Permit Application No.: **17-512** Rules: **Erosion Control and Stormwater Management**

Applicant: **Dave Carlson** Received:**10/6/2017**
Project: **Edina Flats** Complete: **10/30/2017**
Location: **4416 & 4404 Valley View Road, Edina** Noticed: **11/7/2018**
60 Day Extension: **12/27/2018**

Recommendation:
Approval of MCWD permit application on the following conditions:

1. Submission of financial assurance for Erosion Control ($1,500) and Stormwater Management ($1,460);
2. Submission of a draft declaration for maintenance of stormwater facilities, including dedication of drainage rights across parcels, as necessary, for MCWD approval, then recordation;
3. Reimbursement of fees;
4. Identification of contractor responsible for maintenance of erosion control plan and submission of Erosion Control Supplemental Form;
5. Submission of documentation of submission of NPDES permit application;
6. Submission of documentation of authorization from the City of Edina for work occurring in public right-of-way;
7. Submission of documentation of authorization from the owner of 4404 Valley View Road to apply for a permit for work on the property;
8. Submission of soil testing for DRO, GRO, and VOCs for the location of the proposed raingarden and hydrologically downgradient (underground) on 4404 Valley View Road prior to commencement of work at 4404 Valley View Road and determination by the MCWD engineer that sampling and analysis provide sufficient evidence to allow the engineer to decline to recommend against stormwater management through infiltration. If District Engineer determines soil testing demonstrates a cognizable threat to mobilize or to exacerbate migration of contaminants through substrate, the applicant must submit an application for permit modification incorporating a revised stormwater management plan meeting relevant MCWD stormwater management criteria for 4404 Valley View Road, for staff approval, which must rest on record concurrence from the MCWD engineer that contamination-related risk has been addressed.

Background
Dave Carlson has applied for a Minnehaha Creek Watershed District permit for Erosion Control and Stormwater Management for the construction of 19 condominiums in five buildings at the intersection of Valley View Road and Kellogg Avenue, consisting of 4420 and 4416 Valley View Road and 6120, 6116, 6112, and 6108 Kellogg Avenue and – at the intersection of Valley View Road and Oaklawn Avenue – 4404 Valley View Road, as well as related right of way in the City of Edina. The project site consists of two portions: Part A, located on Kellogg Avenue and Part B, located on Oaklawn Avenue. These properties implicate the common scheme framework of the Stormwater Management Rule, which is proposed to be applied to two adjacent sites under common or related ownership notwithstanding the presence of intervening parcels.

The applicant currently has a purchase agreement for Part B, but is not scheduled to take ownership of the property until June 2018. Staff recommends consideration and approval of the permit based on the overall stormwater plan, authorizing work to begin on Part A on satisfaction of conditions 1-6 for the Part A property, while work on Part B is subject to satisfaction of conditions 2, 7 and 8 for the Part B property. This phasing will also allow for additional soil testing to occur on Part B prior to work authorization, while allowing construction to begin on Part A.

The project proposes a total 0.39-acre increase in impervious surface on Part A and Part B together on two-part site totaling 1.25 acres.

The project is entirely within the MCWD legal boundary, but most of the project is within Nine Mile Creek Watershed District (NMCWD)'s hydrologic boundary. All outlets from proposed stormwater treatment facilities drain to the Lake Cornelia subwatershed within NMCWD. Staff have coordinated review of this project with NMCWD staff.

The applicant has submitted all exhibits, plans, and materials necessary to analyze compliance with MCWD rules. No variances from MCWD rule provisions are needed for approval of the permit. This permit is before the Board

of Managers for determination at the request of a member of the public. During the public comment period, a member of the public expressed concern for the project mobilizing contaminants due to previous vehicle fueling at 4416 and 4404 Valley View Road. The District Engineer reviewed soil testing for contaminant levels, and determined that the results provided sufficient data to support a determination that there is no reason to recommend that MCWD disallow infiltration to manage stormwater, as discussed further in the Site Contamination section. Staff spoke with the resident several times about his concerns and discussed the elements of the review with respect to contamination. The resident was not interested in meeting with staff, and declined to withdraw his request for board determination of the application.

District Rule Summary

Erosion Control

The District exercises regulatory authority for erosion control in the City of Edina.
The Erosion Control rule is applicable for any project exceeding 5,000 square feet of land disturbance and/or 50 cubic yards of excavation or fill. The proposed project involves approximately 1.25 acres of land disturbance, therefore the Erosion Control rule is applied.

The applicant has provided the proper erosion control best management practices including a rock construction entrance, silt fence, and inlet protection. A vegetative stabilization plan including the incorporation of six-inches of topsoil into underlying soils prior to final stabilization has also been provided. Concrete washout will be off-site. The contractor responsible for maintaining the erosion control plan has not yet been identified. Identification of the responsible contactor is listed as a recommended condition of approval.

Erosion control plan will meet District requirements on satisfaction of the recommended condition.

Stormwater Management

The District exercises regulatory authority for Stormwater Management in the City of Edina.

The Stormwater Management rule is applicable for projects proposing to create new or replace existing impervious surface. This project proposes a 0.39-acre increase of impervious surface, therefore the rule is triggered.

For sites undergoing redevelopment that are greater than one acre with more than 40% site disturbance, volume control, rate control, and phosphorus control requirements apply to the entire site's impervious surface. The applicant's proposed stormwater management plan includes an underground infiltration facility and surface infiltration basin on part A and a raingarden on part B.

