAINED AS NECESSARY, TO KEEP THEM EFFECTIVE, NEW LAYERS OF STONE MAY BE ADDED AS OLD LAYERS BECOME COMPACTED. STEPS SHOULD ALSO BE TAKEN TO REPAIR THE ACCESS ROADS IF RUTS OR PONDING WATER APPEARS.
- INLET FILTERS SHOULD BE INSPECTED FOR BUILDUP OF SILT AND OTHER DEBRIS. THIS IS EVIDENT IF GEOTEXTILE/SOD STRUCTURE IS CAUSING FLOODING. MAINTENANCE WOULD CONSIST OF REMOVING OF SEDIMENTS WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTER IS BEYOND THIS LEVEL OF REPAIR, IT MAY BE NECESSARY TO REPLACE BOTH THE SOD AND GEOTEXTILE FILTER.
- IF SOIL EROSION/SEDIMENT CONTROL MEASURES ARE INADEQUATE FOR THE SITE. THE PROPER EROSION CONTROL AUTHORITY MUST BE NOTIFIED.
- ANY DEWATERING REQUIRED SHALL HAVE A DEWATERING PLAN SUBMITTED PRIOR TO STARTING THE ACTIVITY AND MAY REQUIRE EGLE APPROVAL.



CLIENT :

OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

**SESC PLAN**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	DESCRIPTION
1/25/2024	PLAN SUBMITTALS/REVISIONS
	SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE:

PROJECT NO: 22-177

SCALE: 1" = 30'

FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**C-8.0**

NOT FOR CONSTRUCTION



# LCDC NOTES

## Top Soil & Soil Storage Areas:

- Top soil or soil storage areas shall be seeded and mulched, or matted with straw, immediately after the stripping process is completed, to prevent wind and water erosion.

## Slopes and Ditches:

- On-site ditches shall be of the flat bottom type, minimum width of 2' with a minimum of 3' horizontal to 1' vertical side slopes, 3:1.
- Side slopes in excess of 3' horizontal to 1' vertical shall not be used except with a mechanical device such as a retaining wall, or terracing.
- Ditches with steep grades will need "stone flow checks" to prevent scouring of the ditch bottoms. They may be used as a temporary measure and removed once sufficient stabilization has been established. These shall be depicted on plans by the engineer. Indicate flow checks on all slopes 3.00% and greater.

## Detention/Retention, Sedimentation Ponds:

- New land developments within Livingston County shall be equipped with detention/retention facilities for storm water in accordance with the Drainage Policies of the Livingston County Drain Commissioner.
- Inlets into detention ponds must not discharge at the same location as the outlet structure.
- Detention Pond Stand Pipe Outlet Detail must be the Livingston County Drain Commissioner's standard Detention Pond outlet, e.g. orifice outlets without sedimentation control devices are prohibited.
- Stand pipe structure must have a 2 ft. sump.
- Detention Pond stand pipe structure shall show staggering of outlet holes at different elevations. This will minimize plugging and provide for more effective filtering.
- The stone around the stand pipe structure shall be refreshed with clean stone prior to completion of the project.
- Detention/Retention, Sedimentation Ponds shall be excavated, top soiled, seeded, mulched and tacked prior to the start of massive earth disruption.
- Inlets into Detention/Retention Ponds must be located within two feet of the bottom floor of the pond.

## Detention Pond Spillway:

- Rip-rap proposed in the construction of the emergency spillway must be placed over keyed-in geo-fabric blanket.

## Silt Fence:

- All commercial projects constructed in Livingston County shall install 36" high silt fence.

## Inlet Protection:

- Sedimentation protection for catch-basin inlets. Silt sacks are the preferred choice in the winter months, because they are less likely to be disturbed by the process of snow plowing.
- Open-Pipe, inlet protection must be provided with straw bales, stone or geo-fabric.

## Outlet Protection:

- All storm drains 15" in diameter or larger shall have animal guards installed to prevent entrance to the system.
- All rip-rap must be placed over keyed in geo-fabric.
- Storm drain outlets that do not empty into the retention/detention pond shall have a temporary 5'x10'x3' sump installed at the termination of the storm sewer. Upon completion of the stabilization work the sump area shall be filled and rip-rapped with cobble stone over keyed in filter fabric. Silt traps shall be inspected after each storm.
- Splash blocks may be required depending on the outley flow rate or velocity.

## Tracking onto public roadway:

- It is required that each development have an ingress/egress of crushed stone to restrict tracking of material onto the Public Roadway. All commercial construction sites require a minimum 75-foot tracking mat shown at ingress/egress.

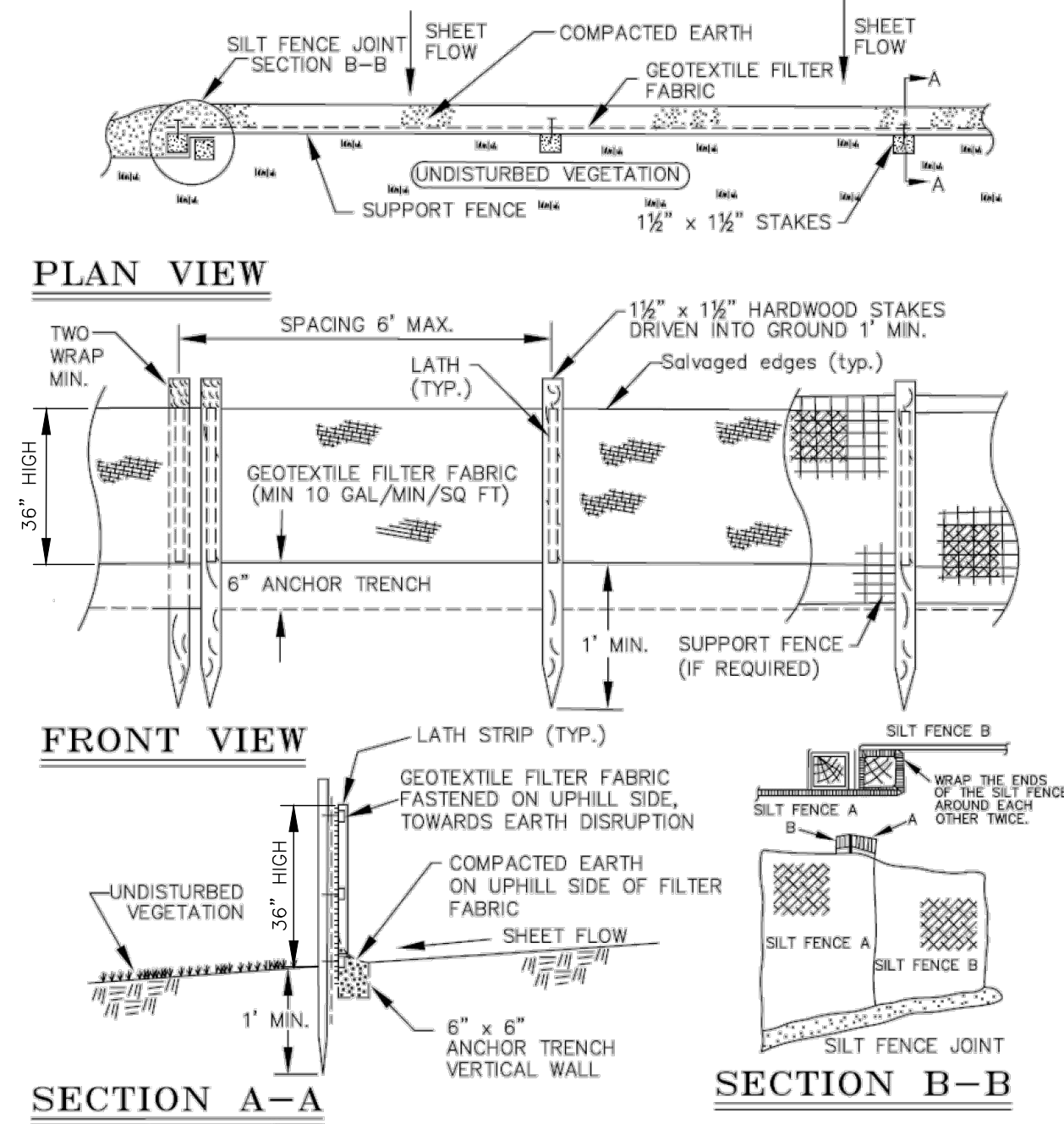
## Stabilization Standards:

- For subdivision and site condominium developments: As of May 01, 2000, it is required that temporary stabilization of the entire site be completed and approval from the Livingston County Drain Commissioner's Office obtained prior to the issuance of single family dwelling permits.
- For commercial or industrial sites, common areas shall be called out on plans, in accordance with Part 17, prescribed by R 323.1709 and R 323.1710, pursuant to PART 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act (Previously known as P.A. 347 of 1972) of Act 347, Public Acts Of 1972, as amended) indicating areas to be stabilized after 15 days of grade work. Areas to be outlined are as follows: detention/retention, drainage easements, utility easements, boulevards, etc.

## Seeding, Fertilizer and Mulch Bare Ground Ratio:

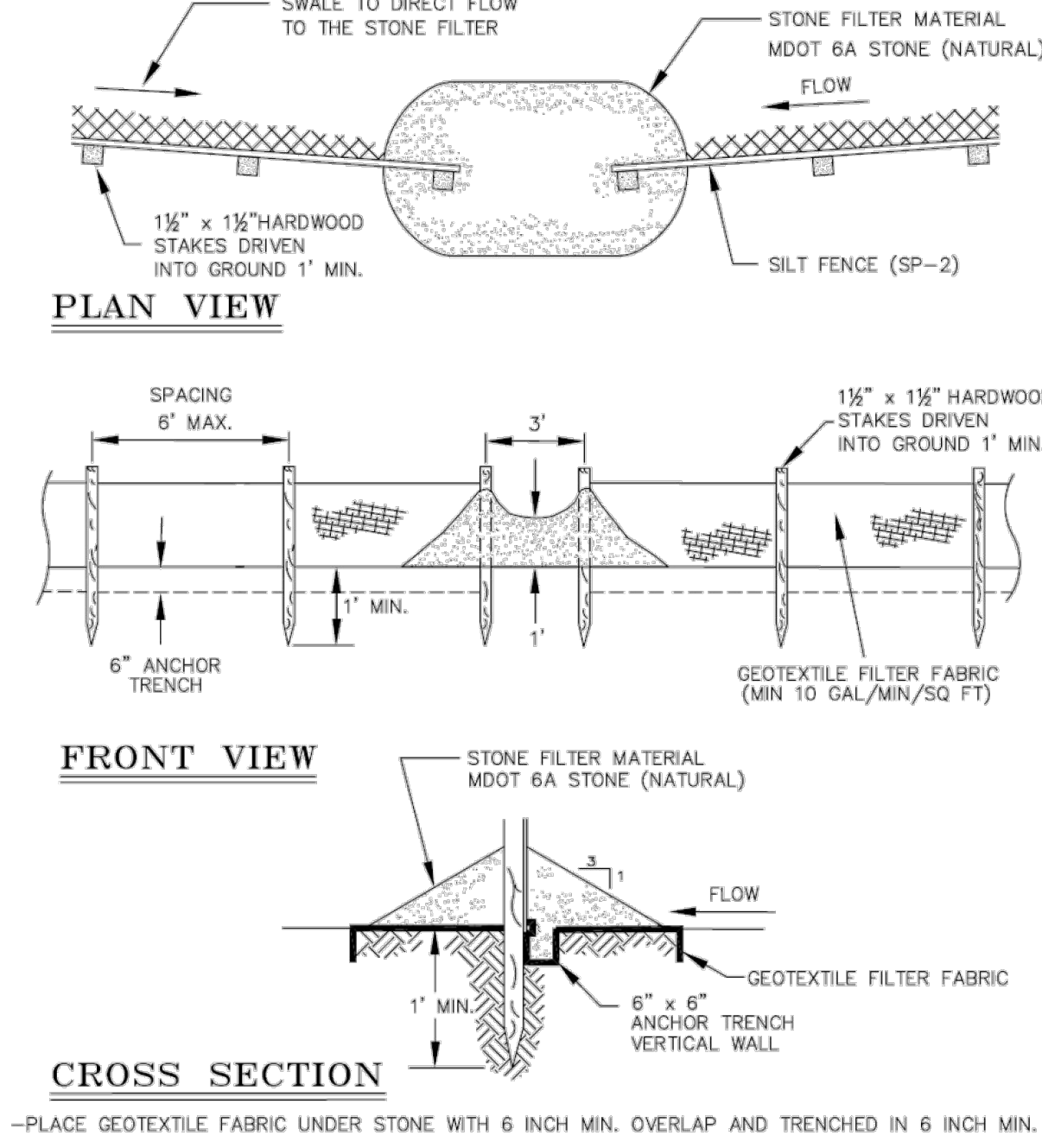
- This information shall be detailed on the construction plans.
- Top Soil Screened, 3" min. in depth
- Grass Seed 217.84 lbs per acre
- Fertilizer 150 lbs per acre
- Straw Mulch 3" in depth (All mulching must have a tie down)
- Hydroseeding is not acceptable for slopes exceeding 1%, in such cases stabilization shall be done with seed and straw mulch with a tackifier.

