VILLAGE ON RIVOLI HOUSING

ST. PAUL, MINNESOTA

PRELIMINARY PLAT EXHIBITS

FOR

DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES

823 E. 7TH STREET, ST. PAUL, MINNESOTA 55106

PHONE: (651) 774-6995 FAX: (651) 774-0445

LEGEND

- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING TELEPHONE PEDESTAL
- EXISTING TELEVISION PEDESTAL
- EXISTING ELECTRIC UNDERGROUND
- EXISTING OVERHEAD UTILITY LINE
- EXISTING FENCE
- EXISTING ASPHALT SURFACE
- EXISTING CURB
- 1000 EXISTING CONTOUR
- SOIL BORING LOCATION
- 1000 PROPOSED CONTOUR
- PROPOSED SANITARY SEWER
- PROPOSED DITCH BLOCKING (MnDOT TYPE 3) –POST GRADING/UTILITY CONSTRUCTION
- PROPOSED SILT FENCE (POST-CONSTRUCTION)

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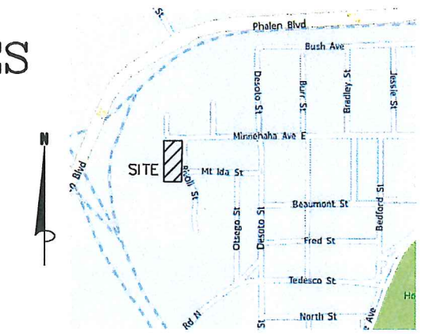
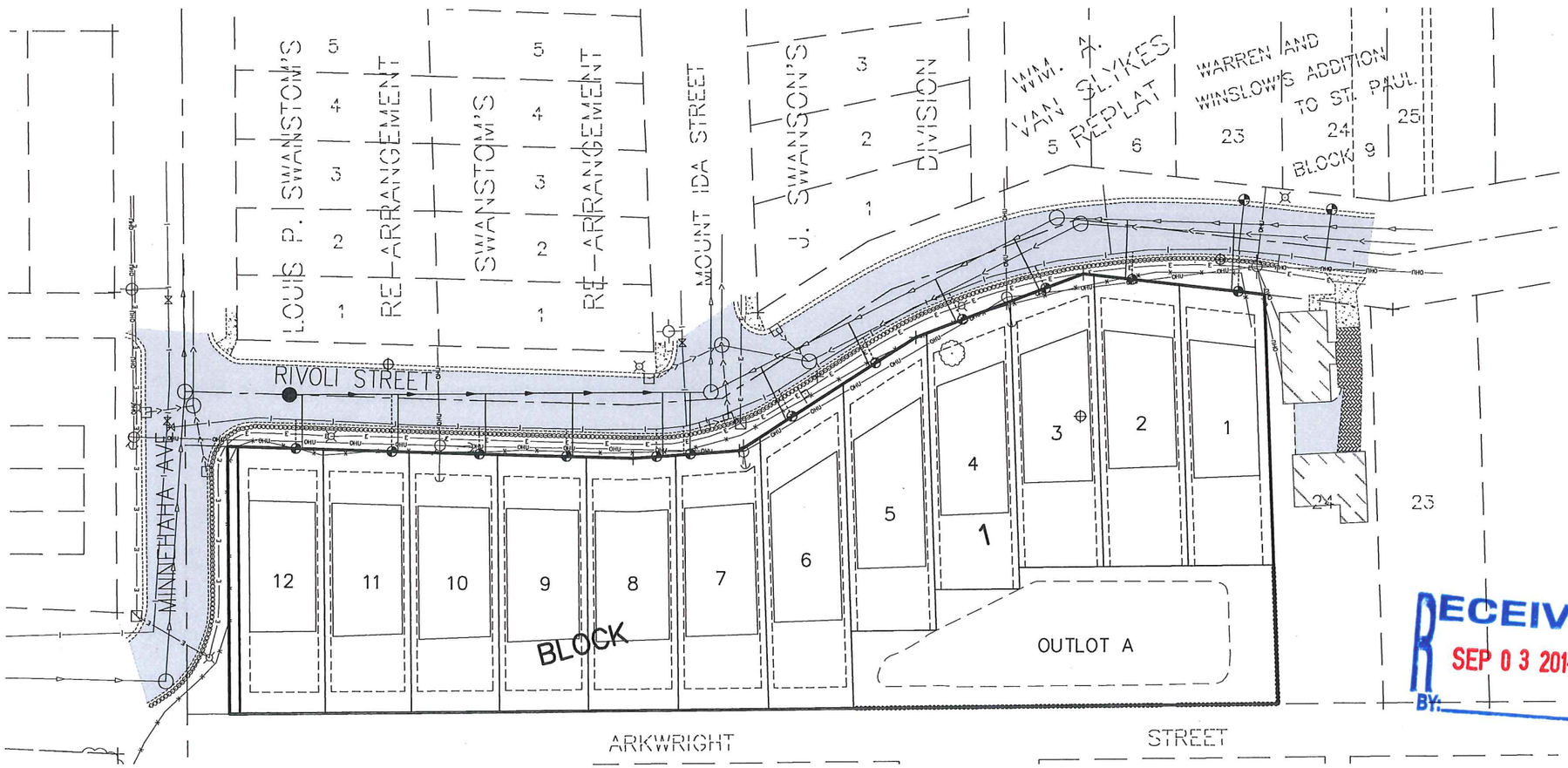


LOCATION MAP
NOT TO SCALE



RECEIVED
SEP 03 2014
BY:

PROJECT CONTACTS

PROJECT ENGINEER:	JOEL G. COOPER, P.E. – JAMES R. HILL, INC.	(952)-890-6044 (O)
		(612)-508-6480 (M)
DEVELOPER:	GARY FINDELL	(651)-262-9636 (M)
CITY ENGINEER:	XXXXXXXXXXXXX – CITY ENGINEER	(XXX)-XXX-XXXX (O)
NPDES OFFICER:	PAUL ERDMANN – MPCA	(651)-757-2883 (O)
GENERAL CONTRACTOR REPRESENTATIVE:	TBD	

BENCHMARK

TOP NUT HYDRANT MINNEHAHA AVENUE AND RIVOLI STREET. ELEVATION = 164.65 FEET.

PROJECT COORDINATES

N 44° 57' 45"
W 93° 05' 00"

SCALE IN FEET
0 30 60 90
1 inch = 30 feet

GOPHER STATE ONE CALL

CALL 48 HOURS BEFORE YOU DIG!
TWIN CITY AREA 651-454-0002
MN. TOLL FREE 1-800-252-1166

James R. Hill, Inc.
PLANNERS / ENGINEERS / SURVEYORS
2500 W. Cty. Rd. 42, Suite 120, Burnsville, MN 55337
PHONE: (952)890-6044 FAX: (952)890-6244

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
JOEL G. COOPER
Date 8/25/14 Reg.No. 18495

VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
TITLE SHEET
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

DRAWN BY	PLN
DATE	08/25/14
REVISIONS	
CAD FILE	21823-30TS
PROJECT NO.	21823-30
	1.1

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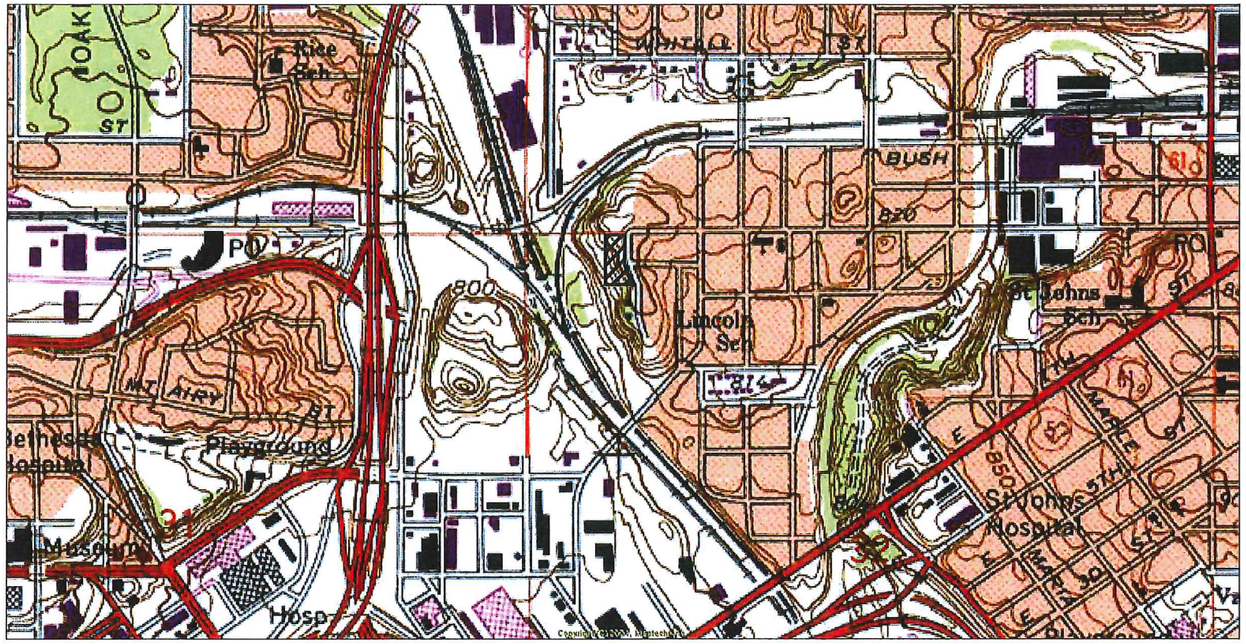
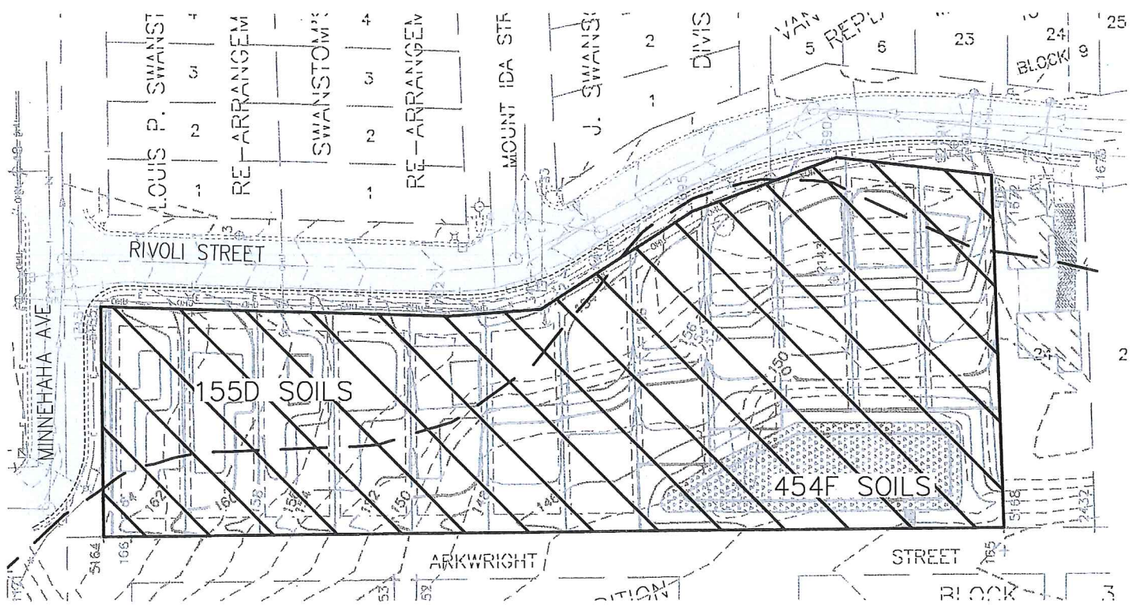