Table 1: Treatment Scope Summary

Size of Site (ac)	Site Drains To	Existing Impervious (ac)	Proposed Impervious (ac)	Site Disturbance
1.25	Lake Cornelia	0.50	0.88	100%

To meet the volume control requirement per section 3(c), the rule requires abstraction of the first inch of rainfall from the entire site's impervious surface. The applicant is required to provide 3,197 cubic feet of abstraction, and has demonstrated the proposed Best Management Practices (BMPs) provide 4,347 cubic feet of abstraction through an underground infiltration system, an infiltration basin, and a raingarden. The raingarden proposed on Part B is only achieving 0.5 inches of abstraction for the impervious surface located on that portion of the project.

Table 2: Abstraction Volumes

BMP	**Abstraction Volume (cf)**
Underground System	3,105
Infiltration Basin	922
Raingarden	320
Total	**4,347**

The applicant submitted abstraction analysis identifying the presence of clay soils 8 feet below the surface on Part B as a factor limiting infiltration on that portion of the project. The clay layer limits the volume of runoff able to be treated by infiltration practices while meeting the requirement to draw down within 48 hours. The proposed raingarden is sized to accommodate 320 cubic feet of runoff. Locations for raingardens were limited by the topography of the site in comparison with the road. All useable grass areas were used for the raingarden. The applicant considered alternative methods of providing treatment to the impervious area on Part B of the project, including installing stormsewer in Valley View Road to direct runoff from Part B to the underground infiltration system on Part A and installing an underground system on Part B. Directing run-off from Part B to Part A would require the installation of 150 feet of stormsewer in Valley View Road, which would involve significant cost to the applicant compared to the scale of the project. An underground system on Part B would have limited infiltration ability due to the presence of clay soils and would also require the extension of stormsewer, since underground systems require stormsewer to tie overflow outlets into.

The building is the minimum size possible to meet the project goals. A smaller building would not yield a sufficient return on the costs of development for the applicant for the project to be feasible. The entrance to the underground parking is required to maintain a 10% slope, or less, to conform with the Americans with Disabilities Act, and therefore must maintain its proposed dimensions. Modifications to the amount of impervious surface are not feasible.

District Engineer and staff concur that one inch of infiltration is not feasible on Part B.

Due to the listed constraints, the applicant is proposing to meet the volume control requirement by infiltrating 0.5 inches of rainfall from the impervious surface on Part B, while providing the amount of infiltration required on Part A to achieve an equivalent phosphorus reduction as would have been achieved by infiltrating an inch of runoff on the entire site's impervious surface. Per subsection 3(c)(2), if one inch of infiltration is not feasible, one-half inch of infiltration may be provided, so long as total phosphorus (TP) removal is provided to the same level as would be removed if an inch had been abstracted over the entire site's impervious surface. To demonstrate phosphorus reduction, the applicant must provide water quality modeling demonstrating the TP reduction that would be provided by infiltration of the first inch of rainfall from the site's entire impervious surface and by the proposed BMPs.

The applicant submitted a MIDS calculator model to demonstrate that TP removals in a hypothetical situation that achieves abstraction of the first inch of rainfall from the site's entire impervious surface would result in an 85% TP reduction for existing conditions. The proposed BMPs provide an 86% TP reduction from existing conditions.

Therefore, the volume and phosphorus requirements are met.

The Rule requires no increase in peak runoff rates for the 1-, 10-, and 100-year events at the downgradient property boundary. Table 2 provides the run off rates for each downgradient property boundary. All runoff from Part A discharges into the Valley View Road stormsewer and all of Part B discharges into Valley View Road. The proposed peak discharge rates decrease from existing conditions, therefore the rate control requirement is met.

Table 3: Run off rates (cubic feet per second)

	1 year event		10 year event		100 year event	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Part A	1.2	0.12	3.5	3.1	7.4	7.3
Part B	0.8	0.5	1.5	0.9	2.7	1.8
Total	2.2	0.6	4.8	4.0	9.8	8.8

The District Engineer considered Part A and Part B to constitute the drainage areas for the purposes of 3(b)(2) since they each drain entirely to one discharge point

Impacts to downstream waterbodies are regulated by Section 8 of the Stormwater Management rule. The applicant demonstrated that total runoff volumes and rates from the site decrease. Since the proposed project does not alter the run-out control elevation of the downstream waterbody, it is expected that the run-off from the site will not increase the bounce and inundation levels, and modeling was not required by the District Engineer.

Table 4: Run off volumes (cubic feet)

	2 year event	10 year event	100 year event
Existing	7,001	12,188	24,682
Proposed	2,736	7,239	19,021

Section 3 (e) requires a minimum of two vertical feet of separation between low openings of structures and the 100 year high water levels (HWL) of stormwater BMPs. The HWL of the proposed BMPs and the low openings of structures are provided in Table 5. All low openings are at least two vertical feet above the HWL of proposed BMPs. By providing two feet of vertical separation between the low openings of structures and the 100 year high water elevations of the proposed stormwater BMPs, the rule requirement is met.

Table 5: High water levels of proposed BMPs (feet)

BMP	Underground System	Infiltration Basin	Raingarden
HWL	889.4	889.5	895.2
Low Opening	891.4	891.5	898.0

The proposed stormwater management plan meets the District's requirements.

Site Contamination

Under MCWD Resolution 15-054: Adoption of Rule Policy for MS4 Compliance, infiltration is not permitted where infiltration presents a cognizable potential to mobilize contaminants in soil or groundwater. Vehicle fueling previously took place at 4416 and 4404 Valley View Road. Both sites had leaks from underground storage tanks that were reported to the Minnesota Pollution Control Agency (MPCA) and both sites were the subject of Phase I and Phase II site investigations. MPCA closed the investigations on both sites with no further action recommended at the time. Closure of investigations does not constitute any assurance that all contaminants have been removed from the site. Therefore, the applicant was required to conduct additional testing in the locations proposed for infiltration.