### 36" SILT FENCE STANDARD CONTROL

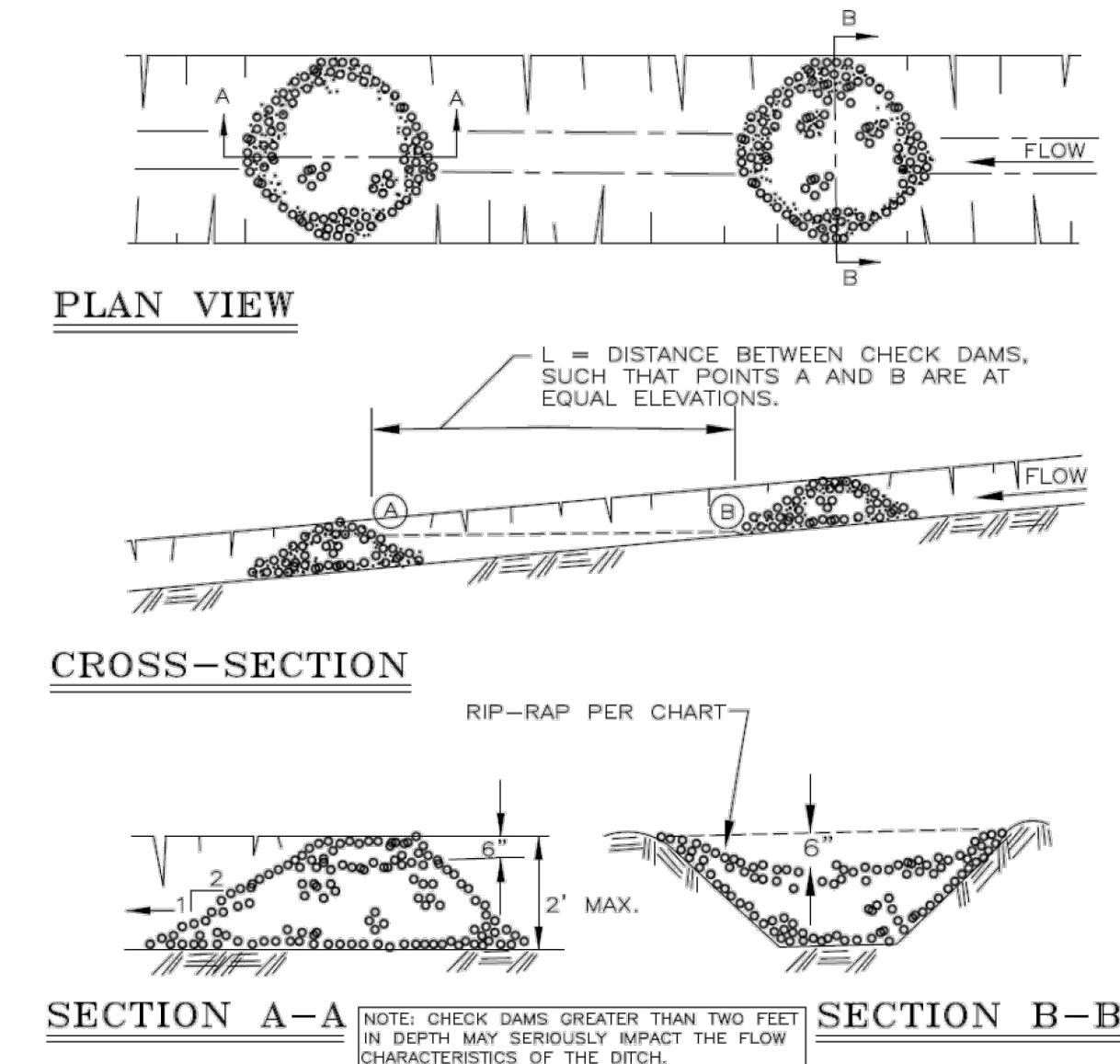


### 36" SILT FENCE GRAVEL FILTER STANDARD CONTROL

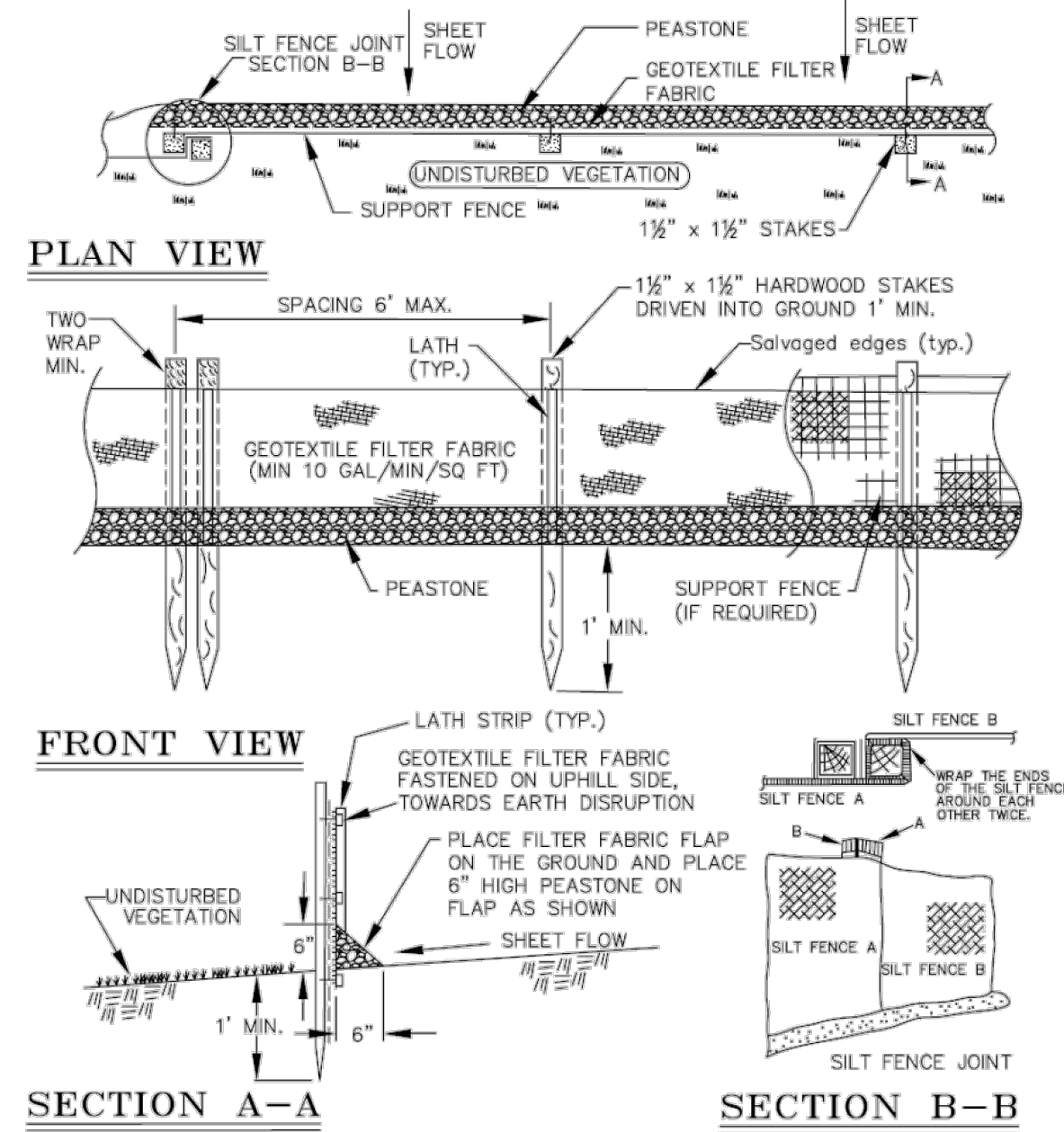
(ALL ALTERNATIVES MUST BE PRE-APPROVED BY THE INSPECTOR ON A CASE BY CASE BASIS)



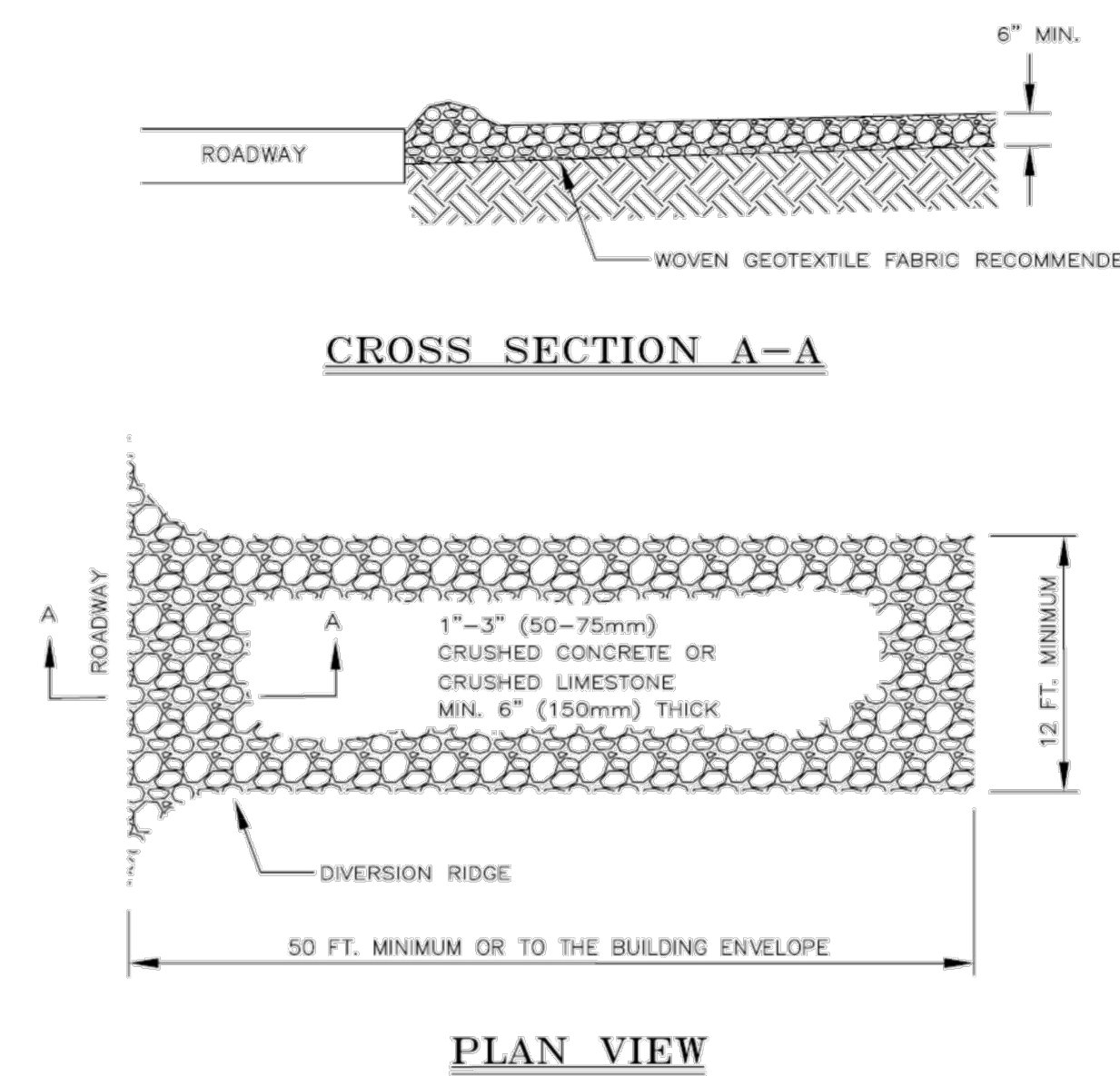
### ANGULAR RIP RAP CHECK DAM STANDARD CONTROL



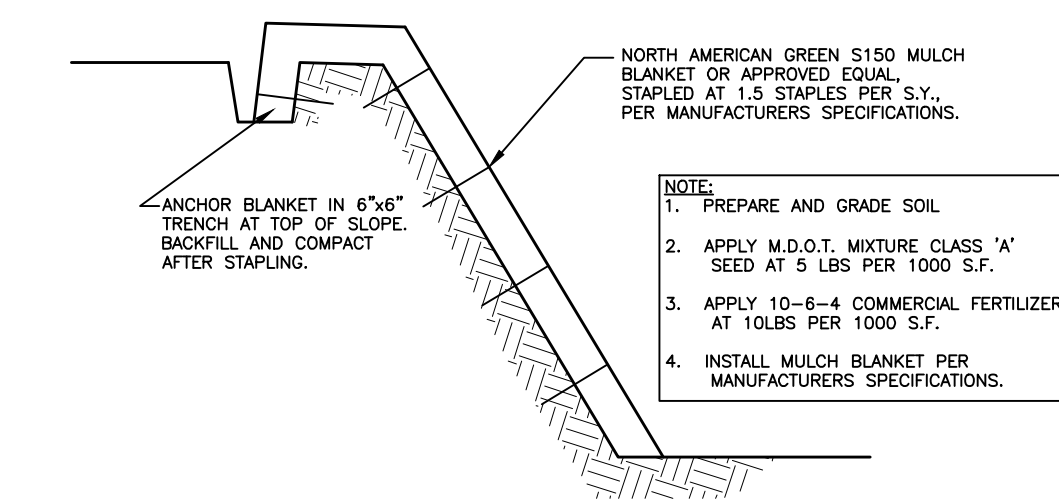
### 36" SILT FENCE WINTER FROZEN GROUND INSTALLATION STANDARD CONTROL



### TRACKING MAT STANDARD CONTROL



### EROSION CONTROL BLANKET DETAIL



Call MISS DIG  
3 full working days before you dig.  
Utility Notification Organization  
1-800-482-7171  
www.missdig.org

OLD GLORY CAR WASH  
PO BOX 328  
FOWLERVILLE, MI 48836  
POC: MATT MARTIN  
517-375-0555

LCDC SECC NOTES AND DETAILS  
NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DATE	1/25/2024
PLAN SUBMITTALS/REVISIONS	
SITE PLAN SUBMITTAL	
ORIGINAL ISSUE DATE:	
PROJECT NO:	22-177
SCALE:	N/A
FIELD:	
DRAWN BY:	DC
DESIGN BY:	
CHECK BY:	AP

