

**CITY OF WEST DES MOINES
STAFF REPORT COMMUNICATION**

Item 4a

Meeting Date: June 13, 2022

ITEM: Fountain Terrace Apartments, 655 S 88th St – Approve Site Plan to allow construction of 146-unit apartment complex – Fountain Terrace Apartments, L.L.C., – SP-004903-2020

Resolution: Approval of Site Plan and Acceptance of Associated Legal Documents

Background: Erin Ollendike with Civil Design Advantage, on behalf of the applicant and property owner, Fountain Terrace Apartments, L.L.C., requests approval of the Site Plan for the approximately 8.56-acre property located at 655 S 88th Street. The applicant proposes the construction of four apartment buildings containing 146 dwellings plus a clubhouse with pool and associated site improvements.

Staff Review & Comment:

- **Financial Impact:** No City funding of the project. Staff time for processing of development application and inspections during construction.
- **History:** The subject was platted as Lot 2, Forret Acres Plat 1 which was approved by Dallas County in the mid-70's. The property previously contained one single-family dwelling which has since been removed in anticipation of development of the apartment complex.
- **Key Development Aspects:**
 - **Interconnect to Adjoining Properties:** Due to road geometry and the volume of traffic on some roadways which can limit the location and number of access drives, the city strives to ensure that adjoining developments are connected by vehicle drives. This interconnection allows for vehicles from one development to cross another for the purposes of getting to a surrounding public street. This development is connected to the Lift at Jordan Creek (fka Elevate at Jordan Creek) apartment complex on its west and south boundaries, and an approx. 4-acre parcel to the north. With the development of the Lift at Jordan Creek complex, Ingress-Egress Easements were established that would allow this property to cross that complex to reach either S 91st Street or Cascade Ave. As part of this development, the developer is establishing a reciprocal Ingress-Egress Easement that will allow tenants and visitors of the Lift complex to cross this property to reach S 88th Street, as well as allow the property to the north to connect to an internal drive allowing that property also to reach S 88th Street.
 - **Retaining Walls:** The site contains several retaining walls with some portions reaching eight feet (8') of visible wall face. City code provides the following: *No single wall face shall be greater than six feet (6') in height without terraces to break up the wall expanse. A minimum one foot (1') of terrace shall be used for each two feet (2') of wall height. Each terrace shall contain vegetation.* Additionally, any walls over four feet (4') in height are required to be designed by a Structural Engineer. The design of the walls themselves has yet to occur; however, during the review and comment process the applicant acknowledged these requirements. Staff recommends a condition of approval including reinforcement of the regulation of a maximum six-foot (6') wall face, requiring the locating of a barrier (vegetation or guardrails) at the top of significant drops and submittal of wall plans prior to the issuance of the occupancy for the last building in phase one (buildings 3000, 2000, and 5000, constructed in this order) or issuance of the building permit for the building 4000.

- Easements & Agreements: As indicated above, the subject parcel was created with a 1970's final plat while still in unincorporated Dallas County. Since this was a county plat and development of the site unknown, the easements and agreements typical acquired as part of the final plat process were not granted. As part of this site plan process the applicant has provided, and the City Council will be accepting the following:
 - Sanitary Sewer Easement
 - Permanent Pedestrian Easement – providing for public use of portion of sidewalk located on private property near the southeast corner of the site.
 - Ingress-Egress Easement – allowing for vehicles from the adjoining Lift at Jordan Creek apartment complex, as well as the Marilyn Mueller property immediately to the north (Lot 1, Forret Acres Plat 1) to cross the property to cross through the property to reach S 88th Street.
 - Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement
 - Parkland Dedication Agreement

Additionally, the applicant provided West Des Moines Water Works Permanent Public Easement and Right of Way for Water Main.

- The site plan for the proposed development was provided to Marilyn Mueller, property owner of the single-family home immediately to the north. Her comments and questions were communicated to the developer and the developer's responses provided back. No additional comments have been received. Staff would note, to minimize light encroachment onto the Mueller property, the lighting consultant has incorporated shields on the light fixtures along the drive aisle that will connect to her property.
- Developer Responsibilities:
 - The city undertook the reconstruction of the Mills Civic Parkway and S 88th Street intersection, including approximately ¼ mile of the roadways in each direction from the intersection. The property owners adjacent to these improvements were responsible for a portion of the costs. This property's share of the costs amounted to approximately \$94,500.00 which was paid by the developer in October 2021.
 - Driveway Connection: As explained above, driveway connections between the subject property and adjoining properties are required to allow residents to get to various surrounding public roadways. The developer has planned for a drive connection to the property to the north; however, the full length of the drive cannot be constructed at this time due to grading that would need to occur on the adjoining property. The developer has been made aware that at such time that the adjoining property develops, and a drive connection is desired, they will need to participate in the extension of the drive to the subject's north property line. This is provided for in the Ingress-Egress Easement that the developer has provided.
- Conditions of Approval:
 - Storm Water Management Facilities: As is customary with plats and site plans, the developer is required to have prepared a Storm Water Management Plan which details storm water detention facilities to be constructed within the property. In conjunction with this plan the property owner also provides an agreement for the on-going maintenance of the facilities, as built plans and certifications confirming the detention facilities were constructed as detailed in the Storm Water Management Plan. The agreement is executed in conjunction with the final plat or site plan; however, the as built plans and certifications cannot be provided until the detention facilities have been constructed. It is

standard practice to include a condition of approval requiring these be provided prior to occupancy.

- **Traffic Impact Study Findings:** The November 25, 2020, Traffic Impact Study for the proposed development indicates that the development will generate slightly less traffic than previously assumed. The study revealed that an earlier site layout indicated an inadequate eastbound left-turn lane with about 50' of storage behind the sidewalk crossing at the site's proposed access on S 88th Street. The projected left-turn queue during the peak hours of full-build is approximately 100', which would block the eastbound thru/right lane at times. This will occur more frequently as cross-traffic on S 88th Street increases and if the intersection is signalized in the future. To minimize the frequency of the thru/right lane being blocked, the study recommended extending the 3-lane section farther west to have at least 100' of storage behind the sidewalk (space for about 4 stacked vehicles). The 100' is now being provided.
- **Vesting of Entitlement:** Per City Code, entitlement (approval to construct or implement) shall remain in effect so long as substantial site work has progressed beyond grading and completion of structural foundations and twenty-five percent (25%) of the total building area has occurred above grade within twenty-four (24) months of the effective date of the approval, unless a greater time period is authorized at time of the original entitlement, or by approval of an extension of the original entitlement. It is the responsibility of the developer to be aware of this deadline and request an extension of the approval prior to the expiration date.

Outstanding Issues: There are no outstanding issues.

Plan and Zoning Commission Action:

Date:

Vote:

Recommendation:

Recommendation: Approve the Site Plan request, subject to the applicant meeting all City Code requirements, and the following conditions of approval:

1. The applicant acknowledging and agreeing that no retaining wall face shall exceed six feet (6') in height, that the proper barrier shall be placed at the top of walls which have more than a 30" drop and to provide to the Building Division plans prepared by a licensed structural engineer for any retaining walls which are four feet (4') or greater in height. Said plans shall be provided, reviewed and approved prior to issuance of a building permit for the last dwelling building permitted for construction, or prior to construction of the walls, or prior to issuance of an occupancy permit for any dwelling in the 3rd building constructed (phase one), whichever occurs first.
2. The applicant providing storm water detention facility as built plans and certifications prior to issuance of an occupancy permit, including temporary occupancy for any dwelling in the last building permitted for construction.
3. Applicant acknowledging and agreeing that in order to occupy buildings prior to complete build out of the site, all site improvements, including pavement and ADA markings, sidewalks, buffers, landscaping and lawns associated with the buildings to be occupied will need to be completed.
4. The applicant acknowledging and agreeing that all mechanical equipment within the site will be visually screened to staff's satisfaction prior to issuance of any occupancy permits, including temporary occupancy for any dwelling within the last building permitted for construction.
5. The applicant acknowledging and agreeing that improvements agreed upon to fulfill Parkland Dedication requirements shall be installed and approved by the Parks & Recreation Department

prior to issuance of any occupancy permits, including temporary occupancy for any dwelling within the last building permitted for construction.

6. The applicant acknowledging and agreeing that the proper Sign Permit Application will be submitted and approved prior to installation of any development identification signage.

Lead Staff Member: Lynne Twedt

Approval Meeting Dates:

Plan and Zoning Commission	June 13, 2022
City Council	

Staff Report Reviews:

Plan & Zoning Commission	<input checked="" type="checkbox"/> Development Coordinator (or) <input type="checkbox"/> Director	<input checked="" type="checkbox"/> Legal Department
City Council	<input type="checkbox"/> Director <input type="checkbox"/> Appropriations/Finance	<input type="checkbox"/> Legal Department <input type="checkbox"/> Agenda Acceptance

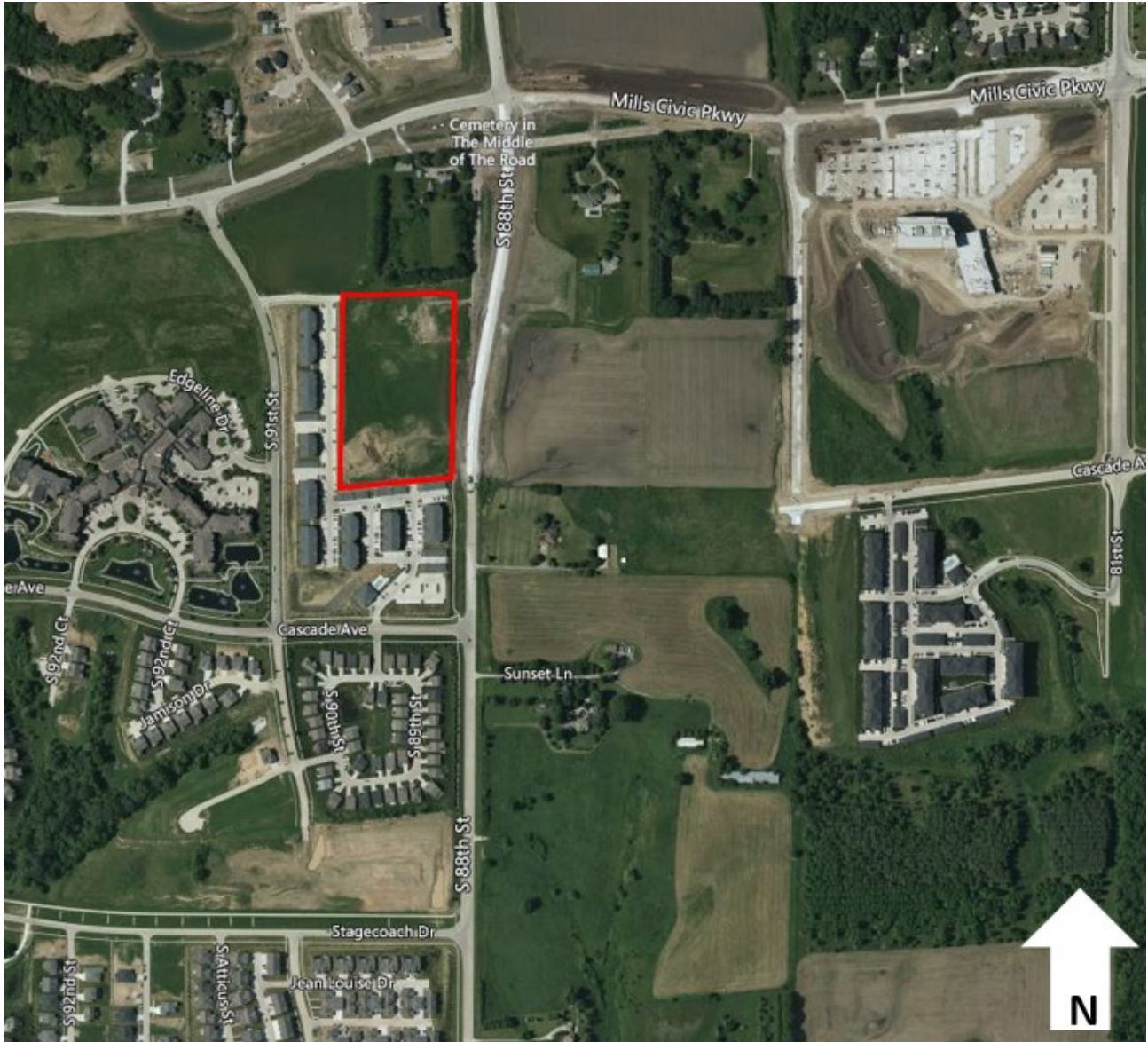
Publications (if applicable)

Published In:	Des Moines Register Community Section
Date(s) Published	n/a
Date(s) of Mailed Notices	n/a

Council Subcommittee Review (if applicable)

Subcommittee	Development & Planning
Date Reviewed	5/3/2021
Recommendation	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Split

Location Map



**A RESOLUTION OF THE PLAN AND ZONING COMMISSION
NO. PZC-22-043**

WHEREAS, pursuant to the provisions of Title 9, Zoning of the West Des Moines Municipal Code, the applicant and property owner, Fountain Terrace Apartments, L.L.C., request approval of the Site Plan for the approximately 8.56-acre property located at 655 S 88th Street as depicted on the location map included in the staff report. The applicant requests approval to construct four apartment buildings containing 146 dwellings, a clubhouse with pool and associated site improvements; and

WHEREAS, the Site Plan request complies with the findings stated in the applicable provisions of Title 9, the Comprehensive Plan and City Code.

NOW THEREFORE, the Plan and Zoning Commission of the City of West Des Moines recommends the City Council approve the Site Plan (SP-004903-2020), subject to compliance with all the conditions of approval as stated in the staff report, including conditions added at the meeting, and attached hereto as Exhibit "A", if applicable.

PASSED AND ADOPTED on June 13, 2022.

Jennifer Drake, Chair
Plan and Zoning Commission

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Plan and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting on June 13, 2022, by the following vote:

AYES:

NAYS:

ABSTENTIONS:

ABSENT:

ATTEST:

Recording Secretary

Prepared by: Lynne Twedt, City of West Des Moines Development Services Dept., PO Box 65320, West Des Moines, Iowa 50265-0320 515-222-3620
When Recorded, Return to: City Clerk, City of West Des Moines, PO Box 65320, West Des Moines, IA 50265-0320

RESOLUTION

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WEST DES MOINES, APPROVING A SITE PLAN TO ALLOW CONSTRUCTION OF FOUR APARTMENT BUILDINGS AND A CLUBHOUSE BUILDING

WHEREAS, pursuant to the provisions of Title 9, Zoning, of the West Des Moines Municipal Code, the applicant and property owner, Fountain Terrace Apartments, L.L.C., requests approval of a Site Plan for that property located at 655 S 88th Street and legally described in attached Exhibit 'B' for the purpose of constructing four apartment buildings containing 146 dwellings, a clubhouse with pool and associated site improvements; and

WHEREAS, studies and investigations were made, and staff reports, and recommendations were submitted which is made a part of this record and herein incorporated by reference; and

WHEREAS, the Site Plan complies with findings stated in the applicable provisions of Title 9, Chapter 1, Subsection 8, the Comprehensive Plan and City Code.

WHEREAS, on June 13, 2022, the Plan and Zoning Commission recommended to the City Council, by a ~~X-X~~ vote, for **approval** of the Site Plan; and

WHEREAS, on this day the City Council held a duly noticed meeting to consider the application for the Site Plan.

WHEREAS, the City Council is accepting a Sanitary Sewer Easement, Permanent Pedestrian Easement, Ingress-Egress Easements, Storm Water Management Facility Maintenance Covenant and Permanent Easement Agreement, and Parkland Dedication Agreement.

NOW, THEREFORE, The City Council does approve the Fountain Terrace Apartments Site Plan (SP-004903-2020), subject to compliance with all of the conditions of approval, including any conditions added at the meeting, attached hereto as Exhibit "A". Violation of any such conditions shall be grounds for revocation of the permit, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on June 20, 2022.

Russ Trimble, Mayor

ATTEST:

Ryan Jacobson, City Clerk

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the City Council of the City of West Des Moines, Iowa, at a regular meeting held on June 20, 2022, by the following vote.

Exhibit A: Conditions of Approval

1. The applicant acknowledging and agreeing that no retaining wall face shall exceed six feet (6') in height, that the proper barrier shall be placed at the top of walls which have more than a 30" drop and to provide to the Building Division plans prepared by a licensed structural engineer for any retaining walls which are four feet (4') or greater in height. Said plans shall be provided, reviewed and approved prior to issuance of a building permit for the last dwelling building permitted for construction, or prior to construction of the walls, or prior to issuance of an occupancy permit for any dwelling in the 3rd building constructed (phase one), whichever occurs first.
2. The applicant providing storm water detention facility as built plans and certifications prior to issuance of an occupancy permit, including temporary occupancy for any dwelling in the last building permitted for construction.
3. Applicant acknowledging and agreeing that in order to occupy buildings prior to complete build out of the site, all site improvements, including pavement and ADA markings, sidewalks, buffers, landscaping and lawns associated with the buildings to be occupied will need to be completed.
4. The applicant acknowledging and agreeing that all mechanical equipment within the site will be visually screened to staff's satisfaction prior to issuance of any occupancy permits, including temporary occupancy for any dwelling within the last building permitted for construction.
5. The applicant acknowledging and agreeing that improvements agreed upon to fulfill Parkland Dedication requirements shall be installed and approved by the Parks & Recreation Department prior to issuance of any occupancy permits, including temporary occupancy for any dwelling within the last building permitted for construction.
6. The applicant acknowledging and agreeing that the proper Sign Permit Application will be submitted and approved prior to installation of any development identification signage.

Exhibit B: Legal Description

Lot 2 of Forret Acres Plat 1, an Official Plat, now included in and forming a part of the City of West Des Moines, Dallas County, Iowa, except land deeded to the City of West Des Moines in Book 2019, Page 3469

SITE PLAN FOR: FOUNTAIN TERRACE APARTMENTS

WEST DES MOINES, IOWA

VICINITY MAP



OWNER / APPLICANT

FOUNTAIN TERRACE APARTMENTS, LLC
CONTACT: JOHN LARSON
5721 MERLE HAY ROAD, STE. #20
JOHNSTON, IOWA 50131
PH. (515) 664-2582
FX. (515) 276-4156

ENGINEER

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: ERIN OLLENDIKE
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH. (515) 369-4400
FX. (515) 369-4410

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
CONTACT: MIKE BROONER
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH. (515) 369-4400
FX. (515) 369-4410

ARCHITECT

ALLER DESIGN GROUP
CONTACT: TED KARNES
1840 NW 118TH STREET, SUITE 220
CLIVE, IOWA 50325
PH. (515) 254-1181

BENCHMARKS

- WDM BENCHMARK NO 35 INTERSECTION OF MILLS CIVIC PARKWAY (330th STREET, DALLAS COUNTY), AND SOUTH 88th STREET (X AVENUE, DALLAS COUNTY), NORTHEAST CORNER OF INTERSECTION, 206 FEET EAST OF CENTERLINE OF 88th STREET, 49 FEET NORTH OF THE CENTERLINE OF MILLS CIVIC PARKWAY, 2 FEET SOUTH OF THE FENCE LINE.
ELEVATION= 219.04 (WEST DES MOINES DATUM)
- WDM BENCHMARK NO 37 SOUTH 88TH STREET, 2.640± FEET SOUTH OF MILLS CIVIC PARKWAY, 32 FEET EAST OF THE CENTERLINE OF SOUTH 88TH STREET (X AVENUE, DALLAS COUNTY), ON THE FENCE LINE TO THE WEST (1/2 SECTION LINE), 1 FOOT WEST OF THE NORTH/SOUTH FENCE LINE.
ELEVATION= 194.80 (WEST DES MOINES DATUM)

DATE OF SURVEY

JULY 2020

SUBMITTAL DATES

- SITE PLAN SUBMITTAL TO CITY #1: 10/21/2020
- SITE PLAN SUBMITTAL TO CITY #2: 01/06/2021
- SITE PLAN SUBMITTAL TO CITY #3: 03/15/2021
- SITE PLAN SUBMITTAL TO CITY #4: 05/21/2021
- SITE PLAN SUBMITTAL TO CITY #5: 09/20/2021
- SITE PLAN SUBMITTAL TO CITY #6: 10/04/2021
- FINAL SITE PLAN SUBMITTAL: 05/11/2022

LEGAL DESCRIPTION

LOT 2 OF FORRET ACRES PLAT 1, AN OFFICIAL PLAT, NOW INCLUDED IN AND FORMING A PART OF THE CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA, EXCEPT LAND DEEDED TO THE CITY OF WEST DES MOINES IN BOOK 2019, PAGE 3469. SUBJECT TO COVENANTS AND EASEMENTS OF RECORD, IF ANY.

PROJECT SITE ADDRESS

695 S. 88TH STREET

ZONING

RH (RESIDENTIAL HIGH DENSITY DISTRICT)

COMPREHENSIVE PLAN LAND USE

EXISTING: HD-HIGH DENSITY RESIDENTIAL
PROPOSED: HD-HIGH DENSITY RESIDENTIAL

DEVELOPMENT SUMMARY

AREA: 8.56 ACRES (372,743 SF)

CLUBHOUSE:
- 35' PERIMETER SETBACK ON ALL SIDES
- 30' BUILDING SEPARATION TO ANY BUILDING OVER 1,500 SF

SETBACKS (3-STORY OR GREATER):
- FRONT: 60'
- REAR: 35'
- SIDE: 35'
- 30' BUILDING SEPARATION BETWEEN BUILDINGS 1,500 SF OR GREATER

SETBACKS (DETACHED ACCESSORY STRUCTURES):
- FRONT: 35'
- REAR: 10'
- SIDE: 10'

OPEN SPACE REQUIRED: 25%
MAXIMUM UNITS / AC: 18.0 (154 UNITS)
TOTAL UNITS: 146 UNITS (17.06 UNITS/ AC.)