USGS MAP

NO TO SCALE



SOILS GROUP MAP

1 inch = 40 feet

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VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
SITE INFORMATION
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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DATE	08/25/14
REVISIONS	
CAD FILE	21823-30SI-DRAINAGE
PROJECT NO.	21823-30
	1.2

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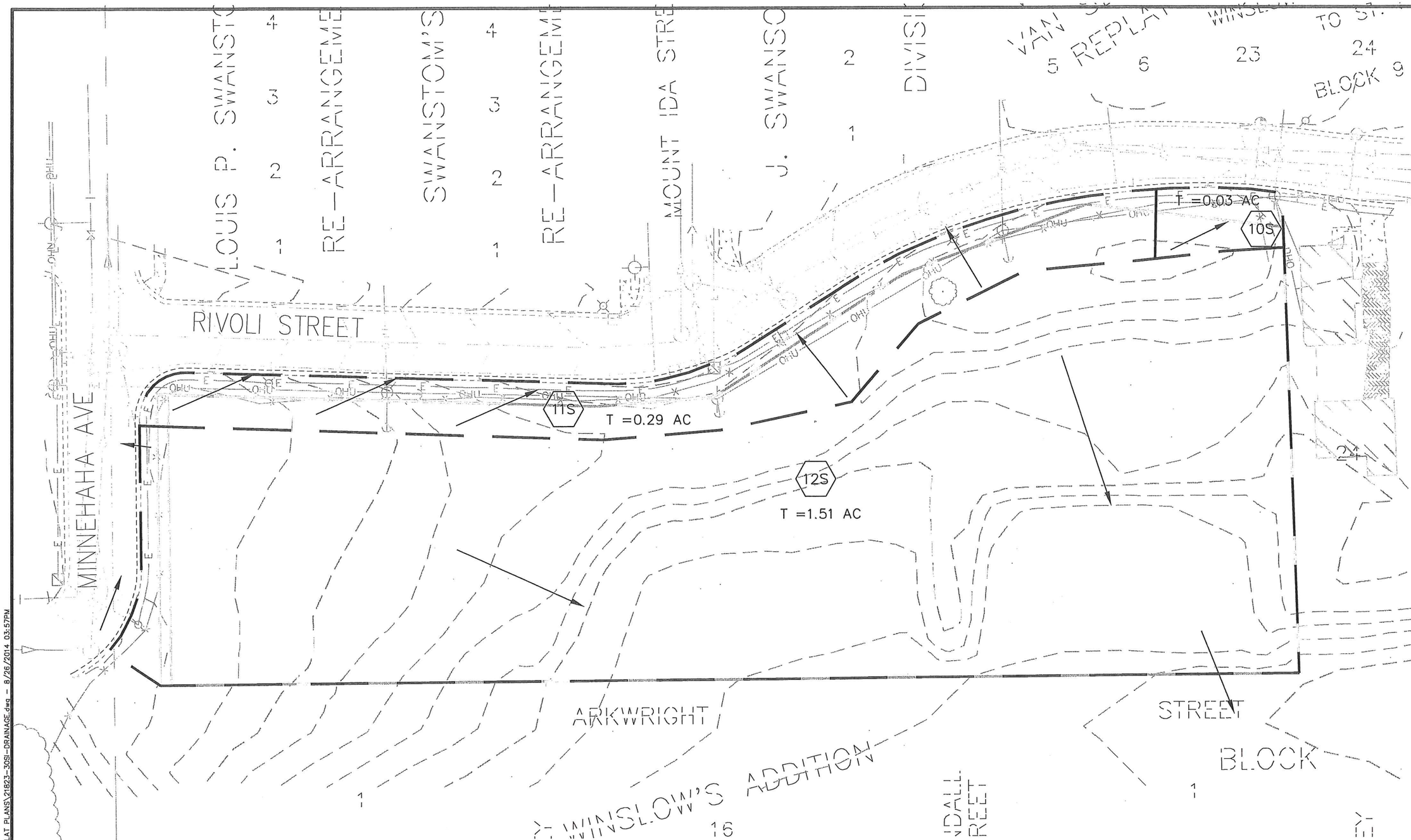

Ex Cond			
Rainfall Amt	Q Peak		Volume ac-ft
2.75"	0.01		0.005
4.15"	0.2		0.047
5.9"	1.25		0.146

EXISTING DRAINAGE MAP

T_A = 1.82 AC.

(BOUNDRY AREA = 1.69 AC.)

GOPHER STATE ONE CALL
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SCALE IN FEET
0 20 40 60
1 inch = 20 feet

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Date 8/25/14 Reg.No. 18495

VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
SITE INFORMATION
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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REVISIONS

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PROJECT NO.
21823-30
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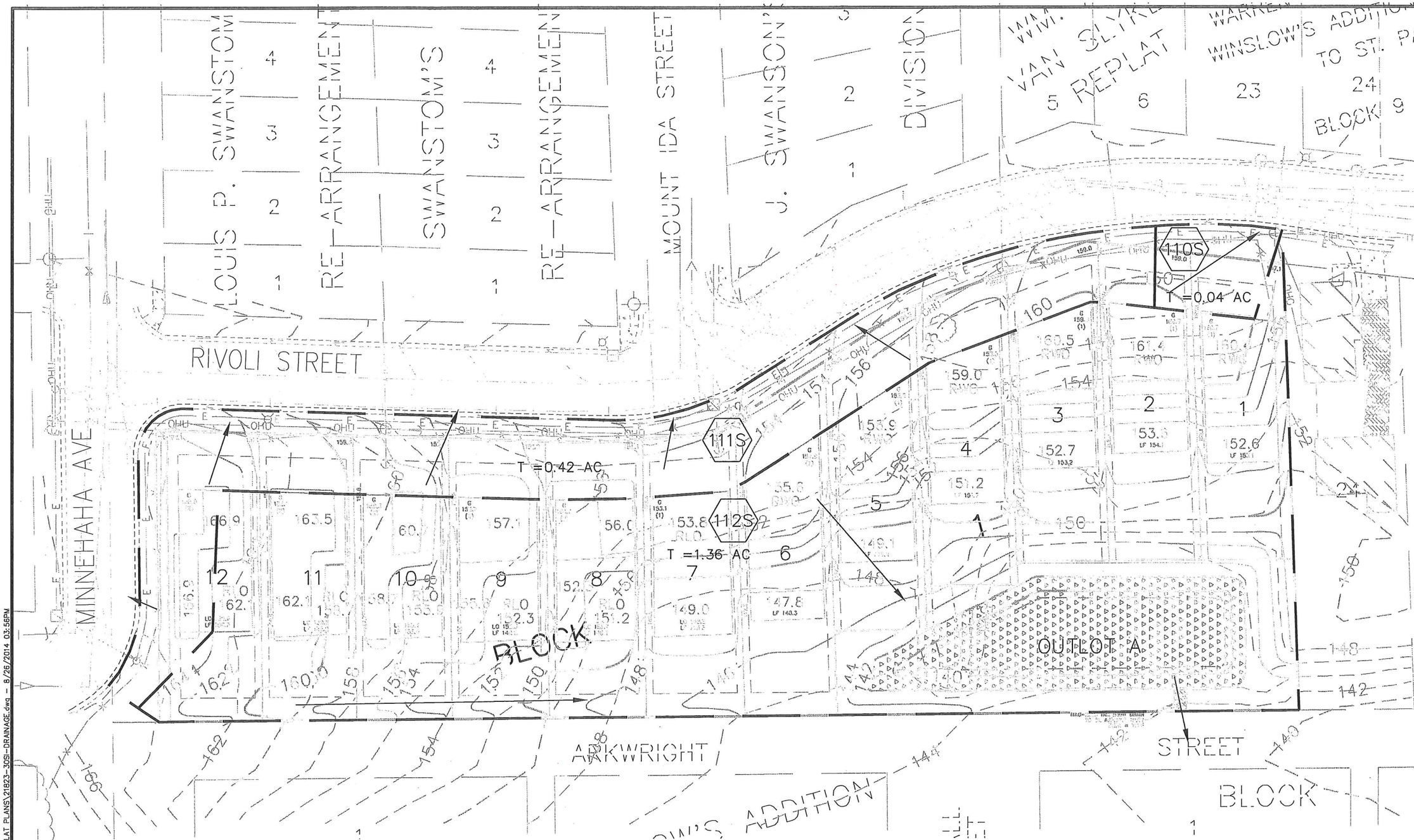

Rainfall Amt	Prop Cond Q Peak		Volume ac-ft
2.75"	0.35		0.018
4.15"	1.04		0.048
5.9"	2.09		0.095

GOPHER STATE ONE CALL
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MN. TOLL FREE 1-800-252-1166

PROPOSED DRAINAGE MAP

T_A = 1.82 AC.
(BOUNDRY AREA = 1.69 AC.)