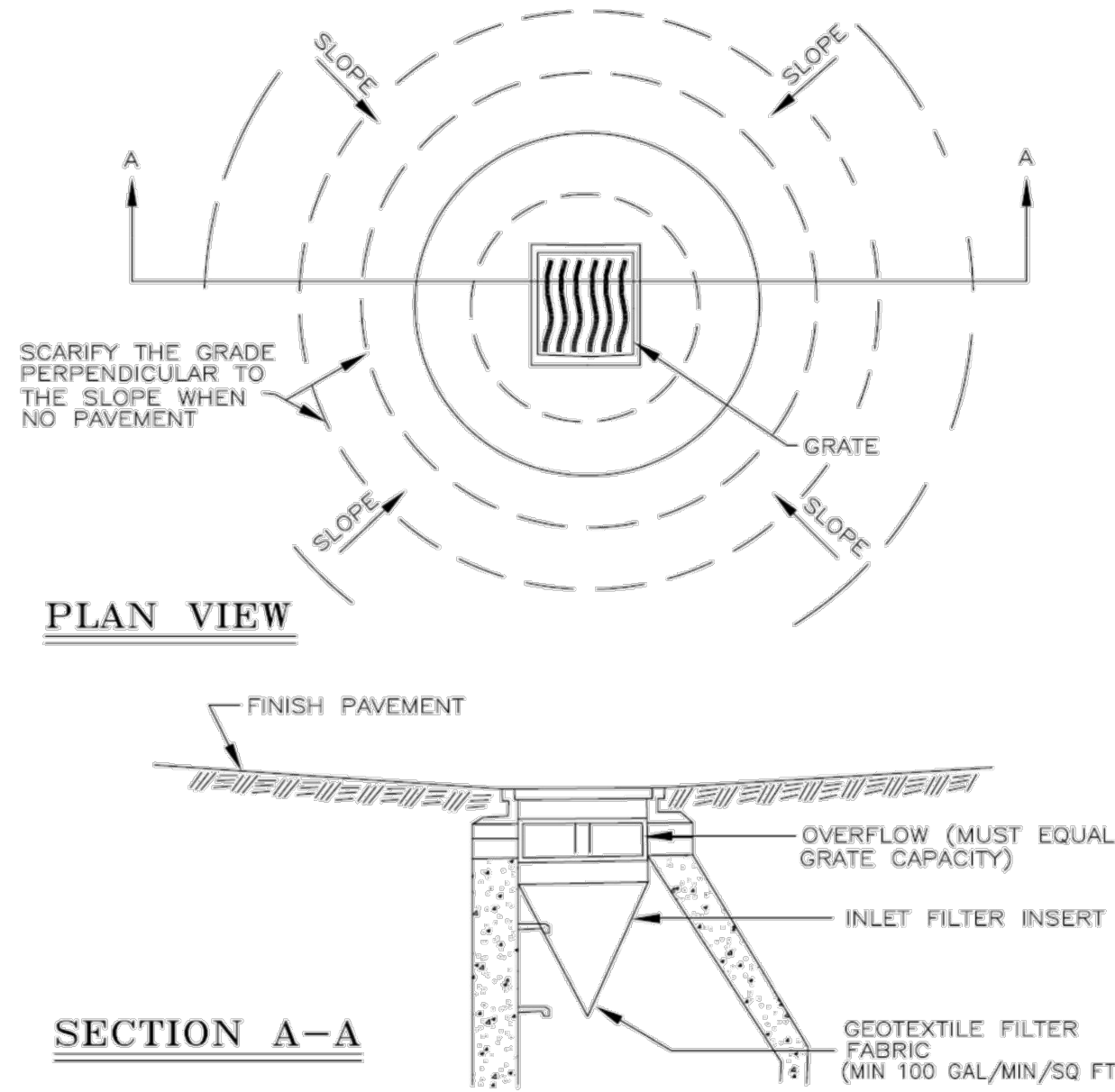
C-8.1

NOT FOR CONSTRUCTION

**SILT SACK OR APPROVED EQUAL LOW POINT/YARD INLET FILTER**

**STANDARD CONTROL YEAR ROUND OR WINTER USE**

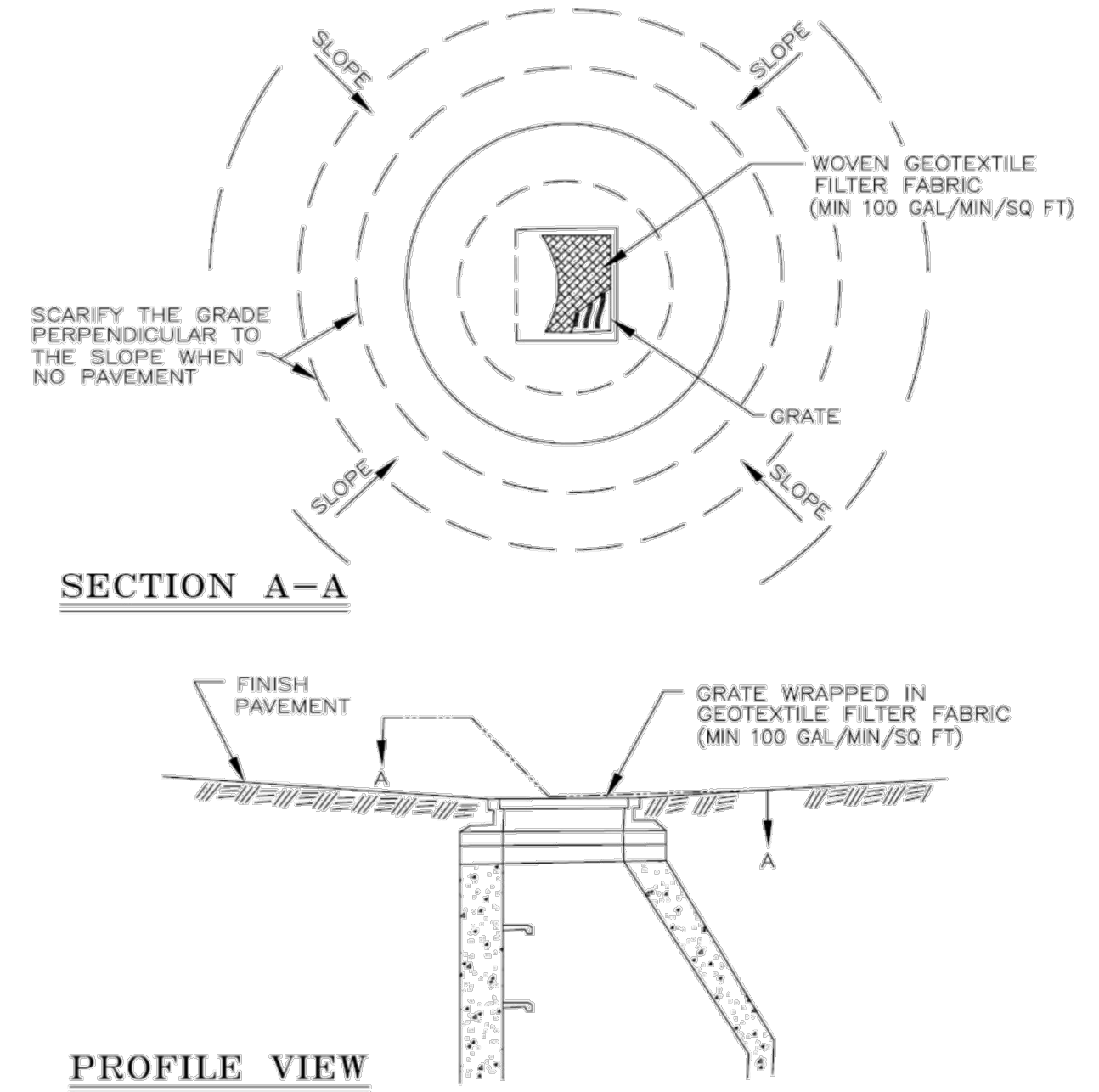
*APPROVED FOR USE DURING WINTER MONTHS OR IN AREAS THAT MAY BECOME A SAFETY HAZARD DUE TO FLOODING OR FREEZING*



**GEOTEXTILE FABRIC LOW POINT/YARD INLET FILTER**

**STANDARD CONTROL NON-WINTER USE**

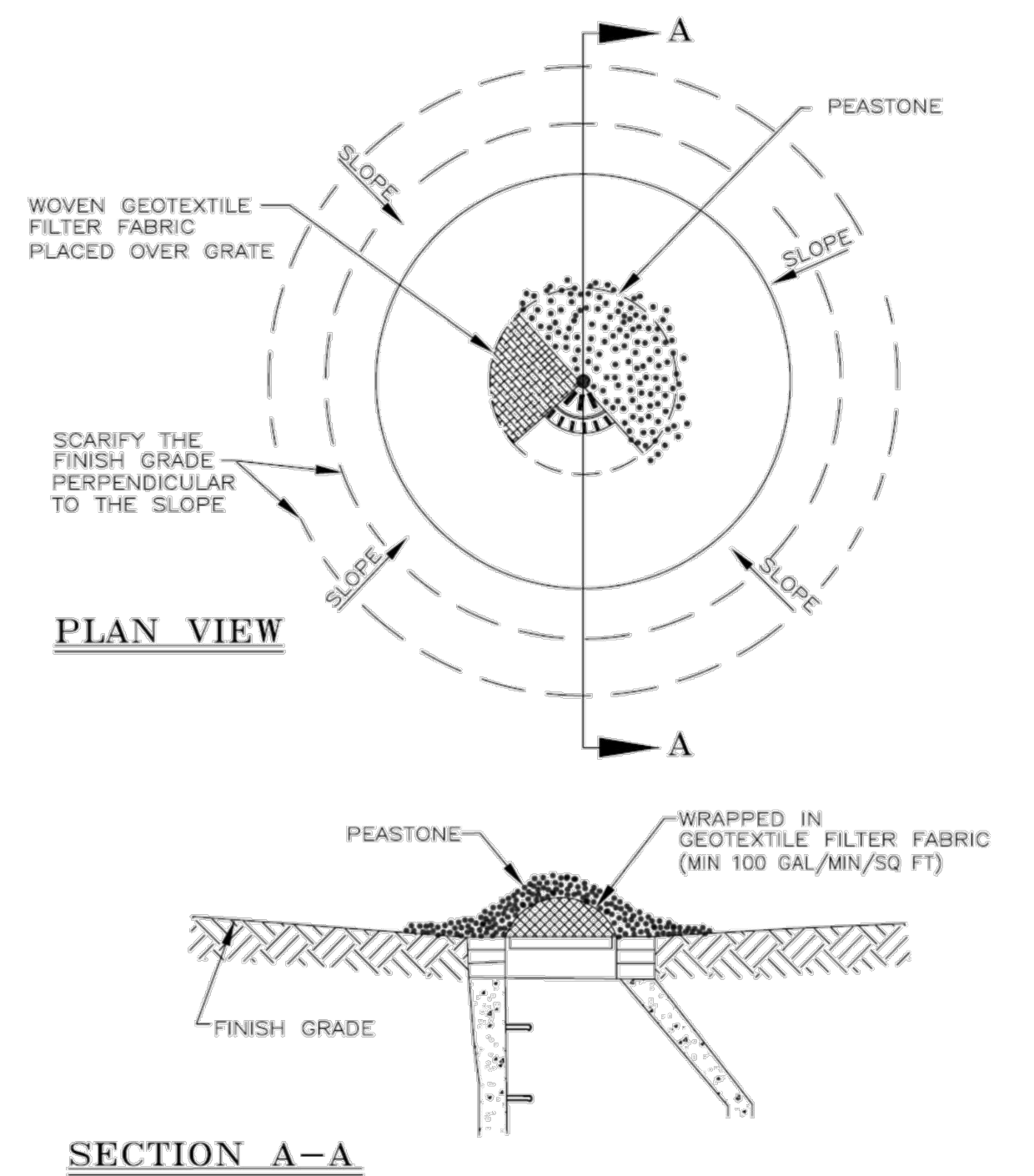
*NOT FOR USE IN WINTER MONTHS OR IN AREAS THAT MAY BECOME A SAFETY HAZARD DUE TO FLOODING OR FREEZING*



**GEOTEXTILE & PEASTONE LOW POINT/YARD INLET FILTER**

**STANDARD CONTROL NON-WINTER USE**

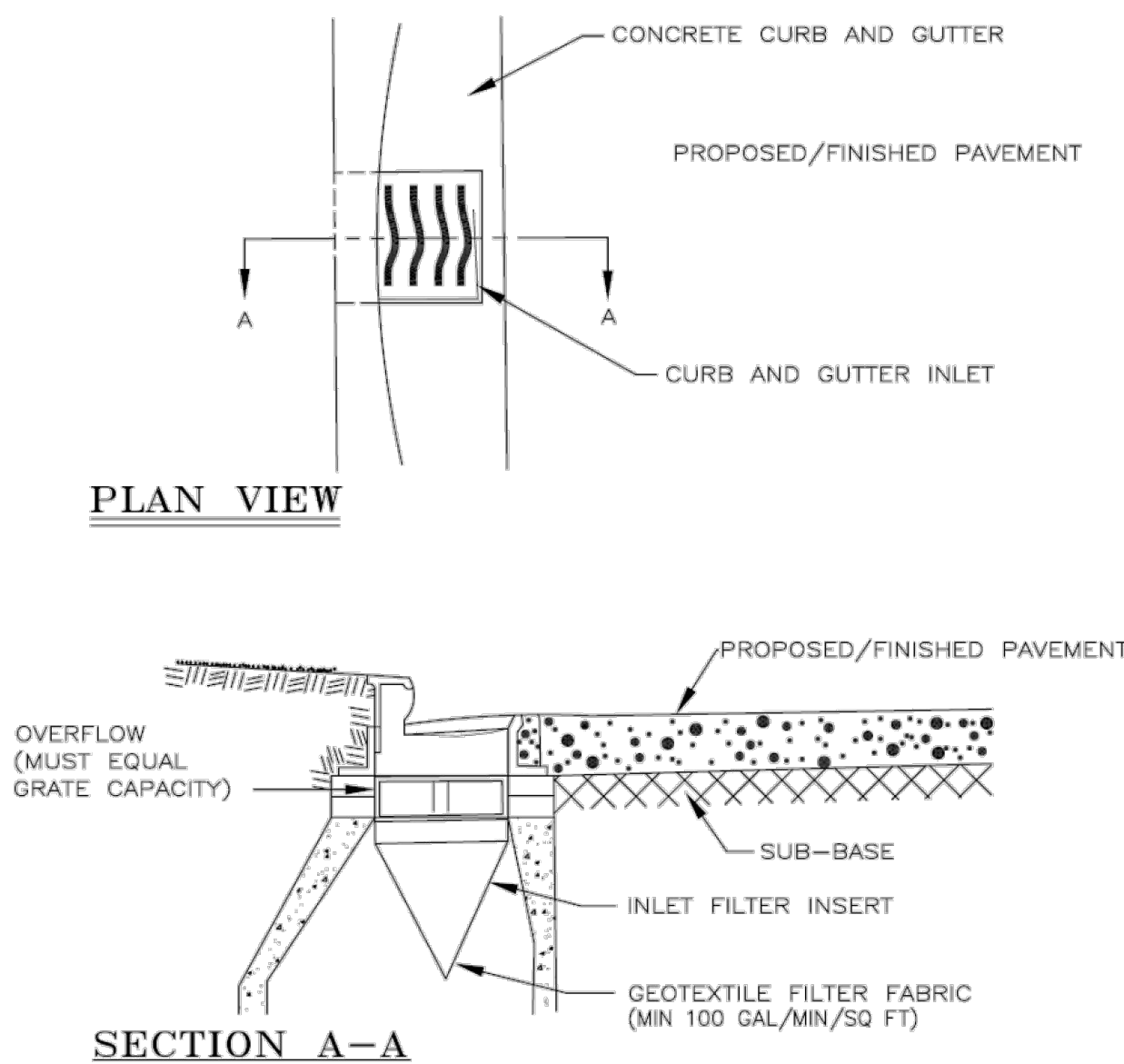
*NOT FOR USE IN WINTER MONTHS OR IN AREAS THAT MAY BECOME A SAFETY HAZARD DUE TO FLOODING OR FREEZING*



**SILT SACK OR APPROVED EQUAL CURB AND GUTTER INLET FILTER**

**STANDARD CONTROL YEAR ROUND OR WINTER USE**

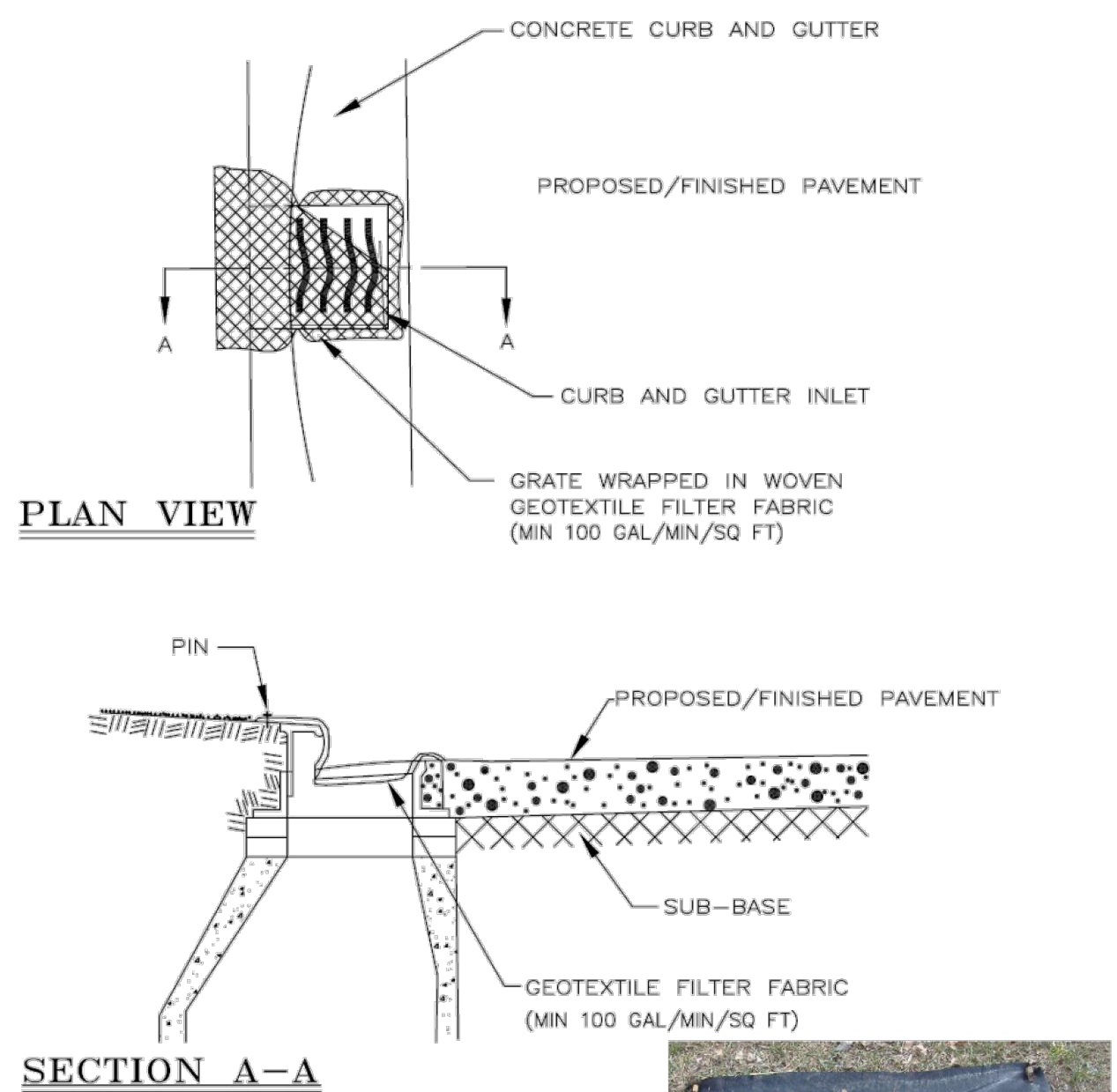
*APPROVED FOR USE DURING WINTER MONTHS OR IN AREAS THAT MAY BECOME A SAFETY HAZARD DUE TO FLOODING OR FREEZING*