PARKING SUMMARY

REQUIREMENTS
1-2 BED UNITS = 1.75 SPACES
VISITOR SPACES = 1 PER 10 UNITS

REQUIRED
146 UNITS = 256 SPACE
CLUBHOUSE (1/ 50 SF) = 50 SPACES (2,500 SF)
1/10 VISITOR SPACES = 15 SPACES
TOTAL = 321 SPACES

PROVIDED = 321 SPACES
(955 GARAGE SPACES)
(278 SURFACE SPACES)

*67% OF GARAGE SPACES MAY COUNT TOWARD THE PARKING REQUIREMENT.

PHASE 1 REQUIRED
86 UNITS = 151 SPACES
CLUBHOUSE (1/ 50 SF) = 50 SPACES
1/10 VISITOR SPACES = 9 SPACES
TOTAL = 210 SPACES

PROVIDED = 210 SPACES

PHASE 2 REQUIRED
60 UNITS = 105 SPACES
1/10 VISITOR SPACES = 6 SPACES
TOTAL = 111 SPACES

PROVIDED = 111 SPACES

IMPERVIOUS AREA

146,425 SF (39%)

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = FALL 2021
ANTICIPATED FINISH DATE = FALL 2022

INDEX OF SHEETS

- | NO. | DESCRIPTION |
|---------|--|
| 1.0 | COVER SHEET |
| 2.0 | SITE LAYOUT / EASEMENT & HYDRANT COVERAGE PLAN |
| 2.1 | PHASING PLAN |
| 3.0-3.1 | DIMENSION PLAN |
| 4.0-4.2 | GRADING PLAN |
| 5.0 | EROSION AND SEDIMENT CONTROL PLAN |
| 6.0-6.1 | UTILITY PLAN |
| 7.0-7.2 | DETAILS |
| 8.0 | INTERSECTION DETAIL |
| 9.0-9.2 | LANDSCAPE PLAN |

GENERAL LEGEND

PROPOSED	EXISTING
PROJECT BOUNDARY	SANITARY MANHOLE
LOT LINE	WATER VALVE BOX
SECTION LINE	FIRE HYDRANT
CENTER LINE	WATER CURB STOP
RIGHT OF WAY	WELL
PERMANENT EASEMENT	STORM SEWER MANHOLE
TEMPORARY EASEMENT	STORM SEWER SINGLE INTAKE
TYPE SW-501 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-503 STORM INTAKE	FLARED END SECTION
TYPE SW-505 STORM INTAKE	ROOF DRAIN/ DOWNSPOUT
TYPE SW-506 STORM INTAKE	DECIDUOUS TREE
TYPE SW-513 STORM INTAKE	CONIFEROUS TREE
TYPE SW-401 STORM MANHOLE	DECIDUOUS SHRUB
TYPE SW-402 STORM MANHOLE	CONIFEROUS SHRUB
TYPE SW-301 SANITARY MANHOLE	ELECTRIC POWER POLE
STORM/SANITARY CLEANOUT	GUY ANCHOR
WATER VALVE	STREET LIGHT
FIRE HYDRANT ASSEMBLY	POWER POLE W/ TRANSFORMER
SIGN	UTILITY POLE W/ LIGHT
DETECTABLE WARNING PANEL	ELECTRIC BOX
STORM SEWER STRUCTURE NO.	ELECTRIC TRANSFORMER
STORM SEWER PIPE NO.	ELECTRIC MANHOLE OR VAULT
SANITARY SEWER STRUCTURE NO.	TRAFFIC SIGN
SANITARY SEWER PIPE NO.	TELEPHONE JUNCTION BOX
SANITARY SEWER WITH SIZE	TELEPHONE MANHOLE/VAULT
SANITARY SERVICE	TELEPHONE POLE
STORM SEWER	GAS VALVE BOX
STORM SERVICE	CABLE TV JUNCTION BOX
WATERMAIN WITH SIZE	CABLE TV MANHOLE/VAULT
WATER SERVICE	MAIL BOX
SAWOUT (FULL DEPTH)	BENCHMARK
SILT FENCE	SOIL BORING
FIRE DEPARTMENT CONNECTION	UNDERGROUND TV CABLE
USE AS CONSTRUCTED (UAC)	GAS MAIN
	FIBER OPTIC
	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

NOTES


- EROSION CONTROL MEASURES WILL BE INSTALLED AND MONITORED BY PEZZETTI EROSION CONTROL, INC. CONTACT: JEFF PEZZETTI PH. (515) 248-8211
- UTILITIES TO BE INSTALLED PER SUDAS SPECIFICATIONS.
- ALL CONSTRUCTION WITHIN PUBLIC ROW/EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS AND DSM METRO DESIGN STANDARDS.
- CONTACT WEST DES MOINES WATER WORKS AT LEAST ONE WEEK PRIOR TO CONSTRUCTION.
- ALL SIDEWALK CROSS SLOPES SHALL NOT EXCEED 1.5%.
- ALL LONGITUDINAL SIDEWALK SLOPES SHALL NOT EXCEED 5%.
- THE FOLLOWING SHALL BE MAINTAINED BY THE PROPERTY OWNER:
 - DETENTION POND AND APPURTENANCES
 - PRIVATE STORM SEWER
 - PRIVATE WATER MAIN AND SERVICES
 - PRIVATE SANITARY SEWER
 - ALL INTERNAL CIRCULATION ROADS AND PARKING AREAS
- PRIOR TO CONSTRUCTION OF ANY PUBLIC IMPROVEMENTS ASSOCIATED WITH THIS SUBDIVISION, CONSTRUCTION PLANS FOR SAID IMPROVEMENTS NEED TO BE SUBMITTED TO AND APPROVED BY THE CITY ENGINEER.
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE WDM ENGINEERING SERVICES 222-3475 TO SCHEDULE ANY REQUIRED INSPECTIONS. IT IS IMPORTANT TO NOTE CITY APPROVAL OF THIS PLAN IS SUBJECT TO THE APPLICANT OBTAINING ALL NECESSARY EASEMENTS/AGREEMENTS AND APPLICABLE PERMITS.
- NO GATING IS ALLOWED WITHIN THIS DEVELOPMENT
- IF ANY WELLS ARE ENCOUNTERED ON SITE, THEY WILL NEED TO BE PROPERLY ABANDONED. COORDINATE ABANDONMENT REQUIREMENTS WITH DALLAS COUNTY IOWA ENVIRONMENTAL HEALTH.
- THE RETAINING WALLS SHOWN IN THE SOUTHEAST CORNER OF THE PROJECT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER. THE PLANS SHALL BE PROVIDED AT THE TIME A BUILDING PERMIT APPLICATION IS SUBMITTED.

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF WEST DES MOINES GRADING PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W. THE MOST RECENT EDITION OF THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, THE 1993 DES MOINES METRO DESIGN STANDARDS WITH THE WEST DES MOINES ADDENDA, AND THE WEST DES MOINES WATER WORKS GENERAL SUPPLEMENTAL SPECIFICATIONS FOR WATER INFRASTRUCTURE SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.



Erin K. Ollendike 05-11-2022
ERIN K. OLLENDIKE, P.E. DATE
LICENSE NUMBER 16926
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
PAGES OR SHEETS COVERED BY THIS SEAL
 SHEETS 1.0 - 8.0



1-800-292-8989
www.iowaonecall.com



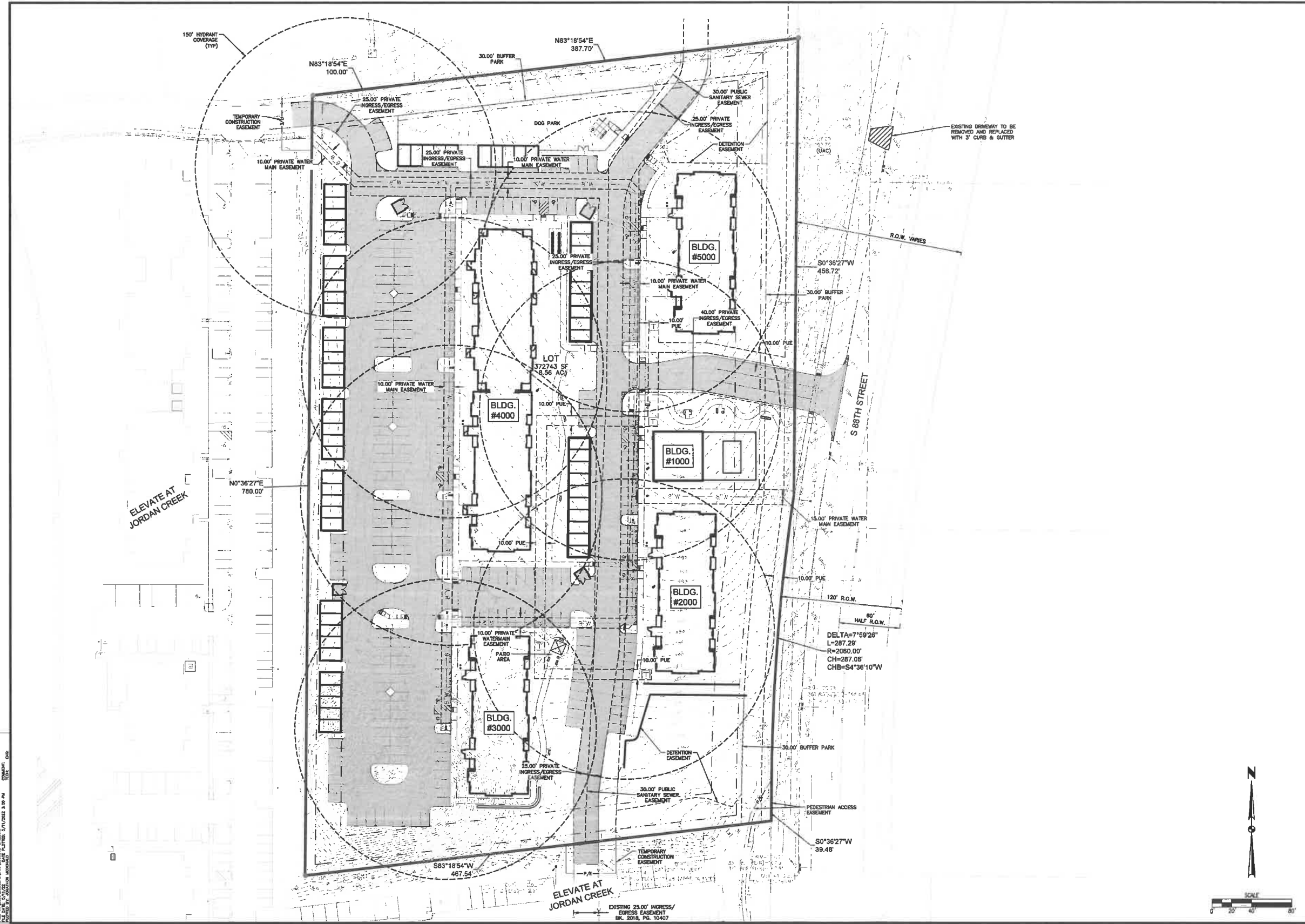
CIVIL DESIGN ADVANTAGE
 3405 SE CROSSROADS DR. SUITE G, GRIMES, IOWA 50111
 PH: (515) 369-4400 Fax: (515) 369-4410
 PROJECT NO. 2006.272

MADE IN IOWA BY CIVIL DESIGN ADVANTAGE, LLC. DATE OF PLOT: 07/2020. 4.00 IN. SCALE. DRAWN BY: ERIN OLLENDIKE. CHECKED BY: MIKE BROONER.

Fountain Terrace Apartments

PLANS INCLUDED ARE FOR ILLUSTRATIVE PURPOSES ONLY - APPROVED PLANS ON FILE WITH THE CITY

DATE: 05/17/2022
 TIME: 2:08 PM
 DRAWN BY: J. H. HARRIS
 CHECKED BY: J. H. HARRIS
 PROJECT: 2006.272



REVISIONS	DATE
SEVENTH SUBMITTAL	05/17/2022
SIXTH SUBMITTAL	10/04/2021
FIFTH SUBMITTAL	09/22/2021
FOURTH SUBMITTAL	08/27/2021
THIRD SUBMITTAL	07/12/2021
SECOND SUBMITTAL	01/26/2021

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410

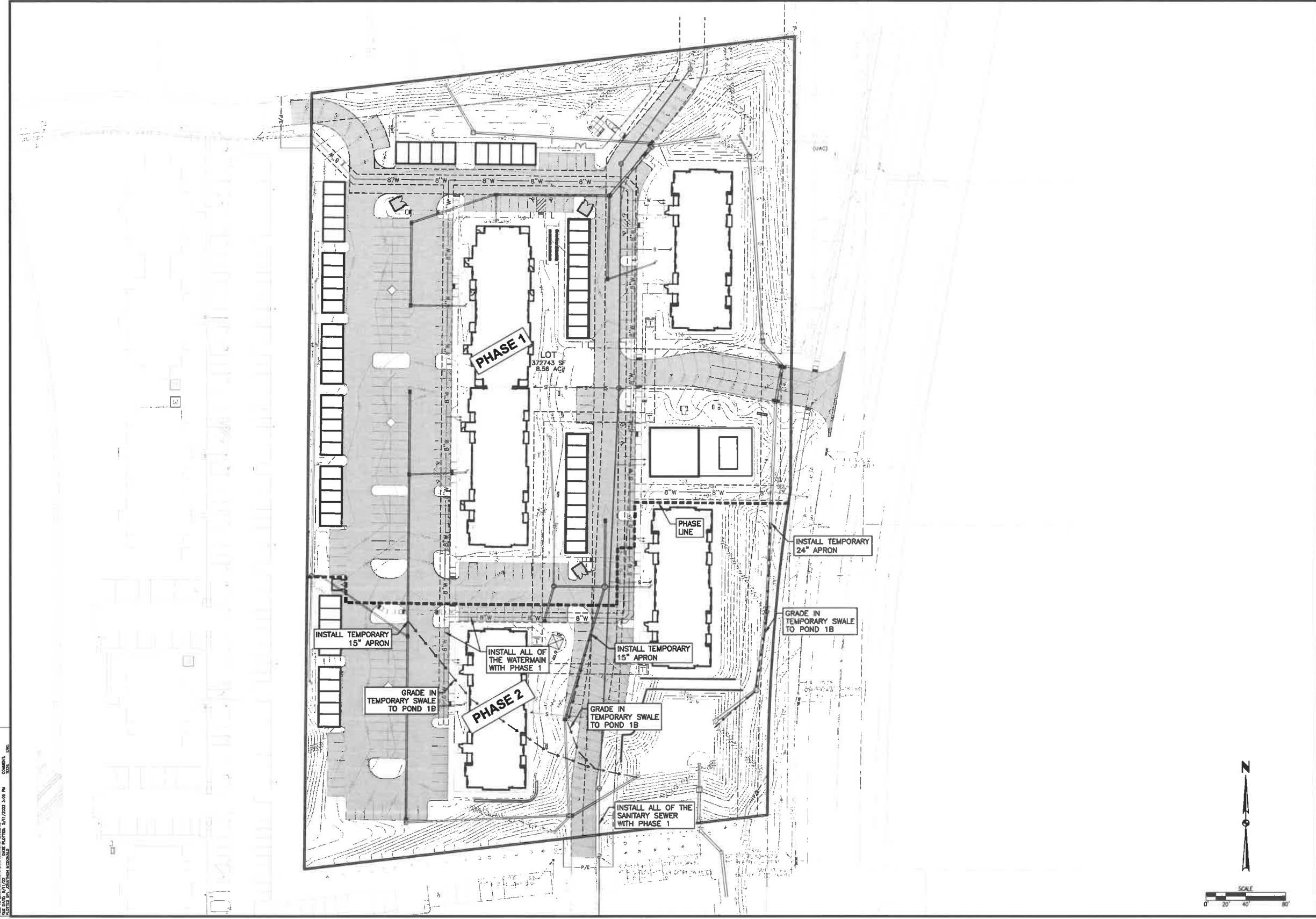
ENGINEER: EKO
 TECH: RL

ESA
 CIVIL DESIGN ADVANTAGE
 WEST DES MOINES, IOWA

FOUNTAIN TERRACE APARTMENTS
 SITE LAYOUT / EASEMENT & HYDRANT COVERAGE PLAN

2.0
 2006.272

1001 1/2 S. UNIVERSITY AVENUE, SUITE 200, WEST DES MOINES, IOWA 50319
 TEL: 515.281.1111 FAX: 515.281.1112
 WWW.GSADESIGN.COM



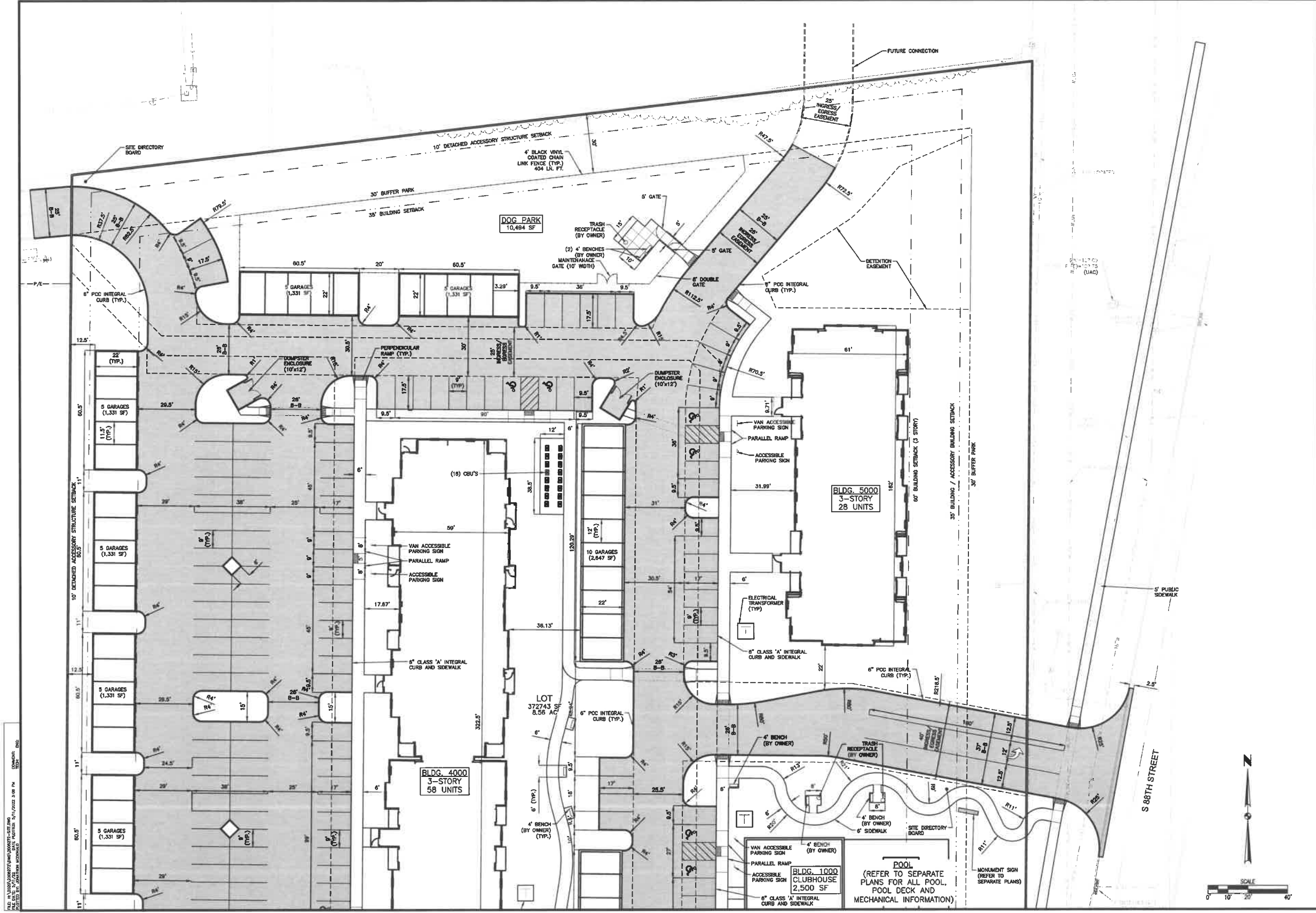
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SIXTH SUBMITTAL		10/04/2021	
FIFTH SUBMITTAL		09/20/2021	
FOURTH SUBMITTAL		07/12/2021	
THIRD SUBMITTAL		07/12/2021	
SECOND SUBMITTAL		01/08/2021	

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 389-4400 FAX: (515) 389-4410
 ENGINEER: EKO TECH: RL

GSA CIVIL DESIGN ADVANTAGE
 WEST DES MOINES, IOWA

FOUNTAIN TERRACE APARTMENTS
PHASING PLAN

2.1
 2006.272



DATE: 05/11/2022
 FILE: 2006.272
 PROJECT: 3405 S.E. CROSSROADS DRIVE, SUITE G
 DRAWN BY: J. HARRIS
 CHECKED BY: J. HARRIS

DATE	05/11/2022
SEVENTH SUBMITTAL	10/04/2021
SIXTH SUBMITTAL	09/07/2021
FIFTH SUBMITTAL	08/27/2021
FOURTH SUBMITTAL	07/19/2021
THIRD SUBMITTAL	06/23/2021
SECOND SUBMITTAL	01/06/2021

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 389-4400 FAX: (515) 389-4410

