CITY OF NORTH ST. PAUL PLANNING COMMISSION
REGULAR MEETING AGENDA
THURSDAY, MARCH 5th, 2020
6:15 PM

North St. Paul City Hall – Council Chambers
2400 Margaret Street

I. CALL TO ORDER

II. ROLL CALL

COMMISSION

Elaine Barton, Commission Chair
Patrick Blees, Commissioner
Rick Gelbmann, Commissioner
Trisha Hamm, Commission Vice-Chair - EXCUSED
John Monge, Commissioner
Tom Sonnek, Commission City Council Liaison
Michael Stahlmann, Commissioner
Allan Worm, Commissioner

STAFF

Ryan Krzos, Planning Consultant
Olivia Boerschinger, Planning Secretary

III. ADOPT AGENDA

IV. APPROVAL OF MINUTES

V. MEETING OPEN TO THE PUBLIC

Note: This is a courtesy extended to persons wishing to address the Commission concerning issues that are not on the agenda. This discussion will be limited to 15 minutes.

VI. PUBLIC HEARING

A. Variance Requests for Multi-family Apartments (Anchor Commons) at McKnight Road and Anchor Drive.

VII. OLD BUSINESS

VIII. COMMISSION BUSINESS ACTION ITEMS & RECOMMENDATIONS

A. Site Plan Review and Variance Requests for Multi-family Apartments (Anchor Commons) at McKnight Road. and Anchor Drive.

B. Ordinance Text Amendment: Keeping of Chickens and Bees

IX. REPORTS FROM STAFF

X. REPORTS FROM COMMISSIONERS

A. Update from City Council Liaison

XI. ADJOURNMENT

The next regularly scheduled Planning Commission Meeting is Thursday, April 2nd, 2020 at 6:15 p.m.

MEMORANDUM

Date: 2/21/2020
To: Planning Commissioners
From: Erin Perdu, AICP, City Planner
Ryan Krzos, AICP, Planning Consultant
CC: Scott Duddeck, City Manager
Debra Gustafson, Administrative and Community Services Director
Re: Site Plan Review and Variance Request for a Multi-family Apartment building at McKnight Road and Anchor Drive

BACKGROUND

Roger Fink of Trident Development LLC, has submitted applications on behalf of the property owner (currently the City of North St. Paul) for site plan review and four variances to facilitate the development of a multi-family apartment building at the property on the south side of Anchor Drive. In December of 2019 the City reviewed and approved a preliminary and final plat establishing the Anchor Block Commons subdivision. The subject requests would apply to lot 2, block 1, addressed pending on Anchor Drive. The site is currently zoned MU-3, Corridor Mixed-Use District and multi-family dwellings uses are permitted in the zoning district. Site Plan Review is required for new multi-family development projects. The proposed multi-family development would contain a total of 126 units within the four-story building.

As proposed, the development would include two detached garages in the area between the building and Anchor Drive. Both garages would exceed 4,000 square feet and contain 13 and 14 stalls respectively. The garage structures would be located as close as 10.1 feet from the Anchor Drive right-of-way, which is considered the corner side lot line as determined for the multiple street frontages. Accordingly, the applicant is requesting a variance from the requirements of Section 154.010 (D)(1) Accessory Building Supplemental Standards subdivisions (a)(e)&(f) for the following:

1. Variance from Section 154.010 (D)(1)(a) to allow two accessory structures to be constructed at 4,080 square feet and 4,656 square feet respectively exceeding the 1,000 square foot maximum for an individual accessory building.
2. Variance from Section 154.010 (D)(1)(e) to allow an accessory structure to be located 10.1 feet from the corner side lot line reducing the 20 ft minimum.
3. Variance from Section 154.010(D)(1)(f) to allow a second accessory structure that exceeds 200 square feet.

Additionally, the applicant is requesting a variance from Section 154.007(C)(3) to allow a reduction in the front yard (3rd St. N) setback of the principal structure from 25 ft to 22.2 ft. This variance is necessary because, although the building "fronts" Anchor Drive, the definition of "front lot line" in the North St. Paul zoning ordinance requires that the shortest frontage on a public street be considered the front.

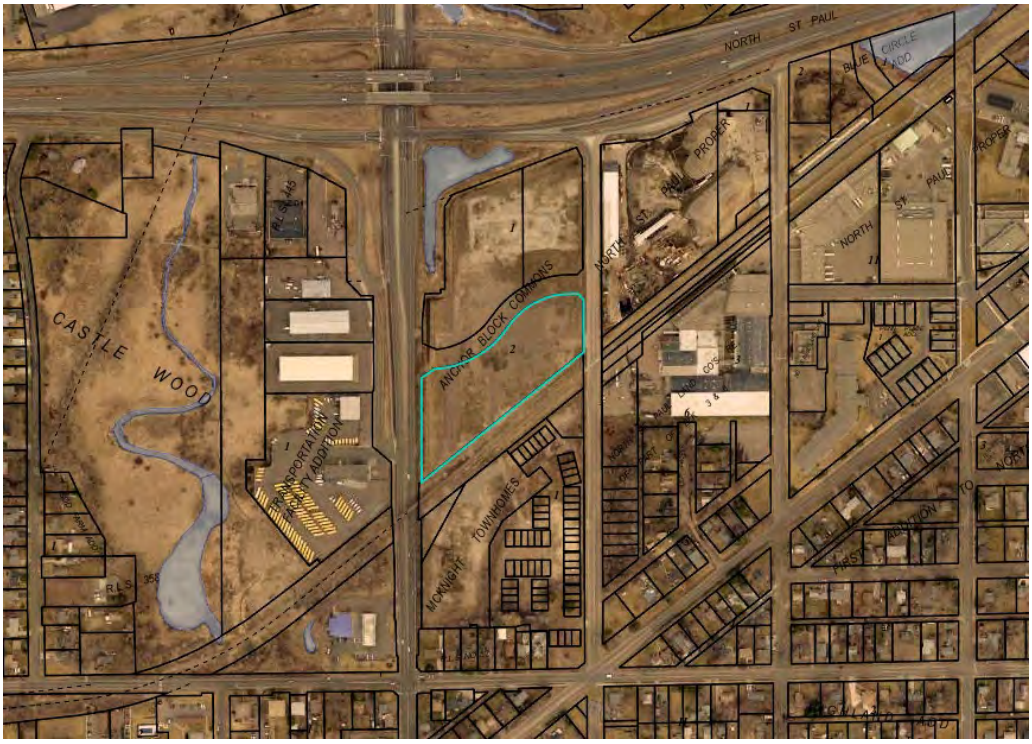


Figure 1: Location Map

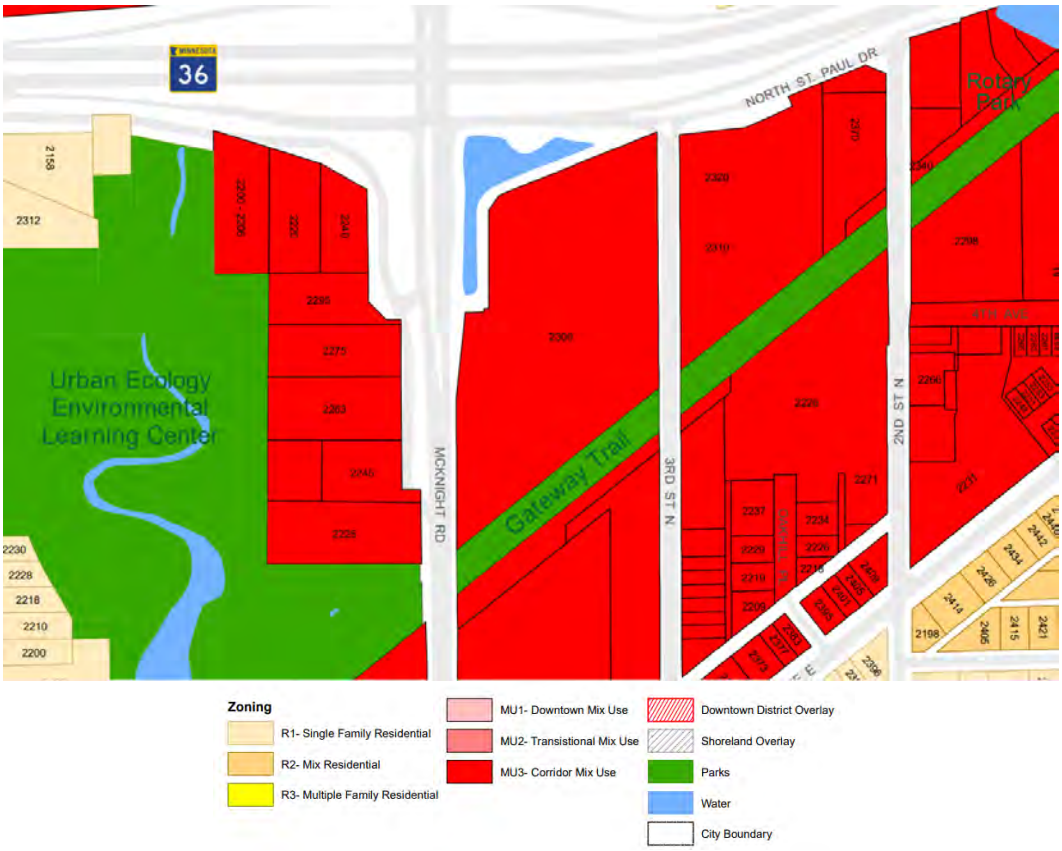


Figure 2: Zoning Map

GENERAL STAFF REVIEW

Consistency with the City Plans

- *154.004 (E)(2) Variance Standards (a) The variance is in harmony and consistent with the general purposes and intent of the Comprehensive Plan and this chapter.*
- *154.004(H)(2) Site Plan Review Standards (a) The proposal is consistent with the general purposes and intent of the Comprehensive Plan;*
- *154.004(H)(2) Site Plan Review Standards (i) If applicable, the proposal is consistent with officially adopted city plans and overlays.*

This site is guided for corridor mixed uses by the 2040 Comprehensive Plan. This designation is established to encourage the development or redevelopment of mixed-use centers that combine retail development with a variety of housing, offices, live-work spaces, employment activities, and other complementary uses. The proposed project is part of a redevelopment of the site that would establish a combination of residential and commercial uses in the area known as the Anchor Block. The site was specially noted as being targeted for redevelopment. Accordingly, the project is consistent with the vision and intent of the Comprehensive Plan for this area. The site is not subject to any overlay zoning districts.

Health, Safety, and General Welfare

- *154.004 (E)(2) Variance Standards (b) The variance will not adversely affect the health, safety, or general welfare of the city.*
- *154.004 (H)(2) Site Plan Review Standards (b) The proposal will not adversely affect the health, safety, or general welfare of the city.*

Development of the site is not likely to negatively impact the health, safety, or general welfare of the City. Multi-family uses are permitted in the MU-3 District. The use is being laid out in a reasonable manner on the site, as allowed by the ordinance and requested variances.

Practical Difficulties/Special Conditions

- *154.004 (E)(2) Variance Standards (c) The variance is necessary due to special conditions applying to the structures or land in question that are particular to the property and do not apply generally to other land or structures in the district or vicinity in which the land in located.*
- *154.004 (E)(2) Variance Standards (d) The variance requested is the minimum variance necessary to alleviate the practical difficulty.*
- *154.004 (E)(2) Variance Standards (e) Practical difficulties are caused from the strict application of the Zoning Code as outlined below:*
  i. The property owner proposes to use the property in a reasonable manner not permitted by the Zoning Code;
  ii. The plight of the landowner is due to circumstances unique to the property not created by the landowner; and
  iii. The variance, if granted, will not alter the essential character of the locality.
  iv. Economic considerations alone do not constitute practical difficulties.
  v. The variance is consistent with officially adopted city plans and overlays.

The proposed detached garage structures are accessory to a permitted use in the MU-3 District. The three accessory structure setback and building size requirements the applicant is requesting relief from are intended for single family neighborhood settings as opposed to multi-family or mixed-use development sites. Accordingly, the variance is the minimum necessary to alleviate the hardship.

The front yard setback reduction is requested because shifting the building to the west (to comply with the front yard setback) would conflict with drainage and utility easements along the property line adjoining McKnight Road. Additionally, staff finds that the principal building meets the intent of the front yard setback by its location which is a considerable distance from Anchor Drive. Because of the definitions in the Zoning Ordinance, Anchor Drive cannot treated as the front yard, but it will function as such from a practical standpoint.

This use was contemplated as part of a planned redevelopment of the Anchor Block site envisioned by the City's Comprehensive Plan. Accordingly, approval of the variances will facilitate a development that is consistent with City Plans and meets the intent of the Zoning Ordinance.

<u>Compatibility with Surrounding Context</u>

- *154.004(H)(2) Site Plan Review Standards (c) The proposal is compatible with present and future land uses in the surrounding area and reasonably related to the overall needs of the city.*
- *154.004(H)(2) Site Plan Review Standards (d) The proposal or appearance of the proposal is compatible with adjacent properties.*
- *154.010(E)(3) General Architectural requirements (g) Protection of views. Buildings shall be designed and oriented so as not to detract from one another or to unduly restrict views to open spaces, plazas and vistas.*

The site is surrounded by existing and future commercial and industrial uses to the north, east, and west. The gateway trail and townhomes adjoin the property to the south across the Gateway Trail. Properties to the east include an asphalt recycling facility and a landscaping supplier. As such this use represents a transition between the residential development to the south, and commercial and industrial development to the north, east, and west.

The site improvements are placed in a location that would not interfere with views of public open space, parks, or vistas.

<u>Proposed Uses</u>

- *154.004(H)(2) Site Plan Review Standards (h) The proposal is in harmony with the general purposes and intent of this chapter and the zoning district in which the applicant intends to locate the proposal.*
- *154.007(C)(1) Permitted, Conditional, and Interim Uses refers to Table 6 for allowed uses within the mixed-use districts.*

The proposed multi-family use is a permitted use in the MU-3 Zoning District. As previously mentioned, the site is within a larger redevelopment area known as the Anchor Block, which will establish a mix of residential and commercial uses, as envisioned for the site by the

Comprehensive Plan and as intended within the MU-3 District. The applicant is requesting multiple variances to the accessory building requirements and the front yard setback requirement. The proposal complies or could be conditioned upon demonstration of compliance with other applicable Ordinance requirements as noted herein.

Proposed Lot/Building Dimensional and Setback Requirements

- *154.007(C)(3) refers to Table 7 for the lot requirements within the mixed-use districts.*

Requirement	MU-3	Proposed
Minimum Lot Size	*35,000 sq. ft.*	3.91 ac
Minimum Lot Width	*120 ft*	184.22 ft (along 3rd St N)
Front Yard Setback	*25 ft*	**22.2 ft (along 3rd St N)**
Rear Yard Setback	*0 ft*	10.7 ft (along McKinght Rd N)
Side Yard Setback	*0 ft*	15 ft (South) 76 ft (West)
Maximum Height	*Five (5) stories or 55 ft*	Four (4) Stories and 48 ft

- *154.010(D)(1) Accessory buildings and structures*
  (a) Size. The total square feet of an accessory building shall not exceed 10% of the lot area, and in no case shall it exceed 1,000 square feet of gross floor area. The sum of all square footage for attached garages and detached garages shall not equal or exceed the finished livable floor area of the footprint (ground floor) of the principal structure to which it is an accessory.
  (b) Height. Accessory buildings shall not exceed the height of the principal building. In no case, shall an accessory building exceed 15 feet in height or in the case of an accessory dwelling unit, then 20 feet shall be the maximum height allowed.
  (c) Location. A detached garage or other accessory buildings shall be located in the side or rear yard.
  (d) Setbacks. Detached garages or other accessory buildings, including storage sheds, shall be setback a minimum of three feet from side and rear property lines or up to an easement line, but not on it, whichever is greater; and six feet from the principal structure. An accessory building shall be considered as part of a principal building if it is located less than six feet from the principal building and must meet the setbacks of the principal building.
  (e) Corner lot. A detached garage or other accessory buildings shall not be located closer than 20 feet to the side lot line adjacent to the street.
  (f) Number of structures. No more than two accessory buildings shall be constructed on a lot. The second accessory building shall not exceed 200 square feet. On lots with a detached garage, two additional accessory buildings are permitted, neither of which exceed 200 square feet, subject to the district's lot coverage requirements.
  (g) Time of construction. No accessory building or structure shall be constructed on any lot prior to the time of construction of the principal building to which it is accessory.
  (i) Multi-family uses. Common walls for accessory buildings may be required where common walls will eliminate unsightly and hazardous areas.

The subject site was platted in December of 2019 under the current Zoning and Subdivision ordinances. Accordingly, the lot meets the size and width requirements for the MU-3 Zoning District. The proposed principal building would comply with the rear, side, and corner side yard setback requirements, and would be within the maximum building height limit. The building would conflict with the 25-foot front yard setback as measured from the 3rd Street N right-of-way. Staff finds that the proposal meets the intent of the Ordinance by providing considerable setback from the Anchor Drive frontage, which will serve as the front from a practical standpoint. The applicant is requesting a variance from the front yard setback standard.

As proposed, the development would include two detached garages in the area between the building and Anchor Drive. Both garages would exceed 4,000 square feet as they would contain 13 and 14 stalls respectively, this would exceed the size limit of 1,000 square feet for an individual accessory building and exceeding the requirement that the second accessory building be less than 200 square feet. The western most garage would be located up to as close as 10.1 feet from the Anchor Drive right-of-way, which is considered the corner side lot line, as determined for the multiple street frontages. This distance conflicts with the 20-foot minimum for the corner side yard requirement for accessory structures. The applicant is requesting variances from these requirements as noted herein. Staff finds that these regulations are intended to regulate single family residential neighborhoods as opposed to multi-family or mixed-use developments.

<u>Utilities and Municipal Services</u>

- *154.004(H)(2) Site Plan Review Standards (e) The proposal can be adequately supported by public urban services including the water supply, transportation system and capacity, police and fire protection, utilities, and sanitary waste disposal and stormwater disposal systems.*
- *154.004(H)(2) Site Plan Review Standards (f) The proposal will not create an excessive burden on existing parks, schools, and other public facilities which serve or are proposed to serve the area;*
- *154.010(A) Development Standards (9) Utility installations. All on site utility installations shall be placed underground.*
- *154.010(E)(3) General Architectural requirements (b) Utilities. Building utility services and structures such as meters, transformers, refuse containers, including dumpsters, ancillary equipment and the like shall be either located inside the principal building, inside an accessory building, or, where outside be entirely screened from off-site views. For new buildings, all utilities shall be underground.*

The proposed use will generate additional demand on parks and schools. Staff finds that this demand was planned for via the Comprehensive Plan and as such would not create an excessive burden on these facilities.

The facility will be served by municipal water and sewer via underground connections. Stormwater management will be provided by an on-site facility located along Anchor Drive. When the Anchor Drive roadway was platted and designed, this use was contemplated for this location. Traffic signal improvements will be installed in the vicinity therefore the surrounding

transportation systems are adequate for the proposed use. No building utility structures, or ancillary equipment is proposed to be located outside of the building.

Open Space

- *154.010(B)(1)(b) Multiple family. Each lot shall contain at least 250 square feet of usable open space shall be provided for each unit.*

The 126 proposed units equates to a requirement for 31,500 square feet of usable open space. The site plan proposes a tot lot and patio area at the southwest corner of the building. Landscaped area surrounds the building and detached garages around the perimeter of the site. Pervious area equals 42,445, which includes the 3,500 square foot storm water management area. Additionally, the Ordinance allows for public parks or plazas within 300 feet of the site may to be used to meet this requirement. The gateway trail corridor adjoins the site to the south having well over 30,000 square feet. Accordingly, staff finds this standard to be met.

Landscaping

- *154.010(F)(3) Tree requirements. (a) Number of trees. Trees must be planted within the property lines and in a location as not to interfere with sight line visibility at maturity. The minimum number of trees of any given site shall be as follows:*
  ii. Townhouse and multiple family uses. Residential structures containing two or more units shall contain as a minimum: one tree per dwelling unit.
- *154.010(F)(4) Landscape coverage. All residential district properties are encouraged to have diversified landscaping in addition to the landscaping required in setback areas for free-standing, detached structures. All landscaped areas are encouraged to be developed with live deciduous and coniferous plants, grass, trees, and shrubs which provide a variety of color, texture, height, and forms consistent with the needs of the site and other elements of the plan. The landscaped areas may contain, but not limited to, some decorative stones, wood, patio blocks, sculptures, and other appropriate ornamental features. Overall composition and location of landscaped areas shall complement the scale of the development and its surroundings. In general, larger, well-placed contiguous planting areas shall be preferred to smaller, disconnected areas. The following zoning classifications will have the following percentage of the lot landscaped: (e) MU-2 and MU-3 Districts. All areas, except for buildings, driveways and approved parking areas, shall be landscaped as described above. Where possible, a minimum of 2% of the site may provide for diversified landscaping that allows infiltration of stormwater. Screening shall be provided and established to protect and screen abutting residential districts.*
- *154.010(F)(5) Required yards and setbacks.*
  (a) All developed uses shall consist of, but not limited to, a landscaped yard, including grass, plantings, decorative stones, trees and shrubs, along all streets.
  (b) Except for driveways, the yard shall extend along the entire frontage of the lot, and along both streets in the case of a corner lot, such yard shall have a depth of at least ten feet.
  (c) Required yards and setback areas, except driveways and areas used for accessory structures, shall be graded to final elevations and sodded or seeded and landscaped with grass, plantings, decorative stones, trees and shrubs.

- *154.010(F)(6) Interior parking landscaping. The purpose of interior parking lot landscaping is to improve the appearance of parking lots, provide shade, and improve stormwater infiltration. The following standards apply to those lots with seven or more spaces:*

  (a) A planting island with a minimum of one tree shall be installed for every 12 parking spaces.

  (b) The primary plant material shall be shade trees with at least one deciduous canopy tree for every 200 square feet of required landscaped area.

  (c) Islands may be curbed or may be designed as uncurbed bio-retention areas as part of an approved low impact stormwater management design as approved by the City Engineer.

The landscaping plan shows a total of 36 trees, some of which would have to be relocated out of utility and drainage easements. The building contains 126 units – equating to a total of 126 required trees. As was applied similarly with the Anchor Commons Storage facility site plan review, Section 154.010 (F)(2)(ii) states that landscaping requirements shall be enforced with the exception of when the review authority determines that the amount and/or locations of plantings pose a risk of overcrowding of plant materials. Therefore, staff recommends that the landscaping plan be revised to increase the number of trees as much as possible up to the 126 tree requirement; the applicant must demonstrate that additional trees would cause overcrowding to the satisfaction of the City's consulting landscape architect. The developer has indicated an openness to working with the City on alternative compliance with the landscaping requirements.

An area exceeding 3,500 square feet will be graded and seeded for use as a stormwater management facility located along Anchor Drive. The meets the 3,408 square feet required by ordinance.

The area located between the front property line (along 3rd St N) and the parking area will be landscaped with lawn, and mulched areas containing trees and shrubs. This area would be in excess of 20 feet in width meeting the ten-foot minimum for the landscape yard.

The parking lot area contains a number of raised landscape islands with curb, including a large perennial and grass in the area in front of the main building entrance. A total of 94 surface parking stalls are provided requiring eight trees. Eight trees including Red Maple, and Honey Locust are proposed within the parking lot islands meeting the minimum required.

<u>Screening</u>

- *154.004(H)(2) Site Plan Review Standards (g) The proposal will be sufficiently compatible or separated by distance or screening from adjacent residentially zoned land.*
- *154.010(D)(27) Multi-Family Supplemental Standards (c) Projecting air conditioning and heating units. Air conditioning or heating units shall not project through exterior walls or windows unless located behind a balcony and screened from view.*
- *154.010(D)(27) Multi-Family Supplemental Standards (d) Transformers. If located outside, shall be screened from view.*
- *154.010(D)(27) Multi-Family Supplemental Standards (e) Utilities. Building utility services and structures such as meters, transformers, refuse containers, including*

dumpsters, ancillary equipment and the like shall be either located inside the principal building, inside an accessory building, or, where allowed, be outside and entirely screened from off-site views. For new buildings, all utilities shall be underground.

- *154.010(E)(3) General Architectural requirements (c) Screening of rooftop equipment. All rooftop equipment, with the exception of solar and wind equipment, shall be screened from view from adjacent streets and public rights-of-way. Rooftop equipment shall be screened from view from adjacent buildings to the extent possible.*
- *154.010(J)(10) Off-street parking standards for non-residential districts. (d) Parking lots should be screened from streets and sidewalks by planters or plantings or both. If planters are used, their material should be compatible with adjacent buildings. Planters should be at least 18 inches high.*

The site does not adjoin residentially zoned property. The submittal does not indicate that any projecting air conditioning or heating units, transformers, rooftop equipment, or building utility services/structures are proposed. Accordingly, if any of these features are proposed, the plans must be revised to depict how said equipment is to be screened prior to their installation.

Landscape plantings are proposed in the areas between sidewalks and around the perimeter of the off-street parking areas. These plantings will provide the parking lot screening that is required by Ordinance.

<u>Drainage/Natural Resources</u>

- *154.010(F) Landscaping Standards (9) Drainage, access & utility easements. No landscape material other than grass, or retaining walls, shall be placed within a drainage, access or utility easement. Rock or riprap may be allowed upon review and approval by the Zoning Administrator provided the proposed material does not interfere with drainage, access or utilities.*
- *154.010(D)(27) Multi-Family Supplemental Standards (b) Drainage. Drainage shall be provided as required consistent with the city and Watershed District requirements. Any required NURP ponds shall be integrated into the overall plan and proper easement and maintenance agreements shall be provided.*

Ten-foot wide drainage and utility easements are dedicated along the perimeter of the site. Accordingly, the landscaping plan must be revised to relocate the proposed planting outside the easement areas.

The City Engineer reviewed the drainage submittal and provided comment in the section of this memo titled "Engineering Comments." The facility will have to meet all applicable Watershed District stormwater management requirements.

<u>Streets and Sidewalks</u>

- *154.010(A) Development Standards (21) Pedestrian circulation. Sidewalks or other designated pedestrian ways shall be clearly indicated and provided for the safety of pedestrians within nonresidential and mixed-use districts.*

- *154.010(A) Development Standards (22) Sidewalks and trails. Complete plans shall be provided for proposed sidewalks and trails to serve parking, recreation and service areas within developments and to link to the city's system.*
- *154.010(D)(27) Multi-Family Supplemental Standards (a) Access. No access shall be located within 50 feet of a public street corner.*
- *154.010(E)(3) General Architectural requirements (e) Pedestrian ways. Buildings shall be designed with proper provision and orientation for a pedestrian system to serve and link development.*

The plans show proposed walkways from the building's main entrance to the sidewalks along Anchor Drive. Additionally, a walkway is provided from a secondary building access to the sidewalks along 3rd St, which further connects to the Gateway Trail Corridor.

<u>Parking</u>

- *154.010(A)(23) Underground parking. When appropriate, buildings are encouraged to provide for inside, usually underground, parking at a ratio of at least one space per dwelling unit within mixed-use districts.*
- *154.010(J)(3) General Parking Standards. (a) Minimum size regulations. Each space shall contain a minimum area of not less than 180 square feet, exclusive of access drives, a width of not less than nine feet and a depth of not less than 20 feet. Each space shall be adequately served by access drives as determined by the Zoning Administrator. All loading spaces shall be sufficient to meet the requirements of each use and shall provide adequate space for storage and maneuvering of the vehicles they are designed to serve. Parking ramps and underground parking may be allowed to have some reduction in the dimensions stated above.*
- *154.010(J)(10) Off-street parking standards for non-residential districts. (g) Required number of off-street parking spaces. The minimum number of required off-street parking spaces for the following uses shall be as indicated on Table 8. Where a specific use is not listed, the Zoning Administrator shall determine the minimum number of required off-street parking spaces by considering functional similarities between uses listed and the use not listed.*
- *154.010(J)(10) Off-street parking standards for non-residential districts. (h) Yards. Off-street parking and loading facilities shall be subject to the front yard, side yard, and rear yard regulations for the use district in which the parking is located, except in the MU-1, MU-2, and MU-3 Districts, yard setbacks may be reduced if a substantial landscape setback is provided having a width meeting at least the minimum specified.*

A Summary of the requirements in Table 8 is provided below for multi-family use by unit type.

Use	Requirement	Proposed
Multiple Family Dwelling	Studio: 1.25 per dwelling unit 28 Studio Units = 35 Req Stalls One bedroom: 1.5 per dwelling unit 62 One Bedroom Units = 93 Req Stalls Two or more bedrooms: 2 per dwelling unit 36 Two Bedroom Units = 72 Stalls Total = 200 Stalls	203 proposed. 94 Total covered stalls. 109 Surface Stalls

A combination of 203 surface parking stalls, detached garage stall, and tuck-under garage stalls are provided. The surface stalls would comply with the above noted dimensional standards, and would have upwards for 24 feet in width for access. Underground parking stalls are not provided, however interior parking is provided at almost a one space per unit ratio (.75 spaces per unit). Staff finds the request meets the intent of this provision.

The surface parking area near the 3rd Street frontage would not comply 25 ft front yard setback requirement. For setback purposes this side of the lot is considered the front since it is the narrowest side facing a street. The Ordinance allows this setback to be reduced in this case since a 10-foot landscape yard is provided as specified in Section 154.010(F)(5)(b).

<u>Bicycle and Transit</u>

- *154.010(A)(24) Bicycle storage. When appropriate, buildings are encouraged to provide for bicycle storage in the building storage room or similar place of at least a ratio of one space per dwelling unit within mixed-use districts.*
- *154.010(J)(7) Bicycle Parking Standards*
  (a) New development. Bicycle parking shall be provided for all new commercial, industrial, community service use, and multifamily residential development.
  (b) Number of spaces. The number of bicycle parking spaces shall be at least 10% of the minimum required vehicle parking for the use. In no case shall less than two spaces be provided.
  (c) Location of facilities. Bicycle parking facilities shall be located within 50 feet of the main building entrance in a location that is visible to building occupants from the main parking lot.
- *154.010(A) Development Standards (25) Transit. Developments are to take into account the needs for transit and the transit rider and related pedestrian ways. Development of transit facilities and transit plazas are to be furnished on a cooperative basis with participation from property owners, the city and metro transit. New express transit is*

proposed on Highway 36 with on-line stop(s) with the possibility of a transit station between/near Margaret Street and McKnight Road.

Bicycle parking facilities are required, providing space for a minimum of 20 bicycles. The applicant will need to demonstrate a plan to comply with this requirement.

This site is not currently on transit route therefore a transit plaza is not required.

Access and Circulation

- 154.010(*F) Landscaping requirements (8) Traffic visibility. In order to provide a clear view of intersecting streets to motorists, a triangular area of clear vision formed by the two intersecting streets and driveways and a line connecting said centerlines, shall be kept clear of visual obstruction, as specified below.*
  (a) Within any vision clearance triangle, screening, plantings, walls, fences or other obstructions are not permitted between a height of 30 inches and ten feet above the curb level, with the exception of fences with a maximum of three feet in height and at least two-thirds open to vision.
  (c) At the intersection of a private drive or alley with a street, the line shall extend a minimum of ten feet from the intersection of the street and alley or drive property lines.
- *154.010(J)(3) General Parking Standards (e) Access.*
  i. Parking and loading space shall have proper access from a public right-of-way as determined by the Zoning Administrator.
  ii. The number and width of access drives shall be so located as to minimize traffic congestion and traffic hazard.

Vehicular access is proposed via two driveways from Anchor Drive. The width of these driveways, equaling 24 feet, can accommodate two vehicles traveling opposite directions.

The vision triangle at the entry way is clear of permanent obstructions but does appear to contain landscaping. Said landscaping will need to be in compliance with the above noted clearance standards.

Architecture

- *154.010(E)(3) General Architectural requirements (f) Pedestrian-oriented design. Building designs are encouraged to make the street enjoyable, visually interesting and comfortable. Individual buildings should be integrated with the streetscape to bring activity in the building in direct contact with the people on the street.*
- *154.010(A)(1) Accessory Building Supplement Standards (h) Design. The design shall be consistent with the primary building; exterior materials shall be a product that is similar, but not limited to identical product, in terms of appearance, color, and durability.*
- *154.010(E)(4) Architectural Control (c) Multiple family dwelling.*
  i. Shall be designed to consist of exterior materials compatible with residential development in the area with due regard to architectural quality and the massing of structures, and shall be designed with suitable fenestration.
  ii. Roof type. Roof style shall be gable or hip roof. Flat roofs are discouraged and may not be appropriate.

The proposed building will be constructed with finishes including metal lap siding and metal panels, brick veneer, composite wood trim, and simulated stone. These materials require minimal maintenance and are commonly utilized in residential developments. Each of the units have multiple windows and their own balconies, providing ample light for residents. A number of bump-outs and changes in architectural materials provide visual interest and break up the building's massing. Lastly, the main building has a pitched roof, with asphalt shingles.

The two detached garages buildings would use similar matching metal lap siding and simulated stone wainscot. The garages would have a pitched roof, and windows along the Anchor Drive frontage. In general, staff finds that the appearance is complementary in the main building. The garages serve as a edge and frame for pedestrians and motorists traveling along this section of Anchor Drive.

Lighting

- *154.010(A) Development Standards (7) Outdoor lighting. All outdoor lighting shall be directed away from adjoining property and from the street unless globe lighting is used. Bare incandescent light bulbs shall not be permitted in view of adjacent property or the public right-of-way, except decorative holiday lights having 7.5 watts or less. No exterior lighting shall exceed 0.4 foot candles at the lot line. Yard lights shall not be closer than five feet from the property line, provided the direct source of light is not visible from the public right-of-way or adjacent residential property.*

The submitted lighting plan shows one proposed pole mounted light within the parking lot, and 42 wall mounted lights around the perimeter of the apartment building and detached garages. These lights would be directed downwards, and not towards any adjoining property. The lights would not exceed the 0.4-footcandle threshold along the property lines.

Engineering Comments:

1. The applicant is responsible for obtaining all necessary permits for the project from both the City and applicable outside agencies.
2. The onsite sanitary sewer, water, and storm sewer shall be privately owned and maintained.
3. Final hydrant locations and turnaround dimensions shall be approved by the Fire Chief.
4. Landscaping is not allowed in the drainage and utility easements.
5. Sanitary sewer service shall be PVC SDR-26 per City detail.
6. Revise site plan note number 4 to refer to North St. Paul.
7. Show the EOF at the catch basin in the northeast corner of the parking lot located at the corner of Anchor Drive and 3rd Street.

RECOMMENDED ACTION

Based on the findings described in this report, staff recommends the following actions:

Approval of the requested variances as follows:

1. Variance from Section 154.007(C)(3) to allow a reduction in the front yard setback from 25 ft to 22.2 ft.
2. Variance from Section 154.010 (D)(1)(a) to allow two accessory structures to be constructed at 4,080 square feet and 4,656 square feet respectively exceeding the 1,000 square foot maximum for an individual accessory building.
3. Variance from Section 154.010 (D)(1)(e) to allow an accessory structure to be located 10.1 feet from the corner side lot line reducing the 20 ft minimum.
4. Variance from Section 154.010(D)(1)(f) to allow a second accessory structure that exceeds 200 square feet.

Conditional Approval of the proposed Site Plan Review subject to the following conditions of approval:

1. A revised landscaping must be submitted without any plantings in the drainage and utility easements.
2. If any projecting air conditioning or heating units, transformers, rooftop equipment, or building utility services/structures are proposed, the plans must be revised and submitted for approval by staff prior to their installation. Said revised plans must depict how the equipment is to be screened
3. Revision of the landscaping plan to increase the number of trees as much as possible up to the 126-tree requirement; the applicant must demonstrate that additional trees would cause overcrowding to the satisfaction of the City's consulting landscape architect.
4. Bicycle parking stalls accommodating a minimum of 20 bicycles must be provided on a revised site plan with accompanying details for the facility.
5. Plantings, walls, fences or other obstructions are not permitted between a height of 30 inches and ten feet above the curb level within the 30-feet vision triangle created that the development driveway.
6. All signage shall comply with Zoning Ordinance requirements and the applicant or property owner shall obtain permits prior to installation.
7. The applicant is responsible for obtaining all necessary permits for the project from both the City and applicable outside agencies.
8. The onsite sanitary sewer, water, and storm sewer shall be privately owned and maintained.
9. Final hydrant locations and turnaround dimensions shall be approved by the Fire Chief.
10. Sanitary sewer service shall be PVC SDR-26 per City detail.
11. Revise site plan note number 4 to refer to North St. Paul.
12. Show the EOF at the catch basin in the northeast corner of the parking lot located at the corner of Anchor Drive and 3rd Street.

CITY OF NORTH ST. PAUL
NOTICE OF PUBLIC HEARING:
VARIANCES

NOTICE IS HEREBY GIVEN that the Planning Commission of the City of North St. Paul, Minnesota will hold a public hearing to accept public input on applications for multiple variances at the property listed below:

Parcel Identification Number: 122922330123
Property Address: 2300 McKnight Rd. N, North St. Paul 55109
Legal Description: Lot 1 Block 2 of ANCHOR BLOCK COMMONS
Applicant/Address: Trident Development/3601 18th St. S, Ste 103 St. Cloud, MN 56301

The application requests the approval of a variance at the property which would allow for: reduction of the front yard setback, reduction of the side lot line setback for an accessory structure, a second accessory structure over 200 sq. ft. and two accessory structures to exceed the 1,000 sq. ft. maximum for individual accessory structures.

The public hearing will be conducted on Thursday, March 6th at approximately 6:15 p.m. or shortly thereafter at the City Council Chambers of City Hall, located at 2400 Margaret Street, North St. Paul.

Such persons with desire to be heard with reference to this matter will be heard at this meeting. Written comments may be submitted until 6:00pm on the day of the public hearing, and shall be provided to the Planning Commission at the meeting. Please direct questions or written comment to the Planning Commission Secretary: planner@northstpaul.org or (651) 747-2595.

PUBLISH: February 23rd, 2020

City of North St. Paul
2400 Margaret Street
North St. Paul, MN 55109
Phone (651) 747-2407
www.northstpaul.org

ZONING & LAND USE APPLICATION

Escrow: $1,000 min. (code 1.2044)

Application Fee: $500.00 (code 1.3290)

APPLICATION FOR SITE/BUILDING PLAN APPROVAL

The site/building plan approval process must be scheduled through the Community Development Planning and Zoning Department. The lead-time for submittals shown on this application is necessary to allow City staff and consultants time to review and comment on documents provided. Additional lead-time will be required if the City determines that the potential impacts require more detailed study, or if review by other agencies is required. Incomplete application submittals will not be forwarded to the appropriate Commission or Council until all required information has been provided.

APPLICANT INFORMATION

Applicant Name: Roger Fink
Company (if applicable): Trident Development
Address: 3601 18th St, So, Ste. 103
City, State, Zip: St. Cloud, MN 56301
Phone Number: (612) 242-6097
Email: rogerf@tridentdevelopmentmn.com
Are you the owner of the property? ____YES X NO
(If no, you must supply property owner information)

Owner Name: City of North St. Paul
Company (if applicable): ____
Address: ____
City, State, Zip: ____
Phone Number: ____
Email: ____

PROPERTY INFORMATION

Street location of property (address): TBD
Parcel Identification Number (PID) (see Ramsey County website): 122922330123
Legal description of property: Lot 1, Block 2, Anchor Block Commons
Present zoning of property (see City website): MU 3
Size of property (acreage): 3.91
Title information: ____ Abstract X Torrens
Property Desciption: ____ Residential X Commercial ____ Industrial ____ Institutional

PROPOSAL INFORMATION

Required for:

___ Expansions of 1,000 square feet or more of commercial, industrial, institutional, and multi-family development projects.
X New commercial, industrial, institutional, and multi-family development projects.

