

Notice of Public Hearing

The City of Metropolis – IEPA Loan Project Number: L174982

The City of Metropolis has submitted a loan application to the Illinois Environmental Protection Agency seeking funds to construct certain wastewater projects. Section 365.530 of the Illinois Procedures for Issuing Loans from the Water Pollution Control Loan Program requires that the Illinois Environmental Protection Agency (IEPA) conduct an assessment of the environmental impacts of proposed wastewater projects to be funded with loans. This review is carried out in conjunction with the State's review of the applicants' facility's plan. Prior to final approval of the plan, the public's comments are sought regarding environmental impacts of the proposed project.

The IEPA has reviewed the facility's plan and has determined the project to be technically sound and cost-effective. Unless new information gained from the public causes a reconsideration, the agency will approve the facility's plan at the close of the public comment.

The City of Metropolis is making available for public inspection and comments a Project Summary and Preliminary Environmental Impacts Determination. (PEID). That document is available for public inspection in the office of the City Clerk, 106 West 5th Street, Metropolis, Illinois and is also available for public inspection at the Metropolis Public Library, 313 Metropolis Street, Metropolis, Illinois at any time during regular business hours. A copy of the document may also be viewed online at the City of Metropolis website, www.cityofmetropolis.com. The public may access the document on the website by clicking on the attached link entitled, "Project Summary and Preliminary Environmental Impacts Determination."

A public hearing will be held for the purpose of receiving comments on the Project Summary and Preliminary Environmental Impacts Determination on Monday, January 27, 2014 at 6:00 p.m. The public hearing will be held in the City Council Chambers of the Metropolis City Hall, 106 West 5th Street, Metropolis, Illinois. Written comments on the Project Summary and Preliminary Environmental Impacts Determination may be submitted at any time up to and including February 10, 2014. Written comments may be submitted by mail to either of the following: Jan Adams, City Clerk, 106 West 5th Street, Metropolis, IL, 62960, or Gary Bingenheimer, Illinois Environmental Protection Agency, Infrastructure Financial Assistance Section, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois, 62794-9276.

City of Metropolis, Illinois

Jan Adams, City Clerk



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217)782-2829

PAT QUINN, GOVERNOR

LISA BONNETT, DIRECTOR

Project Summary and Preliminary Environmental Impacts Determination

Date: **DEC 19 2013**

Loan Applicant: City of Metropolis, IEPA Loan Project Number: L174982

To all interested persons:

Section 365.530 of the Illinois Procedures for Issuing Loans From the Water Pollution Control Loan Program requires that the Illinois Environmental Protection Agency (IEPA) conduct an assessment of the environmental impacts of proposed wastewater projects to be funded with loans. This review is carried out in conjunction with the State's review of the applicant's facilities plan. Prior to final approval of the plan, the public's comments are sought regarding environmental impacts of the proposed project.

The IEPA has reviewed the facilities plan and has determined the project to be technically sound and cost-effective. Unless new information gained from the public causes a reconsideration, the Agency will approve the facilities plan at the close of the public comment period.

The applicant will make the attached Project Summary and Preliminary Environmental Impacts Determination (PEID) available for public inspection and must conduct a hearing within 60 days of receipt on both the PEID and project planning, providing advertisement of the hearing at least 10 days in advance. A comment period of at least 10 days shall be provided after the hearing date in which written comments may be provided to the loan applicant or directly to the IEPA contact person identified in the attached document. Upon final approval of this plan, the project priority score may be modified to reflect new information provided in the planning in accordance with the provisions of Sections 366.105, 366.106, and 366.107 of the Procedures and Requirements for Determining Loan Priorities for Municipal Wastewater Treatment Works. The project described in the facilities plan is classified as Combined Sewer Service under the Illinois Project Priority System.

For information purposes only, a copy of this document is being provided to your local newspaper of record.

Your interest and participation in this process are appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Geoffrey Andres".