SCALE IN FEET
0 20 40 60
1 inch = 20 feet

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JOEL G. COOPER
Date: 8/25/14 Reg.No. 18495

VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
SITE INFORMATION
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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21823-30SI-DRAINAGE
PROJECT NO.
21823-30
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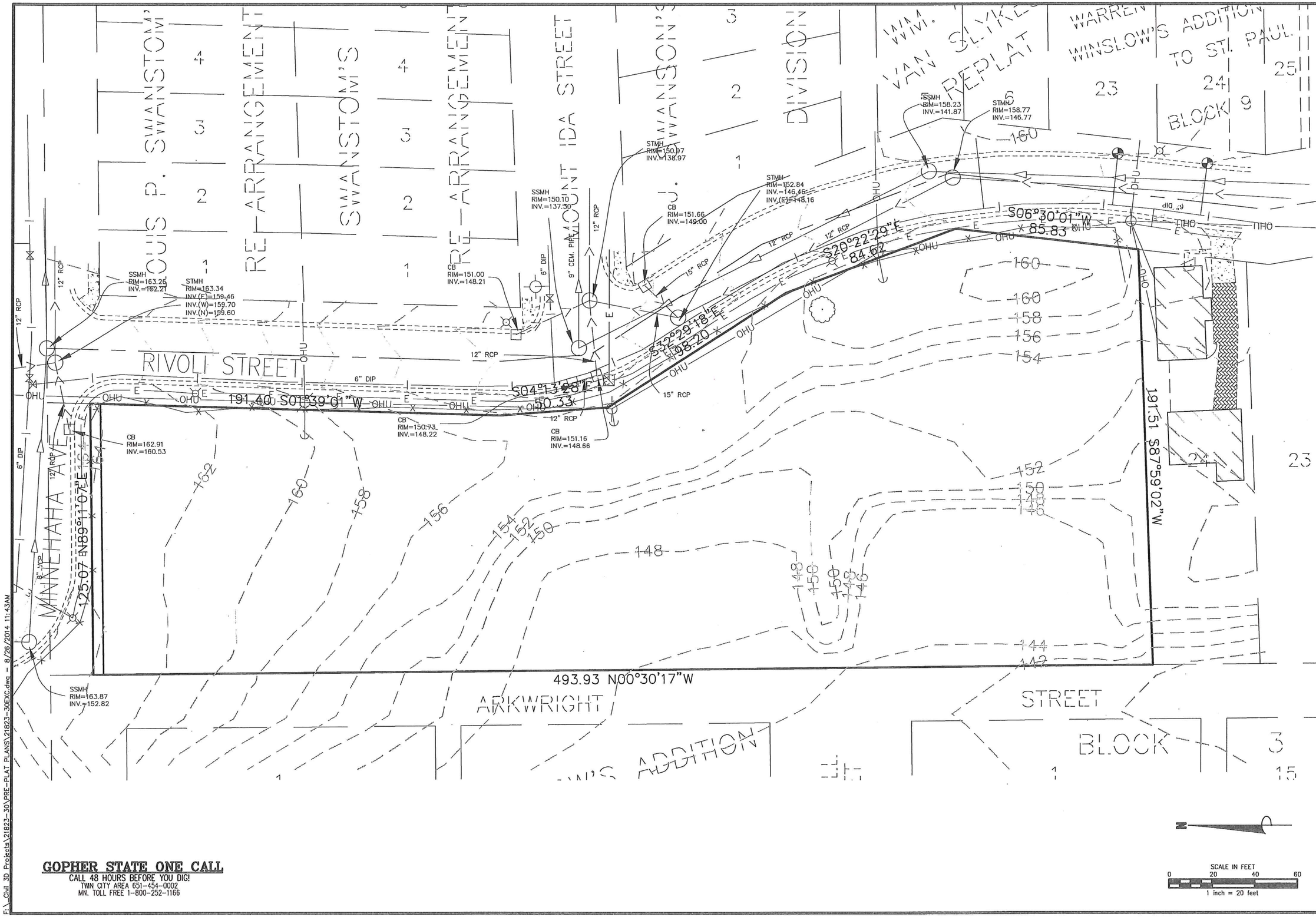

GOPHER STATE ONE CALL
CALL 48 HOURS BEFORE YOU DIG!
TWIN CITY AREA 651-454-0002
MN. TOLL FREE 1-800-252-1166

SCALE IN FEET
0 20 40 60
1 inch = 20 feet

James R. Hill, Inc.
PLANNERS / ENGINEERS / SURVEYORS
2500 W. CTY. RD. 42, SUITE 120, BURNSVILLE, MN 55337
PHONE: (952)890-6044 FAX: (952)890-6244

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
JOEL G. COOPER
Date: 8/25/14 Reg.No. 18495

VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
EXISTING CONDITIONS
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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DATE	08/25/14
REVISIONS	
CAD FILE	21823-30EXC
PROJECT NO.	21823-30
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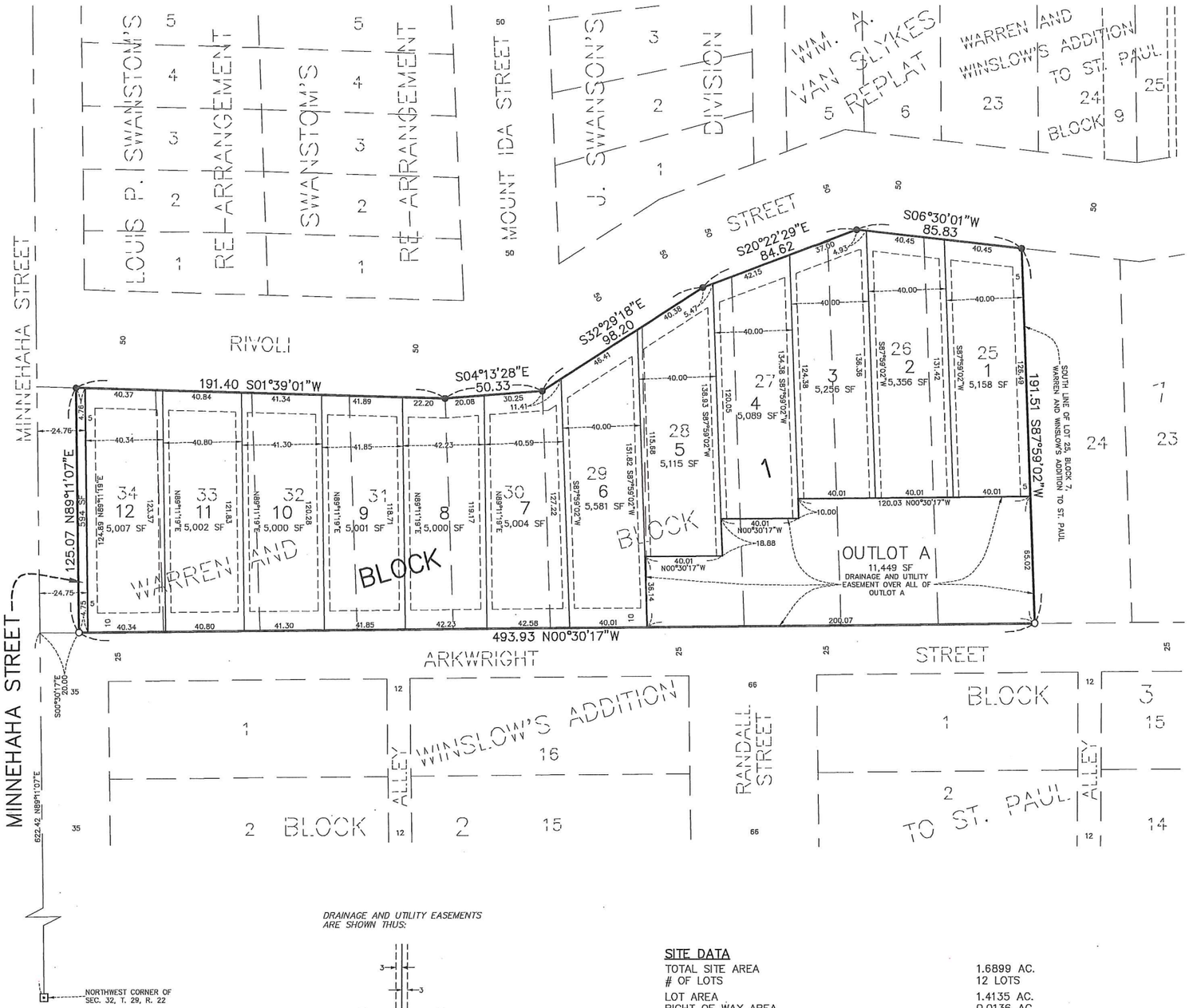
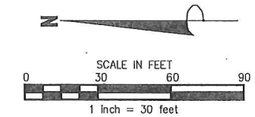




LEGEND

- ○ IRON SET
- ● IRON FOUND
- ⊡ CONCRETE MONUMENT FOUND

NOTES

ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE SOUTH LINE OF LOT 25, BLOCK 7, WARREN AND WINSLOW'S ADDITION TO ST. PAUL TO HAVE AN ASSUMED BEARING OF S 87°59'02" W.

THIS SURVEY HAS BEEN PREPARED WITHOUT BENEFIT OF A TITLE COMMITMENT OR TITLE OPINION. A TITLE SEARCH FOR RECORDED OR UNRECORDED EASEMENTS WHICH MAY BENEFIT OR ENCUMBER THIS PROPERTY HAS NOT BEEN COMPLETED BY THE SURVEYOR.

CURRENT ZONING IS R4 ONE-FAMILY PER CITY OF ST. PAUL ZONING MAP PANEL 10 DATED MAY 8, 2014.

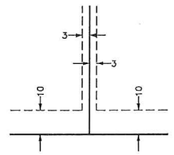
MINIMUM SETBACK OF R4 ONE-FAMILY DISTRICT PER CITY OF ST.PAUL ZONING ORDINANCE.

FRONT (GARAGE, HOUSE) – 25 FEET
SIDE (HOUSE) – 4 FEET
REAR (HOUSE) – 25 FEET

NOTE: MINIMUM SETBACK REQUIREMENTS ARE ESTABLISHED BY CITY ORDINANCE. THE SETBACK LINES ARE NOT DRAWN ON ANY OFFICIAL MAP FOR THIS SITE. THE LOCATION OF SETBACK LINES ARE SUBJECT TO LEGAL INTERPRETATION AND PLANNING CONSIDERATIONS. THEREFORE THE MINIMUM SETBACKS ARE LISTED BUT NOT SHOWN ON THIS SURVEY. SPECIFIC QUESTIONS REGARDING SETBACK REQUIREMENTS SHOULD BE DIRECTED TO THE REGULATING AUTHORITY.