On a separate sheet of paper, please answer the following questions in full detail:

1. Provide a project description.
2. Is the proposal consistent with the general purposes and intent of the Comprehensive Plan?
3. Will the proposal adversely affect the health, safety, or general welfare of the City?
4. Is the proposal compatible with present and future land uses in the surrounding area and reasonably related to the overall needs of the City?
5. Is the proposal or appearance of the proposal compatible with adjacent properties?
6. Can the proposal be adequately supported by public urban services including the water supply, transportation system and capacity, police and fire protection, utilities, and sanitary waste disposal and storm water disposal systems?
7. Will the proposal create an excessive burden on existing parks, schools, and other public facilities which serve or are proposed to serve the area?
8. Is the proposal sufficiently compatible or separated by distance or screening from adjacent residentially zoned land?
9. Is the proposal in harmony with the general purposes and intent of zoning codes and the zoning district in which the applicant intends to locate the proposal?
10. If applicable, is the proposal consistent with officially adopted City plans and overlays?

NOTE TO APPLICANT

All completed application and accompanying materials are due 30 days prior to the scheduled Planning Commission meeting (if applicable). The purpose of this submittal requirement is to allow for:

1. Plan distribution to the City staff, consultants, and applicable government entities.
2. Project review time and generation of staff reports.
3. Project meetings between City staff and applicants.
4. Meeting materials preparation and distribution.

The North St. Paul City Codes guide and enable development activities within the City by ensuring proper and well-coordinated projects. The land use application is the mechanism that allows the City to examine proposed land uses to ensure compatibility with the City Codes, design and development standards, and the surrounding land uses and natural environments. The review is intended to ensure positive growth for the community. All applications are reviewed individually and are evaluated based on their own merit. Each land use request has an associated checklist of required items. Applicants are encouraged to participate in an initial meeting with City staff prior to submitting a formal land use application. The initial meeting is an opportunity to informally discuss the conceptual idea of the proposed project in an effort to reduce delays. Participation in the initial meeting does not provide approval, or guarantee approval of the project. The City shall not accept plans, drawings, or other information related to the project except upon submittal of a formal application. The City reserves the right to reject an incomplete application.

APPLICATION FEE STATEMENT

There may be additional expenses pertaining to project review that is the responsibility of the applicant. All applicable fees must be paid when submitting land use applications and accompanying materials. All fees, which are set annually by City Ordinance, help cover costs incurred by the City to review the application. The City of North St. Paul often uses consulting firms to assist in the review of projects. Please refer to the City's Fee Schedule for information on planning review fees and other applicable costs.

REVIEW REQUIREMENTS

Minnesota State Statute 15.99 requires local governments to review an application within 15 business days of submission to determine if an application is complete and/or if additional information is required to complete the review. Once complete, a formal 60-day review period begins. The City has the ability to extend the review period for an additional 60 days, if necessary, due to insufficient information or scheduling difficulties. Please review the corresponding checklist that goes with the request. All applications must be received by the deadline(s) attached hereto. Failure to submit by the date given may result in a delay of the review by the Planning Commission and City Council.

ACKNOWLEDGEMENT

I certify that all information submitted is true and correct and I fully understand that all information and a complete application must be submitted at least 30 days prior to a Planning Commission meeting to ensure review by the Planning commission on that date. By signing this form, I hereby acknowledge the receipt of the checklist and procedure for the project to be submitted for consideration. It is my responsibility to check all applicable ordinances pertaining to the application, comply with all ordinance requirements, and submit all required materials. All permit requests should be submitted in a timely manner so as not to cause project delays.

Applicant signature: TRIDENT DEVELOPMENT LLC By [signature] Date: 2-4-2020

Owner Signature: _____ Date: _____

PROPOSED MEETING DATES:

Design Review Commission: _____ Planning Commission _____ Parks & Rec Commission _____
Environmental Advisory Commission _____ City Council _____

FOR OFFICE USE ONLY

Date submitted: _____ Date complete: _____ If incomplete, date letter sent to applicant: _____
Date of public hearing: _____ Publication date: _____ Date notice sent to adjoining properties: _____
Amount fee paid: _____ Date fee paid: _____ Receipt #: _____ File #: _____

Planning Commission action: _____ Recommend approval: _____ Recommend denial: _____
Date applicant/property owner notified of Planning Commission action: _____

City Council action: _____ Recommend approval: _____ Recommend denial: _____
Date applicant/property owner notified of City Council action: _____

Date filed with Ramsey County Recorder office: _____

TRIDENT
Development, LLC.
3601 18th Street South • Suite #103 • St. Cloud, MN 56301
Phone: 320.258.4438 • Fax: 320.252.3603

February 2, 2020

City Council and Planning Commission
City of North St. Paul
2400 Margaret Street
North St. Paul, MN 55109-3020

HAND DELIVERED AND
E-MAIL

Re: APPLICATION FOR SITE PLAN REVIEW
ANCHOR VIEW MULTIFAMILY HOUSING DEVELOPMENT

Dear Council and Planning Commission Members,

Trident Development, LLC is pleased to submit this application for Site Plan Review for a new multi-family housing development in the community of North St. Paul.

This narrative is intended to generally describe the proposed project and address specific development topics.

LOCATION/CURRENT USE – The proposed development site is located at TBD Anchor Drive, totaling 3.91 +/- acres and is situated between 3rd Street and McKnight Road. The site is currently zoned MU-3. The MU-3 district is defined as mixed use combining an appropriate mix of residential, commercial and retail uses. The subject property is currently a vacant parcel included within the Anchor Block redevelopment district. The City has undertaken the redevelopment activities including completing the preliminary plat and final plat for the subject property. Accordingly, the legal description of the property is now described as Lot 1 Block 2, Anchor Block Commons.

PROJECT DESCRIPTION – Trident is proposing a new construction, "work-force housing" apartment community, currently referred to as Anchor View apartments. The Anchor View apartment development plan proposes one (1) contiguous, 4-story apartment building containing a total of 126 dwelling units. The current site plan provides parking for 203 cars with a combination of 94 covered/attached parking stalls and 109 surface parking spaces. A detailed parking analysis is provided below. Attention has been given to pedestrian connections to public walks and trails, along with outdoor amenities such as recreation/playground area and generously landscaped traffic circle. The site is organized to optimize safe vehicular and pedestrian circulation along with adequate stormwater treatment system. Attractive landscaping is proposed in compliance with the City's zoning code.

COMPREHENSIVE PLAN / ZONING DISTRICT - The City's 2040 Comprehensive Plan designates the development site as Corridor Mixed Use which contemplates uses that combine retail, housin and office. The proposed development is consistent with the general purpose and intent of the Comprehensive Plan. Further, the proposed development is located in the MU-3 Zoning District in which residential, commercial and retail are all permitted uses. The Anchor View apartments intend to observe the

performance standards specified in the MU-3 zoning district and will be in harmony with the general purpose and intent of the applicable zoning code.

PRESENT AND FUTURE LAND USES – The proposed development is included within the Anchor Block redevelopment area in which a variety of commercial and residential uses are contemplated. This redevelopment area is bisected by a The Gateway State recreational trail running east and west through the property. South of the regional trail are existing medium density, owner-occupied townhomes known as the Gateway at McKnight Townhomes. The Gateway at McKnight housing development is situated at a higher topographic elevation creating an attractive visual and density transition between the Anchor View apartments and the surrounding single-family neighborhood. Additionally, the existing Gateway Trail creates a distinctive separation between the apartments and the townhomes. The land north of the Gateway Trail is currently vacant but is anticipated to be utilized as a convenience/food-fuel business and a self-storage facility, along with the proposed Anchor View apartments. The proposed apartments will serve as an appropriate transition buffer between the future commercial uses to the north and the lower density residential uses existing south of the Gateway Trail.

Due to strategic land planning of the Anchor Block redevelopment area, the apartment proposal is compatible with present and future land uses and achieves the objectives of the City's redevelopment goals.

IMPACT ON PUBLIC SERVICES - As part of the overall redevelopment plan, the Anchor View apartment site has the benefit of a well-developed master plan. The design of the master redevelopment plan assures the site is adequately served by all public urban services (ie water, sanitary sewer, gas, electricity, stormwater treatment, fire protection) and afforded access to public streets providing two means of ingress and egress.

The addition of 126 new dwelling units will somewhat increase the utilization of existing parks, schools and other public facilities, but not to the extent of creating an excessive burden. The increased vehicular traffic has been addressed by installing a new signalized intersection on McKnight Road at Anchor Drive, among other related public street improvements. In addition, the real estate taxes paid by Anchor View apartments will be used to help repay the cost of the new infrastructure improvements within the redevelopment area.

The proposed development will not adversely affect the health, safety or general welfare of the City.

WORKFORCE HOUSING APARTMENTS - The Anchor View apartments are thoughtfully designed to provide quality, contemporary rental apartments well-suited for most working families. The apartment building will offer a variety of attractive floor plans and styles. Residents can choose from efficient studio units to functional 1 and 2 bedroom plans. A preliminary unit mix table is included as an exhibit to this application. All units are furnished with a complete kitchen appliance package, in-unit laundry, high-quality cabinetry, generous closet space, LED lighting fixtures, window treatments and balconies. Each unit is wired to accommodate the latest communication technologies. The apartments are heated by individually controlled hydronic heating systems and cooled by remote control, high-efficiency air conditioning units.

The apartment building is designed as a four-story, wood-frame structure with pitched roof. Overall height of the main building (to roof peak) is approximately 53 feet. The height from finished grade to the eve line of the roof is approximately 42 feet. At each end of the main building is a single-story parking garage which also has a pitched roof, creating a balanced, "book-end" appearance. A prominent main entry feature is positioned at the center of the building with additional entry points at the east and west ends of the building. The structure will be built of the latest, high-quality building materials including

pre-engineered trusses, "Zip-Panel" exterior sheathing, gypcrete underlayment, maintenance-free siding materials, architectural fiberglass shingles, vinyl-clad single-hung windows and powder-coated aluminum balconies. The entire building is equipped with an automatic fire suppression system in compliance with NFPA 13 which is monitored 24/7. The façade of the building incorporates numerous bump-outs, dormers and a variety of exterior materials to achieve attractive visual appeal.

Trash collection is provided in interior trash rooms (2) on the first floor of the building. Convenient trash chutes are used from the upper floors. Trash removal is provided through large exterior doors which serve the waste removal vehicles. No exterior trash enclosure is required.

FEATURES AND AMENITIES – The Anchor View apartments are designed to have contemporary features and competitive amenities. Building access is controlled by state-of-the-art tenant call system and operated with individual "key fob" devices. The spacious main lobby is well-appointed with soft seating, electric fireplace and high-definition television. Interior features also include individual mail boxes, 24/7 security surveillance cameras, management/leasing office, guest WiFi connection, community room, fitness center, package handling system, tenant storage, bike racks and hydraulic elevator service.

Outdoor amenities include outdoor patio with seating, grilling station, children's play area, walking paths, bike racks and direct access to the Gateway State Trail. All garage doors have automatic openers with remote controls.

As an added benefit, Anchor View Apartments are only a short walking distance to convenience store (gas/food/groceries) and mini-storage services.

OFF-STREET PARKING – The off-street parking plan offers residents a variety of parking options. Tenants can choose attached/tuck-under garages (34 provided), attached/shared parking garage (30 spaces provided), individual detached parking garage stalls (30 provided) or 109 uncovered/surface parking spaces.

In compliance with the City of North St Paul Zoning Code, the following formula was used in determining required off-street parking:

Studio Units – 1.25 spaces per unit
One Bedroom – 1.50 spaces per unit
Two Bedroom – 2.00 spaces per unit

Proposed unit mix and required parking spaces are as follows:

28 Studio Units x 1.25 = 35 spaces
62 One Bedroom x 1.50 = 93 spaces
36 Two Bedroom x 2.00 = 72 spaces
126 Total Units = 200 total spaces

Total Parking Required = 200 (1.58/unit)

Total Parking Provided = 203 (1.61/unit)
Total Covered Parking Provided = 94
Total Surface Parking Provided = 109

UNIT MIX/SIZES/RENTAL RATES – Based on a recent apartment market data and past apartment development experience, Trident and its architect have developed an appropriate mix of unit floor plans and styles. Each unit plan is carefully reviewed for functionality and marketability. Anchor View will contain a mix of 28 studio/efficiencies (22%), 64 one-bedroom units (49%) and 34 two-bedroom units (29%). Further detail on unit sizes and estimated rental rates appears below:

28 – Studio Style Units (4 floor plans) 495 SF – 624 SF Est. Monthly Rent $1,000/mo to $1,150/mo

- Minimum qualifying household income $35,000* = monthly rent $975.00 (affordable)

64 – 1 Bedroom/1 Bath Style Units (4 floor plans) 680 SF – 848 SF Est. Monthly Rent $1,300/mo to $1,500/mo

- Minimum qualifying household income $40,000* = monthly rent $1,100.00 (affordable)

34 – 2 Bedroom/2 Bath Style Units (3 floor plans) 1008 SF – 1079 SF Est. Monthly Rent $1,650/mo to $1,700/mo

- Minimum qualifying household income $45,000* = monthly rent $1,250.00 (affordable)

*based on 50% of the Minneapolis-St Paul MSA median income data

Enclosed with this application narrative please a completed/signed Zoning and Land Use Application Form and a check in the amount of $1,500.00, which represents the application fee of $500.00 together with the required escrow deposit of $1,000.00.

Together with the application form and fees referenced above, we are also delivering the following:

- Two (2) full-size (24" x 36") AND two (2) reduced (11" x 17") copies of:
  - Certificate of Survey
  - Site Plan
  - Parking and Circulation Plan
  - Grading/Stormwater Management Plan
  - Sanitary Sewer and Water Plan w/ estimated use per day
  - Landscape Plan
  - Lighting Plan
  - Architectural Detail Drawings (floor plans, unit plans, elevations)
  - Signage Plan
- Soils report
- Names and addresses of the owners of lands within 350 feet of the subject site.
- One (1) flashdrive containing electronic files of the submittal items referenced above.

We thank you in advance for considering this application and look forward to your comments. Please feel free to contact me at (320) 258-4438 or (612) 242-6097 if there are any questions.

Regards,
Trident Development, LLC

Roger D. Fink
Sr. Vice President
Enclosures

C: Scott O'Brien, Trident Development, LLC
Carin Bzdok, Trident Development, LLC

City of North St. Paul
2400 Margaret Street
North St. Paul, MN 55109
Phone (651) 747-2407
www.northstpaul.org

ZONING & LAND USE APPLICATION

Escrow:
Residential $500 min.
Non-Res. $1000 min.
(code 1.2044)

Application Fee:
Residential $250.00
Non-Res $500
(code 1.3290)

APPLICATION FOR VARIANCE

The variance process must be scheduled through the Community Development Planning and Zoning Department. The lead-time for submittals shown on this application is necessary to allow City staff and consultants time to review and comment on documents provided. Additional lead-time will be required if the City determines that the potential impacts require more detailed study, or if review by other agencies is required. Incomplete application submittals will not be forwarded to the appropriate Commission or Council until all required information has been provided.

APPLICANT INFORMATION

Applicant Name: Roger Fink
Company (if applicable): Trident Development
Address: 3601 18th St. So., Ste. 103
City, State, Zip: St. Cloud, MN 56301
Phone Number: (320) 258-4438
Email: rogerf@tridentdevelopmentmn.com
Are you the owner of the property? ____YES X NO
(If no, you must supply property owner information)

Owner Name: City of North St. Paul
Company (if applicable): ____
Address: ____
City, State, Zip: ____
Phone Number: ____
Email: ____

PROPERTY INFORMATION

Street location of property (address): TBD
Parcel Identification Number (PID) (see Ramsey County website): 122922330123
Legal description of property: Lot 1, Block 2, Anchor Block Commons
Present zoning of property (see City website): MU3
Size of property (acreage): 3.91
Title information: ____ Abstract X Torrens
Property Desciption: ____ Residential X Commercial ____ Industrial ____ Institutional

PROPOSAL INFORMATION

The request(s) which we desire for our property is/are in conflict with the following section(s) of the City of North St. Paul Zoning Code (reference Zoning Code, see City website): PLEASE SEE ENCLOSED LETTER

Proposed non-conformance(s): PLEASE SEE ENCLOSED LETTER

On a separate sheet of paper, please answer the following questions in full detail:

1. Provide a project description.
2. Is the variance in harmony and consistent with the general purposes and intent of the Comprehensive Plan and Chapter 154?
3. Will the variance adversely affect the health, safety, or general welfare of the City?
4. Is the variance necessary due to special conditions applying to the structures or land in question that are particular to the property and do not apply generally to other land or structures in the district or vicinity in which the land in located?
5. Is the variance requested, the minimum variance necessary to alleviate the practical difficulty? Practical Difficulties are caused from the strict application of the Zoning Code as outlined below:
   - The property owner proposes to use the property in a reasonable manner not permitted by the Zoning Code.
   - The plight of the landowner is due to circumstances unique to the property not created by the landowner.
   - The variance, if granted, will not alter the essential character of the locality.
   - Economic considerations alone do not constitute practical difficulties.
   - The variance is consistent with officially adopted City plans and overlays.

NOTE TO APPLICANT

All completed application and accompanying materials are due 30 days prior to the scheduled Planning Commission meeting (if applicable). The purpose of this submittal requirement is to allow for:

1. Plan distribution to the City staff, consultants, and applicable government entities.
2. Project review time and generation of staff reports.
3. Project meetings between City staff and applicants.
4. Meeting materials preparation and distribution.

The North St. Paul City Codes guide and enable development activities within the City by ensuring proper and well-coordinated projects. The land use application is the mechanism that allows the City to examine proposed land uses to ensure compatibility with the City Codes, design and development standards, and the surrounding land uses and natural environments. The review is intended to ensure positive growth for the community. All applications are reviewed individually and are evaluated based on their own merit. Each land use request has an associated checklist of required items. Applicants are encouraged to participate in an initial meeting with City staff prior to submitting a formal land use application. The initial meeting is an opportunity to informally discuss the conceptual idea of the proposed project in an effort to reduce delays. Participation in the initial meeting does not provide approval, or guarantee approval of the project. The City shall not accept plans, drawings, or other information related to the project except upon submittal of a formal application. The City reserves the right to reject an incomplete application.

APPLICATION FEE STATEMENT

There may be additional expenses pertaining to project review that is the responsibility of the applicant. All applicable fees must be paid when submitting land use applications and accompanying materials. All fees, which are set annually by City Ordinance, help cover costs incurred by the City to review the application. The City of North St. Paul often uses consulting firms to assist in the review of projects. Please refer to the City's Fee Schedule for information on planning review fees and other applicable costs.

REVIEW REQUIREMENTS

Minnesota State Statute 15.99 requires local governments to review an application within 15 business days of submission to determine if an application is complete and/or if additional information is required to complete the review. Once complete, a formal 60-day review period begins. The City has the ability to extend the review period for an additional 60 days, if necessary, due to insufficient information or scheduling difficulties. Please review the corresponding checklist that goes with the request. All applications must be received by the deadline(s) attached hereto. Failure to submit by the date given may result in a delay of the review by the Planning Commission and City Council.

ACKNOWLEDGEMENT

I certify that all information submitted is true and correct and I fully understand that all information and a complete application must be submitted at least 30 days prior to a Planning Commission meeting to ensure review by the Planning commission on that date. By signing this form, I hereby acknowledge the receipt of the checklist and procedure for the project to be submitted for consideration. It is my responsibility to check all applicable ordinances pertaining to the application, comply with all ordinance requirements, and submit all required materials. All permit requests should be submitted in a timely manner so as not to cause project delays.

Applicant signature: TRIDENT DEVELOPMENT, LLC [signature], Sr. V.P. Date: 2-20-2020

Owner Signature: - CITY OF NORTH ST PAUL - Date: _____

PROPOSED MEETING DATES:

Design Review Commission: _____ Planning Commission X Parks & Rec Commission _____
Environmental Advisory Commission _____ City Council O

FOR OFFICE USE ONLY

Date submitted: _____ Date complete: _____ If incomplete, date letter sent to applicant: _____
Date of public hearing: _____ Publication date: _____ Date notice sent to adjoining properties: _____
Amount fee paid: _____ Date fee paid: _____ Receipt #: _____ File #: _____

Planning Commission action: _____ Recommend approval: _____ Recommend denial: _____
Date applicant/property owner notified of Planning Commission action: _____

City Council action: _____ Recommend approval: _____ Recommend denial: _____
Date applicant/property owner notified of City Council action: _____

Date filed with Ramsey County Recorder office: _____

TRIDENT
Development, LLC.
3601 18th Street South • Suite #103 • St. Cloud, MN 56301
Phone: 320.258.4438 • Fax 320.252.3603

February 21, 2020

City Council and Planning Commission
City of North St. Paul
2400 Margaret Street
North St. Paul, MN 55109-3020

HAND DELIVERED AND
E-MAIL

Re: SITE PLAN VARIANCE APPLICATION
ANCHOR VIEW MULTIFAMILY HOUSING DEVELOPMENT

Dear Council and Planning Commission Members,

Trident Development, LLC is formally requesting consideration and approval of certain variances to the site plan submitted for the Anchor View Apartment Development.

This narrative is intended to provide specific details on the nature of the non-conformance regarding accessory buildings and structures and landscape standards.

LOCATION/CURRENT USE – The proposed development site is located at TBD Anchor Drive, totaling 3.91 +/- acres and is situated between 3rd Street and McKnight Road. The site is currently zoned MU-3. The MU-3 district is defined as mixed use combining an appropriate mix of residential, commercial and retail uses. The subject property is currently a vacant parcel included within the Anchor Block redevelopment district. The legal description of the property is described as Lot 1 Block 2, Anchor Block Commons.

PROJECT DESCRIPTION – Trident is proposing a new construction, "work-force housing" apartment community, currently referred to as Anchor View apartments. The Anchor View apartment development plan proposes one (1) contiguous, 4-story apartment building containing a total of 126 dwelling units. The current site plan provides parking for 203 cars with a combination of 94 covered/attached parking stalls and 109 surface parking spaces. Attention has been given to pedestrian connections to public walks and trails, along with outdoor amenities such as recreation/playground area and generously landscaped traffic circle. The site is organized to optimize safe vehicular and pedestrian circulation along with adequate stormwater treatment system. Attractive landscaping is proposed in compliance with the City's zoning code.

COMPREHENSIVE PLAN / ZONING DISTRICT - The City's 2040 Comprehensive Plan designates the development site as Corridor Mixed Use which contemplates uses that combine retail, housing and office. The proposed development is consistent and in harmony with the general purpose and intent of the Comprehensive Plan and Chapter 154. Further, the proposed development is located in the MU-3 Zoning District in which residential, commercial and retail are all permitted uses.

REQUEST FOR VARIANCE - Unfortunately, the MU-3 Zoning District contains some provisions that apply to accessory buildings that seem to contemplate single family homes. The following is an except of the Accessory buildings and structures section of the Zoning Code:

1. *Accessory buildings and structures.*

(a) Size. The total square feet of an accessory building shall not exceed 10% of the lot area, and in no case shall it exceed 1,000 square feet of gross floor area. The sum of all square footage for attached garages and detached garages shall not equal or exceed the finished livable floor area of the footprint (ground floor) of the principal structure to which it is an accessory. ***Each Detached Garage structure is over 4,000 sf. One structure includes 16 individual garages and the second structure includes 14 individual garages.***

(e) Corner lot. A detached garage or other accessory buildings shall not be located closer than 20 feet to the side lot line adjacent to the street. ***The code would suggest the frontage along 3rd St N is the front lot line – therefore the Anchor Drive Frontage is the corner side. One of the garages is within 10.1 ft of the ROW along Anchor Dr.***

(f) Number of structures. No more than two accessory buildings shall be constructed on a lot. The second accessory building shall not exceed 200 square feet. On lots with a detached garage, two additional accessory buildings are permitted, neither of which exceed 200 square feet, subject to the district's lot coverage requirements. ***Again, there are two structures, both 4,000 sf with one containing 16 individual garages and the other containing 14 individual garages.***

A variance is necessary because the Zoning Code as written imposes difficulties in using the property in a reasonable manner because the intended use (high-density housing) is considerably different than the use contemplated in the Code (single-family housing).

Trident Development, LLC respectfully requests approval for a variance(s) which will permit the following:

1. Two (2) detached garage structures which each exceed 1,000 square feet of floor area. The easterly garage provides for 16 parking stalls and the westerly garage provide 14 parking stalls
2. A deviation in the set-back distance for the front yard lot line from 20 feet to 10.1 feet for one of the detached parking structures on Anchor Drive. As designed, the garage structure will still be placed 20 + feet from the curb.
3. Approval of two (2) detached garage structures/accessory structures, one of which exceeds 1,000 square feet of gross floor area and a second one which exceeds 200 square feet of gross floor area.
4. Location of off-street parking lot at 10.6 feet from the 3rd Street North Right-of-Way.

The requested variances will not adversely affect the health, safety or general welfare of the City.

The variances requested above represent the minimum variances necessary to alleviate the unintended restrictions imposed by the current Zoning Code.

LANDSCAPE STANDARDS -

Tree requirements:

iii. MU-2 and MU-3 Districts. Whichever is greater: one tree per 1,000 square feet of gross building floor area or one tree per 50 lineal feet of site perimeter. ***Plans show 59 trees including ornamental and coniferous. First level footprint is 46,729 per the plans. Floors 2-4 are each probably 35773. Which totals 154,048 sf and equates to 154 trees.***

Due to the limited landscape areas on which to plant trees, installing the required 154 trees is not practical with the proposed site plan. Trident's objective is to provide an attractive, generously landscaped exterior without creating crowed conditions among the plantings, thus encouraging healthier plant growth. Trident is prepared to discuss alternative landscape and planting plans which accomplish this objective, together with the goals of the City.

Enclosed with this application narrative please a completed/signed Application for Variance together with an application fee of $250.00.

We thank you in advance for considering this application and look forward to your comments. Please feel free to contact me at (320) 258-4438 or (612) 242-6097 if there are any questions.

Regards,
Trident Development, LLC

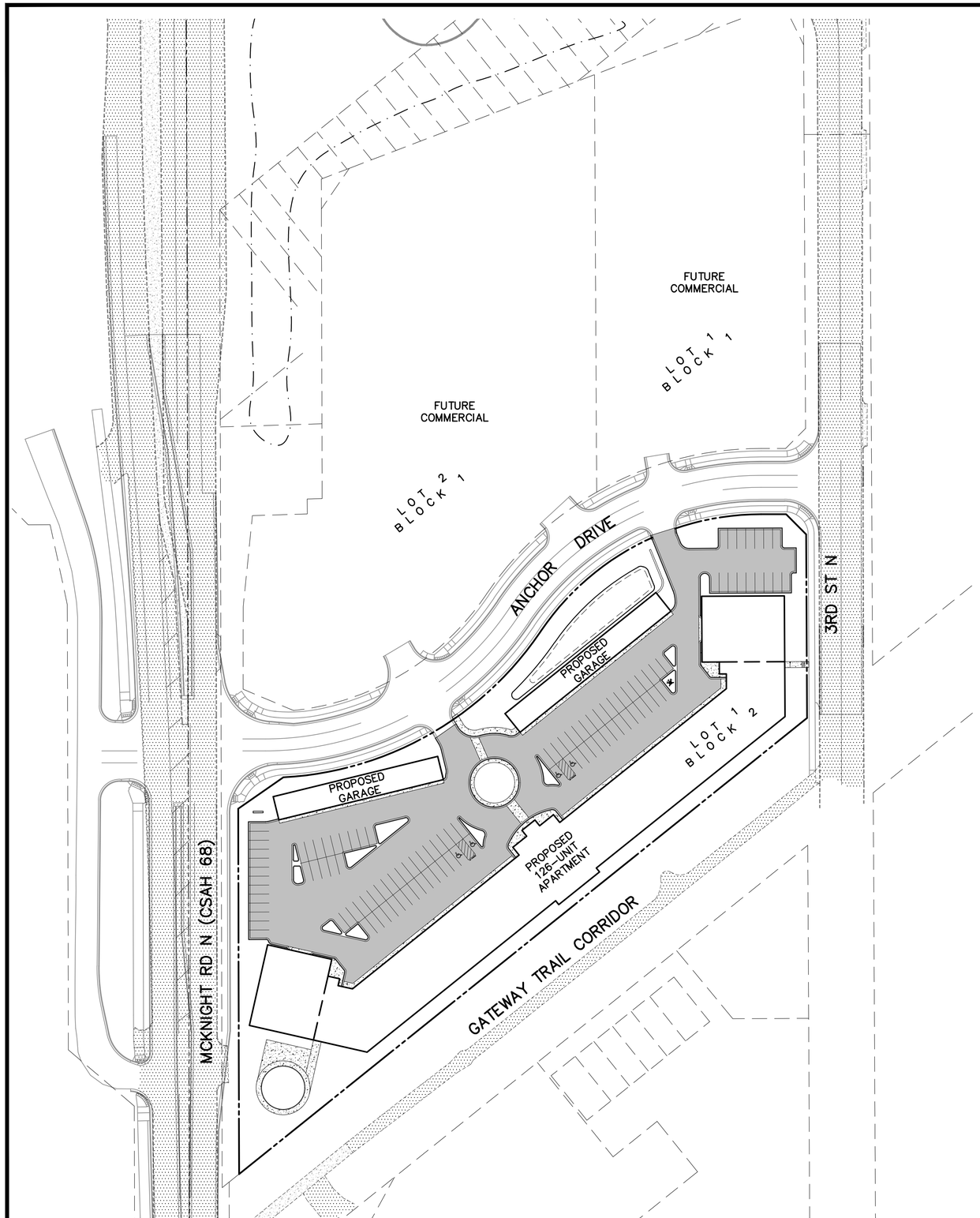
Roger D. Fink
Sr. Vice President
Enclosures

C: Scott O'Brien, Trident Development, LLC
Carin Bzdok, Trident Development, LLC

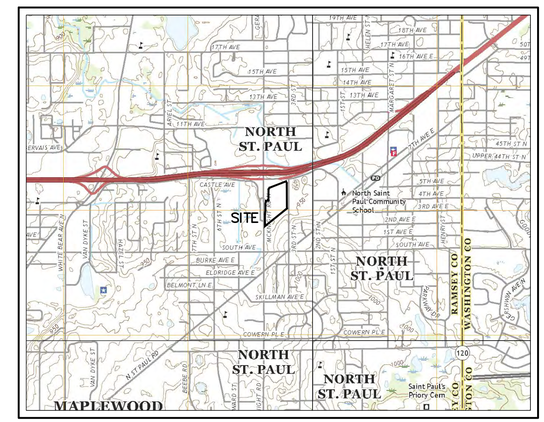
ANCHOR VIEW APARTMENTS

~ Site Improvement Plans ~

North St. Paul, Minnesota



VICINITY MAP



PROJECT OWNER

TRIDENT DEVELOPMENT, INC.
ROGER FINK
3601 18TH STREET S #103
ST. CLOUD, MN 56301
320-258-4438

ARCHITECT

HMA ARCHITECTS
MURRAY MACK
700 W ST GERMAIN ST #200
ST. CLOUD, MN 56301
320-251-9155

CIVIL ENGINEER

CARLSON MCCAIN, INC.
JOSEPH RADACH
3890 PHEASANT RIDGE DRIVE NE #100
BLAINE, MINNESOTA 55449
763-489-7900

LANDSCAPE ARCHITECT

CARLSON MCCAIN, INC.
RYAN RUTTGER
3890 PHEASANT RIDGE DRIVE NE #100
BLAINE, MINNESOTA 55449
763-489-7900

SHEET INDEX

C1. COVER
C2. CERTIFICATE OF SURVEY (EXISTING CONDITIONS)
C3. SITE & SIGN PLAN
C4. UTILITY PLAN
C5. GRADING, DRAINAGE, & EROSION CONTROL PLAN
C6. STORMWATER POLLUTION PREVENTION PLAN
C7. DETAILS
C8. DETAILS
L1. LANDSCAPE PLAN
L2. LANDSCAPE PLAN

N

0 30 60 120
(IN FEET)

BENCHMARKS

1. RAMSEY COUNTY BENCHMARK STATION #9240, LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF MCKNIGHT ROAD AND 15TH AVENUE EAST

ELEVATION = 961.975 ft. (NAVD 88)

CALL BEFORE YOU DIG

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Carlson McCain
ENVIRONMENTAL · ENGINEERING · SURVEYING
3890 Pheasant Ridge Dr. NE #100, Blaine, MN
Phone: 763-489-7900 Fax: 763-489-7959

COVER SHEET

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 18th Street South, Suite 103
St. Cloud, MN 56301

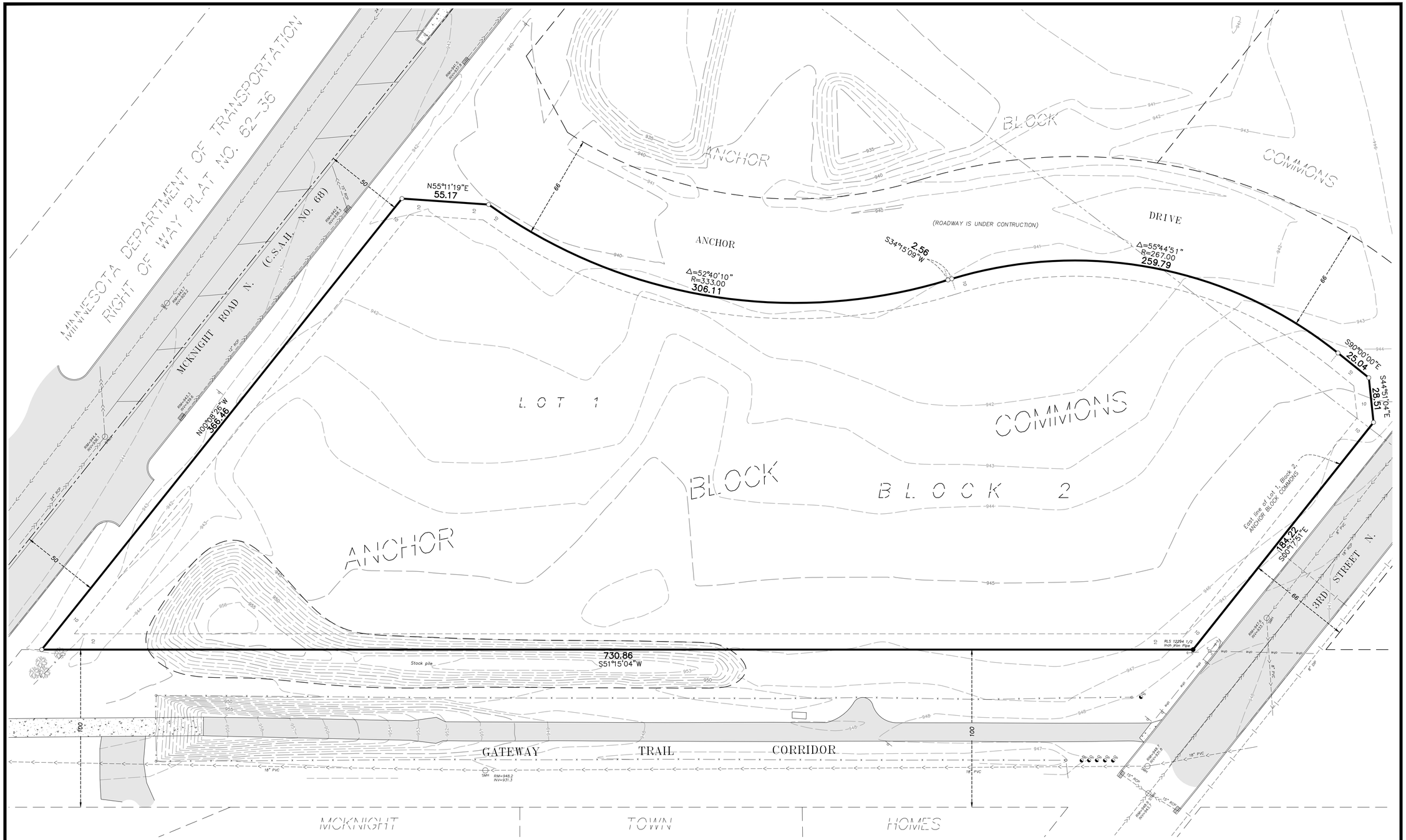
REVISIONS
1.

DRAWN BY:	JTR
DESIGNED BY:	JTR
ISSUE DATE:	02/03/20

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Name: Joseph T. Radach, P.E.
Signature:
Date: 02/03/20 License #: 45889

Save Date: 02/03/2021 \\jobs\7861 - 7869\7878_n st paul - anchor\cad c\dwg\engineering\7878_cover.dwg



LEGEND

- Denotes Found Iron Monument
- Denotes 5/8 inch by 14 inch rebar, to be set and marked with RLS 40361
- Denotes Miscellaneous Sign
- Denotes Guard Post
- Denotes Existing Tree
- Denotes Sanitary Manhole
- Denotes Storm Manhole
- Denotes Catch Basin
- Denotes Guy Wire
- Denotes Utility Pole
- Denotes Drainage & Utility Easement (per recorded plat)
- Denotes Watermain
- Denotes Sanitary Sewer
- Denotes Storm Sewer
- Denotes Overhead Electric
- Denotes Existing Fence
- Denotes Concrete Surface
- Denotes Bituminous Surface
- Denotes Existing Contour

BENCHMARKS

1. RAMSEY COUNTY BENCHMARK STATION #9240, LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF MCKNIGHT ROAD AND 15TH AVENUE EAST

ELEVATION = 961.975 ft. (NAVD 88)

PARCEL DESCRIPTION:

Lot 1, Block 2, ANCHOR BLOCK COMMONS, according the recorded plat thereof, Ramsey County, Minnesota.

(abstract property)

GENERAL NOTES:

1) *Bearings shown hereon are based on the East line of Lot 1, Block 2, ANCHOR BLOCK COMMONS, which is assumed to bear S00°17'51"E.*

2) *Surveyed property contains ±170,382 sq. ft. (±3.91 acres).*

3) *Due to snow and winter conditions, additional improvements may not have been visible or located at the time of survey.*

0 15 30 60

(SCALE IN FEET)

Carlson McCain
ENVIRONMENTAL · ENGINEERING · SURVEYING
3890 Pheasant Ridge Dr. NE #100, Blaine, MN
Phone: 763-489-7900 Fax: 763-489-7959

CERTIFICATE OF SURVEY

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 - 18th Street South, Suite 103
St. Cloud, MN 56301

REVISIONS
1.
2.
3.
4.
5.
6.