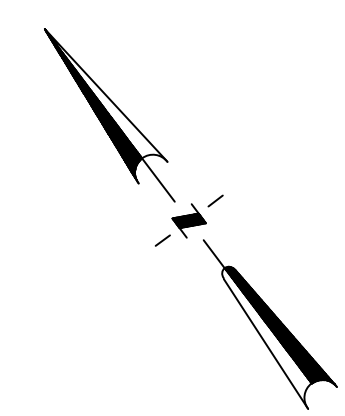
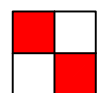


**GEOTEXTILE FABRIC CURB AND GUTTER INLET FILTER**

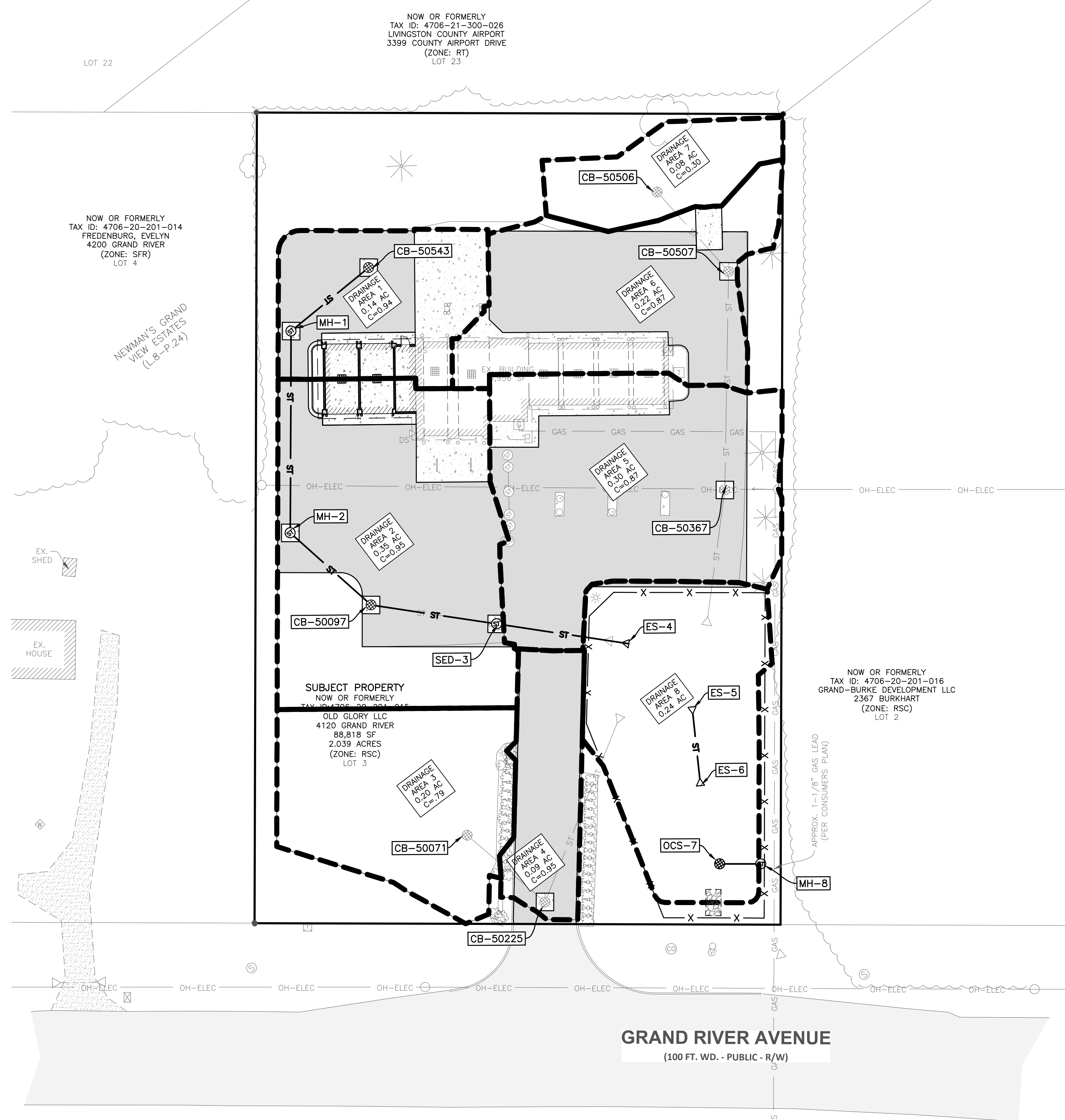
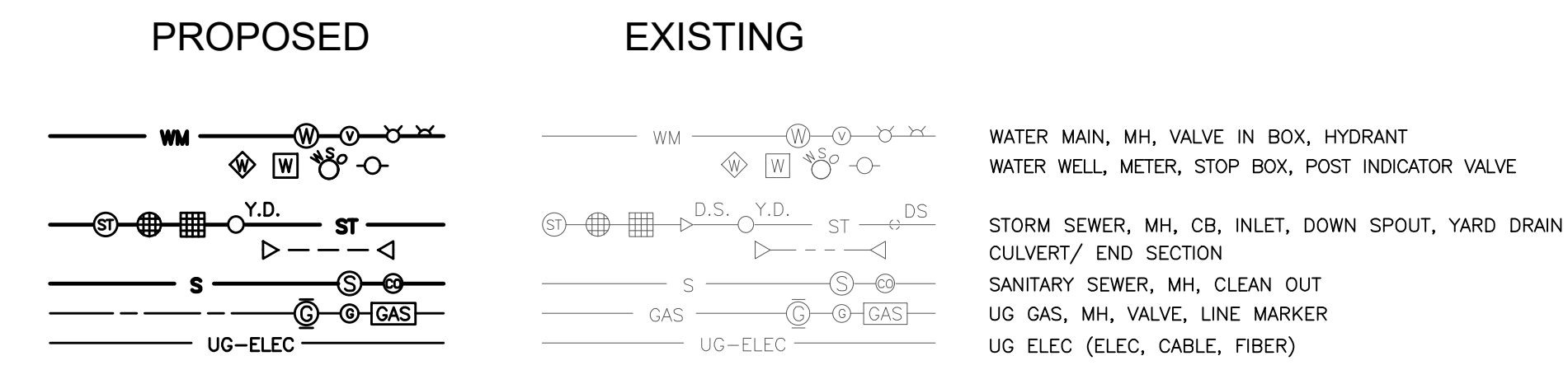
**STANDARD NON-WINTER USE**

*NOT FOR USE IN WINTER MONTHS OR IN AREAS THAT MAY BECOME A SAFETY HAZARD DUE TO FLOODING OR FREEZING*





### UTILITY LEGEND



INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE  
FOWLerville, MICHIGAN 48836  
(OFFICE) 517-223-3512  
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED  
SMALL BUSINESS (SDVOB)

ALLAN W. PRUSS  
ENGINEER  
NO. 6201043168

*Allan W. Pruss*

Call MISS DIG  
3 full working days before you dig:

Michigan's Utility One-Call Notification Organization

1-800-482-7171  
www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE INDIVIDUALLY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

OLD GLORY CAR WASH  
PO BOX 328  
FOWLerville, MI 48836  
POC: MATT MARTIN  
517-375-0555

**DRAINAGE AREA PLAN**

NEW TOUCHLESS WASH BAYS  
4120 GRAND RIVER ROAD  
PART OF SE 1/4, SEC. 20, T3N-R4E  
HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	1/25/2024

ORIGINAL ISSUE DATE:

PROJECT NO: 22-177

SCALE: 1" = 30'

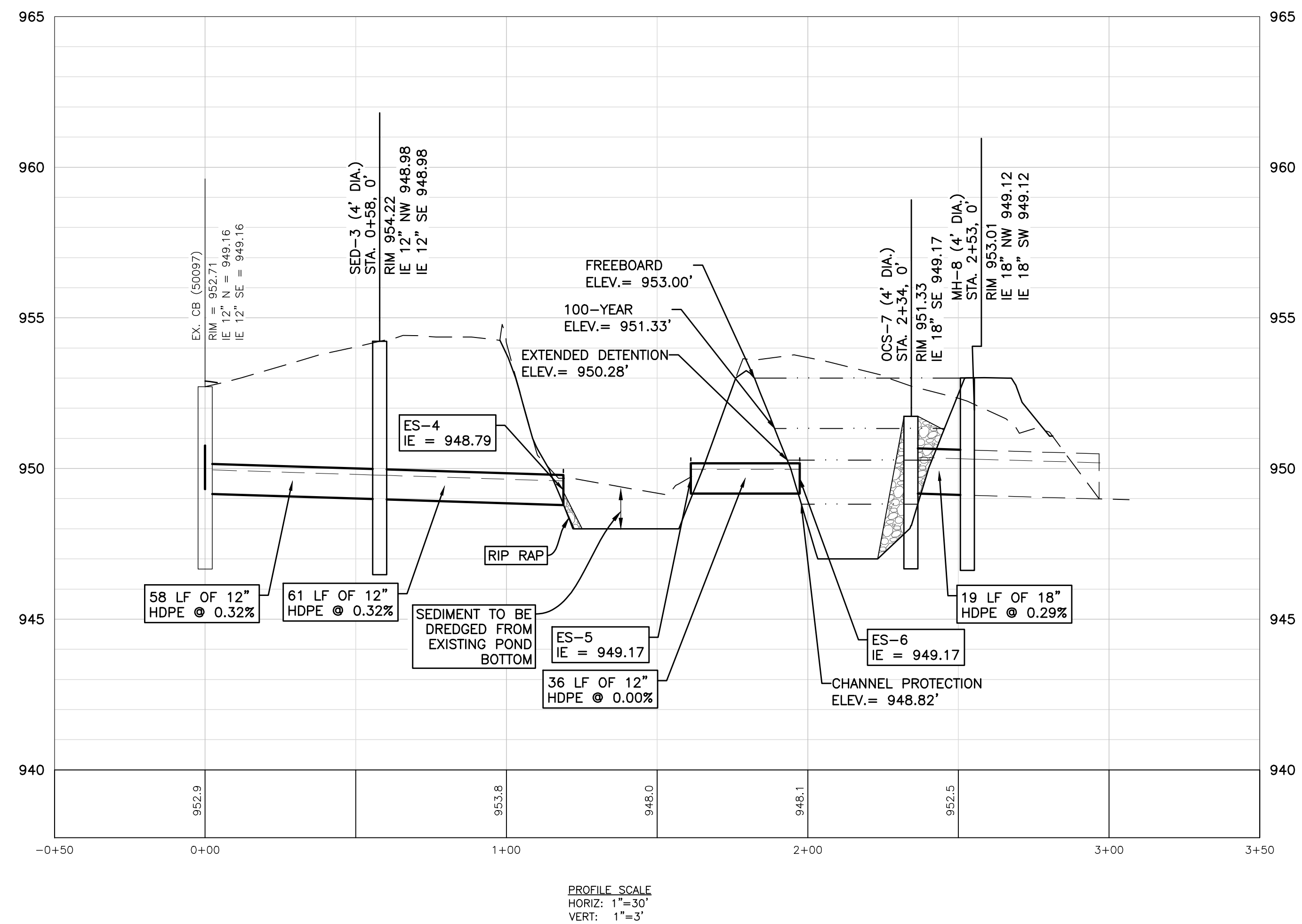
FIELD:  
DRAWN BY: DC  
DESIGN BY:  
CHECK BY: AP