WEST DES MOINES, IOWA CIVIL DESIGN ADVANTAGE
 ENGINEER: EKO TECH: RL

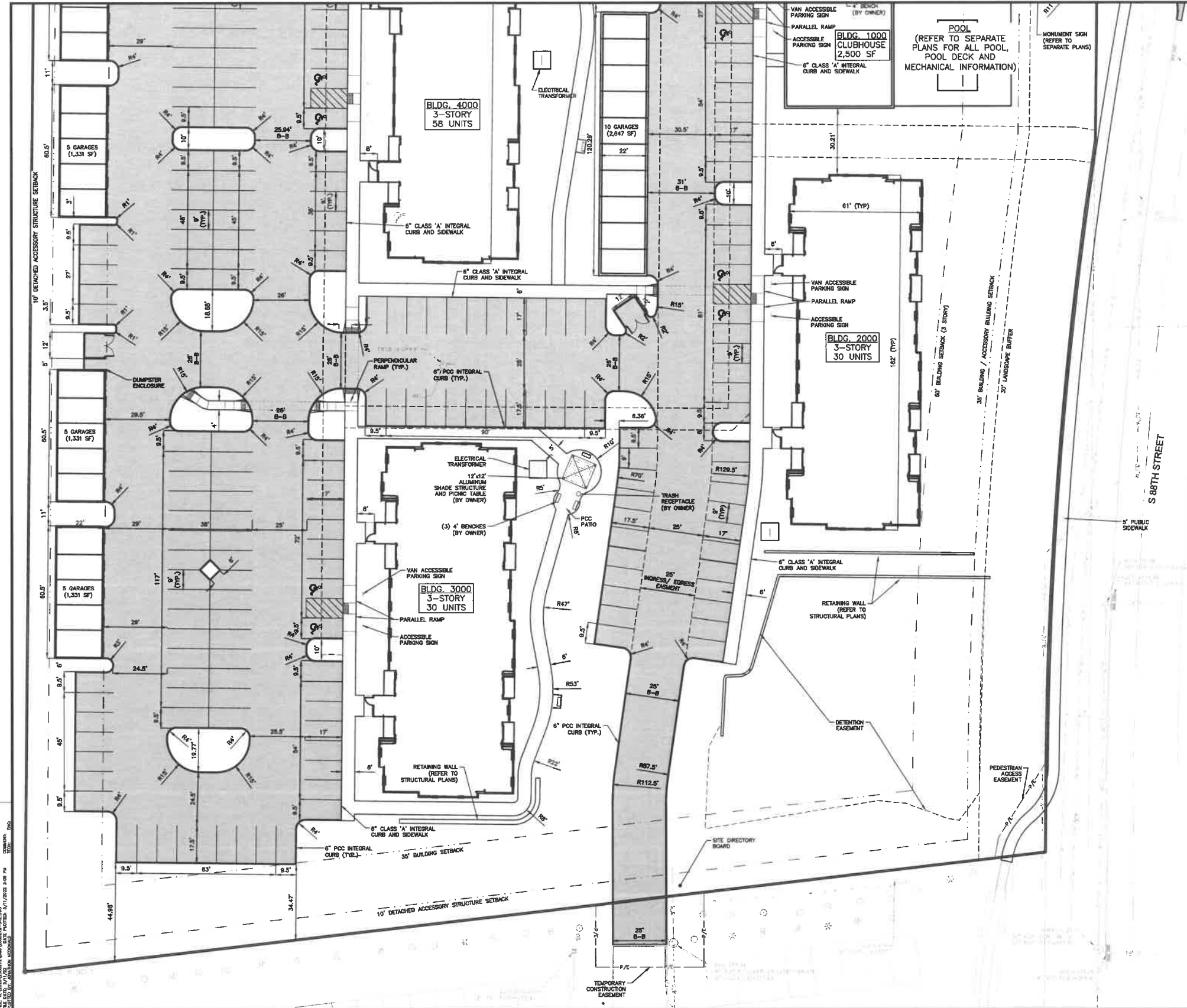
FOUNTAIN TERRACE APARTMENTS

DIMENSION PLAN

3.0

2006.272





GENERAL NOTES

1. THE MOST RECENT EDITION OF THE WEST DES MONIES STANDARDS FOR SUBDIVISIONS AND THE WEST DES MONIES WATER WORKS STANDARD SPECIFICATIONS FOR SUBDIVISIONS SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS, NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
5. AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE NDM CONSTRUCTION DIVISION CLINT CARPENTER (222-3480) TO OBTAIN APPLICABLE CITY PERMITS THAT MAY BE NECESSARY.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE WEST DES MONIES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, DSM METRO DESIGN STANDARDS AND NOW ADDENDUMS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. PLACE 1 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDINGS. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
10. REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY.
11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
13. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS, STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
15. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION MATERIALS.
17. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
18. THE MONUMENT SIGNS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. SIGNS ARE NOT APPROVED AS PART OF THE SITE PLAN REVIEW.
19. PAVEMENT REMOVAL AT DRIVEWAY WILL BE 2.5 FEET FROM BACK OF CURB AND TO THE NEAREST TRANSVERSE JOINT AT THE END OF RETURNS.

TRAFFIC CONTROL NOTES

1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK/PATH CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES, STORAGE AND TEMPORARY PEDESTRIAN ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION 500 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A-4.
6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOT TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
7. ALL SIGNING, STRIPING AND OTHER TRAFFIC CONTROL DEVICES ON THE DRIVEWAY APPROACHES TO THE PUBLIC STREETS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FEDERAL HIGHWAY ADMINISTRATION 2009 EDITION.

PAVEMENT THICKNESS (NON-REINFORCED)

- | | |
|-----------------------------------|-----------|
| 1. SIDEWALKS | 4" P.C.C. |
| 2. PRIVATE DRIVES | 7" P.C.C. |
| 3. PARKING SPACES | 6" P.C.C. |
| 4. DRIVEWAYS IN R.O.W. | 7" P.C.C. |
| 5. DRIVEWAYS IN R.O.W. | 7" P.C.C. |
| 6. TRASH ENCLOSURE & 20' APPROACH | 8" P.C.C. |

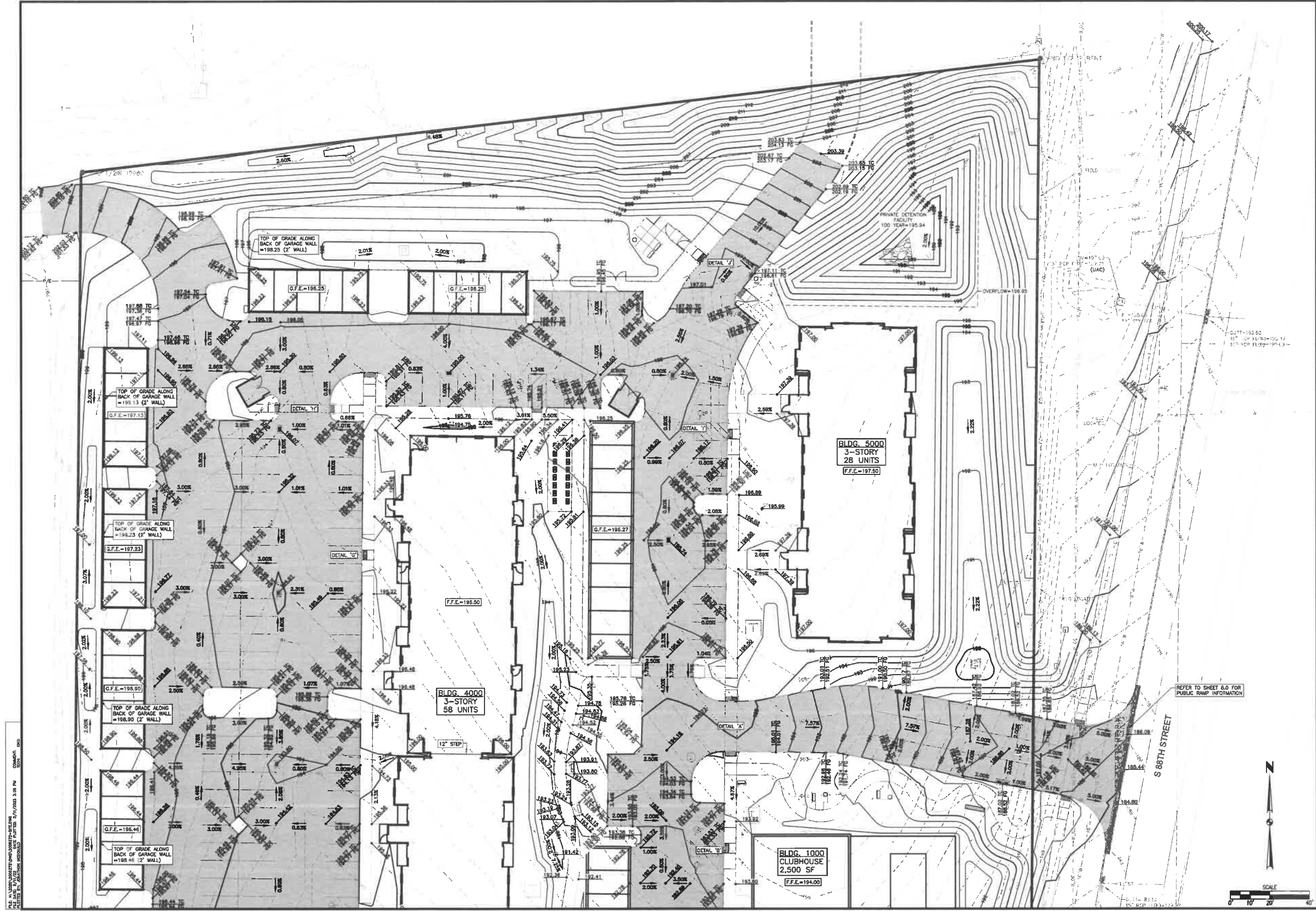
FOUNTAIN TERRACE APARTMENTS
DIMENSION PLAN

3.1
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3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

EKO ENGINEER
TECH: RL

CIVIL DESIGN ADVANTAGE



DATE: 11/21/05
 TIME: 3:00 PM
 DRAWN BY: J. H. HARRIS
 CHECKED BY: J. H. HARRIS
 PROJECT: 05-0000-0000-0000-0000

DATE	REVISIONS
11/21/05	SEVENTH SUBMITTAL
10/04/05	SIXTH SUBMITTAL
09/07/05	FIFTH SUBMITTAL
08/10/05	FOURTH SUBMITTAL
07/13/05	THIRD SUBMITTAL
06/16/05	SECOND SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410



FOUNTAIN TERRACE APARTMENTS
GRADING PLAN

4.0
 2006.272

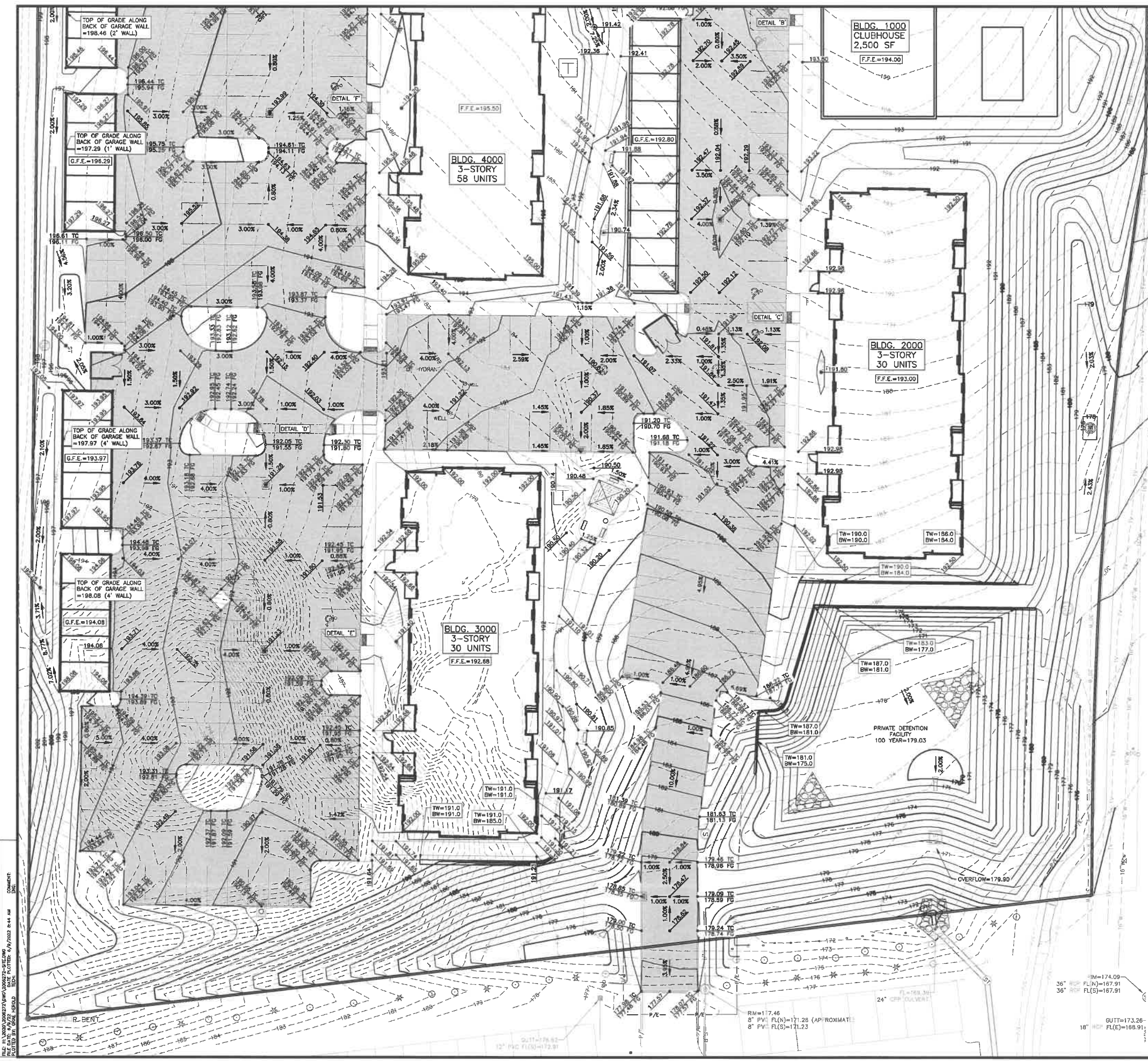


ENGINEER: EKO
 TECH: RL

CIVIL DESIGN ADVANTAGE
 WEST DES MOINES, IOWA



REFER TO SHEET 6.0 FOR PUBLIC RAMP INFORMATION



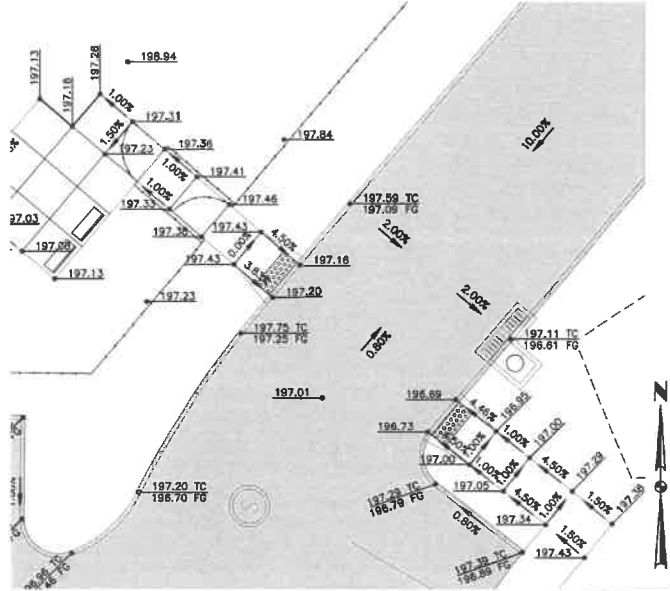
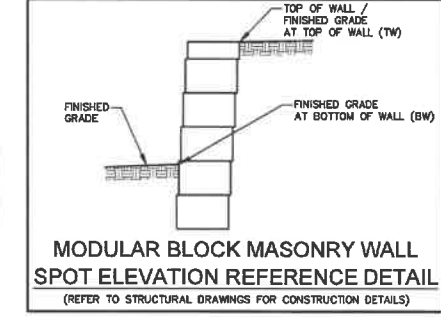
GRADING NOTES

1. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL THE TOP 6" OF TOPSOIL IS TO BE STOCKPILED AND RESPAVED AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
2. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
3. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP-OF-CURB (TC) UNLESS OTHERWISE NOTED.
4. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
5. ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 2.00%.
6. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
7. THE CONTRACTOR SHALL CONFINED HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
9. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
10. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
11. SIDEWALKS: MAINTAIN A 5.0% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 1.5% TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.

NOTE:
REFER TO SEPARATE CONSTRUCTION PLANS FOR PUBLIC SANITARY SEWER INFORMATION.

LEGEND:

- OVERFLOW ROUTE → → → → →
- F.F.E. = FINISHED FLOOR ELEVATION
- G.F.E. = GARAGE FLOOR ELEVATION AT THE OUTSIDE FACE OF GARAGE DOOR



DATE	05/11/2022
REVISIONS	SEVENTH SUBMITTAL 10/04/2021
	SIXTH SUBMITTAL 09/20/2021
	FIFTH SUBMITTAL 05/27/2021
	FOURTH SUBMITTAL 03/15/2021
	THIRD SUBMITTAL 01/09/2021
	SECOND SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
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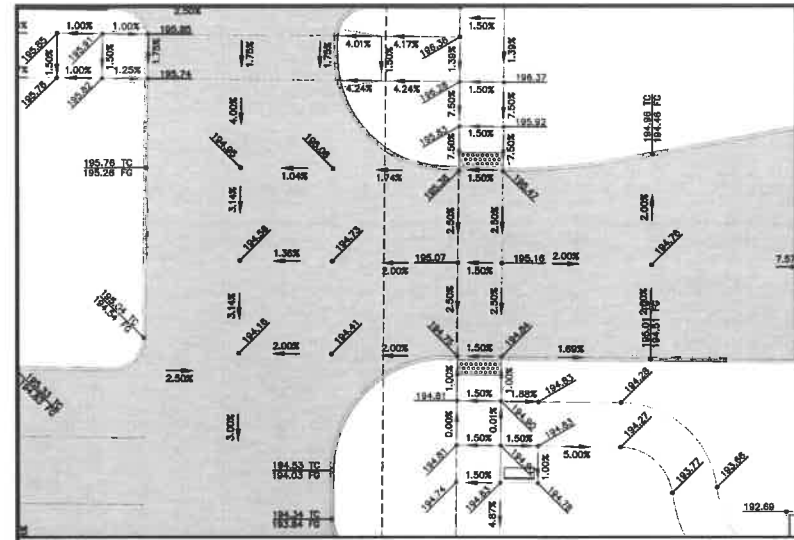
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CIVIL DESIGN ADVANTAGE

WEST DES MOINES, IOWA

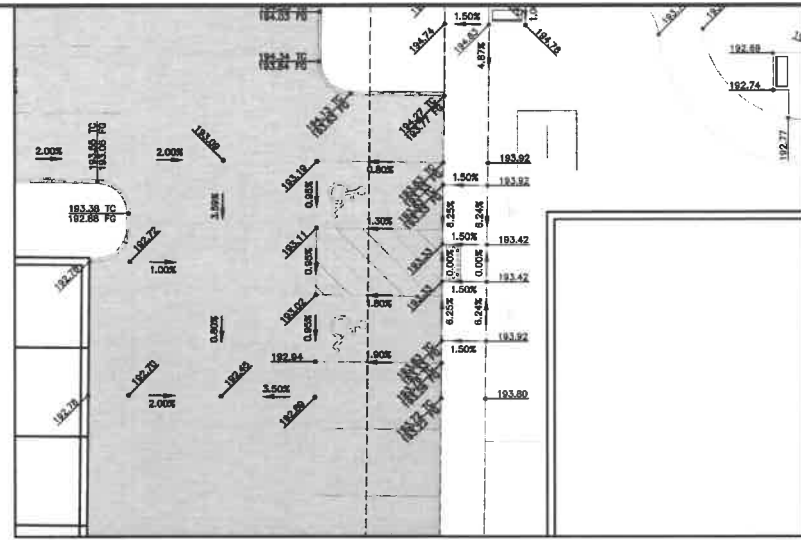
FOUNTAIN TERRACE APARTMENTS
GRADING PLAN