DRAWN BY:	bjs
ISSUE DATE:	2/03/20
FILE NO:	639-b

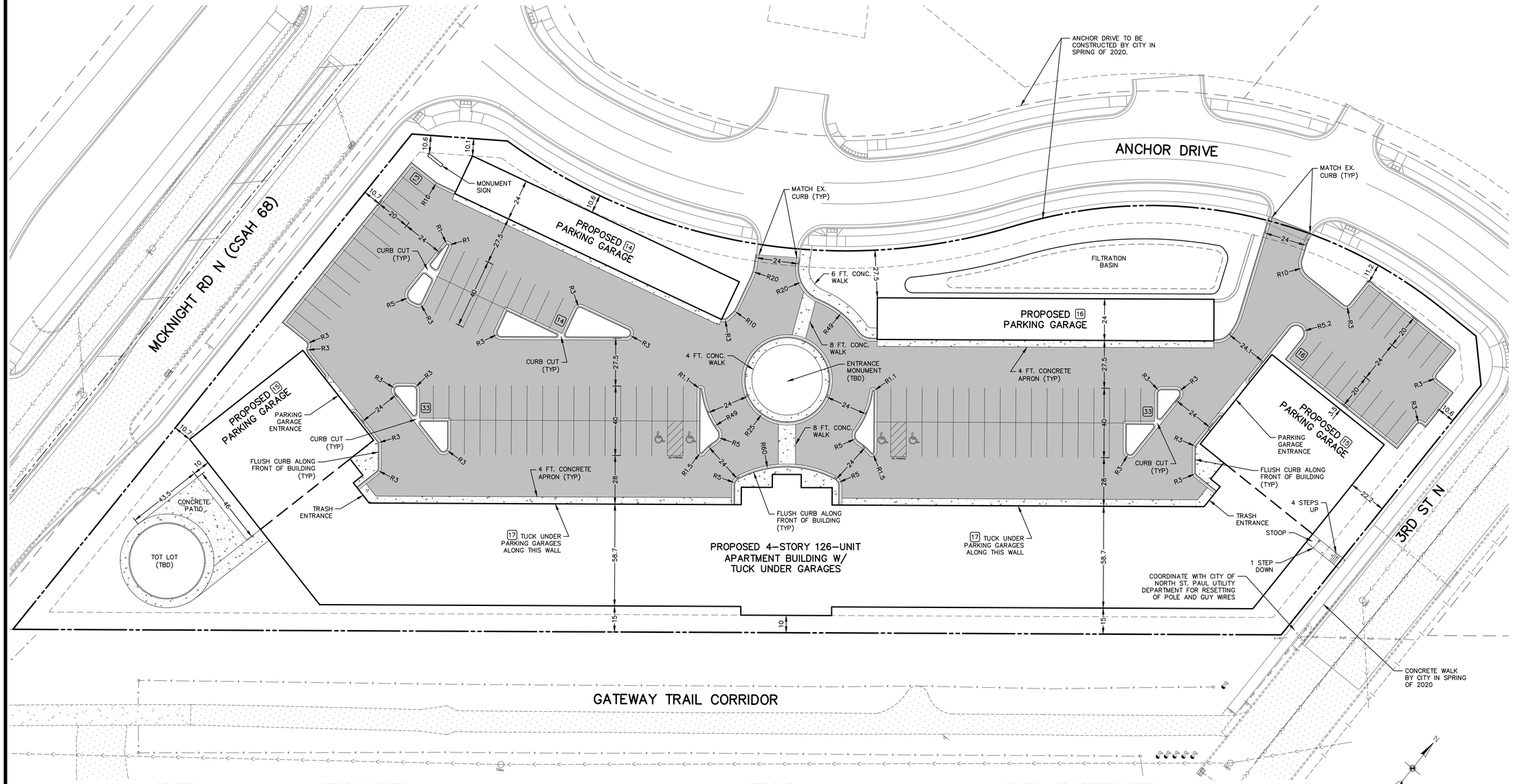
I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly licensed land surveyor under the laws of the State of Minnesota

Name: Thomas R. Balluff

Signature: Thomas R. Balluff

Date: 2/03/20 License #: 40361

Save Date: 02/03/2020 J:\jobs\7861 - 7880\7878 - n st paul - anchorlot c3d\survey\7878_cert1-1_b-2.dwg



LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
CURB LINE		
BITUMINOUS PAVEMENT		
CONCRETE WALK		
SANITARY SEWER		
WATER MAIN		
STORM SEWER		
OVERHEAD ELECTRIC		
MANHOLE		
HYDRANT		
GATE VALVE		
UTILITY POLE		
GUY WIRE		
GUARD POST		
SIGN		
FENCE LINE		

SITE PLAN NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF THE BUILDING UNLESS OTHERWISE NOTED.
3. ALL CURB AND GUTTER SHALL BE B612 UNLESS OTHERWISE NOTED.
4. TYPICAL PARKING STALLS ARE 9' X 20'.
5. TYPICAL DRIVE LANES ARE 24'.
6. ALL PEDESTRIAN RAMPS SHALL MEET CURRENT ADA STANDARDS AND BE INSTALLED WITH CAST IRON TRUNCATED DOMES.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO THE START OF SITE WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF DISCREPANCIES AND/OR VARIATIONS FROM THE PLAN.
8. UNLESS OTHERWISE SHOWN ON THIS DRAWING, CONTRACTOR SHALL PROVIDE CONTROL JOINTS, CONSTRUCTION JOINTS AND EXPANSION JOINTS IN SLAB ON GRADE, SIDEWALKS AND DRIVES PER THE FOLLOWING REQUIREMENTS:

CONTROL JOINT MAX. SPACING: WALKS–8' O.C.
ALL OTHERS–10' O.C.

SAW CUT CONTROL JOINTS MINIMUM ¼ CONCRETE THICKNESS.

EXPANSION JOINTS MAX. SPACING: WALKS–24. O.C.
*ALL OTHERS–40' O.C.

*AT ALL POINTS WHERE A CHANGE IN PAVEMENT THICKNESS OCCURS AND/OR WHERE NEW PAVEMENT WILL MATCH EXISTING PAVEMENT, AN EXPANSION JOINT SHALL BE PROVIDED.

DOWEL ALL EXPANSION JOINTS: 24" O.C. MAX.

SITE DATA

PROPOSED ZONING:		PUD
TOTAL PARCEL AREA:	170,382 SF	
HARD SURFACE AREA:		
MAIN BUILDING:	46,729 SF	27%
DETACHED GARAGE WEST:	4,080 SF	2%
DETACHED GARAGE EAST:	4,656 SF	3%
PAVEMENT:	72,472 SF	43%
TOTAL:	127,937 SF	75%
PERVIOUS SURFACE AREA:	42,445 SF	25%

PARKING SUMMARY

STANDARD SURFACE STALLS:	105
HANDICAP SURFACE STALLS:	4
STANDARD GARAGE STALLS:	90
HANDICAP GARAGE STALLS:	4
TOTAL	203

SIGN SCHEDULE (PER MMUTCD)

Ⓐ STOP SIGN: R1–1 (24" X 24")
Ⓑ HANDICAP PARKING SIGN: R7–8m W/R7–8b (12"x 18") W/BREAK–AWAY MOUNT

SIGNING AND STRIPING NOTES

1. ALL SIGNS SHALL BE PLACED 18 INCHES MINIMUM BEHIND CURB UNLESS OTHERWISE SHOWN.
2. SIGNAGE SHALL INCLUDE SIGN, POST, HARDWARE, CONCRETE FOOTING AND STEEL CASING (IF REQUIRED).
3. PARKING LOT STRIPING SHALL BE 4 INCH SOLID WHITE PAINT.
4. ALL HANDICAP STRIPING, MARKING AND CROSS–HATCH SHALL BE 4" SOLID BLUE PAINT.
5. ALL SIGNS SHALL MEET THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) FOR RETRO REFLECTIVITY AND INSTALLATION.

BENCHMARKS

1. RAMSEY COUNTY BENCHMARK STATION #9240, LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF MCKNIGHT ROAD AND 15TH AVENUE EAST

ELEVATION = 961.975 ft. (NAVD 88)

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Phone: 763-489-7900 Fax: 763-489-7959

SITE AND SIGN PLAN

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 18th Street South, Suite 103
St. Cloud, MN 56301

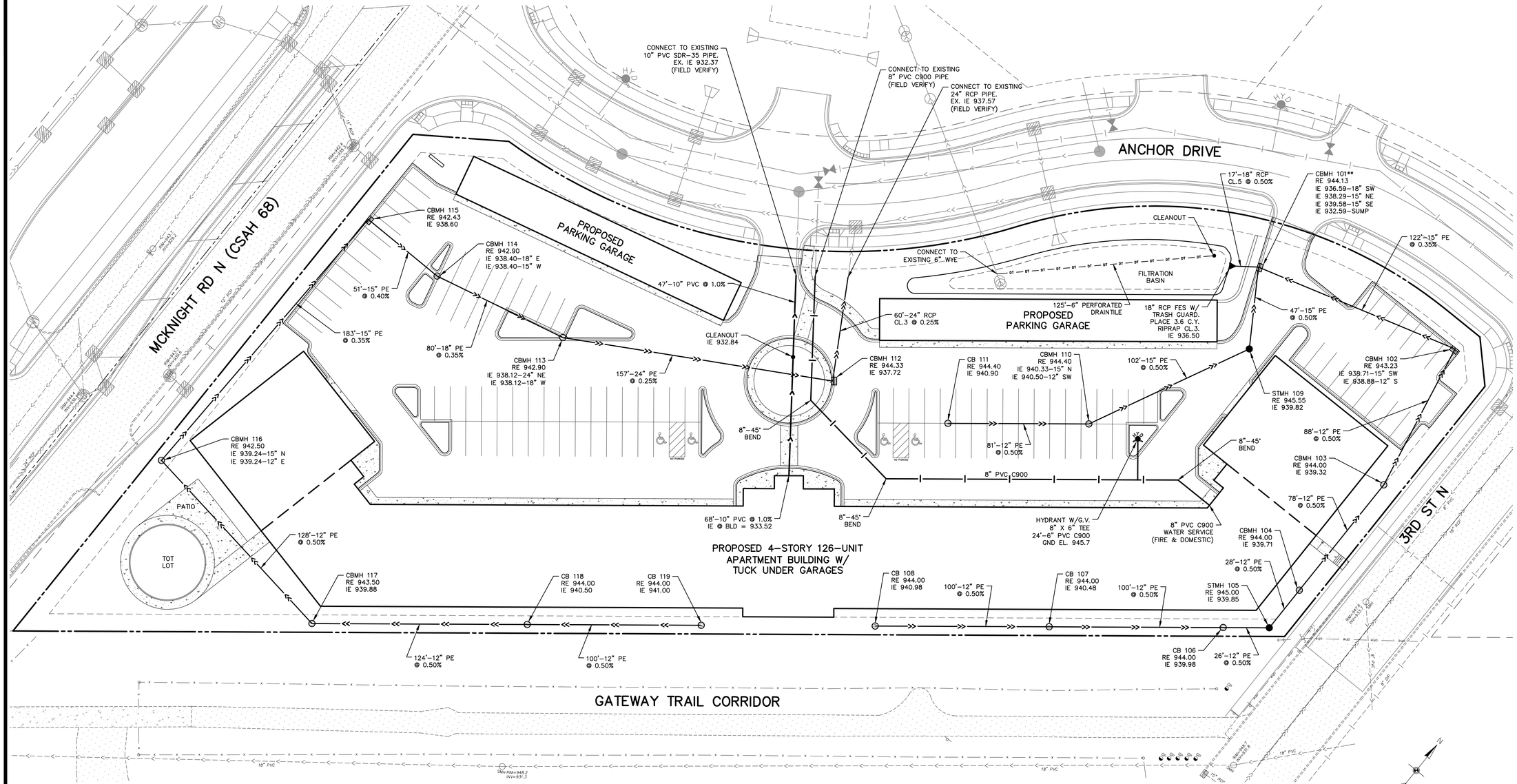
REVISIONS
1.

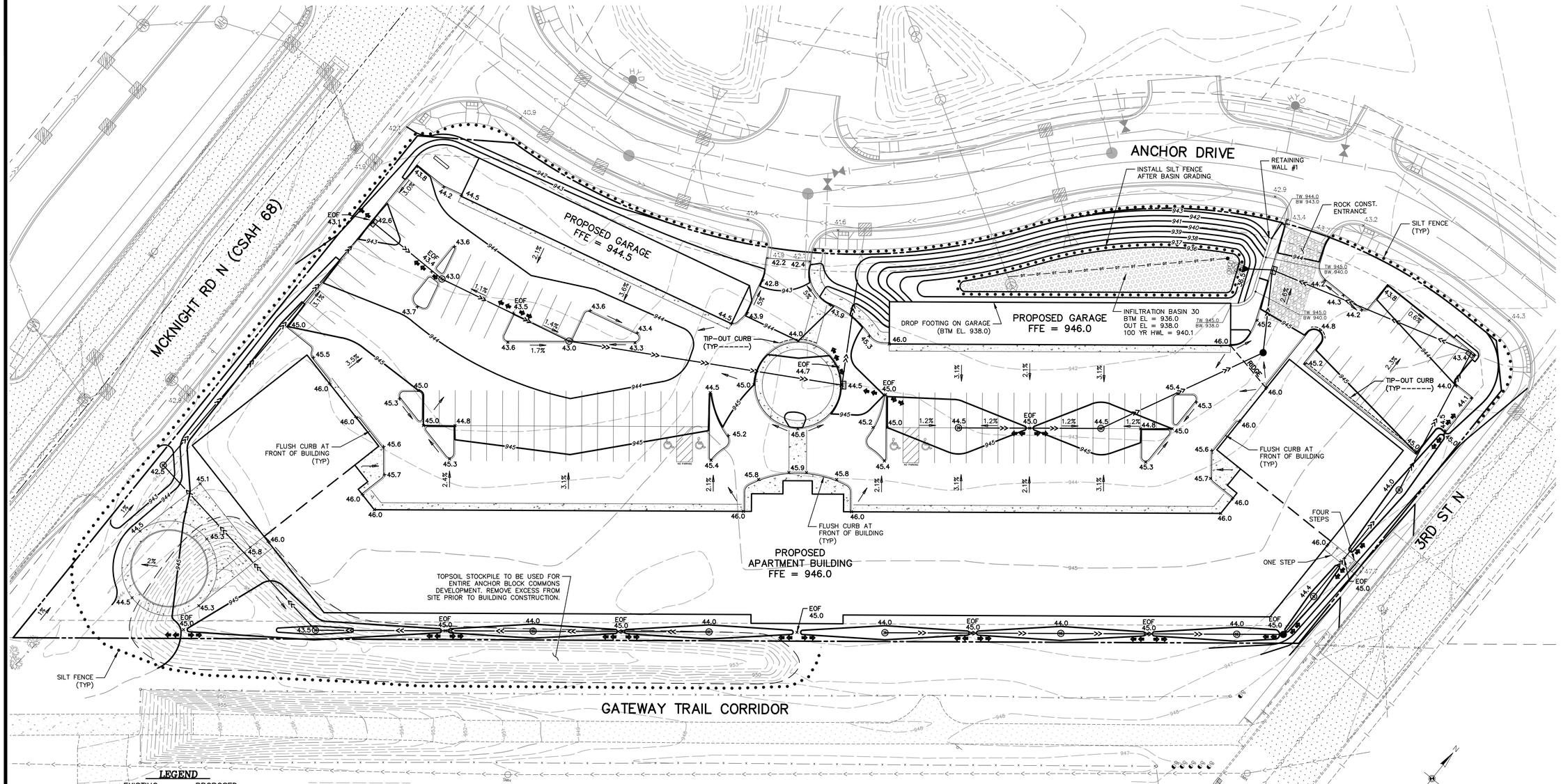
DRAWN BY:	JTR
DESIGNED BY:	JTR
ISSUE DATE:	02/03/20

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Name: Joseph T. Radach, P.E.
Signature:
Date: 02/03/20 License #: 45889

Save Date: 01/31/20 | Users/1861 - 28809/7878 - n st paul - anchorvue c4/engineering/7878_site.dwg


CONNECT TO EXISTING 10" PVC SDR-35 PIPE. EX. IE 932.37 (FIELD VERIFY)
CONNECT TO EXISTING 8" PVC C900 PIPE (FIELD VERIFY)
CONNECT TO EXISTING 24" RCP PIPE. EX. IE 937.57 (FIELD VERIFY)
ANCHOR DRIVE
MCKNIGHT RD N (CSAH 68)
3RD ST N
PROPOSED PARKING GARAGE
PROPOSED PARKING GARAGE
CBMH 115 RE 942.43 IE 938.60
CBMH 114 RE 942.90 IE 938.40-15" W IE 938.40-15" W
51'-15" PE @ 0.40%
183'-15" PE @ 0.35%
80'-18" PE @ 0.35%
CBMH 113 RE 942.90 IE 938.12-24" NE IE 938.12-18" W
157'-24" PE @ 0.25%
47'-10" PVC @ 1.0%
CLEANOUT IE 932.84
60'-24" RCP CL.3 @ 0.25%
CBMH 112 RE 944.33 IE 937.72
CB 111 RE 944.40 IE 940.90
CBMH 110 RE 944.40 IE 940.33-15" N IE 940.50-12" SW
102'-15" PE @ 0.50%
81'-12" PE @ 0.50%
8"-45° BEND
8" PVC C900
68'-10" PVC @ 1.0% IE @ BLD = 933.52
8"-45° BEND
HYDRANT W/G.V. 8" X 6" TEE 24'-6" PVC C900 GND EL. 945.7
8" PVC C900 WATER SERVICE (FIRE & DOMESTIC)
CONNECT TO EXISTING 6" WYE
FILTRATION BASIN
125'-6" PERFORATED DRAINTILE
18" RCP FES W/ TRASH GUARD. PLACE 3.6 C.Y. RIPRAP CL.3. IE 936.50
17'-18" RCP CL.5 @ 0.50%
CLEANOUT
CBMH 101** RE 944.13 IE 936.59-18" SW IE 938.29-15" NE IE 939.58-15" SE IE 932.59-SUMP
122'-15" PE @ 0.35%
47'-15" PE @ 0.50%
CBMH 102 RE 943.23 IE 938.71-15" SW IE 938.88-12" S
STMH 109 RE 945.55 IE 939.82
88'-12" PE @ 0.50%
8"-45° BEND
CBMH 103 RE 944.00 IE 939.32
78'-12" PE @ 0.50%
CBMH 104 RE 944.00 IE 939.71
28'-12" PE @ 0.50%
STMH 105 RE 945.00 IE 939.85
CB 106 RE 944.00 IE 939.98
26'-12" PE @ 0.50%
CBMH 116 RE 942.50 IE 939.24-15" N IE 939.24-12" E
PATIO
TOT LOT
128'-12" PE @ 0.50%
CBMH 117 RE 943.50 IE 939.88
CB 118 RE 944.00 IE 940.50
CB 119 RE 944.00 IE 941.00
124'-12" PE @ 0.50%
100'-12" PE @ 0.50%
PROPOSED 4-STORY 126-UNIT APARTMENT BUILDING W/ TUCK UNDER GARAGES
CB 108 RE 944.00 IE 940.98
100'-12" PE @ 0.50%
CB 107 RE 944.00 IE 940.48
100'-12" PE @ 0.50%
GATEWAY TRAIL CORRIDOR
18" PVC
18" PVC
18" PVC
Sign RIM=948.2 INV=931.3
RIM=945.4 INV=935.2
RIM=945.4 INV=935.2
RIM=945.4 INV=935.2



LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
EASEMENT LINE		
CURB LINE		
BITUMINOUS PAVEMENT		
CONCRETE WALK		
SANITARY SEWER	—>—>—	
WATER MAIN	—|—|—	
STORM SEWER	—>>—	
OVERHEAD ELECTRIC	one	
MANHOLE	MH	
HYDRANT	HYD	
GATE VALVE	GV	
UTILITY POLE		
GUY WIRE		
GUARD POST	GP	
SIGN		
FENCE LINE	—x—x—x—	
10' CONTOUR	900	900
2' CONTOUR	902	902
SPOT ELEVATION (CURB ELEVATIONS ARE TO GUTTER LINE)	00.0	00.0
TOP OF CURB ELEV. GUTTER LINE ELEV.		T 44.3 G 43.8
EMERGENCY OVERFLOW		E.O.F. 000.0
SILT FENCE		
ROCK CONST. ENTRANCE		

GRADING NOTES

1. SILT FENCE AND EXISTING CATCH BASIN INLET PROTECTION SHALL BE INSTALLED PRIOR TO GRADING CONSTRUCTION, AND SHALL BE MAINTAINED UNTIL THE SITE HAS BEEN STABILIZED.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND PAVEMENTS PRIOR TO THE START OF GRADING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF DISCREPANCIES OR VARIATIONS FROM THE PLAN.
3. CONTRACTOR SHALL STRIP, STOCKPILE AND RESPREAD SUFFICIENT TOPSOIL TO PROVIDE A MINIMUM OF 6" OF TOPSOIL OVER ALL DISTURBED AREAS THAT WILL BE SODDED, SEEDED OR LANDSCAPED.
4. TURF ESTABLISHMENT SHALL BEGIN AS SOON AS POSSIBLE BUT IN NO CASE LATER THAN 7 DAYS AFTER GRADING COMPLETION.
5. ALL SLOPES 3:1 OR STEEPER SHALL HAVE MNDOT CAT.1 EROSION CONTROL BLANKET AND SEED, OR APPROVED EQUAL.

GOVERNING SPECIFICATIONS

1. THE LATEST EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE CITY OF NORTH ST. PAUL SPECIFICATIONS.
2. THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).
3. THE LATEST EDITION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) STANDARD SPECIFICATIONS.

STORMWATER/INSPECTION NOTES

1. CONTRACTOR SHALL NOTIFY NICOLE SODERHOLM, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 PRIOR TO BEGINNING ANY AND ALL CONSTRUCTION ACTIVITY FOR AN INITIAL SWPPP INSPECTION.
2. CONTRACTOR SHALL NOTIFY NICOLE SODERHOLM, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION OF STORMWATER FACILITIES.
3. FILTRATION BASIN CONSTRUCTION:
   - 3.1. AFTER THE DRAINTILE IS INSTALLED AND THE BASIN IS BACKFILLED WITH THE FILTRATION MIX, SILT FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE BASIN. THE BASIN SHALL BE PROTECTED FROM SEDIMENTATION AT ALL TIMES DURING CONSTRUCTION.
   - 3.2. THE BASIN SHALL BE KEPT OFF-LINE TO THE EXTENT PRACTICAL UNTIL VEGETATION HAS BEEN ESTABLISHED THROUGHOUT THE CONTRIBUTORY DRAINAGE AREA.

BENCHMARKS

1. RAMSEY COUNTY BENCHMARK STATION #9240, LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF MCKNIGHT ROAD AND 15TH AVENUE EAST

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Phone: 763-489-7900 Fax: 763-489-7959

GRADING, DRAINAGE, & EROSION CONTROL PLAN

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 18th Street South, Suite 103
St. Cloud, MN 56301

REVISIONS
1.

DRAWN BY:	JTR
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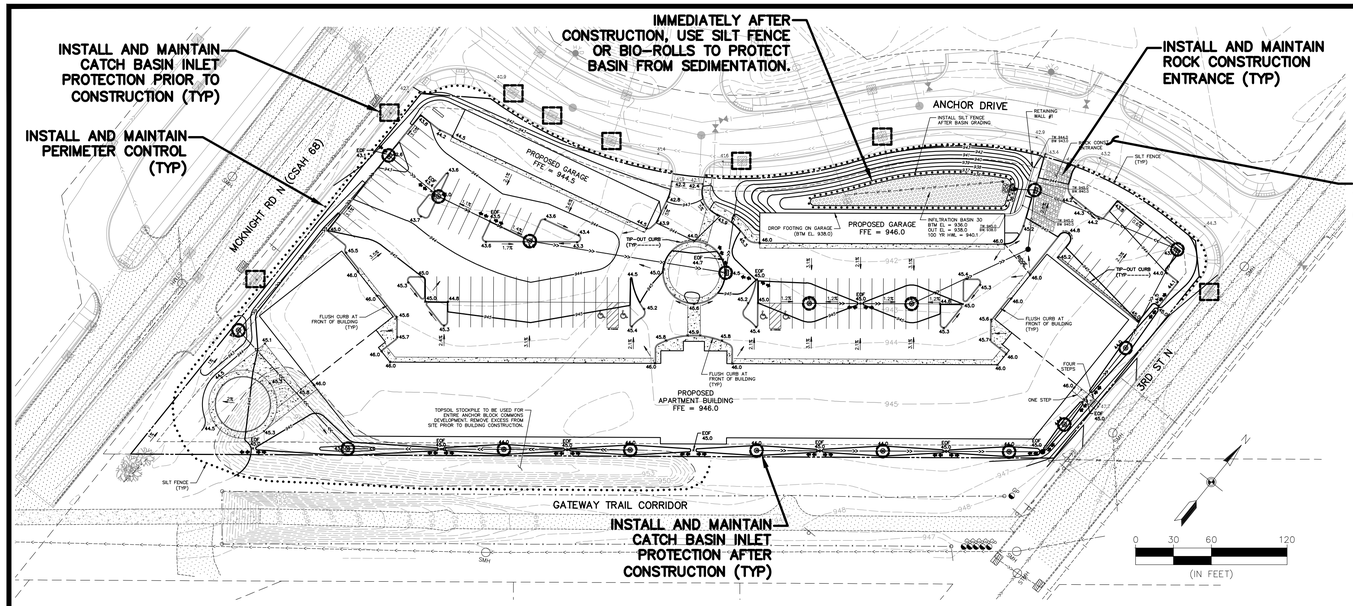
Name: Joseph T. Radach, P.E.
Signature:
Date: 02/03/20 License #: 45889

Save Date: 02/03/2021 J:\jobs\7864 - 7880\7878 - n st paul - anchorview\engineering\7878_grade.dwg



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811

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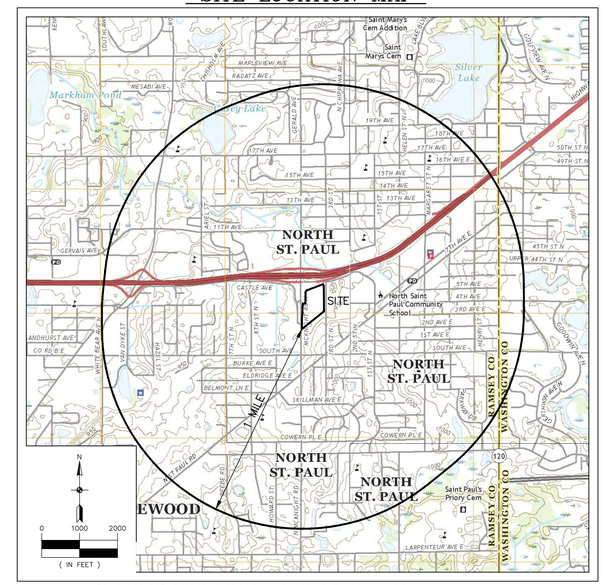
SITE LOCATION MAP



GENERAL INFORMATION

MINNESOTA'S CONSTRUCTION STORMWATER PERMIT IS AN EXTENSION OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM STORMWATER PROGRAM, WHICH IS PART OF THE FEDERAL CLEAN WATER ACT. REGULATED PARTIES MUST DEVELOP A STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP PROVIDES INFORMATION ON THE EXISTING AND PROPOSED SITE CONDITIONS, CONTROL MEASURES FOR STORMWATER POLLUTION PREVENTION BEFORE, DURING AND AFTER CONSTRUCTION, INSPECTION, MAINTENANCE AND INFORMATION RELATED TO THE PERMANENT STORMWATER MANAGEMENT SYSTEM. THE SWPPP SHALL BE KEPT ON SITE AT ALL TIMES DURING ACTIVE CONSTRUCTION.

PROJECT INFORMATION

PROJECT NAME: ANCHOR POINTE APARTMENTS
PROJECT LOCATION: NORTH ST. PAUL, RAMSEY COUNTY, MINNESOTA
PROJECT OWNER: TRIDENT DEVELOPMENT, LLC

SWPPP APPLICABILITY

THIS SWPPP IS FOR THE APARTMENT LOT ONLY. THE CONCURRENT STREET CONSTRUCTION IS BEING COMPLETED UNDER A SEPARATE PERMIT AND SWPPP.

RESPONSIBLE PARTIES

THE OWNER MUST IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S WHO WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S.

SITE MANAGER: _____

TRAINING DOCUMENTATION: _____

INSPECTION REPRESENTATIVE: _____

TRAINING DOCUMENTATION: _____

EXISTING SITE CONDITIONS

THE OVERALL ANCHOR COMMONS SITE IS LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF TRUNK HIGHWAY 36 AND MCKNIGHT ROAD NORTH (CSAH 88) IN NORTH ST. PAUL, RAMSEY COUNTY, MINNESOTA. THE SITE IS BOUNDED ON THE NORTH BY TRUNK HIGHWAY 36 AND NORTH ST. PAUL DRIVE, ON THE EAST BY 3RD STREET NORTH, ON THE SOUTH BY THE GATEWAY TRAIL CORRIDOR, AND ON THE WEST BY MCKNIGHT ROAD NORTH. THE SITE WAS PREVIOUSLY USED AS A CONCRETE BLOCK PLANT BY ANCHOR BLOCK. IN OR AROUND 2011, THE ANCHOR BLOCK PLANT WAS DECOMMISSIONED AND THE SITE WAS RAZED. IN THE FALL OF 2019, THE CITY OF NORTH ST. PAUL MASS GRADED THE SITE FOR FUTURE DEVELOPMENT AND PLATTED THE SITE INTO THREE LOTS.

THE PROPOSED APARTMENT SITE CONSISTS OF LOT 1, BLOCK 2, ANCHOR BLOCK COMMONS AND CONTAINS 3.91 ACRES. THERE ARE NO EXISTING IMPERVIOUS SURFACES ONSITE.

PROPOSED SITE CONDITIONS

THE CITY OF NORTH ST. PAUL PLANS TO CONSTRUCT ANCHOR DRIVE IN THE SPRING OF 2020. ALSO, IN THE SPRING OF 2020, TRIDENT DEVELOPMENT PLANS TO CONSTRUCT A 126-UNIT APARTMENT BUILDING WITH COVER PARKING AND PAVED PARKING AND DRIVE AREAS. DURING CONSTRUCTION, APPROXIMATELY 4 ACRES WILL BE DISTURBED. AFTER CONSTRUCTION, THE SITE WILL CONTAIN APPROXIMATELY 2.94 ACRES OF IMPERVIOUS SURFACE.

STORMWATER FROM THE SITE WILL BE TREATED BY FILTRATION BASINS. ONE FILTRATION BASIN WILL BE CONSTRUCTED ON SITE BY THE APARTMENT CONTRACTOR AND ONE FILTRATION BASIN WAS CONSTRUCTED OFF SITE BY THE CITY'S CONTRACTOR IN THE FALL OF 2020. STORM SEWER WILL BE USED TO COLLECT RUNOFF FROM THE SITE AND THE STORM SEWER WILL EITHER DISCHARGE TO THE PROPOSED ONSITE FILTRATION BASIN OR CONNECTED TO A STORM SEWER STUB BEING PROVIDED BY THE CITY. ALL STORMWATER FROM THE SITE WILL ULTIMATELY DRAIN TO THE EXISTING MNDOT POND NORTH OF THE SITE.

SOIL INFORMATION

IN MAY OF 2019, WSB DRILLED 18 SOILS BORINGS TO APPROXIMATE SOIL CONDITIONS ONSITE. THE BORINGS INDICATE A SOMEWHAT VARIABLE SOIL PROFILE, BUT GENERALLY SHOW CLAYEY SAND AND SILTY SAND FILL OVERLAYING NATIVE SILTY SAND. DUE TO THE PRESENCE OF CLAY NEAR THE SURFACE IN NEARLY ALL BORINGS, THE HYDROLOGIC SOIL GROUP "C" WAS SELECTED FOR THE RUNOFF ANALYSIS.

GROUNDWATER WAS ENCOUNTERED IN ALL OF THE SOIL BORINGS AND RANGED IN ELEVATION FROM 929 TO 941. PER THE GEOTECHNICAL REPORT, THE LIKELY GROUNDWATER ELEVATION AT THE TIME OF DRILLING WAS BETWEEN 940 AND 941.

WETLAND CONSIDERATIONS

THERE ARE NO KNOWN WETLANDS ONSITE.

STORMWATER RECEIVING WATERS

ALL STORMWATER FROM THE SITE DRAINS TO THE EXISTING MNDOT POND LOCATED NORTHWEST OF THE SITE AND ULTIMATELY DRAINS TO MARKHAM POND LOCATION APPROXIMATELY 1.6 MILES NORTHWEST OF THE SITE.

SPECIAL/IMPAIRED WATER CONSIDERATIONS

THERE ARE NO SPECIAL OR IMPAIRED WATERS WITHIN ONE MILE OF THE SITE.

STORMWATER MANAGEMENT PLAN

PER RWMWD, STORMWATER RUNOFF SHALL BE RETAINED ONSITE IN THE AMOUNT EQUIVALENT TO 1.1 INCHES OF RUNOFF OVER THE NEW AND RECONSTRUCTED IMPERVIOUS SURFACE AREA OF THE SITE. THE CITY OF NORTH ST. PAUL PERMITTING A MASTER STORMWATER MANAGEMENT PLAN FOR THE SITE IN THE SUMMER OF 2019. THE MASTER STORMWATER MANAGEMENT PLAN INCLUDED THE PROPOSED APARTMENT LOT. AT THE TIME OF THIS PLAN, INFILTRATION WAS DEEMED INFEASIBLE DUE TO HIGH GROUNDWATER, COHESIVE SOILS, AND CONTAMINATED SOIL. THEREFORE, FILTRATION BASINS WERE PROPOSED TO TREAT STORWMATER FROM THE SITE.

THREE OF THE FOUR FILTRATION BASINS PROPOSED IN THE CITY'S MASTER PLAN WERE CONSTRUCTED IN THE FALL OF 2019. THE FOURTH BASIN IS TO BE CONSTRUCTED ON THE APARTMENT LOT BY THE APARTMENT CONTRACTOR. THE BASINS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF RWMWD AND THE MPCA CONSTRUCTION STORMWATER PERMIT. SEE STORMWATER MANAGEMENT PLAN FOR ADDITIONAL DETAILS.

PRIOR TO START OF CONSTRUCTION

THE FOLLOWING STORMWATER POLLUTION PREVENTION MEASURES SHALL BE IMPLEMENTED PRIOR TO CONSTRUCTION. REFER TO GRADING AND EROSION CONTROL PLANS FOR LOCATIONS.

1. SILT FENCE
   SILT FENCE SHALL BE INSTALLED AT THE LIMIT OF GRADING ON ANY FILL SLOPE. ADDITIONAL SILT FENCE MAY BE REQUIRED IN CUT SLOPE AREAS. SILT FENCE SHALL ALSO BE INSTALLED AROUND ANY INFILTRATION/FILTRATION PRACTICE.

2. ROCK CONSTRUCTION ENTRANCE
   ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE FIELD ENTRANCES TO THE SITE.

3. CATCH BASINS
   ALL CATCH BASINS SHALL BE PROTECTED WITH INLET PROTECTION DEVICES APPROVED BY THE LOCAL GOVERNING UNIT. THESE SHALL INCLUDE, BUT ARE NOT LIMITED TO, WIMCO PROTECTION DEVICES, INFRASAFE PROTECTION DEVICES, FILTER FABRIC, BIO ROLLS AND STRAW BALES.

4. TEMPORARY SEDIMENTATION BASIN
   WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN MUST BE PROVIDED PRIOR TO RUNOFF LEAVING THE CONSTRUCTION SITE OR ENTERING SURFACE WATERS. THE TEMPORARY (OR PERMANENT) BASINS MUST BE CONSTRUCTED AND MADE OPERATIONAL CONCURRENT WITH THE START OF SOIL DISTURBANCE THAT IS UPGRADIENT OF THE AREA AND CONTRIBUTES RUNOFF TO THE BASIN. WHERE THE TEMPORARY SEDIMENT BASIN IS NOT ATTAINABLE DUE TO SITE LIMITATIONS, EQUIVALENT SEDIMENT CONTROLS SUCH AS SMALLER SEDIMENT BASINS, AND/OR SEDIMENT TRAPS, SILT FENCES, VEGETATIVE BUFFER STRIPS OR ANY APPROPRIATE COMBINATION OF MEASURES ARE REQUIRED FOR ALL DOWN SLOPE BOUNDARIES OF THE CONSTRUCTION AREA AND FOR THOSE SIDE SLOPE BOUNDARIES DEEMED APPROPRIATE AS DICTATED BY INDIVIDUAL SITE CONDITIONS. IN DETERMINING WHETHER INSTALLING A SEDIMENT BASIN IS ATTAINABLE, THE PERMITTEE(S) MUST CONSIDER PUBLIC SAFETY AND MAY CONSIDER FACTORS SUCH AS SITE SOILS, SLOPE AND AVAILABLE AREA ON SITE. THE BASIN MUST BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF PART III.C. OF THE MPCA CONSTRUCTION STORMWATER PERMIT.

DURING CONSTRUCTION

THE FOLLOWING STORMWATER POLLUTION PREVENTION MEASURES SHALL BE IMPLEMENTED DURING CONSTRUCTION. REFER TO GRADING AND EROSION CONTROL PLANS FOR LOCATIONS.

1. PHASED GRADING
   TO THE EXTENT POSSIBLE, GRADING SHALL BE PHASED TO MINIMIZE THE AMOUNT OF DISTURBED AREAS DURING SITE CONSTRUCTION.

2. TRACKED SEDIMENT
   ANY SEDIMENT TRACKED FROM THE SITE ONTO THE STREET SHALL BE REMOVED IMMEDIATELY UPON DETECTION. THE ROCK CONSTRUCTION ENTRANCE SHALL BE INSPECTED AND REPAIRED IF INUNDATED WITH SEDIMENT.

3. STOCKPILES
   STOCKPILES SHALL BE PLACED IN AN AREA THAT WILL MINIMIZE THE NEED FOR RELOCATION. IF A STOCKPILE WILL REMAIN IN PLACE FOR AN EXTENDED PERIOD OF TIME, STABILIZATION MEASURES SHALL BE IMPLEMENTED, INCLUDING BUT NOT LIMITED TO, SEEDING AND POLY COVERING. TEMPORARY STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, CONDUITS OR DITCHES.

4. TOPSOIL
   UPON GRADING COMPLETION, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED OVER ALL DISTURBED AREAS, EXCLUDING PROPOSED STREETS AND PARKING AREAS.

5. DECOMPACTION
   SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING DISTURBED PERVIOUS AREAS MUST BE DECOMPACTED THROUGH SOIL AMENDMENT AND/OR RIPPING TO A DEPTH OF 18 INCHES WHILE TAKING CARE TO AVOID UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION PRIOR TO FINAL REVEGETATION OR OTHER STABILIZATION.

6. RESTORATION
   ALL DISTURBED AREAS NOT ACTIVELY WORKED SHALL BE RESTORED WTH SEED AND MULCH, EROSION CONTROL BLANKET AND/OR SOD WITHIN 14 DAYS.

7. SLOPES
   IN ORDER TO MAINTAIN SHEET FLOW AND MINIMIZE RILLS AND/OR GULLIES, THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER.

8. DRAINAGE DITCHES
   THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM THE SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER.

9. PIPE OUTLETS
   PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

10. CATCH BASINS
    ALL CATCH BASINS SHALL BE PROTECTED WITH INLET PROTECTION DEVICES APPROVED BY THE LOCAL GOVERNING UNIT. THESE SHALL INCLUDE, BUT ARE NOT LIMITED TO, WIMCO PROTECTION DEVICES, INFRASAFE PROTECTION DEVICES, FILTER FABRIC, BIO ROLLS AND STRAW BALES.

11. DUST
    CONSTRUCTION DUST SHALL BE CONTAINED TO THE EXTENT POSSIBLE. IF THE SITE BECOMES EXCESSIVELY DUSTY, APPROPRIATE MEASURES SHALL BE TAKEN TO REDUCE DUST BEING TRANSPORTED FROM THE SITE. DUST CONTROL MEASURES INCLUDE, BUT ARE NOT LIMITED TO, WATERING AND CALCIUM CHLORIDE APPLICATION.

12. DEWATERING
    DEWATERING ACTIVITIES SHALL BE CONDUCTED WITH AND APPROVED BY THE LOCAL GOVERNING UNIT. IF THERE WILL BE ANY DEWATERING OR BASIN DRAINING THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE, THE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. APPROPRIATE BMPS SHALL BE USED FOR EROSION AND SEDIMENT CONTROL AND ENERGY DISSIPATION.