OVERALL GROSS AREA = 73,611 SQUARE FEET OR 1.6899 ACRES

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:



BEING 3 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, ADJOINING LOT LINES, AND BEING 10 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, ADJOINING RIGHT OF WAY LINES, AS SHOWN ON THE PLAT.

SITE DATA

TOTAL SITE AREA	1.6899 AC.
# OF LOTS	12 LOTS
LOT AREA	1.4135 AC.
RIGHT OF WAY AREA	0.0136 AC.
OUTLOT AREA	0.2628 AC.

SINGLE FAMILY REQUIREMENT & DATA (RS–4)

MIN. LOT AREA	5,000 S.F.
MIN. LOT WIDTH AT SETBACK	40 FEET

PROPERTY DESCRIPTION

Lots 25 and 26, Block 7, Warren and Winslows Addition to St. Paul.

Lots 27, 28 and 29, Block 7, Warrant (SIC) and Winslows Addition to St. Paul.
(Torrens Certificate No. 302594)

Lots 30, 31 and 32, Block 7, Warren and Winslows Addition to St. Paul.
(Torrens Certificate No. 304112)

Lot 33, Block 7, Warren and Winslows Addition to St. Paul.
(Torrens Certificate No. 302639)

Lot 34, Block 7, Warren and Winslows Addition to St. Paul.
(Torrens Certificate No. 302640)

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

Signed this 25th day of August, 2014 For: James R. Hill, Inc.

By: Harold C. Peterson

Harold C. Peterson, Land Surveyor, MN License No. 12294

James R. Hill, Inc.
PLANNERS / ENGINEERS / SURVEYORS
2500 W. Cty. Rd. 42, Suite 120, Burnsville MN 55337
PHONE: (952)890-6044 FAX: (952)890-6244

VILLAGE ON RIVOLI ADDITION

ST. PAUL, MINNESOTA

PRELIMINARY PLAT

FOR

DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES

823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

DRAWN BY	SHP
DATE	8/25/14
REVISIONS	
CAD FILE	21823–30pp.dwg
PROJECT NO.	21823–30
	2.1

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NPDES REQUIREMENTS

II.B. APPLICATION AND DURATION OF COVERAGE

1. Application Required.
   a. The owner and operator shall submit a complete and accurate on-line application form with the appropriate fee to the MPCA for each project that disturbs one (1) or more acres of land or for a common plan of development or sale that will ultimately disturb one (1) or more acres. If the applicant is not able to apply on-line, contact the MPCA for technical assistance or a waiver.
   b. For certain projects or common plans of development or sale disturbing 50 acres or more, the application must be submitted at least 30 days before the start of construction activity. This requirement pertains to projects that have a discharge point on the project that is within one mile (aerial radius measurement) of, and flows to, a special water listed in Appendix A, Part B. or waters listed as impaired under section 303(d) of the federal Clean Water Act (see the MPCA's website) where the identified pollutant(s) or stressor(s) are phosphorus (nutrient eutrophication biological indicators), turbidity, dissolved oxygen, or biotic impairment (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate bioassessment). Applicants of projects listed in this part must submit a complete and accurate application form and SWPPP including all calculations for the Permanent Stormwater Management System (see Parts III.A.-D.).

2. All persons meeting the definition of owner and operator are Permittees and must be listed on the application. The owner is responsible for compliance with all terms and conditions of this permit. The operator is responsible for compliance with Parts II.B, II.C, III.B-F, IV, V, and applicable construction activity requirements found in Appendix A, Part C. of this permit and is jointly responsible with the owner for compliance with those portions of the permit.

3. Permit Coverage Effective Date: The commencement of any construction activity (e.g., land disturbing activities) covered under Part I.A. of this permit is prohibited until permit coverage under this permit is effective.
   a. For projects listed in Part II.B.1.a. permit coverage will become effective seven (7) calendar days after the electronic submittal date or the postmarked date of a complete application form.
   b. For projects listed in Part II.B.1.b. permit coverage will become effective 30 calendar days after the electronic submittal date, the postmarked date or MPCA date stamp (whichever is first) of the complete application. For incomplete applications (e.g., lack of fees or signature) or incomplete SWPPPs (e.g., missing calculations, Best Management Practice (BMP) specifications, estimated quantities of the BMPs, or timing of BMP installation narrative), the permit becomes effective 30 calendar days after all required information is submitted.

4. Coverage Notification: Permittee(s) will be notified of coverage in a manner as determined by the Commissioner (e.g., e-mail, online notification or letter).

5. Change of Coverage: For construction projects where the owner or operator changes, (e.g., an original developer sells portions of the property to various homebuilders or sells the entire site to a new owner) the current owner and the new owner or operator shall submit a complete permit modification on a form provided by the Commissioner. The form must be submitted prior to the new owner or operator commencing construction activity on site or in no case later than 30 days after taking ownership of the property. The owner shall provide a SWPPP to the new owner and operator that specifically addresses the remaining construction activity.

II.C. TERMINATION OF COVERAGE

1. Termination of coverage when construction is complete: All Permittee(s) must submit a Notice of Termination (NOT) to the MPCA on a form provided by the Commissioner within 30 days after all activities required for Final Stabilization (see Part IV.G.) are complete. The Permittee(s)' coverage under this permit terminates at midnight on the submission date of the NOT.

2. Termination of coverage when transfer of ownership occurs: All Permittee(s) must submit a NOT on a form provided by the Commissioner within 30 days after selling or otherwise legally transferring the entire site, including permit responsibility for roads (e.g., street sweeping) and stormwater infrastructure final clean out, or transferring portions of a site to another party. The Permittee(s)' coverage under this permit terminates at midnight on the submission date of the NOT.

3. Permittee(s) may terminate permit coverage prior to completion of all construction activity if all of the following conditions are met. After the permit is terminated under this Part, if there is any subsequent development on the remaining portions of the site where construction activity was not complete, new permit coverage must be obtained if the subsequent development itself or as part of the remaining common plan of development or sale will result in land disturbing activities of one (1) or more acres in size.
   a. Construction activity has ceased for at least 90 days.
   b. At least 90 percent (by area) of all originally proposed construction activity has been completed and permanent cover established on those areas.
   c. On areas where construction activity is not complete, permanent cover has been established.
   d. The site is in compliance with Part IV.G.2. and Part IV.G.3. and where applicable, Part IV.G.4. or Part IV.G.5.

4. Permittee(s) may terminate coverage upon approval by the MPCA if information is submitted to the MPCA documenting that termination is appropriate because the project is cancelled.

III.B. SWPPP AMENDMENTS

The Permittee(s) must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMPs that are designed to correct problems identified or address situations whenever:

1. There is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to surface waters or underground waters.

2. Inspections or investigations by site owner or operators, USEPA or MPCA officials indicate the SWPPP is not effective in eliminating or significantly minimizing the discharge of pollutants to surface waters or underground waters or that the discharges are causing water quality standard exceedances (e.g., nuisance conditions as defined in Minn. R. 7050.0210, subp. 2).

3. The SWPPP is not achieving the general objectives of minimizing pollutants in stormwater discharges associated with construction activity, or the SWPPP is not consistent with the terms and conditions of this permit.

4. At any time after permit coverage is effective, the MPCA may determine that the project's stormwater discharges may cause, have reasonable potential to cause, or contribute to non-attainment of any applicable water quality standard, or that the SWPPP does not incorporate the applicable requirements in Part III.A.8., (Impaired Waters and TMDLs). If a water quality standard changes during the term of this permit, the MPCA will make a determination as to whether a modification of the SWPPP is necessary to address the new standard. If the MPCA makes such determination(s) or any of the determinations in Parts III.B.1.-3., the MPCA will notify the Permittee(s) in writing. In response, the Permittee(s) must amend the SWPPP to address the identified concerns and submit information requested by the MPCA, which may include an individual permit application. If the MPCA's written notification requires a response, failure to respond within the specified timeframe constitutes a permit violation.

III.E RECORD RETENTION

The SWPPP (original or copies) including, all changes to it, and inspections and maintenance records must be kept at the site during construction by the Permittee(s) who has/have operational control of that portion of the site. The SWPPP can be kept in either the field office or in an on-site vehicle during normal working hours. All owner(s) must keep the following records on file for three (3) years after submittal of the NOT as outlined in Part II.C. This does not include any records after submittal of the NOT.

1. The final SWPPP

2. Any other stormwater related permits required for the project

3. Records of all inspection and maintenance conducted during construction (Part IV.E. Inspections and Maintenance)

4. All permanent operation and maintenance agreements that have been implemented, including all right-of-way, contracts, covenants and other binding requirements regarding perpetual maintenance and

5. All required calculations for design of the temporary and permanent Stormwater Management Systems.

III.F. TRAINING REQUIREMENTS

The Permittee(s) shall ensure the following individuals identified in this part have been trained in accordance with this Permit's training requirements.

1. Who must be trained:
   a. Individual(s) preparing the SWPPP for the project
   b. Individual(s) overseeing implementation of, revising, and amending the SWPPP and individual(s) performing inspections as required in Part IV.E. One of these individual(s) must be available for an onsite inspection within 72 hours upon request by the MPCA.
   c. Individual(s) performing or supervising the installation, maintenance and repair of BMPs. At least one individual on a project must be trained in these job duties.

2. Training content: The content and extent of training must be commensurate with the individual's job duties and responsibilities with regard to activities covered under this permit for the project. At least one individual present on the permitted project site (or available to the project site in 72 hours) must be trained in the job duties described in Part III.F.1.b. and Part III.F.1.c.

3. The Permittee(s) shall ensure that the individuals are trained by local, state, federal agencies, professional organizations, or other entities with expertise in erosion prevention, sediment control, permanent stormwater management and the Minnesota NPDES/SDS Construction Stormwater Permit. An update refresher-training must be attended every three (3) years starting three (3) years from the issuance date of this permit.

PART IV. CONSTRUCTION ACTIVITY REQUIREMENTS

IV.A. STORMWATER POLLUTION PREVENTION PLAN

The Permittee(s) must implement the SWPPP and the requirements of this part. The BMPs identified in the SWPPP and in this permit must be selected, installed, and maintained in an appropriate and functional manner that is in accordance with relevant manufacturer specifications and accepted engineering practices.