Most of the site's stormwater is being treated by an underground system located on the portion of the site currently occupied by single family homes, and the MCWD engineer has determined that infiltration at this location presents no cognizable threat to mobilize or exacerbate migration of contaminants. The infiltration basin and raingarden located on the 4416 and 4404 Valley View Road were identified as potential sites for soil or groundwater contamination due to previous fueling activities. To ensure infiltration would not mobilize contaminants, the applicant was required to provide soil testing for Diesel Range Organics (DRO), Gasoline Range Organics (GRO), and Volatile Organic Compounds (VOCs). The applicant provided the required testing for Part A, which is outlined in Table 5. Phase I and Phase II reports and soil testing were reviewed by the District's Engineer, who has determined that the levels of DRO, GRO, and VOCs do not represent a cognizable threat to result, if infiltration is allowed as the applicant's chosen stormwater-abstraction methodology, in mobilization or exacerbation of migration of contaminants, thereby finding no justification to recommend that MCWD disallow infiltration. The applicant does not yet have site control on Part B, and will provide the same testing in the location proposed for a raingarden. If the District's Engineer determines that the contaminant levels are such that infiltration does not pose a cognizable threat to mobilize or cause exacerbation of migration of contaminants, staff will issue the permit, allowing the applicant to proceed with implementation on Part B according to the stormwater management plan provided with this application. If the Engineer recommends, based on the results, that MCWD disallow infiltration, the applicant will be required to apply for approval of a permit modification for a revised stormwater management plan meeting applicable MCWD standards, requirements and criteria.

Summary:

Dave Carlson is proposing a condo redevelopment that will trigger the District's Erosion Control and Stormwater Management rules. The project as proposed meets the applicable requirements under each of these District rules. Staff recommends approval of the MCWD permit application with the conditions of submission of financial assurance, recordation of maintenance declaration, reimbursement of fees, submission of the Erosion Control Supplemental Form and submission of documentation of submission of NPDES permit application, Submission of documentation of authorization from the City of Edina for work occurring in public right-of-way, submission of soil testing for DRO, GRO, and VOCs at the location of the proposed raingarden at 4404 Valley View Road prior to commencement of work at 4404 Valley View Road, subject to staff approval, if District Engineer

determines soil testing demonstrates a cognizable threat to mobilize contaminants, submission of permit modification for a revised stormwater management plan meeting applicable MCWD standards, requirements and criteria, subject to staff approval.

Attachments:
1. Permit Application
2. Site Location
3. Site Plan

_____

Elizabeth Showalter Date: February 20, 2018

17-512

Print Form

WATER RESOURCE PERMIT APPLICATION FORM

Use this form to notify/apply to the Minnehaha Creek Watershed District (MCWD) of a proposed project or work which may fall within their jurisdiction. Fill out this form completely and submit with your site plan, maps, etc. to the MCWD at:
15320 Minnetonka Blvd. Minnetonka, MN 55345.
Keep a copy for your records.

YOU MUST OBTAIN ALL REQUIRED AUTHORIZATIONS BEFORE BEGINNING WORK.

1. Name of each property owner: David Carlson
Mailing Address: 2249 Portico Green City: Wayzata State: MN Zip: 55391
Email Address: dvlper@aol.com Phone: 612-275-8255 Fax:

2. Property Owner Representative Information (not required) (licensed contractor, architect, engineer, etc…)
Business Name: Larson Engineering Representative Name: Matt Woodruff
Business Address: 3524 Labore Road City: White Bear Lake State: MN Zip: 55110
Email Address: mwoodruff@larsonengr.com Phone: 651-481-9120 Fax: 651-481-9201

3. Project Address: Int. of Valley View & Kellogg and Valley View & Oaklawn City: Edina
State: MN Zip: 55424 Qtr Section(s): 44 Section(s): 19 Township(s): 02 Range(s): 82
Lot: _____ Block: _____ Subdivision: See exist. conditions survey PID: _____

4. Size of project parcel (square feet or acres): 54,724 SF
Area of disturbance (square feet): 54,724 SF Volume of excavation/fill (cubic yards): _____
Area of existing impervious surface: 21,623 SF Area of proposed impervious surface: 38,356 SF
Length of shoreline affected (feet): 0 Waterbody (& bay if applicable): N/A

5. Type of permit being applied for (Check all that apply):
- ☑ EROSION CONTROL
- ☐ FLOODPLAIN ALTERATION
- ☐ WETLAND PROTECTION
- ☐ DREDGING
- ☐ SHORELINE/STREAMBANK STABILIZATION
- ☐ WATERBODY CROSSINGS/STRUCTURES
- ☑ STORMWATER MANAGEMENT
- ☐ APPROPRIATIONS
- ☐ ILLICIT DISCHARGE

6. Project purpose (Check all that apply):
- ☐ SINGLE FAMILY HOME
- ☐ ROAD CONSTRUCTION
- ☐ UTILITIES
- ☐ DREDGING
- ☐ SHORELINE/STREAMBANK STABILIZATION
- ☑ MULTI FAMILY RESIDENTIAL (apartments)
- ☐ COMMERCIAL or INSTITUTIONAL
- ☐ SUBDIVISIONS (include number of lots)
- ☐ LANDSCAPING (pools, berms, etc.)
- ☐ OTHER (DESCRIBE):

7. NPDES/SDS General Stormwater Permit Number (if applicable): _____

8. Waterbody receiving runoff from site: _____

9. Project Timeline: Start Date: January 1, 2018 Completion Date: June 30, 2019

Permits have been applied for: City ☐ County ☒ MN Pollution Control Agency ☐ DNR ☐ COE ☐
Permits have been received: City ☐ County ☐ MN Pollution Control Agency ☐ DNR ☐ COE ☐