13. CONSTRUCTION MATERIALS AND DEBRIS
    CONSTRUCTION MATERIALS SHALL BE STORED IN AN ORDERLY MANNER AND IN AN AREA THAT WILL MINIMIZE CONFLICTS WITH OTHER CONSTRUCTION ACTIVITIES. CONSTRUCTION DEBRIS SHALL BE CONTAINED IN DUMPSTERS AND REMOVED FROM THE SITE AS NECESSARY.

14. CHEMICALS
    CHEMICALS SHALL BE STORED IN A SAFE AREA IN SEALED CONTAINERS WITH THE ORIGINAL LABELING AND MATERIAL SAFETY DATA SHEETS AVAILABLE.

15. SPILLS AND CONTAMINATION
    IF FUEL, OIL OR A HAZARDOUS CHEMICAL IS SPILLED OR DETECTED DURING CONSTRUCTION ACTIVITIES, ALL APPROPRIATE AGENCIES SHALL BE IMMEDIATELY NOTIFIED, INCLUDING, BUT NOT LIMITED TO, THE MINNESOTA DUTY OFFICER AT 800-422-0798.

16. CONCRETE WASHOUT AREA
    PERMITTEES MUST PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (E.G., CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. PERMITTEES MUST PREVENT LIQUID AND SOLID WASHOUT WASTES FROM CONTACTING THE GROUND AND MUST DESIGN THE CONTAINMENT SO IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. PERMITTEES MUST PROPERLY DISPOSE LIQUID AND SOLID WASTES IN COMPLIANCE WITH MPCA RULES. PERMITTEES MUST INSTALL A SIGN INDICATING THE LOCATION OF THE WASHOUT FACILITY.

POST CONSTRUCTION

WHEN THE SITE HAS BEEN COMPLETELY CONSTRUCTED, THE SITE MUST UNDERGO FINAL STABILIZATION. FINAL STABILIZATION OCCURS WHEN ALL OF THE GRADING, INFRASTRUCTURE AND BUILDING ACTIVITIES HAVE BEEN COMPLETED. TO ACHIEVE FINAL STABILIZATION, THE FOLLOWING MEASURES SHALL BE COMPLETED.

1. ALL DISTURBED AREAS WITHOUT PERMANENT IMPERVIOUS SURFACES SHALL BE DECOMPACTED AND STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER. AREAS NOT REQUIRING SOD OR EROSION CONTROL BLANKET SHALL BE SEEDED AND MULCHED.

2. SEDIMENT FROM CONVEYANCES AND TEMPORARY SEDIMENTATION BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS SHALL BE CLEANED OUT. SEDIMENTATION BASINS SHALL BE SUFFICIENTLY CLEANED OUT TO RETURN THE BASIN TO DESIGN CAPACITY. SEDIMENT MUST BE STABILIZED TO PREVENT IT FROM BEING WASHED BACK INTO THE BASIN OR CONVEYANCES DISCHARGING OFF-SITE OR TO SURFACE WATERS.

3. WHEN STABILIZED VEGETATION HAS BEEN ESTABLISHED OVER 70 PERCENT OF THE PERVIOUS SURFACE AREA, ALL SYNTHETIC TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED BY THE CONTRACTOR. THIS INCLUDES, BUT IS NOT LIMITED TO, SILT FENCE, TREE FENCE AND CATCH BASIN INLET PROTECTION DEVICES.

NOTICE OF TERMINATION

THE PERMITEE(S) MUST SUBMIT A NOTICE OF TERMINATION (NOT) TO THE MPCA WITHIN 30 DAYS AFTER FINAL STABILIZATION IS COMPLETE, OR ANOTHER OWNER/OPERATOR (PERMITTEE) HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT UNDERGONE FINAL STABILIZATION.

INSPECTIONS & RECORD KEEPING

THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATION COVER IS ESTABLISHED. THE PERMITTEE SHALL MAINTAIN A LOG OF THESE ACTIVITIES, WHICH MUST BE AVAILABLE FOR INSPECTION UPON REQUEST.

DURING THE COURSE OF CONSTRUCTION, IT MAY BE DETERMINED THAT ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES MAY BE NEEDED, OR CERTAIN MEASURES ARE NOT PRACTICAL TO INSTALL. IN THESE CASES, AN AMENDMENT TO THE SWPPP SHALL BE MADE, AND SUPPORTING REASONS SHALL BE DOCUMENTED IN THE SWPPP.

1. RECORD NAME OF INSPECTOR AND DATE AND TIME OF INSPECTION.

2. RECORD RAINFALL AMOUNT SINCE MOST RECENT INPSECTION.

3. INSPECT ROCK CONSTRUCTION ENTRANCES FOR SEDIMENTATION. INSPECT ADJACENT STREETS FOR SEDIMENT TRACKING.

4. INSPECT SITE FOR EXCESSIVE EROSION AND SEDIMENT ACCUMULATION.
   A. INSPECT SILT FENCE AND OTHER TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES
   B. INSPECT FLARED END SECTIONS FOR EROSION AND SEDIMENTATION.
   C. INSPECT PONDS, INFILTRATION BASINS, TEMPORARY SEDIMENTATION BASINS AND ALL OTHER BMP'S FOR EROSION AND SEDIMENTATION.
   D. INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION.

5. INSPECT SITE AND ADJACENT PROPERTIES FOR CONSTRUCTION DEBRIS, TRASH AND SPILLS.

6. INSPECT STABILIZED AREAS FOR EROSION.

7. RECORD RECOMMENDED REPAIRS, MAINTENANCE AND/OR REPLACEMENTS REQUIRED TO ENSURE EROSION AND SEDIMENTATION CONTROL MEASURES ARE SUFFICIENT.

8. RECORD RECOMMENDED AMENDMENTS TO THE SWPPP.

9. RECORD REPAIRS, MAINTENANCE AND/OR REPLACEMENTS THAT WERE COMPLETED SINCE THE LAST INSPECTION.

MAINTENANCE

THE OWNER/CONTRACTOR IS RESPONSIBLE FOR THE OPERATION, INSPECTION AND MAINTENANCE OF ALL STORMWATER POLLUTION PREVENTION MEASURES FOR THE DURATION OF THE PROJECT. THE FOLLOWING GUIDELINES SHALL BE USED TO DETERMINE NECESSARY REPAIRS, MAINTENANCE AND/OR REPLACEMENT OF THE EROSION AND SEDIMENTATION CONTROL MEASURES.

1. ROCK CONSTRUCTION ENTRANCES SHALL BE REPAIRED OR REPLACED IF THE ROCK BECOMES INUNDATED WITH SEDIMENT AND/OR EXCESSIVE SEDIMENT IS BEING TRACKED FROM THE SITE. SEDIMENT TRACKED ONTO ADJACENT STREETS SHALL BE REMOVED. MEASURES SHALL BE TAKEN IMMEDIATELY UPON DISCOVERY.

2. SILT FENCE SHALL BE REPAIRED OR REPLACED WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE SILT FENCE, THE SILT FENCE IS DAMAGED AND/OR THE SILT FENCE BECOMES NONFUNCTIONAL. MEASURES SHALL BE TAKEN WITHIN 24 HOURS OF DISCOVERY.

3. CATCH BASIN INLET PROTECTION DEVICES SHALL BE CLEANED WHEN SEDIMENT REACHES ½ THE HEIGHT OF THE SEDIMENT TRAP AND/OR REPAIRED OR REPLACED IF THE DEVICE BECOMES NONFUNCTIONAL. MEASURES SHALL BE TAKEN WITHIN 72 HOURS OF DISCOVERY.

4. FLARED END SECTIONS SHALL BE CLEANED IF DEBRIS IS RESTRICTING FLOW OR IF SEDIMENT HAS ACCUMULATED AT THE OUTLET. IF A FLARED END SECTION BECOMES NONFUNCTIONAL OR DAMAGED, IT SHALL BE REPAIRED OR REPLACED. MEASURES SHALL BE TAKEN WITHIN 72 HOURS OF DISCOVERY.

5. IF SEDIMENT IS OBSERVED OFF-SITE OR NEAR SURFACE WATERS, THE SOURCE OF SEDIMENT SHALL BE DETECTED AND ADDITIONAL MEASURES SHALL BE IMPLEMENTED. THE PERMITEE(S) SHALL COORDINATE SEDIMENT RETRIEVAL FROM SURFACE WATERS WITH ALL APPROPRIATE AGENCIES. MEASURES SHALL BE TAKEN WITHIN 7 DAYS OF DISCOVERY.

6. PONDS, INFILTRATION BASINS, TEMPORARY SEDIMENTATION BASINS AND ALL OTHER BMP'S SHALL BE CLEANED IF DEBRIS IS PRESENT AND/OR EXCESSIVE SEDIMENTATION HAS OCCURRED. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN SEDIMENT HAS FILLED THE BASIN TO 1/2 THE STORAGE VOLUME. NO SEDIMENT SHALL BE ALLOWED TO ACCUMULATE IN INFILTRATION BASINS. MEASURES SHALL BE TAKEN WITHIN 72 HOURS OF DISCOVERY.

QUANTITIES

THE FOLLOWING TABLE PROVIDES ESTIMATED QUANTITIES FOR STORMWATER POLLUTION PREVENTION THROUGHOUT THE PROJECT.

ITEM	UNIT	ESTIMATED QUANTITY
ROCK ENTRANCE	EA.	1
SILT FENCE/BIO-ROLLS	L.F.	1,800
INLET PROTECTION	EA.	25
EROSION CONTROL BLANKET	S.Y.	AS NEEDED
RIPRAP CL.3	C.Y.	5
TURF ESTABLISHMENT	AC.	2

Carlson McCain
ENVIRONMENTAL · ENGINEERING · SURVEYING
3890 Pheasant Ridge Dr. NE #100, Blaine, MN
Phone: 763-489-7900 Fax: 763-489-7959

STORMWATER POLLUTION PREVENTION PLAN

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 18th Street South, Suite 103
St. Cloud, MN 56301

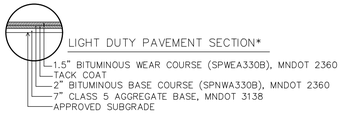
REVISIONS
1.

DRAWN BY:	JTR
DESIGNED BY:	JTR
ISSUE DATE:	02/03/20

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

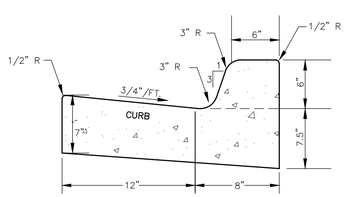
Name: Joseph T. Radach, P.E.
Signature:
Date: 02/03/20 License #: 45889

Save Date: 02/03/2020 J:\jobs\7861 - 7880\7878 - n st paul - anchorview\Civil\engineering\7878_swppp.dwg



1 | PARKING LOT PAVEMENT SECTION
C7 | NO SCALE

2 | CONCRETE SIDEWALK SECTION
C7 | NO SCALE



* TIPOUT CURB SHALL SLOPE OUT AT 3/4" PER FOOT.

3 | B-612 CONCRETE CURB & GUTTER
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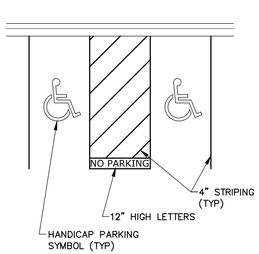

4 | HANDICAP PARKING STALL STRIPING
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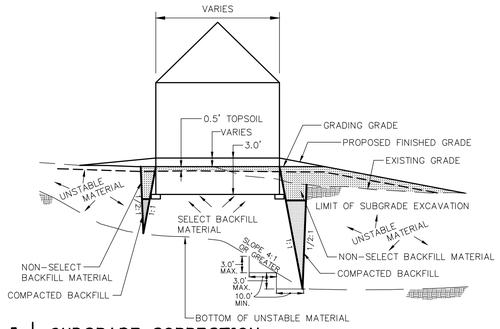

5 | SUBGRADE CORRECTION
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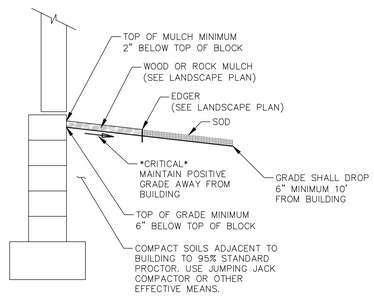
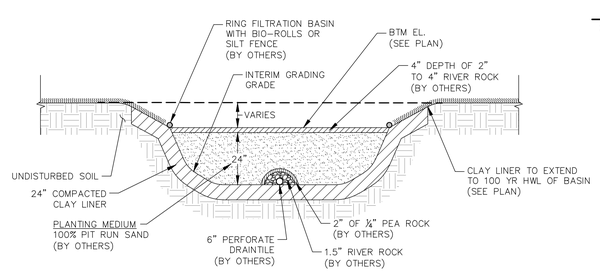


6 | TYPICAL GRADING AT BUILDING
C7 | NO SCALE

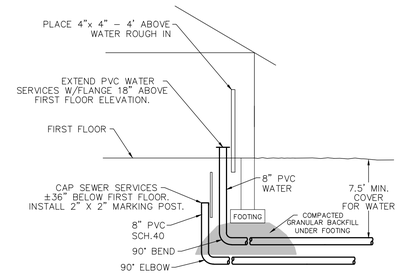
1. ALL SUBGRADE IS TO BE COMPACTED TO THE RECOMMENDATIONS OF THE GEOTECHNICAL EVALUATION REPORT PRIOR TO PLACEMENT OF TOPSOIL.
2. COMPACTION MUST BE MAINTAINED UP TO THE BUILDING FOUNDATION PERIMETER PER THE RECOMMENDATIONS OF THE GEOTECHNICAL EVALUATION REPORT. IN NO CASE SHALL COMPACTION BE LESS THAN 95% STANDARD PROCTOR ADJACENT TO THE BUILDING PERIMETER.
3. SUBGRADE SHALL BE COMPACTED SO THAT TOPSOIL SHALL NOT EXCEED A MAXIMUM OF 6 INCHES. IN NO CASE SHALL GREATER THAN 6 INCHES OF TOPSOIL BE PLACED WITHIN 10 FEET OF THE BUILDING PERIMETER.
4. DURING FINAL GRADING & PRIOR TO PLACING TOPSOIL WITHIN 4 FEET OF THE BUILDING PERIMETER, USE A JUMPING JACK COMPACTOR OR OTHER EFFECTIVE MEANS TO RECOMPACT THE SOILS ADJACENT TO THE BUILDING TO PREVENT SETTLING.

7 | SPECIAL GRADING NOTES
C7 | NO SCALE



CLAY LINER SPECIFICATION
- 50 PERCENT FINES (200 SIEVE), OR MORE
- IN-PLACE HYDRAULIC CONDUCTIVITY OF 1 X 10^-7 CM/S OR LESS
- AVERAGE LIQUID LIMIT OF 25 OR GREATER WITH NO VALUE LESS THAN 10
- AVERAGE PI OF 12 OR MORE, WITH NO VALUES LESS THAN 10
- CLAY INSTALLED WET OF OPTIMUM IF USING STANDARD PROCTOR, AND 2 PERCENT WET OF OPTIMUM IF USING MODIFIED PROCTOR
- SOIL COMPACTION AND DOCUMENTATION PER NRCS WISCONSIN CONSTRUCTION SPECIFICATION 300

8 | FILTRATION BASIN
C7 | NO SCALE



9 | UTILITY SERVICE CONNECTIONS
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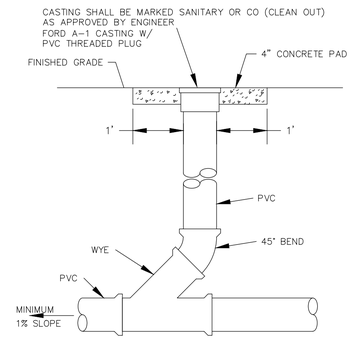
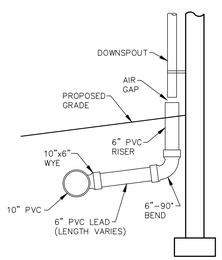


NOTES:
- ALL JOINTS SHALL BE SOLVENT WELD EXCEPT AS NOTED.
- CLEAN OUTS ARE REQUIRED AT 100' SPACING AND AT CHANGE OF DIRECTION.
- ALL CLEAN OUTS SHALL BE EQUIPPED WITH A FROST SLEEVE.

10 | STORM SEWER CLEAN OUT
C7 | NO SCALE



11 | DOWNSPOUT CONNECTION
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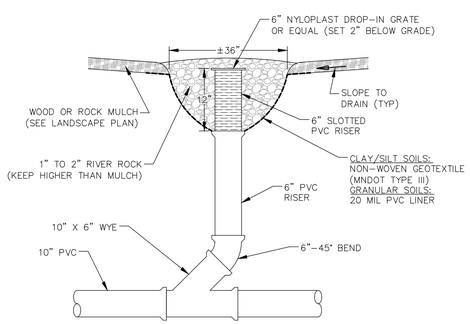
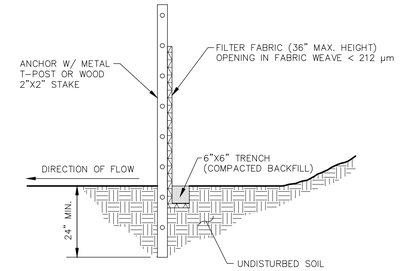
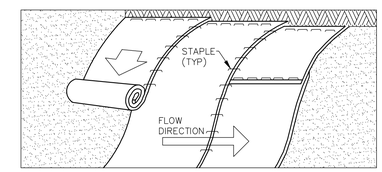


12 | PVC INLET
C7 | NO SCALE



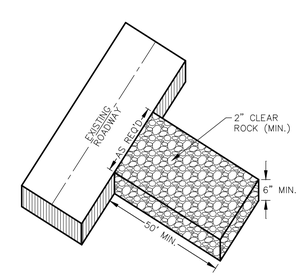
NOTES:
1. DIG A 6"X6" TRENCH ALONG THE INTENDED SILT FENCE LINE.
2. DRIVE ALL ANCHOR POSTS INTO THE GROUND AT THE DOWNHILL SIDE OF THE TRENCH.
3. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART.
4. LAY OUT SILT FENCE ALONG THE UPHILL SIDE OF THE ANCHOR POSTS AND BACK FILL 6"X6" TRENCH.
5. SECURELY ATTACH SILT FENCE TO ANCHOR POSTS W/ MINIMUM OF THREE ATTACHMENTS PER POST.
6. SEE MNDOT SPECIFICATIONS 2573 & 3886.

13 | SILT FENCE
C7 | NO SCALE



NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER AND/OR SEED.
2. BEGIN AT THE TOP OF THE SLOPE (OR CHANNEL) BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN (STARTING DOWNSTREAM PROCEEDING UPSTREAM) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH A MINIMUM 4" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH MINIMUM 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
6. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
7. THE TERMINAL ENDS OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

14 | EROSION CONTROL BLANKET
C7 | NO SCALE



15 | ROCK CONSTRUCTION ENTRANCE
C7 | NO SCALE

Carlson McCain
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DETAILS

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 18th Street South, Suite 103
St. Cloud, MN 56301

REVISIONS
1.

DRAWN BY:	JTR
DESIGNED BY:	JTR
ISSUE DATE:	02/03/20

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Name: Joseph T. Radach, P.E.
Signature:
Date: 02/03/20 License #: 45889

Save Date: 02/03/2020 Plot Date: Feb 4, 2020 Plotted by: jtradach Layout: C7-Details Drawing name: J:\2018\2180-Anchor View Apts\Civil\Details.dwg

NOMINAL FITTING SIZE, INCHES	TEE, WYE, PLUG OR CAP	90° BEND, PLUGGED CROSS	TEE PLUGGED ON RUN A^1	TEE PLUGGED ON RUN A^2	45° BEND	22-1/2° BEND	11-1/4° BEND
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.5	1.0	-
8	3.8	5.3	7.8	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.9	2.6	1.2
12	8.5	12.0	17.0	12.0	6.8	3.4	1.7
14	11.5	15.3	23.0	16.3	8.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8
20	23.5	33.3	47.0	33.3	18.1	9.4	4.7
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8

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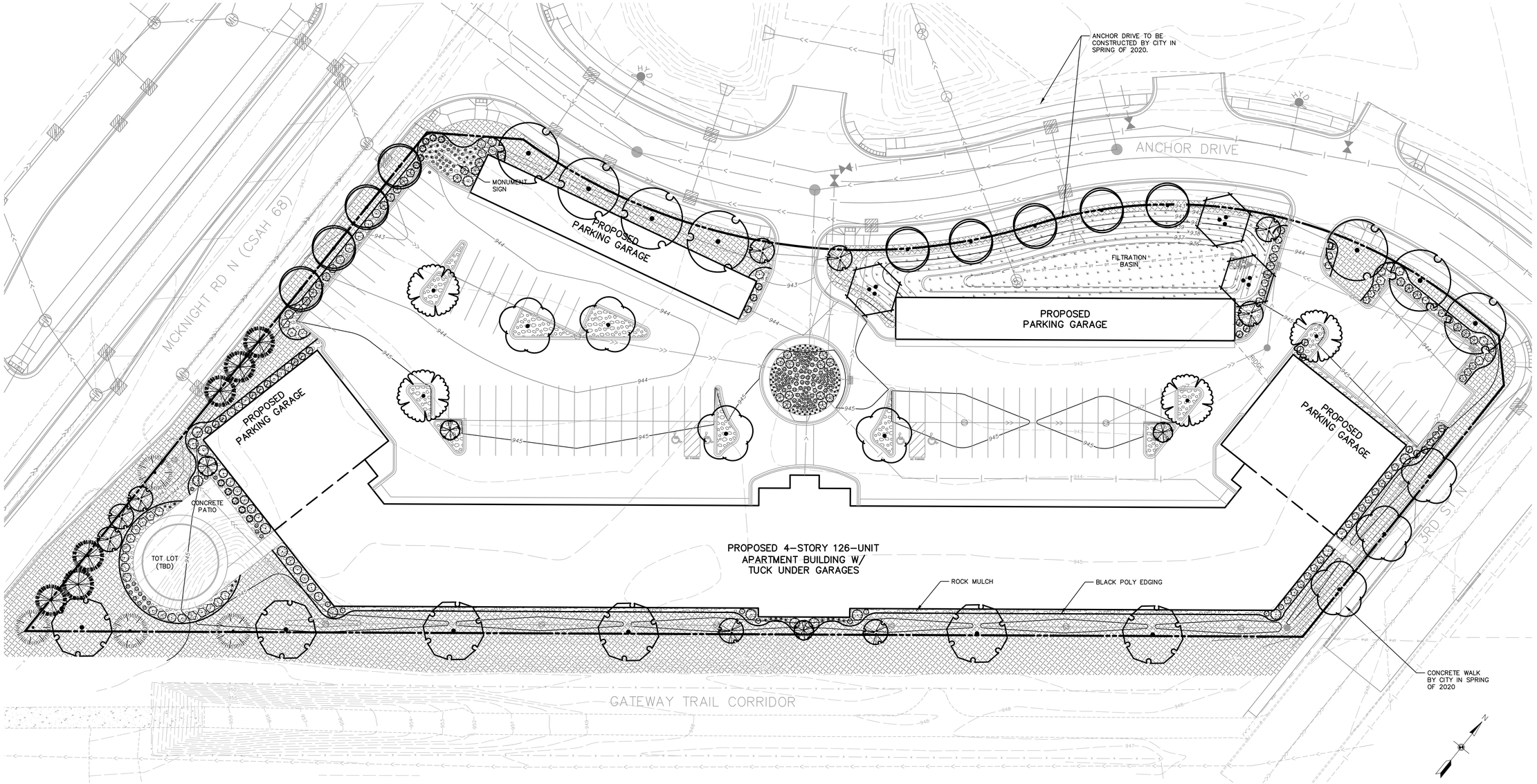
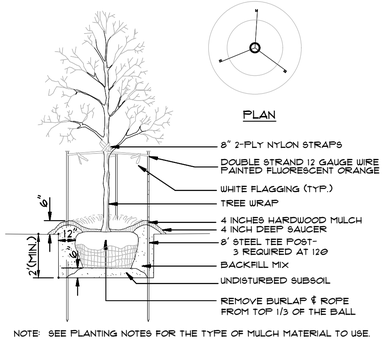
Save Date: 02/03/2020 / Jobs/7864 - 7880/7878 - n st paul - anchorvue/ cad/engineering/3878_details.dwg



LANDSCAPE PLAN NOTES

1. EXISTING CONDITIONS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION START. ANY DISCREPANCIES FOUND THAT AFFECT THE WORK SHALL BE REPORTED TO THE OWNER/LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING OR APPROVING ANY ADDITIONAL WORK REQUIRED.
2. UTILITY LOCATES. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL PUBLIC AND PRIVATE UTILITIES, INCLUDING IRRIGATION LINES, AT LEAST 48 HOURS BEFORE EXCAVATING OR IN ACCORDANCE WITH STATE LAW. IN MINNESOTA, CALL GOPHER STATE ONE-CALL AT 651-454-0002 FOR FIELD LOCATION OF PUBLIC UNDERGROUND UTILITY LINES. ALL LOCATES AND ITEMS NOTED AS 'FIELD VERIFY' ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR AT THEIR EXPENSE.
3. PERMITS. CONTRACTOR SHALL VERIFY WITH THE OWNER/LANDSCAPE ARCHITECT THAT THE REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION START. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND PERMITS GOVERNING THE WORK.
4. EXISTING ITEMS TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING PAVEMENT, STRUCTURES, UTILITIES, TREES, SITE AMENITIES, ETC. THAT ARE TO REMAIN FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY DAMAGE (AT CONTRACTOR'S EXPENSE) TO EXISTING ITEMS TO REMAIN.
5. CONSTRUCTION STAGING AND ACCESS. CONTRACTOR SHALL VERIFY THE LOCATION FOR CONSTRUCTION STAGING AND SITE ACCESS WITH THE OWNER/LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION START. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PEDESTRIAN AND VEHICLE ACCESS WITHIN AND ADJACENT TO THE SITE THROUGHOUT THE CONSTRUCTION PERIOD UNLESS OTHERWISE NOTED. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE PERMITTED. ALL WASTE AND/OR UNUSED MATERIAL SHALL BE PROMPTLY REMOVED FROM THE SITE.
6. SITE REMOVALS. REFER TO CIVIL PLANS FOR GENERAL SITE REMOVALS. ALL ITEMS NOTED TO BE REMOVED SHALL BE COMPLETED BY THE CONTRACTOR AND IMMEDIATELY DISPOSED OF OFF-SITE, IN ACCORDANCE WITH LOCAL REGULATIONS, UNLESS OTHERWISE NOTED. COORDINATE WITH OWNER/LANDSCAPE ARCHITECT FOR ANY ITEMS NOTED AS 'REMOVED BY OTHERS' OR 'REMOVE AND SALVAGE.'
7. UTILITY COORDINATION. REFER TO CIVIL PLAN SHEETS FOR INFORMATION RELATED TO PROPOSED UTILITIES. COORDINATE WITH ELECTRICAL CONTRACTORS FOR SITE ELECTRICAL WORK AND SITE LIGHTING.
8. CONSTRUCTION STAKING. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING CONTROL POINTS AND ALL CONSTRUCTION FIELD STAKING DURING THE COURSE OF THE PROJECT.
9. DIMENSIONS. DIMENSIONS TAKE PRECEDENCE OVER SCALE. DIMENSIONS ARE TO FACE OF CURB, EDGE OF PAVEMENT/WALKWAY, OR OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
10. PLAN QUANTITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL MATERIAL QUANTITIES PER PLAN. MATERIAL SCHEDULES ARE PROVIDED SOLELY FOR CONTRACTOR'S CONVENIENCE.
11. REFERENCE SPECIFICATIONS. THE FOLLOWING SPECIFICATIONS SHALL GOVERN THIS PROJECT ACCORDING TO THE FOLLOWING ORDER:
    1. ADDENDA, WITH THOSE OF A LATER DATE HAVING PRECEDENCE OVER THOSE OF AN EARLIER DATE.
    2. LANDSCAPE SPECIFICATIONS.
    3. PLAN DRAWINGS.
    4. PLANT / MATERIAL SCHEDULES.
    5. CITY STANDARD SPECIFICATIONS AND DETAILS.
    6. MnDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, LATEST EDITION.



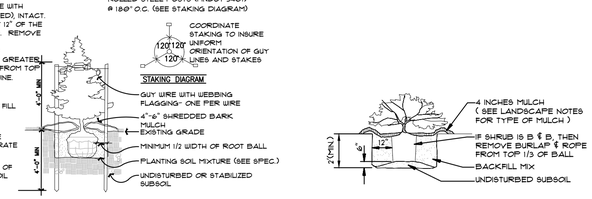
NOTE: SEE PLANTING NOTES FOR THE TYPE OF MULCH MATERIAL TO USE.

A DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

1. SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING
2. TRIM OUT DEAD WOOD AND WEAK AND/OR DEFORMED TWIGS. DO NOT CUT A LEADER. DO NOT PAINT CUTS.
3. SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED BACKFILL SOIL. INSTALL PLANT SO THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE.
4. PLACE PLANT IN PLANTING HOLE WITH BURLAP AND WIRE BASKET, (IF USED). INTACT. BACKFILL WITHIN APPROXIMATELY 12" OF THE TOP OF ROOTBALL. WATER PLANT. REMOVE TOP 1/3 OF THE BASKET OR THE TOP TWO HORIZONTAL RINGS, WHICHEVER IS GREATER. REMOVE ALL BURLAP AND NAILS FROM TOP 1/3 OF THE BALL. REMOVE ALL TWINE.
5. PLUMB AND BACKFILL WITH BACKFILL SOIL
6. WATER TO SETTLE PLANTS AND FILL VOIDS.
7. WATER WITHIN TWO HOURS OF INSTALLATION. WATERING MUST BE SUFFICIENT TO THOROUGHLY SATURATE ROOT BALL AND PLANTING HOLE
8. PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

NOTE: GUY ASSEMBLY OPTIONAL BUT CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR MAINTAINING TREE IN A PLUMB POSITION FOR THE DURATION OF THE GUARANTEE PERIOD

GUY ASSEMBLY- 16" POLYPROPYLENE OR POLYETHYLENE (40 ML) 1-1/2" WIDE STRAP (TYP) DOUBLE STRAND 10 GA. WIRE, 2-3" ROLLED STEEL POSTS (MNDOT 3401) @ 180° O.C. (SEE STAKING DIAGRAM)



B CONIFEROUS TREE PLANTING DETAIL
NOT TO SCALE

C SHRUB & CONTAINER PLANTING DETAIL
NOT TO SCALE

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PRELIMINARY LANDSCAPE PLAN

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 18th Street South, Suite 103
St. Cloud, MN 56301

REVISIONS
1.

DRAWN BY:	RJR
DESIGNED BY:	RJR
ISSUE DATE:	02/03/20

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Name: Ryan J. Ruttger
Signature:
Date: 02/03/20 License #: 56346

PRELIMINARY

L1 of 2

Save Date: 02/03/20 I:\Jobs\7845 - 7850\7878 - n st paul - anchorview\cad\landscape\7878_land.dwg

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	RM	7	Acer rubrum `Northwood`	Northwood Red Maple	2.5" Cal.	B&B
	RB	3	Betula nigra Clump Form, 2.5" Cal Equivalent	River Birch Multi-Trunk	10` Ht.	B&B
	HL	4	Gleditsia triacanthos inermis `Harve`	Northern Acclaim Thornless Honey Locust	2.5" Cal.	B&B
	WO	6	Quercus bicolor	Swamp White Oak	2.5" Cal.	B&B
	BL	9	Tilia americana `Boulevard`	Boulevard Linden	3.5" Cal.	B&B
	AE	7	Ulmus americana `Princeton`	American Elm	2.5" Cal.	B&B
CONIFEROUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	BF	6	Abies balsamea	Balsam Fir	6` Ht.	B&B
	BH	4	Picea glauca densata	Black Hills Spruce	8` Ht.	B&B
ORNAMENTAL TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	SB	9	Amelanchier x grandiflora `Autumn Brilliance` Clump Form, 2" Cal Equivalent	Autumn Brilliance Serviceberry	8` Ht.	B&B
	JL	4	Syringa reticulata `Ivory Silk` White Flowers	Ivory Silk Japanese Tree Lilac	2" Cal.	B&B
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	BCB	14	Aronia melanocarpa `Autumn Magic`	Autumn Magic Black Chokeberry	#5 Cont.	
	SSC	9	Clethra alnifolia `Hummingbird`	Summersweet	#5 Cont.	
	RTD	13	Cornus sericea `Alleman`s Compact`	Dwarf Red Twig Dogwood	#5 Cont.	
	DBH	11	Diervilla lonicera	Dwarf Bush Honeysuckle	#5 Cont.	
	CBB	16	Euonymus alatus `Compactus`	Compact Burning Bush	#5 Cont.	
	NBS	11	Physocarpus opulifolius `Seward` TM	Summer Wine Seward Ninebark	#5 Cont.	
	SPG	8	Spiraea x bumalda `Goldflame` Gold Foliage, Red Flowers	Goldflame Spirea	#5 Cont.	
	MKL	29	Syringa patula `Miss Kim`	Miss Kim Lilac	#5 Cont.	
	VBC	19	Viburnum trilobum `Bailey Compact` Red Fall Color	Bailey`s Compact American Cranberry Bush	#5 Cont.	
EVERGREEN SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	JSG	35	Juniperus chinensis `Sea Green`	Sea Green Juniper	#5 Cont.	
	YEW	21	Taxus x media `Tauntonii`	Tauton Yew	#5 Cont.	
GRASSES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	KFG	48	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass	#5 Cont.	
	PDS	28	Sporobolus heterolepis	Prairie Dropseed	#5 Cont.	
PERENNIALS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	DLB	70	Hemerocallis x `Baja` Red Flowers	Daylily	#1 Cont.	
	DLS	71	Hemerocallis x `Stella De Oro` Yellow / Gold Flowers	Stella De Oro Daylily	#1 Cont.	
	SGF	52	Liatris spicata `Kobold` Purple Flowers	Spike Gayfeather	#1 Cont.	
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	ROCK	9,171 sf	Rock Mulch Non-Woven Geotextile Incidental	1.5" Trap Rock Mulch	4" Depth	
	SOD	68,278 sf	Turf Sod Bluegrass	Kentucky Bluegrass	sod	
	TII	11,745 sf	Type II - Stormwater Seed Mix Refer to notes for acceptable seeding methods Seeding Rate 52.0 lb/ac	MnDOT Seed Mix 33-261	seed	

LANDSCAPE SPECIFICATIONS

1. TREE PROTECTION. ALL TREES NOT SPECIFICALLY NOTED OR MARKED ON SITE FOR REMOVAL SHALL REMAIN PROTECTED AND UNDISTURBED DURING CONSTRUCTION. TREE PROTECTION SHALL EXTEND TO THE DRIP LINE, WITHIN WHICH NO CONSTRUCTION ACTIVITY, MATERIAL STORAGE, OR VEHICLE PARKING SHALL BE PERMITTED. TREE PROTECTION FENCING SHALL BE ERECTED PRIOR TO CONSTRUCTION START PER PLANS OR AS DIRECTED BY OWNER/LANDSCAPE ARCHITECT AND SHALL CONSIST OF 4' TALL HEAVY DUTY ORANGE CONSTRUCTION FENCING WITH 6' STEEL FENCE POSTS SPACED 6' O.C. MAX.

2. EROSION CONTROL. REFER TO CIVIL PLAN SHEETS FOR STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND TEMPORARY AND PERMANENT STORMWATER BMPS, INCLUDING SILT FENCE, BIO-ROLLS, INLET PROTECTION, EROSION CONTROL BLANKETING, DUST CONTROL, SWEEPING AND ROCK CONSTRUCTION ENTRANCE. ALL DISTURBED AREAS SHALL RECEIVE PERMANENT STABILIZATION IN ACCORDANCE WITH THE LANDSCAPE PLAN WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY IN THE DISTURBED AREA HAS CEASED. IN THE EVENT PERMANENT STABILIZATION CANNOT BE IMPLEMENTED WITHIN 7 DAYS, TEMPORARY STABILIZATION BMPS MUST BE IMPLEMENTED WITHIN 7 DAYS USING.

3. CLEARING AND GRUBBING. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING ALL AREAS INDICATED AS BEING DISTURBED OR OTHERWISE SHOWN ON PLANS. CLEARING AND GRUBBING SHALL INCLUDE REMOVAL AND DISPOSAL OF ALL TREES, STUMPS, BRUSH, GRASS, ROOTS AND OTHER ORGANIC MATERIAL AT AN APPROVED OFF-SITE DISPOSAL LOCATION.

4. SOIL PREPARATION. REFER TO GEOTECHNICAL REPORT FOR ANY REQUIRED SOIL CORRECTIONS, AMENDMENTS OR ADDITIONAL INFORMATION (IF APPLICABLE). EXISTING TOPSOIL SHALL BE STRIPPED FROM ALL DISTURBED AREAS AND STOCKPILED IN AN APPROVED LOCATION FOR RE-SPREAD. ALL AREAS WHERE SOIL HAS BEEN COMPACTED BY CONSTRUCTION ACTIVITY AND THAT ARE INDICATED TO BE SODDED, SEEDED OR PLANTING BED SHALL BE DE-COMPACTED TO A MINIMUM DEPTH OF 12 INCHES BY SOIL RIPPING, TILLING OR OTHER APPROVED SOIL LOOSENING METHOD.

5. TOPSOIL MATERIAL. ALL EXISTING, AMENDED OR IMPORTED TOPSOIL SHALL MEET THE REQUIREMENTS OF WDOT TOPSOIL TYPE A. A MINIMUM 4 INCH DEPTH OF TOPSOIL SHALL BE PLACED ON ALL AREAS TO BE SODDED OR SEEDED. A MINIMUM 12 INCH DEPTH OF TOPSOIL SHALL BE PLACED WITHIN ALL PLANTING BED AREAS. ALL TOPSOIL SHALL BE FINE GRADED, RAKED AND DRAGGED TO PROVIDE A SMOOTH, UNIFORM SURFACE. TOPSOIL GRADES SHALL BE WITHIN .1 FEET OF INDICATED FINISHED GRADE AND SHALL BE TRUE TO GRADIENTS SHOWN ON PLANS. REFER TO CIVIL PLAN SHEETS FOR FILTRATION BASIN SOIL REQUIREMENTS.

6. SEEDING AND TURF ESTABLISHMENT. CONTRACTOR SHALL OBTAIN OWNER/LANDSCAPE ARCHITECT'S APPROVAL OF FINAL GRADES AND TOPSOIL PREP PRIOR TO SEEDING. APPLY 12-12-12 GRANULAR STARTER FERTILIZER AT A RATE OF 250 LBS PER ACRE PRIOR TO SEEDING.. SEEDS SHALL BE SOWED IN 2 PERPENDICULAR PASSES, EACH PASS AT ONE-HALF THE INDICATED RATE, VIA BROADCAST SPREADER, DROP SEEDER OR DRILL SEEDER. FOLLOWING SEED APPLICATION, INSTALL TYPE 3N EROSION CONTROL BLANKET ON ALL SLOPES GREATER THAN 4:1. IN ALL OTHER AREAS, APPLY HYDROMULCH COVER (MUST BE A SEPARATE OPERATION FROM SEEDING) AT A TARGETED DRY WEIGHT RATE OF 3500 LBS PER ACRE. SOIL SHALL BE KEPT MOIST DURING ESTABLISHMENT WITH ADDITIONAL RE-SEEDING AS NECESSARY TO ACHIEVE A HEALTHY, UNIFORM STAND OF GRASS, FREE OF WEEDS AND WITH COVERAGE EXCEEDING 75% IN ANY 10'x10' AREA PRIOR TO FINAL ACCEPTANCE.