J. Geoffrey Andres, Manager
Infrastructure Financial Assistance Section
Bureau of Water

JGA:RDV:Tm13110701

Project Summary and Environmental Assessment

Project Identification

City of Metropolis
P.O. Box 682
Metropolis, Illinois 62960-0682

Massac County

Project Background and Justification

The proposed project is located in the City of Metropolis in southern Massac County on the Ohio River. All planning on the proposed project is within the existing Metropolis Facility Planning Area (FPA) with no proposed changes. The City of Metropolis has submitted several planning documents over the last eight years including a Facility Plan (December 2006), Amended Facility Plan (April 2009), changes to the Amended Facility Plan (July 2009), Long Term Control Plan (LTCP) (September 2009), LTCP Supplement (July 2010), LTCP Addendum (January 2012), Facilities Plan 2012-2017 (May 2012) and Addendum No. 1 to Facilities Plan 2012-2017 (March 2013). These planning efforts cover a range of issues and needs that include the upgrade and expansion of the wastewater treatment plant (WWTP), Infiltration/Inflow correction, and combined sewer overflows. The Metropolis WWTP is currently hydraulically overloaded for most of the WWTP components when considering the necessary redundancy for the design maximum flow. In some of the unit processes, the WWTP does not meet current regulations for the design average flow without the upgrading of pumps, construction of additional primary clarifiers, final clarifiers, bio-filter media replacement, aerobic digesters and an adequate sludge dewatering facility. One major problem regarding the current plant site is the lack of available space for expansion which would be required for the construction of these additional systems. Consequently, only limited potential exists for the upgrade of WWTP systems. Upgrades would be confined to system refurbishment or replacements where additional land area is not required, and where the existing WWTP processes can be maintained throughout the construction process of any upgrades or replacements.

The planning documents listed numerous project needs at the WWTP as well as on the collection system. However, due to financial constraints of the City, the number of proposed projects that can be afforded is limited. The City's primary focus for the next 15 years is the remediation of combined sewer overflows (CSO's) per the approved LTCP and additional critical projects to maintain the WWTP and the collection system's operability and integrity. In the Addendum No. 1 to Facilities Plan 2012-2017, the City has requested that the planning effort concentrate on two specific projects, Combined Sewer Separation Project No. 2 and WWTP Screening Replacement Project. Therefore, the focus of the Agency review of facilities planning and this document is only the two specific, proposed projects. Other facilities planning needs will be addressed with separate reviews and documents.

The City of Metropolis owns and operates all wastewater treatment works in the FPA. The existing WWTP was constructed in 1964 and had a major upgrade in 1988 to add secondary treatment. The WWTP has a design average flow of 2.05 million gallons per day (mgd) and a design maximum flow of 4.25 mgd. The system currently serves approximately 6,537 residents with 3,320 residential, commercial and industrial customer accounts. The population is not expected to have any significant change over the 20 year planning period.

The sewer collection system has approximately 66 miles of sewer lines ranging in size from 4-inch diameter service connections to 50-inch diameter gravity lines with the majority of the system comprised of 8-inch diameter gravity lines. The collection system includes four pumping stations. The original sewer collection system was constructed in 1908 of brick and vitrified clay pipe along with brick manholes and operated as a combined sewer. A combined sewer system is designed to collect and transport a mixture of rainfall runoff and domestic and industrial wastewater in the same pipe. Through the years, newer sewer lines were constructed as sanitary sewers which only collect and transport wastewater flows and some sewer separation of the old, existing combined sewer occurred. Currently the Metropolis collection system is approximately 80% sanitary sewer lines and 20% combined sewer lines. The combined sewer sections are in Sub-Area 5 and 7 of the collection system.

The most pressing compliance issue the City of Metropolis is facing is the need for remediation of the CSO's on the system. During rainfall events, the capacity of the combined sewer system is exceeded, which results in CSO's. The CSO's act as relief points for the excess flow in the sewers, thereby reducing the frequency and severity of sewer backups and flooding. However, CSO's discharge untreated sewage to the Ohio River. The City of Metropolis must alleviate the pollution effects of CSO's and comply with the National CSO Control Policy.

The Illinois Environmental Protection Agency approved the City of Metropolis LTCP (Original Plan, Supplement and Addendum) on February 1, 2012. The plan requires the City to increase the pumping capacity of the influent pump station at the wastewater treatment plant, separation of the combined collection system, construction of an excess flow lagoon, interceptor manhole rehabilitation, limited areas of sewer rehabilitation (Area 4), removal of inflow and infiltration sources, and to increase the conveyance capacity of the interceptor. The scope of work along with a project completion schedule will be inserted into the City's National Pollutant Discharge Elimination System (NPDES) Permit. The approved LTCP outlined 10 specific compliance projects that must be completed between 2013 and 2027.