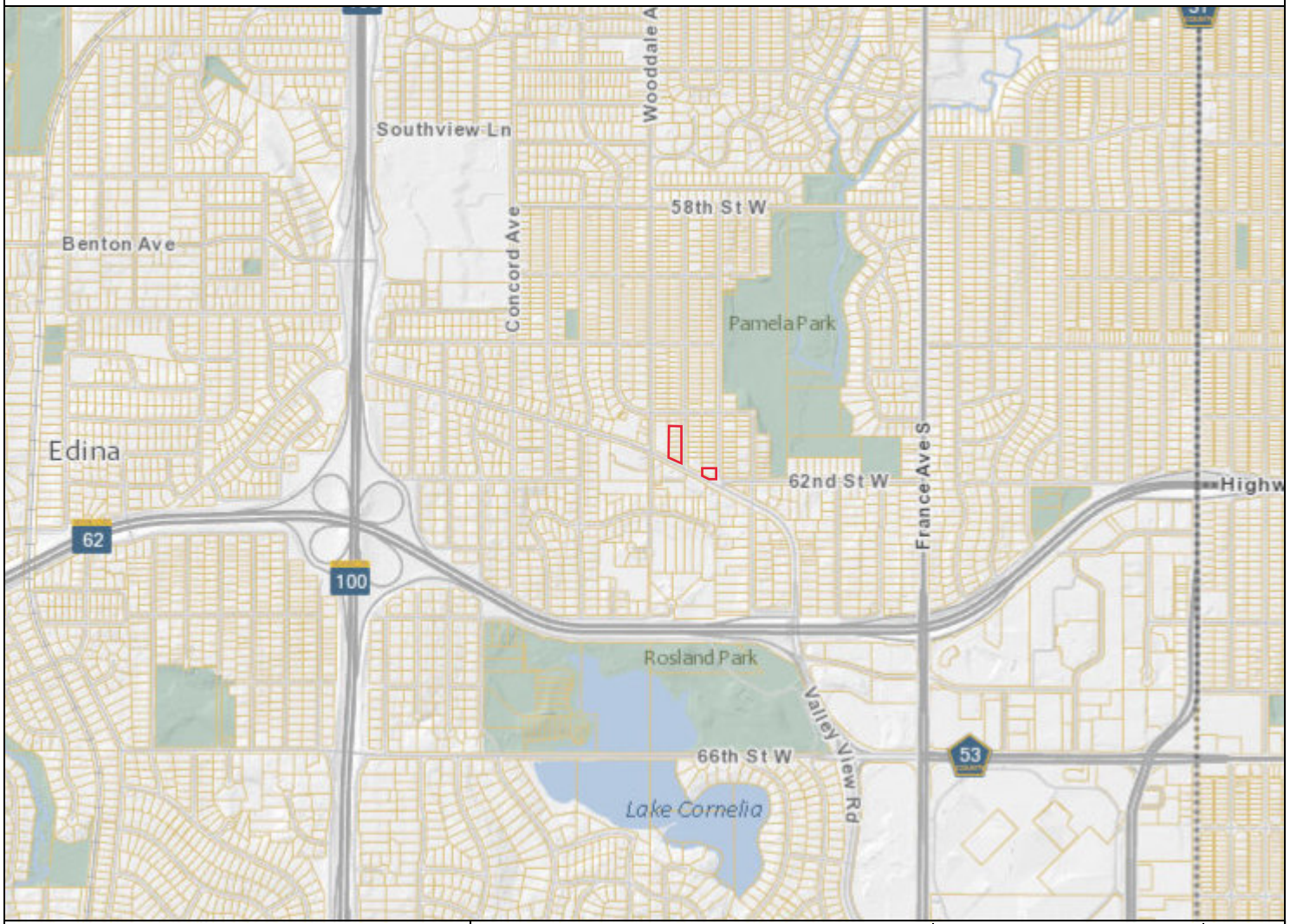
By signing below, I hereby request a permit to authorize the activities described herein. I certify that I am familiar with MCWD Rules and that the proposed activity will be conducted in compliance with these Rules. I am familiar with the information contained in this application and, to the best of my knowledge and belief, all information is true, complete and accurate. I understand that proceeding with work before all required authorizations are obtained may be subject to federal, state and/or local administrative, civil and/or criminal penalties.