7. SODDING. CONTRACTOR SHALL OBTAIN OWNER/LANDSCAPE ARCHITECT'S APPROVAL OF FINAL GRADES AND TOPSOIL PREP PRIOR TO SODDING. APPLY 12-12-12 GRANULAR STARTER FERTILIZER AT A RATE OF 250 LBS PER ACRE PRIOR TO SODDING AND ROLL TOPSOIL TO CREATE A UNIFORM SURFACE FOR LAYING SOD. SOD SHALL NOT BE CUT MORE THAN 24-HOURS IN ADVANCE OF INSTALLATION. CONTRACTOR SHALL KEEP SOD MOIST FOR A MINIMUM OF 30 DAYS AND SHALL BE RESPONSIBLE FOR MAINTAINING THE SOD UNTIL FINAL ACCEPTANCE.

8. PLANT MATERIAL. ALL PLANTING STOCK SHALL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK," ANSI-Z60, LATEST EDITION, OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIALS. OWNER/LANDSCAPE ARCHITECT RESERVE THE RIGHT TO REJECT ANY PLANTS WHICH ARE DEEMED UNSATISFACTORY BEFORE, DURING, OR AFTER INSTALLATION. NO SUBSTITUTION OF PLANT MATERIAL SHALL BE ACCEPTED UNLESS APPROVED IN WRITING BY THE OWNER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

9. PLANT MATERIAL SUBSTITUTIONS. ALL REQUESTS FOR PLANT SUBSTITUTIONS SHALL BE MADE IN WRITING TO THE OWNER/LANDSCAPE ARCHITECT AND MUST BE APPROVED BY THE CITY.

10. PLANT INSTALLATION AND ESTABLISHMENT. REFER TO STANDARD PLANTING DETAILS. CONTRACTOR SHALL STAKE TREE LOCATIONS FOR APPROVAL BY OWNER/LANDSCAPE ARCHITECT PRIOR TO PLANTING. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE.

11. MULCH MATERIAL. DOUBLE SHREDDED HARDWOOD MULCH OR ROCK MULCH AS INDICATED ON PLANS. ALL MULCH SHALL BE CLEAN AND FREE OF NOXIOUS WEEDS, SOIL, OR OTHER DELETERIOUS MATERIAL, AND SHALL BE INSTALLED OVER A NON-WOVEN GEOTEXTILE FABRIC (INCIDENTAL) OR OTHER APPROVED WEED BARRIER TO A MINIMUM SETTLED DEPTH OF 4". MULCH SHALL BE HELD BACK FROM PLANT STEMS/TRUNKS A MINIMUM OF 3". WOOD MULCH SHALL BE PLACED AROUND INDIVIDUAL TREES TO A 4' MINIMUM DIAMETER. MULCH SHALL BE INSTALLED WITHIN 48-HOURS OF PLANT INSTALLATION.

12. LANDSCAPE EDGING. INSTALL LANDSCAPE EDGING BETWEEN ALL MULCH AREAS AND TURF. EDGING SHALL BE COMMERCIAL GRADE BLACK POLYETHYLENE OR VINYL EDGING, 0.1 INCH THICK BY 5 INCHES DEEP, V-LIPPED BOTTOM, HORIZONTALLY GROOVED, 1-INCH ROUND TOP, EXTRUDED IN STANDARD LENGTHS, WITH 9-INCH STEEL ANGLE STAKES.

13. IRRIGATION. DESIGN, FURNISH AND INSTALL A COMPLETE UNDERGROUND IRRIGATION SYSTEM FROM APPROVED POINT(S)-OF-CONNECTION WITHIN THE SITE COVERING ALL TURF AND PLANTING AREAS AS SHOWN ON THE LANDSCAPE PLAN. INCLUDES FLOW/PRESSURE TESTING, PLANS WITH DESIGN CALCULATIONS, AS-BUILT DRAWINGS, LABOR, MATERIALS, EQUIPMENT, AND SERVICES FOR THE TESTING, ADJUSTING, RETESTING AND READJUSTING AS REQUIRED TO PLACE THE SYSTEM IN AN APPROVED OPERATING CONDITION. THE IRRIGATION SYSTEM SHALL INCLUDE THE DESIGN AND INSTALLATION OF THE FOLLOWING: PIPING, METER AND BACKFLOW ASSEMBLIES, SPRINKLER HEADS, CABINETS, VALVES AND VALVE BOXES, CONTROLLERS, CONTROL WIRING, FITTINGS, ELECTRICAL CONNECTIONS, QUICK-COUPLERS, ALL OTHER NECESSARY ACCESSORIES, SYSTEM MANUALS, 1-YEAR MAINTENANCE PERIOD INCLUDING 1 FALL WINTERIZATION AND 1 SPRING START-UP. IRRIGATION PLANS TO BE PREPARED BY A QUALIFIED IRRIGATION DESIGNER AND SUBMITTED TO OWNER/LANDSCAPE ARCHITECT FOR APPROVAL.

14. MAINTENANCE. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF THE PLANTS IS COMPLETE, INSPECTION HAS BEEN MADE, AND PLANTINGS ARE ACCEPTED EXCLUSIVE OF THE GUARANTEE. MAINTENANCE SHALL INCLUDE MOWING, TRIMMING, WATERING, FERTILIZING, WEED AND PESTICIDE CONTROL, MULCHING, REMOVAL OF DEAD MATERIALS, RE-SETTING PLANTS TO PROPER GRADE AND KEEPING PLANTS IN A PLUMB POSITION. AFTER ACCEPTANCE, THE OWNER SHALL ASSUME MAINTENANCE RESPONSIBILITIES, HOWEVER, THE CONTRACTOR SHALL RETAIN RESPONSIBILITY FOR ALL PLANT MATERIAL THROUGH THE COMPLETION OF THE WARRANTY PERIOD.

15. WATERING. UPON ESTABLISHMENT OF SEED AND INSTALLATION OF PLANTS, CONTRACTOR SHALL MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS AND TURF AREAS A MINIMUM OF ONCE A WEEK. MORE FREQUENT WATERING MAY BE REQUIRED DURING PERIODS OF HOT, DRY WEATHER. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER. IN THE ABSENCE OF PERMANENT IRRIGATION, TEMPORARY IRRIGATION, TREE WATERING BAGS, OR HAND-WATERING ARE ACCEPTABLE.

16. FINAL ACCEPTANCE. UPON SUBSTANTIAL COMPLETION OF THE WORK, CONTRACTOR SHALL REQUEST FINAL ACCEPTANCE OF THE WORK IN WRITING BY THE OWNER/LANDSCAPE ARCHITECT. IF ANY WORK IS FOUND TO BE INCOMPLETE OR UNSATISFACTORY IN THE OPINION OF THE OWNER/LANDSCAPE ARCHITECT, A WRITTEN PUNCH LIST WILL BE PREPARED LISTING ALL ITEMS THAT REQUIRE COMPLETING OR CORRECTING BEFORE FINAL ACCEPTANCE.

17. WARRANTY. ALL PLANTS, MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS OTHERWISE SPECIFIED. THE GUARANTEE SHALL COVER THE FULL COST OF REPLACEMENT INCLUDING LABOR AND MATERIAL.

Carlson McCain
ENVIRONMENTAL • ENGINEERING • SURVEYING
3890 Pheasant Ridge Dr. NE #100, Blaine, MN
Phone: 763-489-7900 Fax: 763-489-7959

PRELIMINARY LANDSCAPE PLAN

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

TRIDENT DEVELOPMENT, LLC
3601 18th Street South, Suite 103
St. Cloud, MN 56301

REVISIONS
1.

DRAWN BY:	RJR
DESIGNED BY:	RJR
ISSUE DATE:	02/03/20

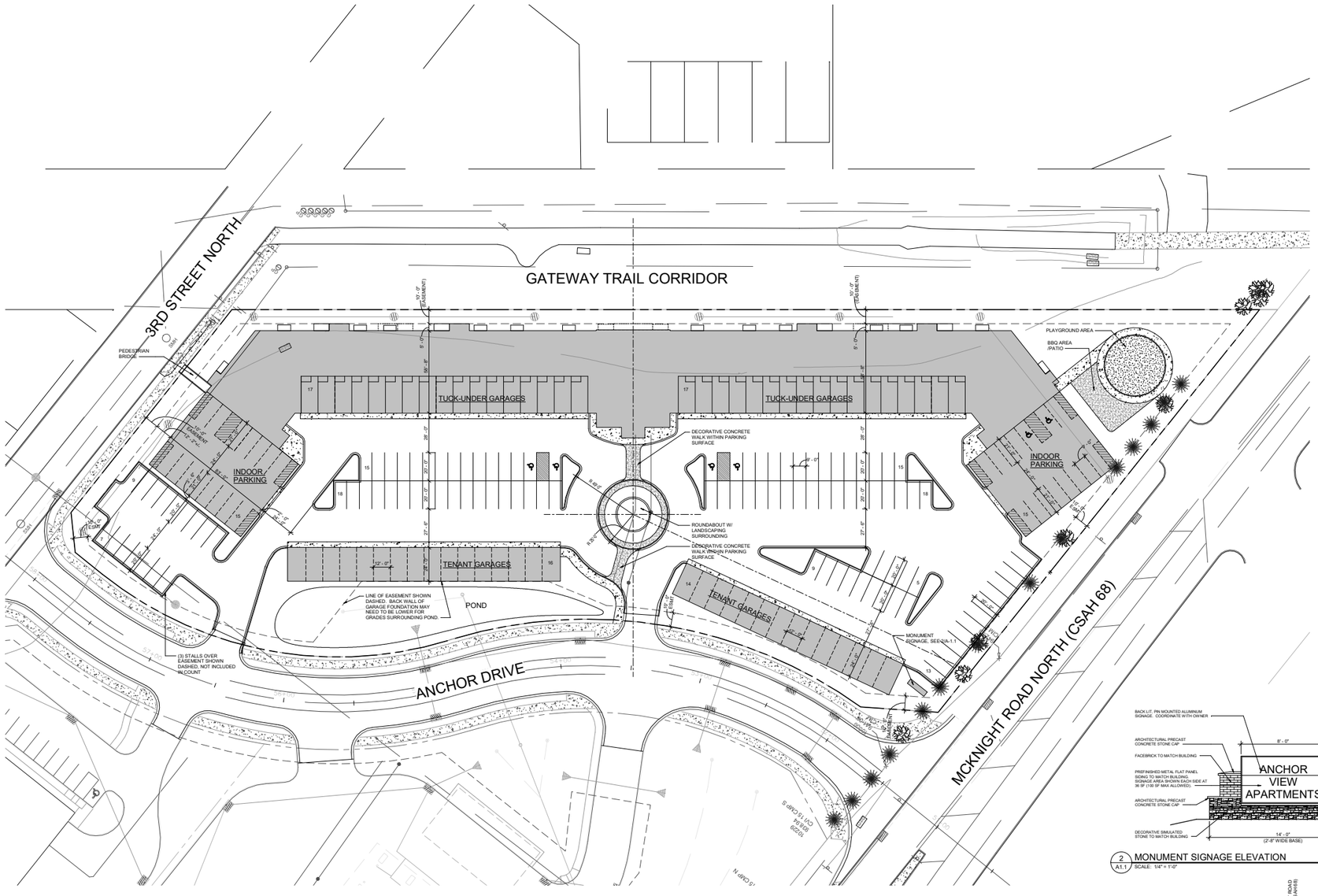
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Name: Ryan J. Ruttger
Signature:
Date: 02/03/20 License #: 56346

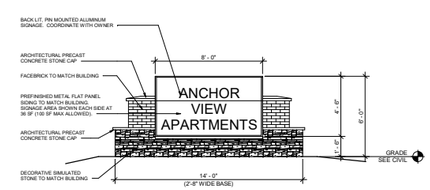
PRELIMINARY

L2 of 2

Sheet Date: 02/03/20 J:\jobs\7864 - 7880\7878 - n st paul - anchor\cad c3d\landscape\7878_land.dwg



1 A1.1 SITE PLAN
SCALE: 1" = 30'-0"



2 A1.1 MONUMENT SIGNAGE ELEVATION
SCALE: 1/4" = 1'-0"

UNIT QUANITIES:

STUDIO:	28 UNITS
ONE BEDROOM:	62 UNITS
TWO BEDROOM:	36 UNITS
TOTAL UNITS:	126 UNITS

PARKING REQUIREMENTS:

STUDIO:	28 UNITS (x 1.25) = 35
ONE BEDROOM:	62 UNITS (x 1.50) = 93
TWO BEDROOM:	36 UNITS (x 2.00) = 72
TOTAL (REQUIRED):	200 STALLS
TOTAL (PROVIDED):	109 (SURFACE PARKING) 94 (COVERED PARKING) 203 (TOTAL)

3 A1.1 VICINITY MAP
SCALE: 1/8" = 1'-0"

NORTH

TRIDENT Development, LLC
LYON CONTRACTING INC
Carlson McCain

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Signature:
Printed Name: Murray A. Mack
License No.: 18686
Date: 02/04/2020

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Project No: 1943
Project Manager: CH
Drawn By: NT
Date: 02/04/2020

Date	Description

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hma@hma-archs.com

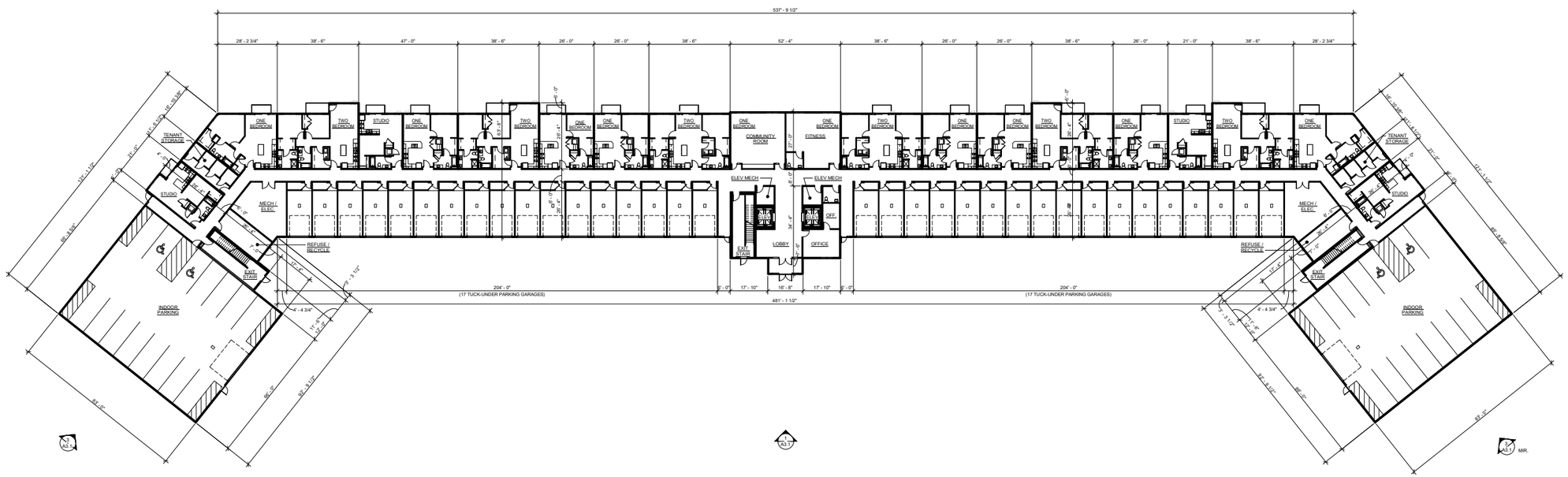
Anchor View Apartments

North St. Paul, MN

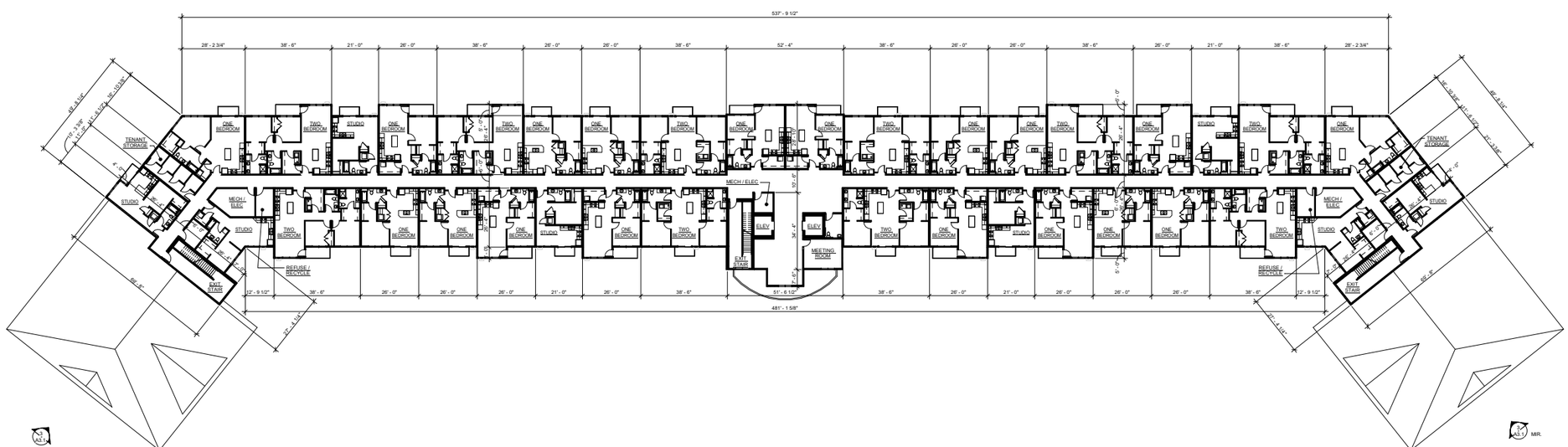
OVERALL SITE PLAN & DETAILS

A1.1

NOT FOR CONSTRUCTION



1 A2.1 OVERALL FIRST FLOOR (46,870 SF)
SCALE: 1" = 20'-0"



2 A2.1 OVERALL SECOND, THIRD, FOURTH FLOOR (36,356 SF)
SCALE: 1" = 20'-0"

TRIDENT Development, LLC
LYON CONTRACTING INC
Carlson McCain

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Signature:
Printed Name: Murray A. Mack
License No.: 18686
Date: 02/04/2020

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Project Manager: CH
Drawn By: NT
Date: 02/04/2020

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Anchor View Apartments

North St. Paul, MN

BUILDING FLOOR PLANS

A2.1

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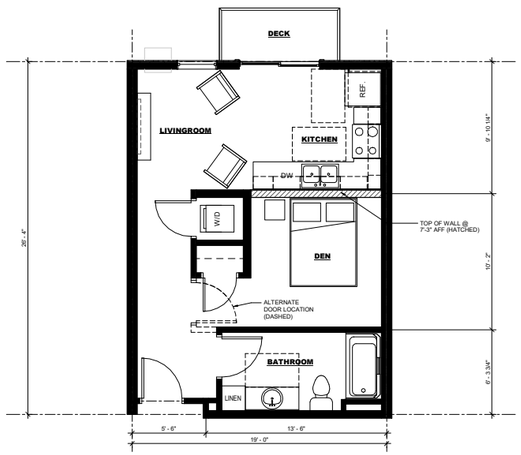
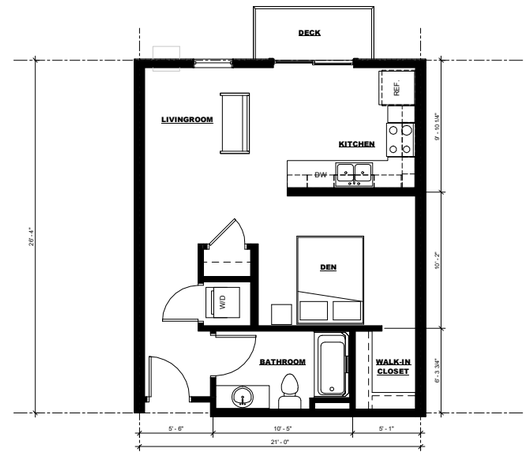
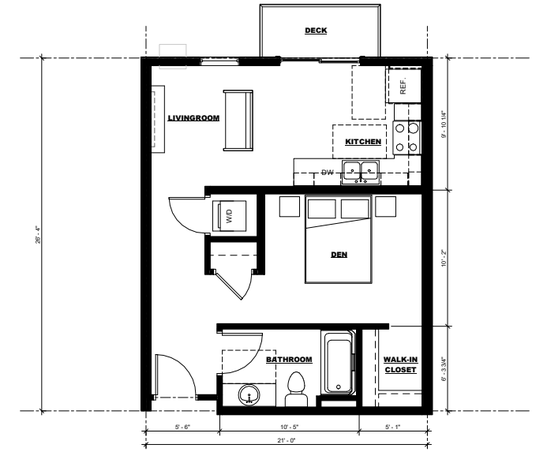


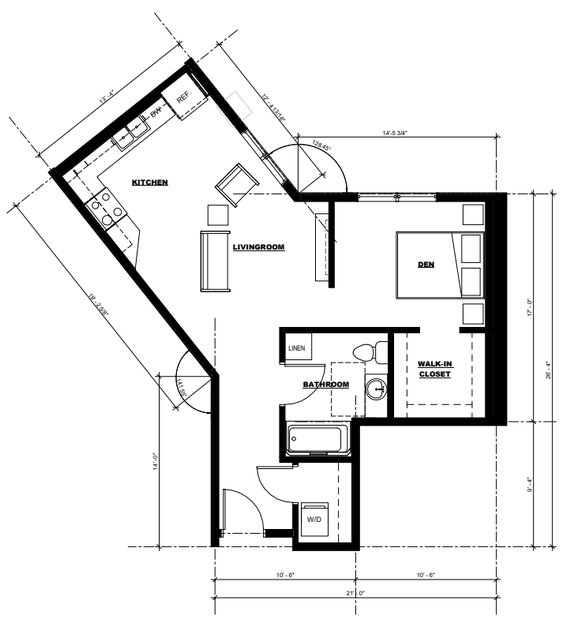
1 A2.10 STUDIO UNIT A1 495 SF
SCALE: 1/4" = 1'-0"



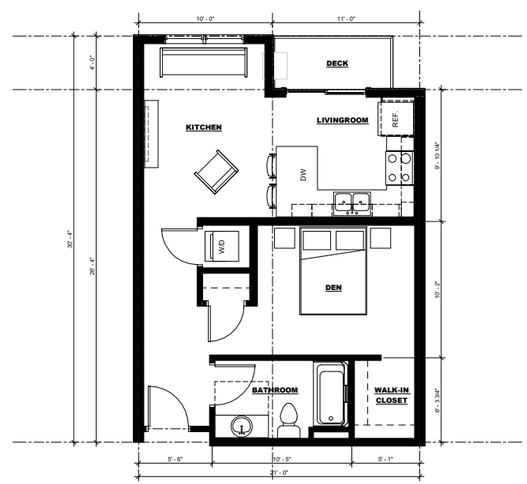
2 A2.10 STUDIO UNIT A2 548 SF
SCALE: 1/4" = 1'-0"



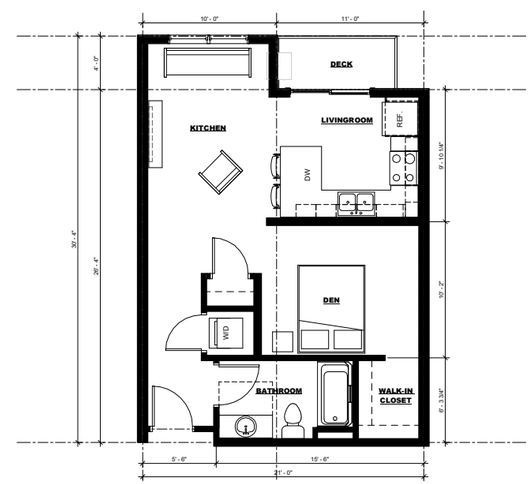
3 A2.10 STUDIO UNIT A3 548 SF
SCALE: 1/4" = 1'-0"



4 A2.10 STUDIO UNIT A4 624 SF
SCALE: 1/4" = 1'-0"



6 A2.10 STUDIO UNIT A5 588 SF
SCALE: 1/4" = 1'-0"



5 A2.10 STUDIO UNIT A6 588 SF
SCALE: 1/4" = 1'-0"

TRIDENT Development, LLC
LYON CONTRACTING INC
Carlson McCain

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Signature:
Printed Name: Murray A. Mack
License No.: 18686
Date: 02/04/2020

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Project No: 1943
Project Manager: Checker
Drawn By: Author
Date: 02/04/2020

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Anchor View Apartments

North St. Paul, MN

ENLARGED UNIT FLOOR PLANS A1 - A6

A2.10

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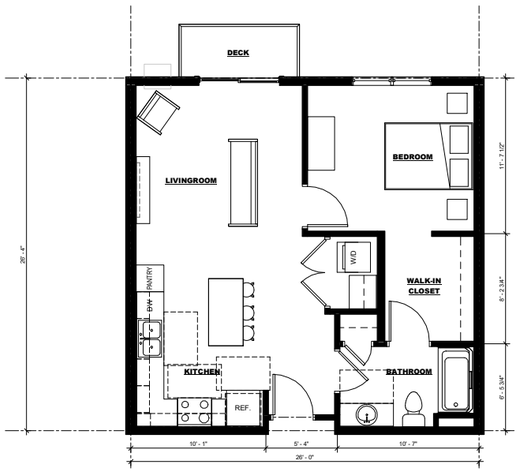
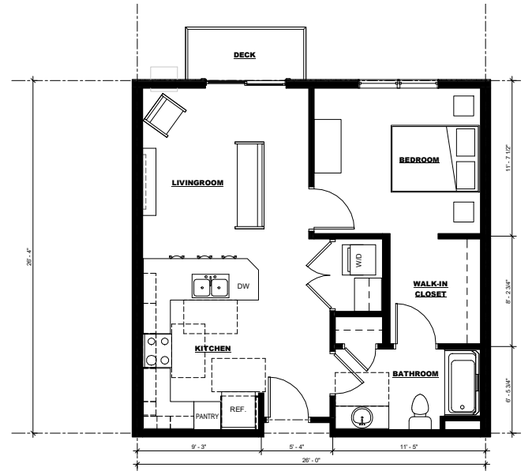
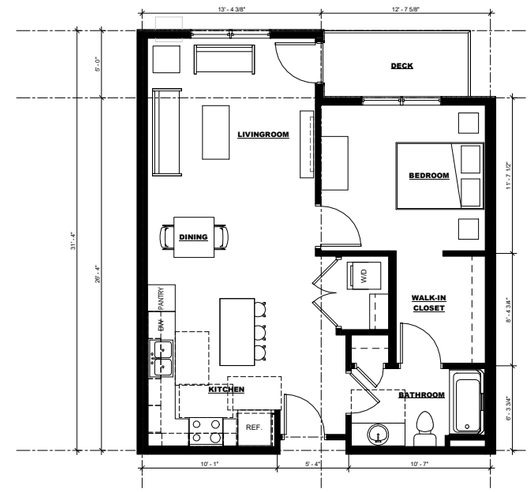


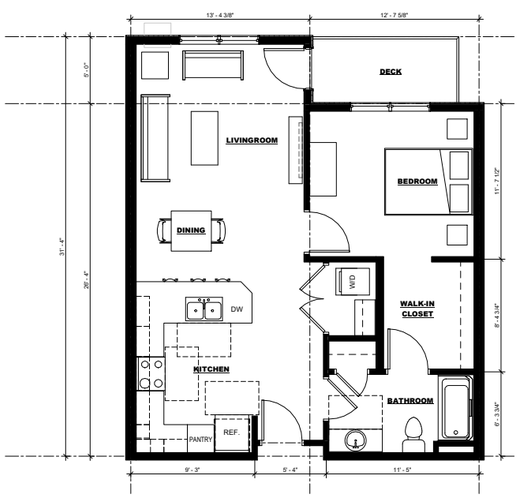
1 A2.11 ONE BEDROOM UNIT B1 680 SF
SCALE: 1/4" = 1'-0"



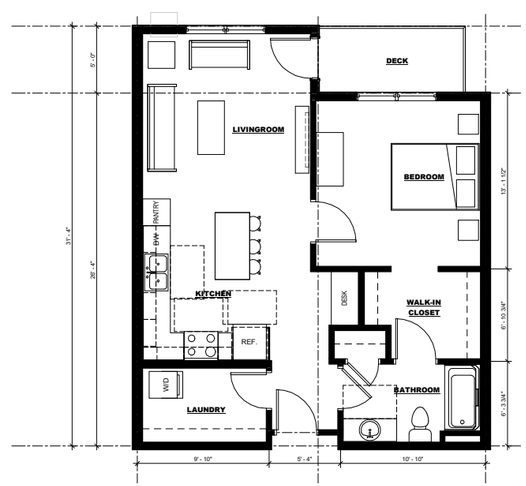
2 A2.11 ONE BEDROOM UNIT B2 680 SF
SCALE: 1/4" = 1'-0"



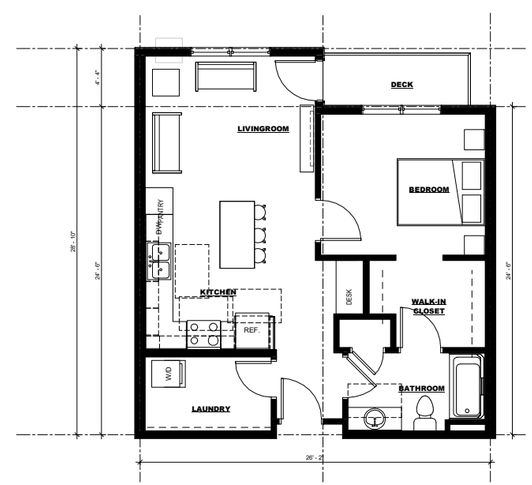
3 A2.11 ONE BEDROOM UNIT B3 747 SF
SCALE: 1/4" = 1'-0"



4 A2.11 ONE BEDROOM UNIT B4 747 SF
SCALE: 1/4" = 1'-0"



5 A2.11 ONE BEDROOM UNIT B5 747 SF
SCALE: 1/4" = 1'-0"



6 A2.11 ONE BEDROOM UNIT B6 695 SF
SCALE: 1/4" = 1'-0"

TRIDENT Development, LLC
LYON CONTRACTING INC
Carlson McCain

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Signature:
Printed Name: Murray A. Mack
License No.: 18686
Date: 02/04/2020

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Project No: 1943
Project Manager: Checker
Drawn By: Author
Date: 02/04/2020

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hma@hma-archs.com

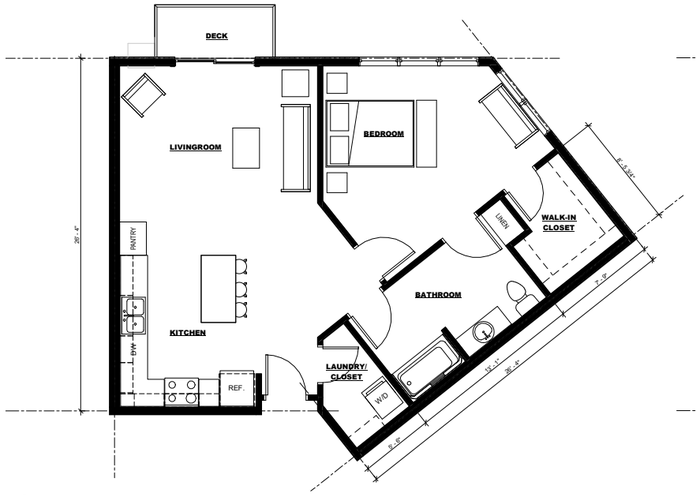
Anchor View Apartments

North St. Paul, MN

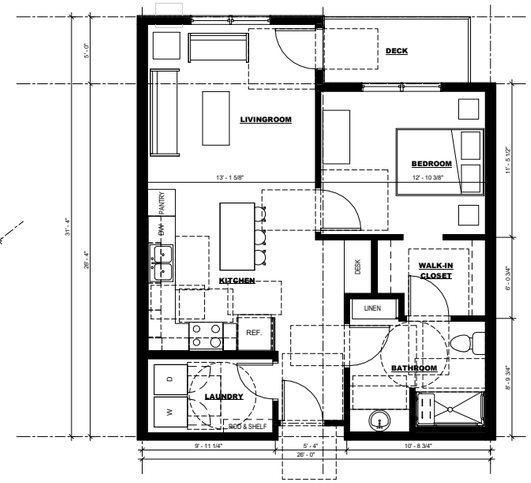
ENLARGED UNIT FLOOR PLANS B1 - B6

A2.11

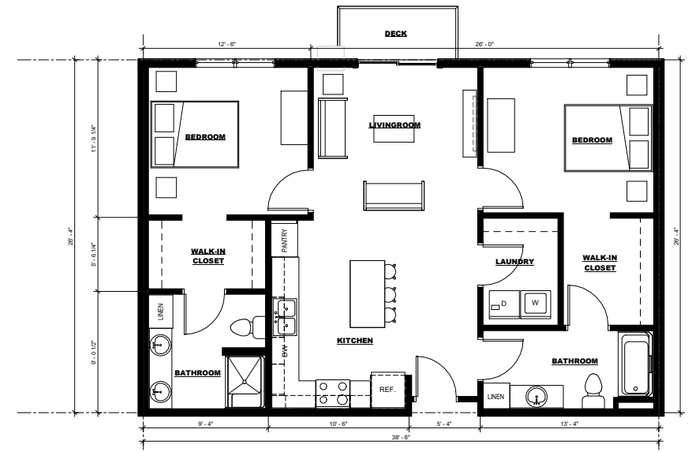
NOT FOR CONSTRUCTION



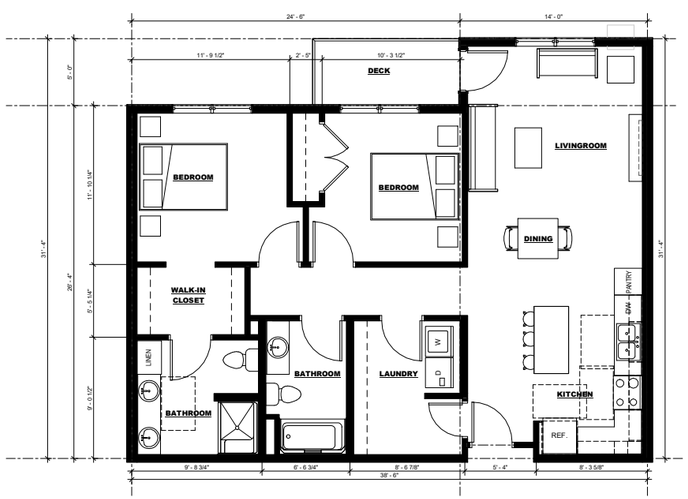
1 A2.12 ONE BEDROOM UNIT B7 848 SF
SCALE: 1/4" = 1'-0"



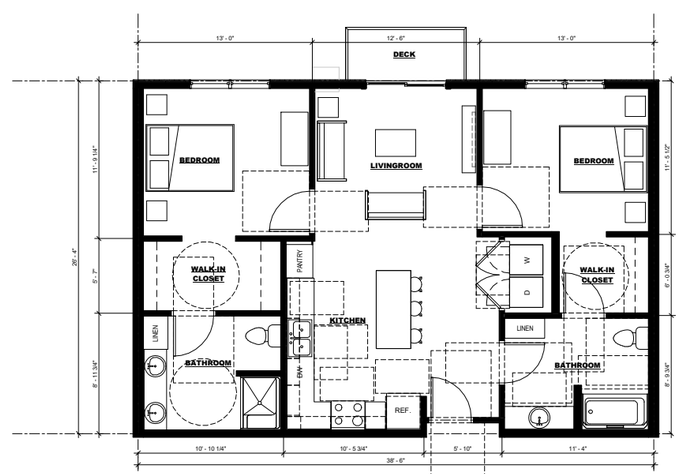
2 A2.12 ONE BEDROOM B8 - ACCESSIBLE UNIT ROLL-IN 747 SF
SCALE: 1/4" = 1'-0"



3 A2.12 TWO BEDROOM UNIT C1 1,009 SF
SCALE: 1/4" = 1'-0"



4 A2.12 TWO BEDROOM UNIT C2 1,079 SF
SCALE: 1/4" = 1'-0"



5 A2.12 TWO BEDROOM C3 - ACCESSIBLE UNIT 1,008 SF
SCALE: 1/4" = 1'-0"

TRIDENT Development, LLC
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Signature:
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License No.: 18686
Date: 02/04/2020

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Project No: 1943
Project Manager: Checker
Drawn By: Author
Date: 02/04/2020

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Anchor View Apartments

North St. Paul, MN

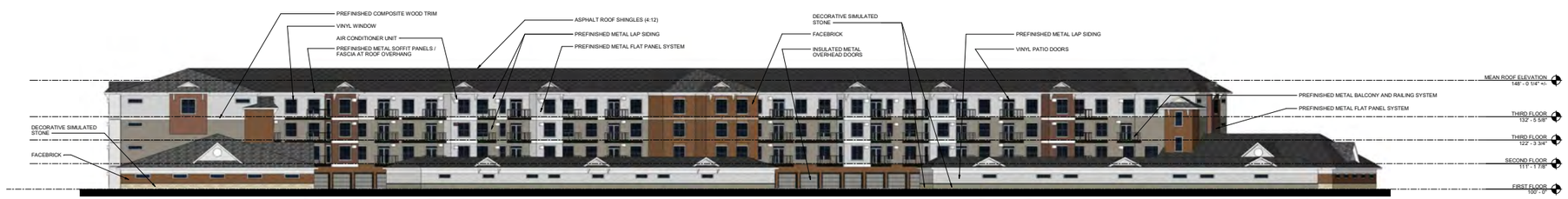
ENLARGED UNIT FLOOR PLANS B7 - B8, C-1 - C3

A2.12

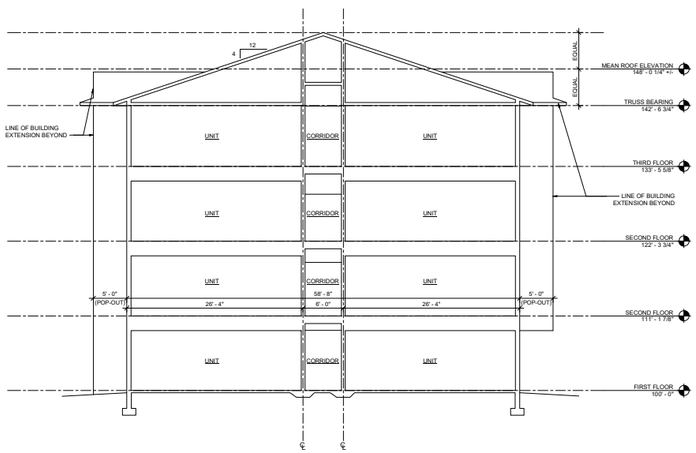
NOT FOR CONSTRUCTION

1 A3.1 FRONT ENTRY ELEVATION
SCALE: 1" = 20'-0"

2 A3.1 REAR ELEVATION
SCALE: 1" = 20'-0"



3 A3.1 SIDE ELEVATION
SCALE: 1" = 20'-0"



4 A3.1 TYPICAL BUILDING SECTION
SCALE: 1/8" = 1'-0"

TRIDENT Development, LLC.

LYON CONTRACTING INC

Carlson McCain

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Signature:

Printed Name: Murray A. Mack

License No.: 18686

Date: 02/04/2020

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Project No: 1943
Project Manager: CH
Drawn By: NT
Date: 02/04/2020

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hma@hma-archs.com

Anchor View Apartments

North St. Paul, MN

EXTERIOR ELEVATIONS / BUILDING SECTION

A3.1

NOT FOR CONSTRUCTION

EAST BUILDING PERSPECTIVE

N.T.S.