The Facilities Plan 2012-2017 developed a list of projects for a five year timeframe that includes six compliance projects from the approved LTCP that were scheduled for this five year timeframe and four needed projects from Facilities Planning. Two of these projects (Influent WWTP Pump Station Rehabilitation and Combined Sewer Separation Project No. 1) are under construction and are being paid for with local funds. Addendum No. 1 to the Facilities Plan 2012-2017 is currently proposing to consolidate some of the proposed projects and focus on a large combined sewer separation project and a WWTP screening replacement project. Therefore, the focus of this document is the following two proposed projects (Combined Sewer Separation Project No. 2 and WWTP Screening Replacement Project).

Evaluation of Alternatives

Due to the nature of these projects, the range of alternatives to evaluate is limited. The planning analyzed the following:

Combined Sewer Separation Project No. 2

The objective of this project is to separate storm sewer runoff from sanitary sewer flow. The storm sewer will be routed directly to the Ohio River, while only sanitary sewage will go into the collection system and be directed to the WWTP. Alternatives to Combined Sewer Separation were explored in the LTCP process. In the LTCP it was concluded that Combined Sewer Separation was the most efficient, economical and responsible alternative for accomplishing long-term control of CSO discharges.

The existing combined sewer pipes are not of sufficient size to accommodate storm sewer flows resulting from runoff calculations of the 10 to 25 year design storm events; therefore, the existing combined sewer cannot be utilized as a storm sewer. The existing combined sewer has sufficient capacity and can be changed into a sanitary sewer with rehabilitation and, along with the construction of a new storm sewer system, will accomplish the existing combined sewer separation objective.

To separate the existing combined sewer area, a new storm sewer system is proposed and street inlets will be replaced, removing the tie-ins from the existing combined sewer lines to the new dedicated storm sewer lines. Storm water will be discharged directly to the Ohio River or tributaries to the Ohio River. The Facilities Plan 2012-2017 proposed all existing sewer lines that are 24-inch diameter or less be rehabilitated with cured-in-place-pipe (CIPP) and be re-used for strictly sanitary sewage. The existing larger diameter brick combined sewer lines would be replaced with smaller diameter PVC lines and be used for strictly sanitary sewage. The Amendment No. 1 to the Facilities Plan 2012-2017 has deferred the rehabilitation of the existing sewer. Per the Amendment No. 1, the removal of the volume of flow from the existing sewer infrastructure will decrease the demand and stress on the system. By removing the storm flow from the system first, a better design can be accomplished for the rehabilitation of the existing sewer utilizing accurate flow data. The City is committed to completing all sewer rehabilitation as well as all proposed projects from the approved LTCP on the mandated schedule.

WWTP Screening Replacement Project

Wastewater flows through the bar screening station, which is comprised of a mechanical bar screen and a manual bar screen (two bar screens total). Normal operation is for the wastewater to flow through the mechanical bar screen, where the trash is captured and conveyed to a roll-off bin for disposal. The manual bar screen is reserved for use when the mechanical screen is having maintenance.

The objective of this proposed project is to replace the bar screening system due to its age and condition. In addition, locating a new bar screening facility prior to the influent WWTP pump station will protect the influent pumps from excessive solids handling, which causes a tremendous amount of premature pump rebuilding and replacements. Due to the nature of this project, there are no alternatives to the WWTP bar screening replacement.

Recommended Projects

The current proposed Combined Sewer Separation Project No. 2 is a significant larger reconfigured project containing segments of different named projects from previous planning documents and the approved LTCP (portions of previously named Combined Sewer Separation Projects Nos. 1, 2 and 3). The scope of work consists of the construction of the following:

- 1,402 linear feet (L.F.) of 72-inch diameter storm sewer
- 1,625 L.F. of 48-inch diameter storm sewer
- 1,568 L.F. of 42-inch diameter storm sewer
- 2,881 L.F. of 36-inch diameter storm sewer
- 2,048 L.F. of 30-inch diameter storm sewer
- 2,061 L.F. of 24-inch diameter storm sewer
- 276 L.F. of 18-inch diameter storm sewer
- 3,395 L.F. of 15-inch diameter storm sewer
- 135 Manholes
- Miscellaneous appurtenances
- Restoration

The current proposed WWTP Screening Replacement Project consists of the construction of two new mechanically cleaned bar screens at an upstream location to the influent WWTP pump station, earthwork, piping, concrete work, electrical and controls, miscellaneous appurtenances and restoration. The existing bar screening will be kept in service at the WWTP until the new bar screening is complete, to maintain performance levels of the WWTP.