**C-9.0**

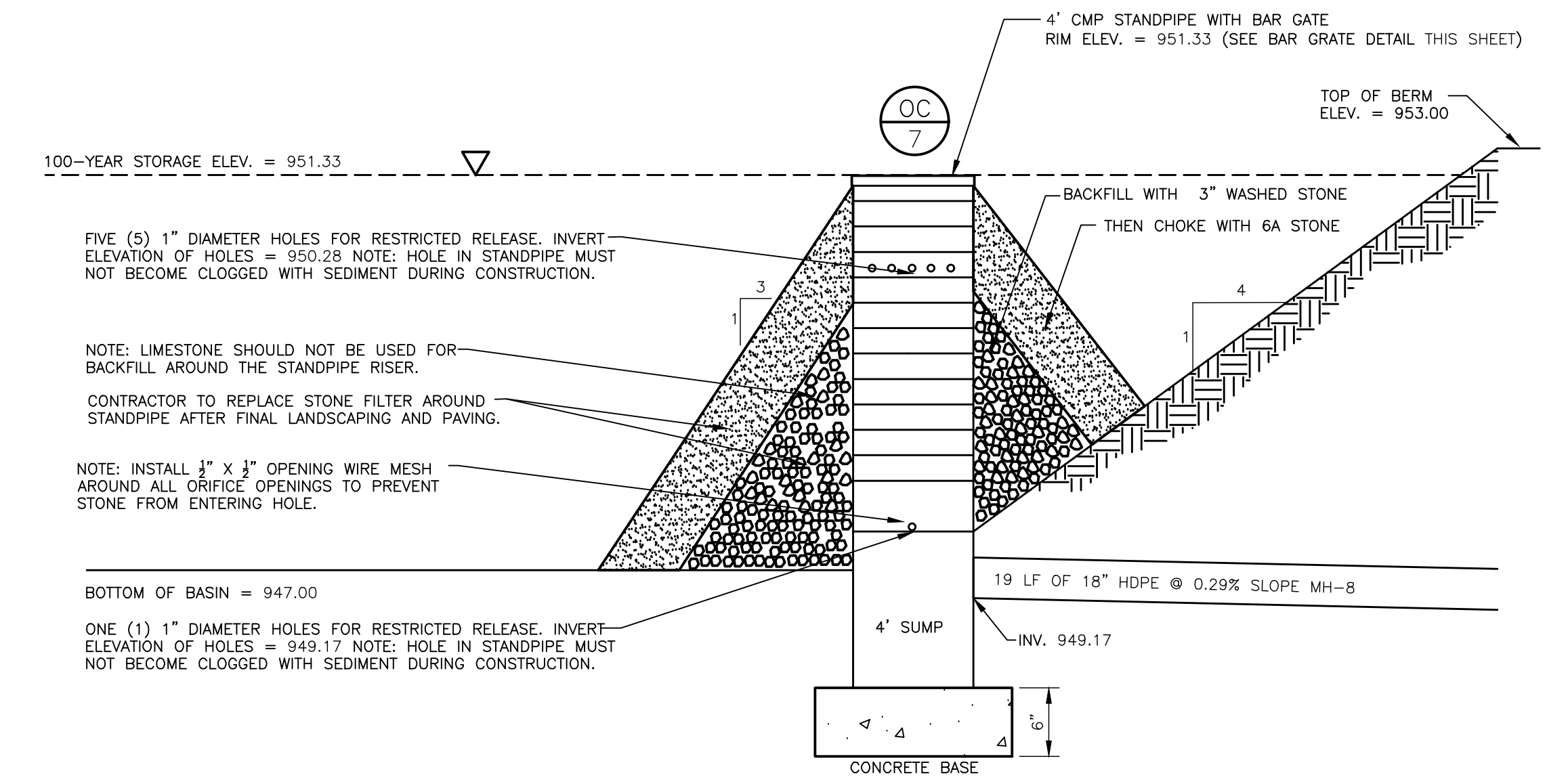
NOT FOR CONSTRUCTION



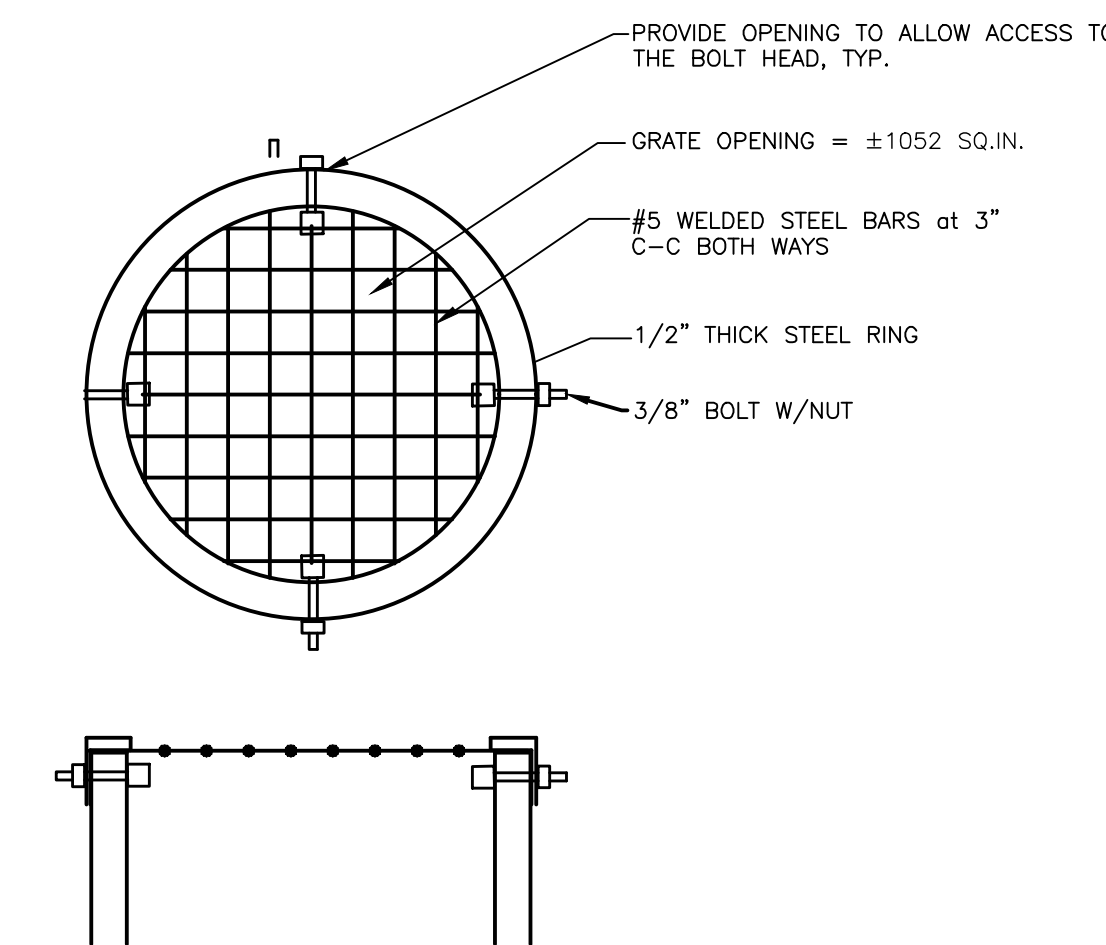
DETENTION BASIN DETAIL



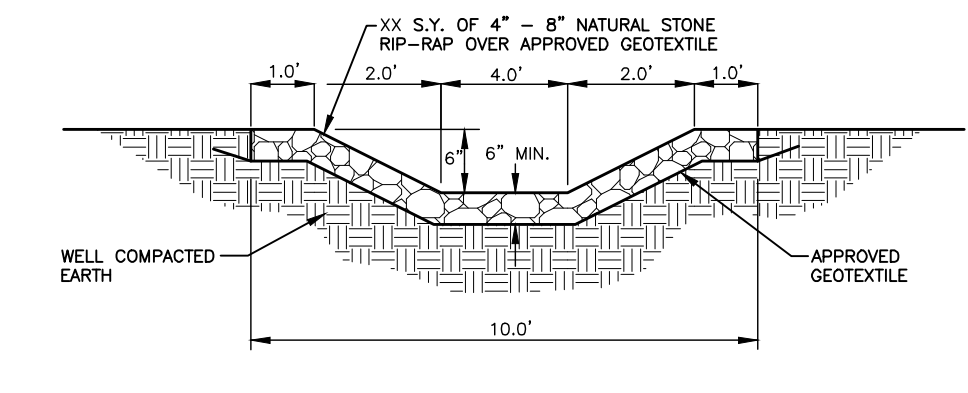
DETENTION OUTLET CONTROL STRUCTURE DETAIL



BAR GRATE DETAIL - FOR OUTLET CONTROL STRUCTURE



SPILLWAY DETAIL - OVERFLOW - RIP RAP



PRODUCT SPECIFICATIONS

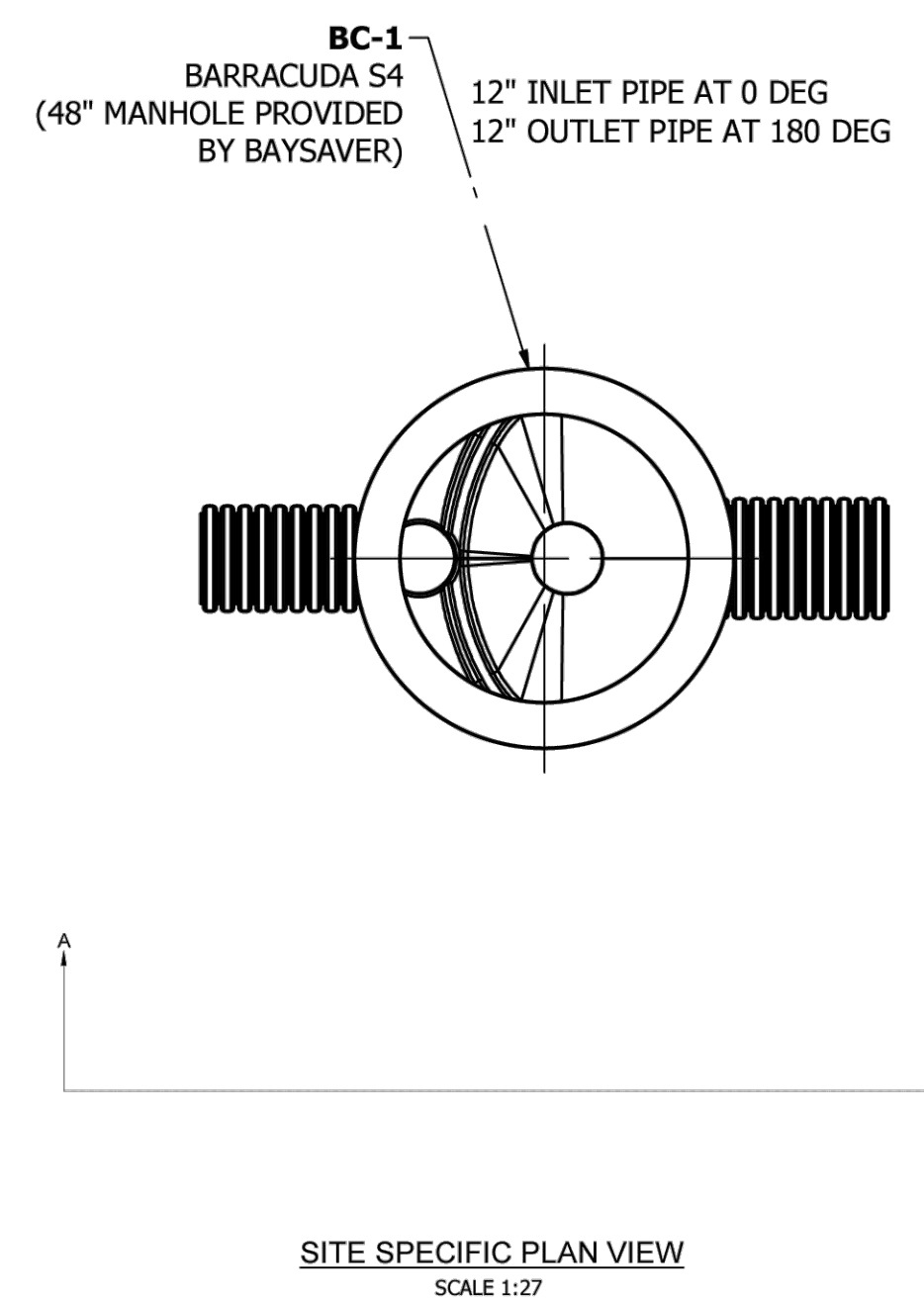
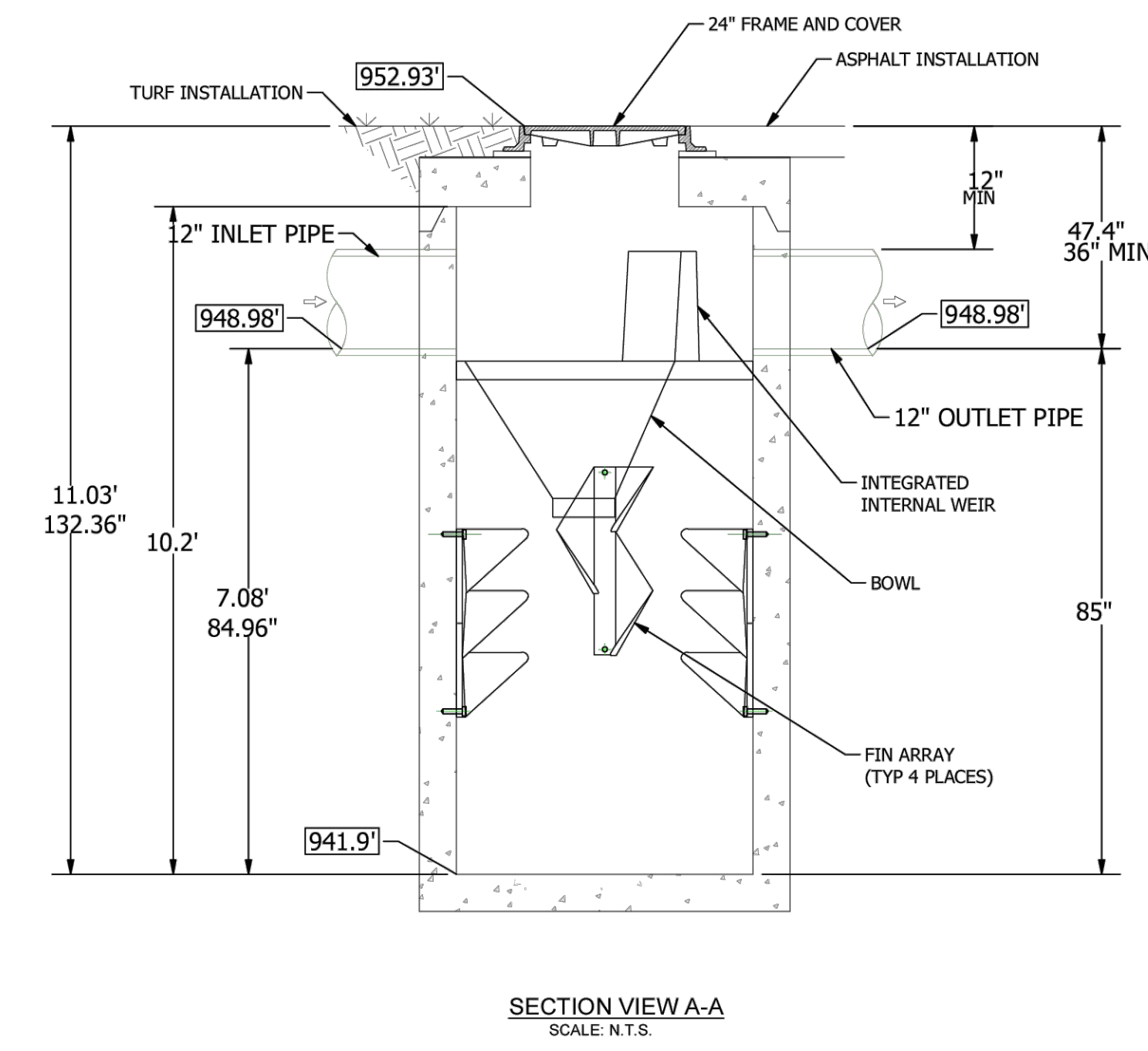
THE STORMWATER TREATMENT UNIT SHALL BE AN IN-LINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFF-LINE.

THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 MG/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

OR - THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH #50-75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.

OR - THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER CURRENT NJDEP/NJCAT HDS PROTOCOL.

BARRACUDA S4	
UNIT ID	S4
PEAK FLOW RATE CFS	N/A
TREATMENT FLOW RATE CFS	1.52
*TREATMENT FLOW RATE PER OK-110	



OLD GLORY AUTO WASH HOWELL, MI

DATE: PROJECT #:

1080 Deep Hollow Drive Mount Airy, NC 27117

1-800-848-6488

1-800-289-7283

AS NOTED

SCALE: 1" = 30'

1 SHEET OF 1

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

MEGA ENGINEERING GROUP ASSOCIATES

298 VETERANS DRIVE FOWLERVILLE, MICHIGAN 48836 (OFFICE) 517-223-3512 MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED SMALL BUSINESS (SDVOSB)

ALLAN W. PRUSS ENGINEER NO. 6201043168

Call MISS DIG 3 full working days before you dig.

Utility Notification Organization

1-800-482-7171 www.missdig.org

THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE INDIVIDUALLY RESPONSIBLE FOR DETERMINING THE EXACT DEPTH, LOCATION AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT:

OLD GLORY CAR WASH PO BOX 328 FOWLERVILLE, MI 48836 POC: MATT MARTIN 517-375-0555

NEW TOUCHLESS WASH BAYS 4120 GRAND RIVER ROAD PART OF SE 1/4, SEC. 20, T3N-R4E HOWELL TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

DETENTION BASIN DETAILS

DATE: 1/25/2024

PLAN SUBMITTALS/REVISIONS

SITE PLAN SUBMITTAL

ORIGINAL ISSUE DATE:

PROJECT NO: 22-177

SCALE: 1" = 30'

0 1/2" 1"