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Signature: _____

Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM / CH

Anchor View Apartments

North St. Paul, MN

Project No: 1943

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EAST BUILDING PERSPECTIVE

PR-1

NORTH BUILDING PERSPECTIVE

N.T.S.

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Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM / CH

Project No: 1943

Anchor View Apartments

North St. Paul, MN

hma ARCHITECTS

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NORTH BUILDING PERSPECTIVE

PR-2

NORTH BUILDING PERSPECTIVE

N.T.S.

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Signature: _____

Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM/CH

Project No: 1943

Anchor View Apartments

North St. Paul, MN

hma ARCHITECTS

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NORTH BUILDING PERSPECTIVE

PR-3

EAST BUILDING PERSPECTIVE

N.T.S.

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Signature: _____

Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM/CH

Project No: 1943

Anchor View Apartments

North St. Paul, MN

hma ARCHITECTS

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EAST BUILDING PERSPECTIVE

PR-4

SOUTHEAST BUILDING PERSPECTIVE

N.T.S.

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Signature: _____

Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM/CH

Project No: 1943

Anchor View Apartments

North St. Paul, MN

hma ARCHITECTS

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SOUTHEAST BUILDING PERSPECTIVE

PR-5

SOUTHEAST BUILDING PERSPECTIVE

N.T.S.

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Signature: _____

Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM/CH

Project No: 1943

Anchor View Apartments

North St. Paul, MN

hma ARCHITECTS

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SOUTHEAST BUILDING PERSPECTIVE

PR-6

NORTHWEST BUILDING PERSPECTIVE

N.T.S.

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Signature: _____

Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM/CH

Project No: 1943

Anchor View Apartments

North St. Paul, MN

hma ARCHITECTS

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NORTHWEST BUILDING PERSPECTIVE

PR-7

SOUTHWEST BUILDING PERSPECTIVE

N.T.S.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision & that I am a duly Licensed Architect under the laws of the State of Minnesota

Signature: _____

Printed name: Murray A. Mack License no.: 18686

Date: 02/04/2020 Revision:

Drawn by: MM/CH

Anchor View Apartments

North St. Paul, MN

Project No: 1943

hma ARCHITECTS

700 W. St. Germain Street | Suite 200 | St. Cloud, MN 56301

T: 320.251.9155 | F: 320.251.4919 | hma@hma-archs.com

SOUTHWEST BUILDING PERSPECTIVE

PR-8

DRAINAGE REPORT

February 3, 2020

Anchor View Apartments
North St. Paul, Minnesota

Re: Anchor View Apartments – Stormwater Management Plan

The purpose of this letter report is to discuss the proposed stormwater management system for the development of the apartment lot in the Anchor Block Commons master plan of development. The site consists of Lot 1, Block 2 of the Anchor Block Commons plat completed in 2019. The site was previous graded as part of the overall mass grading for the Anchor Block Commons master plan of development. See Figure 1 for site location map.

Existing Conditions

The overall Anchor Block Commons site is located in the southeast quadrant of the intersection of Trunk Highway 36 and McKnight Road North (CSAH 68) in North St. Paul, Ramsey County, Minnesota. The site is bounded on the north by Trunk Highway 36 and North St. Paul Drive, on the east by 3rd Street North, on the South by the Gateway Trail Corridor, and on the west by McKnight Road North. The site was previously used as a concrete block plant by Anchor Block. In or around 2011, the Anchor Block Plant was decommissioned and the site was razed. In the fall of 2019, the City of North St. Paul mass graded the site for future development and platted the site into three lots.

The proposed apartment site consists of Lot 1, Block 2 of the Anchor Block Commons plat and contains 3.91 acres. There are no existing impervious surfaces onsite.

Proposed Conditions

The City of North St. Paul plans to construct Anchor Drive in the Spring of 2020. Also, in the Spring of 2020, Trident Development plans to construct a 126-unit apartment building with covered parking and paved parking and drive areas. During construction, approximately 4 acres will be disturbed. After construction, the site will contain approximately 2.94 acres of impervious surface.

Stormwater from the site will be treated by filtration basins. One filtration basin will be constructed on site by the apartment contractor and one filtration basin was constructed off site by the City's contractor in the fall of 2019. Storm sewer will be used to collect runoff from the site and the storm sewer will either discharge to the proposed onsite filtration basin or connected to a storm sewer stub being provided by the City. All stormwater from the site will ultimately drain to the existing MnDOT pond north of the site.

Anchor Block Commons Stormwater Management Plan

Carlson McCain prepared the stormwater management plan for the overall Anchor Block Commons master development plan. This plan of development proposed four filtration basins to treat stormwater from the entire site. The apartment lot was designed to drain to two of the filtration basins, one on the apartment site (Basin 30) and one on the north side of Anchor Drive (Basin 10). Because the apartment site layout was not final at the time of the City's mass grading project, Basin 30 was not constructed.

The apartment site layout assumed under the Anchor Block Commons plan of development contained approximately 2.33 acres of impervious surface and the design filtration volume of Basin 30 was 0.131 acre feet.

Anchor View Apartments Stormwater Management Plan

The proposed layout for the Anchor View Apartments contains approximately 2.94 acres of impervious surface. The new layout proposes an additional 0.61 acres of impervious surface. Based on Ramsey Washington Metro Watershed District (RWMWD) 1.1 inch volume abstraction requirement, the additional volume abstraction required is 0.056 acre feet. Per RWMWD, filtration of the water quality volume receives 55% credit. Based on the 55% credit, the additional filtration volume required is 0.102 acre feet.

Under the Anchor Block Commons stormwater management plan, there was an additional 0.041 acre feet of filtration volume available for the site. Under the Anchor View Apartments plan, Basin 30 has a proposed filtration volume of 0.198 acre feet, which is 0.067 acre feet greater than the original design. Therefore, including the excess filtration volume from Anchor Block Commons and the proposed additional filtration volume in Basin 30, the total additional filtration volume is 0.108 acre feet, which meets the site requirement.

Storm Sewer Design

Storm sewer will be used to collect stormwater from the site. The storm sewer will either outlet to a stub provided from Anchor Drive or to Filtration Basin 30. The rational method was used to determine anticipated flows to each catch basin and the pipes were sized using those flows along with Manning's equation. All onsite storm sewers were designed to accommodate a 10-year storm at a minimum. See attached Figure 2 for Storm Sewer Drainage Map and attached rational method spreadsheet for design calculations.

Summary

The proposed apartment lot will meet the overall stormwater treatment requirements from RWMWD and the MPCA Construction Stormwater Permit. Adequate volume abstraction is provided by one onsite filtration basin and one off site filtration basin. All storm sewers have been sized to accommodate a 10-year storm at a minimum. The proposed development will not have an adverse impact on the existing stormwater infrastructure originally planned for the development of the site.

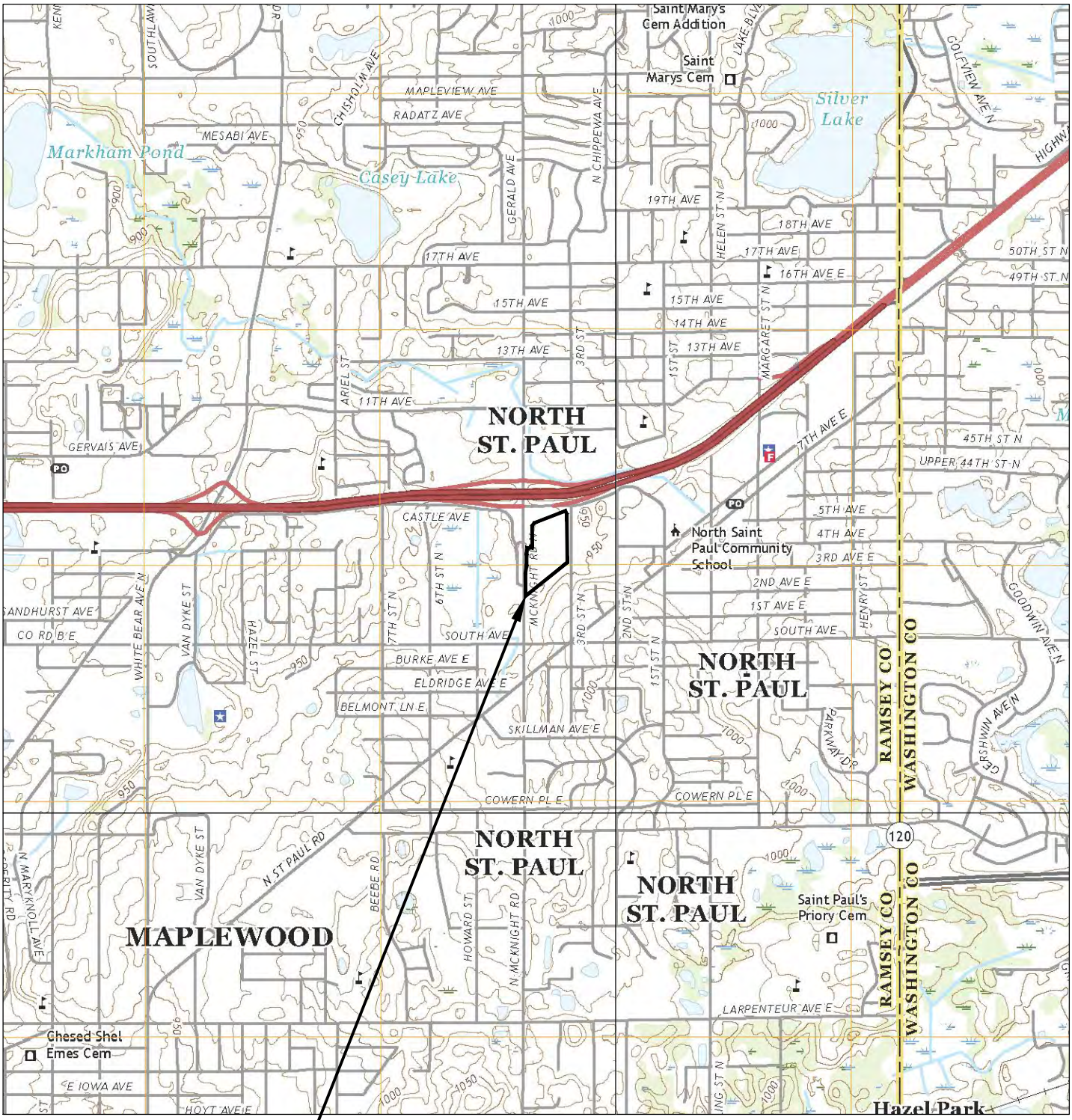
Certification

I hereby certify that this plan, specification or report was prepared by me or under my direction supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Joseph T. Radach, P.E. License #: 45889	02/03/20 Date

Attachments

Figure 1: Site Location Map
Figure 2: Storm Sewer Drainage Map
Attachment 1: Storm Sewer Design Spreadsheet



SITE LOCATION

N

0 500 1000 2000

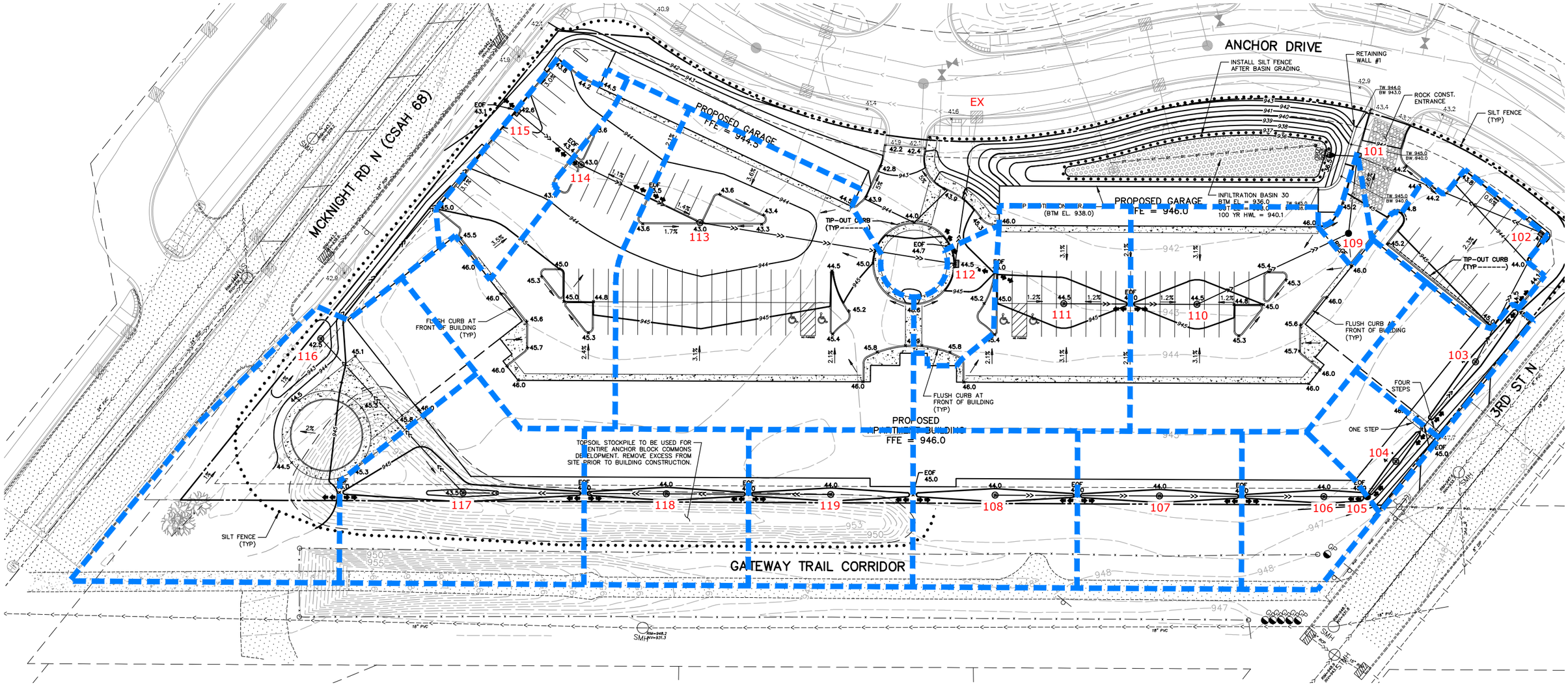
SOURCE: USGS 7.5 MIN. QUADRANGLE

Save Date: 01/31/20 f:\jobs\7861 - 7880\7878 - n st paul - anchor\cad c3d\engineering\7878_drain.dwg

Carlson McCain
ENVIRONMENTAL • ENGINEERING • SURVEYING

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

FIGURE 1
SITE LOCATION MAP



LEGEND

CATCHMENT LINE

106 STRUCTURE

0 30 60 120

(IN FEET)

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Notes:

TRIDENT DEVELOPMENT, LLC
3601 18th Street South
St. Cloud, MN 56301

ANCHOR VIEW APARTMENTS
North St. Paul, Minnesota

FIGURE 2
STORM SEWER DRAINAGE MAP

Save Date: 01/31/20 F:\jobs\7861 - 7880\7878 - n st paul - anchor\cad c3d\engineering\7878_drain.dwg

PROJECT NAME: Anchor Pointe Apartments
PROJECT LOCATION: North St. Paul, MN
CARLSON PROJECT NO.: 7878-00
DATE: 02/03/20
BY: JTR

DESIGN CRITERIA	
Storm Frequency	10 year
Manning's "n"	0.013
"C" coefficient	varies

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PROPOSED CONDITIONS STORM SEWER DESIGN

LOCATION		MH SIZE	AREA			"C" COEFFICIENT			GENERAL		DESIGN						PROFILE INFORMATION			
CBMH (from)	CBMH (to)	Diameter (in)	Impervious (sf)	Pervious (sf)	Total Area (ac)	Inc. "C"	Inc. CA	Cum. CA	T (min)	I (in/hr)	Q = CAI (cfs)	D (in)	% Grade	Q_{full} (cfs)	V_{full} (fps)	L (ft)	Invert (in)	Invert (out)	Rim El.	Build (ft)
119	118	27	3522	5997	0.22	0.46	0.10	0.10	10	5.8	0.58	12	0.50%	2.52	3.21	100	941.00	940.50	944.00	3.00
118	117	27	3417	6076	0.22	0.45	0.10	0.20	10	5.8	1.15	12	0.50%	2.52	3.21	124	940.50	939.88	944.00	3.50
117	116	48	4377	10171	0.33	0.41	0.14	0.34	10	5.8	1.95	12	0.50%	2.52	3.21	128	939.88	939.24	943.50	3.62
116	115	48	7672	13633	0.49	0.45	0.22	0.56	10	5.8	3.23	15	0.35%	3.82	3.11	183	939.24	938.60	942.50	3.26
115	114	48	6246	172	0.15	0.88	0.13	0.69	10	5.8	3.98	15	0.40%	4.08	3.33	51	938.60	938.40	942.43	3.83
114	113	48	15352	515	0.36	0.88	0.32	1.01	10	5.8	5.84	18	0.35%	6.21	3.51	80	938.40	938.12	942.90	4.51
113	112	48	26559	955	0.63	0.88	0.55	1.56	10	5.8	9.05	24	0.25%	11.30	3.60	157	938.12	937.72	942.90	4.78
112	EX	48	2687	230	0.07	0.84	0.06	1.62	10	5.8	9.37	24	0.25%	11.30	3.60	89	937.72	937.50	944.33	6.61
111	110	27	13438	0	0.31	0.90	0.28	0.28	10	5.8	1.61	12	0.50%	2.52	3.21	81	940.90	940.50	944.40	3.50
110	109	48	19067	325	0.45	0.89	0.40	0.67	10	5.8	3.90	15	0.50%	4.56	3.72	102	940.33	939.82	944.40	4.07
109	101	48	0	0	0.00	0.00	0.00	0.67	10	5.8	3.90	15	0.50%	4.56	3.72	47	939.82	939.58	945.55	5.73
108	107	27	3845	5700	0.22	0.48	0.11	0.11	10	5.8	0.61	12	0.50%	2.52	3.21	100	940.98	940.48	944.00	3.02
107	106	27	3422	6150	0.22	0.45	0.10	0.20	10	5.8	1.19	12	0.50%	2.52	3.21	100	940.48	939.98	944.00	3.52
106	105	27	1826	4314	0.14	0.41	0.06	0.26	10	5.8	1.52	12	0.50%	2.52	3.21	26	939.98	939.85	944.00	4.02
105	104	48	0	0	0.00	0.00	0.00	0.26	10	5.8	1.52	12	0.50%	2.52	3.21	28	939.85	939.71	945.00	5.15
104	103	48	2141	1243	0.08	0.64	0.05	0.31	10	5.8	1.81	12	0.50%	2.52	3.21	78	939.71	939.32	944.00	4.29
103	102	48	2935	1960	0.11	0.62	0.07	0.38	10	5.8	2.21	12	0.50%	2.52	3.21	88	939.32	938.88	944.00	4.68
102	101	48	5297	423	0.13	0.85	0.11	0.49	10	5.8	2.86	15	0.35%	3.82	3.11	122	938.72	938.29	943.23	4.51
101	FES	48	956	0	0.02	0.90	0.02	1.19	10	5.8	6.88	18	0.50%	7.42	4.20	17	936.59	936.50	944.13	7.54

NORTH ST.PAUL
extraordinary.

GEOTECHNICAL REPORT

FORMER ANCHOR BLOCK NORTH REDEVELOPMENT

NORTH ST PAUL, MN

June 21, 2019
REVISED June 24, 2019

Prepared for:
City of North St. Paul
2400 Margaret Street North
North St. Paul, MN 55109

WSB PROJECT NO. 014065-000

wsb

REVISED GEOTECHNICAL REPORT

FORMER ANCHOR BLOCK NORTH REDEVELOPMENT

FOR
CITY OF NORTH ST PAUL

June 21, 2019
REVISED June 24, 2019

CERTIFICATION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Mark W. Osborn, PE

Date: June 24, 2019 Lic. No. 41362

June 24, 2019

Mr. Scott Duddeck
City Manager – City of North St. Paul
2400 Margaret Street North
North St. Paul, MN 55109

Re: Revised Geotechnical Report
Former Anchor Block North – Redevelopment
North St. Paul, Minnesota
WSB Project No.: 014065-000

Dear Mr. Duddeck:

We have conducted a geotechnical subsurface exploration program for the above referenced project. This report contains our soil boring logs, an evaluation of the conditions encountered in the borings and our recommendations for suitable foundation type, allowable soil bearing pressure for footing design, and other geotechnical related design and construction considerations.

If you have any questions concerning this report or our recommendations, or for construction material testing for this project, please call us at (952) 737-4660.

Sincerely,

WSB

Mark Osborn, PE
Geotechnical Project Engineer

Darin Hyatt, PE
Senior Geotechnical Engineer

Attachment:
Geotechnical Report

MWO/tw

540 GATEWAY BLVD | BURNSVILLE, MN | 55337 | 952.737.4660 | WSBENG.COM

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CERTIFICATION SHEET
LETTER OF TRANSMITTAL
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Appendix A
Soil Boring Exhibit
Logs of Test Borings
Symbols and Terminology on Test Boring Log
Notice to Report Users Boring Log Information
Unified Soil Classification System (USCS)

1. INTRODUCTION

1.1 Project Location

The site is located to the southeast of the intersection of McKnight Road and County Highway 36 in North St. Paul, Minnesota. The approximate soil boring locations can be found on the Soil Boring Exhibit in ***Appendix A***.

1.2 Previous Site Evaluation

We were provided with a Response Action Plan for this site prepared by Braun Intertec on April 22, 2015, (Braun project #: 22056.13). The report was intended for environmental discussion and included groundwater information and a description of the soils encountered.

WSB issued a report for this project dated June 21, 2019. After issuance of that report, we were made aware that the proposed storage facility would have 3-stories. This revised report acknowledges that change and addresses any recommendations that may be affected.

1.3 Project Description

It is proposed to construct a 3-story wood framed apartment building. The building will include an underground parking garage if site conditions are acceptable for it. Structural loads for the apartments were not provided, but we estimate that they could be in the range of five (5) to eight (8) kips per lineal foot along the bearing walls of the building, with column loads of up to 100 kips. The finished floor elevation of the building was unknown at the time of drilling but we anticipate it will be near existing grade. We assumed an elevation of 944 for finished floor elevations. We understand that underground parking is be planned to depths of approximately 10 feet below existing grade. We estimated this would be near an elevation of about 934 feet.

We understand the gas station / convenience store located in the northwest area of the site is planned to include a 1-story wood framed building, fuel pumps, and underground fuel tanks. We also anticipated that this building would be constructed with a finished floor elevation near existing grade of 943 feet. The fuel pump canopy loads are anticipated to be less than 50 kips per column, and the 1-story building is anticipated to have perimeter wall loads of two (2) to four (4) kips per lineal foot.

The northeast area of the site is planned for a storage facility. We understand this facility will consist of a 3-story building. The finished floor elevation of the building is anticipated to be near existing grade of about 943 feet. Perimeter wall loads were assumed to be in the range of five (5) to eight (8) kips per lineal foot and column loads of up to 200 kips.

Bituminous paved parking lots and roadways will be constructed as well, with underground utilities including watermain, sanitary, and storm sewers.

WSB has developed foundation recommendations for this project in consideration of the proposed layout, loadings, and structural configurations as understood at this time. When the designer develops additional information about final design structural loadings, building configuration, or other significant factors, the recommendations presented herein may no longer apply. WSB must be made aware of the revised or additional information in order to evaluate the recommendations for continued applicability.

1.4 Purpose and Project Scope of Services

Mr. Scott Duddeck with the City of North St. Paul (City) authorized this scope of service. In order to assist the design team in preparing plans and specifications, we have developed recommendations for designing foundations, retaining walls, slabs and pavements. As such, we have completed a subsurface exploration program and prepared a geotechnical report for the referenced site. This stated purpose was a significant factor in determining the scope and level of service provided. Should the purpose of the report change the report immediately ceases to be valid and use of it without WSB's prior review and written authorization shall be at the user's sole risk.

Our authorized scope of work has been limited to:

1. Clearing underground utilities utilizing Gopher State One Call.
2. Mobilization / demobilization of a truck mounted drill rig.
3. Drilling 18 standard penetration borings to depths of about 20 to 30 feet below grade.
4. Drilling 4 vapor test locations.
5. Sealing the borings per Minnesota Department of Health procedures.
6. Perform soil classification and analysis.
7. Review of readily available project information and geologic data.
8. Providing this geotechnical report containing:
    a. Summary of our findings.
    b. Discussion of subsurface soil and groundwater conditions and how they may affect the proposed basement and foundations.
    c. Estimated allowable bearing capacity of the soils.
    d. Estimated excavation depths to suitable soils.
    e. Estimated R-value of the soils.
    f. Recommended pavement section.
    g. A discussion of soils for use as structural fill and site fill.

2. PROCEDURES

2.1 Boring Layout and Soil Sampling Procedures

WSB proposed to complete 18 standard penetration soil borings across the site and 4 vapor test locations. WSB recommended the boring depths and selected the desired locations. Based on site conditions the 4 pavement borings were changed to geotube sampling. Due to shallow groundwater conditions in the borings, the 30 foot borings were drilled as standard penetration borings only to 20 foot depths, and geotube sampling was completed to 30 foot depths. Our field crew staked the borings by estimating from existing site features using an aerial map. The approximate boring locations are shown on the Soil Boring Exhibit in ***Appendix A*** which is an aerial photo. The ground surface elevations at the borings were determined based on a review of online data from MnTOPO, which is provided by the Minnesota Department of Natural Resources. These maps should be accurate to within +/- one foot (1') provided ground surface modifications at this site have not been completed since LIDAR data was obtained.

We completed the borings between May 20 and May 29, 2019 with a truck-mounted CME-55 drill rig operated by a two-person crew. The drill crew advanced the borings using continuous hollow stem augers. The drilling information is provided on the boring logs.

Generally, the drill crew sampled the soil in advance of the auger tip at two and one-half (2 ½) foot intervals to a depth of 15 feet and then at five (5) foot intervals thereafter to the termination depth of the boring. The soil samples were obtained using a split-barrel sampler which was driven into the ground during standard penetration tests in accordance with ASTM D 1586, Standard Method of Penetration Test and Split-Barrel Sampling of Soils. The geotube borings were continuously sampled with 5 foot long geotubes. The materials encountered were described on field logs and representative samples were containerized, and transported to our laboratory for further examination and testing.

The samples were visually examined to estimate the distribution of grain sizes, plasticity, consistency, moisture condition, color, presence of lenses and seams, and apparent geologic origin. We classified the soils according to type using the Unified Soil Classification System (USCS). A chart describing the USCS is included in ***Appendix A***.

It should be noted that environmental soil screening was performed concurrently with the geotechnical drilling and sampling. The results of the environmental screening will be reported under separate cover.

2.2 Groundwater Measurements and Borehole Abandonment

The drill crew observed the borings for free groundwater while drilling and after completion of the borings. These observations and measurements are noted on the boring logs. The crew then backfilled the borings to comply with Minnesota Department of Health regulations.

2.3 Boring Log Procedures and Qualifications

The subsurface conditions encountered by the borings are illustrated on the Logs of Test Borings in ***Appendix A***. Similar soils were grouped into the strata shown on the boring logs, and the appropriate estimated USCS classification symbols were also added. The depths and thickness of the subsurface strata indicated on the boring logs were estimated from the drilling results.

The transition between materials (horizontal and vertical) is approximate and is usually far more gradual than shown. Information on actual subsurface conditions exists only at the specific locations indicated and is relevant only to the time exploration was performed. Subsurface conditions and groundwater levels at other locations may differ from conditions found at the indicated locations. The nature and extent of these conditions would not become evident until exposed by construction excavation. These stratification lines were used for our analytical purposes and, due to the aforementioned limitations, should not be used as a basis of design or construction cost estimates.

3. EXPLORATION RESULTS

3.1 Site and Geology

Boring elevations ranged from 941.78 to 944.54 feet.

The Ramsey County Geologic Atlas indicates the surficial geology of the area is mostly glacial till deposits consisting of silty sands, clayey sands, and clays. The tills are gray, and oxidize to yellowish brown. The till is commonly banded with reddish brown tills or sands. In areas, the glacial tills are overlain by alluvial deposits.

3.2 Subsurface Soil and Groundwater Conditions

The boring profile generally consisted of fill materials and topsoil overlying glacial till. We also noted some alluvial deposits above the glacial till in areas.

Fills

The fills encountered in the borings generally consisted of silty sand, clayey sand, sand with clay, silty clay, and lean clays. Fill depths ranged from about 2 to 13 feet. Organics were encountered in borings B-1, B-3, B-8, and B-15, and fills were placed over organic and peat soils at borings B-1, B-6, B-8, B-9, B-14, B-15, B-16, and B-17.

Topsoil

Topsoil was encountered at borings B-1, B-4, B-8, B-9, B-14, B-15, B-16 and B-17. These organic soils generally consisted of organic clays, or clayey sands with organics. These soils were dark brown to black in color. The depth of organics in the borings ranged from about 1 to 3 feet.

Peat

Peat deposits were encountered at boring B-6. These peat deposits were about 1 foot in thickness and black in color.

Alluvial Deposits

Borings B-3, B-6, B-10, B-12, B-13, B-14, B-16, and B-17 noted alluvial deposits. These alluvial deposits are likely stream deposits and consisted of fine alluvial silts and clays as well as coarse alluvial sands. These soils were generally brown in color and wet to waterbearing/saturated.

Glacial Till

The glacial tills encountered consisted of clayey sands, silty sand, lean clays with sand, and sandy clays. These soils were brown to reddish brown to gray in color and were moist to wet to saturated.

3.3 Strength Characteristics

The penetration resistance N-values of the materials encountered were recorded during drilling and are indicated as blows per foot (BPF). Those values provide an indication of soil strength characteristics and are located on the boring log sheets. Also, visual-manual classification techniques and apparent moisture contents were also utilized to make an engineering judgment of the consistency of the materials.

Table 1 presents a summary of the penetration resistances in the soils for the borings completed and remarks regarding the material strengths of the soils.

Table 1: Penetration Resistances

Soil Type	Classification	Penetration Resistances	Remarks
Fill	SM, SC, CL, ML, SP-SC, SP, SP-SM	4 to 20 BPF	Variable compaction
Topsoil	SC, CL, OL	6 to 14 BPF	Soft to firm
Fine Alluvium	ML, CL	2 to 12 BPF Average 7 BPF	Very soft/loose to firm/medium dense Generally soft/loose
Coarse Alluvium	SP, SM	WH* – 22 BPF Average 9 BPF	Very loose to medium dense Generally loose
Glacial Till	SC, SP-SC, CL, SM, SP-SM, SP	3 to 39 BPF Average 15 BPF	Very loose to dense Generally medium dense

*WH indicates the weight of hammer was sufficient to drive the sampler 18 inches.

The preceding is a generalized description of soil conditions at this site. Variations from the generalized profile exist and should be assessed from the boring logs, the normal geologic character of the deposits, and the soils uncovered during site excavation.

3.4 Groundwater Conditions

WSB took groundwater level readings in the exploratory borings, reviewed the data obtained, and discussed its interpretation of the data in the text of the report. Note that groundwater levels may fluctuate due to seasonal variations (e.g. precipitation, snowmelt and rainfall) and/or other factors not evident at the time of measurement. The bore holes were only left open a short period of time, and groundwater levels may not have stabilized.

Table 2 below is a summary of the estimated water levels at our borings.

Table 2: Groundwater Measurements

Boring No.	Ground Surface Elevation	Estimated Depth to Groundwater	Estimated Groundwater Elevation
B-1	943.53	4	940
B-2	944.30	4	940 ½
B-3	943.46	3	940 ½
B-4	943.49	2	941 ½
B-5	943.72	2	942
B-6	942.01	3	939 ½
B-7	943.09	4	939 ½
B-8	941.78	5	937
B-9	943.85	3	941
B-10	944.54	1	944
B-11	943.30	2	941 ½
B-12	943.25	5	938 ½

Boring No.	Ground Surface Elevation	Estimated Depth to Groundwater	Estimated Groundwater Elevation
B-13	943.41	10	933 ½
B-14	942.87	2	941
B-15	942.45	2	940 ½
B-16	943.96	10	934
B-17	942.93	5	938
B-18	943.03	1	942 ½

Elevations are rounded to the highest ½ foot.

Groundwater was encountered at all boring locations. Groundwater ranged from about 1 to 10 feet below grade and was generally encountered within the upper 5 feet. Borings B-2, B-3, B-4, B-5, and B-8 were left open for additional time to obtain a more stable groundwater elevation. The borings likely better reflect the onsite groundwater elevations. Based on the borings that were left open for an extended amount of time, it is our opinion that groundwater levels could be encountered at an elevation of about 941 or 942 feet.

The Response Action Plan completed in 2015 by Braun indicated groundwater depths of 7.2 to 8.1 below grade. The recent borings indicate a high groundwater table. It should be noted that rainfall in the Twin Cities area was 6.5 inches above average for 2019 at the time of drilling.

The groundwater could present an issue to excavations and placement of foundations and basements.

The best option to determine the long-term subsurface groundwater elevation at this site is to install piezometers and monitor groundwater levels over several months. Ideally this would occur over March to May when groundwater levels are typically higher due to spring melt. Monitoring of the groundwater table elevation could occur up to the time of construction. This work was outside our scope of services.

4. ENGINEERING ANALYSIS AND RECOMMENDATIONS

4.1 Discussion

Fills

No information was provided to us regarding density tests or excavation observations for the existing fills encountered at the boring locations. Generally, fills that are not documented are considered uncontrolled fills and are recommended for removal and replacement with an engineered fill. Our borings encountered deleterious materials (organics) within or beneath the fill in several of the borings. It is our opinion that the fills at this site were not placed to support foundations, slabs, or fuel tanks, and should be excavated below these areas and replaced with an engineered fill.

In the pavement areas, the best option is complete removal of all existing fill materials. However, a partial subcut and replacement with an engineered fill may be an alternative option to reduce costs. This alternate option will have higher maintenance costs and increased risk of detrimental settlements.

Organics

Organic soils, vegetated root zones, and peat are not suitable for structural support, and should be removed from beneath all building, slab, and engineered fill areas.

In the pavement areas, the best option is complete removal of all existing organic materials. However, a partial subcut and replacement with an engineered fill may be an alternative option to reduce costs. This alternate option will have higher maintenance costs and increased risk of detrimental settlements.

Alluvial Deposits

The fine alluvial deposits generally consisted of silts and clays and are poorly suited for support of foundations, slabs, or pavements. These soils would only be suitable to support light foundation loads and below foundations, slabs, or pavements may require a partial subcut to remove wet soils.

The coarse alluvial deposits encountered in the borings generally would be suitable to support light to moderate foundation loads, as well as slab and pavement areas.

Glacial Deposits

Based on the results of our borings, the glacially deposited soils generally appear capable of supporting the foundations, floor slabs, and pavement areas. Where till soils are encountered that are wet and soft/loose, we recommend a partial subcut and replacement with an engineered fill.

General

It is our opinion that groundwater will be encountered by shallow excavations at this site. Construction of underground basements or parking facilities will be difficult and likely require waterproofing, drain tiles, sump pumps, and warning systems in case of potential flooding. Underground fuel tanks will need to be ballasted. Foundations will require drain tile and waterproofing methods.

Generally, the soils in the upper 4 feet of the subgrade influence pavement performance the most. The soils within the pavement subgrade included clays and silts, which are frost susceptible soils. Consideration should be given to partially subcutting these soils and replacing with a non-frost susceptible granular fill to reduce the potential frost heave below the pavement section.

4.2 Building, Fuel Island, Fuel Tanks, and Canopy Area Preparation

We recommend removal of the fill/organics from the construction area.

Based on the borings, recommended excavation depths are indicated in Table 3.

Table 3: Estimated Excavation Depths

Boring	Surface Elevation	Estimated Excavation depth to suitable soils	Estimated Bottom of Excavation Elevation to suitable soils*
B-1	943.53	12 ½	931
B-2	944.30	0	944
B-3	943.46	5	938
B-4	943.49	2	941
B-5	943.72	0	943 ½
B-10	944.54	7	937 ½
B-11	943.30	0	943
B-12	943.25	0	943
B-13	943.41	10	933
B-14	942.87	7	935 ½
B-15	942.45	7	935
B-16	943.96	7	936 ½
B-17	942.93	4 ½	938
B-18	943.03	5	938

*Elevations rounded to the lowest ½ foot.

If clayey or silty soils at the base of footing excavations are wet and soft/loose they should be subcut. We recommend the soils be subcut a minimum of two feet (2') below the base of wall footings and below column footings to a depth of half (1/2) the width of the column footings. The sub-excavations should be oversized by at least one foot (1') beyond the edge of footings for each foot of depth below the bottom of footing elevations (1-horizontal to 1-vertical lateral oversizing). Because the depth and lateral extent of the sub-excavations will vary away from our borings, we recommend a qualified engineering technician working under the direction of a registered professional geotechnical engineer observe and test the excavation bases during construction.

Based on the borings, it appears that the on-site non-organic soil can generally be reused as structural backfill provided it is moisture conditioned and can be compacted to project specifications. Silt (ML) soils are poor fill materials and should not be used below foundation, slab, pavement, and oversize areas.

The underground fuel tanks will likely need to be ballasted to prevent groundwater from pushing them to the surface.

The site should be graded to prevent water from ponding on silty soils and potentially softening them.

4.3 Foundation Recommendations

We recommend that the building be supported on conventional spread footings bearing on naturally occurring firm / medium dense glacial tills, coarse alluvial soils, or upon an engineered fill. Based on the borings, it is our opinion the footings throughout may be designed for a net allowable soil bearing pressure not to exceed 3,000 pounds per square foot (psf).

Frost protection should follow Minnesota Administrative Rules 1305.1809. Perimeter building footings should be based at least 42 inches below adjacent exterior grade for frost protection. We recommend unheated garage or deck footings should be placed at least five feet (5') below adjacent exterior grade.

The factor of safety against shear or bearing capacity failure for this footing design would be three (3) or greater. If the site is prepared as recommended, we estimate that total and differential settlements corresponding to our assumed structural loads would be less than one inch (1") and one-half inch (1/2"), respectively, provided the bearing soils are not frozen or disturbed at the time of construction.

4.4 Exterior/Unheated Slabs

After removal of the vegetation and root zone, we anticipate that clayey or silty soils will be present in the subgrades which are frost susceptible. We anticipate that heave could occur if such soils are wet and then freeze. Heaving slabs or stoops are not only an annoyance, especially in front of doorways, but can also create a tripping hazard.

In order to reduce potential frost heave at those critical areas, several options exist such as:

1. Removing the frost susceptible soils to frost depth and replacing it with relatively clean sand [not more than ten percent (10%) passing a #200 sieve] and providing sub-drainage.
2. Designing the slabs or steps to be supported on frost depth footings with a void form.
3. Placing insulating foam beneath and slightly beyond slabs.

4.5 Below-Grade/Retaining Walls

To help prevent water from accumulating behind any below-grade/retaining walls in clayey or silty soils, we recommend drain tiles be placed at the base of the footings. To promote water migration to the drain tile, we recommend either a drainage composite be placed against the back side of the wall or at least two feet (2') (horizontally) of clean coarse sand be placed along the back of the wall. We recommend the upper foot of backfill consist of clayey soils to act as a "cap" and reduce water infiltration into the backfill soils. The drain tile should be connected to the storm sewer system or "daylighted" to suitable disposal areas.

To assist in below-grade/retaining wall design Table 4 presents estimated soil parameters for common backfill soils. The coefficients presented below assume a level backfill at the top of wall. If the backfill is sloped, these values may change significantly. Silt (ML) is not recommended as backfill for walls.

