20,000 CF EXPANSION OF EXISTING DETENTION POND REQ'D FOR PHASE 8

RAINGARDENS FOR PHASE 3

GREEN ROOF FOR PHASE 3

NEW SD CONNECTING TO DETENTION POND FOR PHASES 4 & 7

NEW SD CONNECTING TO DETENTION POND FOR PHASE 2

RAINGARDEN FOR PHASE 2

GREEN ROOF FOR PHASE 2

DETENTION VAULT FOR PHASE 1 UNDER GARAGE SLAB [APPROX. 20' W x 165' L x 8' D]

SD TO PUBLIC SD IN 53RD ST NE

RAINGARDENS FOR PHASE 1

NEW SD CONNECTING TO DETENTION VAULT FOR PHASE 5

DETENTION VAULT FOR PHASE 5 [APPROX. 30' W x 200' L x 8' D]

NEW SD CONNECTING TO EXISTING CB

PH 1
PH 2
PH 3
PH 4
PH 5
PH 6
PH 7
PH 8a
PH 8b
PH 8c

53RD STREET NE

# STORMWATER MANAGEMENT PLAN

SCALE: 1"=50'

N

## LEGEND:

- SD — STORM DRAIN PIPE
- RD — ROOF DRAIN PIPE
- DETENTION VAULT
- RAINGARDEN
- VEGETATED (GREEN) ROOF
- POTENTIAL EXPANSION OF STORM RUNOFF DETENTION POND

## DETENTION SCHEDULE:

PHASE 1 TENNIS CENTER:
NEW DETENTION VAULT UNDER PARKING GARAGE, APPROXIMATE VOLUME = 26,000 CF

PHASE 2 PAVILION/GYMNASIUM REPLACEMENT:
CONNECT TO REGIONAL DETENTION POND – NO RESIZING REQUIRED

PHASE 3 WELCOME CENTER:
CONNECT TO REGIONAL DETENTION POND – NO RESIZING REQUIRED

PHASE 4 NEW RESIDENCE HALL:
CONNECT TO REGIONAL DETENTION POND – NO RESIZING REQUIRED

PHASE 5 SPORTS FIELDS:
NEW DETENTION VAULT WEST OF FIELDS, APPROXIMATE VOLUME = 47,000 CF

PHASE 6 CHAPEL ADDITIONS:
CONNECT TO REGIONAL DETENTION POND – NO RESIZING REQUIRED

PHASE 7 FITNESS CENTER:
CONNECT TO REGIONAL DETENTION POND – NO RESIZING REQUIRED

PHASE 8 NESS BUILDING REMODEL:
EXPAND EXISTING POND OR PROVIDE NEW DETENTION VAULT, APPROXIMATE VOLUME = 20,000 CF

## BMP SCHEDULE:

PHASE 1 TENNIS CENTER:
ROOF AREA – RAINGARDENS ALONG NE 53RD STREET

PHASE 2 PAVILION/GYMNASIUM REPLACEMENT:
PLAZA AREA – PERMEABLE PLAZA PAVERS (WHERE POSSIBLE – EXCEPT OVER STRUCTURE)
PARKING PAVEMENT AREA – PERMEABLE PAVEMENT
ROOF AREA – PARTIAL VEGETATED (GREEN) ROOF

PHASE 3 WELCOME CENTER:
PLAZA AREA – PERMEABLE PLAZA PAVERS
ROOF AREA – PARTIAL VEGETATED (GREEN) ROOF AND ADJACENT RAINGARDENS

PHASE 4 NEW RESIDENCE HALL:
PLAZA AREA – PERMEABLE PLAZA PAVERS
ROOF AREA – pending

PHASE 5 SPORTS FIELDS:
MAY NOT BE REQUIRED

PHASE 6 CHAPEL ADDITIONS:
ROOF AREA – RAINGARDENS IF NEEDED

PHASE 7 FITNESS CENTER:
PLAZA AREA – PERMEABLE PLAZA PAVERS
ROOF AREA – RAINGARDENS IF NEEDED

PHASE 8 NESS BUILDING REMODEL:
ROOF AREA – RAINGARDENS IF NEEDED

GRAPHIC SCALE
−50 0 25 50 100
( IN FEET )
1 inch = 50 ft.

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Master Plan Update

WILLIAM H. TAYLOR
STATE OF WASHINGTON
26198
REGISTERED
PROFESSIONAL ENGINEER
5/31/16

| NO. | DATE | REVISION |
|---|---|---|

DATE: 5/31/2016
JOB NUMBER: TEC 659-GHA
PM: WNT
FILE:

STORMWATER MANAGEMENT PLAN

C1

Z:\FileServer_PROJS\600-699\659-gha\dwg\C1 Stormwater Management Plan.dwg, 5/30/2016 4:54:41 PM, DWG To PDF.pc3

PH 1

PH 2

PH 3

PH 4

PH 5

PH 6

PH 7

PH 8a

PH 8b

PH 8c

RELOCATE EXISTING SEWERMAIN

EXTEND NEW WATERMAIN

WATER SERVICES TO NEW BUILDING (TYP)

RELOCATE EXISTING SEWERMAIN

SEWER SERVICE TO NEW BUILDING (TYP)

REUSE EXISTING SERVICES FOR NEW BUILDING

EXTEND NEW WATERMAIN

UNDERGROUND EXISTING OVERHEAD POWER LINES

RELOCATE EXISTING 8" WATERMAIN

UNDERGROUND EXISTING OVERHEAD POWER LINES

53RD STREET NE

UNDERGROUND EXISTING OVERHEAD UTILITY LINES

WATER SERVICES TO NEW BUILDING (TYP)

SEWER SERVICE TO NEW BUILDING (TYP)

UNDERGROUND EXISTING OVERHEAD UTILITY LINES

## UTILITIES PLAN

SCALE: 1"=80'

N

GRAPHIC SCALE

-80 0 40 80 160

( IN FEET )

1 inch = 80 ft.