FIELD: DRAWN BY: DC DESIGN BY: CHECK BY: AP

C-9.2

NOT FOR CONSTRUCTION









**OLD GLORY  
 AUTO WASH**

**4120 GRAND RIVER ROAD  
 HOWELL TOWNSHIP  
 MICHIGAN**



## GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK AND SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUBCONTRACTORS. CONTRACTOR SHALL ACCEPT PREMISES AS FOUND. OWNER ASSUMES NO RESPONSIBILITY FOR THE CONDITION OF THE EXISTING SITE OR EXISTING STRUCTURES AT THE TIME OF BIDDING OR THEREAFTER.
- ALL CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE BUILDING CODES AND LOCAL RESTRICTIONS. THE CONTRACTORS MUST COMPLY WITH THE CONTRACTOR REGISTRATION REQUIREMENTS OF ALL GOVERNING AUTHORITIES.
- THE CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES, OR OMISSIONS HE MAY DISCOVER. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY ERRORS AFTER THE START OF CONSTRUCTION WHICH HAVE NOT BEEN BROUGHT TO THE ATTENTION OF THE ARCHITECT. THE MEANS OF CORRECTING ANY ERROR SHALL FIRST BE APPROVED BY THE ARCHITECT AND OWNER.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
- ALL DEBRIS SHALL BE REMOVED FROM PREMISES AND ALL AREAS SHALL BE LEFT IN A CLEAN (BROOM) CONDITION AT ALL TIMES.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE OR REMEDY ANY FAULTY, IMPROPER OR INFERIOR MATERIALS OR WORKMANSHIP WHICH SHALL APPEAR WITHIN ONE (1) YEAR, OR AS OTHERWISE SPECIFIED FOR A SPECIFIC COMPONENT AFTER THE COMPLETION AND ACCEPTANCE OF THE WORK UNDER THIS CONTRACT.
- CITY OR TOWNSHIP APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL THE REVISIONS, ADDENDUMS AND CHANGE ORDERS, ON THE PREMISES AT ALL TIMES. THESE ARE TO BE KEPT UNDER THE CARE OF THE JOB SUPERINTENDENT.
- THE ARCHITECT AND/OR OWNER WILL REVIEW SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH DESIGN CONCEPT OF THE PROJECT. THE OWNER AND/OR ARCHITECT'S APPROVAL OF A SEPARATE ITEM SHALL NOT INDICATE APPROVAL OF AN ASSEMBLY IN WHICH THE ITEM FUNCTIONS. USE ONLY MATERIALS SPECIFICALLY INDICATED IN CONTRACT DOCUMENTS, OR "APPROVED EQUAL" MATERIALS BY OTHER LISTED ACCEPTABLE MANUFACTURERS. NOTE THAT "ACCEPTABLE MANUFACTURER" DOES NOT CONSTITUTE AUTOMATIC APPROVAL OF SPECIFIC MATERIALS BY ONE OR ALL OF THE LISTED ACCEPTABLE MANUFACTURERS. ARCHITECT RESERVES THE RIGHT OF FINAL DETERMINATION OF ACCEPTABILITY OF EACH ITEM.
- THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE USED TO IDENTIFY ACCESSIBLE FACILITIES.
- MINIMUM CLEAR WIDTH FOR HANDICAP PASSAGE IS 32 INCHES AT A POINT, IE, DOORWAY AND 36 INCHES CONTINUOUSLY.
- VISIT PROJECT SITE AND BECOME FULLY COGNIZANT OF ALL EXISTING ARCHITECTURAL, MECHANICAL, ELECTRICAL, STRUCTURAL AND SITE CONDITIONS, OR EXISTING CODE VIOLATIONS WHICH MAY AFFECT THE WORK.
- NOTIFY ARCHITECT PRIOR TO SUBMITTING BID IF REVISIONS TO CONTRACT DOCUMENTS ARE NECESSARY TO RECTIFY ANY OF THE AFOREMENTIONED EXISTING CONDITIONS.
- "EXTRAS" TO CONTRACT PRICE WILL BE ALLOWED AFTER RECEIVING BID IN ORDER TO RECTIFY EXISTING CONDITIONS IN ORDER TO MEET THE DESIGN INTENT OF THE CONTRACT DOCUMENTS OR SATISFY CODE REQUIREMENTS.
- NO WORK IS TO BE INSTALLED PRIOR TO RETURN OF ARCHITECT REVIEWED SHOP DRAWINGS.
- OPERATION AND MAINTENANCE MANUALS:
  - PRIOR TO COMPLETION OF PROJECT, SUBMIT TWO (2) COMPLETE BOUND SETS OF OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT AND SYSTEMS INSTALLED IN THIS PROJECT.
  - MANUALS SHALL INCLUDE GUARANTEE(S), COMPLETE OPERATING INSTRUCTIONS, REPAIR PARTS LIST, PREVENTATIVE MAINTENANCE SCHEDULE, BELT AND FILTER SCHEDULE, AND LIST OF ALL SUBCONTRACTORS ASSOCIATED WITH THE WORK, INCLUDING TELEPHONE NUMBER AND CONTACT PERSON.
- OPERATING AND MAINTENANCE INSTRUCTIONS:
  - PRIOR TO FINAL ACCEPTANCE BY OWNER, PROVIDE ALL PERSONNEL, EQUIPMENT, AND LABOR AS NECESSARY TO INSTRUCT OWNER'S PERSONNEL IN PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT INSTALLED IN THIS PROJECT. PROVIDE INSTRUCTIONAL SESSION DURING TIME PERIOD AGREED TO WITH OWNER.
- PRIOR TO FINAL ACCEPTANCE BY OWNER, THOROUGHLY CLEAN ALL WORK INSIDE AND OUT AS APPLICABLE, AND LEAVE ALL SYSTEMS AND EQUIPMENT IN PERFECT WORKING ORDER. THOROUGHLY CLEAN ALL PLUMBING FIXTURES, EXPOSED PIPING, FLOOR DRAIN GRATES, AND CLEANOUT COVERS AS APPLICABLE.
- DEFECTIVE MATERIALS AND/OR EQUIPMENT MAY BE REPAIRED IN LIEU OF REPLACED WITH PRIOR APPROVAL OF ARCHITECT AND/OR OWNER.
- DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS. DO NOT SCALE DRAWINGS TO DETERMINE ANY LOCATIONS. THE ARCHITECT SHALL BE NOTIFIED IF ANY DISCREPANCY OCCURS PRIOR TO CONTINUING WITH WORK.
- ALL PLAN DIMENSIONS ARE FROM CENTERLINE OR WALL FINISH UNLESS OTHERWISE INDICATED.
- DETAILED DRAWINGS AND LARGER SCALE DRAWINGS TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS.
- FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S STANDARD DETAILS OR APPROVED SHOP DRAWINGS/DATA SHEETS IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
- ALL WOOD BLOCKING IN CONTACT WITH MASONRY, CONC, STRUCT. STEEL, METAL ROOF DECK, OR IN EXTERIOR WALLS SHALL BE PRESSURE PRESERVATIVE TREATED (P.T.).
- ALL ITEMS LOCATED WITHIN RETURN AIR PLenums SHALL BE NON-COMBUSTIBLE AND RATED FOR PLenum USAGE. REFER TO SHEET G-001 FOR FLAME SPREAD INFORMATION.

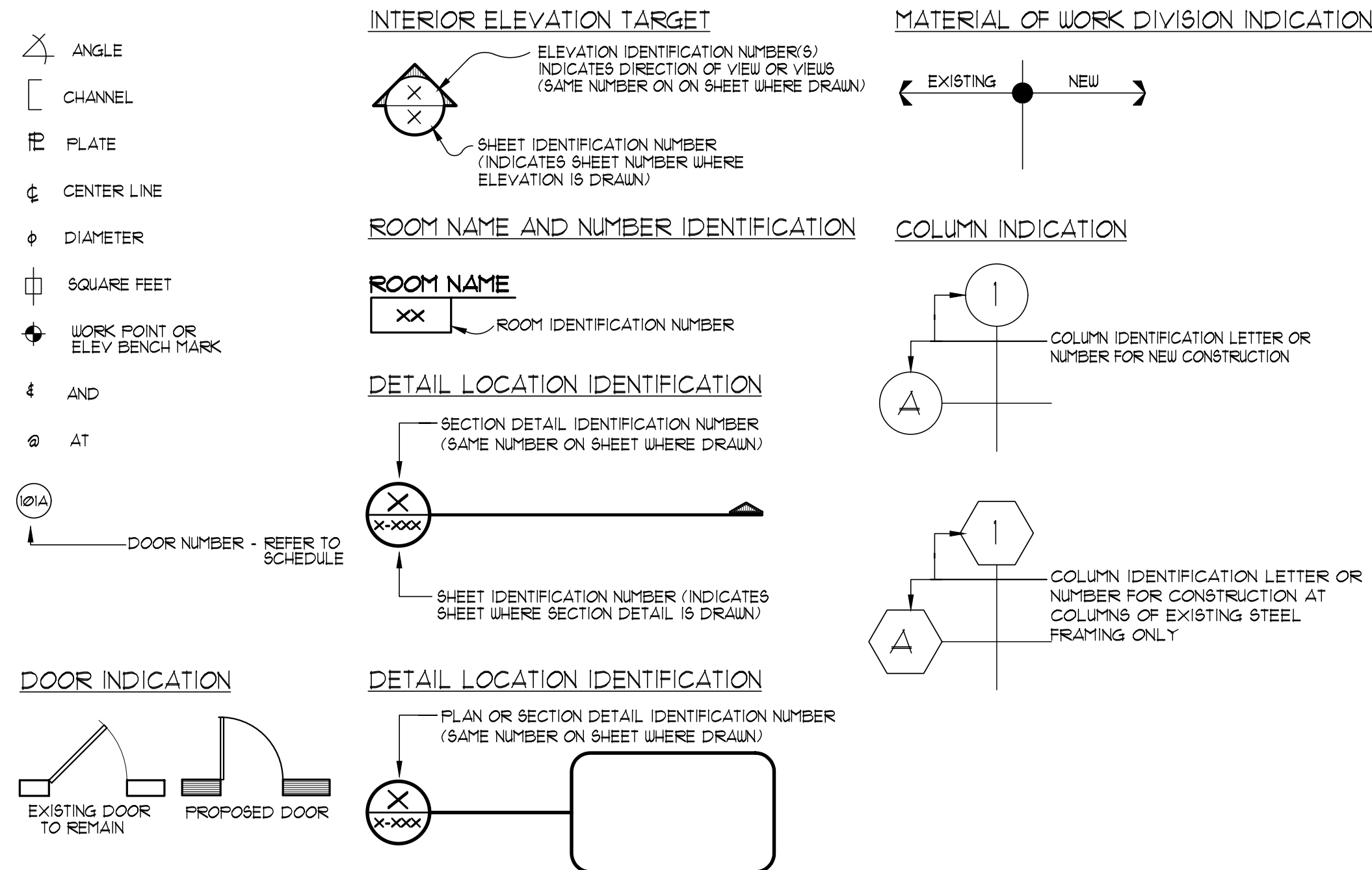
### METAL STUDS

CARPENTRY CONTRACTOR IS TO DESIGN THE LIGHT GAUGE / COLD FORMED FRAMING ASSEMBLIES. REFER TO THE ARCHITECTURAL AND STRUCTURAL PLANS & DETAILS FOR ADDITIONAL INFORMATION. ASSUME A DESIGN LIVE LOAD OF 5 PSF AND L/240 FOR THE INTERIOR PARTITIONS. REFER TO THE STRUCTURAL DRAWINGS FOR WIND DESIGN LOADS FOR THE EXTERIOR WALLS AND ASSUME L/240. ALL CONSTRUCTION IS TO BE DESIGNED TO S.M.A. STANDARDS. PROVIDE SHOP DRAWINGS PREPARED BY THE LIGHT GAUGE ENGINEER.

## ABBREVIATIONS

AB.	ANCHOR BOLT	D.S.	DOUSPOUT	H.	HIGH	N.C.	NOT IN CONTRACT	SPEC.	SPECIFICATIONS
A.B.	ABOVE	DWG.	DRAWING	H.B.	HOSE BIB	NO.	NUMBER	S.S.	STAINLESS STEEL
ABBREV.	ABBREVIATION(S)	DUR.	DRAWER	H/C	HANDICAP	NOM.	NOMINAL	STA.	STATION
A/C	AIR CONDITIONING			HDWD.	HARDWOOD	NON-COM	NON-COMBUSTIBLE	STD.	STANDARD
A.C.T.	ACOUSTICAL CEILING TILE			H/M	HOLLOW METAL	N.T.S.	NOT TO SCALE	STRUCT.	STRUCTURAL
ACOUST.	ACOUSTIC	EA.	EACH	HORIZ.	HORIZONTAL	O.C.	ON CENTER	SUSP.	SUSPENDED
A.D.	AREA DRAIN	E.E.R.	ELECTRONIC EQUIPMENT ROOM	HGT.	HEIGHT	O.C.C.	OPERATOR CONTROL CENTER	SYM.	SYMMETRICAL
A.F.F.	ABOVE FINISH FLOOR	ELEC.	ELECTRICAL	HPL.	HIGH PRESSURE LAMINATE	O.D.	OUTSIDE DIAMETER	S4S	SURFACED FOUR SIDES
ALUM.	ALUMINUM	ELEV./EL.	ELEVATION	HVAC	HEATING VENTILATION AIR CONDITIONING	OF.	OVERFLOW		
ANOD.	ANODIZED	ELEV.	ELEVATOR	HYD.	HYDRANT	OFF.	OFFICE	TT	DOUBLE TEE MEMBER
APPVD.	APPROVED	EMERG.	EMERGENCY	ID.	INSIDE DIAMETER	OFF.	OWNER FURNISH ITEM	T.	TREAD OR TEMPERED
ARCH.	ARCHITECTURAL	ENGR.	ENGINEER	IN.	INCHES	OFOI	OWNER FURNISH OWNER	T. & B.	TOP AND BOTTOM
BD.	BOARD	EJ.	EXPANSION JOINT	INSUL.	INSULATION	OFCI	OWNER FURNISH CONTRACTOR	TEMP.	TEMPERED
BLDG.	BUILDING	EQUIP.	EQUIPMENT	INT.	INTERIOR			TEL.	TELEPHONE
BLK.	BLOCK	EX.G.	EXISTING	INDIRECT WASTE		OFF.	OFFSET	TH.	THICK
BM	BEAM	EXT.	EXTERIOR	JAN.	JANITOR	OH.	OVERHEAD	T.O.C.	TOP OF CONCRETE
B.O.S.	BOTTOM OF STEEL	EXP.	EXPANSION	JT.	JOINT	OPNG.	OPENING	T.O.P.	TOP OF PARAPET
BOTT.	BOTTOM	E.W.C.	ELECTRIC WATER COOLER	ST.	STAIR	P.T.	PRESSURE TREATED	T.O.M.	TOP OF MASONRY
		E.W.	EACH WAY	JST.	JOIST	FUD.	PLYWOOD	T.O.S.	TOP OF STEEL
								T.O.W.	TOP OF WALL
								TYP.	TYPICAL
C/C	CENTER TO CENTER	F.D.	FLOOR DRAIN	LAM.	LAMINATE	QT.	QUARRY TILE	UNO.	UNLESS NOTED OTHERWISE
CER.	CERAMIC	F.E.	FIRE EXTINGUISHER	LAV.	LAVATORY	R.	RISER	UR.	URNAL
CEM.	CEMENT	F.F.	FINISH FLOOR	LVT.	LIGHTING	RAD.	RADIUS		
C.J.	CONTROL JOINT	F.H.C.	FIRE HOSE CABINET	LVL.	LEVEL	R.D.	ROOF DRAIN		
CLG./CEIL.	CEILING	FIN.	FINISH	LVTUT.	LIGHTTIGHT	REF.	REFERENCE		
CLR.	CLEAR	FLR.	FLOOR	LVT.	LEVEL	REF.	REFLECTED	VCT	VINYL COMPOSITION TILE
CMU.	CONCRETE MASONRY UNIT	F.O.	FINISHED OPENING	LVTUT.	LIGHTTIGHT	REFL.	REFLECTED	VERT.	VERTICAL
COL.	COLUMN	F.O.C.	FACE OF CONCRETE	MAINT.	MAINTENANCE	RENF.	REINFORCED	VEST.	VESTIBULE
CONC.	CONCRETE	F.O.F.	FACE OF FINISH	MATL.	MATERIAL	REQ'D.	REQUIRED	W.	WIDE
COMP.	COMPOSITION	F.O.M.	FACE OF MASONRY	MAX.	MAXIMUM	RES.	RESILIENT	W.	WITH
CONT.	CONTINUOUS	F.O.S.	FACE OF STUD	M.B.	MACHINE BOLT	R.O.	ROUGH OPENING	W.C.	WATER CLOSET
CORR.	CORRIDOR	F.R.P.	FIBER REINFORCED PLASTIC	M.C.	MECHANICAL	R.S.	ROUGH OPENING	W.D.	WOOD
CPT.	CARPET	F.S.	FLOOR SINK	MISC.	MISCELLANEOUS	RUF.	ROUGH OPENING	W.U.	WITHOUT
C.T.	CERAMIC TILE	FT.	FEET	MULL.	MULLION	R.C.	ROUGH OPENING	W.P.	WITHOUT WEATHERPROOF
DBL.	DOUBLE	GA.	GAUGE			S.C.	SOLID CORE	SECT.	SECTION
DET.	DETAIL	GALV.	GALVANIZED			SHT.	SHEET	S.F.	SQUARE FOOT
DIA.	DIAMETER	GL.	GLASS			SIM.	SIMILAR	SIMUL.	SIMULATED
DIAG.	DIAGONAL	G.F.R.G.	GLASS FIBER REINFORCED GYPSUM						
DM.	DIMENSION	G.F.R.C.	GLASS FIBER REINFORCED CONCRETE						
DIR.	DIRECTION	GR.	GRADE						
DN.	DOWN	GYP. BD.	GYPSUM BOARD						
D.O.	DOOR OPENING	G.W.B.	GYPSUM WALL BOARD						
DR	DOOR								

## SYMBOLS AND CONVENTIONS

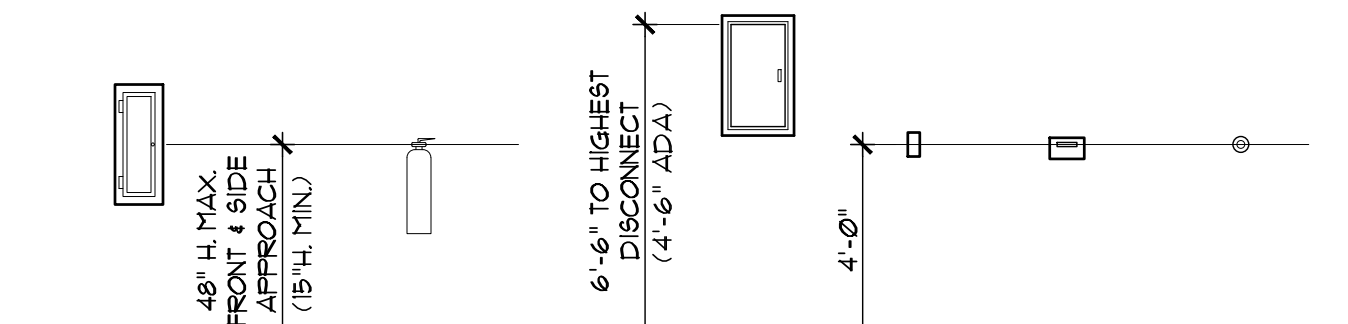


## FIRE EXTINGUISHER KEY

NOTE: VERIFY FIRE EXTINGUISHER LOCATIONS WITH FIRE MARSHALL PRIOR TO ORDERING.