IV.B. EROSION PREVENTION PRACTICES

1. The Permittee(s) must plan for and implement appropriate BMPs such as construction phasing, vegetative buffer strips, horizontal slope grading, inspection and maintenance of Part IV.E. and other construction practices that minimize erosion as necessary to comply with this permit and protect waters of the state. The location of areas not to be disturbed must be delineated (e.g., with flags, stakes, signs, silt fence etc.) on the project site before work begins. The Permittee(s) must minimize the need for disturbance of portions of the project that have steep slopes. For those sloped areas which must be disturbed, the Permittee(s) must use techniques such as phasing and stabilization practices designed for steep slopes (e.g., slope draining and terracing).

2. The Permittee(s) must stabilize all exposed soil areas (including stockpiles). Stabilization must be initiated immediately to limit soil erosion whenever any construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed no later than 14 calendar days after the construction activity in that portion of the site has temporarily or permanently ceased. For Public Waters that the Minnesota Department of Natural Resources has promulgated "work in water restrictions" during specified fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete the stabilization activities within 24 hours during the restriction period. 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 but must be in compliance with Part IV.C.5.

3. If using stormwater conveyance channels, the Permittee(s) must design the channels to route water around unstabilized areas on the site and to reduce erosion, unless infeasible. The Permittee(s) must use erosion controls and velocity dissipation devices such as check dams, sediment traps, riprap, or grouted riprap at outlets within and along the length of any constructed stormwater conveyance channel, and at any outlet, to provide a non-erosive flow velocity, to minimize erosion of channels and their embankments, outlets, adjacent stream banks, slopes, and downstream waters during discharge conditions.

4. The Permittee(s) must stabilize 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, 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 or property edge.

The Permittee(s) shall complete stabilization of the remaining portions of any temporary or permanent ditches or swales within 14 calendar days after connecting to a surface water or property edge and construction in that portion of the ditch has temporarily or permanently ceased.

Temporary or permanent ditches or swales that are being used as a sediment containment system during construction (with properly designed rock-ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized during the temporary period of its use as a sediment containment system. These areas must be stabilized within 24 hours after no longer being used as a sediment containment system. Applying mulch, hydromulch, tackifier, polyacrylamide or similar erosion prevention practices is not acceptable stabilization in any part of a temporary or permanent drainage ditch or swale.

5. Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.

6. Unless infeasible due to lack of pervious or vegetated areas, the Permittee(s) must direct discharges from BMPs to vegetated areas of the site (including any natural buffers) in order to increase sediment removal and maximize stormwater infiltration. The Permittee(s) must use velocity dissipation devices if necessary to prevent erosion when directing stormwater to vegetated areas.

IV.C. SEDIMENT CONTROL PRACTICES

1. The Permittee(s) must employ Sediment control practices as necessary to minimize sediment from entering surface waters, including curb and gutter systems and storm sewer inlets.
   a. Temporary or permanent drainage ditches and sediment basins that are designed as part of a sediment containment system (e.g., ditches with rock-check dams) require sediment control practices only as appropriate for site conditions.
   b. If the down gradient sediment controls are overloaded (based on frequent failure or excessive maintenance requirement), the Permittee(s) must install additional upgradient sediment control practices or redundant BMPs to eliminate the overloading, and the SWPPP must be amended to identify these additional practices as required in Part III.B 1.-3.

2. Sediment control practices must be established on all down gradient perimeters and be located upgradient of any buffer zones. The perimeter sediment control practice must be in place before any upgradient land-disturbing activities begin. These practices shall remain in place until Final Stabilization has been established in accordance with Part IV.G. A floating silt curtain placed in the water is not a sediment control BMP to satisfy perimeter control requirements in this part except when working on a shoreline and below the waterline. In those cases, a floating silt curtain can be used as a perimeter control practice if the floating silt curtain is installed as close to shore as possible. Immediately after the short term construction activity (e.g. installation of rip rap along the shoreline) in that area is complete, an upland perimeter control practice must be installed if exposed soils still drain to the surface water.

3. The Permittee(s) shall re-install all sediment control practices that have been adjusted or removed to accommodate short-term activities such as clearing or grubbing, or passage of vehicles, immediately after the short-term activity has been completed. The Permittee(s) shall complete any short-term activity that requires removal of sediment control practices as quickly as possible. The Permittee(s) must re-install sediment control practices before the next precipitation event even if the short-term activity is not complete.

4. All storm drain inlets must be protected by appropriate BMPs during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection may be removed for a particular inlet if a specific safety concern (street flooding/freezing) has been identified by the Permittee(s) or the jurisdictional authority (e.g., city/county/township/MnDOT engineer). The Permittee(s) must document the need for removal in the SWPPP.

5. Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in any natural buffers or 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.

6. Where vehicle traffic leaves any part of the site (or onto paved roads within the site):
   a. The Permittee(s) must install a vehicle tracking BMP to minimize the track out of sediment from the construction site. Examples of vehicle tracking BMPs include (but are not limited to) rock pads, mud mats, slash mulch, concrete or steel wash racks, or equivalent systems.
   b. The Permittee(s) must use street sweeping if such vehicle tracking BMPs are not adequate to prevent sediment from being tracked onto the street (see Part IV.E.5.d.).

7. The Permittee(s) must install temporary sedimentation basins as required in Part III.C. of this permit.

8. The Permittee(s) must minimize soil compaction and, unless infeasible, preserve topsoil. Minimizing soil compaction is not required where the function of a specific area of the site dictates that it be compacted.

9. The Permittee(s) must preserve a 50 foot natural buffer or (if a buffer is infeasible on the site) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water. Natural buffers are not required adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins. The Permittee(s) is/are not required to enhance the quality of the vegetation that already exists in the buffer or provide vegetation if none exist. However, Permittee(s) can improve the natural buffer with vegetation.

10. If the Permittee(s) intend to use polymers, flocculants, or other sedimentation treatment chemicals on the project site, the Permittee(s) must comply with the following minimum requirements:
    a. The Permittee(s) must use conventional erosion and sediment controls prior to chemical addition to ensure effective treatment. Chemicals may only be applied where treated stormwater is directed to a sediment control system which allows for filtration or settlement of the floc prior to discharge.
    b. Chemicals must be selected that are appropriately suited to the types of soils likely to be exposed during construction, and to the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area.
    c. Chemicals must be used in accordance with accepted engineering practices, and with dosing specifications and sediment removal design specifications provided by the manufacturer or provider/supplier of the applicable chemicals.

IV.D. DEWATERING AND BASIN DRAINING

1. The Permittee(s) must discharge turbid or sediment-laden waters related to dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) to a temporary or permanent sedimentation basin on the project site unless infeasible. The Permittee(s) may discharge from the temporary or permanent sedimentation basins to surface waters if the basin water has been visually checked to ensure adequate treatment has been obtained in the basin and that nuisance conditions (see Minn. R. 7050.0210, subp. 2) will not result from the discharge. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream properties. If the Permittee(s) must discharge water that contains oil or grease, the Permittee(s) must use an oil-water separator or suitable filtration device (e.g. cartridge filters, absorbents pads) prior to discharging the water. The Permittee(s) must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock riprap, sand bags, plastic sheeting, or other accepted energy dissipation measures.

2. All water from dewatering or basin-draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in wetlands causing significant adverse impact to the wetland.

3. If the Permittee(s) is/are using filters with backwash water, the Permittee(s) must haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion. The Permittee(s) may discharge backwash water to the sanitary sewer if permission is granted by the sanitary sewer authority. The Permittee(s) must replace and clean the filter media used in dewatering devices when required to retain adequate function.

IV.E. INSPECTIONS AND MAINTENANCE

1. The Permittee(s) must ensure that a trained person (as identified in Part III.A.3.a.) will routinely inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24 hours after a rainfall event, the next inspection must be conducted within seven (7) days after the rainfall event.

2. All inspections and maintenance conducted during construction must be recorded within 24 hours in writing and these records must be retained with the SWPPP in accordance with Part III.E. Records of each inspection and maintenance activity shall include:
   a. Date and time of inspections
   b. Name of person(s) conducting inspections
   c. Findings of inspections, including the specific location where corrective actions are needed
   d. Corrective actions taken (including dates, times, and party completing maintenance activities)
   e. Date and amount of all rainfall events greater than 1/2 inch (0.5 inches) in 24 hours. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, a weather station that is within 1 mile of your location or a weather reporting system that provides site specific rainfall data from radar summaries.
   f. If any discharge is observed to be occurring during the inspection, a record of all points of the property from which there is a discharge must be made, and the discharge should be described (i.e., color, odor, floating, settled, or suspended solids, foam, oil sheen, and other obvious indicators of pollutants) and photographed.
   g. Any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Part III.B. within seven (7) calendar days.

3. Inspection frequency adjustment
   a. Where parts of the project site have permanent cover, but work remains on other parts of the site, the Permittee(s) may reduce inspections of the areas with permanent cover to once per month.
   b. Where construction sites have permanent cover on all exposed soil areas and no construction activity is occurring anywhere on the site, the site must be inspected during non-frozen ground conditions at least once per month for a period of twelve (12) months. Following the twelfth month of permanent cover and no construction activity, inspections may be terminated until construction activity is once again initiated unless the Permittee(s) is/are notified in writing by the MPCA that erosion issues have been detected at the site and inspections need to resume.
   c. Where work has been suspended due to frozen ground conditions, the inspections may be suspended. The required inspections and maintenance schedule must begin within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever comes first.

4. The Permittee(s) is/are responsible for the inspection and maintenance of temporary and permanent water quality management BMPs, as well as all erosion prevention and sediment control BMPs, until another Permittee has obtained coverage under this Permit according to Part II.B.5. or the project has undergone Final Stabilization, and an NOT has been submitted to the MPCA.

5. The Permittee(s) must inspect all erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness during all routine and post-rainfall event inspections. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow access unless another time frame is specified below. The Permittee(s) must investigate and comply with the following inspection and maintenance requirements:
   a. All perimeter control devices must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches one-half (1/2) of the height of the device. These repairs must be made by the end of the next business day after discovery, or thereafter as soon as field conditions allow access.
   b. Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches one-half (1/2) the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access (see Part IV.D.).
   c. Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of erosion and sediment deposition during each inspection. The Permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The Permittee(s) shall use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. The Permittee(s) is/are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work in surface waters.
   d. Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces both on and off site within 24 hours of discovery, or if applicable, within a shorter time to comply with Part IV.C.6.
   e. Streets and other areas adjacent to the project must be inspected for evidence of off-site accumulations of sediment. If sediment is present, it must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g., fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).