Environmental Impacts

All proposed construction will take place within the street right-of-way and utility easements and at the WWTP site (reference attachments). Minor adverse environmental impacts will occur during construction of the projects. These include construction associated noise, blowing dust, air emissions, traffic disruption and soil erosion. Proper construction techniques and careful planning will help to minimize traffic disruptions. During construction activities, soil erosion control measures shall be implemented in accordance with IEPA permit requirements. Raw materials and energy will be expended during construction of the projects. All of the materials and resources will be irreversibly committed to these projects for the betterment of the environment. The proposed projects have been reviewed and have received sign-offs from the State Historic Preservation Agency and the Illinois Department of Natural Resources. From the information provided, no impacts are expected on rare or endangered species, historic or cultural resources, stream crossings, floodplains, or wetlands. The positive benefits of the proposed projects far outweigh the minor adverse impacts. The combined sewer separation project will

remove storm water from the collection system which will reduce flows to the WWTP and help reduce the likelihood of CSO's to the Ohio River. According to the approved LTCP, the objective is to make sufficient improvements to the system in order to reduce the number of CSO's to a maximum of four per year with primary treatment and disinfection of the remaining CSO discharge. The WWTP Screening Project replaces equipment that due to its age and condition requires replacement. The proposed bar screening facility will be located upstream of the influent pump station which will prevent excessive solids handling of the influent pumps and extend their useful life.

Implementation and Financial Impacts

Design is currently underway and construction is projected to begin in the summer of 2014 with a two year construction timeframe. Estimated project costs are as follows:

Combined Sewer Separation Project No. 2

Design Engineering	\$ 454,411
Construction Engineering	294,222
Construction	5,349,446
Contingency	<u>535,000</u>
Total Costs	\$6,633,079

WWTP Screening Replacement Project

Design Engineering	\$ 171,578
Construction Engineering	94,552
Construction	1,719,043
Contingency	<u>172,000</u>
Total Costs	\$2,157,173

The City intends to finance the proposed projected projects total cost of \$8,790,252 with a loan from the Water Pollution Control Loan Program (WPCLP). Annual repayments on a WPCLP loan of \$8,790,252 at a 1.995% interest rate for 20 years are \$535,170. The City will dedicate user charge revenues for repayment of the loan. The current average residential user charge for sewer service is a flat rate of \$33.50 per month. This charge is projected to increase by \$5.50 annually for the next three years to a projected average residential user charge flat rate of \$50.00 per month in 2016 due to the proposed projects. In order to determine the financial impact on the community, a percentage comparison of the 2011 Metropolis median household income (\$32,111) to the annual cost for sewer service was utilized. The estimated percentage of median household income to be used for payment of the annual sewer user fees is 1.87%. This percentage is high but within the Agency guidelines for affordability.