- F.E.C. FIRE EXTINGUISHER CABINET
- S.R. SEMI-RECESSED
- F.R. FULLY RECESSED
- S.M. SURFACE MOUNTED CABINET ON G.W.B.
- F.E.(S.M.) FIRE EXTINGUISHER WITH WALL MOUNTED BRACKET (SURFACE MOUNTED)

- NOTE:
- ALL EXTINGUISHERS ARE ASSUMED TO BE TYPE "ABC" EXCEPT AS OTHERWISE NOTED ON THE PLANS. VERIFY ACTUAL FIRE EXTINGUISHER REQUIREMENTS WITH THE FIRE MARSHALL PRIOR TO ORDERING AND INSTALLING.
  - CABINET TO BE J.L. INDUSTRIES "AMBASSADOR" SERIES WITH TRIM RING FOR SEMI-RECESSED CONDITION STEEL CONSTRUCTION WITH MANUFACTURERS PRIME COAT. SIZE CABINET PER EXTINGUISHER REQ. FIELD FINISH TO MATCH ADJACENT WALL.
  - MOUNT EXTINGUISHER CABINETS @ 54" AFF TO TOP OF CABINET. MOUNT BRACKET TYPE TO 48" AFF TO LEVER.
  - EXTINGUISHER LOCATIONS ON ARCHITECTURAL FLOOR PLANS ARE FOR REFERENCE ONLY. VERIFY LOCATIONS, TYPES & QUANTITY WITH LOCAL FIRE MARSHALL PRIOR TO INSTALLATION.



NOTE: REFER TO SHEET A-401 FOR TYPICAL WALL ELEVATIONS FOR ADDITIONAL MOUNTING HEIGHT INFORMATION.

REV	DATE	ISSUED FOR
-----	------	------------

DRAWN BY:

CHECKED BY:

IN CHARGE: MDH

CAD DWG. FILE: G-002 (18018).dwg

This drawing as an instrument of service, remains the property of Gillett Associates, Inc. Any changes, publication, or unauthorized use is prohibited unless expressly approved.

DRAWING DATE:	PRINTED DATE:
4-2-19	

## SHEET TITLE

# GENERAL NOTES, ABBREVIATIONS & SYMBOLS

JOB NO.:	SHEET NO.:
<b>22-26</b>	<b>G-002</b>





32969 Hamilton Court • Suite 211  
Farmington Hills • Michigan 48334  
248.489.2345 FAX: 248.489.2344  
www.gillettassociates.com

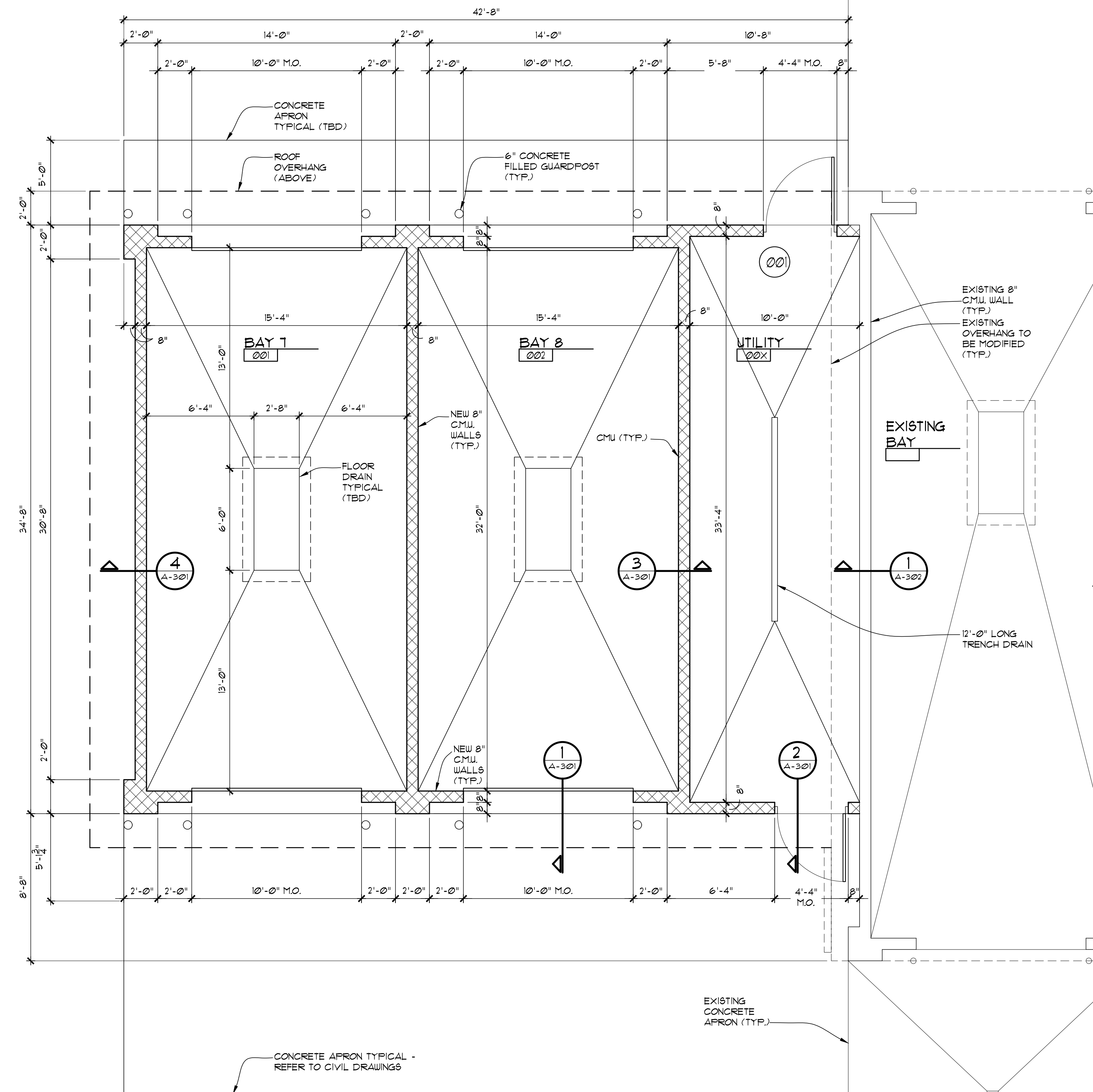
## OLD GLORY AUTO WASH

4120 GRAND RIVER ROAD  
HOWELL TOWNSHIP  
MICHIGAN

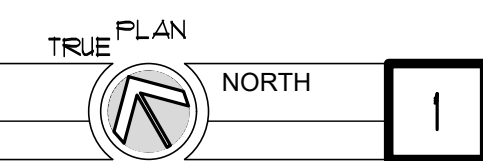
SEAL

### NOTES

1. CAR WASH EQUIPMENT BY OTHERS-REFER TO CAR WASH MANUFACTURER SHOP DRAWINGS.



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



REV	DATE	ISSUED FOR
	1-18-23	OWNER REVIEW
	6-16-23	OWNER REVIEW
DRAWN BY:		STAFF
CHECKED BY:		TBM
IN CHARGE:		MDH
CAD DWG. FILE:		A-102 (22026).dwg

This drawing as an instrument of service, remains the property of Gillett Associates, Inc. Any changes, publication, or unauthorized use is prohibited unless expressly approved.

DRAWING DATE:	PRINTED DATE:
6-16-23	

SHEET TITLE  
**LARGE SCALE FLOOR PLAN**

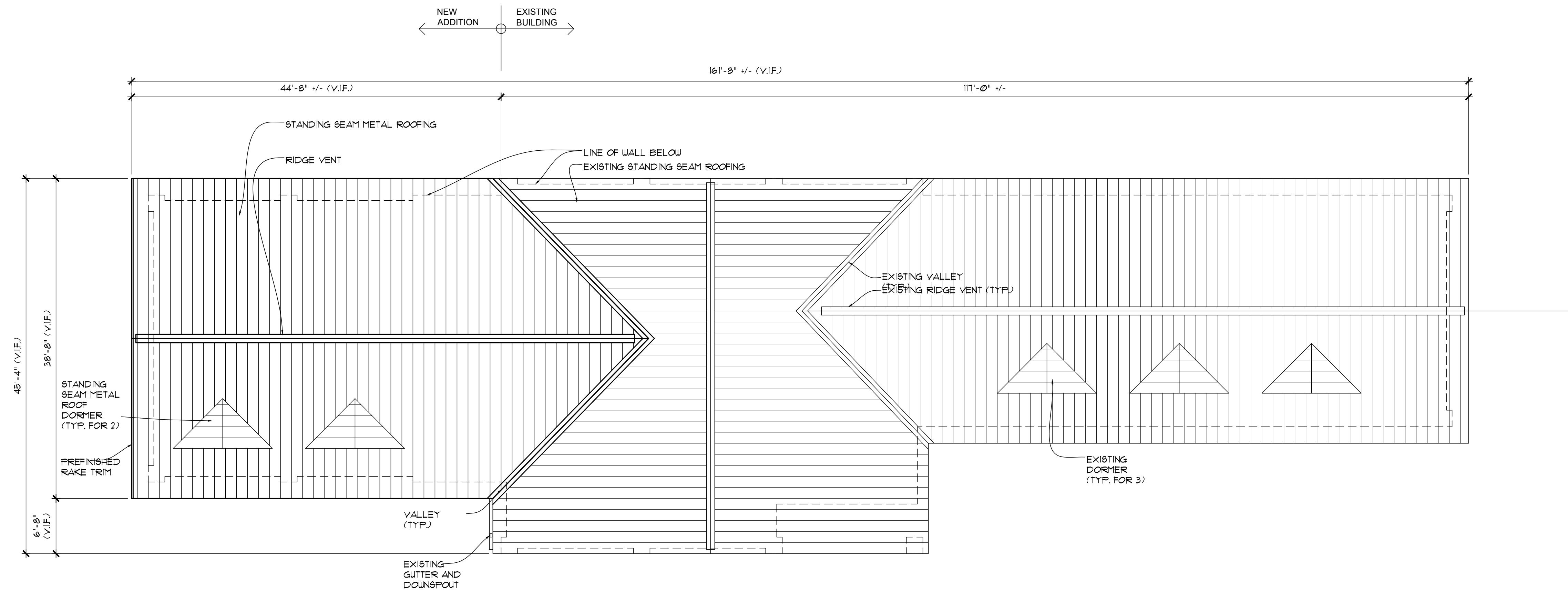
JOB NO.:	SHEET NO.:
<b>22-26</b>	<b>A-102</b>



## OLD GLORY AUTO WASH

4120 GRAND RIVER ROAD  
HOWELL TOWNSHIP  
MICHIGAN

SEAL



**ROOF PLAN**  
SCALE: 1/8" = 1'-0"



1-18-23 OWNER REVIEW

REV DATE ISSUED FOR

DRAWN BY: STAFF

CHECKED BY: TBM

IN CHARGE: MDH

CAD DWG. FILE: A-103 (22026).dwg

This drawing as an instrument of service, remains the property of Gillett Associates, Inc. Any changes, publication, or unauthorized use is prohibited unless expressly approved.

DRAWING DATE: 6-16-23

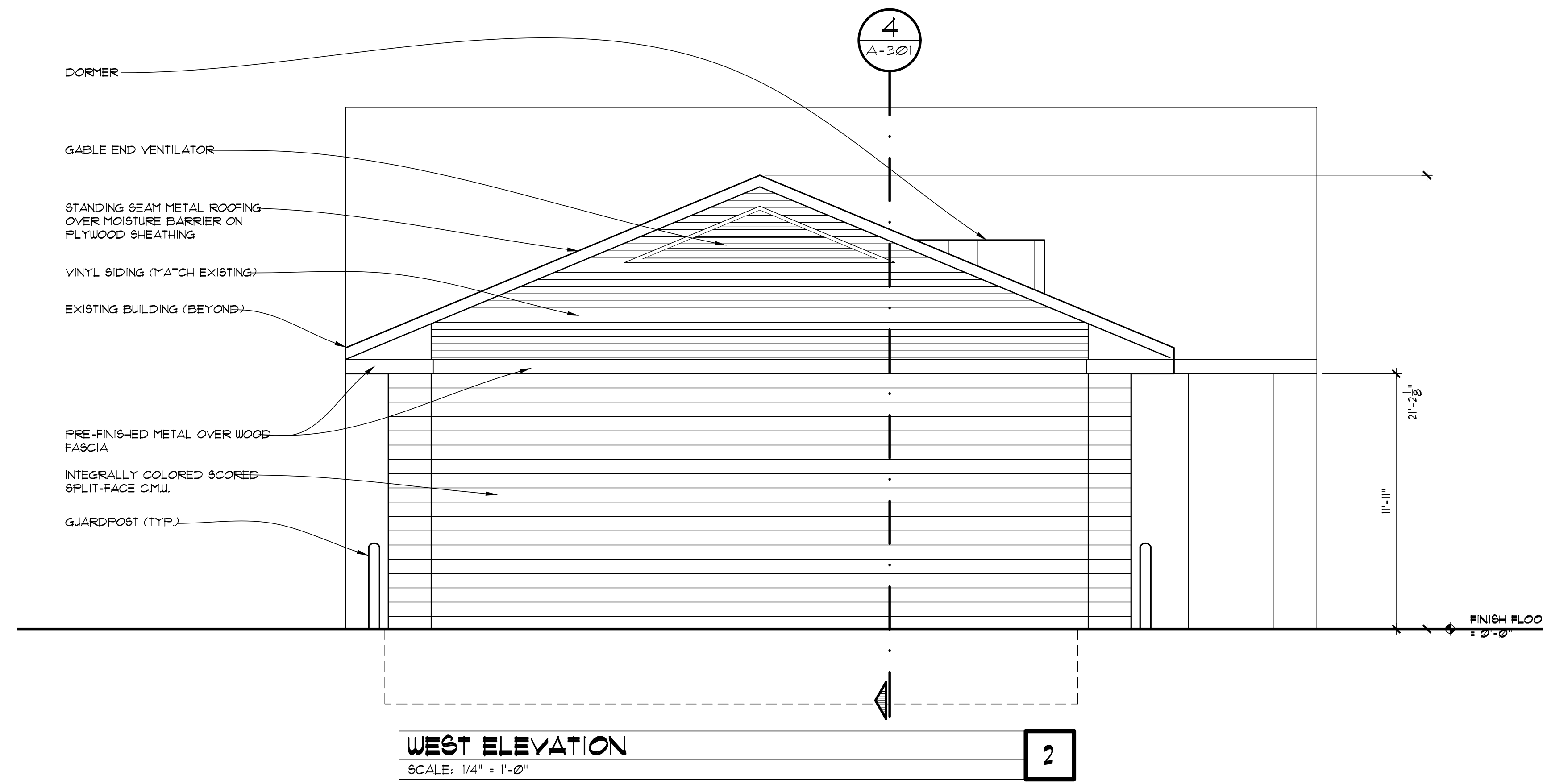
PRINTED DATE:

SHEET TITLE

**ROOF PLAN**

JOB NO.: 22-26

SHEET NO.: A-103



**GENERAL ELEVATION**

**NOTES:**

1. COORDINATE ANY LOUVER LOCATIONS, WALL PENETRATIONS WITH MECHANICAL AND CAR WASH VENDOR.
2. ALL NEW SIGNAGE TO BE SUBMITTED FOR PERMIT UNDER SEPARATE COVER.