Signature of Each Property Owner

10/6/17
Date

Hennepin County Natural Resources Map

Date: 2/20/2018



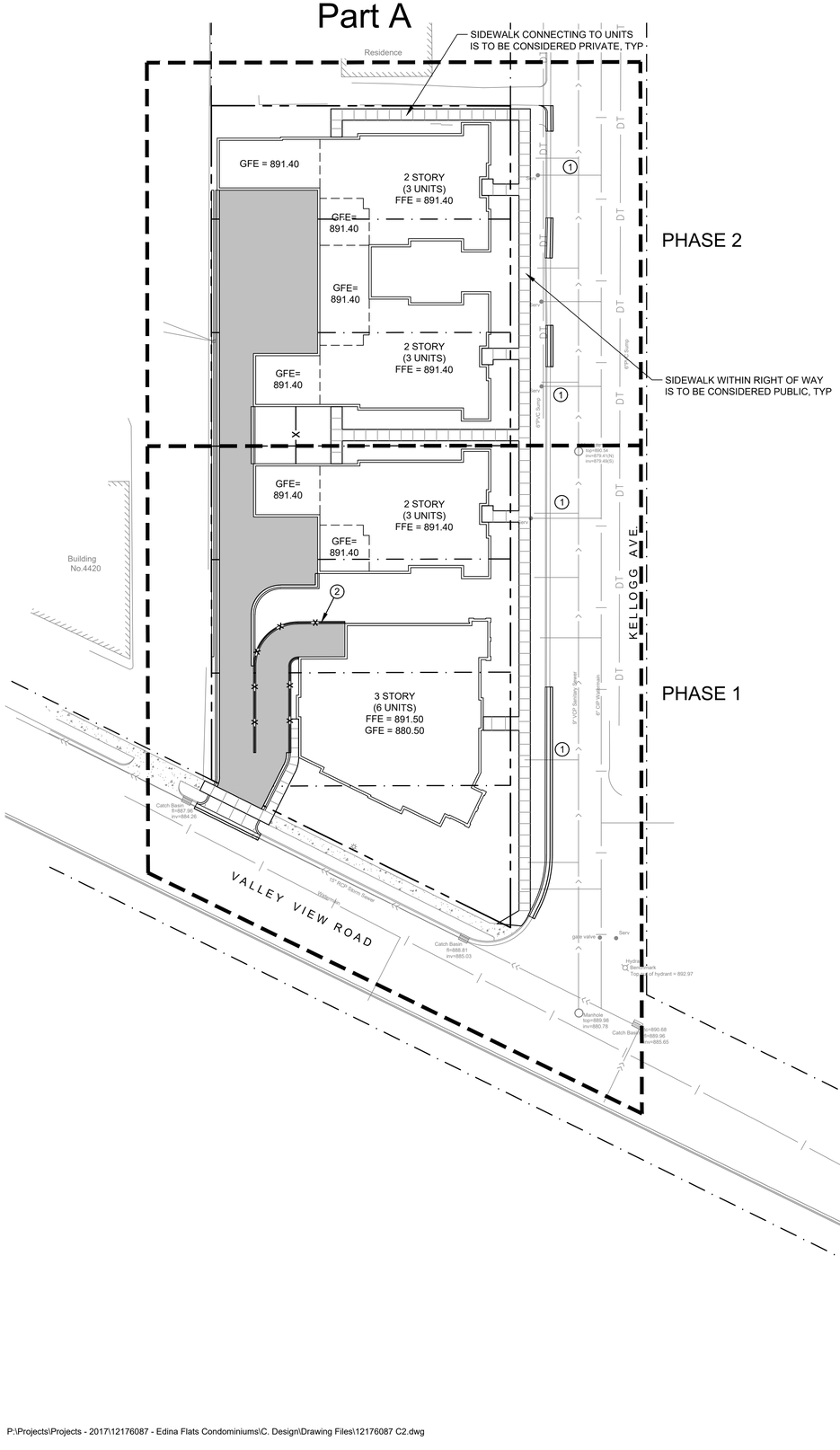
No results

Comments:

1 inch = 1,600 feet

N

Legend



NOTES

1. All sidewalks are assumed to be public unless otherwise noted.

SYMBOL LEGEND

NEW 3" BITUMINOUS PAVEMENT OVER
NEW 8" CRUSHED AGGREGATE BASE
SEE DETAIL

NEW 4" CONCRETE PAVEMENT OVER
NEW 6" CRUSHED AGGREGATE BASE
SEE DETAIL

WHERE APPLICABLE, DIMENSIONS ARE FROM BACK OF CURB TO BACK OF CURB OR BACK OF CURB TO END OF STALL LINE.

KEY NOTES

(1) STREET UTILITY PATCHES FOLLOWING UTILITY CONNECTIONS SHALL FOLLOW CITY STANDARD PLATE #540 AND #542.

(2) REFER TO ARCHITECTURAL/STRUCTURAL PLANS FOR PARKING GARAGE RETAINING WALL DESIGNS. DESIGNS TO INCORPORATE PROTECTIVE FENCE/RAILING AND WATERPROOFING SYSTEM.

NORTH

0 15 30 60

Larson Engineering, Inc.
3524 Labore Road
White Bear Lake, MN 55110
651.481.9120 (f) 651.481.9201
www.larsonengr.com

Client:
GATEHOUSE PROPERTIES, LTD
McGLYNN PARTNERS, LLC

NOT FOR CONSTRUCTION

Project Title:
EDINA FLATS CONDOMINIUM DEVELOPMENT
EDINA, MN

I hereby certify that this plan, specifications 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.

Matt Woodruff, P.E.

Date: 08.25.17 Reg. No.: 41885

Rev.	Date	Description
1	10.06.17	MCWD Submittal
2	10.25.17	City/MCWD Submittal
3	11.15.17	Grading Revision
4	11.27.17	City Comments
5	02.13.18	Raise FFE