6. All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area. All infiltration areas must be inspected to ensure that equipment is not being driven across the infiltration area.

IV.F. POLLUTION PREVENTION MANAGEMENT MEASURES

The Permittee(s) shall implement the following pollution prevention management measures on the site:

1. Storage, Handling, and Disposal of Construction Products, Materials, and Wastes: The Permittee(s) shall comply with the following to minimize the exposure to stormwater of any of the products, materials, or wastes. Products or wastes which are either not a source of contamination to stormwater or are designed to be exposed to stormwater are not held to this requirement:
   a. Building products that have the potential to leach pollutants must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by a similarly effective means designed to minimize contact with stormwater.
   b. Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover (e.g., plastic sheeting or temporary roofs) to prevent the discharge of pollutants or protected by similarly effective means designed to minimize contact with stormwater.
   c. Hazardous materials, toxic waste, (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) must be properly stored in sealed containers to prevent spills, leaks or other discharge. Restricted access storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste or hazardous materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable.
   d. Solid waste must be stored, collected and disposed of properly in compliance with Minn. R. ch. 7035.
   e. Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. ch. 7041.

2. Fueling and Maintenance of Equipment or Vehicles; Spill Prevention and Response: The Permittee(s) shall take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded or unloaded including the use of drip pans or absorbents unless infeasible. The Permittee(s) must conduct fueling in a contained area unless infeasible. The Permittee(s) must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. The Permittee(s) must report and clean up spills immediately as required by Minn. Stat. § 115.061, using dry clean up measures where possible.

3. Vehicle and equipment washing: If the Permittee(s) wash the exterior of vehicles or equipment on the project site, washing must be limited to a defined area of the site. Runoff from the washing area must be contained in a sediment basin or other similarly effective controls and waste from the washing activity must be properly disposed of. The Permittee(s) must properly use and store soaps, detergents, or solvents. No engine degreasing is allowed on site.

4. Concrete and other washouts waste: The Permittee(s) must provide effective containment for all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds and other construction materials) related to the construction activity. The liquid and solid washout wastes must not contact the ground, and the containment ust be designed so that it does not result in runoff from the washout operations or areas. iquid and solid wastes must be disposed of properly and in compliance with MPCA rules. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

IV.G. FINAL STABILIZATION

The Permittee(s) must ensure Final Stabilization of the site. Final Stabilization is not complete until all requirements of Parts IV.G.1-5. are complete:

1. All soil disturbing activities at the site have been completed and all soils are stabilized by a uniform perennial vegetative cover with a density of 70 percent of its expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.

2. The permanent stormwater management system is constructed, meets all requirements in Part III.D. and is operating as designed. Temporary or permanent sedimentation basins that are to be used as permanent water quality management basins have been cleaned of any accumulated sediment. All sediment has been removed from conveyance systems and ditches are stabilized with permanent cover.

3. All temporary synthetic and structural erosion prevention and sediment control BMPs (such as silt fence) have been removed on the portions of the site for which the Permittee(s) is/are responsible. BMPs designed to decompose on site (such as some compost logs) may be left in place.

4. For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished and temporary erosion protection and downgradient perimeter control has been completed and the residence has been sold to the homeowner. Additionally, the Permittee has distributed the MPCA's "Homeowner Fact Sheet" to the homeowner to inform the homeowner of the need for, and benefits of, permanent cover.

5. For construction projects on agricultural land (e.g., pipelines across crop, field pasture or range land) the disturbed land has been returned to its preconstruction agricultural use.

DEVELOPMENT SUMMARY

DAYTON BLUFFS NEIGHBORHOOD - ST. PAUL, MN

TYPE OF PROJECT: 12 Lot Single Family Residential Construction

TYPE OF WORK: Mass Grading, Utility and Street Construction, Paving. Subsequently, Joint Trench and Home construction will occur.

TOTAL PLATTED AREA :	1.69 AC
TOTAL DISTURBED AREA :	1.69 AC
EXISTING IMPERVIOUS AREA :	0.00AC
PROPOSED (DESIGN) IMPERVIOUS AREA :	0.83 AC

SPECIAL WATERS: There are no special or impaired water within one mile of the site.

CONSTRUCTION PHASING

The project is expected to be constructed in multiple phases, within muiltiple construction seasons. Mass grading is anticipated to be completed within 3 weeks from commencement of work. Utility and street construction is anticipated to be completed within 2 weeks from commencement of work.

Upon completion of grading the streets to the sub-grade elevation, the contractor may utilize the street subcut to construct temporary sediment traps at strategic drainage capture points.

The stormwater basins will be partially constructed during mass grading and completed once upstream areas are fully stabilized. Contractor shall take precautions to avoid construction traffic and activities in this area to avoid over-compaction of soil and to prevent deposition of sediment.

POTENTIONAL FOR EROSION AND DISCHARGE OF SEDIMENT

As the site will be stripped of topsoil and vegetation for a period of several weeks during construction, the potential for erosion will increase. The proposed stormwater basins and street subcut will serve as temporary sediment basins during construction.

The risk of discharge of sediment off of the site is rather minimal, due to the grade orientation and design. This can be controlled by heavy duty silt fence, buffer strips, and erosion control blanket.

Contractor will be required to manage completion of 3:1 slopes such that soil exposure is minimized. After excavation and embankments are completed, slopes shall be re-spread with topsoil, the slope grades certified, and erosion blanket installed as per the plan. Contractor shall coordinate these steps to be carried out in a timely manner.

EROSION CONTROL BMPs

The construction plans anticipate the use of, but are not limited to, the following Erosion Control BMPs:

1. Perimeter delineation to minimize disturbed areas
2. Temporary Rock Construction Entrance
3. Temporary straw mulch as needed.
4. Seed and mulch/sod
5. Erosion Control Blanket
6. Minimize active or disturbed work areas
7. Turf reinforcement mat (TRM)
8. Horizontal slope grading

SEDIMENT CONTROL BMPs

The construction plans anticipate the use of, but are not limited to, the following Sediment Control BMPs

1. Sediment traps constructed in street subcut
2. Rock filter dikes in street subcut
3. Utilize permanent stormwater basin as Temporary Sediment Basin
4. Silt Fence at project perimeter or toe of slopes
5. Inlet protection on existing catch basins
6. Inlet protection on existing culverts
7. Inlet protection after utility construction
8. Linear control along back of new curb and gutter (bioroll or silt fence)
9. Routine street sweeping adjacent to construction entrance.
10. Ditch checks

Refer to plans for designated locations of BMPs, details and implementation notes.

BASIN AND TRAP DEWATERING BMPs

Should the need arise for basin or trap dewatering, contractor shall utilize a floating skimmer pump intake, such that the water is drawn from the surface of the basin. Pumped effluent shall not be discharged into Surface Waters in a turbid state.
Turbid effluent shall be filtered with mechanical devices, chemical filtering, or a combination thereof, to a state of 50 NTUs or less.

STABILZATION BMPs

The construction plans anticipate the use of, but are not limited to, the following Stabilization BMPs:

1. After lot pads are grade certified, permanent seed and mulch can be applied, generally from the front of the building pad, extending to the rear of the lot (areas where no further utility construction is anticipated.)
2. After 3:1 slopes on lots are certified, permanent seed and erosion control blanket can be applied.
3. Rip rap at pipe outfalls
4. Permanent seed and erosion control blanket on basin slopes after grade certified.
5. After curbs are backfilled, apply permanent seed and mulch to remaining building pads and boulevard area not already stabilized.
6. Sod placement, as appropriate.

POLUTION CONTROL BMPs

1. Fueling: A fixed fueling station is not anticipated. Contractor will be required to implement BMPs for onsite re-fueling of equipment.
2. Concrete Washout: A suggested washout area will be specified on the plan. The developer has the ability to adjust location or to provide alternative washout containment.
3. There is not an anticipated need for storing chemicals, paints, solvents or other potentially toxic or hazardous materials on site.

SEED & MULCH SPECIFICATIONS

Seed placed for permanent cover or final stabilization requires 6" minimum topsoil cover. Exception: Infiltration/Filtration basins - see basin details for soil type). Multiple site visits will be required to accommodate permanent or temporary stabilization as required during the phases of construction.

(1) General Seed & Mulch
   A. Seed: MNDOT 25-141 at a rate of 59 lb/acre
   B. Fertilzer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
   C. Mulch: MNDOT Type 1 at a rate of 2 tons/acre
(2) Stormwater/Filtration Basins (Aquatic Bench & Filtration Basin Only)
   A. Seed: MNDOT 34-262 at a rate of 14.5 lb/acre
   B. Fertilzer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
   C. Mulch: MNDOT Type 3 at a rate of 2 tons/acre
(3) Stormwater/Filtration Bank (Stormwater Basin & Filtration Basin OLE to HWL)
   A. Seed: MNDOT 33-261 at a rate of 35 lb/acre
   B. Fertilzer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
   C. Mulch: MNDOT Type 3 at a rate of 2 tons/acre
(4) Upland Buffer
   A. Seed: MNDOT 33-261 at a rate of 35 lb/acre
   B. Fertilzer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
   C. Mulch: MNDOT Type 3 at a rate of 2 tons/acre
(5) Temporary Cover Crop (Ponding/Filtration/Adjacent Slope Areas)
   A. Seed: MNDOT 21-112 at a rate of 100 lb/acre
   B. Fertilzer: Type 3 slow release 10-10-10 at a rate of 200 lb/acre
   C. Mulch: MNDOT Type 3 at a rate of 2 tons/acre

INSPECTION AND MAINTENANCE OF BMPs

Routine Inspection

1. Rock Entrance - Inspect weekly. If rock becomes filled with sediment and tracked material to the extent the purpose ceases to function, remove the contaminated rock and replace with new rock.
2. Silt fence - Inspect weekly, particularly for damaged sections, breaches, down-gradient areas, flow concentration points, scour areas and sections adjacent to sensitive areas. Where capacity is filled to more than 50% of depth, sediment shall be removed to restore capture capacity.
3. Sediment traps and basins - Inspect weekly. Where capacity is filled to more than 50% of depth, sediment shall be removed to restore capture capacity within 72 hours of discovery.
4. Inlet Protection - Inspect weekly or more frequently as needed after multiple rainfalls less than 0.5". Verify intake capacity is not compromised. Where capacity is filled to more than 50% of depth, sediment shall be removed to restore capture capacity.
5. Inspect other site specific BMP's on a weekly basis minimum.