**GILLETT ASSOCIATES ARCHITECTURE**

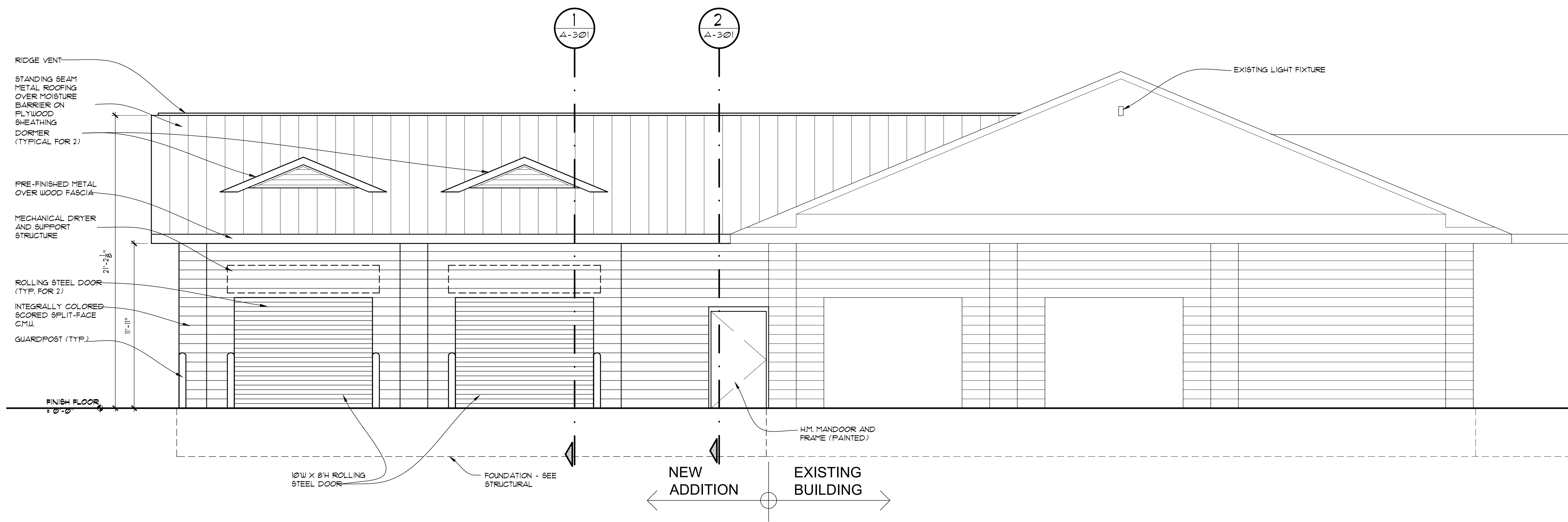


32969 Hamilton Court • Suite 211  
Farmington Hills • Michigan 48334  
248.489.2345 FAX: 248.489.2344  
www.gillettassociates.com

**OLD GLORY AUTO WASH**

4120 GRAND RIVER ROAD  
HOWELL TOWNSHIP  
MICHIGAN

SEAL



**PARTIAL SOUTH ELEVATION**

SCALE: 1/4" = 1'-0"

7-10-23 OWNER REVIEW

REV DATE ISSUED FOR

DRAWN BY: STAFF

CHECKED BY: TBM

IN CHARGE: MDH

CAD DWG. FILE: A-200 (22026).dwg

This drawing as an instrument of service, remains the property of Gillett Associates, Inc. Any changes, publication, or unauthorized use is prohibited unless expressly approved.

DRAWING DATE: 7-3-23

PRINTED DATE:

SHEET TITLE  
**BUILDING ELEVATIONS**

JOB NO.:  
**22-26**

SHEET NO.:  
**A-201**



# Livingston County Department of Planning

## Memorandum

**Scott Barb**  
AICP, PEM  
Director

**To:** All Livingston County Zoning Administrators and Local Planning Commissioners

**From:** Livingston County Department of Planning

**Robert A. Stanford**  
AICP  
Principal Planner

**Date:** February 09, 2024

**Subject:** Sample Accessory Dwelling Unit Ordinance for Your Consideration

**Martha Haglund**  
Principal Planner

Dear Zoning Administrators and Local Planning Commissioners,

As a member of the Housing Catalysts, the Livingston County Planning Department is committed to increasing attainable housing in the county. One way to achieve this is by providing additional housing options, such as allowing homeowners to construct Accessory Dwelling Units (ADUs) on their property.

ADU's can be a part of a Primary Dwelling Unit (PDU) or can be designed as a detached structure. Homeowners can benefit from installing ADUs in several ways, including providing affordable housing units in a community, creating a housing unit for an elderly relative that needs care, or having an additional resident share housing responsibility.

Zoning ordinances can help regulate the construction and placement of ADUs. The Livingston County Planning Department has created a Sample Rural ADU Ordinance as a starting point for your community to establish or modify an ADU ordinance. However, since every community is unique, the sample ordinance is advisory only and should be modified to meet your community's specific requirements.

In addition to the sample ordinance, we have included other considerations your community may want to contemplate when forming an ADU ordinance, along with resources and the general process of ADU construction.

Please feel free to contact us if you have any questions. We are here to help.

Sincerely,

### Department Information

Administration Building  
304 E. Grand River Avenue  
Suite 206  
Howell, MI 48843-2323

(517) 546-7555  
Fax (517) 552-2347

Web Site

<https://milivcounty.gov/planning/>



## Sample Accessory Dwelling Unit Ordinance RURAL (Minimum 1 acre)

*All language is modifiable and should be reviewed by your  
Municipal Planner or Attorney*



**Modifications that may be unique to your community's zoning ordinance noted in RED.**

**Intent:** By permitting Accessory Dwelling Units the Township seeks to achieve several goals:

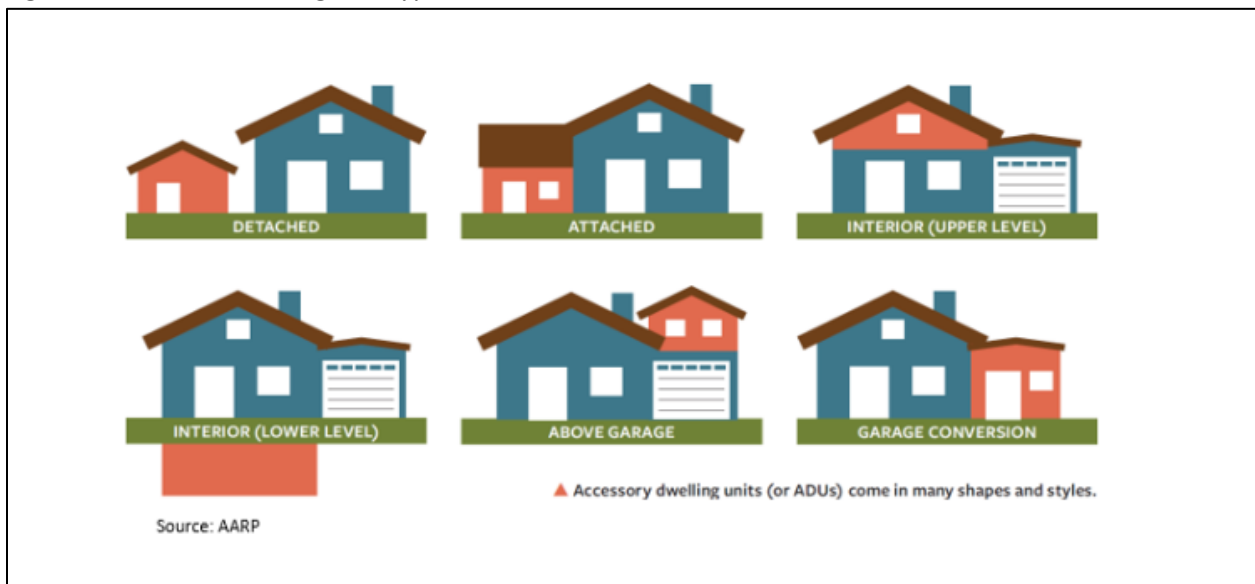
1. Increase flexibility for homeowners to meet the needs of their family including multigenerational members.
2. Create more housing options for smaller households including single professionals or empty nesters.
3. Maintain compatibility with existing housing types.
4. Increase affordable housing options.
5. Provide homeowner with potential extra income to meet rising homeownership costs.

**Definitions:**

**Accessory Dwelling Unit (ADU):** is a second, smaller dwelling unit either developed within an existing single-family house (such as a basement, attic or addition) or as a smaller detached accessory building. An attached ADU also shares at least a 15 feet wall with the Principal Dwelling Unit.

**Principal Dwelling Unit (PDU):** The single-family dwelling located on the parcel with an Accessory Dwelling Unit.

Figure 0.00 Reference Image for types of ADUs



**Accessory Dwelling Units** are a permitted use within the **Agricultural (AG) & Single Family Residential (SFR)** District/s with a minimum lot size of **1** acre.

**Attached ADU:** shall be between **400-800** square feet or **40%** of the gross floor area of the PDU whichever is less. Gross floor area of PDU not to include three-season rooms or garages.

**Detached ADUs** shall be between **500-900** square feet or **40%** of the gross floor area of the PDU whichever is less. Gross floor area of PDU not to include three-season rooms or garages.

**Option 1)**

**Dimensions & Setbacks:** ADUs must meet the lot dimensions and setbacks requirements in **Table 0.00**.

**Table 0.00 Dimensional Requirements for ADUs**

Zone	Minimum Lot Size (Feet)	Minimum Lot Width (Feet)	Minimum Front Setback (Feet)	Minimum Side Setback (Feet)	Minimum Rear Setback	Maximum Height (Attached)
AG	1 acre	150	50	30	50	30 ft
SFR	1 acre	100	50	30	40	30 ft

**Option 2)**

**Dimensions & Setbacks:** ADU's must meet lot dimension and setbacks of the corresponding zoning district.

**Lot Coverage:** ADUs shall adhere to the lot coverage requirements of the corresponding zoning district.

**Principal Dwelling Unit**

1. Must be owner occupied.
2. The minimum floor area of the principal dwelling unit may not decrease the minimum floor area requirements of a single family, **960** square feet, with at least **600** square feet on the ground floor.
3. The PDU and the ADU must share common water, septic, and electric facilities, in compliance with state and county codes.



### Detached ADU

1. Are permitted in the rear yard with a minimum   10   feet behind the Principal Dwelling Unit.
2. Are permitted in the side yard provided:
  - a. The ADU is a minimum 10 feet away from principal structure.
  - b. Meets all the required setbacks.
3. Must have a foundation in compliance with Michigan Residential Code and Approved by the Livingston County Building Department.
4. Placement of an ADU in the front setback are prohibited.

### Other Requirements

1. **Amount of ADUs per Parcel:** No more than 1 ADU per parcel shall be constructed. ADUs are only permitted on lots with a single-family dwelling. ADUs are not permitted on parcels with existing duplexes/apartments.
2. **Utilities:**
  - a. An ADU shall be connected to potable water and sanitary facilities in compliance with the County Health Department.
  - b. Utility service to an ADU shall rely on the same metering and service panel as those that serve the PDU except as may be otherwise required by the building inspector.
    - i. Utility Service to be installed according to the State Electrical and Mechanical Code.
  - c. Separate utility billings for an ADU by the utility provider are prohibited.
3. **Design Character:** The ADU shall be designed so the appearance of the building will remain that of a single-family dwelling. Further, it shall not detract from the appearance of the lot as a place of one (1) residence and shall be aesthetically compatible in appearance with other single-family dwellings in the immediate area based on architectural design and exterior materials.
4. **Access: Attached ADUs** are permitted to have up to two access points:
  - a. Access located in a common entrance foyer.
  - b. exterior entrance to be located on the side or rear of the ADU.
5. **Access: Detached ADUs** a main entrance to be located on the front and an additional side/rear yard access are permitted.
6. **Occupancy/Bedroom Requirements:** An ADU shall have no more than   4   individuals including those less than 18 years of age. More than   2   bedrooms is prohibited.

7. **Renting an ADU:** Leasing or renting a ADU for shorter than \_\_\_\_30\_\_\_\_ days is prohibited. The ADU shall not otherwise be made available to any one (1) or more persons for periods less than \_\_\_\_thirty (30)\_\_\_\_ days.
8. **Driveway and Parking:** Shall provide a combined off-street parking for a minimum of \_\_four\_\_ automobiles for PDU and ADU.
  - a. In no case shall an ADU be permitted to have a separate driveway.
9. **Garage:** A garage may be erected to serve an ADU subject to the following requirements:
  - a. An ADU garage shall be part of the same structure as the ADU.
  - b. An ADU garage shall be no greater than 450 square feet in gross floor area.
  - c. An ADU garage shall be no higher than 17 feet as measured to the highest point of the roof. Shall be maximum one (1) story and at no time taller than the PDU.
  - d. An ADU garage shall comply with the same setback standards as required for an ADU in the corresponding zoning district.
  - e. No more than one (1) ADU garage shall be erected on a lot.
  - f. At no time shall the garage be used as a dwelling.
10. **Authorization:**
  - a. No ADU shall be established prior to the issuance of a land use permit for the ADU.
  - b. The applicant shall submit the following information for review to the Zoning Administrator:
    - i. A plat plan showing the location of the proposed accessory dwelling unit, lot identification (address and property number), size of lot, dimension of lot lines, existing improvements on the lot, location of structures on adjacent lots, abutting streets, driveways, and parking areas.
    - ii. Sufficient architectural drawings or clear photographs to show the exterior building alterations proposed.
    - iii. Interior floor plans showing the floor area of the proposed accessory dwelling unit and the primary dwelling.
  - c. No construction of an ADU, including excavation and clearing, shall be initiated prior to Land Use and Building Permit Issuance.

## Sources

[AARP Graphic](#)

[Ann Arbor Development Code: Section: 5.16.6 \(D\) Accessory Dwelling Unit](#)

[Ann Arbor Accessory Dwelling Unit Guide & Website](#)

[American Planning Association: Accessory Dwelling Units](#)

[Deerfield Township Zoning Ordinance: Section 17.29: Accessory Dwelling Units, ADU Garages](#)

[Hamburg Township Zoning Ordinance: Section 36.238, 339, 240: Accessory Dwelling Units, Accessory dwelling unit regulations, Application Procedure](#)

[Handy Township Zoning Ordinance: Section 2.2 \(F\): Family Accessory Apartment](#)

[Marion Township Zoning Ordinance: Section 6:30 Family Accessory Apartment](#)

## Accessory Dwelling Unit Process

Townships may have unique procedures to process ADUs but the generally it is the same process as building a house or addition to a home.

*General Process to Construct ADU:*

1. *Applicant Submits Land Use Application to Township Zoning Administrator*
2. *Zoning Administrator reviews application and if satisfactory issues-Land Use Permit*
3. *Livingston County Building Department:*
  - a. *Inspections*
  - b. *Directs applicant to Health Department to review Well & Septic connections.*
  - c. *Directs Applicant to Drain Commission: Soil Erosion Permit*
4. *Zoning Administrator: Final Zoning Certificate meets the setbacks.*

## Other Considerations that may be applicable:

- *Relation of the ADU Occupant to the Homeowner of the PDU.*
- *Permit/prohibit renting of ADU.*
- *Special Use Permit requirement near certain features like wetlands, lakes or rivers.*