TECH: RL
ENGINEER: EKO

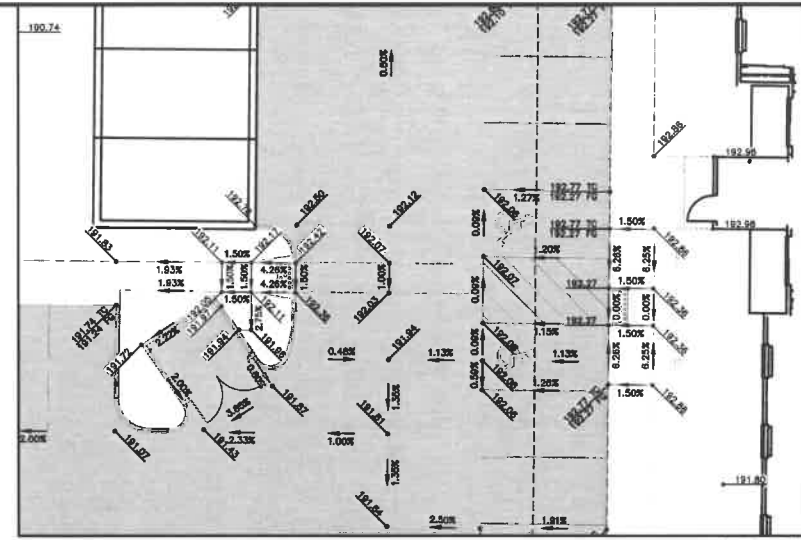
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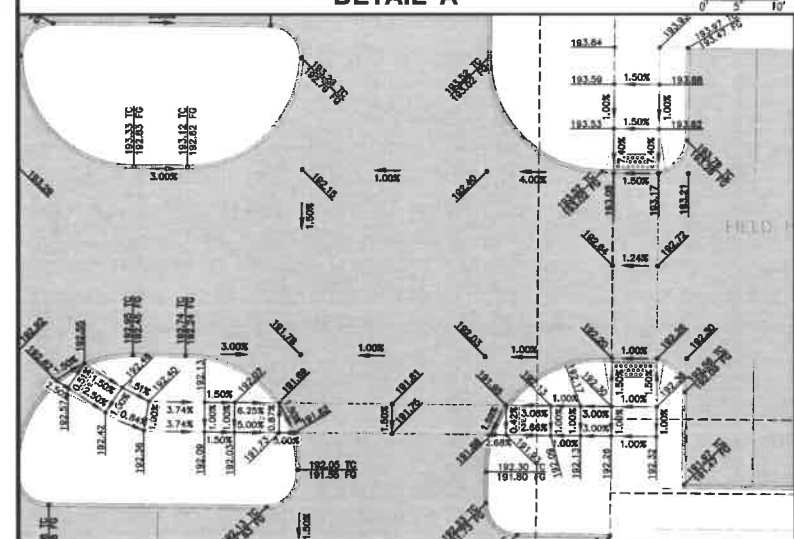
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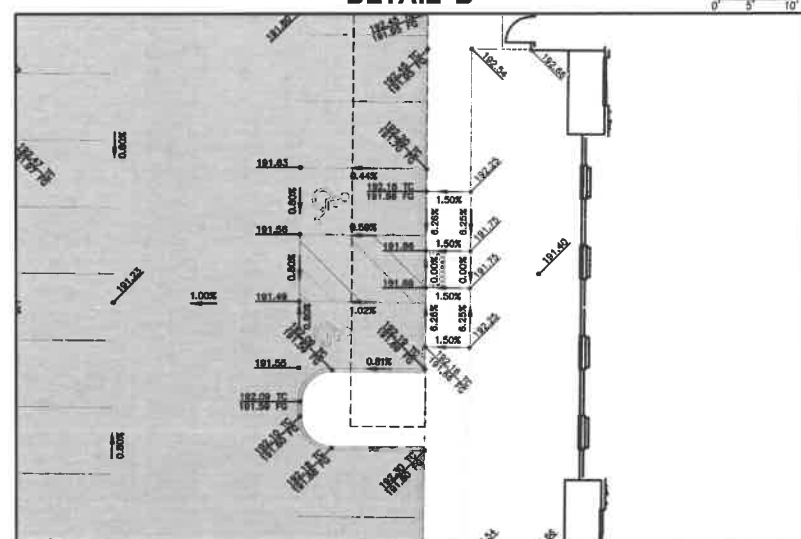
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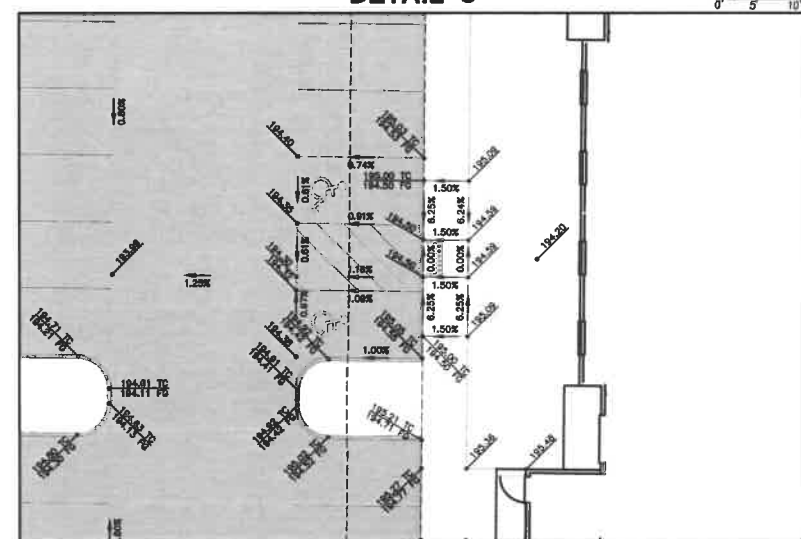
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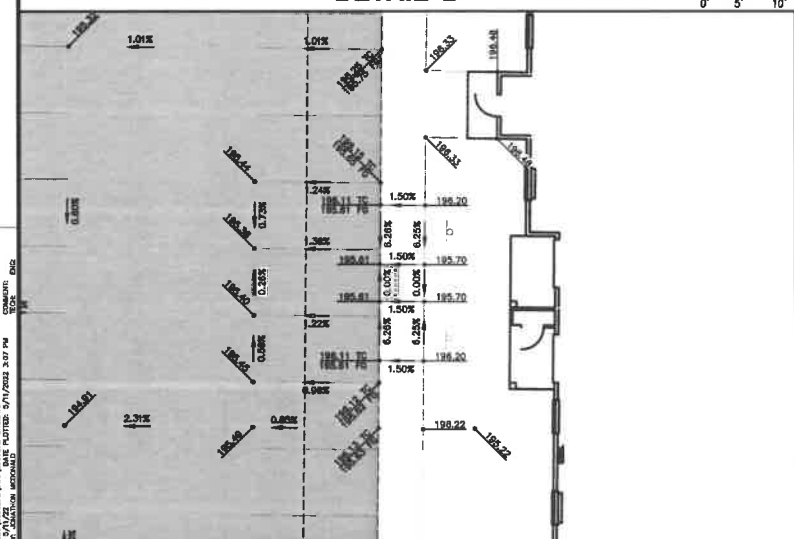
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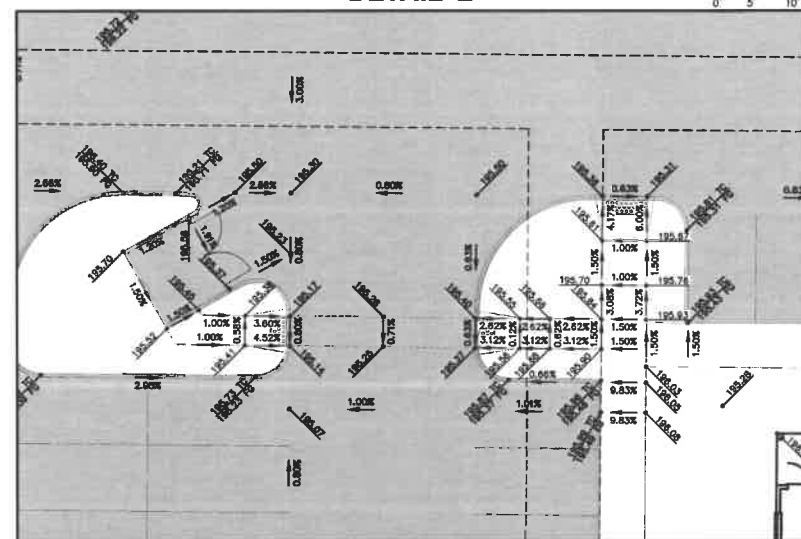
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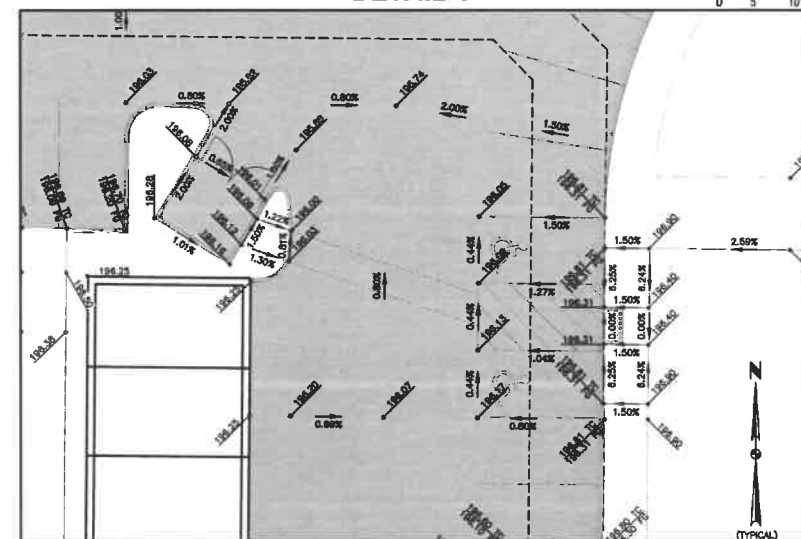
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DETAIL 'H'



DETAIL 'I'

DATE: 01/15/2013 10:58:11 AM
 USER: J. WATSON
 PROJECT: 3405 S.E. CROSSROADS DRIVE, SUITE G
 SHEET: 01/15/2013 10:58:11 AM
 DRAWING: GRADING PLAN (PRIVATE RAMP DETAILS)
 SCALE: AS SHOWN
 PLOT: 01/15/2013 10:58:11 AM
 PLOTTER: HP DesignJet 5000

DATE	REVISIONS
01/15/2013	SEVENTH SUBMITTAL
01/15/2013	SIXTH SUBMITTAL
01/15/2013	FIFTH SUBMITTAL
01/15/2013	FOURTH SUBMITTAL
01/15/2013	THIRD SUBMITTAL
01/15/2013	SECOND SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
 WEST DES MOINES, IOWA 50311
 PHONE: (515) 369-4400 FAX: (515) 369-4410
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 TECH: RL

FOUNTAIN TERRACE APARTMENTS
GRADING PLAN (PRIVATE RAMP DETAILS)

FOUNTAIN TERRACE APARTMENTS

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP NOT TO SCALE



WEST DES MOINES, IOWA

SWPPP LEGEND

DRAINAGE ARROW	
GRADING LIMITS	
FILTER SOCK	
SILT FENCE	
INLET PROTECTION	
PORTABLE RESTROOM	
TEMPORARY STANDPIPE	
CONCRETE WASHOUT PIT	
UNDISTURBED AREA	
RIP-RAP	
GRAVEL ENTRANCE	
STAGING AREA	

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	3,033
2	DITCH CHECKS	LF	533
3	SEEDING, FERTILIZING, AND MULCHING	AC	3.92
4	INLET PROTECTION DEVICES	EA	17
5	CONCRETE WASHOUT PIT	EA	1

DISCHARGE POINT SUMMARY

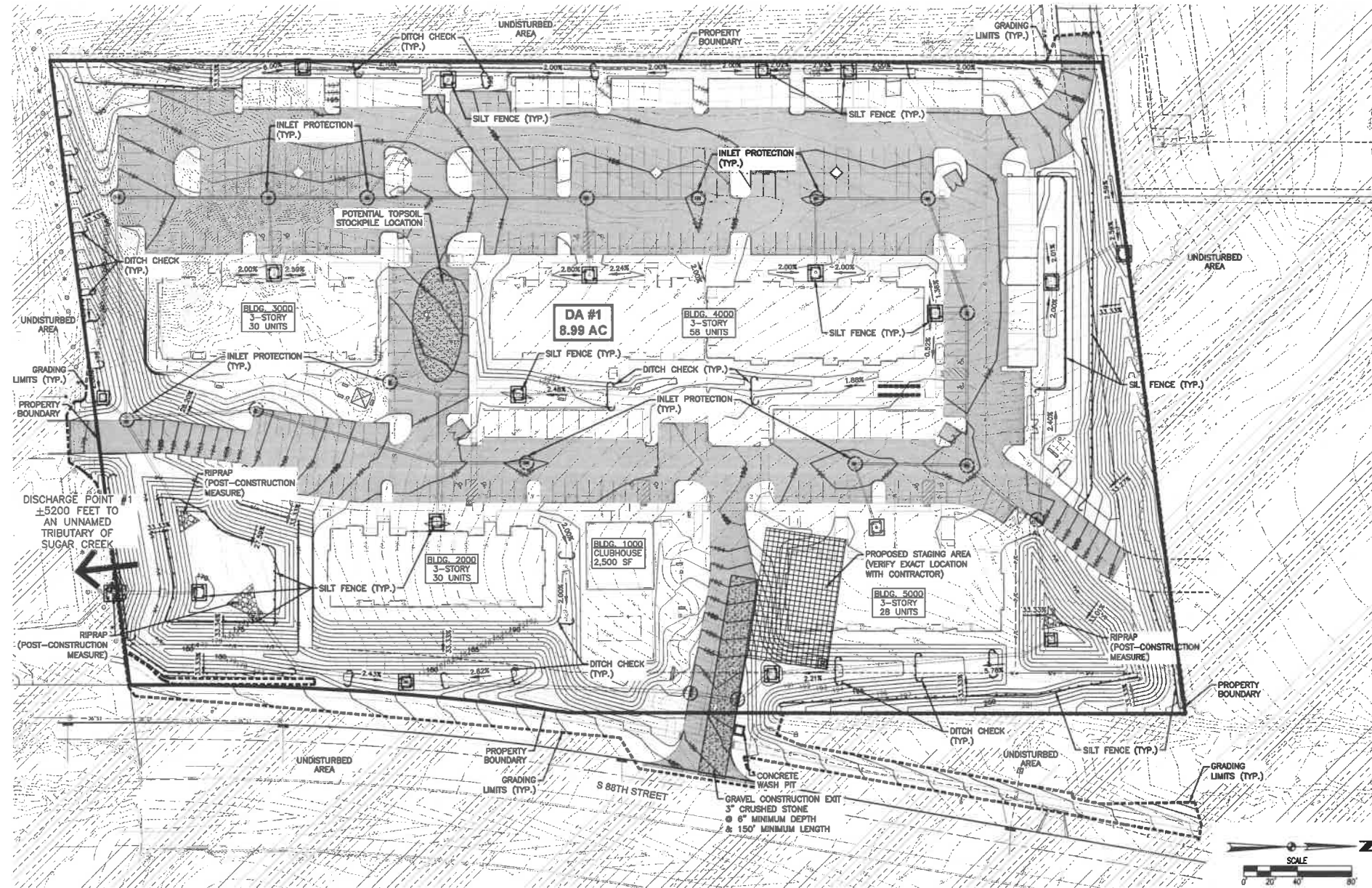
DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF SUGAR CREEK ±5200 FT
 TOTAL AREA DISTURBED TO DISCHARGE POINT 8.99 ACRES
 STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 32,364 CU FT
 VOLUME PROVIDED IN SILT FENCE (3,033 LF @ 10 CU FT/LF OF FENCE) 30,330 CU FT
 VOLUME PROVIDED IN DITCH CHECK (533 LF @ 15 CU FT/LF) 7,995 CU FT
 TOTAL VOLUME PROVIDED 38,325 CU FT

NOTES:

- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENTS.
- DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- PREPARATION OF SEED-BED:
 - AREAS ACCESSIBLE TO MACHINERY: AREAS ACCESSIBLE TO FIELD MACHINERY SHALL BE THOROUGHLY WORKED TO A DEPTH OF NOT LESS THAN THREE INCHES. THE SOIL SHALL BE BROUGHT TO A LOOSE, FRABLE CONDITION, AND SHALL BE PICKED FREE OF ROCKS AND CONCRETE CHUNKS IN EXCESS OF ONE INCH DIAMETER WHERE WEED GROWTH HAS DEVELOPED EXTENSIVELY. THE USE OF A DISK WILL BE ALLOWED TO DISK THESE WEEDS INTO THE GROUND IF WEEDS CAN BE COMPLETELY COVERED BY THIS METHOD.
 - AREAS INACCESSIBLE TO MACHINERY: AREAS INACCESSIBLE TO FIELD MACHINERY SHALL BE PREPARED BY HAND TO A DEPTH OF NOT LESS THAN ONE AND ONE-HALF INCHES. THE SOIL SHALL BE BROUGHT TO A LOOSE FRABLE CONDITION.
 - THE SEEDBED SHALL BE INSPECTED AND APPROVED BY THE CITY ENGINEER PRIOR TO SEEDING.
- FOUNTAIN TERRACE APARTMENTS, LLC WILL BE RESPONSIBLE FOR INSTALLATION, PERIODIC CHECKING AND REINSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES.

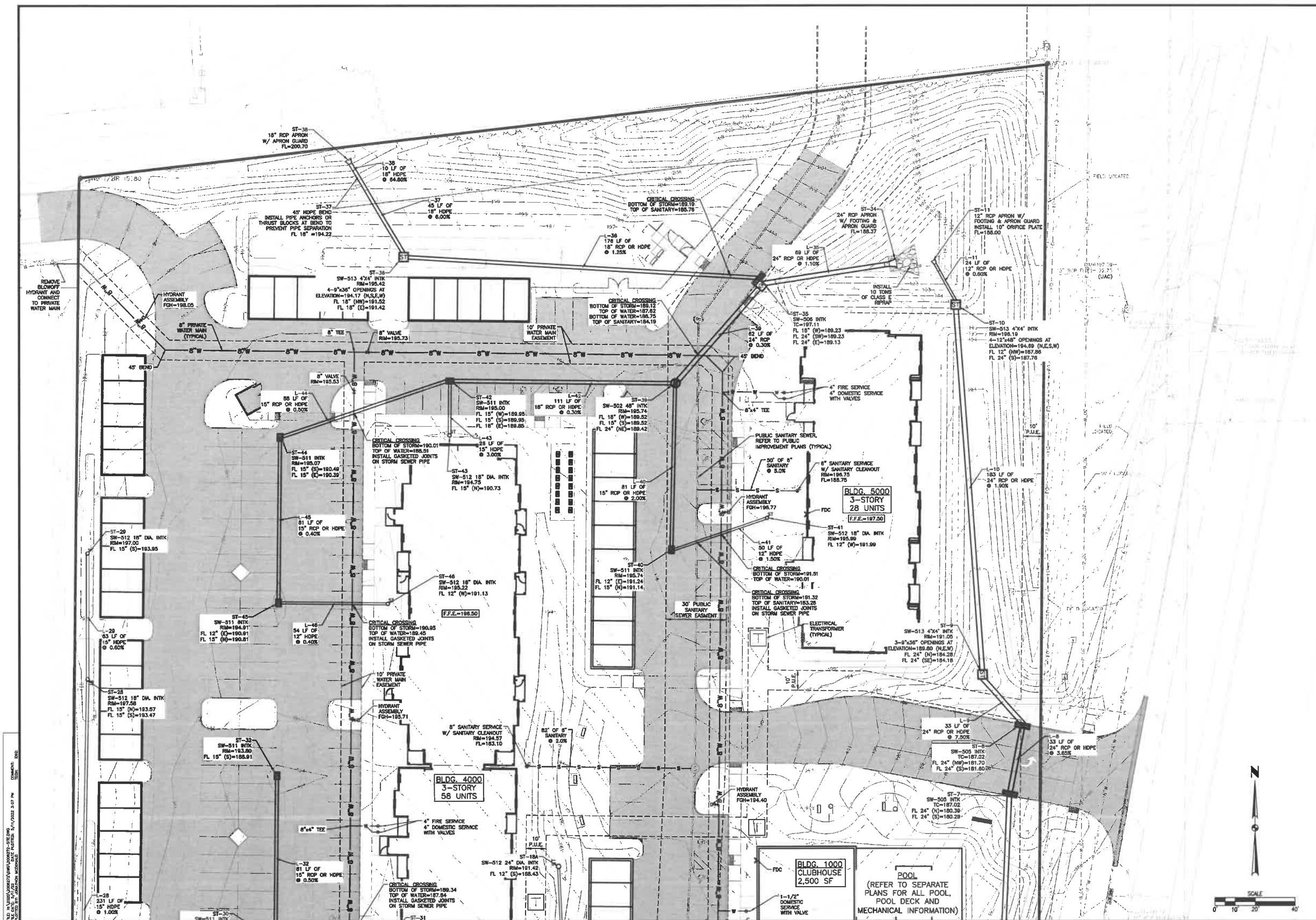
JOHN LARSON
 5721 MERLE HAY ROAD STE. #20
 JOHNSTON, IA 50131
 PH: 515-864-2582
- A STABILIZED ROCK CONSTRUCTION ENTRANCE IS PROVIDED TO HELP KEEP MUD AND DEBRIS FROM ENTERING THE PUBLIC R.O.W.
- STORM SEWER AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- BELOW IS THE CONTACT INFORMATION FOR THE INDIVIDUAL RESPONSIBLE FOR EROSION CONTROL ISSUES.