Project #: 12176087
Drawn By: KBK
Checked By: MJW
Issue Date: 08.25.17

Sheet Title:
PAVING AND DIMENSION PLAN

Sheet: C2

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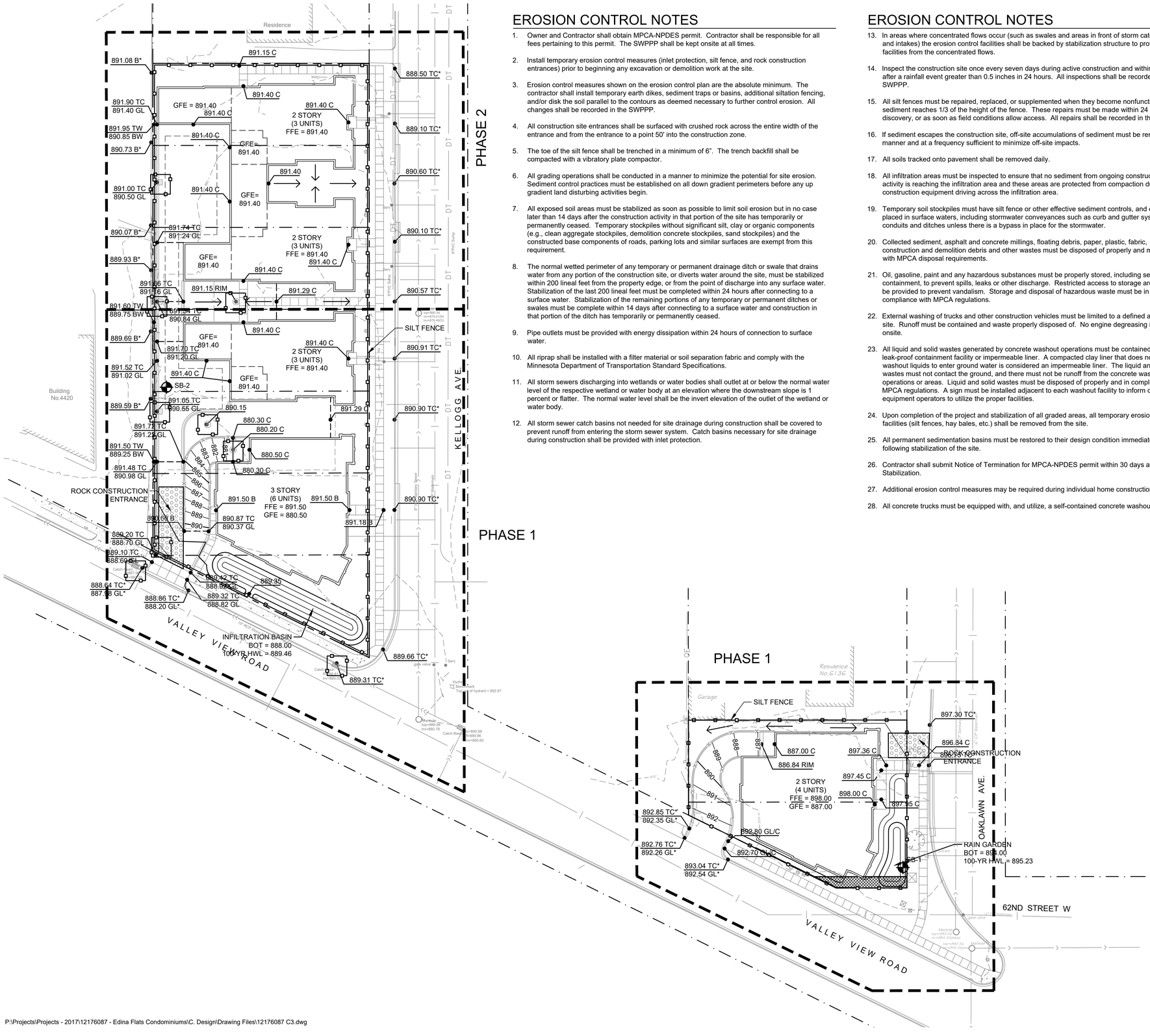

EROSION CONTROL NOTES

1. Owner and Contractor shall obtain MPCA-NPDES permit. Contractor shall be responsible for all fees pertaining to this permit. The SWPPP shall be kept onsite at all times.
2. Install temporary erosion control measures (inlet protection, silt fence, and rock construction entrances) prior to beginning any excavation or demolition work at the site.
3. Erosion control measures shown on the erosion control plan are the absolute minimum. The contractor shall install temporary earth dikes, sediment traps or basins, additional siltation fencing, and/or disk the soil parallel to the contours as deemed necessary to further control erosion. All changes shall be recorded in the SWPPP.
4. All construction site entrances shall be surfaced with crushed rock across the entire width of the entrance and from the entrance to a point 50' into the construction zone.
5. The toe of the silt fence shall be trenched in a minimum of 6". The trench backfill shall be compacted with a vibratory plate compactor.
6. All grading operations shall be conducted in a manner to minimize the potential for site erosion. Sediment control practices must be established on all down gradient perimeters before any up gradient land disturbing activities begin.
7. All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement.
8. The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 lineal feet must be completed within 24 hours after connecting to a surface water. Stabilization of the remaining portions of any temporary or permanent ditches or swales must be complete within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.
9. Pipe outlets must be provided with energy dissipation within 24 hours of connection to surface water.
10. All riprap shall be installed with a filter material or soil separation fabric and comply with the Minnesota Department of Transportation Standard Specifications.
11. All storm sewers discharging into wetlands or water bodies shall outlet at or below the normal water level of the respective wetland or water body at an elevation where the downstream slope is 1 percent or flatter. The normal water level shall be the invert elevation of the outlet of the wetland or water body.
12. All storm sewer catch basins not needed for site drainage during construction shall be covered to prevent runoff from entering the storm sewer system. Catch basins necessary for site drainage during construction shall be provided with inlet protection.

EROSION CONTROL NOTES

13. In areas where concentrated flows occur (such as swales and areas in front of storm catch basins and intakes) the erosion control facilities shall be backed by stabilization structure to protect those facilities from the concentrated flows.
14. Inspect the construction site once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. All inspections shall be recorded in the SWPPP.
15. All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access. All repairs shall be recorded in the SWPPP.
16. If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts.
17. All soils tracked onto pavement shall be removed daily.
18. All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.
19. Temporary soil 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, or conduits and ditches unless there is a bypass in place for the stormwater.
20. Collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
21. Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
22. External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed onsite.
23. All liquid and solid wastes generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
24. Upon completion of the project and stabilization of all graded areas, all temporary erosion control facilities (silt fences, hay bales, etc.) shall be removed from the site.
25. All permanent sedimentation basins must be restored to their design condition immediately following stabilization of the site.
26. Contractor shall submit Notice of Termination for MPCA-NPDES permit within 30 days after Final Stabilization.
27. Additional erosion control measures may be required during individual home construction.
28. All concrete trucks must be equipped with, and utilize, a self-contained concrete washout system.