Rain Event Inspection - Mandatory, within 24 hours after a rain event 0.5" or greater. Complete all items associated with Routine Inspection. Furthermore, inspect site for breaches, failures, scours and gullying. Take corrective actions as necessary to restore functionality to the BMP's. If a given situation is discovered to be prone to repetitive failure, advise the Engineer and Contractor for SWPPP and BMP amendments.

ADDITIONAL SWPPP NOTES

1. All Erosion and Sediment Control facilities shall be maintained by the contractor during the construction operations. Any temporary facilities which are to be removed as called for on these plans and specifications shall be removed by the contractor at the time directed by the engineer. The contractor shall then restore the subsequently disturbed areas in accordance with these plans and specifications.
2. Wherever practical and feasible, the contractor shall protect and preserve existing natural trees, grass and other vegetative cover in effort to provide natural buffering and filtering of runoff.
3. Contractor shall be adaptable in adjusting construction schedules in anticipation of weather forecasts of precipitation, in order to minimize risk of erosion and sediment transport.
4. It is the responsibility of the contractor to keep public streets, travel ways, parking lots and trails utilized for ingress to and egress from the construction site free of dirt, sediment and debris, resulting from construction activity. Cost for this shall be considered incidental to the contract.
5. Adequate control of dust shall be maintained by the contractor. Cost for dust control shall be considered incidental to the contract.

ADDITIONAL SWPPP NOTES (continued)

6. Perimeter controls shall not be removed until final stabilization of areas draining toward the control devices.
7. When temperatures do not exceed 40 degrees F, areas that require seed and mulch stabilization shall be dormant seeded. Application rate shall be two times the normal rate. No dormant seeding shall be done on ice or snow greater than 2" in depth.
8. Any areas that were seeded that do not achieve 70% coverage shall be reseeded at the contractor's expense, where coverage limitation is caused by lack of seed germination and growth.

STORMWATER BASIN MAINTENANCE

All stormwater basins within the project will be owned and maintained by the City of Lakeville. Suggested practices are as follows:

1. Stormwater basins shall be mowed 2-3 times, 30 days apart during the first year, with the mower deck set 6"-8" off the ground they must be mowed once the second year, before the weeds set their seeds.

2. For the first three years after construction, basins should be inspected for obvious signs of erosion, such as gullies, rills or sediment plumes. Identify the cause and take corrective measures such that grades are restored and surfaces re-established with appropriate vegetation.

3. Inspect for sediment accumulation at the pipe outlets into the pond at the completion of sod installation of last lot in plat.Remove sediment. Re-inspect every 3-5 years.

4. Inspect inlets and outlets for blockage or debris buildup annually. Remove debris as necessary to allow for inlets and outlets to function as designed.

5. Verify basin design capacity after 15 to 20 years of service.

MPCA STORMWATER PERMIT - RESPONSIBILITY

The Contractor will be required to become the Permittee for the project, until final stabilization and transfer of responsibility is completed. Transfer of responsibility shall be completed with the Permit Modification Form.

OWNER: GARY FINDELL

PERMITTEE:

OPERATOR(S): Supt (TBD)

OTHER CONTACTS
ENGINEER:
JOEL G. COOPER, PE, Proj. Mgr - James R. Hill, Inc. - (612)-508-6480(c)

TRAINING REQUIREMENTS
JOEL G. COOPER, P.E.
DESIGN OF CONSTRUCTION SWPPP (CERTIFICATION(2014-2017))
UNIVERSITY OF MINNESOTA
INSTRUCTORS : JOHN CHAPMAN

LGU CONTACT:

MPCA COMPLIANCE: Paul Erdmann - MPCA - (651)-757-2544

The Contractor shall follow the implementation sequence as described on these plans. Amendments shall be made as site conditions change. Amendments shall be proposed by contractor and reviewed by the engineer.

All BMP's selected and implemented shall be appropriate for the time of year, the current site conditions and for the estimated duration of use.

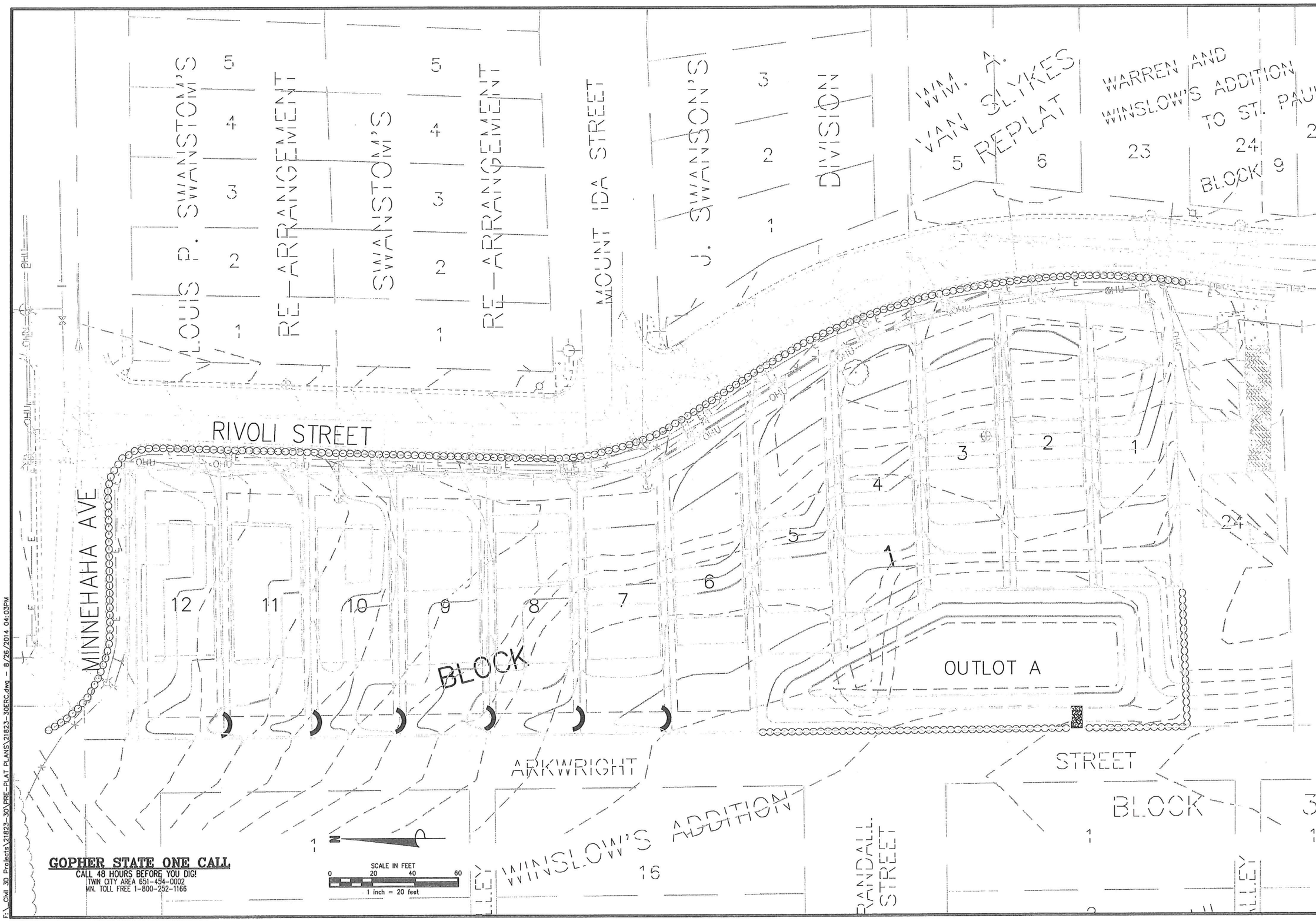
These plans shall be considered part of the project SWPPP. A copy of the SWPPP shall remain on site throughout active construction.

James R. Hill, Inc.
PLANNERS / ENGINEERS / SURVEYORS
2500 W. CTY. RD. 42, SUITE 120, BURNSVILLE, MN 55337
PHONE: (952)890-6044 FAX: (952)890-6244

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
JOEL G. COOPER
Date: 8/25/14 Reg.No. 18495

VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
EROSION & SEDIMENT CONTROL DETAILS
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

DRAWN BY PLN
DATE 08/25/14
REVISIONS
CAD FILE 21823-30ERD
PROJECT NO. 21823-30
3.1



James R. Hill, Inc.
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2500 W. Ctr. Rd. 42, Suite 120, Burnsville, MN 55337
PHONE: (952)890-6044 FAX: (952)890-6244

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
JOEL G. COOPER
Date 8/25/14 Reg.No. 18495

VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
PRELIMINARY EROSION & SEDIMENT CONTROL PLAN
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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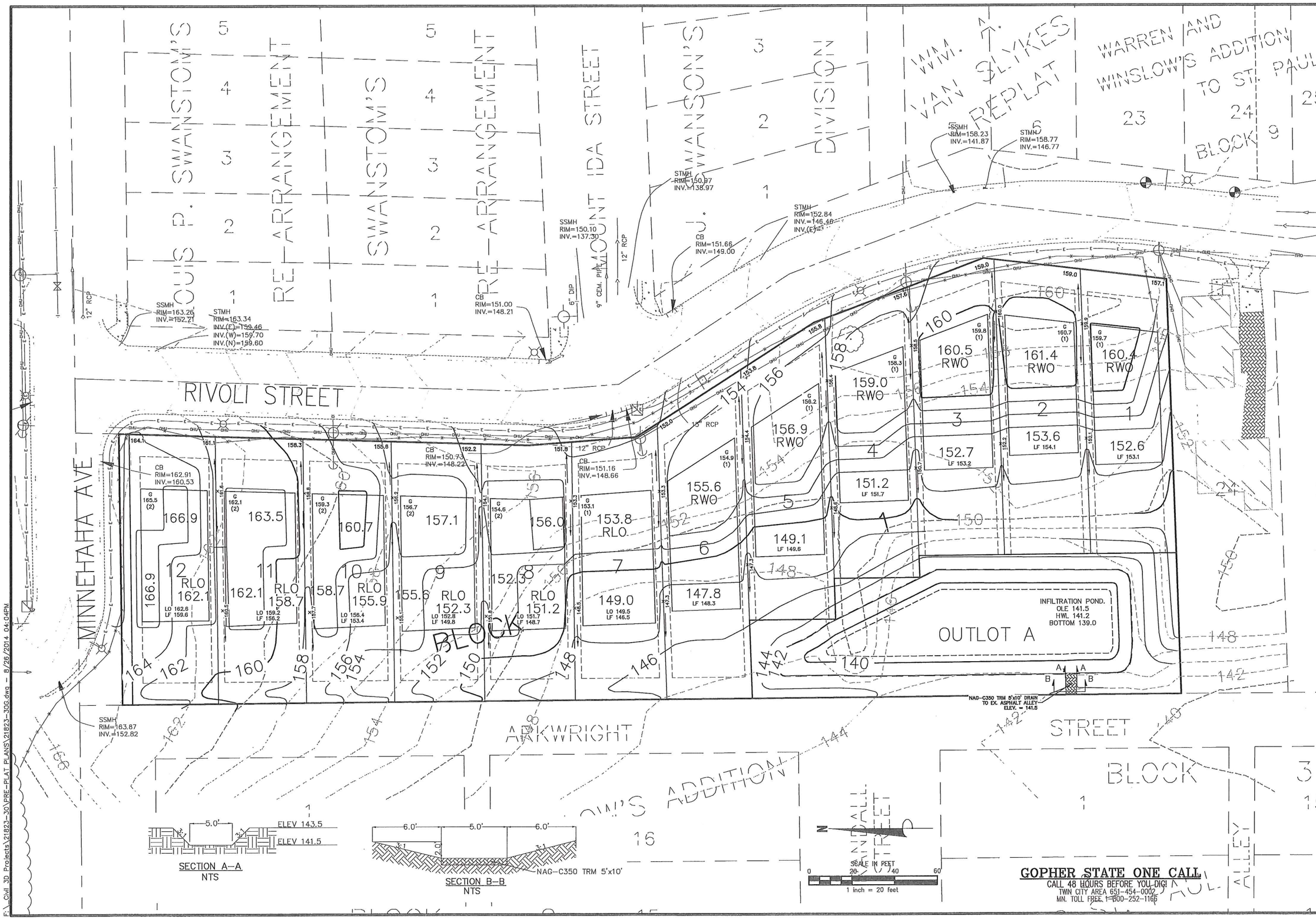
DATE 08/25/14
REVISIONS
CAD FILE 21823-30ERC
PROJECT NO. 21823-30
3.2



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JOEL G. COOPER

Date 8/25/14 Reg. No. 18495

VILLAGE ON RIVOLI HOUSING

ST. PAUL, MINNESOTA

PRELIMINARY GRADING & DRAINAGE PLAN

FOR

DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES

823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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CAD FILE	21823-30G
PROJECT NO.	21823-30
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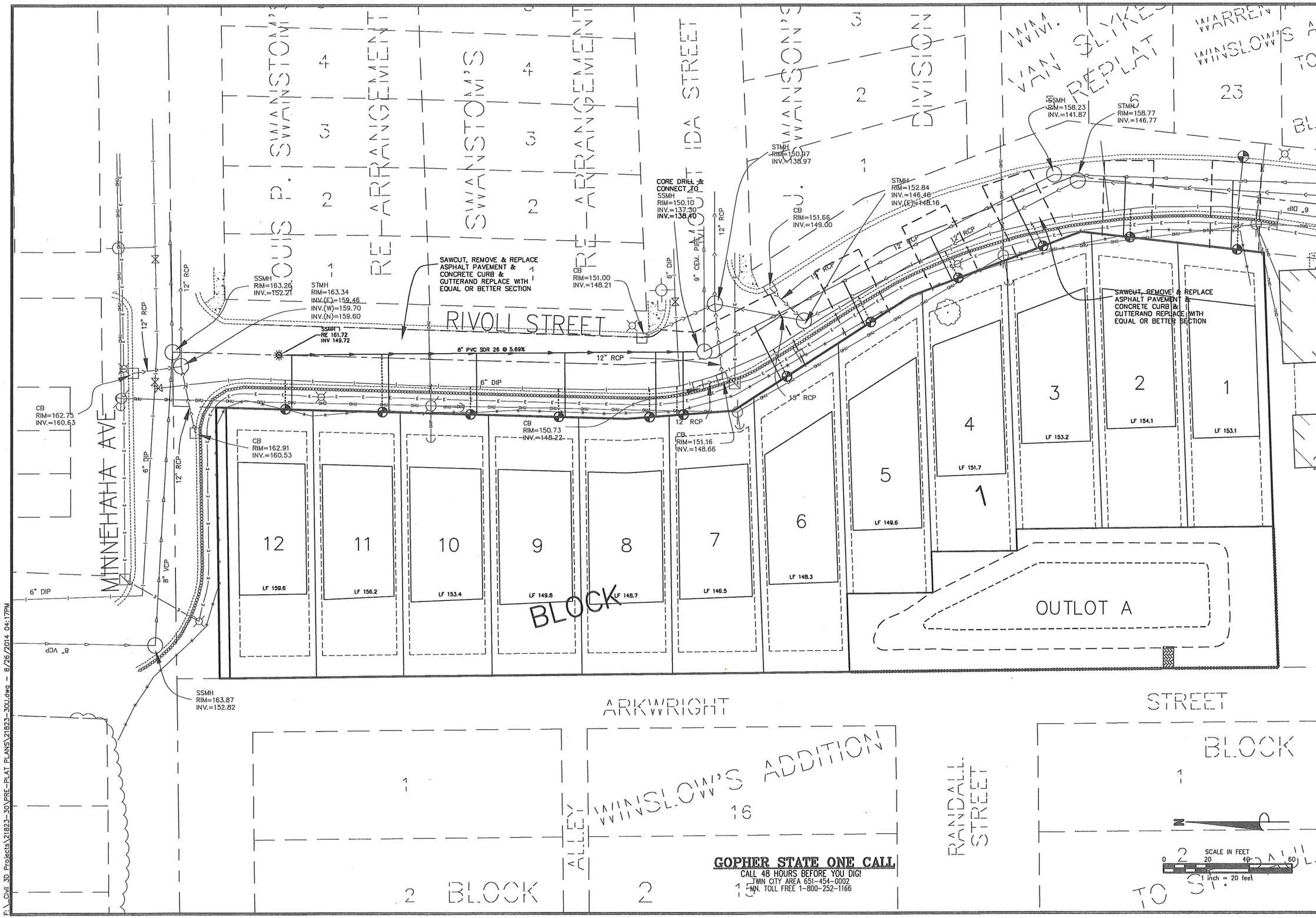

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VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
PRELIMINARY UTILITY PLAN
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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CAD FILE	21823-30U
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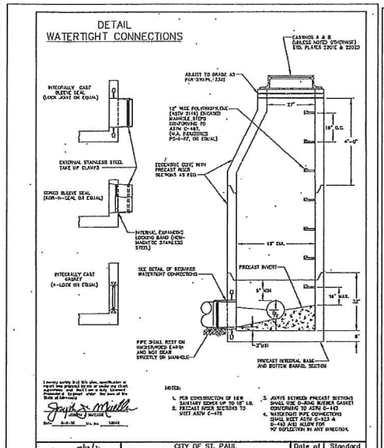

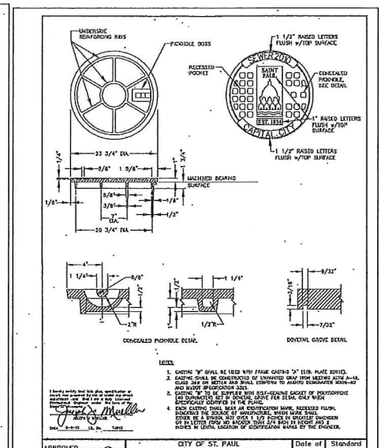

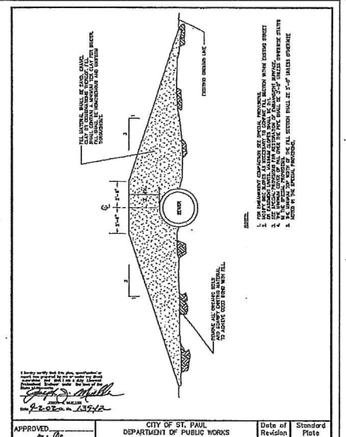

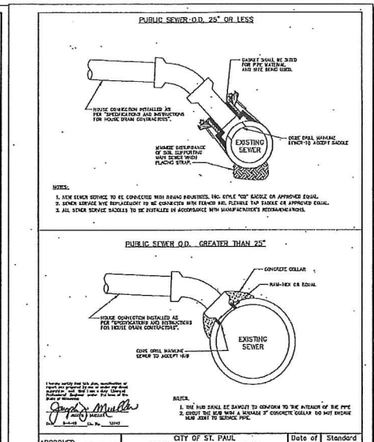

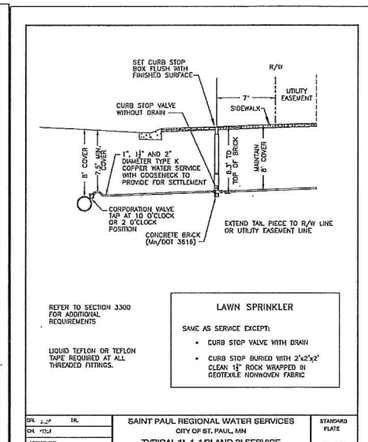

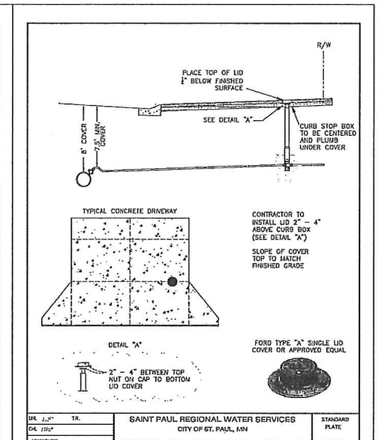

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VILLAGE ON RIVOLI HOUSING
ST. PAUL, MINNESOTA
DETAILS
FOR
DAYTON'S BLUFF NEIGHBORHOOD HOUSING SERVICES
823 EAST 7TH STREET, ST. PAUL, MINNESOTA 55106

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REVISIONS
CAD FILE 21823-30D
PROJECT NO. 21823-30
6.1

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