JOHN LARSON
 PH: 515-864-2582



DATE: 06/11/2002
 TIME: 10:04:20 AM
 USER: J.LARSON
 PROJECT: FOUNTAIN TERRACE APARTMENTS
 DRAWING: EROSION AND SEDIMENT CONTROL PLAN
 COMMENTS: DOC

3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	TECH: RL
CIVIL DESIGN ADVANTAGE ENGINEER: EKO	
FOUNTAIN TERRACE APARTMENTS EROSION AND SEDIMENT CONTROL PLAN	
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ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
 DATE: 05/17/2022
 DRAWN BY: J. GARDNER
 CHECKED BY: J. GARDNER

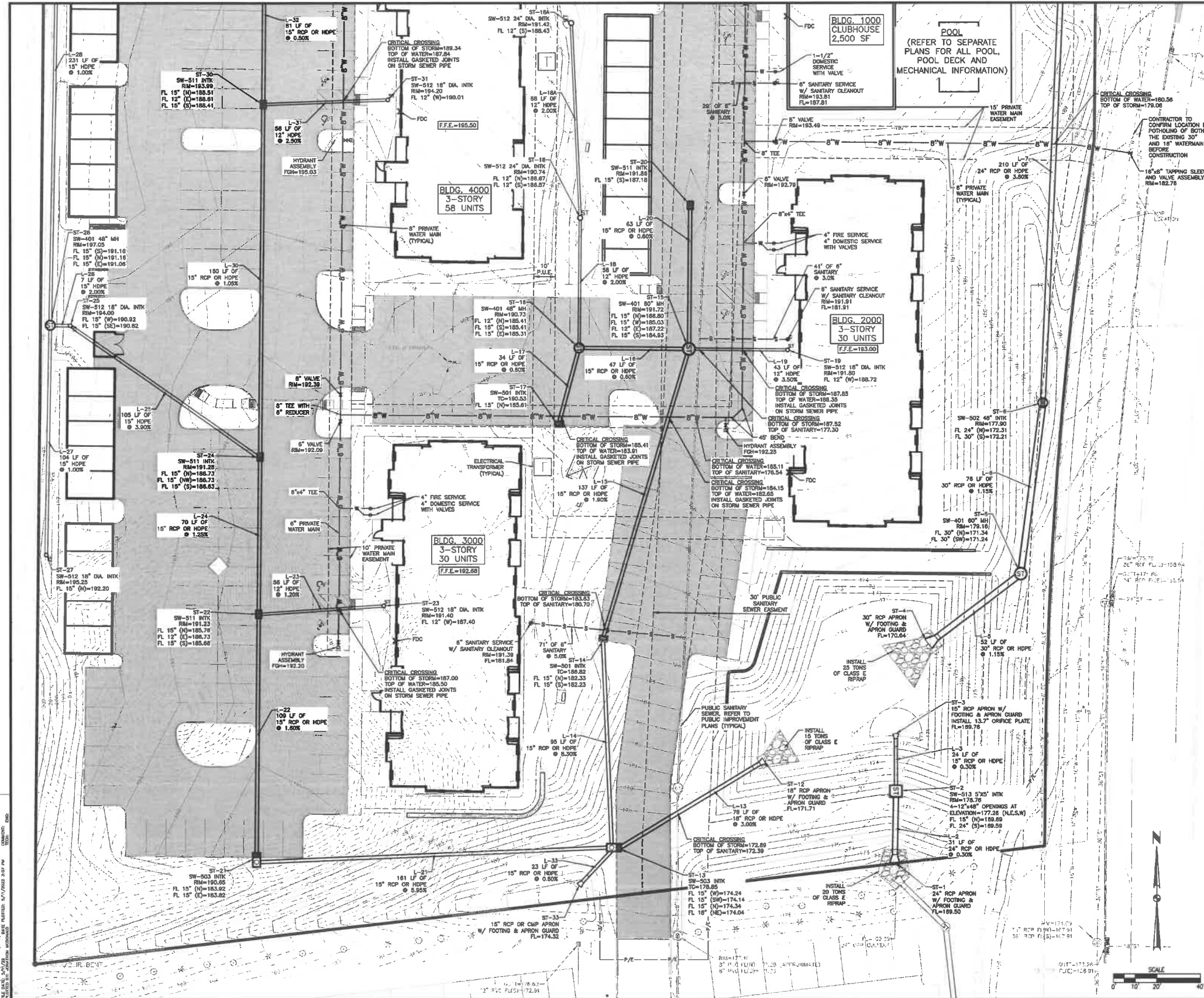
REVISIONS	DATE
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FOUNTAIN TERRACE APARTMENTS
 UTILITY PLAN
 WEST DES MOINES, IOWA
 CIVIL DESIGN ADVANTAGE
 ENGINEER: EKO
 TECH: RL

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UTILITY NOTES

- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
- FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
- ALL UTILITIES SHALL BE STIBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' FINISHED OF BUILDING FACE.
- ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES.
- ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WEST DES MOINES PLUMBING CODE.
- 12" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN SEWER PIPES OVER WATER PIPES. NEED TO MEET IOWA DNR MATERIAL REQUIREMENTS.
- MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
- WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCLOSED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES.
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IF POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THEREOF. NO CLAIMS FOR CONSEQUENTIAL DAMAGES SHALL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-368-5888 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
- PRIVATE UTILITIES TO BE INSTALLED PER THE CITY OF WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2018 UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS.
- OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE UTILITIES. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT HIS OWN COST TO THE OWNER. INSTALL SILT FENCE AT ALL PERMANENT STORM SEWER INLETS.
- REFER TO GEOTECHNICAL REPORT FOR DRAIN SYSTEM RECOMMENDATIONS FOR UNDERFLOOR DRAINAGE SYSTEM FOR APARTMENT AND TOWNHOME BUILDINGS. REFER TO PLUMBING PLANS FOR UNDERFLOOR DRAINAGE SYSTEM.
- ALL STORM SEWER APRONS SHALL HAVE FOOTINGS AND APRON GUARDS.

WEST DES MOINES WATER WORKS NOTES

- ALL WATER WORK SHALL BE DONE IN ACCORDANCE WITH WEST DES MOINES WATER WORKS STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS AT LEAST ONE WEEK PRIOR TO CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
- CONTACT BUILDING INSPECTION (515-222-3630) A MINIMUM OF 24 HOURS IN ADVANCE FOR PRIVATE UTILITY INSPECTIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE WEST DES MOINES WATER WORKS AND CITY'S CROSS-CONNECTION CONTROL/CONTAMINANT PROVISIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION OF AN APPROVED BACKFLOW PREVENTION ASSEMBLY(S) FOR CONTAMINATION RISK CONSTRUCTION. BACKFLOW PREVENTION TO BE INSTALLED PER CITY ORDINANCE 1287, 94-189B. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS, RALPH HENDERS, ENGINEERING TECHNICIAN (515)-222-5485 A MINIMUM OF 24 HOURS AFTER INSTALLATION AND TESTING OF ALL BACKFLOW DEVICES TO SCHEDULE FINAL INSPECTION.
- BUILDING FIRE SPRINKLER AND FIRE ALARM SYSTEM SHALL BE DESIGNED PER WEST DES MOINES FIRE CODE.
- WATER SHALL BE PROVIDED TO PROPERTY VIA PRIVATE WATER MAIN. OWNER SHALL ALLOW WEST DES MOINES WATER WORKS ACCESS TO THE METERS AND VALVES AS NEEDED FOR EMERGENCY MAINTENANCE AND SHUT OFF IN THE EVENT OF NON-PAYMENT.
- KNOX BOXES ARE REQUIRED ON ALL BUILDINGS AT LOCATIONS TO BE DETERMINED BY THE FIRE MARSHALL.
- SITE DIRECTORY MAP BOARDS ARE REQUIRED AT ALL ENTRANCES TO THE SITE.

LIGHTING NOTES:

REFER LIGHTING PLAN (PHOTOMETRIC PLAN) FOR LIGHT STANDARD LOCATIONS AND OTHER LIGHTING INFORMATION.

PRIVATE WATER MAIN QUANTITIES

HYDRANT ASSEMBLY	1 EA
RELOCATE BLOW-OFF HYDRANT	1 EA
12" TAPPING SLEEVE AND VALVE	1 EA
8" VALVE	5 EA
8" WATER MAIN	1584 LF
6" VALVE	1 EA
6" WATER MAIN	104 LF

NOTE:
REFER TO SEPARATE CONSTRUCTION PLANS FOR PUBLIC SANITARY SEWER INFORMATION

NOTE:
CONTRACTOR SHALL COORDINATE ALL TRANSFORMER PAD LOCATIONS, INCLUDING BUILDING SEPARATION, WITH MID AMERICAN ENERGY PRIOR TO TRANSFORMER PAD CONSTRUCTION.

DATE: 01/12/22
 SEVENTH SUBMITTAL: 10/04/2021
 SIXTH SUBMITTAL: 09/22/2021
 FIFTH SUBMITTAL: 09/02/2021
 FOURTH SUBMITTAL: 08/10/2021
 THIRD SUBMITTAL: 07/20/2021
 SECOND SUBMITTAL: 01/08/2021

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410

TECH: RL
 ENGINEER: EKO

WEST DES MOINES, IOWA

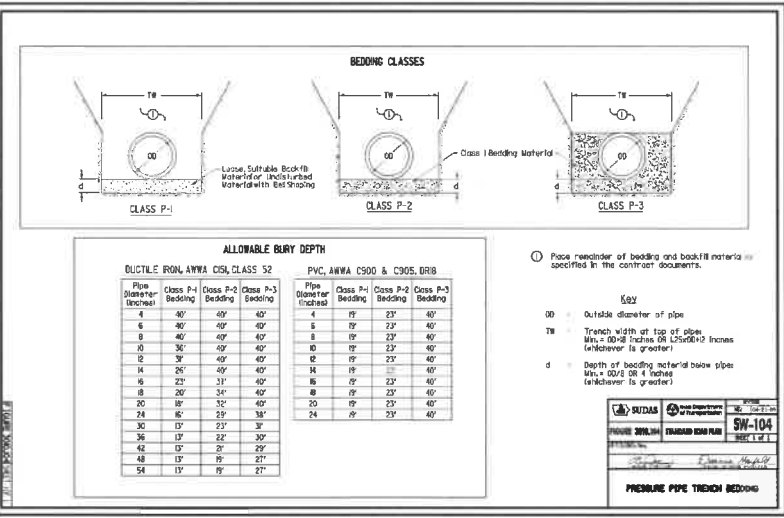
CIVIL DESIGN ADVANTAGE

UTILITY PLAN

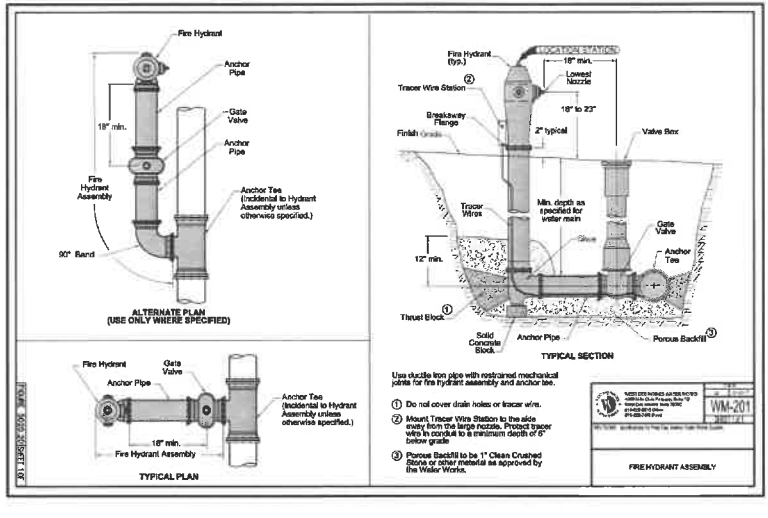
FOUNTAIN TERRACE APARTMENTS

6.1

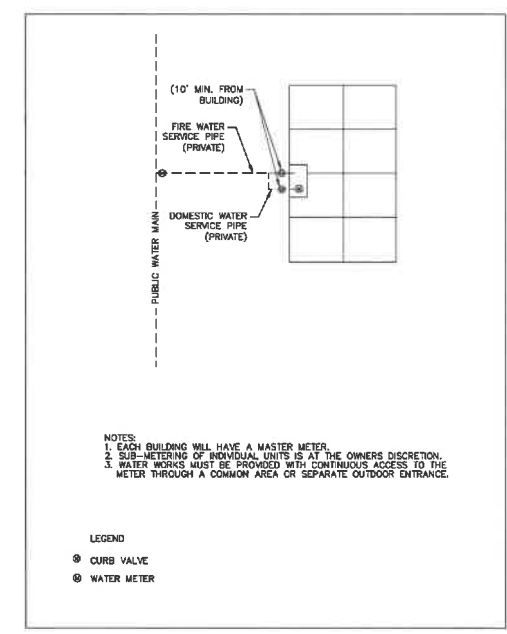
2006.272



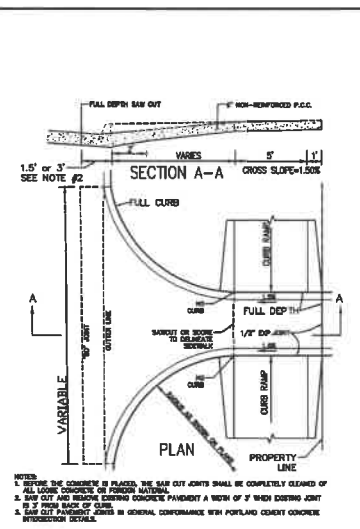
1 PRESSURE PIPE TRENCH BEDDING
NOT TO SCALE



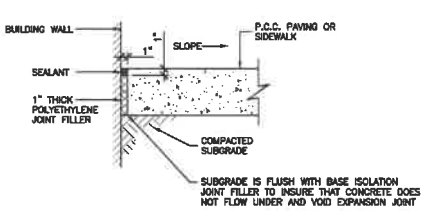
2 FIRE HYDRANT ASSEMBLY
NOT TO SCALE



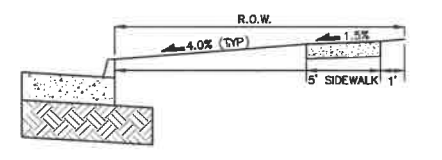
3 WATER SERVICE INTO APARTMENT BUILDING
NOT TO SCALE
WEST DES MOINES WATER WORKS DRAWING NUMBER 12



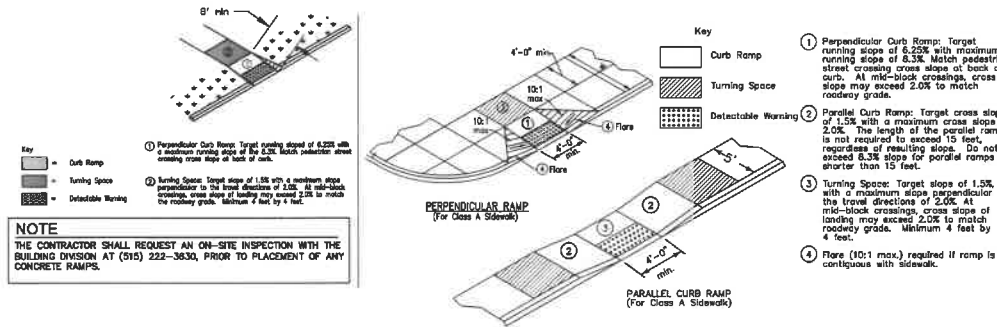
6 DRIVEWAY DETAIL
NOT TO SCALE
CITY OF WEST DES MOINES DETAIL



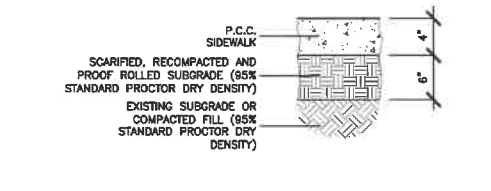
7 ISOLATION JOINT IN PAVING AT BUILDING INTERFACE
NOT TO SCALE



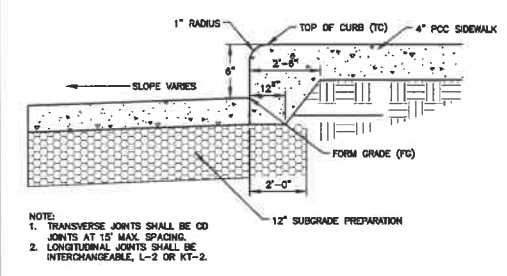
8 R.O.W. GRADING SECTION
NOT TO SCALE



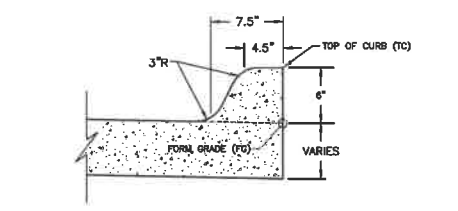
4 CURB RAMP DETAILS
NOT TO SCALE



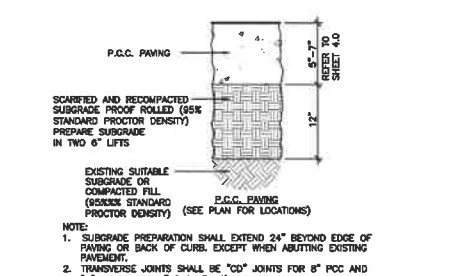
9 P.C.C. SIDEWALK DETAIL
NOT TO SCALE



10 CLASS A INTEGRAL CURB & SIDEWALK
NOT TO SCALE



5 INTEGRAL 6\"/>



11 TYPICAL SECTION - P.C.C. PAVEMENT
NOT TO SCALE

REVISIONS

DATE	DESCRIPTION
05/11/2022	SEVENTH SUBMITTAL
10/04/2021	SIXTH SUBMITTAL
08/20/2021	FIFTH SUBMITTAL
07/15/2021	FOURTH SUBMITTAL
03/15/2021	THIRD SUBMITTAL
01/06/2021	SECOND SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

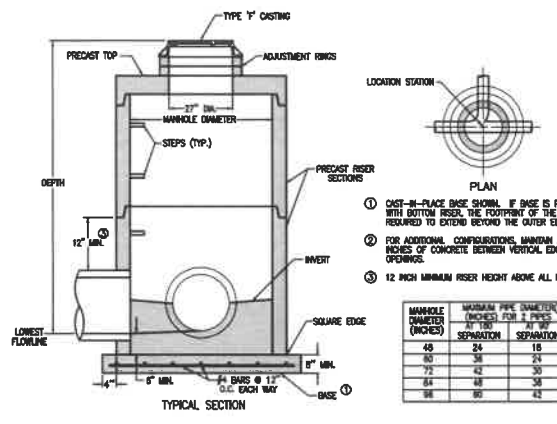
TECH: RL
ENGINEER: EKO

WEST DES MOINES WATER WORKS

CIVIL DESIGN ADVANTAGE

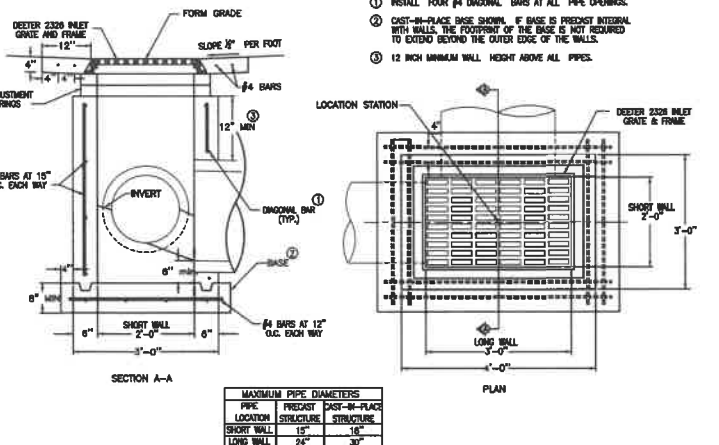
FOUNTAIN TERRACE APARTMENTS
DETAILS

7.0
2006.272



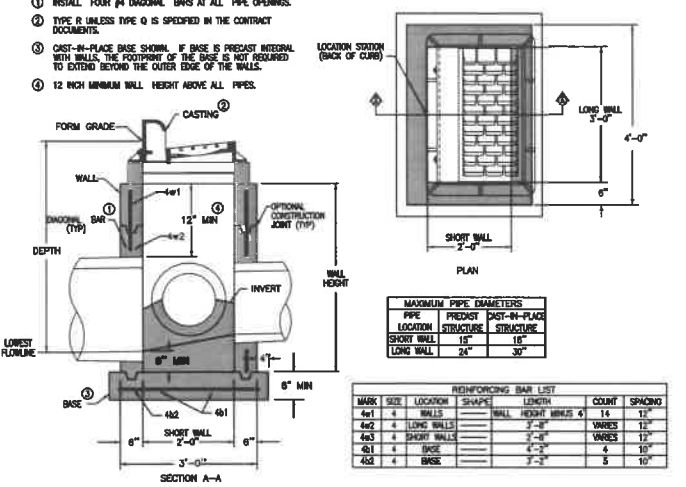
12 TYPE A STORM SEWER MANHOLE
NOT TO SCALE

MANHOLE DIAMETER (INCHES)	MAXIMUM PIPE DIAMETER (INCHES) FOR 2 PIPES	SEPARATION
48	24	18
60	30	24
72	42	30
84	48	36
96	60	42



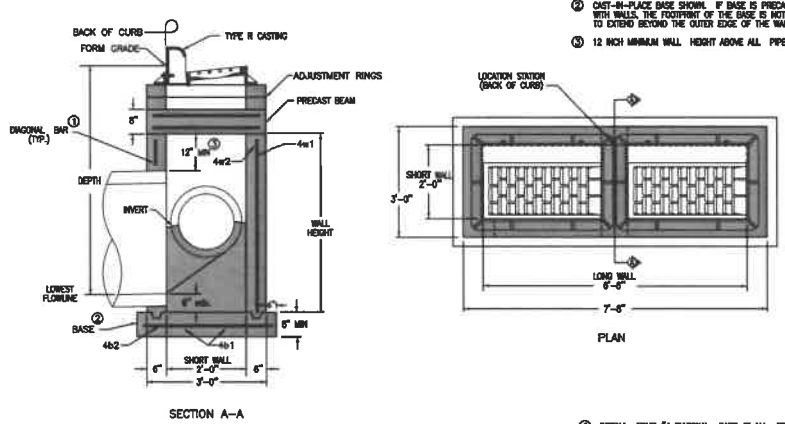
13 TYPE M-H INTAKE
NOT TO SCALE

PIPE LOCATION	PRECAST STRUCTURE	CAST-IN-PLACE STRUCTURE
SHORT WALL	15"	16"
LONG WALL	24"	30"

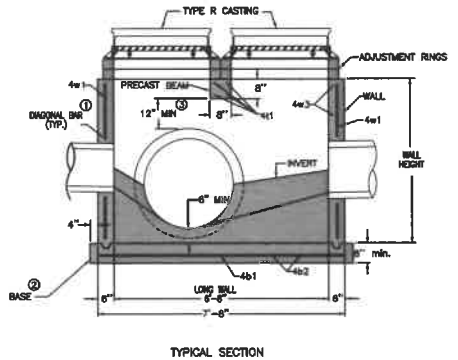


14 TYPE M-A INTAKE
NOT TO SCALE

MARK	SIZE	LOCATION	SHAPE	COUNT	SPACING
4e1	4	WALLS	SHAPE	4	14"
4e2	4	LONG WALLS	VARIES	VARIES	12"
4e3	4	SHORT WALLS	VARIES	VARIES	12"
4e4	4	BASE	VARIES	4	10"
4e5	4	BASE	VARIES	5	10"