### LEGEND:

- W — WATERMAIN PIPE
- WS — WATER SERVICE PIPE
- SS — SEWER MAIN PIPE
- SSS — SEWER SERVICE PIPE
- P — ELECTRICAL POWER
- T — TELEPHONE
- COM — DATA/COMMUNICATIONS
- UTILITY TO BE REMOVED

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Master Plan Update

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| NO. | DATE | REVISION |
|---|---|---|
| | | |

DATE: 5/31/2016
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PM: WNT
FILE:

## MASTER WATER, SEWER AND POWER PLAN

C2

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PH 8c
F.F.=352.0'

PH 8b
F.F.=366.0'

PH 8a
F.F.=352.0'

PH 3
F.F.=316.0'

F.F.=328.0'

PH 4
F.F.=342.0'

PH 2
F.F.=322.0'

PH 7
F.F.=322.0'

PH 6

F.F.=333.0'

F.F.=333.0'

PH 1

F.F.=322.0'

F.F.=322.0'

F.F.=333.0'

PH 5

53RD STREET NE

## CONCEPTUAL GRADING PLAN
SCALE: 1"=50'

N

GRAPHIC SCALE
−50 0 25 50 100
( IN FEET )
1 inch = 50 ft.

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|---|---|---|
| | | |

DATE: 5/31/2016
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PM: WNT
FILE:

CONCEPTUAL GRADING PLAN

C3

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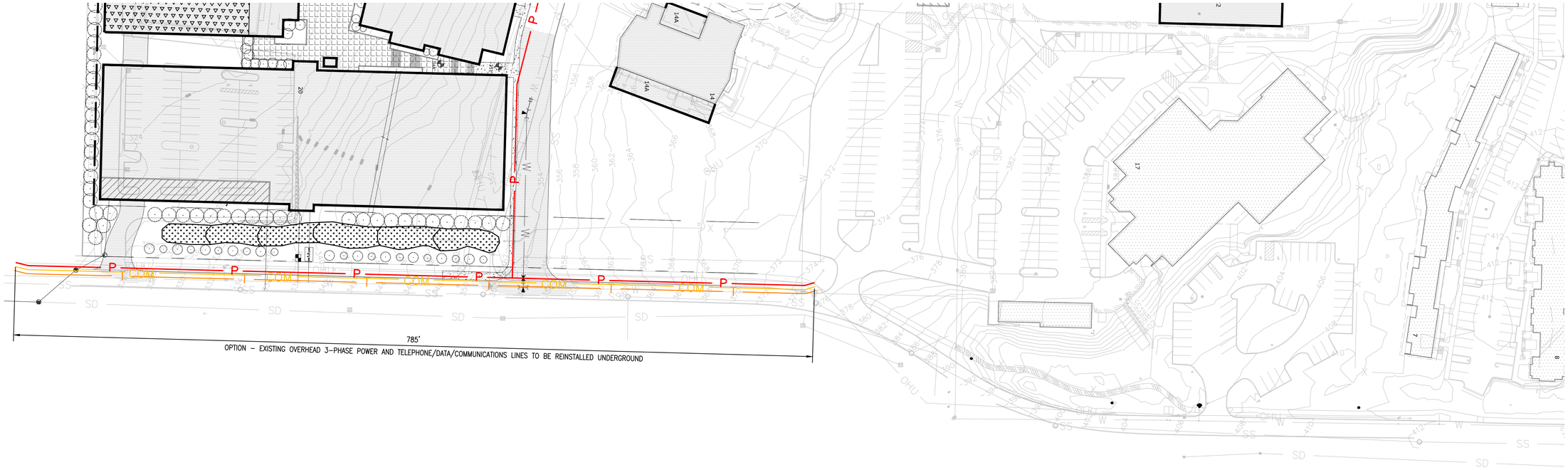


## POTENTIAL FRONTAGE IMPROVEMENTS

SCALE: 1"=50'

N

*LEGEND:*

- P — POWER LINE (UNDERGROUND)
- T — TELEPHONE LINE (UNDERGROUND)
- COM — DATA/COMMUNICATIONS LINE (UNDERGROUND)

GRAPHIC SCALE

−50 0 25 50 100

( IN FEET )
1 inch = 50 ft.

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PM: WNT
FILE:

**FRONTAGE IMPROVEMENTS**

C4

Z:\FileServer_JOBS\600-699\669-ghn\dwg\C4 Frontage Improvements Plan.dwg, 5/30/2016 4:50:08 PM, DWG To PDF.pc3