LEGEND

- 950 — EXISTING CONTOURS
- 950 — PROPOSED CONTOURS - MAJOR INTERVAL
- 949 — PROPOSED CONTOURS - MINOR INTERVAL
- GRADE BREAK LINE
- 2.0% GRADE SLOPE
- SILT FENCE
- RIP-RAP / ROCK CONST. ENTRANCE
- INLET PROTECTION

950.00 TC
949.50 GL

SPOT ABBREVIATIONS:
TC - TOP OF CURB
GL - GUTTER LINE
B - BITUMINOUS
C - CONCRETE
EO - EMERGENCY OVERFLOW
TW - TOP OF WALL
BW - BOTTOM OF WALL (F/G)
(*) - EXISTING TO BE VERIFIED

GRADING NOTES

1. Tree protection consisting of snow fence or safety fence installed at the drip line shall be in place prior to beginning any grading or demolition work at the site.
2. All elevations with an asterisk (*) shall be field verified. If elevations vary significantly, notify the Engineer for further instructions.
3. Grades shown in paved areas represent finish elevation.
4. Restore all disturbed areas with 6" of good quality topsoil and seed,
5. All construction shall be performed in accordance with state and local standard specifications for construction.

DEWATERING GUIDELINES

When necessary, dewatering must comply with the following guidelines:

a. Dewatering shall consist of the use of a non-woven geotextile dewatering bag, located on a vegetated surface.

b. Contractor shall use skimmers and filters per manufacturers recommended procedures.

c. Dewatering shall take place after sediment has settled to the bottom of the basin.

d. Contractor shall prevent erosion and scour at discharge points through the use of an energy dissipation device.

e. Dewatering must avoid nuisance conditions in receiving waters.

f. Dewatering must not inundate downstream areas.

NORTH
0 15 30 60

NOT FOR CONSTRUCTION

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3524 Labore Road
White Bear Lake, MN 55110
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www.larsonengr.com

Client:
GATEHOUSE PROPERTIES, LTD
McGLYNN PARTNERS, LLC

Project Title:
EDINA FLATS CONDOMINIUM DEVELOPMENT
EDINA, MN

I hereby certify that this plan, specifications 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.

Matt Woodruff, P.E.

Date: 08.25.17 Reg. No.: 41885

Rev.	Date	Description
1	10.06.17	MCWD Submittal
2	10.25.17	City/MCWD Submittal
3	11.15.17	Grading Revision
4	11.27.17	City Comments
5	02.13.18	Raise FFE

Project #: 12176087
Drawn By: KBK
Checked By: MJW
Issue Date: 08.25.17

Sheet Title:
GRADING AND EROSION CONTROL PLAN

Sheet: C3

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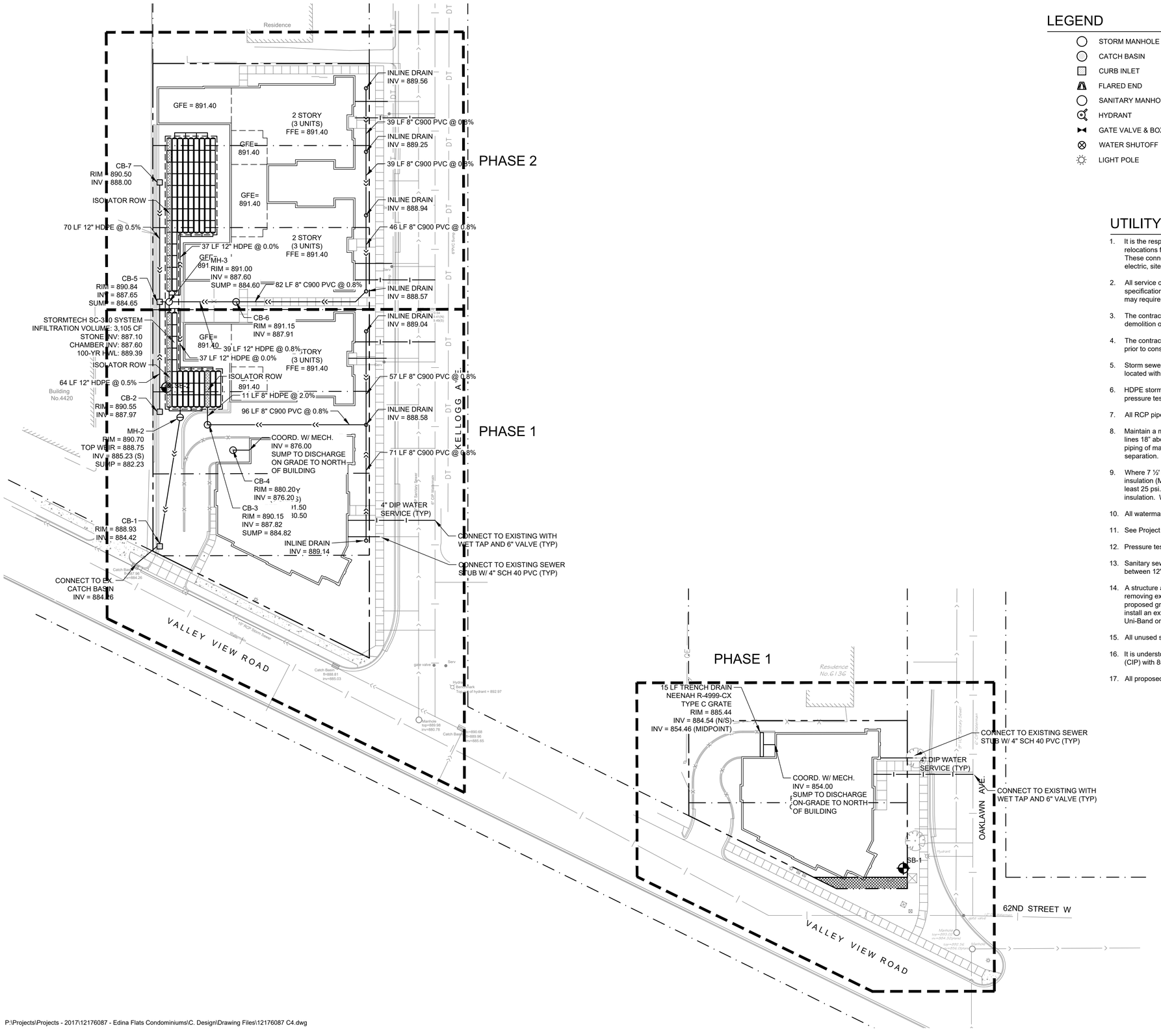