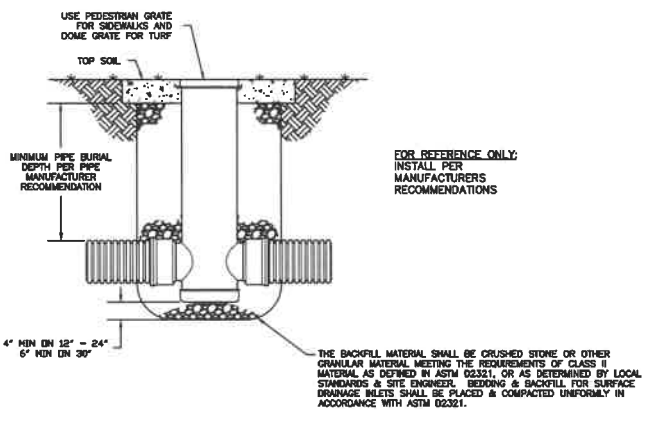


15 TYPE M-D INTAKE
NOT TO SCALE

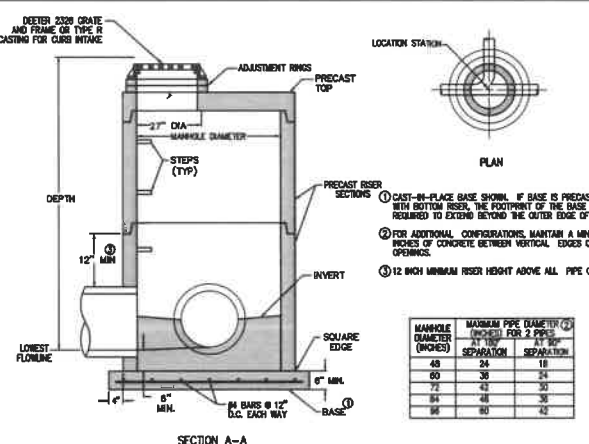


MARK	SIZE	LOCATION	SHAPE	COUNT	LENGTH	SPACING
4e1	4	BEAM	---	4	7'-8"	6"
4e1	4	BASE	---	4	7'-8"	12"
4e2	4	BASE	---	8	7'-8"	12"
4e1	4	WALLS	---	20	WALL HEIGHT MINUS 4"	12"
4e2	4	LONG WALLS	VARIES	VARIES	7'-4"	12"
4e3	4	SHORT WALLS	VARIES	VARIES	7'-8"	12"

PIPE LOCATION	PRECAST STRUCTURE	CAST-IN-PLACE STRUCTURE
SHORT WALL	15"	16"
LONG WALL	24"	30"

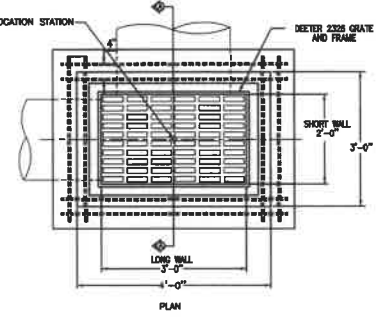


16 HDPE DRAINAGE BASIN
NOT TO SCALE

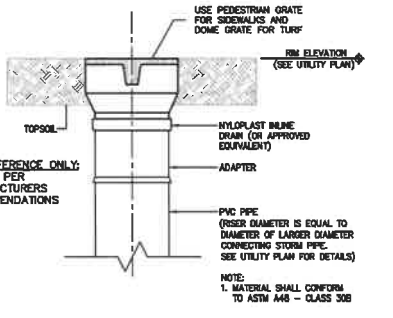


17 TYPE M-B INTAKE
NOT TO SCALE

MANHOLE DIAMETER (INCHES)	MAXIMUM PIPE DIAMETER (INCHES) FOR 2 PIPES	SEPARATION
48	24	18
60	30	24
72	42	30
84	48	36
96	60	42



18 HDPE INLINE DRAIN
NOT TO SCALE



DATE: 08/11/2022
 SEVENTH SUBMITTAL: 10/04/2021
 SIXTH SUBMITTAL: 09/22/2021
 FIFTH SUBMITTAL: 08/27/2021
 FOURTH SUBMITTAL: 08/27/2021
 THIRD SUBMITTAL: 08/27/2021
 SECOND SUBMITTAL: 07/08/2021

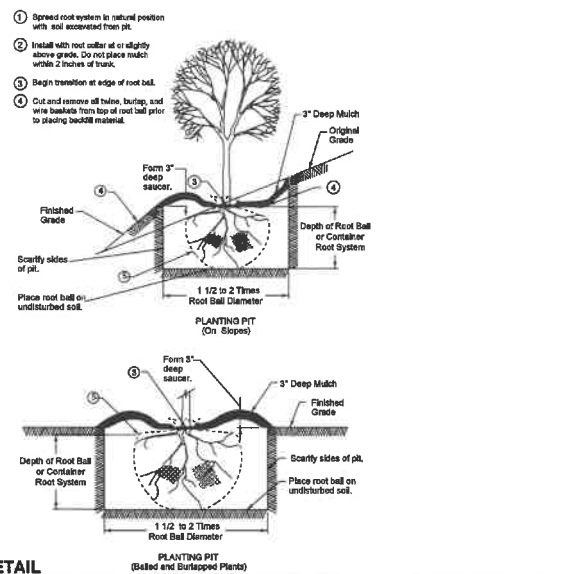
3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410

TECH: RL
 ENGINEER: EKO

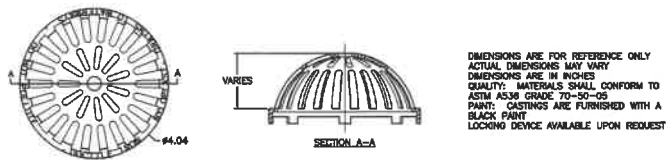
WEST DES MOINES, IOWA

FOUNTAIN TERRACE APARTMENTS
 DETAILS

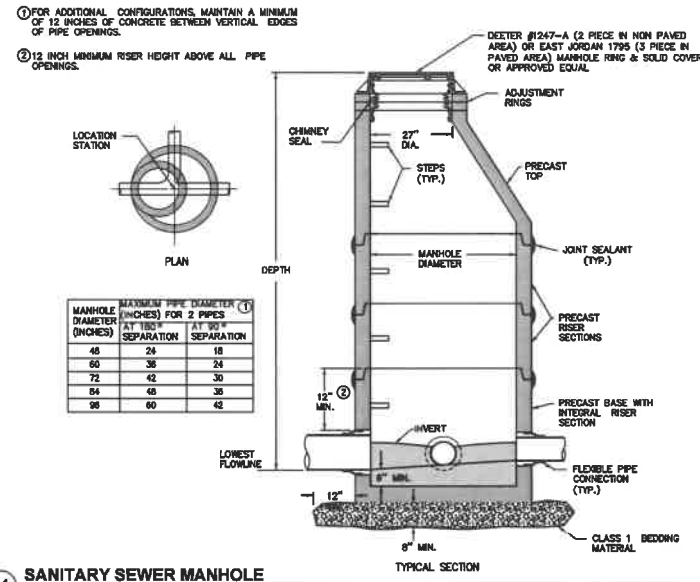
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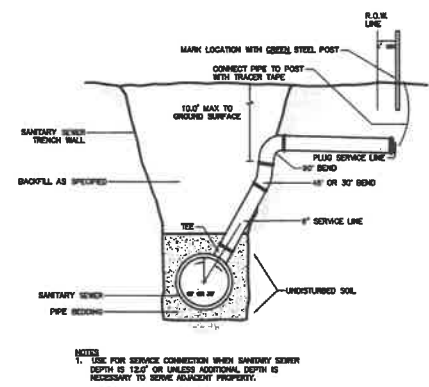
19 PLANTING PIT DETAIL
NOT TO SCALE



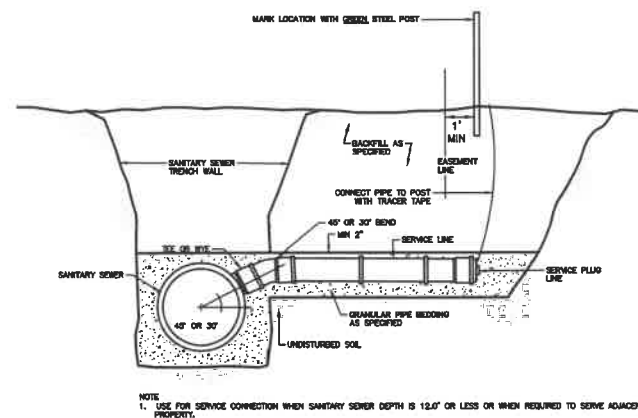
20 DOME GRATE
NOT TO SCALE



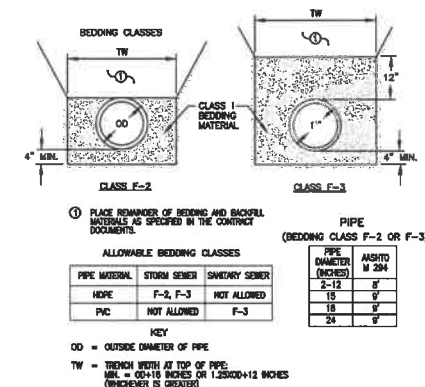
21 SANITARY SEWER MANHOLE
NOT TO SCALE



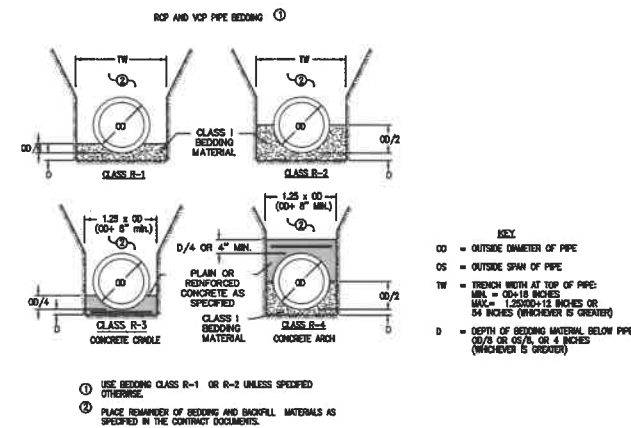
22 SANITARY SEWER SERVICE RISER
NOT TO SCALE
CITY OF WEST DES MOINES DETAIL 4.5



23 SANITARY SEWER SERVICE
NOT TO SCALE
CITY OF WEST DES MOINES DETAIL 4.5



24 FLEXIBLE GRAVITY PIPE TRENCH BEDDING
NOT TO SCALE



25 RIGID GRAVITY PIPE TRENCH BEDDING
NOT TO SCALE

ALLOWABLE BURY DEPTH

CLASS II RCP

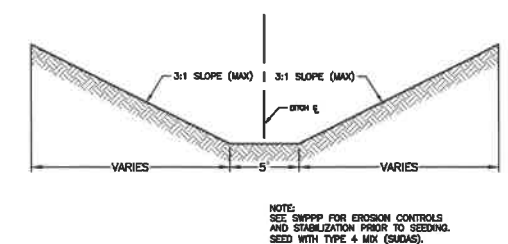
Pipe Diameter (Inches)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding
12	15'	15'	15'
15	15'	15'	15'
18	15'	15'	15'
21	15'	15'	15'
24	15'	15'	15'
27	15'	15'	15'
30	15'	15'	15'
33	15'	15'	15'
36	15'	15'	15'
39	15'	15'	15'
42	15'	15'	15'
45	15'	15'	15'
48	15'	15'	15'
51	15'	15'	15'
54	15'	15'	15'
57	15'	15'	15'
60	15'	15'	15'
63	15'	15'	15'
66	15'	15'	15'
69	15'	15'	15'
72	15'	15'	15'

CLASS III RCP

Pipe Diameter (Inches)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding
12	15'	15'	15'
15	15'	15'	15'
18	15'	15'	15'
21	15'	15'	15'
24	15'	15'	15'
27	15'	15'	15'
30	15'	15'	15'
33	15'	15'	15'
36	15'	15'	15'
39	15'	15'	15'
42	15'	15'	15'
45	15'	15'	15'
48	15'	15'	15'
51	15'	15'	15'
54	15'	15'	15'
57	15'	15'	15'
60	15'	15'	15'
63	15'	15'	15'
66	15'	15'	15'
69	15'	15'	15'
72	15'	15'	15'

CLASS IV RCP

Pipe Diameter (Inches)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding
12	15'	15'	15'
15	15'	15'	15'
18	15'	15'	15'
21	15'	15'	15'
24	15'	15'	15'
27	15'	15'	15'
30	15'	15'	15'
33	15'	15'	15'
36	15'	15'	15'
39	15'	15'	15'
42	15'	15'	15'
45	15'	15'	15'
48	15'	15'	15'
51	15'	15'	15'
54	15'	15'	15'
57	15'	15'	15'
60	15'	15'	15'
63	15'	15'	15'
66	15'	15'	15'
69	15'	15'	15'
72	15'	15'	15'



26 TYPICAL SWALE DETAIL
NOT TO SCALE

REVISIONS
DATE
001/12/02
10/04/02
02/28/02
04/16/02
01/08/02

SEVENTH SUBMITTAL
SIXTH SUBMITTAL
FIFTH SUBMITTAL
FOURTH SUBMITTAL
THIRD SUBMITTAL
SECOND SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
WEST DES MOINES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

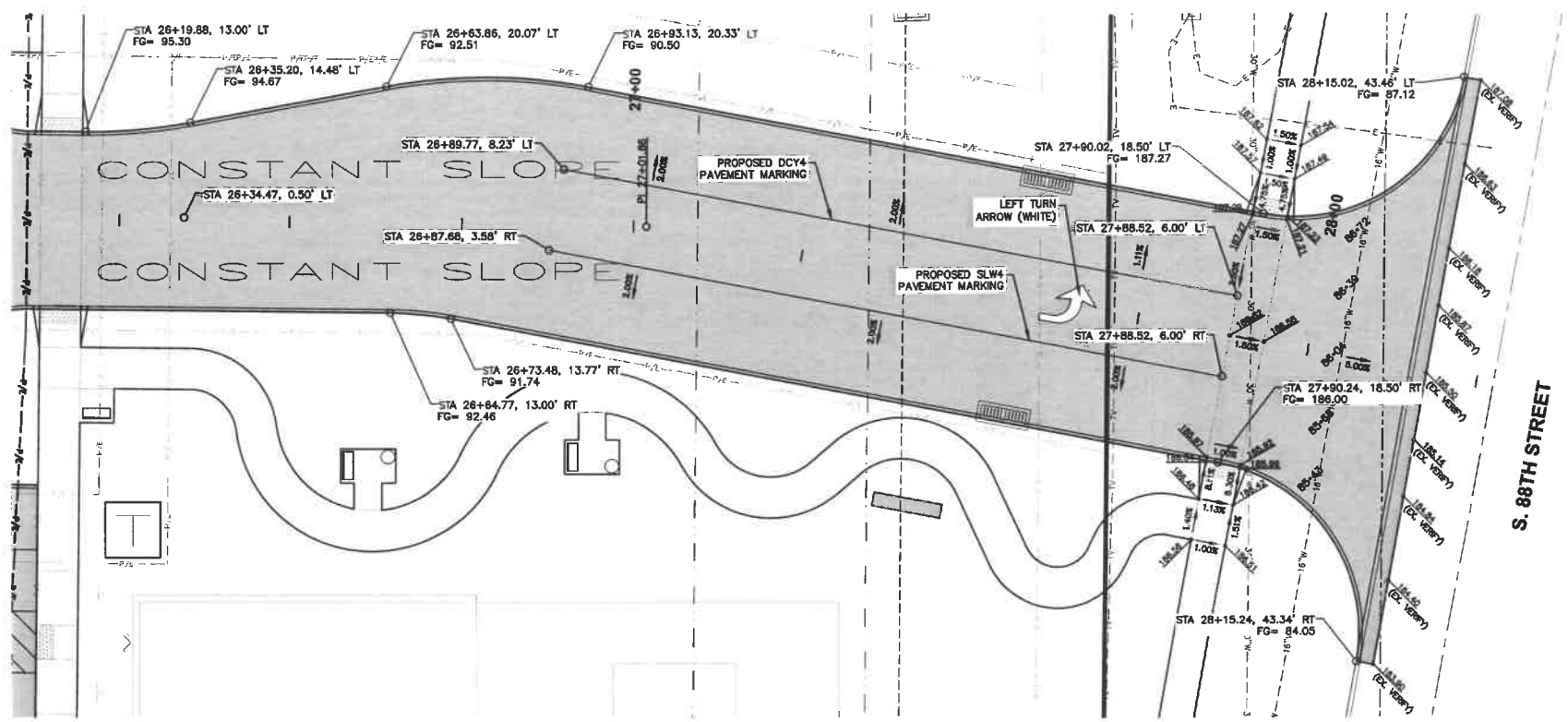
TECH: RL
ENGINEER: EKO

CIVIL DESIGN ADVANTAGE

WEST DES MOINES, IOWA

FOUNTAIN TERRACE APARTMENTS
DETAILS

7.2
2006.272



GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



- NOTES:
1. ALL TRANSVERSE JOINTS ARE "C" UNLESS NOTED OTHERWISE.
 2. REFER TO STANDARD DRAWING NO. 7.6 AND 7.7 FOR JOINTING DETAILS.
 3. REFER TO STANDARD DRAWING NO. 7.15 FOR INTAKE BOXOUT DETAILS.
 4. ALL ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
 5. INSTALL ACCESSIBLE DROP CURBS AT ALL FUTURE SIDEWALK LOCATIONS.
 6. REFER TO STANDARD DRAWING NO.S 7.2, 7.13 AND 7.14 FOR TYPICAL PAVEMENT REINFORCEMENT DETAILS.

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REVISIONS	DATE
SEVENTH SUBMITTAL	05/11/2022
SIXTH SUBMITTAL	10/04/2021
FIFTH SUBMITTAL	09/20/2021
FOURTH SUBMITTAL	03/16/2021
THIRD SUBMITTAL	03/16/2021
SECOND SUBMITTAL	01/08/2021

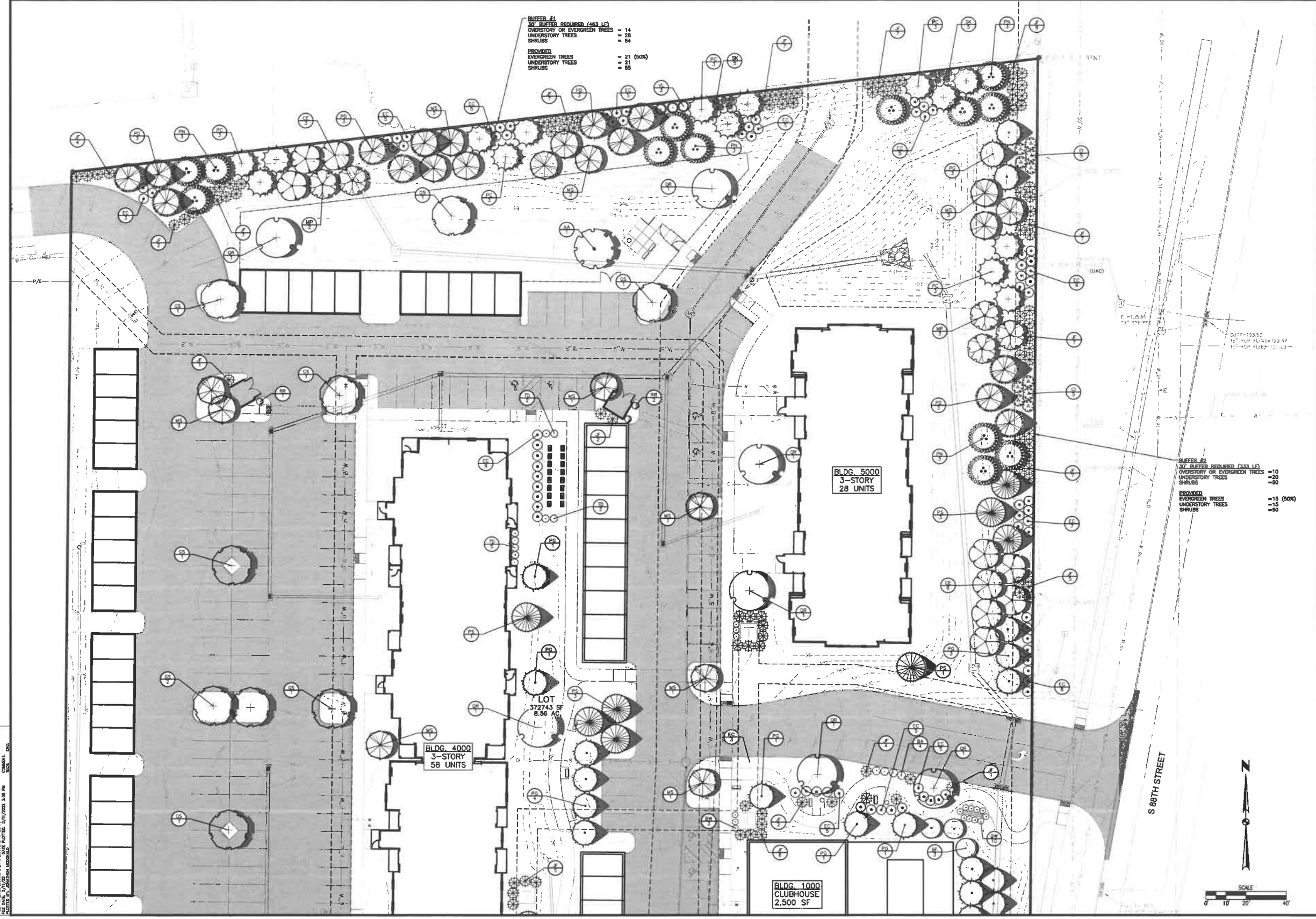
3405 S.E. CROSSROADS DRIVE, SUITE G
 CRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410