Public Participation

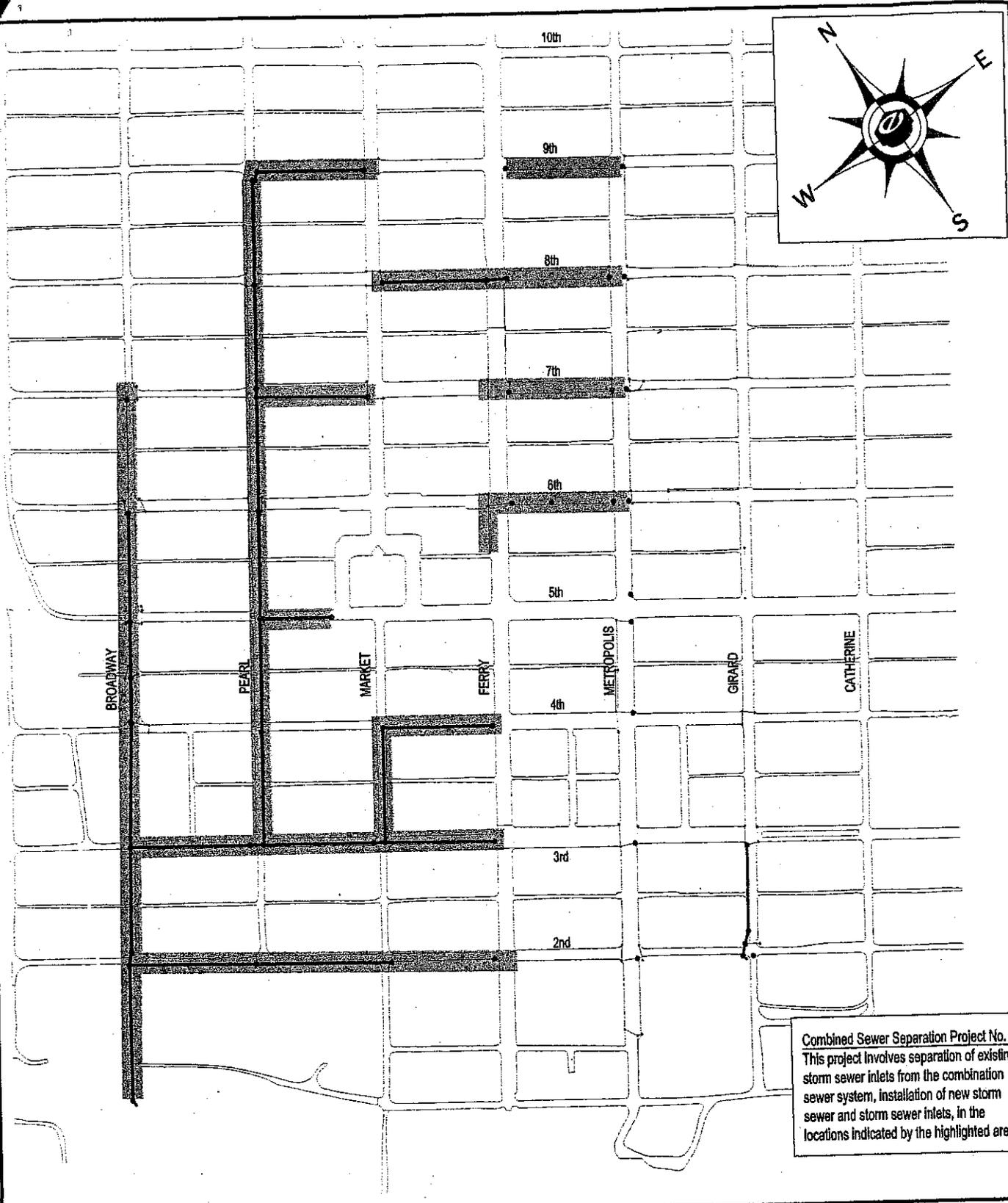
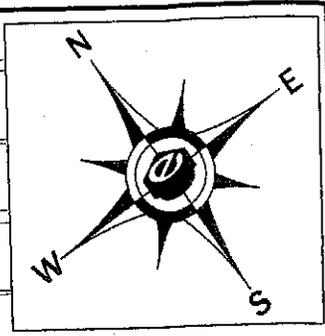
Public comments are invited on the proposed projects. For further information contact:

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Illinois Environmental Protection agency
Infrastructure Financial Assistance Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Telephone Number: 217/782-2027

Fax Number: 217/785-1225

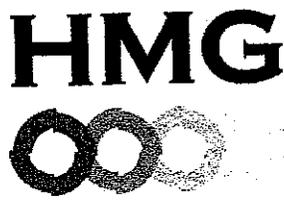
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Combined Sewer Separation Project No. 2
This project involves separation of existing storm sewer inlets from the combination sewer system, installation of new storm sewer and storm sewer inlets, in the locations indicated by the highlighted area.