Table 4: Estimated Soil Parameters for Below Grade/Retaining Wall Design

Soil Type	Unit Weight pcf	Cohesion	Adhesion	Angle of Internal Friction	Equivalent Fluid Weight (psf/ft)^2		
					Active	Passive	At-Rest
SP, SP-SM	120	---	---	32	35	400	55
SM, SC	125	---	---	30	40	375	65
CL	115	1000	700	18	60	220	80

* - Parameters do not include safety factors.

4.6 Backfill and Fill Selection and Compaction

The on-site non-organic soils may be reused as backfill and fill provided they are moisture conditioned and can be compacted to their specified densities. Any wet soils excavated would need to be dried before reuse as an engineered fill. We recommend use of a minimum of 2 feet of clean coarse sand with less than 50 percent passing the #40 sieve and less than 5 percent passing the #200 sieve when backfilling the bottom of a wet excavation.

Backfills with cobbles larger than six inches (6") should not be placed within 3 feet of foundations, slabs, grading grade or in contact with utilities. We recommend that sandy soils be moisture conditioned to

meet compaction specifications as determined from their standard Proctor tests (ASTM D-698). Fill should be spread in lifts of 8 to 12 inches, depending on the size and type of compaction equipment used.

Table 5 provides the recommended compaction levels.

Table 5: Recommended Level of Compaction for Backfill and Fill

Area	Percent of Standard Proctor Maximum Dry Density
Beneath Structures (Foundations/Slabs)	98
Pavement: Within 3 feet of bottom of aggregate base Within 3-foot radius of vertical utility structure	100
Pavement: Greater than 3 feet below bottom of aggregate base	95
Utility Trench	95
Landscaping (non-structural)	90

4.7 Pavement Subgrade Preparation and Stability

We recommend excavation of organics below the pavement areas. This will provide the best design for pavement areas.

Alternately, if the city is willing to accept a higher risk of settlement in the pavement areas, organic deposits that are greater than 4 feet below the aggregate base can be left in place and bridged over with granular soils and geofabric. This option could significantly lower costs for construction in pavement areas.

The soils at the bottom of the excavation should be prepared in accordance with MnDOT Specification 2112, Subgrade Preparation. If the subgrade preparation operations encounter unstable soils, we recommend removing these unsuitable materials and replacing them with Select Grading Material (MnDOT 2015.1.A.6). If the on-site soils cannot be properly moisture conditioned and compacted, additional measures, such as placement of additional sand subbase or a section of coarse breaker run aggregate, may be required to provide a firm base for subsequent fill placement.

Before placement of the sand subbase, the final subgrade should have proper stability within three vertical feet of grading grade (grade which contacts the bottom of the aggregate base). This will generally be achieved in fill areas with proper compaction of embankment materials and in cut areas through proper subgrade preparation. The stability of the pavement subgrade should be evaluated prior to placement of the sand subbase using the test roll procedure (MnDOT 2111), except a fully loaded tandem axle dump truck or a full water truck should be utilized for the proof roll. If unstable soils are found under the test roll, these soils should be improved by means of scarification, moisture conditioning, and re-compaction, or by subcutting and replacement.

We recommend placement of a geotextile fabric meeting the requirements of MnDOT Specification 3733, Type V beneath the sand subbase and above the on-site silt soils to limit mixing of the granular materials with the underlying fine-grained subgrade.

4.8 Pavement Area

Once the site has been prepared as recommended, we anticipate the prepared subgrade soils will consist mostly of silty sands and clayey sands, as well as some lean clays, sands with silt, and sands with clay. Based on the MnDOT Flexible Pavement Guide from 2017, the R-values of the subgrade soils would range between 12 and 30. We used a design R-value of 12 for the pavement areas.

Heavy Duty Pavement

No traffic data was provided. Based on a 3-story apartment building, gas station, and warehouse building, we estimated the Annual Average Daily Traffic (AADT) to be approximately 150,000 Equivalent Single Axle Loads (ESAL's) for pavement design in the roadway and main drive areas. Our design is based on a standard twenty (20) year design life of the pavement section.

Based on MnDOT's FlexPave excel design utilizing granular equivalent charts, we recommend the pavement section indicated below in Table 6.

Table 6: Heavy Duty Pavement - Recommended Flexible Pavement Section

Section	Thickness (inches)	Granular Equivalent
Bituminous Course, MnDOT 2360 SPWEB240C	2	4.5
Bituminous Course, MnDOT 2360 SPWEB240C	2	4.5
Aggregate Base, MnDOT 3138 (Class 5, 5Q, or 6)	11	11
Geotextile Fabric Type V, MnDOT Spec 3733	Yes	-
Subgrade Preparation, MnDOT 2122	Yes	-
TOTAL	-	20

Light Duty Pavement

No traffic data was provided. We estimated the Annual Average Daily Traffic (AADT) to be less than 75,000 Equivalent Single Axle Loads (ESAL's) for parking lot areas. Our design is based on a standard twenty (20) year design life of the pavement section.

Based on MnDOT's FlexPave excel design utilizing granular equivalent charts, we recommend the pavement section indicated below in Table 7.

Table 7: Light Duty Pavement - Recommended Flexible Pavement Section

Section	Thickness (inches)	Granular Equivalent
Bituminous Course, MnDOT 2360 SPWEA430C	2	4.5
Bituminous Course, MnDOT 2360 SPWEA430C	2	4.5
Aggregate Base, MnDOT 3138 (Class 5, 5Q, or 6)	7	7
Geotextile Fabric Type V, MnDOT Spec 3733	Yes	-
Subgrade Preparation, MnDOT 2122	Yes	-
TOTAL	-	16

"A" type aggregate is recommended in the bituminous course to yield a smooth tight surface. Level 4 super pave is recommended to increase the percentage of crushed aggregate and help limit depressions in the parking stalls.

General

We recommend limiting Recycled Asphalt Pavement (RAP) within the upper wear course to a maximum of 10 percent in order to minimize cracking.

Aggregate base placement for pavement support should meet the gradation and quality requirements for Class 5, 5Q, or 6 per MnDOT Specification 3138. All aggregate base material should be compacted to 100 percent of its standard Proctor maximum dry density.

Within several years after initial paving, some thermal shrinkage cracks will develop. We recommend routine maintenance be performed to improve pavement performance and increase pavement life. Pavement should be sealed with a liquid bitumen sealer to retard water intrusion into the base course and subgrade. Localized patch failures may also develop where trucks or buses turn on the pavement. When these occur, they should be cut out and patch repaired.

The pavement sections above provide options to meet the ESAL requirements. Other pavement design options would be acceptable as well as long as they meet the minimum requirements for bituminous thickness, aggregate base thickness, and can meet the ESAL requirements.

4.9 Frost Free Pavement Design Option

Optionally, the use of a non-frost susceptible sand cushion below the pavement in Section 4.8 will help reduce the effects of frost heave. In our opinion, placement of 15 inches of select granular fill below the Aggregate Base should generally provide for a non-frost susceptible subgrade. It should be noted that any sand cushion placed below the pavement section will provide positive benefits for reduced potential frost heave. The owner should evaluate the costs and benefit of this option to determine if it should be incorporated into the pavement design.

Drainage of the sand cushion will be necessary. Drainage of the sand cushion may be accomplished by daylighting to adjacent ditches or the use of drain tile. Drain tile wrapped in a sock should be placed at the base of the sand cushion and tied into catch basins. We recommend the sand cushion contain a select granular sand with less than 12% passing the #200 sieve. Alternately, a 3 inch minus rock fill could be placed instead of a select granular sand.

For transitioning the thickness of the sand subbase along the profile of the roadway, we recommend the thickness have a longitudinal taper of no steeper than 10H:1V. A taper of 4H:1V can be used perpendicular to the centerline for cross street/driveway connections. The placement of the sand subbase should extend slightly beyond the outer edge of the curbs to maintain subgrade uniformity for frost movement.

4.10 Underground Tanks

With assumed tank invert at elevations of about 930 to 935, and groundwater observed at an elevation as high as 944 feet, dewatering will be necessary for tank installation. Dewatering with sand points or wells, prior to excavation, is recommended.

To prevent the tanks from being lifted out of the ground due to the buoyant forces of water we recommend the tanks be ballasted. We recommend assuming the water table will rise above the top of the tanks.

We recommend sand be used as backfill around the tanks. To prevent backfill from settling around the tanks, we recommend special attention be paid during placing and compacting of backfill around the tanks.

4.11 Dewatering

Groundwater was encountered in the borings at very shallow excavations. Groundwater is expected to enter the excavations for soil corrections, utilities, and underground tanks. Dewatering will likely require sand well points, and preferably would occur prior to excavation.

4.12 Construction Considerations

Good surface drainage should be maintained throughout the work so that the site is not vulnerable to ponding during or after a rainfall. If water enters the excavations, it should be promptly removed prior to further construction activities. Under no circumstances should fill or concrete be placed into standing water.

Soil corrections at this site for foundations and pavement subgrades may not be continuous in all areas. We recommend tapering the fills back to native soils at a 10H:1V slope.

It is important to review the fill limits and total depth of fill when placing structures upon compacted materials and when filling the excavation. The location of the footings must allow for at least a one to one (1:1) slope from the bottom of the footing to the outside limits of the engineered fill.

It is important to check this at the time of construction and to assure that during filling, unsuitable soils do not encroach within the one to one (1:1) slope limits and extending downward and outward from future footings.

4.13 Construction Safety

All excavations must comply with the requirements of OSHA 29 CFR, Part 1926, Subpart P "Excavations and Trenches". This document states that excavation safety is the responsibility of the contractor. Reference to this OSHA requirement should be included in the job specifications.

The responsibility to provide safe working conditions on this site, for earthwork, building construction, or any associated operations is solely that of the contractor. This responsibility is not borne in any manner by WSB.

4.14 Cold Weather Construction

It is our understanding that construction is unlikely to occur during the winter months. However, if the construction does continue into the winter months we recommend the following guidelines.

Pavement areas should not be constructed during periods when the subgrade material freezes while being placed and compacted, nor should any material be placed on soil that is frozen to a depth greater than 4 inches. When the soils are frozen to a depth exceeding 4 inches, at a time when weather conditions are such that construction could be continued without the material freezing as it is being placed and compacted, the contractor may be permitted to excavate the frozen soil and proceed with the embankment construction for so long as the weather will permit. The frozen soils should be pulverized or replaced with other suitable soils, as may be necessary to construct as specified. Only unfrozen fill should be used.

Placement of fill and/or foundation concrete must not be permitted on frozen soil, and the bearing soils under footings or under the floor slab should not be allowed to freeze after concrete is placed, because excessive post-construction settlement could occur as the frozen soils thaw.

4.15 Field Observation and Testing

The soil conditions illustrated on the Logs of Test Borings in ***Appendix A*** are indicative of the conditions only at the boring locations. For this reason, we recommend that all excavations at this site be observed by a soil engineer or technician prior to fill or backfill placement or construction of any foundation elements to determine if the soils are capable of supporting the fill backfill and/or foundation loads. These observations are necessary to judge if all unsuitable materials have been removed from within the planned construction area and an appropriate degree of lateral oversize has been provided.

WSB also recommends a representative number of field density tests be taken in all engineered fill and backfill placed to aid in judging its suitability. Fill placement and compaction should be monitored and tested to determine that the resulting fill and backfill conforms to specified density, strength or compressibility requirements. We recommend at least one compaction test for every 2,000 square feet of building area at vertical intervals not exceeding two (2) feet. Prior to use, any proposed fill and backfill material should be submitted to the WSB laboratory for testing to verify compliance with recommendations and project specifications.

Dynamic Cone Penetrometer (DCP) tests can be completed in the aggregate base in lieu of density testing. We recommend following MnDOT Specification 2211.3.D.2.c.

WSB would be pleased to provide the necessary field observation, monitoring and testing services during construction.

4.16 Plan Review and Remarks

The observations, recommendations and conclusions described in this report are based primarily on information provided to WSB, obtained from our subsurface exploration, our experience, several necessary assumptions and the scopes of service developed for this project and are for the sole use of our client. We recommend that WSB be retained to perform a review of final design drawing and specifications to evaluate that the geotechnical engineering report has not been misinterpreted. Should there be any changes in the design or location of the structures related to this project or if there are any uncertainties in the report we should be notified. We would be pleased to review any project changes and modify the recommendations in this report (if necessary) or provide any clarification in writing.

The entire report should be kept together; for example, boring logs should not be removed and placed in the specifications separately.

The boring logs and related information included in this report are indicators of the subsurface conditions only at the specific locations indicated on the Soil Boring Exhibit and times noted on the Logs of Test Boring sheets in ***Appendix A***. The subsurface conditions, including groundwater levels, at other locations on the site may differ significantly from conditions that existed at the time of sampling and at the boring locations.

Environmental testing completed at this project was reported under separate cover.

WSB has not performed any observations, investigations, studies or testing that is not specifically listed in the scope of service. WSB shall not be liable for failing to discover any condition whose discovery required the performance of services not authorized by the Agreement.

5. STANDARD OF CARE

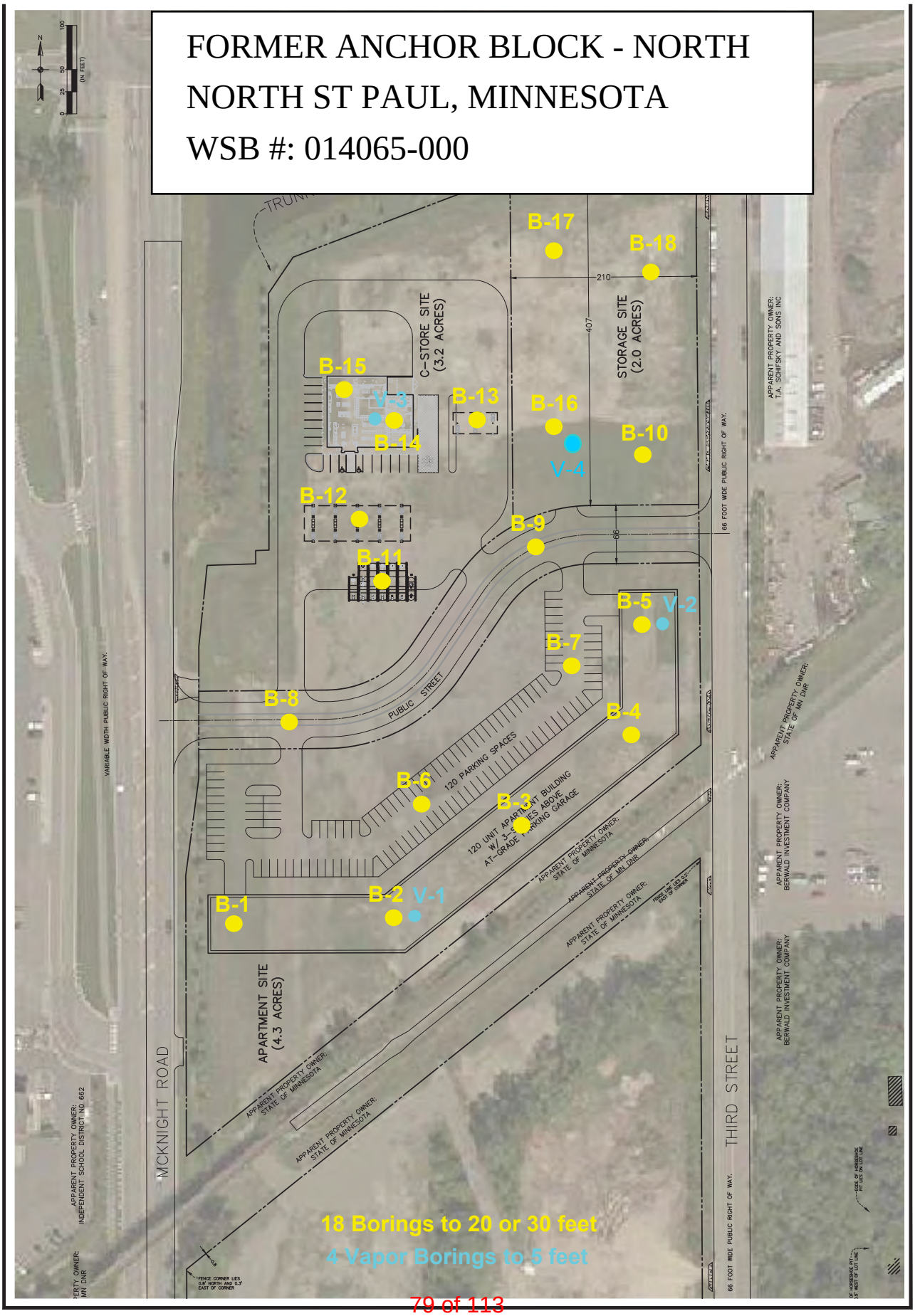
The recommendations and opinions contained in this report are based on our professional judgment. The soil testing and geotechnical engineering services performed for this project have been performed with the level of skill and diligence ordinarily exercised by reputable members of the same profession under similar circumstances, at the same time and in the same or a similar locale. No warranty, either expressed or implied, is made.

APPENDIX A

Soil Borings Exhibit
Logs of Test Borings
Symbols and Terminology on Test Boring Log
Notice to Report Users Boring Log Information
Unified Soil Classification Sheet (USCS)

SOIL BORING EXHIBIT

FORMER ANCHOR BLOCK - NORTH
NORTH ST PAUL, MINNESOTA
WSB #: 014065-000



LOG OF TEST BORING

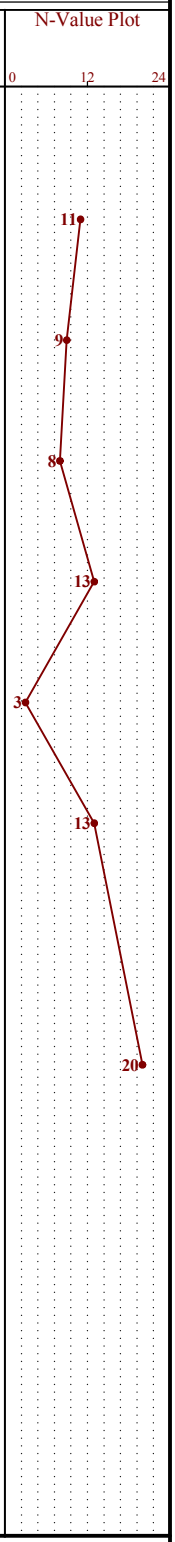
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.53 ft

BORING NUMBER B-01

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
1	943	FILL, Mixture of Silty Sand and Clayey Sand and Organic Silty Sand, brown and black, moist and wet	Fill	Fill			HSA				0
2	942										
3	941						SB	1	11		
4	940				▼		HSA				1.2
5	939				▽		SB	2	9		
6	938						HSA				0
7	937										
8	936	FILL, Silty Sand, fine grained, brown, waterbearing	Fill				SB	3	8		
9	935						HSA				0
10	934	CLAYEY SAND, a few Roots, brown and dark brown, saturated, medium dense	SC	Topsoil			SB	4	13	14	
11	933										
12	932						HSA				0
13	931	SAND WITH SILT AND GRAVEL, fine grained, brown, waterbearing, very loose to medium dense	SP-SM	Glacial Till			SB	5	3		
14	930						HSA				0.1
15	929						SB	6	13	15	
16	928										0
17	927										
18	926						HSA				
19	925										0.1
20	924						SB	7	20		
21	923										0
22	922										
23	921						SH	8			
24	920										0.1
25	919										
26	918										0.1
27	917										
28	916						SH	9			
29	915										0.1
30	914										

End of Boring 30.0 ft.



WATER LEVEL MEASUREMENTS							START: 5/28/2019	END: 5/28/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/28/2019	10:00 am	21	19.5		5.0	938.53	3 1/4" HSA 0' - 21'	Notes:
5/28/2019	10:15 am	30	21	15	4.0	939.53	1" GeoTube 21' - 30'	

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

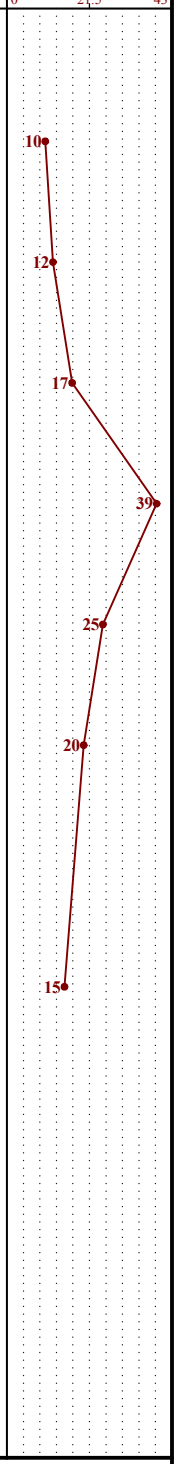
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 944.3 ft

BORING NUMBER B-02

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
1	943	FILL, Clayey Sand and Lean Clay with Sand, brown, moist	Fill	Fill			HSA				0
							SB	1	10		
4	940	SILT WITH SAND, brown, wet, medium dense	ML	Mixed Alluvium	▼		HSA				0
					▽		SB	2	12	15	
							HSA				0.1
7	937	CLAYEY SAND WITH GRAVEL, brown, wet, medium dense	SC	Glacial Till			SB	3	17	10	
9	935	SAND WITH CLAY, a little Gravel, brown, dense to medium dense	SP-SC				HSA				0
							SB	4	39	10	
							HSA				0.2
							SB	5	25		
							HSA				0.2
							SB	6	20	9	
							HSA				0.1
											0.2
							SB	7	15		
							SH	8			0.2
24	920	CLAYEY SAND, gray, moist	SC								0
							SH	9		12	0
											0
30	914	End of Boring 30.0 ft.									

N-Value Plot



WATER LEVEL MEASUREMENTS							START: 5/28/2019	END: 5/28/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/28/2019	10:00 am	21	19.5		5.0	939.3	3 1/4" HSA 0' - 21'	Notes:
5/28/2019	10:15 am	30	21	15	4.0	940.3	1" GeoTube 21' - 30'	

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

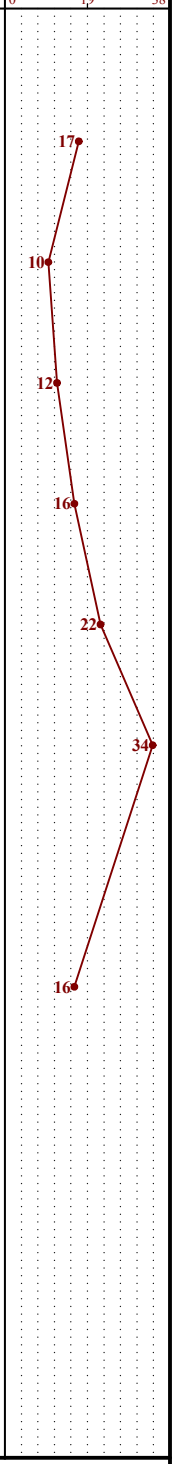
PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.46 ft

BORING NUMBER B-03

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
1	942	FILL, Silty Sand and Clayey Sand, slightly Organic, brown and dark brown, moist	Fill	Fill	HSA				0
3	940				SB	1	17		
4	939				HSA				0
5	938	SILTY CLAY, olive brown, saturated, firm	CL	Fine Alluvium	SB	2	10	21	
7	936				HSA				0
8	935	SAND WITH GRAVEL, fine to medium grained, brown, waterbearing, medium dense	SP	Coarse Alluvium	SB	3	12	15	
9	934				HSA				0
10	933				SB	4	16		
12	931				HSA				0.1
13	930	SAND WITH CLAY, a little Gravel, fine to medium grained, brown, medium dense to dense	SC	Glacial Till	SB	5	22		
14	929				HSA				0.1
15	928				SB	6	34		
16	927				HSA				0.2
18	925								
19	924								0.2
20	923				SB	7	16		
21	922								0.3
22	921	LEAN CLAY WITH SAND AND GRAVEL, gray, wet	CL						
23	920				SH	8		15	
24	919								0.4
26	917								0.3
27	916				SH	9		12	
28	915	WEATHERED DOLOSTONE, Lean Clay with Sand, pieces of Dolostone, tan, wet		Prairie Du Chien					
29	914								0.2
30	913								

End of Boring 30.0 ft.

N-Value Plot



WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD
5/28/2019	12:00 pm	21	19.5		5.0	938.46	3 1/4" HSA 0' - 21'
5/28/2019	12:15 pm	30	21	8	3.0	940.46	1" GeoTube 21' - 30'

START: 5/28/2019
END: 5/28/2019

Crew Chief: R. Kurth
Logged By: MWO

Notes:

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

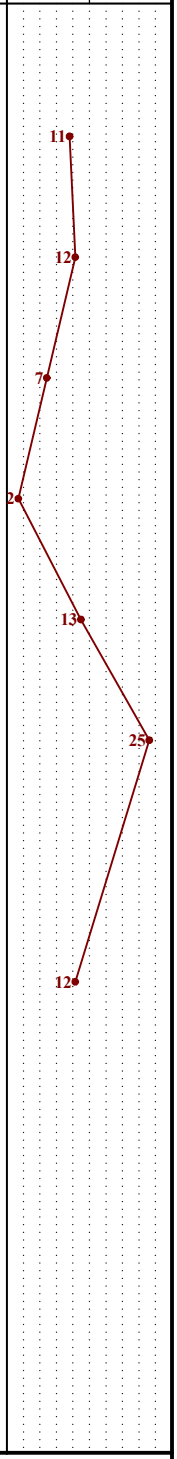
PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.49 ft

BORING NUMBER B-04

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
1	942	LEAN CLAY, slightly Organic, dark brown, wet	CL	Topsoil			HSA				0.1
2	941	FILL, Clayey Sand, brown and gray, wet	Fill	Fill							
3	940						SB	1	11		
4	939						HSA				0.3
5	938	SILT WITH CLAY, olive brown, moist, loose	ML	Fine Alluvium			SB	2	12	12	
6	937						HSA				0.4
7	936	SILTY SAND, fine grained, brown, waterbearing, very loose to medium dense	SM	Glacial Till	▽		SB	3	7	15	
8	935										
9	934						HSA				0.1
10	933						SB	4	2		
11	932										
12	931						HSA				0.1
13	930						SB	5	13		
14	929						HSA				0.1
15	928						SB	6	25		
16	927										0
17	926										
18	925						HSA				
19	924										0.1
20	923						SB	7	12		
21	922										0
22	921										
23	920						SH	8			
24	919										0.1
25	918										
26	917										0.1
27	916	CLAYEY SAND, brown, saturated, loose	SC				SH	9		12	
28	915										
29	914										0
30	913										

End of Boring 30.0 ft.

N-Value Plot



WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD
5/28/2019	1:00 pm	21	19.5		7.0	936.49	3 1/4" HSA 0' - 21'
5/28/2019	1:15 pm	30	21	4	None		1" GeoTube 21' - 30'

START: 5/28/2019 END: 5/28/2019

Crew Chief: R. Kurth
Logged By: MWO

Notes:

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

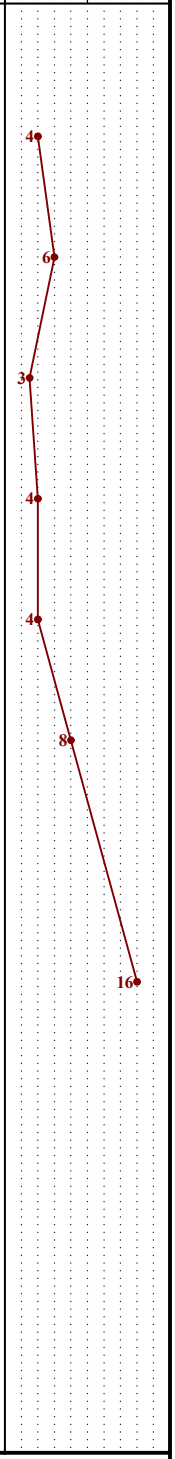
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.72 ft

BORING NUMBER B-05

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
1	943	SILTY SAND, fine grained, brown, wet	SM	Coarse Alluvium			HSA				0.1
2	942	SAND WITH GRAVEL, medium to coarse grained, brown, wet to waterbearing, very loose to loose	SP		▽		SB	1	4		
3	941										
4	940						HSA				0
5	939						SB	2	6		
6	938						HSA				0
7	937										
8	936						SB	3	3		
9	935						HSA				0
10	934						SB	4	4		
11	933						HSA				0
12	932										
13	931	SAND WITH CLAY, a little Gravel, brown, saturated, loose	SP-SC	Glacial Till			SB	5	4	13	
14	930						HSA				0
15	929						SB	6	8		
16	928	SAND WITH SILT, a little Gravel, fine to medium grained, brown, waterbearing, medium dense	SP-SM								0.1
17	927										
18	926						HSA				
19	925										0
20	924						SB	7	16	15	
21	923										0.2
22	922										
23	921						SH	8		12	
24	920	CLAYEY SAND, brown, moist, lenses of Clay	SC								0.2
25	919										
26	918										0.1
27	917										
28	916						SH	9			
29	915										0.1
30	914										

End of Boring 30.0 ft.



WATER LEVEL MEASUREMENTS

START: 5/28/2019 END: 5/28/2019

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD
5/28/2019	12:00 pm	21	19.5		3.0	940.72	3 1/4" HSA 0' - 21'
5/28/2019	12:15 pm	30	21	2	None		1" GeoTube 21' - 30'

Crew Chief: R. Kurth
Logged By: MWO
Notes:

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 942.01 ft

BORING NUMBER B-06

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	MC %	PID (ppm)
		FILL, Clayey Sand and Silty Sand, brown and dark brown, miost to wet	Fill	Fill						
1	941									0
2	940									
3	939						SH	1		
4	938	PEAT, black, wet	PT	Swamp Deposits					39	0.1
5	937	SILTY CLAY, olive brown, wet	CL	Fine Alluvium	▽					
6	936								30	0
7	935						SH	2		
8	934	SAND WITH SILT, a little Gravel, brown, fine grained, waterbearing	SP-SM	Glacial Till						
9	933									0
10	932									
11	931									0
12	930									
13	929						SH	3		
14	928									0.1
15	927									
16	926									0.2
17	925									
18	924						SH	4		
19	923									0.1
20	922									

N-Value Plot: 0

End of Boring 20.0 ft.

WATER LEVEL MEASUREMENTS

START: 5/20/2019 END: 5/20/2019

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD
5/20/2019	10:00 am	20			5.0	937.01	1" GeoTube 0' - 20'
5/20/2019	10:15 am	20		3	None		

Crew Chief: R. Kurth
Logged By: MWO
Notes:

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.09 ft

BORING NUMBER B-07

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	MC %	PID (ppm)	N-Value Plot
		CLAYEY SAND WITH ORGANICS, dark brown, moist	SC	Topsoil							
1	942	SAND WITH GRAVEL, fine to medium grained, brown, wet to waterbearing	SP	Coarse Alluvium						0.1	
2	941						SH	1			
3	940	SAND WITH GRAVEL, medium grained, brown, waterbearing	SP								
4	939				▽					0	
5	938										
6	937									0.1	
7	936						SH	2			
8	935										
9	934									0.1	
10	933										
11	932									0	
12	931						SH	3			
13	930										
14	929									0.1	
15	928										
16	927	CLAYEY SAND, brown, saturated	SC	Glacial Till						1.7	
17	926						SH	4	12		
18	925	SAND WITH GRAVEL, fine to medium grained, brown, waterbearing	SP								
19	924									0.1	
20	923										

End of Boring 20.0 ft.

WATER LEVEL MEASUREMENTS							START: 5/20/2019	END: 5/20/2019	
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth	Logged By: MWO
5/20/2019	11:30 am	20		4.5	4.0	939.09	1" GeoTube 0' - 20'	Notes:	

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 941.78 ft

BORING NUMBER B-08

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	MC %	PID (ppm)
		FILL, Clayey Sand, brown, moist	Fill	Fill						
1	941									0.1
2	940						SH	1		
3	939	FILL, Silty Clay, brown to gray, wet, a few Roots	Fill							
4	938									0.1
5	937								29	
6	936									0.1
7	935				▽		SH	2		
8	934	FILL, Sand with Clay and Gravel, brown, waterbearing	Fill							
9	933									0.1
10	932								13	
11	931									0.1
12	930						SH	3		
13	929	ORGANIC CLAY, black, wet	OL	Topsoil						
14	928	SILTY SAND, a little Gravel, brown, waterbearing	SM	Glacial Till						0
15	927									
16	926									0.2
17	925						SH	4		
18	924									
19	923									0.9
20	922									

N-Value Plot: 0

End of Boring 20.0 ft.

WATER LEVEL MEASUREMENTS

START: 5/21/2019 END: 5/21/2019

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD
5/21/2019	12:30 pm	20			7.5	934.28	1" GeoTube 0' - 20'
5/21/2019	12:45 pm	20		5	None		

Crew Chief: R. Kurth
Logged By: MWO
Notes:

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:57 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.85 ft

BORING NUMBER B-09

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	MC %	PID (ppm)	N-Value Plot
		FILL, Sand with Gravel, fine to medium grained, brown, moist to wet to waterbearing	Fill	Fill							
1	943									0	
2	942						SH	1			
3	941										
4	940									0	
5	939				▽						
6	938									0.1	
7	937						SH	2			
8	936										
9	935									0	
10	934										
11	933									0.2	
12	932						SH	3			
13	931	ORGANIC CLAY, black, wet	OL	Topsoil					11		
14	930	SILTY SAND, a little Gravel, fine grained, brown, waterbearing	SM	Glacial Till						0.1	
15	929										
16	928									0	
17	927						SH	4	15		
18	926										
19	925									0.1	
20	924										

End of Boring 20.0 ft.

WATER LEVEL MEASUREMENTS

START: 5/21/2019 END: 5/21/2019

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD
5/21/2019	4:00 pm	20			5.5	938.35	1" GeoTube 0' - 20'
5/21/2019	4:15 pm	20		3	None		

Crew Chief: R. Kurth
Logged By: MWO
Notes:

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

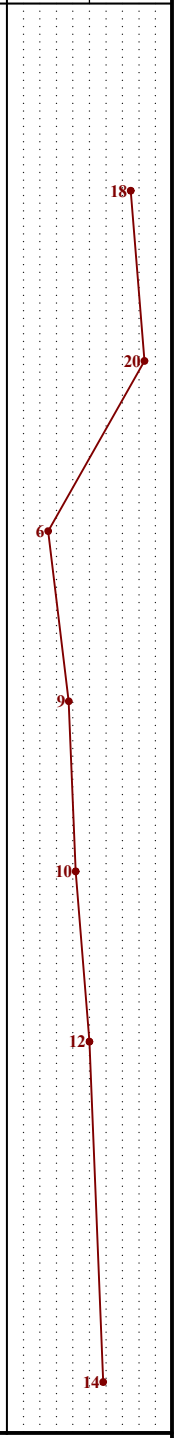
PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 944.54 ft

BORING NUMBER B-10

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		FILL, Clayey Sand, a few Roots, brown, wet	Fill	Fill			HSA				0.4
1	944										
2	943	FILL, Clayey Sand, brown and dark brown and gray, wet	Fill				SB	1	18	11	
3	942										
4	941						HSA				0.1
5	940	- a few Roots					SB	2	20		
6	939						HSA				0.1
7	938	SILT WITH CLAY, gray with brown streaks, wet, loose	ML	Fine Alluvium			SB	3	6	21	
8	937										
9	936						HSA				0
10	935	SAND WITH GRAVEL, medium to coarse grained, brown, waterbearing, loose	SP	Coarse Alluvium	▽		SB	4	9		
11	934						HSA				0.1
12	933										
13	932						SB	5	10		
14	931	SAND WITH GRAVEL, fine to medium grained, brown, waterbearing, medium dense	SP				HSA				0.1
15	930						SB	6	12		
16	929										0.2
17	928						HSA				
18	927	CLAYEY SAND, a little Gravel, brown, saturated, medium dense	SC	Glacial Till							0.2
19	926										
20	925						SB	7	14		
21	924										

End of Boring 21.0 ft.

N-Value Plot



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	12:30 pm	21	19.5		10.0	934.54	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	12:45 pm	30	21	1	None			

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

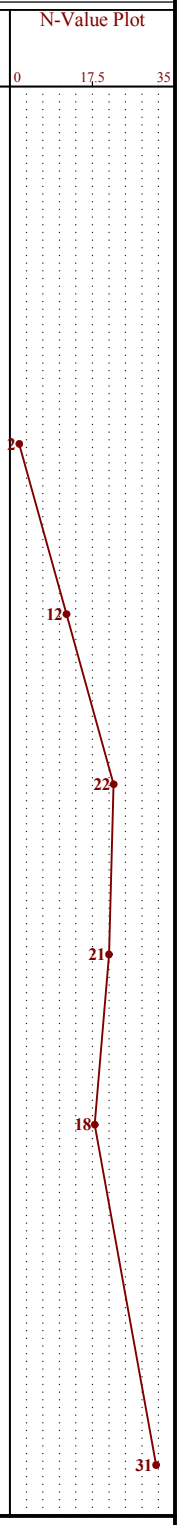
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.3 ft

BORING NUMBER B-11

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		SAND WITH GRAVEL, fine to medium grained, brown, moist	SP	Coarse Alluvium			HSA				0
1	942										
2	941	SAND WITH SILT AND GRAVEL, fine grained, brown, wet to waterbearing, very loose	SP-SM				SB	1	WH		
3	940										
4	939				▽		HSA				0
5	938						SB	2	2		
6	937						HSA				0
7	936	SAND WITH GRAVEL, fine to medium grained, brown, waterbearing, medium dense	SP	Glacial Till			SB	3	12		
8	935										
9	934						HSA				16.8
10	933						SB	4	22		
11	932						HSA				0.3
12	931	SAND WITH CLAY AND GRAVEL, fine to medium grained, brown, saturated, medium dense	SP-SC				SB	5	21	15	
13	930										
14	929	SAND WTIH GRAVEL, fine to medium grained, brown, waterbearing, medium dense	SP				HSA				5
15	928						SB	6	18		
16	927										0
17	926						HSA				
18	925										
19	924	CLAYEY SAND, a little Gravel, fine grained, brown, saturated, very dense	SC								0
20	923						SB	7	31		
21	922										

End of Boring 21.0 ft.



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	10:25 am	21	19.5		4.0	939.3	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	10:35 am	30	21	2	None			

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

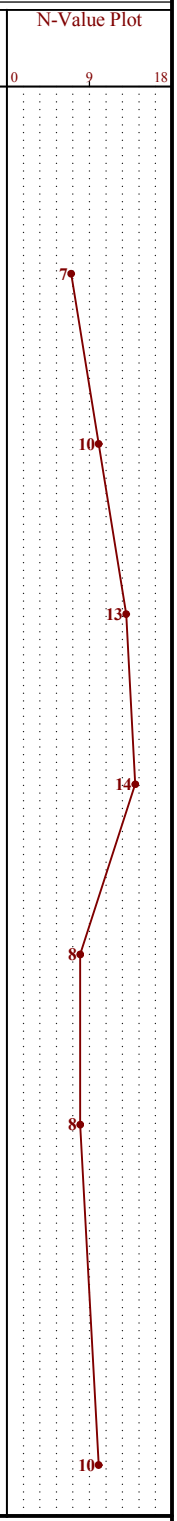
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.25 ft

BORING NUMBER B-12

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		SAND WITH SILT, a little Gravel, a few Roots, fine to medium grained, brown, moist	SP-SM	Coarse Alluvium			HSA				0
1	942										
2	941	SAND WITH A LITTLE GRAVEL, fine to medium grained, brown, wet to waterbearing, loose to medium dense	SP				SB	1	7		
3	940										
4	939						HSA				0
5	938						SB	2	10		
6	937						HSA				0
7	936				▽						
8	935						SB	3	13		
9	934						HSA				0
10	933						SB	4	14		
11	932						HSA				0
12	931	CLAYEY SAND, a little Gravel, brown, saturated, loose	SC	Glacial Till			SB	5	8	12	
13	930										
14	929						HSA				0
15	928						SB	6	8	13	
16	927										0
17	926						HSA				
18	925										
19	924										0
20	923						SB	7	10		
21	922										

End of Boring 21.0 ft.



WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION
5/29/2019	11:14 am	21	19.5		7.0	936.25
5/29/2019	11:30 am	30	21	5	None	

START: 5/29/2019 END: 5/29/2019

METHOD: 3 1/4" HSA 0' - 21'

Crew Chief: R. Kurth

Logged By: MWO

Notes:

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

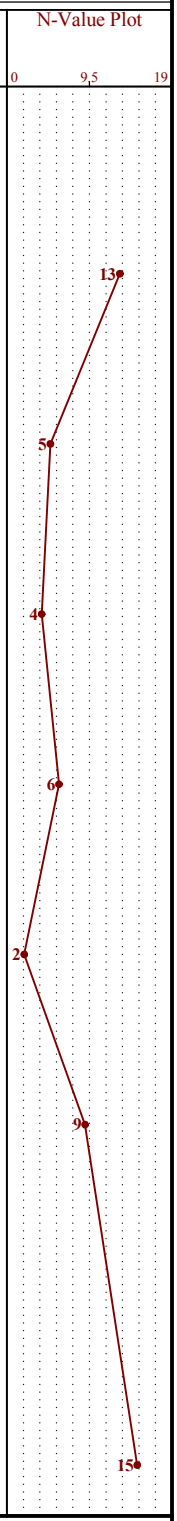
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.41 ft

BORING NUMBER B-13

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		FILL, Sand with Clay and Gravel, a few Roots, miost	Fill	Fill			HSA				0
1	942										
2	941	FILL, Sand with a little Gravel, fine grained, brown, moist	Fill				SB	1	13		
3	940										
4	939						HSA				0
5	938	FILL, Sand with Clay and Gravel, brown, saturated	Fill				SB	2	5		
6	937						HSA				0
7	936										
8	935						SB	3	4		
9	934						HSA				0
10	933	SILT WITH CLAY, brown, saturated, loose to very loose	ML	Fine Alluvium			SB	4	6	25	
11	932						HSA				0
12	931										
13	930						SB	5	2	24	
14	929				▽		HSA				0
15	928	SAND WITH A LITTLE GRAVEL, fine to medium grained, waterbearing, loose	SP	Coarse Alluvium			SB	6	9		
16	927										0
17	926										
18	925						HSA				
19	924										0
20	923	CLAYEY SAND, brown, saturated, medium dense	SC	Glacial Till			SB	7	15		
21	922										

End of Boring 21.0 ft.



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	2:35 pm	21	19.5		14.0	929.41	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	2:50 pm	30	21	10	None			

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

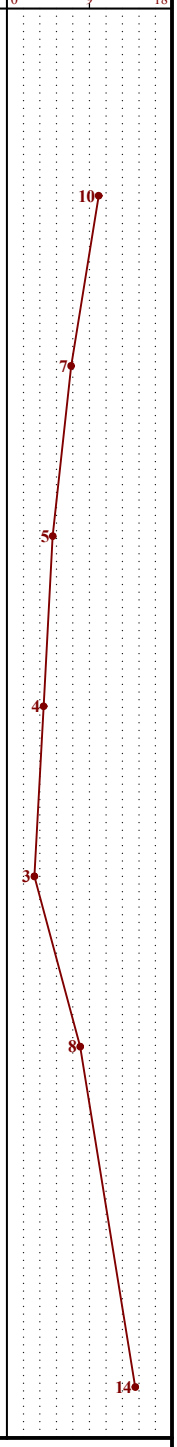
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 942.87 ft

BORING NUMBER B-14

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		FILL, Sand with Clay and Gravel, brown to dark brown, wet	Fill	Fill			HSA				0
1	942										
2	941				▼						
3	940						SB	1	10		
4	939						HSA				0
5	938						SB	2	7		
6	937	ORGANIC CLAY, black, wet	OL	Topsoil			HSA				0
7	936	SILTY CLAY, olive brown, wet, soft to very soft	CL	Fine Alluvium			SB	3	5	32	
8	935										
9	934						HSA				0
10	933						SB	4	4		
11	932						HSA				0
12	931	CLAYEY SILT, brown, saturated, very loose	ML		▽						
13	930						SB	5	3	26	
14	929	SAND WITH CLAY, a little Gravel, brown, saturated, loose to very loose	SP-SC	Glacial Till			HSA				0
15	928						SB	6	8		
16	927						HSA				0
17	926										
18	925										
19	924										0
20	923						SB	7	14		
21	922	End of Boring 21.0 ft.									

N-Value Plot



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	3:30 pm	21	19.5		12.0	930.87	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	3:40 pm	30	21	8	2.0	940.87		

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

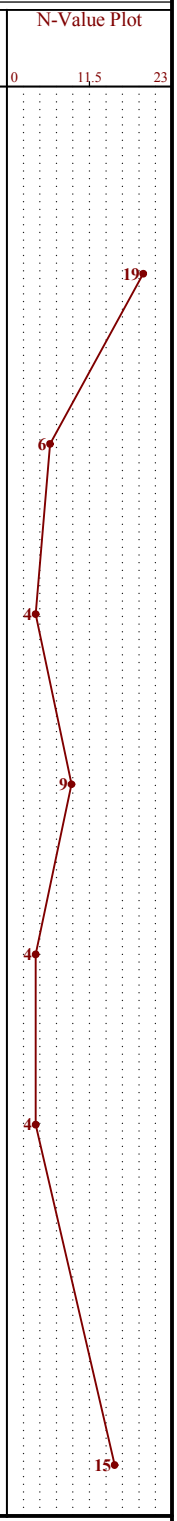
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 942.45 ft

BORING NUMBER B-15

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		FILL, Clayey Sand, slightly Organic, dark brown, moist	Fill	Fill			HSA				0
1	941										
2	940	FILL, Clayey Sand, pieces of Concrete, brown, moist	Fill		▼		SB	1	19		
3	939										
4	938	ORGANIC CLAY, black, wet, soft 13% Organics	OL	Topsoil			HSA				0
5	937						SB	2	6		
6	936						HSA				0
7	935	SAND WITH CLAY, fine grained, brown to olive brown, saturated, very loose to loose	SP-SC	Glacial Till			SB	3	4		
8	934										
9	933				▽		HSA				0
10	932						SB	4	9		
11	931						HSA				0
12	930	LEAN CLAY WITH SAND, brown, saturated, very soft	CL				SB	5	4		
13	929										
14	928						HSA				0
15	927						SB	6	4		
16	926						HSA				0
17	925										
18	924										
19	923	CLAYEY SAND, brown, wet, medium dense	SC								0
20	922						SB	7	15	8	
21	921										

End of Boring 21.0 ft.



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	4:27 pm	21	19.5		9.0	933.45	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	4:38 pm	30	21	10	2.0	940.45		

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

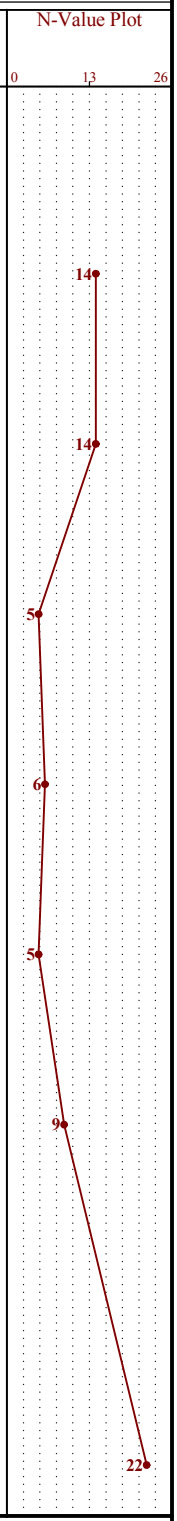
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.96 ft

BORING NUMBER B-16

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		FILL, Sand with Clay and Gravel, light brown, moist, a few Roots	Fill	Fill		HSA				0
1	943									
2	942	FILL, Clayey Sand, dark brown and browb, moist	Fill			SB	1	14	9	
3	941									
4	940					HSA				0
5	939					SB	2	14	10	
6	938	ORGANIC CLAY, black, wet	OL	Topsoil		HSA				0
7	937	SILTY CLAY, olive brown, wet, soft	CL	Fine Alluvium		SB	3	5	27	
8	936									
9	935					HSA				0
10	934				▼	SB	4	6		
11	933					HSA				0
12	932	SAND WITH A LITTLE GRAVEL, fine to medium grained, dark brown, waterbearing, loose	SP	Coarse Alluvium	▽					
13	931					SB	5	5		
14	930					HSA				0
15	929	SAND WITH GRAVEL, fine grained, brown, waterbearing, loose to medium dense	SP			SB	6	9		
16	928					HSA				0
17	927									
18	926									
19	925									0
20	924					SB	7	22		
21	923									

End of Boring 21.0 ft.



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	1:17 pm	21	19.5		12.0	931.96	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	1:30 pm	30	21	10	10.0	933.96		

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

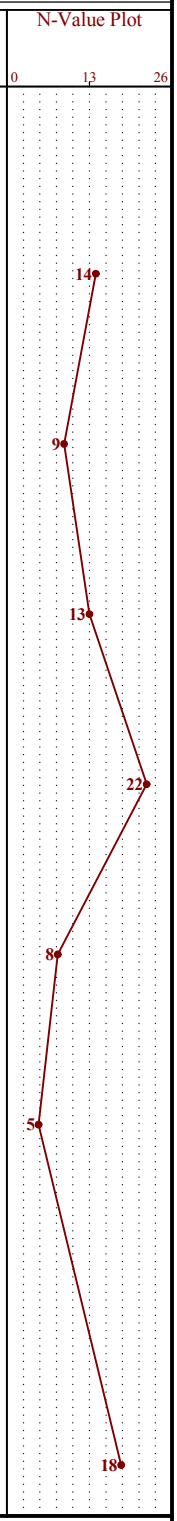
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 942.93 ft

BORING NUMBER B-17

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		FILL, Clayey Sand with Gravel, brown and dark brown, wet	Fill	Fill			HSA				0
1	942										
2	941	ORGANIC CLAY, black, moist, firm	OL	Topsoil			SB	1	14		
3	940										
4	939						HSA				0
5	938	SILTY CLAY, olive brown, wet, firm	CL	Fine Alluvium			SB	2	9	29	
6	937						HSA				0
7	936	SAND WITH SILT AND GRAVEL, fine grained, brown, waterbearing, medium dense	SP-SM	Glacial Till	▽		SB	3	13		
8	935										
9	934						HSA				0
10	933						SB	4	22		
11	932						HSA				0
12	931	CLAYEY SAND, brown, wet, loose	SC				SB	5	8		
13	930										
14	929	SANDY LEAN CLAY, brown, saturated, soft	CL				HSA				0
15	928						SB	6	5	22	
16	927										0
17	926						HSA				
18	925										
19	924	SAND WITH GRAVEL, fine to medium grained, brown, waterbearing, medium dense	SP								0
20	923						SB	7	18		
21	922										

End of Boring 21.0 ft.



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	10:51 am	21	19.5		7.0	935.93	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	11:00 am	30	21	5	None			

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

LOG OF TEST BORING

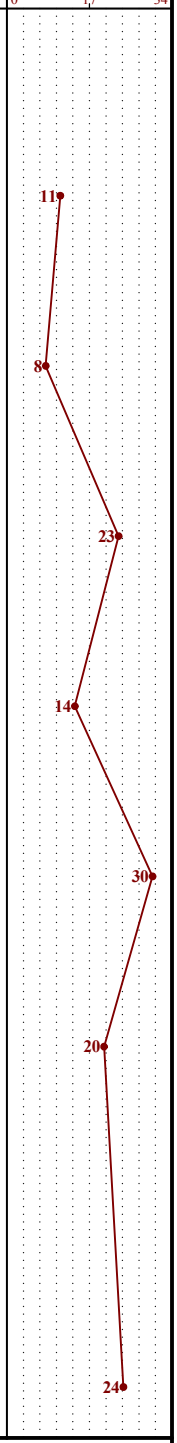
PROJECT NAME: Former Anchor Block
CLIENT/WSB #: 014065-000

PROJECT LOCATION: North St Paul, Minnesota
SURFACE ELEVATION: 943.03 ft

BORING NUMBER B-18

DEPTH (ft)	ELEV. (ft)	DESCRIPTION OF MATERIAL	USCS	GEOLOGIC ORIGIN	WL	Drilling Operation	SAMPLE TYPE	SAMPLE No.	N	MC %	PID (ppm)
		FILL, Sand with Clay and Gravel, brown, wet	Fill	Fill			HSA				0
1	942										
2	941	FILL, Clayey Sand, pieces of Brick, brown and dark brown and red, saturated	Fill				SB	1	11	14	
3	940										
4	939						HSA				0
5	938	CLAYEY SAND WITH GRAVEL, brown, satured, loose to dense	SC	Glacial Till			SB	2	8		
6	937						HSA				0
7	936										
8	935						SB	3	23		
9	934						HSA				0
10	933						SB	4	14		
11	932						HSA				0
12	931										
13	930	- cobbly					SB	5	30		
14	929						HSA				0
15	928						SB	6	20		
16	927										0
17	926						HSA				
18	925										
19	924										0
20	923						SB	7	24		
21	922	End of Boring 21.0 ft.									

N-Value Plot



WATER LEVEL MEASUREMENTS							START: 5/29/2019	END: 5/29/2019
DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	WATER DEPTH	WATER ELEVATION	METHOD	Crew Chief: R. Kurth / Logged By: MWO
5/29/2019	12:02 pm	21	19.5		10.0	933.03	3 1/4" HSA 0' - 21'	Notes:
5/29/2019	12:12 pm	30	21	9	1.0	942.03		

N-VALUE + ENVIRONMENTAL - WSB.GDT - 6/19/19 10:58 - C:\USERS\TMEYERS\DESKTOP\014065-000 NORTH ST PAUL - FORMER ANCHOR BLOCK.GPJ

SYMBOLS AND TERMINOLOGY ON TEST BORING LOG

SYMBOLS

Drilling and Sampling

Symbol	Description
HSA	3 1/4" LD. Hollow Stem Auger
FA	Flight Auger
HA	Hand Auger
RC	Size A, B, or N rotary casing
CS	Continuous split barrel sampling
DM	Drilling Mud
JW	Jetting Water
SB	2" O.D. split barrel sampling
_L	2 1/2" or 3 1/2" OD split barrel liner sampler
_T	2" or 3" thin walled tube sample
W	Wash sample
B	Bag sample
P	Test Pit sample
_Q	BQ, NQ, or PQ wire line system
_X	AX, BX, or NX double tube barrel
N	Standard penetration test, blow per foot
CR	Core recovery, percent
WL	Water level
n/a	no measurement recorded

Laboratory Testing

Symbol	Description
MC	Moisture content, % (ASTM D2216)
DD	Dry Density, pcf
LL	Liquid Limit (ASTM D4318)
PL	Plastic Limit (ASTM D4318)
	- Inserts in last column
Qu	Unconfined compressive strength, psf (ASTM D2166)
Pq	Penetrometer Reading, tsf (ASTM D1558)
Ts	Torvane Reading, ts
G	Specific Gravity (ASTM D854)
SL	Shrinkage limits (ASTM D427)
OC	Organic Contenct (ASTM D2974)
SP	Swell Pressure, tsf (ASTM D4546)
PS	Percent swell under pressure (ASTM D4546)
FS	Free swell, % (ASTM D4546)
SS	Shrink swell, % (ASTM D4546)
pH	
SC	Sulfate content, parts/million or mg/l
CC	Chloride content, parts/million or mg/l
C	One dimensional consolidation (ASTM D2435)
Qc	Triaxial compression (ASTM D2850 and D4767)
DS	Direct Shear (ASTM D3080)
K	Coefficient of permeability, cm/sec (ASTM D2434)
P	Pinhole Test (ASTM D4647)
DH	Double hydrometer (ASTM D4221)
MA	Particle size analysis (ASTM D422)
R	Laboratory electreical resistivity, ohm-cm (ASTM G57)
VS	Field vane shear (ASTM D2573)
RQD	Rock quality designation, percent
IR	Infiltration Test (ASTM D3385)

TERMINOLOGY

Particle Sizes

Type	Size Range
Boulders	> 12"
Cobbles	3" - 12"
Coarse gravel	3/4" - 3"
Fine gravel	#4 sieve - 3/4"
Coarse sand	#4 sieve - #10 sieve
Medium sand	#10 sieve - #40 sieve
Fine sand	#40 sieve - #200 sieve
Silt	100% passing #200 sieve, and > 0.002mm
Clay	100% passing #200 sieve, and < 0.002mm

Soil Layering and Moisture

Term	Visual Observation
Lenses	Small pockets of different soils
Lamination	< 1/4" thick stratum
Layer	1/4" - 12" thick stratum
Stratified	Altering lenses of varying materials or colors
Varved	Altering laminations of clay, silt, fine sand, or colors
Dry	Powdery, no noticeable water
Moist	Damp, below saturation
Wet	MC above plastic limit
Waterbearing	Pervious soil below water table
Saturated	Cohesive soil with MC above liquit limit

Gravel Content

Coarse-Grained Soils		Fine-Grained Soils	
% Gravel	Description	% Gravel	Description
2 - 15	A little gravel	2 -5	Trace of gravel
16 - 30	With gravel	5 -15	a little gravel
31 - 49	Gravelly	16 - 30	with gravel
		31 - 49	Gravelly

Standard Pentration Resistance (N-value)

Cohesionless Soils		Cohesive Soils	
N-Value	Relative Density	N-Value	Consistency
0 - 4	Very loose	0 - 4	Very soft
5 - 10	Loose	5 - 8	Soft
11 - 30	Medium dense	9 - 15	Firm
31 - 50	Dense	16 - 30	Hard
>50	Very dense	>30	Very hard

NOTICE TO REPORT USERS BORING LOG INFORMATION

Subsurface Profiles

The subsurface stratification lines on the graphic representation of the test borings show an approximate boundary between soil types or rock. The transition between materials is approximate and is usually far more gradual than shown. Estimating excavation depths, soil volumes, and other computations relying on the subsurface strata may not be possible to any degree of accuracy.

Water Level

WSB & Associates, Inc. took groundwater level readings in the exploratory borings, reviewed the data obtained, and discussed its interpretation of the data in the text of this report. The groundwater level may fluctuate due to seasonal variations caused by precipitation, snowmelt, rainfalls, construction or remediation activities, and/or other factors not evident at the time of measurement.

The actual determination of the subsurface water level is an interpretive process. Subsurface water level may not be accurately depicted by the levels indicated on the boring logs. Normally, a subsurface exploration obtains general information regarding subsurface features for design purposes. An accurate determination of subsurface water levels is not possible with a typical scope of work. The use of the subsurface water level information provided for estimating purposes or other site review can present a moderate to high risk of error.

The following information is obtained in the field and noted under "Water Level Measurements" at the bottom of the log.

Sample Depth:	The lowest depth of soil sampling at the time a water level measurement is taken.
Casing Depth:	The depth to the bottom of the casing or hollow stem auger at the time of water level measurement.
Cave-in Depth:	The depth at which a measuring tape stops in the bore hole.
Water Level:	The point in the bore hole at which free-standing water is encountered by a measure device from the surface.

Obstruction Depths

Obstructions and/or obstruction depths may be noted on the boring logs. Obstruction indicates the sampling equipment encountered resistance to penetration. It must be realized that continuation of drilling, the use of other drilling equipment or further exploration may provide information other than that depicted on the logs. The correlation of obstruction depths on the log with construction features such as rock excavation, foundation depths, or buried debris cannot normally be determined with any degree of accuracy. For example, penetration of weathered rock by soil sampling equipment may not correlate with removal by certain types of construction equipment. Using this information for estimating purposes often results in a high degree of misinterpretation.

Accurately identifying the obstruction or estimating depths where hard rock is present over the site requires a scope of service beyond the normal geotechnical exploration program. The risk of using the information noted on the boring logs for estimating purposes must be understood.

wsb

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)		
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)	
	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
	GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)	
	GM	Silty gravels, gravel-sand-silt mixtures
	GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)	
	SW	Well-graded sands, gravelly sands, little or no fines
	SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	
	SM	Silty sands, sand-silt mixtures
	SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)		
SILTS AND CLAYS Liquid limit less than 50%	ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	CH	Inorganic clays of high plasticity, fat clays
	OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS	PT	Peat and other highly organic soils

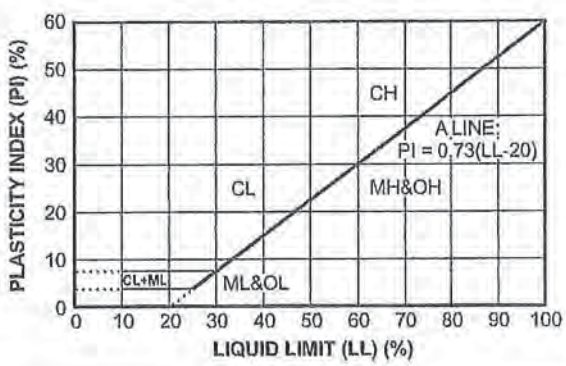
LABORATORY CLASSIFICATION CRITERIA

GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
GP	Not meeting all gradation requirements for GW	
GM	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols
GC	Atterberg limits above "A" line with P.I. greater than 7	
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3	
SP	Not meeting all gradation requirements for GW	
SM	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols.
SC	Atterberg limits above "A" line with P.I. greater than 7	

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

Less than 5 percent ..... GW, GP, SW, SP
More than 12 percent ..... GM, GC, SM, SC
5 to 12 percent ..... Borderline cases requiring dual symbols

PLASTICITY CHART



MEMORANDUM

Date: 3/5/2020
To: Planning Commissioners
From: Olivia Boerschinger, Community Development
CC: Scott Duddeck, City Manager
Debra Gustafson, Administrative and Community Services Director
Re: Keeping of Chickens and Bees Ordinance Recommendation

BACKGROUND

City Manager Scott Duddeck has requested that the Keeping of Bees and Chickens ordinance return for consideration by Planning Commission and City Council. City Council intends to take action on the ordinance proposed at March 17th meeting. Sixteen ordinances from communities throughout the metro area were reviewed and analyzed for the drafting of this ordinance. Attached you will find:

- Proposed ordinance language
- A summary matrix of surrounding cities chicken and bee ordinance characteristics
- Summary of other survey responses from metro communities regarding chicken and bee ordinances

ANALYSIS

The proposed ordinance was drafted after reviewing the ordinances of other municipalities, particularly those adjacent to North St. Paul, similar population, or similar lot sizes to North St. Paul. The proposed ordinances include:

<u>Chickens</u>

- Permit is required that shall include a detailed site plan including property lines, and location of the chicken coop and run
- An initial inspection of the coop, run, fence, and property is required to verify compliance prior to moving chickens on to the property
- Notice of application mailed to all adjacent property owners
- Coop and run are permitted in the rear yard only, and must maintain 5' setback from property lines and 20' setback from any principal building on an abutting lot
- Maximum number of hens allowed: 6
- No roosters permitted

<u>Bees</u>

- Permit is required that shall include a detailed site plan including property lines, and location of hives and water source
- Hives must be located at least 10' from all property lines and 25' setback from any principal building on an abutting lot
- Flyaway barriers are required for any hive within 20' of a property line
- Applicants shall completed a beekeeping training course prior to issuance of a permit

- An initial inspection of the property, hives, water source, and flyaway barrier (when applicable) is required prior to bringing bees on to the property
- Notice of application mailed to all property owners within 150' of applicant
- Maximum number of colonies allowed: 4

RECOMMENDED ACTION

Staff recommends that the Planning Commission make a motion to recommend the proposed ordinance additions regarding Keeping of Bees and Chickens to the City Council for approval.

CITY OF NORTH ST. PAUL

ORDINANCE NO. ___

AN ORDINANCE AMENDING THE
NORTH SAINT PAUL CITY CODE OF ORDINANCES
TITLE IX, CHAPTER 95
PERTAINING TO THE KEEPING OF CHICKENS AND BEES

SECTION 1. Title IX, Chapter 95, Section 95.01 of the North St. Paul City Code is hereby amended as follows .The underlined text shows the proposed additions to the ordinance and the ~~struck out~~ text shows deleted wording:

§ 95.01 DEFINITIONS

CHICKEN. A domesticated bird (of the species *Gallus domesticus* or various similar or related birds) that serves as a sources of eggs and/or meat.

COOP. The structure for the keeping or housing of chickens,

HEN. A female chicken,

ROOSTER. A male chicken,

RUN. A fully enclosed area attached to a coop where hens can roam.

COLONY. An aggregate of bees consisting principally of workers, but having, when perfect, one queen, drones, brood, combs and honey.

HIVE. The receptacle inhabited by a colony that is manufactured for that purpose.

HONEYBEE. All life stages of the common domestic honey bee, *apis mellifera*. African subspecies and Africanized hybrids are not considered to be honeybees for the purposes of this Chapter.

FARM ANIMALS. Those animals commonly associated with a farm or performing work in an agricultural setting. Unless otherwise defined, ***FARM ANIMALS*** shall include members of the equestrian family (horses, mules), bovine family (cows, bulls), sheep, ~~poultry (chickens, turkeys)~~, fowl (ducks, geese), swine (including Vietnamese pot-bellied pigs), goats, ~~bees~~, and other animals associated with a farm, ranch or stable.

SECTION 2. Title IX, Chapter 95, Section 95.23 of the North St. Paul City Code is hereby amended with the additions as follows. The underlined text shows the proposed additions to the ordinance and the ~~struck out~~ text shows deleted wording:

§ 95.23 EXOTIC PETS/NON-DOMESTIC ANIMALS/FARM ANIMALS.

No person shall harbor any exotic pets, non- domestic pets, or farm animals, nor build, maintain or use a structure for the keeping of such animals within the city limits. Exceptions include those animals in subsections below, and shall not be kept within the City without first obtaining a permit from the City.

(A) KEEPING OF CHICKENS.

a. Intent. It is recognized that the ability to cultivate one's own food is a sustainable activity that can also be a rewarding pastime and intent of this ordinance to permit the keeping and maintenance of hens in a clean and sanitary manner that does not create a nuisance and is not detrimental to the public health, safety and welfare of the residents of the City.

b. Permit Required. No person shall keep, maintain, or otherwise care for chickens within the City without first obtaining a permit for the keeping of chickens from the City.

c. Conditions. The keeping of chickens is permitted, pursuant to a permit issued under this section, subject to the following conditions:

i. All premises in which hens are kept or maintained shall be kept reasonably clean from filth, garbage, and any substances which attract rodents, A coop and its surroundings, including any run, must be cleaned frequently enough to control odor. Feces shall not be allowed to accumulate in a way that creates an unsanitary condition or causes odors detectible on another property.

ii. Coops shall be constructed and maintained so as to be predator and rodent-proof and must be maintained in good condition and working order.

iii. All grains and other hen food shall be kept in rodent proof container.

iv. Hens shall not be kept in such a manner as to constitute a nuisance to the occupants of adjacent properties and must be kept in a coop. An exception may be made for hens under (4) months in age to be temporarily kept in an accessory structure to facilitate the regulation of their temperature.

v. All coops and runs shall be located in the rear yard and shall be at least twenty (20) feet from adjacent habitable structures and five (5) feet from all property lines. Portable coops and runs are allowed, but must be identified on the required site plan and shall comply with the setback requirements of this provision.

vi. A coop shall provide a minimum of four (4) square feet of floor space per hen.

vii. In no case shall the number of hens on the property exceed six (6).

viii. Roosters are prohibited.

ix. Breeding is prohibited.

x. Hens must be contained within the coop or run whenever unattended, but when attended by the owner, may be allowed in a yard completely fenced

by a fence at least four (4) feet in height. Hens must be confined to the owner's premises at all times, may not roam at large, and must be secured inside a coop from sunset to sunrise each day.

xi. Dead hens must be disposed of according to the Minnesota Board of Animal Health rules.

d. Permit Process:

i. An applicant shall complete an application form provided by the City. The application shall include a description of all coops. The applicant must also provide a site plan depicting the property and showing the location, size and setbacks of the coop and run from all adjacent habitable structures and property lines.

ii. Applicants who are not the owner of record of the property where chickens will be kept shall provide evidence of the property owner's consent to the keeping of chickens on the property.

iii. A chicken permit is non-transferable and shall only permit the keeping of chicken by the permit holder at the location listed on the permit.

iv. An initial inspection of the coop, fence and property is required to verify compliance with this ordinance and the site plan submitted with the application prior to moving chickens on to the property.

e. Notice to Surrounding Property Owners: Once a complete application from is received from an applicant, the City shall provide written notice of and include a copy of said application to property owners of properties directly abutting the applicant's property.

f. Right of Entry for Inspection: City Staff may enter and inspect any property for which a chicken permit has been issued following notice to the property owner at any reasonable time for the purpose of ensuring compliance with this section. It shall be deemed a violation of this section for any person to resist, impede, or hinder City Staff or their designee in the performance of their duties in inspecting any chicken-related materials.

g. Violation and Penalties: If a violation of the terms of this Section or the chicken permit is found, the City shall give written notice thereof to the permit holder. If the violation is not remedied within ten (10) days of the date of the notice, a misdemeanor citation may be issued and/or the chicken permit may be revoked following notice and a hearing before the City Council.

(B) KEEPING OF BEES

a. Certain Beekeeping Permitted: It is the purpose and the intent of this section to permit the keeping of honeybees as a hobby, subject to the regulations contained hereinafter. It is recognized that the ability to cultivate one's own food is a sustainable activity that can also be a rewarding pastime, and that gentle strains of honeybees can be maintained within populated areas without causing a nuisance if carefully managed. It is the purposed and intent of this section to permit the

keeping of bees in such ways that is not a nuisance or detrimental to the public health, safety, or welfare.

b. Permit Required: No person shall keep, maintain, or otherwise care for bees within the City without first obtaining a beekeeping permit.

c. Conditions: The keeping of honeybees is permitted pursuant to a permit issued under this section, subject to the following conditions:
    i. No more than four colonies may be kept on any one property.
    ii. Honeybee colonies shall be kept in hives with removable frames, which shall be kept in sound and usable condition. Each hive structure shall not exceed twenty (20) cubic feet in volume
    iii. A convenient source of water shall be available within ten (10) feet of the hives at all times that the colonies remain active outside of the hive. An adjacent lake or pond shall not constitute an acceptable convenient source of water.
    iv. No wax comb or other material that might encourage robbing by other bees shall be left exposed outdoors. Such materials shall be stored in sealed insect-proof containers or placed within a building.
    v. Beekeeping equipment shall be maintained in good condition and unused beekeeping equipment shall be protected to prevent occupancy by swarming honeybees.
    vi. Hives shall be continuously managed to provide adequate living space for their resident honeybees to control swarming.
    vii. In any instance in which a colony exhibits unusually aggressive behavior, it shall be the duty of the permit holder to promptly take appropriate action to address the behavior.
    viii. No honey may be sold from the property where the gives are located unless a home occupation interim use permit has been issued for the property.
    ix. Hives must be located at least ten (10) feet from all property lines and at least twenty-five (25) feet from a principal building on an abutting lot. Hives may not be located in a front or side yard.
    x. A flyaway barrier shall shield any part of a property line that is within twenty (20) feet from a hive. The flyaway barrier shall be six (6) feet in height and shall consist of a wall, fence, dense vegetation or a combination thereof such that the bees will fly over, rather than through to reach the hive.
    xi. Each hive shall be posted with a “Warning: Bee Hive” sign consisting of letters at least four (4) inches tall.

d. Permit Process:
    i. An applicant shall complete and application form provided by the City. The application shall include a site plan depicting the property and show the location, size, and type of the hives.

ii. Applicants shall complete a beekeeping training course prior to issuance of a permit. Proof of completion of the required training course shall be provided at the time of permit application. The curriculum of the beekeeping course shall be similar to that of the beekeeping courses offered by the University of Minnesota, Century College, or the Three Rivers Park District.

iii. Permit holders shall submit a new application to the City following issuance of a beekeeping permit if the permittee proposes to increase the number of colonies located on the property.

iv. Applicants who are not the owner of record of the property where honeybees will be kept shall provide evidence of the property owner's consent to the beekeeping activity on the property.

v. Notice that an application for a beekeeping permit has been submitted shall be mailed to all recorded owners of property located within one hundred fifty (150) feet of the property lines of the property where the beekeeping is proposed to occur.

vi. A beekeeping permit is non-transferable and shall only permit the keeping of bees by the permit holder at the location listed on the permit.

vii. An initial inspection of the property, hive(s), water source, and flyaway barrier is required to verify compliance with this ordinance and the site plan submitted with the application prior to bringing bees on to the property.

5. Right of Entry for Inspection: City Staff may enter and inspect any property for which a beekeeping permit has been issued following notice to the property owner at any reasonable time for the purpose of ensuring compliance with this section.

6. Violation and Penalties: If a violation of the terms of this Section or the beekeeping permit is found, the City shall give written notice thereof to the permit holder. If the violation is not remedied within ten (10) days of the date of the notice, a misdemeanor citation may be issued and/or the beekeeping permit may be revoked following notice and a hearing before the City Council.

SECTION 3. This Ordinance shall become effective upon the approval of the City Council. The City Clerk is hereby directed to publish this ordinance as required by law.

Municipal Bee Keeping Ordinances

City	Initial Permit Fee	Renewal Fee	Permit Renewal	Property Line Setbacks	Adjacent Home Setback	Inspection Required	Site Plan Required	Training Required	Neighbor Consent Required	Colonies Allowed
Eagan	$50	$50	anually	20'	30'	yes	yes	yes	no	2+, per lot size
Gem Lake	Currently no bee ordinance									
Inver Grove Heights	Only allowed in agricultural zones									
Lake Elmo	$25	__	2 years	25'	not specified	not specified	yes	yes	yes, within 150'	4 - only on lots .75 acre or larger
Lakeville	Interim Use Permit			20'	not specified	yes	based on requirements of IUP			2-8, per lot size
Mahtomedi	$30	no	5 years	10'	25'	no	yes	yes	yes, within 350'	4
Maplewood	__	__	permitted as accessory use	5'	25'	__	__	__	Must not cause a public nuisance	
Mendota Heights	__	__	permitted as accessory use	100'	not specified	__	__	__	__	10
Minneapolis	$105	none	annually	25'		yes	yes	yes	yes, all immediately adjacent	2-8, per lot size
Mounds View	$50	__	__	10'	25'	yes	yes	not specified	not specified	4
Oakdale	Keeping of Animals Application maintained by Police Department						yes	__	consent from 75% of neighbors within 150'	__
Shoreview	$30	$30	2 years	15'	25'	yes	yes	yes	yes; written to neighbors 150' after permit issued	2-8, per lot size

St. Paul	$76	$28	annually	10'	25'	yes	yes	yes	75% consent from adjacent properties	2 -4, per lot size
Stillwater	$50	none	2 years	25'	no	no	yes	yes	yes, within 150'	2 up to unlimited per lot size
Vadnais Heights	—	—	permitted as conditional use	20'	50'	yes	—	—	—	2-8, per lot size
White Bear Lake	$30	$30	5 years	10'	25'	yes	yes	yes	yes, within 100'	4

Municipal Chicken Ordinances

City	Initial Permit Fee	Renewal Fee	Permit Renewal	Property Line Setbacks	Adjacent Home Setback	Structure Requirements	Inspection Required	Site plan Required	Training Required	Neighbor Consent Required	Hens Allowed
Eagan	$50	$50	annually	5' side 10' rear	25'	rear yard only, coop min. size 2 sf/chicken, run 5 sf/chicken, meet Accessory Structure code	yes	yes	not specified	not specified	5
Gem Lake	$25	$15	annually	not specified	50'	rear yard only; 5 sf/chicken (max 200 sf); run 11 sf/chicken	yes	yes	not specified	not specified	based on coop size
Inver Grove Heights	$25	$25	2 years	10'	25'	must comply with Zoning Code for accessory structure	yes	yes	not specified	City notifies all adjacent properties	6
Lake Elmo	$25	$25	2 years	5'	20'	rear yard only; 4 sf/chicken, runs 10ft/chicken	yes	yes	not specified	notice to properties within 150'	4-22, per lot size
Lakeville	$100	not specified	not specified	20'	closer to building on principal property than any other	rear yard only; coop: 2 sf/chicken, max 32 sf; run: 5-20 sf/chicken	yes	yes	not specified	not specified	3
Mahtomedi	$50	$50	5 years	5'	20'	rear yard only; coop 4 sf/hen, fenced run or yard	yes	yes	yes	no	6
Maplewood	$75	$50	2 years	5'	not specified	rear or side yard; coop 4sf/chicken; run 10 sf/chicken	yes	yes	no	60% consent of adjacent properties <u>or</u>; proof that applicant property lines are 150' away from any home	10
Mendota Heights	$15	$0	annually	10'	not specified	rear yard only; max 144 sf; coop: 2sf/chicken, run: 5 sf/chicken	yes	yes	not specified	not specified	6
Minneapolis	$30-80	same	annually	not specified	20'	Rear yard only; screened from habitable buildings; run must have at least 10 sf/chicken	yes	yes	not specified	written consent of 80% of neighbors within 100'	up to 30
Mounds View	$100	$30	annually	20'	20'	rear yard only; comply with accessory structure conditions	yes	yes	not specified	notice mailed to properties within 350'	8
Oakdale	Keeping of Animals Application maintained by Police Department						yes	yes	not specified	75% consent of adjacent properties <u>or</u>; proof that applicant property lines are 150' away from any home	not specified
Shoreview	$30	None	2 years	10'	30'	rear yard only, shelter in compliance with other accessory structure code	yes	yes	not specified	not specified	4

St. Paul	$76	$28	annually	5'	not specified	rear yard only; coop 4 ft/chicken	yes	yes	not specified	75% approval of owner/renter within 150'	up to 15
Stillwater	$50	$50	2 years	5' side 10' rear	20'	rear yard only; 10 sf/chicken of coop and run combined	no	yes	City publication acknowledgement	yes, mailed to those 150' from property	5
Vadnais Heights	not specified			20'	50'	rear yard only; 120 sf max, min 4 sf/chicken	yes	yes	not specified	<.5 acre lot, 75% concent of adjacent owners	5-20, per lot size
White Bear Lake	$50	—	none	5'	50'	coop min 4sf/chicken, max 30 sf total, run 10 sf/hen if no access to fenced yard	yes	yes	only if less than 50' setback from neighboring structures	yes, if less than 50' from neighbors home	4

32 cities contacted (27 allow chickens) (5 do not allow chickens)

Summary of Chicken survey. Following are some of the findings of the 27 that allow chickens.

Codes
21 have a chicken code
6 have no code

Permit fees
5 have a one-time permit fee only
4 have a large initial permit fee and a smaller annual fee beginning the second year
8 charge fees semi annually
10 have no permit fees

Neighbor consent
Most cities don't require neighbor consent. The cities requiring consent state this creates most of their complaints.

Training
Over half don't require training

Inspection
Over half don't require Inspection

Hens allowed
From 1-10. The average is about 4-5

Complaints
Very few except for Maplewood (Nearly all are because of neighbor consent req.)

Total Permits
Average less than 20 per city

32 cities contacted (21 allow bees) (11 do not allow bees)

Summary of Bee survey. Following are some of the findings of the 21 that allow bees.

Codes
9 have a bee code
12 have no code

Permit fees
4 have a one-time permit fee only
2 have a large initial permit fee and a smaller annual fee beginning the second year
3 charge fees semi annually
12 have no permit fees

Neighbor consent
Most cities don't require neighbor consent.

Training
Over half require training

Inspection
Almost all don't require Inspection

Hives allowed
From 2 - Any. The average is 3

Complaints
All report zero to very few complaints

Total Permits
Average about 5 per city