CIVIL DESIGN ADVANTAGE
 ENGINEER: EKO
 TECH: RL
 WEST DES MOINES, IOWA

FOUNTAIN TERRACE APARTMENTS
INTERSECTION DETAILS

DATE: 07/11/2022
 TIME: 2:08 PM
 COMBAT: 100%

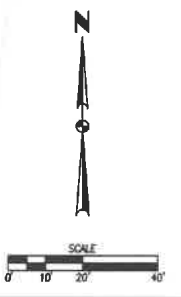


BUFFER #1
 30' BUFFER REQUIRED (443 LF)
 OVERSTORY OR EVERGREEN TREES = 14
 UNDERSTORY TREES = 28
 SHRUBS = 84

PROVIDED
 EVERGREEN TREES = 21 (50%)
 UNDERSTORY TREES = 21
 SHRUBS = 83

BUFFER #2
 30' BUFFER REQUIRED (133 LF)
 OVERSTORY OR EVERGREEN TREES = 10
 UNDERSTORY TREES = 20
 SHRUBS = 60

PROVIDED
 EVERGREEN TREES = 15 (50%)
 UNDERSTORY TREES = 15
 SHRUBS = 60



FOUNTAIN TERRACE APARTMENTS
LANDSCAPE PLAN

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410

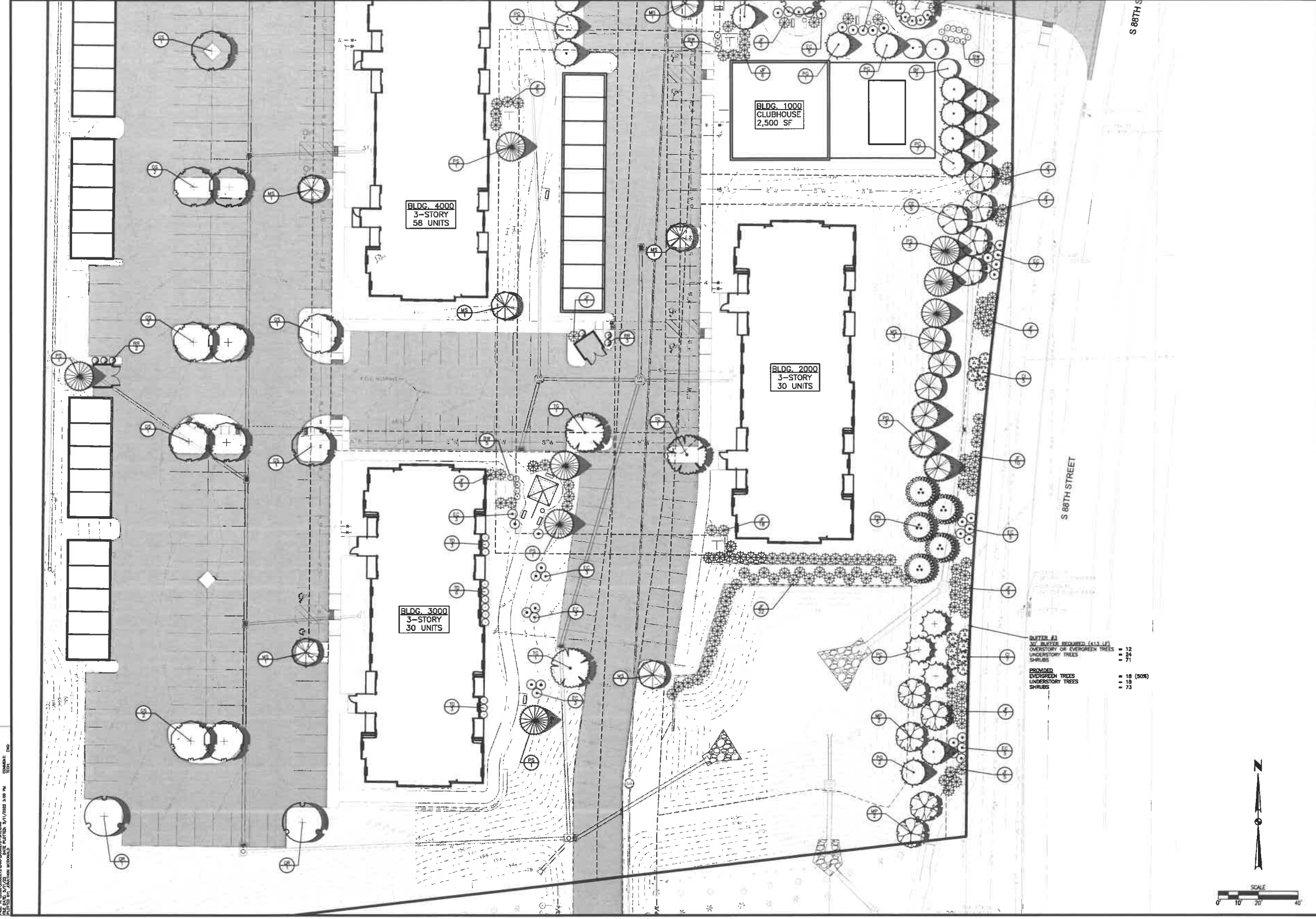
WEST DES MOINES, IOWA
 CIVIL DESIGN ADVANTAGE
 ENGINEER: EKO
 TECH: RL

2006.272

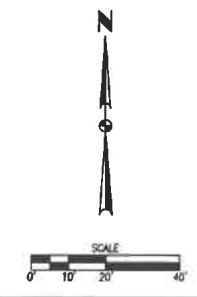
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REVISIONS	DATE
SEVENTH SUBMITTAL	04/15/2022
SIXTH SUBMITTAL	03/02/2022
FIFTH SUBMITTAL	02/02/2022
FOURTH SUBMITTAL	01/27/2022
THIRD SUBMITTAL	01/27/2022
SECOND SUBMITTAL	01/27/2022

DATE: 07/11/2006
 TIME: 10:00 AM
 DRAWN BY: J. H. HARRIS
 CHECKED BY: J. H. HARRIS



- QUANTITY**
- 12 EVERGREEN TREES
 - 24 UNDERSTORY TREES
 - 21 SHRUBS
- PROVIDED**
- 18 (50%) EVERGREEN TREES
 - 18 UNDERSTORY TREES
 - 73 SHRUBS



FOUNTAIN TERRACE APARTMENTS
LANDSCAPE PLAN

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 389-4400 FAX: (515) 389-4410

WEST DES MOINES, IOWA
 CIVIL DESIGN ADVANTAGE
 ENGINEER: EKO
 TECH: RL

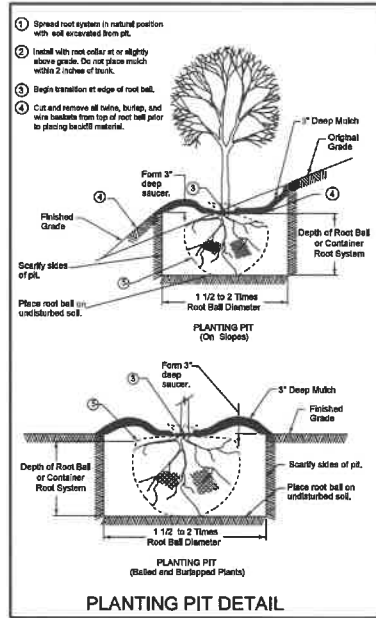
REVISIONS

DATE	DESCRIPTION
05/11/2006	SEVENTH SUBMITTAL
05/04/2006	SIXTH SUBMITTAL
04/27/2006	FIFTH SUBMITTAL
04/20/2006	FOURTH SUBMITTAL
04/13/2006	THIRD SUBMITTAL
04/06/2006	SECOND SUBMITTAL

DATE: 07/11/2006
 TIME: 10:00 AM
 DRAWN BY: J. H. HARRIS
 CHECKED BY: J. H. HARRIS

2006.272

IN THE EVENT OF AN EMERGENCY, CONTACT THE DESIGNER AT THE FOLLOWING PHONE NUMBER: 515-389-4410. FAX: 515-389-4410. E-MAIL: EKO@DESIGNADVANTAGE.COM



LANDSCAPE NOTES

- THE 2020 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND CITY OF WEST DES MOINES SUPPLEMENTAL SPECIFICATIONS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
- LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
- TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
- ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, Voids AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS, TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
- TYPE 'A' SEED OR SOIL ALL DISTURBED AREAS AS DIRECTED BY OWNER. SEED SHALL BE SUPER TURF II LS FROM UNITED SEEDS.
- BACKFILL TO TOP OF CURB. (MINUS 1 1/2\"/>

SCREENING

ALL MECHANICAL UNITS VISIBLE FROM A PUBLIC STREET SHALL BE SCREENED FROM PUBLIC VIEW.
 VIEWS OF OFF STREET PARADE AREAS FROM PUBLIC RIGHTS OF WAY SHALL BE SCREENED TO A HEIGHT OF AT LEAST THREE FEET

MINIMUM PLANT SIZES

DECIDUOUS OVERSTORY TREES	= 2\"/>
DECIDUOUS OVERSTORY TREES (CLUMP)	= 1\"/>
EVERGREEN TREES	= 6\"/>
ORNAMENTAL TREES	= 1.5\"/>
DECIDUOUS SHRUBS (5\"/>	
DECIDUOUS SHRUBS (3\"/>	
DECIDUOUS SHRUBS (0-2\"/>	

30' BUFFER REQUIREMENTS

A LANDSCAPED AND BERMED AREA OF NOT LESS THAN THIRTY FEET (30') IN WIDTH COMPRISED OF LANDSCAPE PLANTINGS.
 THE EQUIVALENT OF ONE OVERSTORY TREE OR UPRIGHT EVERGREEN TREE, TWO (2) UNDERSTORY TREES AND SIX (6) SHRUBS SHALL BE PROVIDED PER THIRTY FIVE (35) LINEAR FEET OF THE BUFFER PARK.
 OF THE REQUIRED NUMBER OF TREES WITHIN A BUFFER, A MINIMUM OF FIFTY PERCENT (50%) SHALL BE EVERGREEN.
 (SEE PLAN FOR CALCULATIONS)

PLANT SUBSTITUTIONS

- (2) ORNAMENTAL TREES = (1) OVERSTORY TREE OR EVERGREEN
- (10) SHRUBS = (1) UNDERSTORY TREE
- NO MORE THAN 50% OF THE REQUIRED PLANT TYPE MAY BE SUBSTITUTED.
- AT LEAST 35% OF TREES REQUIRED ON SITE (SUM OF OPEN SPACE, BUFFER AND PARKING LOT TREES) SHALL BE EVERGREEN.
 TOTAL TREES REQUIRED = 143
 EVERGREENS REQUIRED = 57 (39%)
 EVERGREENS PROVIDED = 80 (49%)

OPEN SPACE LANDSCAPE REQUIREMENTS

- (2) TREES PER 3000 SF OF REQUIRED OPEN SPACE
 - (3) SHRUBS PER 3000 SF OF REQUIRED OPEN SPACE
- | | |
|---------------------|-------------------|
| SITE AREA | = 327,743 SF |
| OPEN SPACE REQUIRED | = 81,838 SF (25%) |
- | | |
|-----------------|-------|
| TREES REQUIRED | = 57 |
| TREES PROVIDED | = 63 |
| SHRUBS REQUIRED | = 84 |
| SHRUBS PROVIDED | = 174 |

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
PG	9	Colorado Blue Spruce	<i>Picea pungens 'Glaucol'</i>	B&B, 6\"/>
PS	10	White Pine	<i>Pinus strobus</i>	B&B, 6\"/>

ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
MS	12	Spring Snow Crab Apple	<i>Malus x 'Spring Snow'</i>	B&B, 1.5\"/>

OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AA	1	Autumn Blaze Red Maple	<i>Acer rubrum 'Autumn Blaze'</i>	B&B, 2\"/>
BF	3	Dakota Pinnacle Asian White Birch	<i>Betula platyphylla 'Yango' TM</i>	B&B, 2\"/>
GS	18	Skyline Honey Locust	<i>Gleditsia triacanthos 'Skyline'</i>	B&B, 2\"/>
OR	9	Red Oak	<i>Quercus rubra</i>	B&B, 2\"/>
TR	3	Greenview Linden	<i>Tilia cordata 'Greenview'</i>	B&B, 2\"/>

SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
BA	4	Japanese Barberry	<i>Barbarea thunbergii 'Aurora'</i>	24\"/>
BW	14	Wintergreen Boxwood	<i>Buxus microphylla 'Wintergreen'</i>	15\"/>
EC	36	Compact Burning Bush	<i>Euonymus alatus 'Compactus'</i>	36\"/>
JF	92	Sea Green Juniper	<i>Juniperus chinensis 'Sea Green'</i>	36\"/>
RR	9	Fine Line Blackthorn	<i>Rhamnus frangula 'Fine Line'</i>	36\"/>
TD	21	Dense Yew	<i>Taxus x media</i>	24\"/>

PLANT SCHEDULE BUFFER #1 (NORTH)				
EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
PC	12	Blue Spruce	<i>Picea pungens 'Colorado Green'</i>	B&B, 6\"/>
PD	9	Douglas Fir	<i>Pseudotsuga menziesii</i>	B&B, 6\"/>

ORNAMENTAL TREES				
OE	5	Eastern Redbud Multi-trunk	<i>Cercia canadensis</i>	B&B, 1.5\"/>
MP	2	Proflite Crab Apple	<i>Malus x 'Proflite'</i>	B&B, 1.5\"/>
MS	6	Spring Snow Crab Apple	<i>Malus x 'Spring Snow'</i>	B&B, 1.5\"/>
PN	10	Newport Flowering Plum	<i>Prunus cerasifera 'Newport'</i>	B&B, 1.5\"/>

SHRUBS				
EC	28	Compact Burning Bush	<i>Euonymus alatus 'Compactus'</i>	36\"/>
JF	44	Sea Green Juniper	<i>Juniperus chinensis 'Sea Green'</i>	36\"/>
SK	10	Miss Kim Korean Lilac	<i>Syringa pubescens 'Miss Kim'</i>	36\"/>
VL	3	Nannyberry	<i>Viburnum lentago</i>	36\"/>

PLANT SCHEDULE BUFFER #2 (8TH ST NORTH)				
EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
PC	3	Blue Spruce	<i>Picea pungens 'Colorado Green'</i>	B&B, 6\"/>
PD	3	Douglas Fir	<i>Pseudotsuga menziesii</i>	B&B, 6\"/>
PG	6	Colorado Blue Spruce	<i>Picea pungens 'Glaucol'</i>	B&B, 6\"/>
PS	3	White Pine	<i>Pinus strobus</i>	B&B, 6\"/>

ORNAMENTAL TREES				
OE	6	Eastern Redbud Multi-trunk	<i>Cercia canadensis</i>	B&B, 1.5\"/>
MP	3	Proflite Crab Apple	<i>Malus x 'Proflite'</i>	B&B, 1.5\"/>
MS	3	Spring Snow Crab Apple	<i>Malus x 'Spring Snow'</i>	B&B, 1.5\"/>
PN	3	Newport Flowering Plum	<i>Prunus cerasifera 'Newport'</i>	B&B, 1.5\"/>

SHRUBS				
CI	10	Ironii Redosier Dogwood	<i>Cornus sericea 'Ironii'</i>	24\"/>
EC	24	Compact Burning Bush	<i>Euonymus alatus 'Compactus'</i>	36\"/>
JF	28	Sea Green Juniper	<i>Juniperus chinensis 'Sea Green'</i>	36\"/>

PLANT SCHEDULE PLANT SCHEDULE BUFFER #3 (8TH ST SOUTH)				
EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
PC	3	Blue Spruce	<i>Picea pungens 'Colorado Green'</i>	B&B, 6\"/>
PD	3	Douglas Fir	<i>Pseudotsuga menziesii</i>	B&B, 6\"/>
PG	9	Colorado Blue Spruce	<i>Picea pungens 'Glaucol'</i>	B&B, 6\"/>
PS	3	White Pine	<i>Pinus strobus</i>	B&B, 6\"/>

ORNAMENTAL TREES				
OE	5	Eastern Redbud Multi-trunk	<i>Cercia canadensis</i>	B&B, 1.5\"/>
MP	5	Proflite Crab Apple	<i>Malus x 'Proflite'</i>	B&B, 1.5\"/>
MS	3	Spring Snow Crab Apple	<i>Malus x 'Spring Snow'</i>	B&B, 1.5\"/>
PN	5	Newport Flowering Plum	<i>Prunus cerasifera 'Newport'</i>	B&B, 1.5\"/>

SHRUBS				
BW	7	Wintergreen Boxwood	<i>Buxus microphylla 'Wintergreen'</i>	15\"/>
CI	12	Ironii Redosier Dogwood	<i>Cornus sericea 'Ironii'</i>	24\"/>
EC	17	Compact Burning Bush	<i>Euonymus alatus 'Compactus'</i>	36\"/>
JF	44	Sea Green Juniper	<i>Juniperus chinensis 'Sea Green'</i>	36\"/>

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2006.272

FOUNTAIN TERRACE APARTMENTS
LANDSCAPE PLAN

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 389-4440 FAX: (515) 389-4410

DESIGN ADVANTAGE
CIVIL DESIGN ADVANTAGE ENGINEER: EKO
TECH: RL

WEST DES MOINES, IOWA

FOUNTAIN TERRACE APARTMENT (30 PLEX)

655 S. 88th St., West Des Moines, IA - Building #2000 & #3000



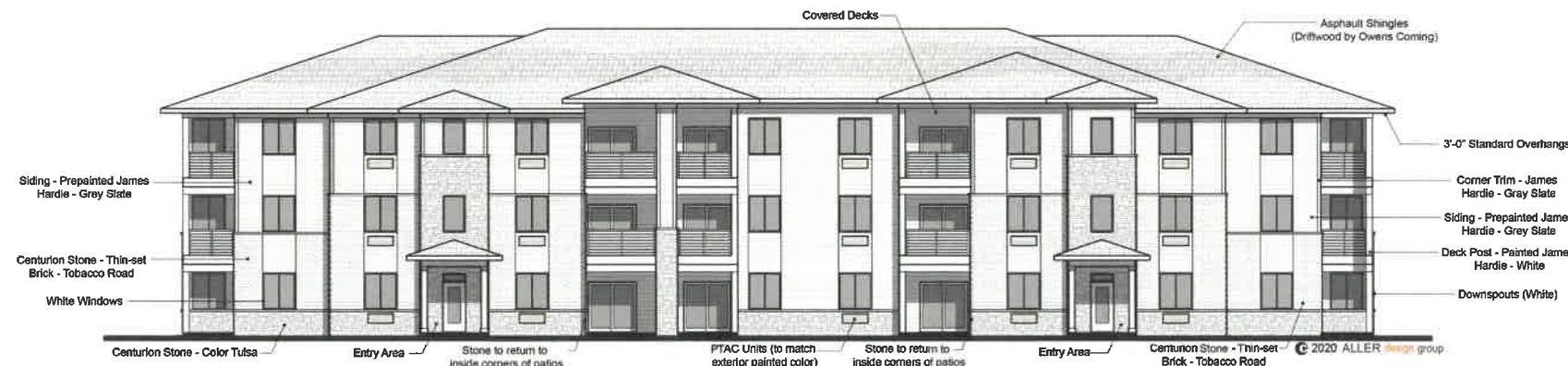
REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION

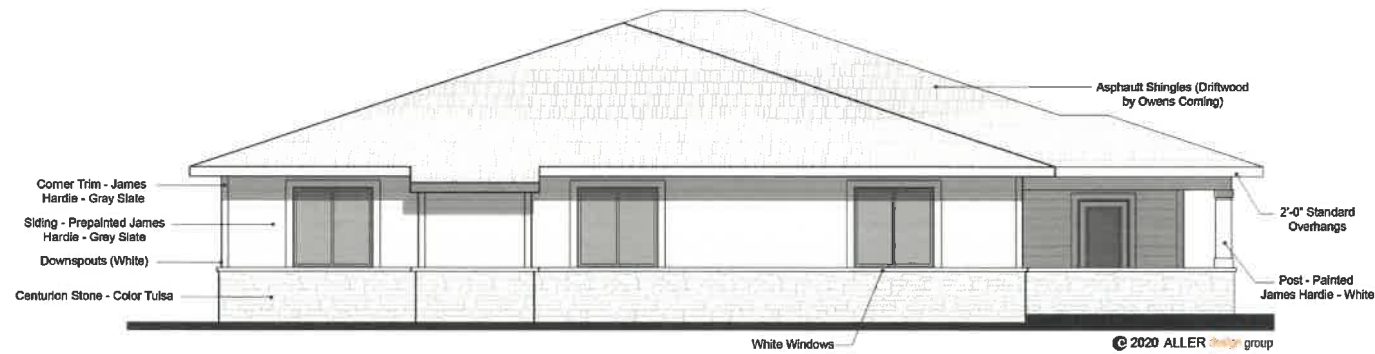


FOUNTAIN TERRACE CLUBHOUSE

655 S. 88th St., West Des Moines, IA - Building #1000



REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION

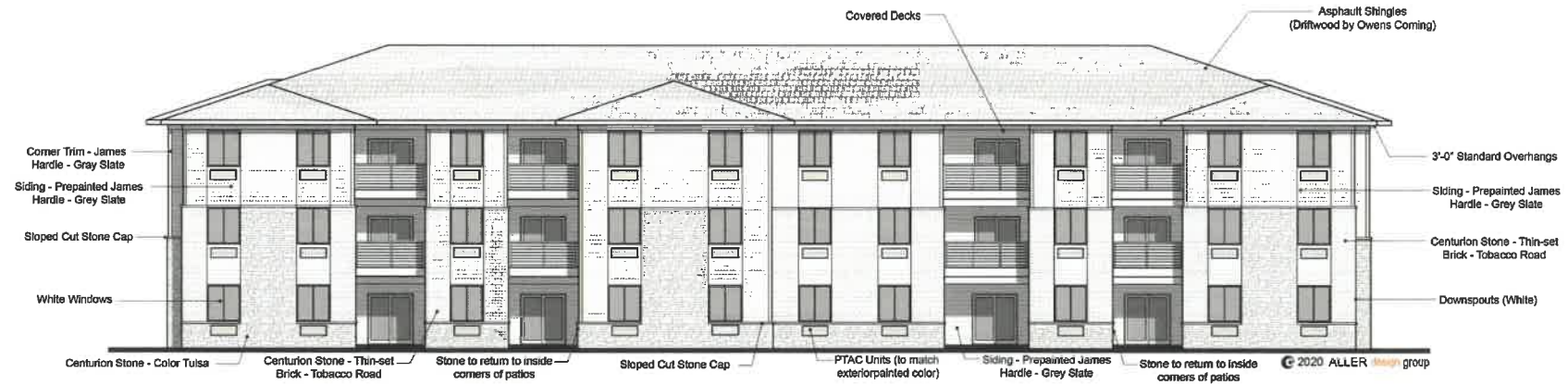


FRONT ELEVATION

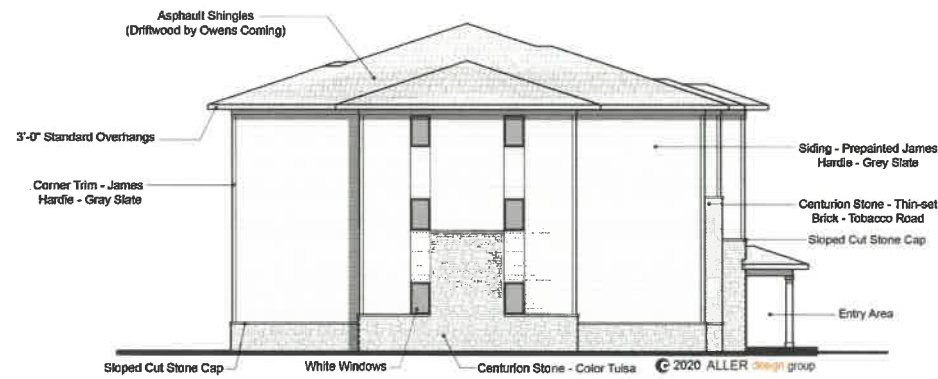


FOUNTAIN TERRACE APARTMENT (28 PLEX)