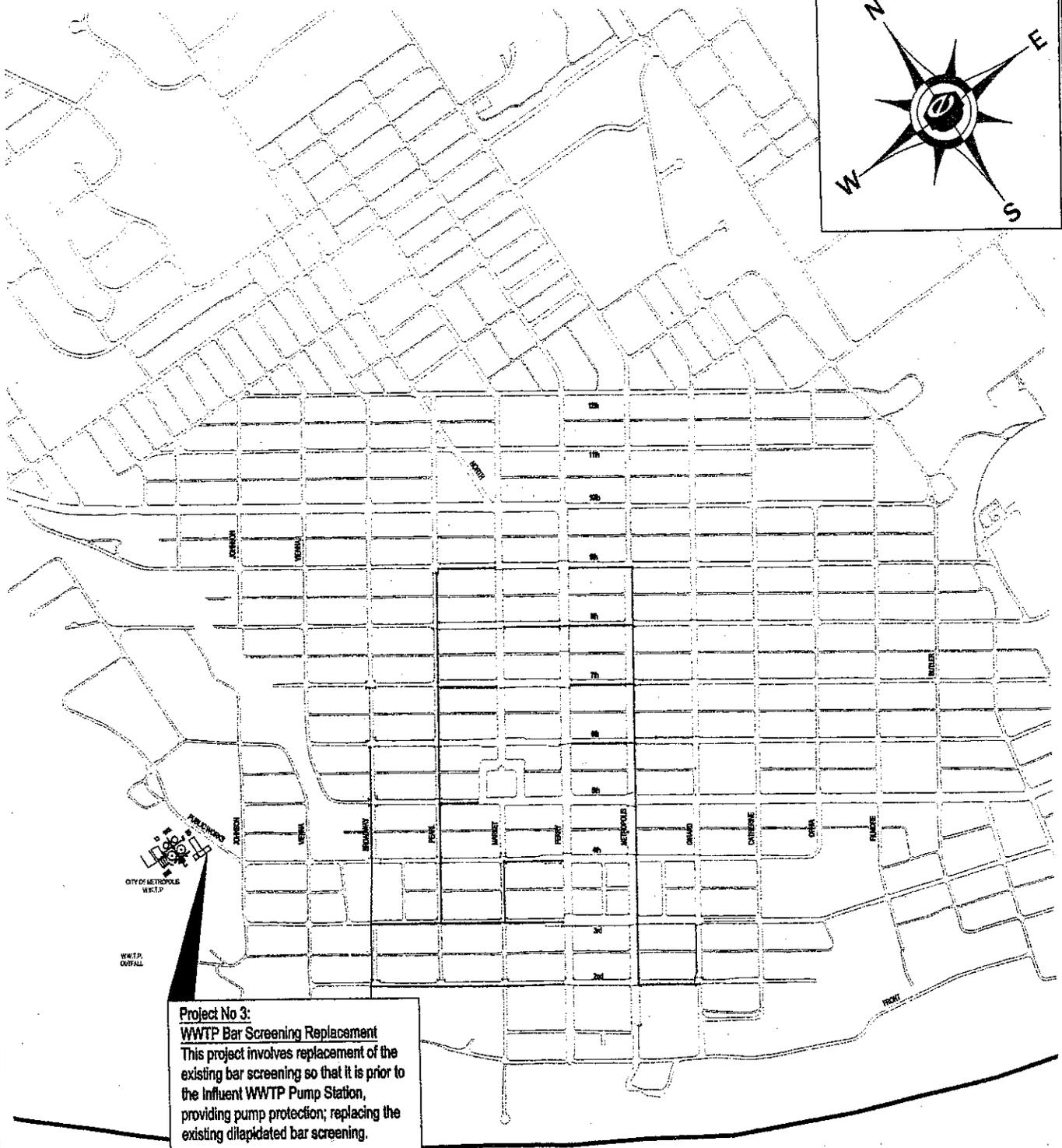
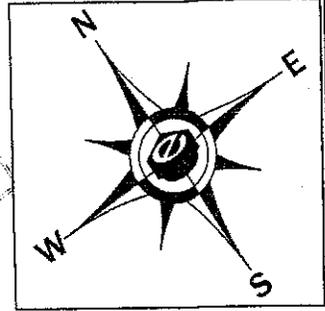
Combined Sewer Separation Project No. 2

REVISED Project Plan - 2013
City of Metropolis
Metropolis, IL 62960



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Project No 3:
WWTP Bar Screening Replacement
This project involves replacement of the existing bar screening so that it is prior to the influent WWTP Pump Station, providing pump protection; replacing the existing dilapidated bar screening.

S6.3

WWTP Bar Screening Replacement

2012 Metropolis Facilities Plan
City of Metropolis
Metropolis, IL 62960



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