LEGEND

STORM MANHOLE		CTV	CABLE UNDERGROUND LINE
CATCH BASIN		OE	ELECTRIC OVERHEAD LINE
CURB INLET		UE	ELECTRIC UNDERGROUND LINE
FLARED END		FO	FIBER OPTIC UNDERGROUND LINE
SANITARY MANHOLE		G	NATURAL GAS UNDERGROUND LINE
HYDRANT			SANITARY SEWER PIPE
GATE VALVE & BOX			STORM SEWER PIPE
WATER SHUTOFF		T	TELEPHONE UNDERGROUND LINE
LIGHT POLE			WATERMAIN PIPE
		DT	DRAINTILE PIPE

UTILITY NOTES

1. It is the responsibility of the contractor to perform or coordinate all necessary utility connections and relocations from existing utility locations to the proposed building, as well as to all onsite amenities. These connections include but are not limited to water, sanitary sewer, cable TV, telephone, gas, electric, site lighting, etc.
2. All service connections shall be performed in accordance with state and local standard specifications for construction. Utility connections (sanitary sewer, watermain, and storm sewer) may require a permit from the City.
3. The contractor shall verify the elevations at proposed connections to existing utilities prior to any demolition or excavation.
4. The contractor shall notify all appropriate engineering departments and utility companies 72 hours prior to construction. All necessary precautions shall be made to avoid damage to existing utilities.
5. Storm sewer requires testing in accordance with Minnesota plumbing code 4714.1109 where located within 10 feet of waterlines or the building.
6. HDPE storm sewer piping shall meet ASTM F2306 and fittings shall meet ASTM D3212 joint pressure test. Installation shall meet ASTM C2321.
7. All RCP pipe shown on the plans shall be MN/DOT class 3.
8. Maintain a minimum of 7 ½' of cover over all water lines and sanitary sewer lines. Install water lines 18" above sanitary sewers, where the sanitary sewer crosses over the water line, install sewer piping of materials equal to watermain standards for 9 feet on both sides and maintain 18" of separation.
9. Where 7 ½' of cover is not provided over sanitary sewer and water lines, install 2" rigid polystyrene insulation (MN/DOT 3760) with a thermal resistance of at least 5 and a compressive strength of at least 25 psi. Insulation shall be 8' wide, centered over pipe with 6" sand cushion between pipe and insulation. Where depth is less than 5', use 4" of insulation.
10. All watermain piping shall be class 52 ductile iron pipe unless noted otherwise.
11. See Project Specifications for bedding requirements.
12. Pressure test and disinfect all new watermains in accordance with state and local requirements.
13. Sanitary sewer piping shall be PVC, SDR-35 for depths less than 12', PVC SDR-26 for depths between 12' and 26', and class 52 D.I.P. for depths of 26' or more.
14. A structure adjustment shall include removing and salvaging the existing casting assembly, removing existing concrete rings to the precast section. Install new rings and salvaged casting to proposed grades, cleaning casting flange by mechanical means to insure a sound surface and install an external chimney seal from casting to precast section. Chimney seals shall be Infi-Shield Uni-Band or an approved equal.
15. All unused sewer and water services shall be capped and removed to the right-of-way line.
16. It is understood that existing City watermains that are adjacent to the project are cast iron pipe (CIP) with 85 psi pressure.
17. All proposed utilities are private. Existing mains within the right of way are considered public.

NORTH

0 15 30 60

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Client:
GATEHOUSE PROPERTIES, LTD
McGLYNN PARTNERS, LLC

NOT FOR CONSTRUCTION

Project Title:
EDINA FLATS CONDOMINIUM DEVELOPMENT
EDINA, MN

I hereby certify that this plan, specifications 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.

Matt Woodruff, P.E.

Date: 08.25.17 Reg. No.: 41885

Rev.	Date	Description
1	10.06.17	MCWD Submittal
2	10.25.17	City/MCWD Submittal
3	11.15.17	Grading Revision
4	11.27.17	City Comments
5	02.13.18	Raise FFE

Project #: 12176087
Drawn By: KBK
Checked By: MJW
Issue Date: 08.25.17

Sheet Title:
UTILITY PLAN

Sheet:
C4

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