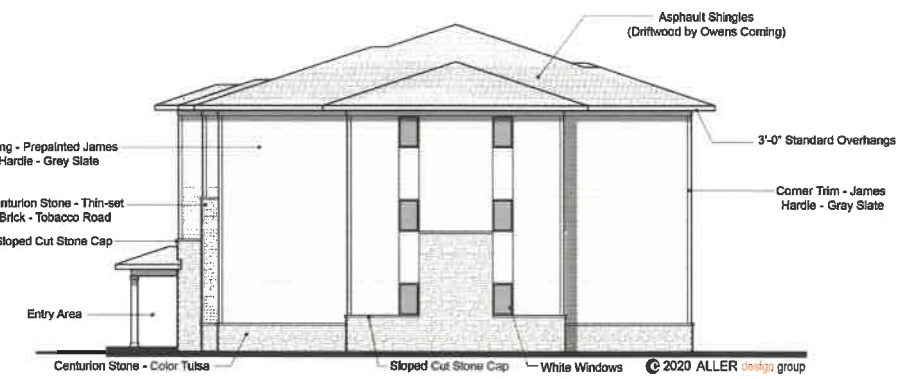
655 S. 88th St., West Des Moines, IA - Building #5000



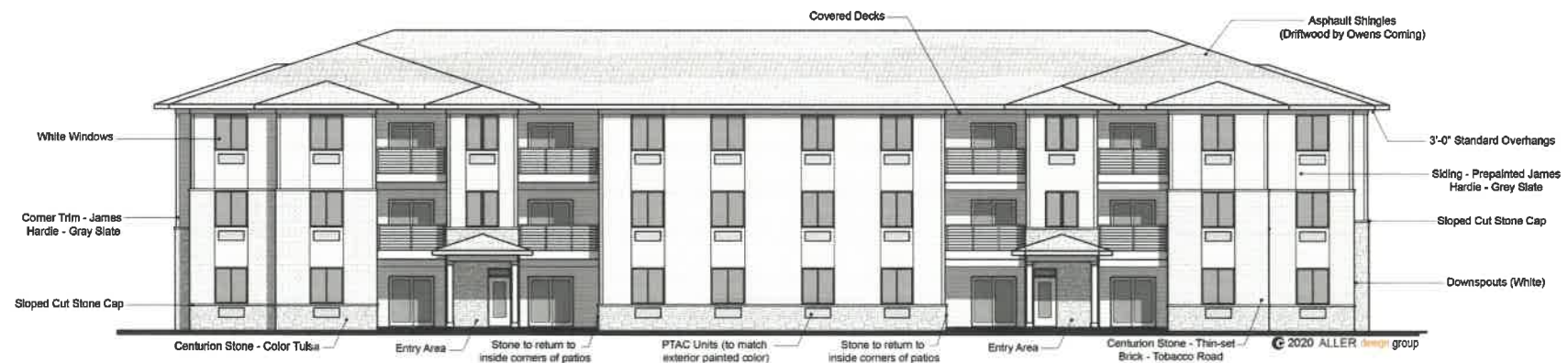
REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION

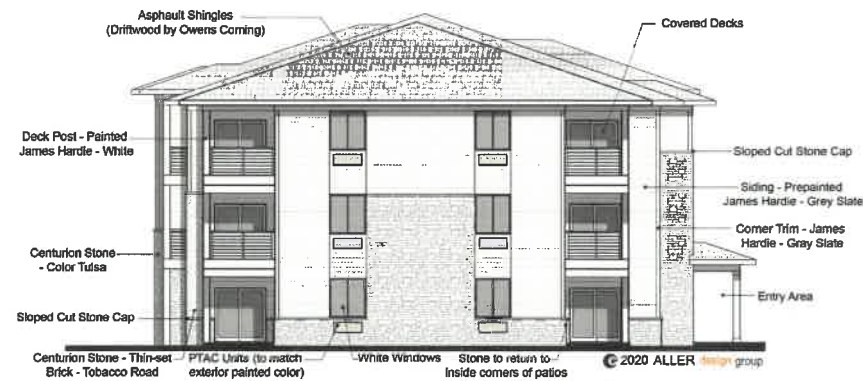


FOUNTAIN TERRACE APARTMENT (58 PLEX)

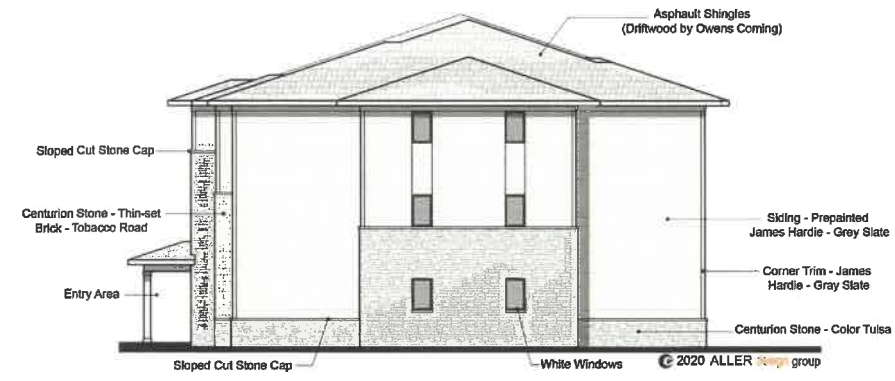
655 S. 88th St., West Des Moines, IA - Building #4000



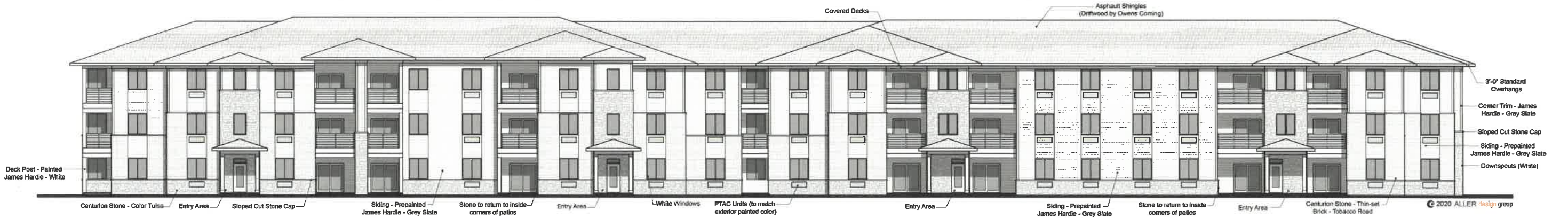
REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



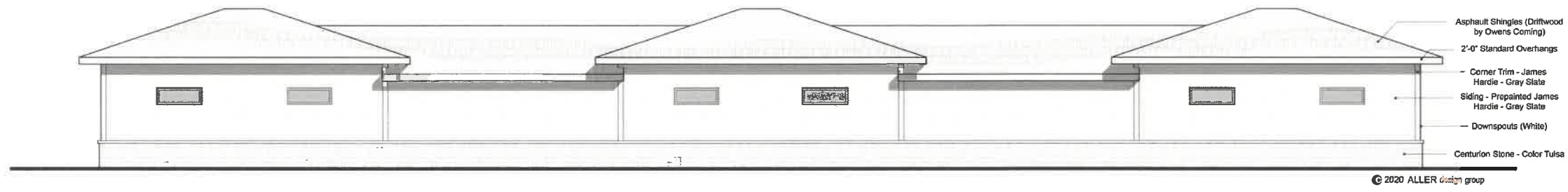
FRONT ELEVATION



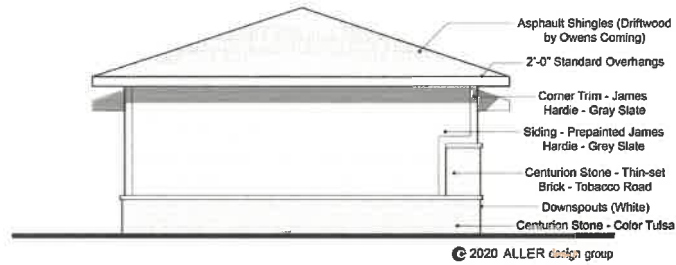
RAINS ARCHITECTURE



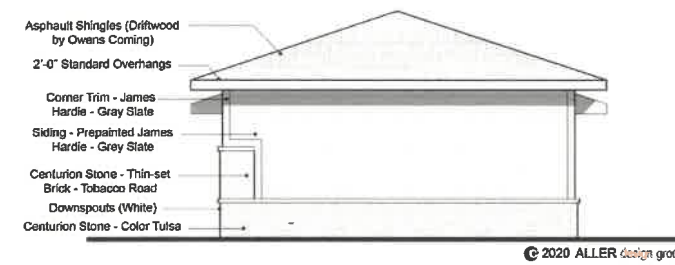
FOUNTAIN TERRACE GARAGE (10 STALLS)



REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION



Centurion Stone - Color Tulsa



Asphalt Shingles (Driftwood by Owens Corning)



Corner Trim - James Hardie - Gray Slate



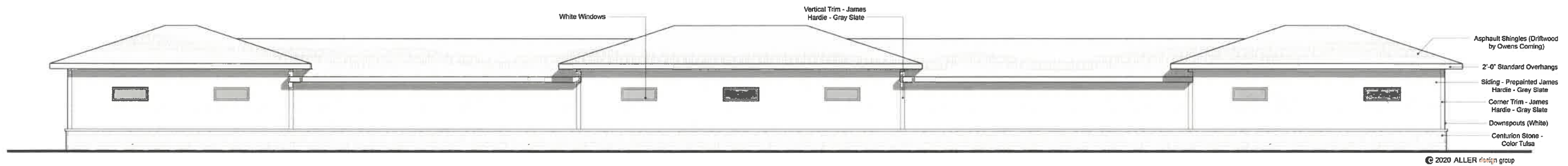
Siding - Pre-painted James Hardie - Gray Slate



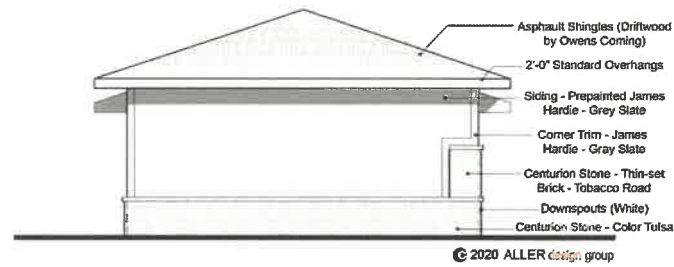
Downspouts (White)



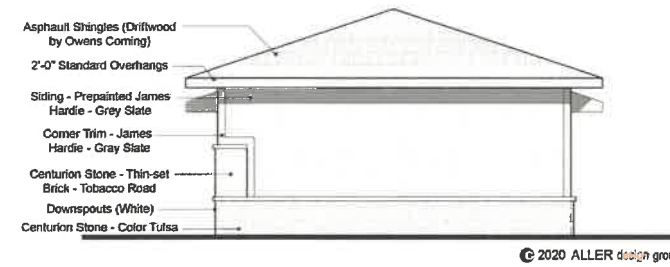
FOUNTAIN TERRACE GARAGE (13 STALLS)



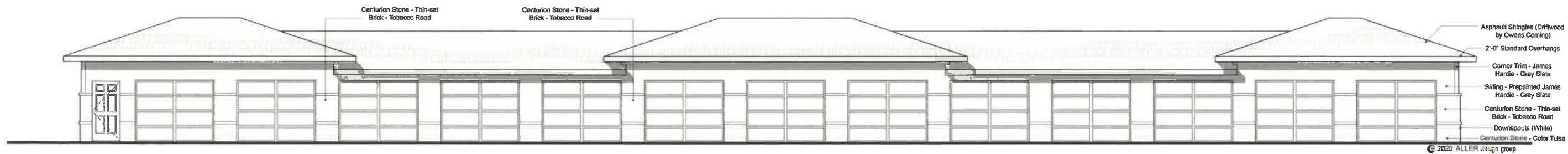
REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION



Centurion Stone - Color Tulsa



Asphalt Shingles (Driftwood by Owens Corning)



Corner Trim - James Hardie - Gray Slate



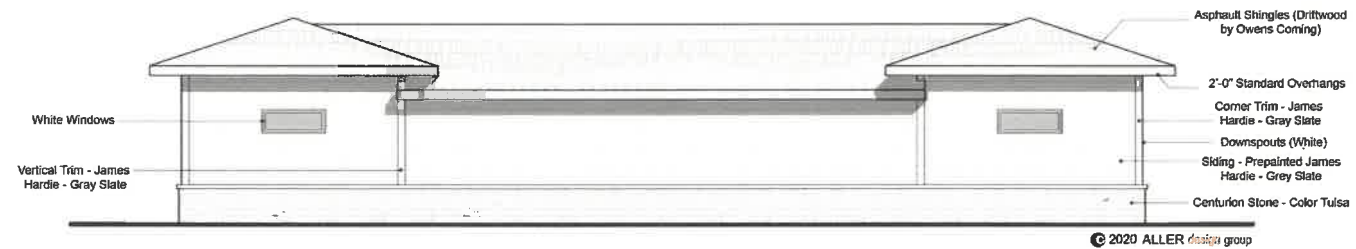
Siding - Prepainted James Hardie - Gray Slate



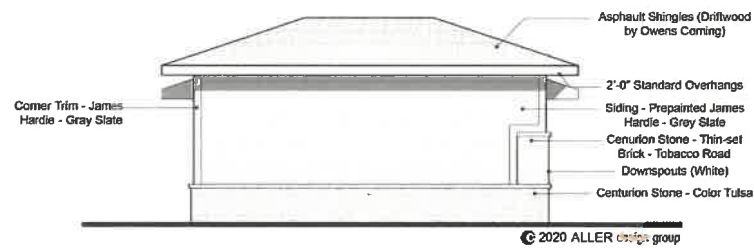
Downspouts (White)



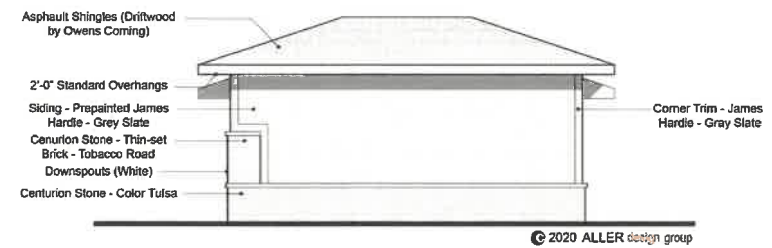
FOUNTAIN TERRACE GARAGE (5 STALLS)



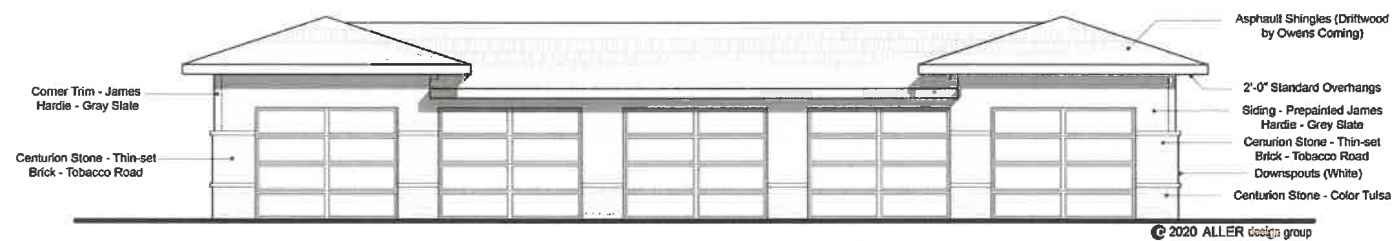
REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION



Centurion Stone - Thin-set Brick - Tobacco Road



Centurion Stone - Color Tulsa



Asphalt Shingles (Driftwood by Owens Corning)



Corner Trim - James Hardie - Gray Slate

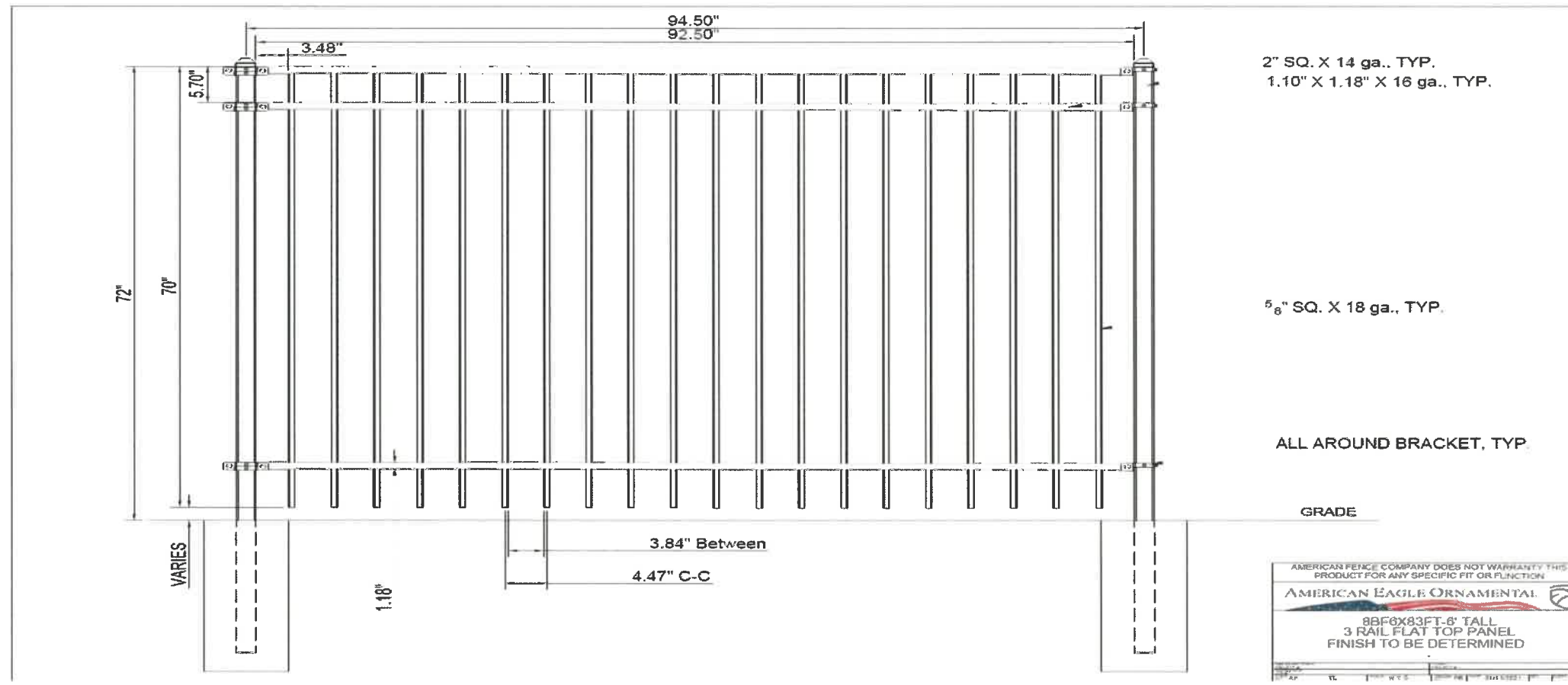


Siding - Preapainted James Hardie - Gray Slate



Downspouts (White)





Line and Terminal Posts
 2" Sq. x 5' 9"(69") Ornamet

Brackets
 Eagle Flush Mount Bracket

Gates
 Eagle 4' x 4' Single Flat Top
 Eagle 4' x 4' Single Flat Top
 Eagle 4' x 4' Single Flat Top

Hinge Kit
 Fully Adjustable Hinge
 2 1/2" x 1 1/4" Pintel Hinge Kit

Latch Kit
 Lokk Latch System 1

Gate Posts
 2-1/2" x 8' Post (Gate Hinge Post Only)
 2-1/2" x 8' Post (Gate Hinge Post Only)
 2-1/2" x 6' Post (Gate Hinge Post Only)
 2-1/2" x 6' Post (Gate Hinge Post Only)
 2-1/2" x 6' Post (Gate Hinge Post Only)
 2-1/2" x 6' Post (Gate Hinge Post Only)

AFC Representative: _____

Date: _____

Customer Signature: _____

Date: _____

SHADE STRUCTURE



The shade structure is made of heavy-duty extruded aluminum. Potential color choices are white, sandstone and bronze. Roof is an insulated panel system with integrated gutters, fascia and down spouts. Post supports are heavy duty extruded aluminum with fluted columns. Structure provided by Sunroom Escapes – Pleasant Hill.